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August 9, 2021

Melanie Bachman
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **PETITION NO. 1443 - SR North Stonington, 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 9.9-megawatt AC solar photovoltaic electric generating facility on five parcels located north and south of Providence New London Turnpike (State Route 184), west of Boombridge Road and north of Interstate 95 in North Stonington, Connecticut, and associated electrical interconnection**

Dear Attorney Bachman:

SR North Stonington, LLC (Petitioner) hereby submits its Proposed Findings of Fact to the Connecticut Siting Council in connection with the above-referenced Petition.

If you have any questions concerning this submittal, please contact me at your convenience.

Sincerely,

Jonathan H. Schaefer

Enclosures (original and 15 copies of Proposed Findings of Fact)
Copy to: Parties of Record

22672539-v1

CERTIFICATION OF SERVICE

I hereby certify that a copy of the foregoing, including enclosure, was delivered by e-mail on August 9, 2021 to the following:

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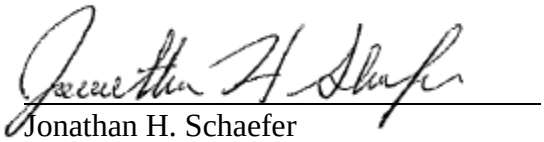

Jonathan H. Schaefer

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	}	Siting
	}	Council
	}	August __, 2021

Proposed Findings of Fact

Introduction

1. On February 25, 2021, SR North Stonington, LLC (SRNS or Petitioner) submitted a petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 9.9-megawatt AC solar photovoltaic electric generating facility on five parcels located north and south of Providence New London Turnpike (State Route 184), west of Boombridge Road and north of Interstate 95 in North Stonington, Connecticut, and associated electrical interconnection. (Record)

2. The parties in this proceeding are SRNS and Town of North Stonington. (Record)

3. SRNS is a Delaware limited liability company with an office at 222 Second Avenue S., Suite 1900, in Nashville, Tennessee. SR North Stonington, LLC was organized in 2018 for the purposes of developing, constructing, and operating the project. (SRNS 1, p. 2)

4. SRNS parent company, Silicon Ranch, will lead the development of the project. Silicon Ranch is a leading developer and operator of solar energy facilities. Silicon Ranch is one of the largest independent solar power producers in the country. Its portfolio includes more than 135 solar facilities in fifteen (15) states. (SRNS 1, p. 2)

5. The project would be a "grid-side distributed resources" facility under CGS §16-1(a)(37). (CGS §16-1(a)(37))

6. The project would generate renewable electrical energy from solar power. Solar power is considered a Class I renewable energy source. (CGS §16-1(a)(20))

7. The State legislature established a renewable energy policy under CGS §16a-35k that encourages the development of renewable energy facilities to the maximum extent possible. (CGS §16a-35k)

Procedural Matters

8. Upon receipt of the petition, the Council sent a letter to the Town of North Stonington (Town) on March 1, 2021, as notification that the petition was received and is being

processed, in accordance with CGS §16-50k(a) and invited the Town to contact the Council with any questions or comments by March 27, 2021. (Record)

9. On March 24, 2021, the Town submitted correspondence requesting to extend the public comment period and the Council hold a public hearing. (Record)

10. On April 8, 2021, during a public meeting of the Council, the Council granted the Town's request for a public hearing. (Record)

11. On April 22, during a public meeting of the Council, the Council approved a public hearing schedule. (Record)

12. On March 10, 2020, Governor Lamont issued a Declaration of Public Health and Civil Preparedness Emergencies, proclaiming a state of emergency throughout the state as a result of the COVID-19 pandemic. (Council Administrative Notice Item No. 76)

13. On March 12, 2020, Governor Lamont issued Executive Order No. (EO) 7 ordering a prohibition on large gatherings, among other orders and directives. (Council Administrative Notice Item No. 76)

14. On March 14, 2020, Governor Lamont issued EO 7B ordering suspension of in-person open meeting requirements of all public agencies under CGS § 1-225. The Freedom of Information Act defines "meeting" in relevant part as "any hearing or other proceeding of a public agency." (Council Administrative Notice Item No. 76; CGS §1-200, et seq. (2019))

15. EO 7B allows public agencies to hold remote meetings provided that:
    a. the public has the ability to view or listen to each meeting or proceeding in real-time, by telephone, video, or other technology;
    b. Any such meeting or proceeding is recorded or transcribed and such recording or transcript shall be posted on the agency's website within seven (7) days of the meeting or proceeding:
    c. The required notice and agenda for each meeting or proceeding is posted on the agency's website and shall include information on how the meeting will be conducted and how the public can access it;
    d. Any materials relevant to matters on the agenda shall be submitted to the agency and posted on the agency's website for public inspection prior to, during and after the meeting; and
    e. All speakers taking part in any such meeting shall clearly state their name and title before speaking on each occasion they speak.

    (Council Administrative Notice Item No. 76)

16. On March 25, 2020 and as subsequently extended, Governor Lamont issued EO 7M allowing for an extension of all statutory and regulatory deadlines of administrative agencies for a period of no longer than 90 days. (Council Administrative Notice Item No. 76)

17. Pursuant to Governor Lamont's EO 7B and CGS §16-50m, the Council published legal notice of the date and time of the remote public hearing via Zoom conferencing in The Day on April 28, 2021. The hearing was scheduled for June 8, 2021. (Record)

18. Pursuant to Governor Lamont's EO 7B, as extended, and CGS §16-50m, on April 23, 2021, the Council issued a Hearing Notice to provide notification of the schedule remote public hearing via Zoom conferencing and to invite the public to participate. (Record)

19. In compliance with Governor Lamont's EO 7 prohibition of large gatherings, the Council's Hearing Notice did not refer to a public field review of the project site. (Record)

20. Field reviews are not an integral part of the public hearing process. The purpose of a site visit is an investigative tool to acquaint members of a reviewing commission with the subject property (Council Administrative Notice Item Nos. 77 and 78)

21. On May 10, 2021, in lieu of an in-person field review of the project site, the Council requested SRNS submit photographic documentation of site-specific features into the record intended to serve as a "virtual" field review of the project site. On June 1, 2021, SRNS submitted such information in response to the Council's interrogatories. (SRNS 2, response 43)

22. On May 5, 2021, the Council held a pre-remote hearing teleconference on procedural matters for parties and intervenors to discuss the requirements for pre-filed testimony, exhibit lists, administrative notice lists, expected witness lists, and filing of pre-hearing interrogatories. Procedures for the remote public hearing via Zoom conferencing were also discussed. Representatives of SRNS participated in the pre-remote hearing teleconference. (Council Pre-Hearing Conference Memoranda, dated April 29, 2021)

23. Pursuant to Regulations of Connecticut State Agencies (RCSA) §16-50j-21, on May 24, 20212 SRNS installed a four-foot by six-foot sign along the south side of Providence New London Turnpike (State Route 184) near the proposed access driveway to the southern portion of the project site. The sign included information about the project, the public hearing date, and contact information for the Council. (SRNS 3)

24. Pursuant to CGS §16-50m, the Council, after giving due notice thereof, held a remote public hearing on June 8, 2020, beginning with the evidentiary session at 2:00 p.m. and continuing with the public comment session at 6:30 p.m. via Zoom conferencing. The Council provided access information for video/computer access or audio only telephone access. (Council's Hearing Notice dated April 23, 2021; Transcript 1 – June 8, 2021 2:00 p.m. [Tr. 1], p. 1; Transcript 2 – June 8, 2021, 6:30 p.m. [Tr. 2], p. 133)

25. The Council continued the remote evidentiary hearing session on July 9, 2021 at 2:00 p.m. via Zoom conferencing. (Council's Continued Evidentiary Hearing Memo dated June 9, 2021; Transcript 3 – July 9, 2021 2:00 p.m. [Tr. 3], p. 1)

26. In compliance with Governor Lamont's EO 7B:
    a. The public had the ability to view and listen to the remote public hearing in real-time, by computer, smartphone, tablet or telephone;
    b. The remote public hearings were recorded and transcribed and such recordings and transcripts were posted on the Council's website on November 18, 2020, December 7, 2020, December 16, 2020, January 7, 2021, January 8, 2021 and January 11, 2021, respectively;
    c. The Hearing Notice, Hearing Program, Citizens Guide for Siting Council Procedures and Instructions for Public Access to the Remote Hearing were posted on the agency's website;
    d. The record of the proceeding is available on the Council's website for public inspection prior to, during and after the remote public hearing; and
    e. The Council, parties and intervenors and members of the public who spoke during the public comment session provided their information for identification purposes during the remote public hearing.

    (Hearing Notice dated April 23, 2021 and ; Tr. 1; Tr. 2; Tr. 3; Record)

Municipal Consultation

27. SRNS began its consultation with local municipal land use officials in 2020. SRNS offered to meet with Town officials to discuss the project before filing the petition, but was unable to do so. (SRNS 1, pp. 14)

28. In Fall 2020, the Petitioner sent postcards mailers to property owners abutting the project site. These postcard mailers included details on the project and welcomed neighbors to contact SRNS directly with any questions or comments. (SRNS 1, Exhibit E)

29. SRNS was contacted by two abutters in response to the postcard mailers in the Fall of 2020, but neither provided feedback. (SRNS 2, response 1)

30. After SRNS filed the petition, SRNS attended a public meeting of the Town Planning and Zoning Commission and conducted a tour of the project site with neighbors and Town representatives to listen to concerns. (SRNS 2, response 2)

31. After SRNS filed the petition, three abutters contacted SRNS. Two abutters wanted to discuss the potential of stormwater runoff and how such runoff may impact their respective properties. The third abutter requested more information from SRNS to further review the project. SRNS provided this abutter with a link to the Council's webpage. (SRNS 2, response 1).

32. Based on comments from neighbors and the Town, SRNS redesigned the project making the following changes:

    a. A reduction in the limit of disturbance;
    b. A reduction in tree clearing;
    c. A reduction in site grading;
    d. An increase in setbacks from important environmental sources (e.g., wetlands, vernal pools); and
    e. A reduction in the number of panels located on the norther parcels, north of State Route 184.

    (SRNS 2, response 2)

33. Pursuant to RCSA §16-50j-40, SRNS provided notice of the petition to all abutting property owners by certified mail on February 23, 2021. (SRNS 1, Exhibit G)

34. Pursuant to RCSA §16-50j-40, SRNS provided notice of the petition to all state and local officials and agencies listed in RCSA §16-50j-40. (SRNS 1, Exhibit H)

35. The Town of North Stonington Planning and Zoning Commission and Town of North Stonington Inland Wetland Commission submitted comments on March 25, 2021, April 26, 2021 and the Town of North Stonington Board of Selectman submitted comments on March 26, 2021. (Record)

State Agency Comment

36. Pursuant to RCSA §16-50j-40, on March 1, 2021, the following state agencies were solicited by the Council to submit written comments regarding the proposed facility: Department of Energy and Environmental Protection (DEEP); Department of Public Health (DPH); Council on Environmental Quality (CEQ); Public Utilities Regulatory Authority (PURA); Office of Policy and Management (OPM); Department of Economic and Community Development (DECD); Department of Agriculture (DOAg); Department of Transportation (DOT); Connecticut Airport Authority (CAA); Department of Emergency Services and Public Protection (DESPP); State Historic Preservation Office (SHPO); Department of Consumer Protection (DCP); Department of Labor (DOL): and Department of Administrative Services (DAS). (Record)

37. The Council received comments from the CEQ, DOT, and DOAg on March 25, 2021, March 29, 2021, and April 6, 2021. (Record)

38. The following agencies did not respond with comment on the petition: DEEP, DPH, PURA, OPM, DECD, CAA, DESPP, SHPO, DCP, DOL, and DAS. (Record)

39. While the Council is obligated to consult with and solicit comments from state agencies by statute, the Council is not required to abide by the comments from state agencies. (Council Administrative Notice Item No. 81).

State of Connecticut Planning and Energy Policy

40. Section 51 of Public Act (PA) 11-80 requires that DEEP prepare a Comprehensive Energy Strategy (CES) every three years that reflects the legislative findings and policy stated in CGS §16a-35k. As such, this statute consolidated Connecticut's energy planning for the first time. The final version of the state's inaugural CES was published on February 19, 2013 (2013 CES). It advocated smaller, more diversified generation proposed projects using renewable fuels, as well as smaller, more innovative transmission proposed projects emphasizing reliability. (2013 CES; CGS §16a-3d)

41. On February 8, 2018, DEEP issued the 2018 Comprehensive Energy Strategy (2018 CES). Guided by the long-term vision of transitioning to a zero-carbon economy, the 2018 CES highlights eight key strategies to guide administrative and legislative action over the next several years. Specifically, strategy No. 3 is "Grow and sustain renewable and zero-carbon generation in the state and region." (Council Administrative Notice Item No. 54, p. 14)

42. CGS §16-245a establishes Connecticut's Renewable Portfolio Standards (RPS). Up until recently, RPS required that 20 percent of Connecticut's electricity usage had to be obtained from Class I renewable resources by 2020. Under Public Act 18-50, RPS was updated to require 21 percent of Connecticut's electricity usage be obtained from Class I renewable resources by 2020 and increasing each year to reach 40 percent by 2030. (CGS §16-245a; Public Act 18-50; Council Administrative Notice Item No. 51 – 2018 CES, pp. 110-112)

43. The 2018 CES notes that, "Most recent analyses indicate that there should be adequate Class I resources to meet Connecticut's Class I Renewable Portfolio Standards (RPS) goals in 2020*." *This was based on the "20 percent Class I by 2020" requirement that was in place at the time the 2018 CES was prepared. (Council Administrative Notice Item No. 51– 2018 CES, p. 112)

44. The Global Warming Solutions Act (PA 08-98) sets a goal of reducing greenhouse gas (GHG) emissions by 80 percent by 2050. (CGS §22a-200)

45. The proposed facility will contribute to fulfilling the State's RPS and Global Warming Solutions Act as a zero emission Class I renewable energy source. (Council Administrative Notice Item No. 51)

46. Section 7 of PA 08-98 required the Governor's Steering Committee on Climate Change to establish an Adaptation Subcommittee to evaluate the proposed projected impacts of climate change on Connecticut agriculture, infrastructure, natural resources and public health and develop strategies to mitigate these impacts. (Council Administrative Notice Item No. 64 – Climate Change Preparedness Plan)

47. Governor Lamont's 2019 Executive Order No. 3 declares the state's goal to reach 100 percent carbon free electricity by 2040. (Governor Lamont's Executive Order No. 3, September 3, 2019)

Competitive Energy Procurement

48. Sections 1(b) and 1(c) of Public Act 15-107, An Act Concerning Affordable and Reliable Energy, gave the DEEP the authority to solicit proposals for Class I renewable energy sources, Class III sources, passive demand response, and energy storage systems to secure cost-effective resources to provide more affordable and reliable electric service, consistent with the state's energy and environmental goals and policies established in the 2014 Integrated Resources Plan and 2013 CES. (SRNS 1, p. 3)

49. Pursuant to the DEEP's authority, in March 2016, the DEEP the DEEP Small-Scale Clean Energy Request for Proposals (RFP) under Public Act 15-107 §§1(b) and 1(c) and CGS §16-50j. The project participated and was one of twenty-five awardees selected by the DEEP pursuant. (SRNS 1, pp. 1, 3)

50. All of the power produced by the project will be sold to The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) and The United Illuminating Company (UI) through the project's Power Purchase Agreements (PPAs). The PPAs were approved by the Public Utilities Regulatory Authority (PURA) in Docket No. 17-01-11 – PURA Review of Public Act 15-107(b) Small-Scale Energy Resource Agreements. (SRNS 1, p. 9)

51. The PPAs have a term of 20 years and no provisions for extension or renewal options. The PPAs do not allow SRNS to reduce the size of the project without a negative financial impact. (SRNS 1, p. 9)

52. At this time SRNS has not identified potential alternatives for off-take outside of the PPA. SRNS anticipates conducting an evaluation occurring closer to the end of the PPA term. (SRNS 2, response 5)

53. SRNS did not participate in ISO-New England (ISO-NE) Forward Capacity Auction #15. There are no current plans to participate in the ISO-NE Capacity Auction. The option will be evaluated at each annual auction milestone. (SRNS 2, response 6)

Public Benefit

54. A public benefit exists when a facility is necessary for the reliability of the electric power supply of the state or for the development of a competitive market for electricity. (CGS. §16-50p(c))

55. Public Act (PA) 05-1, An Act Concerning Energy Independence, established a rebuttable presumption that there is a public benefit for electric generating facilities selected in an RFP. (Public Act 05-1; CGS §16-50k(a))

56. The project would be a distributed energy resource facility as defined in CGS §16-1(a)(49). CGS §16a35k establishes the State's energy policy, including the goal to "develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent." (CGS §16-1(a)(49); CGS §16a-35k)

57. The project will participate in the ISO New England capacity market, which ensures adequate future capacity to meet load growth projections, as well as sufficient capacity to serve peak load under grid contingency situations. (SRNS 1, p 12)

58. The project will support the State's energy policies as set forth in CGS § 16a-35k, including the goal to "develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent." (SRNS 1, p 13)

59. The project will provide clean, renewable, solar-powered electricity and assist the State in meeting its legislatively mandated obligations under the Renewable Portfolio Standard. (SRNS 1, p 13)

60. The project will also assist the State in reducing greenhouse gas emissions and reducing criteria air emissions pollutants associated with the displacement of older, less efficient, fossil fuel generation. (SRNS 1, p. 13)

61. The project will also hire local labor, as practical, and be a source of increased revenue for local businesses during construction. (SRNS 1, p. 13)

Public Act 17-218

62. Effective July 1, 2017, PA 17-218 requires, "for a solar photovoltaic facility with a capacity of two or more megawatts, to be located on prime farmland or forestland, excluding any such facility that was selected by DEEP in any solicitation issued prior to July 1, 2017, pursuant to section 16a-3f, 16a-3g or 16a-3j, the DOAg represents, in writing, to the Council that such proposed project will not materially affect the status of such land as prime farmland or DEEP represents, in writing, to the Council that such proposed project will not materially affect the status of land as core forest." Because the proposed was selected by DEEP in a solicitation prior to July 1, 2017, the proposed project is exempt from this provision of PA 17-218. (CGS §16-50k)

63. PA 17-218 also requires that the Council not find a substantial adverse environmental effect in its exercise of jurisdiction over facilities eligible to be approved by declaratory ruling under CGS §16-50k. There are no exemptions from this provision of PA 17-218. (CGS §16-50k)

Site Selection

64. The site selection for the project was based on a detailed evaluation of the following key criteria:
    a. Site suitability (solar resource size, grade and surrounding topography);

b. Site availability (ability to lease or purchase land);
c. Proximity to critical infrastructure (suitable electrical grid access);
d. Congruence with local land use.

(SRNS 1, p. 5)

65. Once the initial evaluation was completed, a preferred site was selected by Renewable Ventures, LLC, the prior owner of the project, for development and preliminary due diligence work. (SRNS 1, p. 5)

66. Silicon Ranch Corporation acquired the project from Renewable Ventures, LLC in 2017. (SRNS 1, p. 5)

67. Ultimately, five parcels, totaling approximately 157 acres, were selected for the project. The fifth parcel, to the north of State Route 184, was acquired after the first four parcels. Before acquiring the fifth parcel, SRNS evaluated alternative parcels, but ultimately settled on the fifth parcel as it provided sufficient property to develop the project and work around environmental constraints. (SRNS 1, p. 5; Tr. 1, pp. 97-98)

68. Pursuant to CGS §16-50p(g), the Council has no authority to compel a parcel owner to sell or lease property, or portions thereof, for the purpose of siting a facility. (Council Administrative Notice Item No. 81)

Site

69. Pursuant to RCSA §16-50j-2a(29), "Site" means a contiguous parcel of property with specified boundaries, including, but not limited to, the leased area, right-of-way, access and easements on which a facility and associated equipment is located, shall be located or is proposed to be located. (RCSA §16-50j-2a(29))

70. The project site consists of 4 contiguous parcels located south of State Route 184, west of Boombridge Road and north of Interstate 95 (I-95) and 1 parcel located north of State Route 184 (Site). (SRNS 1, p. 4)

71. The Site does not yet have a street address assigned by the Town. (Tr. 3, p. 28)

72. The Site includes, in the Town:
    a. an approximately 63.54-acre parcel located north of I-95 and between Cranberry Bog Road (to the west) and Boombridge Road (to the east) (Tax Parcel 102-118-3006);
    b. an approximately 32.94-acre parcel located north of I-95 and between Cranberry Bog Road (to the west) and Boombridge Road (to the east) (Tax Parcel 102-119-9950);
    c. an approximately 31.13-acre parcel located north of State Route 184 between Still-man Road/Miner Meeting House Road (to the west) and Boombridge Road (to the east) (Tax Parcel 102-111-8238);

d. an approximately 28.22-acre parcel located south of State Route 184 between Still-man Road/Miner Meeting House Road (to the west) and Boombridge Road (to the east) (Tax Parcel 102-111-5299); and
e. an approximately 1.33-acre parcel located north of I-95 between Spencer Drive (to the west) and Boombridge Road (to the east) (Tax Parcel 102-118-8880).

(SRNS 1, p. 4)

73. The parcels located south of State Route 184 (Southern Parcels) were cleared agricultural land prior to 1934. Between 1934 and the 1970's a majority of this area continued to be used as agricultural land. Between the 1960's and approximately 2004 a significant portion of this area, approximately 58 acres, was excavated to varying degrees to facilitate a sand and gravel mining operation. (SRNS 1, p. 15

74. The remainder of the Site has been wooded for many decades and currently maintains forested uplands and wetland areas. (SRNS 1, pp. 5, 15)

75. All of the parcels making up the Site are owned by Silicon Ranch, SRNS's parent company and the development lead on behalf of SRNS. (SRNS 1, pp. 2, 5)

76. The Site is zoned Medium-Density Residential R-60. The Site is surrounded by low density residential uses, two dog kennels, a dog breeder, State Route 184, and I-95. (SRNS 1, pp. 5-6; Tr. 3, pp. 15-16)

77. The Site is traversed by two headwater stream corridors and one less well defined drainageway (SRNS 1, p. 5)

78. A small family cemetery is located in the westerly portion of the Site, but will not be impacted by the project. (SRNS 1, p. 5)

79. The project design will encompass approximately 44 acres out of the 157 acres that make up the Site. (SRNS 1, p. 6; Tr. 1, p. 111)

80. No portion of the Site is part of the Public Act 490 Program. (SRNS 2, response 7)

81. The DOAg has not purchased development rights for any portion of the Site as part of the State Program for the Preservation of Agricultural Land. (SRNS 2, response 8)

82. No portion of the Site is currently in productive agriculture use. (SRNS 2, response 9)

83. Two dog kennels are operated on properties directly abutting the Site. One kennel is located at 454 Providence New London Turnpike. The other kennel is located at 202 Boombridge Road. Another abutting property owner (476 Providence New London Turnpike) is also breeding dogs. (Tr. 3, pp. 15-16)

84. A March 2020 updated Phase I Environmental Site Assessment prepared for the Site concluded that no recognized environmental conditions or other related concerns exist. (SRNS 1, p. 16; SRNS 1, Exhibit J)

Project Description

Solar Array

85. Approximately 29,625 fixed solar modules, rated at approximately 475 Watts direct current (DC) would be installed on the Site. (SRNS 6, Attachment 4, p. 1; Tr. 1, p. 75; Tr. 3, 91)

86. The MWac of each of the four solar array areas is:
    a. Area 1 – 0.93 MWac
    b. Area 2 – 0.62 MWac
    c. Area 3 – 5.35 MWac
    d. Area 4 – 3.00 MWac
    (SRNS 6, response (c))

87. SRNS plans to utilize Hanwha Q Cells Q.Peak Duo XL-610.3/BFG 457W solar modules, which are bifacial. (SRNS 6, Attachment 4, p. 1; Tr. 3, p. 12)

88. The manufacturer of the solar modules, Hanwha, provided SRNS with the results of a Toxicity Characteristic Leaching Procedure (Test Method USEPA 1311:1992) (TCLP Report). The TCLP Report shows results for modules that Hanwha confirmed are substantially equivalent to the Q.Peak Duo XL-G10.3/BFG 475 modules. (SRNS 2, response 52; SRNS 2, Attachment 18; SRNS 6, Attachment 13)

89. The results of the TCLP Report show that the metals used to construct the solar modules are not present at levels that would be considered toxic by the U.S. Environmental Protection Agency. (SRNS 2, Attachment 18)

90. The results of the TCLP Report show that the lead contained within the material makeup of the solar modules is, on average, present at a level of 1.24 mg/L, which is less than 25% of the applicable regulatory level of 5 mg/L. (SRNS 2, Attachment 18; Tr. 3, pp. 81-83)

91. A ground mount, fixed tilt system will be utilized. (SRNS 1, 7)

92. The project will utilize approximately 1,187 strings, with 25 modules per string, and 45 string inverters. (SRNS 6, Attachment 4, p. 1)

93. The panels will be mounted two-high in a portrait fashion to a 180-degree azimuth and set at a 25-degree angle, extending to an approximate height of 11 feet above grade and approximately 2 feet above grade at the bottom edge. (SRNS 1, pp. 6-7; SRNS 6, Attachment 4, p. 1)

94. The project will use solar panel technology that has been extensively tested, is in wide use across the solar industry, and meet the traditional level of reliability reflected in the solar industry. (SRNS 1, p. 7)

95. The racking foundation will utilize a screw or post that will be installed to a depth of approximately six feet to seven feet below grade. SRNS does not anticipate groundwater quality issues associated with the use of either ground screws or posts in this manner. (SRNS 2, response 40 and response 41; Tr. 1, p. 19)

96. All racking will be designed to meet applicable Connecticut State building codes for wind and snow loads. (SRNS 1, p. 7)

97. The project design utilizes a racking system that allows for greater slopes (*i.e.*, up to 20%). (SRNS 2, response 47)

98. The aisle width between PV module rows will be approximately 8.8 feet. (SRNS 6, Attachment 4, p. 1; Tr. 3, p. 12)

99. All inter-array wiring will be installed underground between the groups of modules, equipment pads, and the switch gear. Inverters, transformers, and communications and control equipment will be installed at the Site. The inverters and transformers will be mounted on approximately 20-foot by 40-foot concrete equipment pads at or just above grade. (SRNS 1, p. 11; SRNS 6, Attachment 4, p. 6)

100. All exposed wiring is UV-rated USE-2 Solar Wire commonly used as solar power cable and would be secured to the hardware supporting the solar modules (racking) by UV-rated stainless-steel bundle straps at a minimum of three feet above grade to protect it from damage. (SRNS 2, response 17)

101. The project would be surrounded by a six foot high chain linked fence topped with one foot of barbed wire in accordance with National Electric Safety Code regulations and with mesh size to be determined but no greater than 1.25 inches. The fence will be raised two inches above ground level in all locations to ensure safety and compliance with Adaptive Multi-Paddock (AMP) grazing techniques. (SRNS 1, p. 8; SRNS 6, Attachment 6, p. 167; Tr. 1, p. 59)

102. There has been a history of trespassing on the Southern Parcels particularly. The fence and barbed wire are intended, in part, to address future trespassing and protect people from the risk of electrocution. (Tr. 1, pp. 107-108)

103. The project's fencing design includes approximately 11,010 linear feet of fencing and swing gates, as well as bar gates at two of the access roadways in order to permit the fence line to be further from public view. (SRNS 6, response 20; SRNS 6, Attachment 6, pp. 146, 167)

104. The "Northern Array" is located north of State Route 184 and the "Southern Array" is located south of State Route 184. The Northern Array consists of "Area 1" on the west side and "Area 2" on the east side. The Southern Array consists of "Area 3" on the west side and "Area 2" on the east side. (SRNS 2, response 2; SRNS 2, Attachment 2)

Site Access

105. Once constructed, the project would be accessed by four access roadways, which would total approximately 5,091 linear feet long. The access roadways would be approximately sixteen feet wide with two feet of shoulders on each side. (SRNS 6, Attachment 4, p. 1 and Attachment 6, p. 146)

106. During construction, heavy equipment will be required to access the Site during normal working hours (7 a.m. to 7 p.m. Monday through Saturday; Sundays only as required), and it is anticipated that 60 to 70 construction vehicles (average size light-duty) will make daily trips onto the Site. (SRNS 1, p. 18)

107. After construction is complete and during operation, minimal traffic is anticipated. For standard operations and maintenance activities, one to two light-duty vehicles will visit the Site on a monthly recurring basis, on average. (SRNS 1, p. 18)

108. There will not be permanent staff present at the Site and the project will be remotely monitored 24 hours per day, 7 days per week, 365 days per year by Silicon Ranch staff and contracted third-party operations and maintenance providers. (SRNS 1, pp. 18, 19)

Electrical Interconnection

109. The project is comprised of a single, independently-metered system with a total design capacity of approximately 9.9 MW AC under nominal conditions at the point of interconnection with the electric distribution system. Electrical losses have been factored into the project's output. (SRNS 1, p. 9; SRNS 2, response 14; Tr. 1, p. 20)

110. The point of interconnection is inside the project's fence line near the access driveway south of State Route 184. An underground feeder would exit the project and transition to overhead lines along State Route 184 utilizing three new 50 foot tall utility poles prior to connecting to an existing Eversource distribution pole. (SRNS 1, p. 11; Tr. 1, pp. 20, 42-43, 81-82)

111. At the point of interconnection with Eversource, SRNS will provide a utility class circuit interruption device equipped with a multifunctional relay to serve as the Interconnection Interruption Device. Revenue metering and a gang operated disconnect switch will be provided on the utility side of the meter. Additional equipment to monitor circuit voltage and to disconnect the facility from the grid will also be installed as needed on existing grid circuits to protect the system during system outage. (SRNS 1, p. 8)

112. The final location of the three new 50 foot tall utility poles that will be used to interconnect the project to the existing electric distribution system will be determined by Eversource. The locations have not yet been identified. (SRNS 2, response 3(a))

113. The project would interconnect to Eversource's existing 13.8 kV distribution system on 25 Pendleton Hill Road. Eversource will need to construct one new dedicated 13.8 kV distribution feeder to the Site. Eversource is responsible for permits/approvals for such work. (SRNS 1, p. 10; SRNS 6, Attachment 4, p. 1; Tr. 1, p. 42)

114. SRNS completed a distribution System Impact Study for the project, which found the project to be compliant with all requirements detailed in the Eversource and UI Generation Interconnection Technical Requirements document. (SRNS 2, response 16)

115. The project interconnection is not required to be reviewed by ISO-NE. ISO-NE did review and approve the project's Distribution System Impact Study in July 2020. (SRNS 2, response 21)

116. The interconnection facility design and construction will be performed in accordance with the Eversource and UI Guidelines for Generator Interconnection and State of Connecticut, ISO-NE, and Federal Energy Regulatory Commission (FERC) requirements as applicable. As part of the interconnection process, SRNS has successfully completed a utility-sponsored Scoping Meeting, Interconnection Application Request and an Application Review, Feasibility Study, Distribution and Transmission System Impact Studies, and is now completing the Facilities Study. (SRNS 1, p. 11)

117. The point of demarcation is located on the load site of the primary meter (SRNS 2, response 20)

118. At the Council's request SRNS discussed with Eversource the possibility of installing all of the electrical interconnection facilities for the project underground before connecting to the aboveground Eversource distribution system. Eversource has requested more time to develop the costs for such additional work and indicated they have never done an interconnection in this manner before. (SRNS 6, response (b); Tr. 3, p. 42)

Project Construction

119. The timing of construction for the project would depend on final project approvals and permits. SRNS expects to begin construction in the third quarter of 2021 with mobilization of equipment, land clearing efforts, and grading activities. Further site work and land preparation is expected to be completed by the end of 2021 with construction and installation efforts for the array equipment completed in Summer 2022. Final site, testing, and commissioning will be completed by end of 2022. (SRNS 1, p. 10)

120. Site disturbance, including all project features, includes approximately 44 acres of tree clearing. (SRNS 2, response 25)

121. The Site will be graded in areas where topography is greater than 20% or in areas that need grading due to installation of basins, ditching, and access roads. (SRNS 2, response 47)

122. The desired slope within the solar array areas, due to racking equipment, is less than 15% for construction and maintenance purposes. As part of SRNS's effort to reduce disturbances and grading, the project includes slopes up to 20% in some locations. (SRNS 2, response 47)

123. Access road grading will involve approximately 2,227 cubic yards (cy) of cut and 2,193 cy of fill. Solar field grading will involve approximately 1,046 cy of cut and 690 cy of fill. Additional earthwork is also necessary in connection with the stormwater control features. Any excess cut material will be removed from the Site. (SRNS 2, response 47)

124. Material laydown and construction equipment storage would occur near the access roadway to Area 3 that is south of Route 184. (SRNS 6, Attachment 4, p. 1)

125. Fuel for construction equipment will not be stored on-site. Mobile refueling trucks will come to the Site and fuel the construction equipment as needed. Refueling will take place in designated areas at the Site, which will have emergency spill kits and temporary containment present. (Tr. 3, pp. 18-20, 26-27)

126. Construction hours would be Monday through Saturday from 7:00 AM to 7:00 PM, and Sunday's only as required. (SRNS 1, p. 18; Tr. 1, p. 51)

127. Currently, SRNS believes the following permits will be required for construction and operation of the project:
    a. Connecticut Department of Energy and Environmental Protection, Permit for the Discharge of Stormwater and Dewatering Wastewater from Construction Activity;
    b. United States Army Corps of Engineer New England District – Connecticut General Permits as a Self-Verification Notification Form eligible project under Federal Clean Water Act Sections 404 and 401 (401 Water Quality Certificate administered by Connecticut Department of Energy & Environmental Protection);
    c. Building and Electrical Permit from Town of North Stonington;
    d. Municipal Road Opening Permit; and
    e. Connecticut Department of Transportation Encroachment Permit

    (SRNS 2, response 4)

128. Where possible SRNS will maintain existing vegetation. (SRNS 2, response 47)

129. Within the limits of disturbance all electrical connections will be underground, with the exception of the switchgear. (SRNS 6, Attachment 4; Tr. 1, pp. 21-22, 80)

130. During construction, SRNS will utilize double filter fencing and compost filter socks, where appropriate. (Tr. 1, pp. 116-117)

131. The anticipated route of underground electrical conduit connecting the invertors to the transformers and the transformers to the pad mount switchgear (interconnection point) is shown on the Preliminary Layout Site Plan. (SRNS 1, p. 7; SRNS 6, Attachment 4)

132. Electrical and structural plans for the project have been initiated, and will be finalized in preparation for the stormwater and building permits. (SRNS 1, p. 7)

Facility Operation

133. The projected AC capacity factor for the project is approximately 21%, which is for the bi-facial module, including front and back sides. Factors such as soft shading (*e.g.*, air pollution) or hard shading (*e.g.*, weather events, dust, pollen) may reduce the energy production of the project. These potential impacts are included in the capacity factor and loss assumptions for the project. (SRNS 1, p. 9; SRNS 2, response 12)

134. To address some of the neighborhood concerns, SRNS redesigned the project to relocate panels from Area 1 and Area 2 to Area 3 and Area 4, reduce the number of trees cut down, and reduce potential impacts to vernal pools and wetlands. (SRNS 2, response 2, response 25, and response 28; SRNS 6, response (i); Tr. 1, p. 111)

135. SRNS conducted a shade analysis. Shading does have a negative impact on the output performance of the solar panels. Shading constraints were estimated at an average tree height of 70 feet. (SRNS 2, response 28)

136. The typical engineering approach for elimination of shading around a solar array is to double the average tree height and locate arrays at least that far away from the tree line. (SRNS 2, response 28)

137. The project only involves a very limited amount of tree clearing for shading mitigation purposes. SRNS chose to take on more shading in order to leave up more trees and cause less environmental disturbance. (SRNS 2, response 28; Tr. 1, p. 111)

138. Approximately 44 acres of tree clearing will take place. Assuming an average tree density of 76 (six inch diameter or greater) per acre, approximately 3,344 trees will be cleared. (SRNS 2, response 25)

139. Less than approximately 5% of the 44 acres of tree clearing will be undertaken to address shade mitigation. SRNS is clearing fewer trees than it would normally clear to maximize production. (SRNS 2, response 28)

140. There are no plans to incorporate a battery energy storage system into the project (SRNS 2, response 14)

141. The project is not contemplated to serve as a microgrid and would require extensive design changes to do so, including, but not limited to the inclusion of an energy storage component. (SRNS 2, response 15)

142. The project is not participating in the Agricultural Virtual Net Metering Program or other renewable energy program. (SRNS 1, p. 9)

143. The project is expected to produce in excess of 18,215,000 Kilowatt-Hours (kWh) of energy in the first year of operation. The project will have a design life of 40 years and efficiency loss of approximately 0.5% per year. (SRNS 1, p. 10; Tr. 1, p. 36)

144. The actual output of the project will fluctuate based on temperature, irradiance, and various loss factors such as soiling and degradation. (SRNS 1, p. 10)

145. The average annual shading loss percentage for the project is 3.64%. (SRNS 6, response (j))

Operations and Maintenance

146. SRNS provided a post-construction Operations and Maintenance Plan (O&M Plan) that includes provisions for active remote monitoring, planned/preventative maintenance, and training. (SRNS 2, Attachment 16)

147. The solar panels will not be cleaned on a routine basis due to the sufficient frequency of rain and snow. In the rare event that panels need to be cleaned, water will be used. (SRNS 2, response 19)

148. Snow removal would not be required; rather, the snow would be allowed to melt naturally off the panels. (Tr. 1, p. 46)

149. A spare quantity of solar panels totaling approximately 0.1% of installed panels will be stored on-site in a storage container located either in the laydown area (south of Route 184 in Area 3) or adjacent to the stormwater basin near the southwest corner of Area 4. SRNS will endeavor to keep the storage container out of the line of site from roads or adjacent residential properties. (SRNS 2, response 51)

150. Damaged panels will be identified from direct current health analytics at the Site or through annual aerial thermal imaging of the project. (SRNS 2, response 51)

151. Certain chemicals will be stored in small quantities on Site during construction or operation of the project, including PVC glue, cable clean, and pulling lubricant. Each chemical will have clean up protocols pursuant to their individual Safety Data Sheets. (SRNS 6, response (m))

152. The inverter step-up transformers located at each equipment pad will use biodegradable oil for cooling. Transformers such as these typically use biodegradable oils

(Envirotemp FR3 Fluid) and use approximately 650 gallons. (SRNS 1, pp. 15-16; SRNS 1, Exhibit K)

Project Decommissioning

153. The project will have a design life of 40 years. (SRNS 1, p. 9; Tr. 1, p. 36)

154. SRNS provided a Decommissioning Plan that includes site preparation for decommissioning, disassembly and demolition, transportation and clean-up, re-contouring and vegetation, monitoring of Site restoration, and documentation. At the end of the project's useful life, it will be decommissioned in accordance with SRNS's decommissioning plan. (SRNS 1, p. 10; SRNS 1, Exhibit D)

155. All equipment (*e.g.*, racking system, panels, inverters, electrical collection system, etc.) will be removed in accordance with the Decommissioning Plan. Project components that are no longer needed would be removed from the Site and recycled or disposed of at an appropriately licensed disposal facility. (SRNS 1, p. 16; SRNS 1, Exhibit D)

156. On-site access roads will remain in place to accomplish decommissioning and may remain in place after decommissioning to facilitate future use of the Site. Roads that will not remain will be restored during contouring operations. (SRNS 1, Exhibit D)

157. Perimeter fencing will be removed at the end of the decommissioning, unless it will be used for future use of the Site. (SRNS 1, Exhibit D)

158. Soil management and re-contouring operations will be conducted so as to minimize the surface area disturbance and implement the activities in the safest and most efficient manner. The Site will be left as grades established during initial project construction and major earthwork is not anticipated during the decommissioning phase of the project. (SRNS 1, Exhibit D)

159. Upon completion of the decommissioning process a restoration monitoring period of an anticipated one year will begin. Monitoring will ensure that grading and drainage implemented is successful in stabilizing water flow patterns and that the cover vegetation (native dry grass vegetation or other depending on land use) will be reestablished to prevent the spread of weeds. SRNS will implement corrective actions if such monitoring determines adverse conditions are present as a result of an inadequate restoration. (SRNS 1, Exhibit D)

160. SRNS does not intend to modify the stormwater management system at the point of decommissioning. The stormwater management system is designed to function after any earthwork is complete and throughout the lifetime of the project. (SRNS 2, response 53)

161. No earthwork is expected at the time of decommissioning. SRNS anticipates that the stormwater management system will remain functional through the lifetime of the project and after decommissioning. (SRNS 2, response 53)

Public Safety

162. The project will comply with all listed codes and standards, such as the National Electrical Code, the National Electrical Safety Code and any applicable National Fire Protection Association codes and standards, as well as others required by Eversource, which include the IEEE and UL standards. (SRNS 1, p. 20)

163. Prior to beginning operation, SRNS will meet with Town first responders to provide information regarding response to emergencies at PV facilities, discuss industry best practices, and provide a tour of the Site and project. SRNS reached out to the Town Fire Marshal and anticipates coordinating trainings closer to commencement of construction. (SRNS 1, p. 19; Tr. 1, p. 100; Tr. 3, p. 97)

164. All employees working at the Site will:
    a. receive required general and Site-specific health and safety training;
    b. comply with all health and safety controls as directed by local and state requirements;
    c. understand and employ the Site health and safety plan while on the Site;
    d. know the location of local emergency care facilities, travel times, ingress and egress routes; and
    e. report all unsafe conditions to the construction manager.

    (SRNS 1, p. 18)

165. The project will be remotely monitored 24 hours a day, 7 days a week, 365 days of the year. In the event of a fire or emergency requiring site access, first responders will be ensured entry through the use of a "knox box" or equivalent that allows 24/7 rapid access through all gates. (SRNS 1, p. 19)

166. In the event of a fire, the project will be remotely disconnected from the Eversource grid, cease inverter operation, and deenergized, assuming remote access is available. Once SRNS representatives arrive at the Site, the field personnel will follow appropriate shutdown procedures to the extent shutdowns have not already been performed remotely. This would involve up to and including manually disconnecting the main AC connection to the grid and applying appropriate safety locks. (SRNS 1, p. 19; Tr. 3, pp. 13-14)

167. If a fire were to occur while sheep were at the Site, the sheep vendor would be contacted directly to respond to the Site to evacuate the sheep. (SRNS 6, Attachment 14; Tr. 1, pp. 66-67; Tr. 3, pp. 22-23)

168. The project will have a protection system that will disconnect the project form the grid under certain contingency scenarios, as well as fault monitoring that would shut the

project down, as is required per Eversource's interconnection guidelines and applicable IEEE and UL standards. It will also be possible to isolate sections of the project down to the PV module string level to allow for partial power production under the necessary conditions. (SRNS 1, p. 20)

169. There are no known existing or proposed outbuildings or structures that could present a hazard to the project or its interconnection route. (SRNS 1, p. 20)

170. SRNS discussed the project with the DEEP Dam Safety Division. The project is well under the limits for storage and embankment heights. Based on the discussion, SRNS does not think it will need a dam permit or registration. (Tr. 3, p. 17)

171. The nearest airport is Westerly State Airport in Washington County, Rhode Island. The nearest federally-obligated airport is T.F. Green International Airport in Warwick, Rhode Island, approximately 33 miles from the Site. A Federal Aviation Administration (FAA) glare analysis of the project would not be required. SRNS utilized the FAA Notice Criteria Tool, which determined that the project did not exceed Notice Criteria. (SRNS 1, p. 19; SRNS 2, response 22; SRNS 2, Attachment 9; Council Administrative Notice No. 101)

172. The FAA requires a glare analysis for on-airport solar development at federally-obligated airports. Federally-obligated airports are airports that receive federal funding. The FAA recommends that the design of any solar installation at an airport consider the approach of pilots and ensure pilots would not have to face glare that is straight ahead of them or within 25 degrees of straight ahead during the final approach. (Council Administrative Notice Item Nos. 17-19)

Noise

173. SRNS engaged Urban Solution Group (USG) to conduct a Noise Impact Assessment (NIA). (SRNS 1, Attachment N).

174. When conducting the NIA, USG assumed no significant noise reduction effects from the trees on the subject parcels in quantifying predictions of the project's sound levels on the surrounding area. In other words, in the model used, trees are assumed to be acoustically transparent. Rather, when assessing the project's potential noise impacts USG considered effects of ground absorption, topography, atmospheric absorption, and environmental conditions (such as humidity, temperature, wind, etc.), but excludes any excess attenuation from trees. (SRNS 1, Attachment N; SRNS 2, response 3(a))

175. The project will not produce significant noise during operation. While, during the construction of the project, higher levels of noise are anticipated, most work will be conducted during normal working hours and it is not anticipated that the levels of noise will exceed State or local noise standards or limits. (SRNS 1, p. 18; Tr. 1, p. 51)

176. Based on the topography of the Site and surrounding area, the layout of the project, and proximity of I-95 and State Route 184, the trees that are being removed as part of the project's development are not likely to cause an audible increase (*i.e.*, greater than 3 decibels) in noise to abutting properties. (Tr. 1, pp. 28-30)

177. The NIA considered effects of ground, topography, atmospheric absorption, and environmental conditions (*e.g.*, humidity, temperature, wind, etc.), but excluded any excess attenuation from trees. This approach added conservatism to the project's predicted facility contribution to noise levels at each receiver. (SRNS 5, response 5)

178. The NIA concluded that predicted noise levels for the project are expected to comply with the daytime permissible noise levels set by the DEEP of 55 dBA for residential areas. The receiver expected to be most impacted would have a noise level of 44.9 dBA from operation of the project. (SRNS 1, Exhibit N)

179. The NIA assumed the project would only be operating during the daytime, because the project will product little to no energy during the nighttime and there will be little to no noise emitted by the project's equipment. (SRNS 1, Exhibit N)

180. The redesign of the project did not significantly change the results of the facility contributions predicted in the NIA's conclusions. (Tr. 1, p. 31)

181. Construction noise is exempt from the DEEP Noise Control Standards. (RCSA §22a-69-108(g))

Project Redesign

182. After listening and considering neighborhood concerns, SRNS understands that some in the neighborhood around the Site and certain municipal officials would like the project to be located entirely on the parcels located south of State Route 184. (SRNS 2, response 2)

183. Due to the presence of sensitive environmental resources located on those Southern Parcel, especially in and around the former gravel pits, SRNS found it is not possible to maintain the project's necessary output, maintain appropriate buffers between developed areas and sensitive environmental resources, and leave the parcel to the north of State Route 184 (Northern Parcel) undeveloped. (SRNS 2, response 2)

184. In response to the concerns of the neighborhood and the Town, SRNS undertook an extensive redesign of the project. SRNS sought to marry the use of new equipment and civil design techniques to reduce the overall footprint of the project and reduce the overall number of panels on the Northern Parcel (Area 1 and Area 2) to the greatest extend possible. Where panels remain on the Northern Parcel, SRNS was able to reduce the limits of disturbance and tree clearing, wetland impacts, and impacts to abutting properties. (SRNS 2, response 2)

185. In redesigning the project, SRNS was constrained in its options due to its contractual obligation to produce 9.9 MW of electricity under its PPA, the output of the commercially available solar modules, and topography and environmental conditions at the Site. (SRNS, response 2)

186. In April, SRNS was able to secure a sufficient supply of Hanwha QCell's newest solar module – Q.Peak Duo XL-G10.3/BFG 475. These bifacial modules will provide a significantly higher wattage (output) than the module considered as part of the original project design. As a result of the increased output per module, the SRNS will be able to meet its contractual obligation under the PPA using fewer modules. By reducing the number of modules, SRNS's design team had more flexibility in the project layout. SRNS used this flexibility to address what it perceived to be the most significant concerns and questions raised to date, whether by the Council, the Town, neighbors, or other state agencies. (SRNS 2, response 2 and 11)

187. The redesign of the project resulted in:
    a. an approximately three acre decrease in the overall footprint of the project;
    b. a two acre reduction in tree clearing;
    c. a reduction in site grading;
    d. an increase in setbacks from important environmental resources (*e.g.*, wetlands, vernal pools); and
    e. a reduction in the number of panels located on the northern parcels, north of State Route 184.

    (SRNS 2, response 2)

188. With the redesign, the project has accommodated larger buffers to wetland resource areas that now include 100-foot buffers from the project fence line and 50-foot buffers from limits of disturbance in many location. (SRNS 2, response 26)

189. In Area 1, SRNS removed a significant number of solar panels from the steeper slopes in this array and removed all panels from the 100-foot wetland buffer area. These modifications substantially reduced the amount of grading necessary in this area. As a result of the reduced size of the array, the stormwater basin was also reduced in size. SRNS was also able to reduce the length of the access driveway by more 51% – from 675 feet to 327 feet. After these modifications, the limits of disturbance will be a minimum of 50 feet from downgradient wetlands/watercourses, which will minimize impact. These modifications resulted in a reduction of the limit of disturbance in Area 1 by approximately 0.75 acres and grading was reduced by approximately 50% from the original project design. (SRNS, response 2; SRNS 6, Attachment 4 and Attachment 9)

190. In Area 2, SRNS removed all of the solar panels and the associated drainage basins that were located west of Wetland C-2 and north of the stream connecting Wetland B-2 and Wetland A-2. These modifications substantially reduced the amount of grading necessary in this portion of the northern parcels and removed all development activity from the 100-foot buffer for Vernal Pool 1 and Wetland A-2. SRNS also removed the

wetland crossing southwest of Wetland B-2; thereby reducing wetland impacts. As a result of these modifications and the reduced size of the remaining array, the stormwater basin was reconfigured and moved to the northeast away from Vernal Pool 1, its 100-foot Vernal Pool Envelope, and Wetland A-2. The Petitioner also was able to substantially reduce the length of the access driveway by more than 71% – from 1,550 feet to 442 feet – which also reduced impacts to steeper slopes. These adjustments resulted in a significant reduction of limit of disturbance and tree clearing in this area. The limit of listurbance and tree clearing in Area 2 were each reduced by approximately five acres. (SRNS 2, response 2; SRNS 6, Attachment 4 and Attachment 9)

191. For the Northern Parcel (Area 1 and Area 2 combined) tree clearing was reduced by more than 40% and the limits of disturbance were reduced by more than 35%. In addition, cut requirements were reduced by more than 63% and the fill requirements were reduced by approximately 90%. (SRNS 2, response 2)

192. In Area 3, the stormwater basin on the east side of this solar array and the limits of disturbance were moved out of the 100-foot Vernal Pool Envelope for Vernal Pool E, which reduces the potential impact on Vernal Pool E as shown in the original project design. As a result of the redesign, the project does not involve any permanent or temporary disturbances within the 100-foot Vernal Pool Envelope for Vernal Pool E. SRNS was also able to relocate a significant number of panels from the northern parcels to the southern portion of this southwest array. As a result, the stormwater basin on the south side of this solar array was reconfigured and moved to the southwest, but still remains outside the 100-foot buffer around the small family cemetery referenced in the Petition. With these modifications, the new limits of disturbance will be a minimum 50-foot buffer to downgradient wetlands/watercourses, which will minimize impact. (SRNS 2, response 2; SRNS 6, Attachment 4 and Attachment 9)

193. The total limit of disturbance in Area 3 was increased approximately three acres due to the relocation of panels from Area 1 and Area 2. Area 3 was selected for the relocated panels because it has some of the flattest terrain on the Site and had sufficient buffers from sensitive environmental resources. The relocation of the panels from the Northern Parcel reduced environmental impacts on the Northern Parcel and resulted in only minimal additional environmental impacts on Southern Parcel, which mostly consist of modest additional grading. (SRNS 2, response 2; SRNS 6, Attachment 4 and Attachment 9)

194. In Area 4, the panels on the southerly side of this array were moved north and allowed for the shifting of the stormwater basin to the north onto less steep terrain. This modification also resulted in an overall reduction in required grading in the northeast and northwest portion of this solar array and an overall reduction in the limit of disturbance. With this modification the project will not involve any permanent or temporary disturbances within the 100-foot Vernal Pool Envelope for both Vernal Pool I or Vernal Pool G. The new limits of disturbance will be a minimum of a 50-foot non-

disturbance buffer upland of Wetland B/1B. (SRNS 2, response 2; SRNS 6, Attachment 4 and Attachment 9)

195. For the developed portions of the Southern Parcel (Area 3 and Area 4 combined) tree clearing increased by approximately 25% and the limits of disturbance increased by approximately 9%. In addition, grading cut increased by approximately 14%, but grading fill was reduced by more than 20%. (SRNS 2, response 2)

196. As a result of the project redesign, the cut and fill requirements for the project were reduced by more than 25% and more than 68%, respectively. (SRNS 2, response 2)

197. The project redesign reduced the direct impacts to wetlands by 32% – from approximately 4,006 square feet (sq. ft.) to 2,720 sq. ft. (SRNS 6, response (i))

198. The project no longer creates any disturbance within the 100-foot Vernal Pool Envelope for any of the eleven vernal pools identified on the Site. (Tr. 1, p. 25)

199. For the Critical Terrestrial Habitat (CTH) for Vernal Pool 1, the area of disturbance associated with the limit of disturbance was reduced from approximately 12.15 acres, or approximately 43.3% in the proposed developed condition, to approximately 6.90 acres, or approximately 26% for the proposed developed condition. If just the fenced limit of the current Project design is considered, approximately 6.06 acres, or approximately 23% of the CTH for Vernal Pool 1 would be developed. (SRNS 6, response (d))

200. For the CTH for Vernal Pool E, the area of disturbance associated with the limit of disturbance was reduced from approximately 16.21 acres, or approximately 35.6% to approximately 21.1 acres, or approximately 48% in the proposed developed condition. If just the fenced limit of the current Project design is considered, approximately 19.3 acres, or approximately 44% of the CTH for Vernal Pool E would be developed. (SRNS 6, response (d))

201. The majority of the increase in the limit of disturbance within Vernal Pool E's CTH is located more than 300 feet from the vernal pool edge for both the southeast and northeast corners of Area 3. The southeast corner of Area 3 is associated with solar panels that were added to offset those removed from the parcels north of Route 184 and in the northeast corner of the project area. The increase is associated with shifting of the stormwater basin outside of the Vernal Pool Envelope to Vernal Pool E. (SRNS 6, response (d))

202. The access driveway lengths were reduced by a total of 1,665 linear feet. This includes a reduction from: 2,445 to 2,252 linear feet Area 4; 2,086 to 2,070 linear feet in the Area 3; 675 to 327 linear feet in the Area 1; and 1,550 to 442 linear feet in the Area 2. (SRNS 2, response 18)

203. The overall impact on core forest was reduced from approximately 3.51 acres to approximately 0.20 acres. (SRNS 6, response (f))

204. SRNS extensively evaluated alternative layouts for the solar arrays. (SRNS 2, response 27)

205. SRNS's ability to further redesign the project to reduce or eliminate solar arrays on the Northern Parcel is limited by environmental, topographic, geotechnical, and archeological considerations, as well as the proximity of panels from one another. (Tr. 1, p. 79)

206. The redesigned project maintained or reduced distances to the nearest residences and property lines in Areas 1 and 4. In Area 3, some of the distances on the western boundary were moderately reduced in some locations. In Area 2, in order to reduce impacts to Wetland C-2 and increase the setback of the limit of disturbance to Wetland C-2 to more than 50 feet, the distance between the eastern limit of disturbance and the property line for 477 Providence-New London Turnpike and the residence on that property was decreased. (SRNS 6, response (e))

Environmental Effects

Air Quality

207. The project would meet the DEEP air quality standards, with no material emissions associated with the project's operation. During operation, the project will not produce air emissions of regulated air pollutants or greenhouse gases (*e.g.*, PM_{10}, $PM_{2.5}$, VOCs, GHG, or Ozone). The project does not require an air permit. (SRNS 1, p. 20)

208. During construction of the project, any air emission effects will be temporary and will be controlled by enacting appropriate mitigation measures (*e.g.*, water for dust control, avoid mass early morning vehicle startups). (SRNS 1, p. 20)

209. Over the 40 year lifespan of the project, it is anticipated to produce 702,011 MWh of power. Over this same time period, the project will result in net avoided emissions of approximately 242,632 metric tons CO_2e. A natural-gas plant producing an equivalent amount of power over the same time period would, based on the median value, result in 315,905,000 kg CO_2e for a combined cycle natural gas plant and 470,347,000 kg CO_2e for a combustion turbine plant. (SRNS 2, Attachment 10)

Water Quality

210. Groundwater underlying the Site is classified by the DEEP as "GA". (SRNS 1, p. 29)

211. The Site is located within the Town's Aquifer Protection Zone. (SRNS 2, response 39; Council Administrative Notice Item No. 95)

212. To prevent any impacts to groundwater resources, SRNS will employ Best Management Practices during construction. These will include implementation of a spill prevention plan, temporary stormwater controls, and extensive erosion and sedimentation control measures to mitigate any potential impacts to the aquifer during construction. (SRNS 6, Attachment 6, Attachment 12, Attachment 13, and Attachment 14; Tr. 1, p. 50)

213. SRNS has provided a draft Spill Prevention, Control, and Countermeasure Plan (SPCC). The draft SPCC may be updated or refined in advance of construction based on the final layout and construction plans. (SRNS 2, response 35)

214. The project will use no water during operations in the production of electricity. Any water utilized during the construction of the project for dust suppression will be minimal and have no impact on the water quality in the vicinity of the Site. (SRNS 1, p. 28)

215. No Federal Emergency Management Agency (FEMA) Floodplains are located on the Site. The majority of the Site is within Flood Zone X, designated by FEMA as an area outside of the 500-year floodplain area with a minimal risk for flooding. The extreme southwestern portion of the Site is classified as Zone A, which is identified as a high flood risk area. No development activities will be conducted in that portion of the Site. (SRNS 1, p. 28; SRNS 1, Exhibit Z, Appendix B; SRNS 6, Attachment 4)

216. The Site is traversed by two headwater stream corridors and one less well defined drainageway. (SRNS 1, p. 5)

217. There are no drinking water wells on the Site. Private well information for several, but not all, of the abutting properties was provided by the Ledge Light Health District. It is not clear from the information provided whether each of the wells identified are used for the supply of residential drinking water. (SRNS 2, response 33)

218. SRNS does not anticipate construction activities will affect surrounding wells or water quality. Inserting the racking posts into these soil conditions is not expected to cause excessive vibrations beyond the Site and would therefore not represent a concern for causing sediment releases to nearby wells. Although the specific construction of these wells is unknown, it is likely that any potable drinking water wells are installed within the bedrock aquifer, not in the overburden material, at depths far exceeding the construction zone. As a result, no disruption to well water flow or water quality is anticipated and therefore no special precautions are warranted. (SRNS 2, response 33)

Stormwater

219. Pursuant to CGS § 22a-430b, the DEEP retains final jurisdiction over stormwater management and administers permit programs to regulate stormwater pollution. DEEP regulations and guidelines set forth standards for erosion and sedimentation control, stormwater pollution control and best engineering practices. (CGS §22a-430b; DEEP

General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. (DEEP-WPED-GP-015)

220. The DEEP Individual and General Permits for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (Stormwater Permit) require implementation of a SWPCP to prevent the movement of sediments off construction sites into nearby water bodies and to address the impacts of stormwater discharges from a proposed project after construction is complete. In its discretion, the DEEP could hold a public hearing prior to approving or denying any Stormwater Permit application. (CGS Section 22a430b; CGS Section 22a-430(b))

221. The SWPCP incorporates project designs consistent with the 2002 Connecticut Guidelines for Erosion and Sedimentation Control (2002 E&S Guidelines) and the 2004 Connecticut Stormwater Quality Manual (2004 Stormwater Manual). (DEEP-WPED-GP-015)

222. The DEEP has the authority to enforce project compliance with its Individual or General Permit and the SWPCP, including, but not limited to, the installation of site-specific water quality protection measures in accordance with the 2002 E&S Guidelines. (CGS Section 22a-430b)

223. The Council may impose a condition that requires subsequent compliance with the DEEP standards and regulations. (Council Administrative Notice No. 79)

224. The project would require a DEEP-issued Stormwater Permit prior to commencement of construction (CGS Section 22a-430b)

225. The project has been designed to comply with the 2004 Stormwater Manual and the 2002 E&S Guidelines. (SRNS 6, Attachment 6; Council Administrative Notice Nos. 49 and 50)

226. The project does not have any 3:1 slopes over eight feet in height. (SRNS 2, response 26)

227. The rows of solar panels are not considered “closed systems,” because there are gaps between each module (both north/south and east/west). The drip edge of each solar panel will not have an impact on the Site’s drainage patterns, as stormwater will flow off the panels at multiple locations as the panels follow the contours of the existing land. For the same reason, after construction is complete and the Site is fully stabilized, channelization along the drip edge is not expected. (SRNS 2, response 36)

228. SRNS discussed the project with the DEEP Stormwater Division personnel on several occasions, including in-person meetings on May 4, 2020 and September 21, 2020 and a virtual meeting on June 9, 2021. (SRNS 1, p. 14; SRNS 2, response 44)

229. SRNS will implement a stormwater management plan to minimize any potential adverse environmental effects. These procedures are outlined in the. Upon receipt, the Notice of Permit Authorization under the Stormwater Permit will become part of the SWPCP. The Preliminary Drainage Assessment will serve as an Erosion and Sediment Control Plan in accordance with CGS §§ 22a-325 through 22a-329. (SRNS 1, pp. 32-33; SRNS 6, Attachment 6 and Attachment 7)

230. Utilizing sizing criterion, and design concepts identified in Preliminary Drainage Report, the project's watersheds were analyzed hydrologically in order to provide preliminary site stormwater management design, including permanent stormwater management facilities to meet the DEEP requirements. (SRNS 1, p. 33)

231. Due to the existing topography, the project will require some areas of grading to lessen the slope and allow for the installation of panels. There will need to be earthwork to build stormwater and construction stormwater infrastructure consistent with best management practices. (SRNS 1, p. 32)

232. Pursuant to the SWPCP, the project's stormwater engineering design will mimic existing conditions of the historic drainage patterns to the maximum extent practicable, and limit environmental impacts to wetlands, streams, and habitat. (SRNS 1, p. 33; SRNS 6, Attachment 6)

233. Post-construction, a native seed mix will be implemented. Once the Site is stabilized, temporary erosion and sediment control structures will be removed. Sediment basins located on the Site will be converted into permanent structures to provide peak flow attenuation post-development per the Stormwater Concept Report analysis. No other permanent stormwater controls are necessary due to natural attenuation of runoff that is caused by changing the existing cover type from upland forest to the meadow condition as part of the Project. (SRNS 1, pp. 33-34)

234. The project will comply with Section 2(a) of Appendix I of the Stormwater Permit, because no panels will be located within 100 feet of any wetland or waters and a 50 foot undisturbed buffer will exist between any construction activity and any wetlands or waters that, prior to or after construction, are located downgradient of such construction activity. (SRNS 2, response 47)

235. After the redesign of the project, SRNS confirms that the project complies with Appendix I of the Stormwater Permit. (SRNS 2, responses 2 and 26; SRNS 5, response 4)

236. SRNS does not plan to dewater wastewater within the 100-foot buffer for wetlands and watercourses. (SRNS 2, response 26)

237. SRNS has not yet filed a General Permit Registration Form for the Stormwater Permit with DEEP based on the redesigned project. (SRNS 5, response 2)

Wetlands and Watercourses

238. The Inland Wetlands and Watercourses Act (IWWA), CGS §22a-36, et seq., contains a specific legislative finding that the inland wetlands and watercourses of the state are an indispensable and irreplaceable but fragile natural resource with which the citizens of the state have been endowed, and the preservation and protection of the wetlands and watercourses from random, unnecessary, undesirable and unregulated uses, disturbance or destruction is in the public interest and is essential to the health, welfare and safety of the citizens of the state. (CGS §22a-36, et seq.)

239. The IWWA grants regulatory agencies with the authority to regulate upland review areas in its discretion if it finds such regulations necessary to protect wetlands or watercourses from activity that will likely affect those areas. (CGS §22a-42a)

240. The IWWA forbids regulatory agencies from issuing a permit for a regulated activity unless it finds on the basis of the record that a feasible and prudent alternative does not exist. (CGS §22a41)

241. Under the IWWA:
    a. "Wetlands" means land, which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey, as may be amended from time to time, of the Natural Resources Conservation Service of the United States Department of Agriculture;
    b. "Watercourses" means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border the state; and
    c. Intermittent watercourses are delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) Evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation.

    (CGS §22a-36, et seq.)

242. Wetland inspections and delineations were completed in April 2017, November 2018, and May and June 2019 (SRNS 1, p. 29; SRNS 1, Exhibit U)

243. There is a total of 25 different wetlands identified on the Site with the majority of those features located in the Southern Parcel. These wetlands total approximately 34 acres. (SRNS 1, p. 29; Tr. 1, pp. 87, 104; SRNS 6, Attachment 4)

244. The gravel pit area, in the southwest of the Southern Parcel, contains important environmental resources worthy of protection, including complexes of varying wetland habitat types, numerous vernal pool habitats, and habitat for several state-listed species. (SRNS 2, response 3(a) and (c); SRNS 6, Attachment 4)

245. The project design has two wetland impact areas and three wetland crossings compared to four wetland impact areas and four wetland crossings in the original design. The original design had a total wetland impact of approximately 4,006 sq. ft. The amount of wetland impact area has been reduced by eliminating one wetland crossing (Culvert 2 (Wetland B-2)) and redesigning the remaining crossings. The crossing at Culvert 1 (Wetland A-2) was reduced by using longer wingwalls, which allowed for less fill to be placed on side slopes that extended into the wetlands. The crossing at Culvert 3 (Wetland B/1B) was also reduced. Culvert 4 (Wetland A/1A) was enlarged and now can span the wetlands to avoid all permanent impacts. The project design has reduced overall wetland impacts to approximately 2,720 sq. ft. This is broken down between Culvert 1, with approximately 628 sq. ft. of impacts, and Culvert 3, with approximately 2,092 sq. ft. of impacts. (SRNS 6, response (i); Tr. 1, pp. 88-89)

246. As a result of the redesign, impacts associated with the solar arrays on the Northern Parcel have been significantly reduced, including the elimination of any encroachment into the Vernal Pool Envelope for Vernal Pool 1, one of the Site's more productive vernal pools. (SRNS 2, response 3(a))

247. Any selective tree removal in wetlands required to eliminate shading effect on nearby PV modules will be accomplished with the use of various equipment to minimize disturbance to wetland vegetation that will remain and compaction of wetland soils. This will likely be performed with a combination of hand cutting and the use of logging equipment such as forwarders, feller-bunchers with cutting heads, harvester-processor, etc. If necessary, equipment entering into wetlands would generally use truck mats and/or swamp mats to minimize disturbance in wetlands, resulting in only temporary wetland impacts. Where safe to do so, mats would be placed directly over shrubs to minimize impact to the wetland understory vegetative cover. Tree tops and logs would be removed from the wetland although some slash would be allowed to remain to provide temporary cover for wildlife. Typically, trees will be cut two feet to three feet off the ground surface with no tree stumps removed. In addition, a suitable amount of snags will be created to enhance wildlife habitat by selecting trees that are a minimum six inches in diameter at breast height and cutting the tree at a height of six feet to eight feet from the ground surface. (SRNS 1, p. 31)

248. Potential short-term, temporary wetland impacts associated with construction activities will be minimized through the proper design, installation, and maintenance of sedimentation and erosion controls in accordance with the 2002 E&S Guidelines. SRNS will also develop, following Council approval, a wetland and vernal pool protection plan to be implemented during construction with assistance from a third-party compliance monitor to provide additional measures to avoid temporary wetland impacts. (SRNS 1, p. 31)

249. The project is consistent with the 2015 U.S. Army Corps of Engineers Vernal Pool Best Management Practices. (SRNS 2, response 37)

250. The US Army Corps of Engineers New England District also relies on an updated methodology developed by Calhoun titled Vernal Pool Best Management Practices (BMPs) (January 2015).); the Council also recognizes this updated methodology. (SRNS 2, response 37; Council Administrative Notice Item No. 89)

251. These BMPs contain some similar criteria as the Best Development Practices (BDP; Calhoun and Klemens, 2002) guidance but also allow a more flexible approach focusing on conserving more essential forested travel corridor habitats, known as "directional corridors," as opposed to the concentric circle approach used in the 2002 guidance. (SRNS 2, response 37)

252. The directional corridor methodology focuses on conserving the network of connected habitat elements along these directional corridors that link habitats essential to vernal pool species (*i.e.*, breeding pools, forested wetlands, forested uplands). When evaluating a project's impact to the CTH, it is important to identify and assess impacts to these more essential herpetofauna directional corridors that exist between the breeding pool, the supporting wooded terrestrial habitat (considered optimal habitat for the primarily forest dwelling vernal pool indicator species), and any wetland habitat that could serve as staging habitat during migration. (SRNS 2, response 37)

253. The project avoids any disturbance to the Vernal Pool Envelope for either Vernal Pool-1 or Vernal Pool-E, found to be the most productive vernal pools on Site, and has reduced the area of development within the CTH, although they still exceed the development guidance. (SRNS 2, response 37)

254. All of the other nine vernal pools complied with the BDP guidance in the developed condition. (SRNS 2, response 37)

255. For Vernal Pool-1 the buffer to the nearest project activity was expanded as part of the redesign from approximately 60 feet to approximately 327 feet with Area 2 being significantly reduced in size and an approximately 360 foot buffer was provided with Area 1. (SRNS 2, response 37)

256. The principal directional corridors associated with Vernal Pool-1 would occur primarily along the wetland corridor that extends north and off-site onto an adjacent parcel. This directional corridor connects to both forested wetland habitat and terrestrial forested habitat both in the northeast portion of the Site and on the adjacent parcel. The project redesign considered the principal directional corridor and removed the original solar array proposed in the far northeast corner of the Site. Not only did this allow for removal of the crossing over Wetland B-2, but it also conserves the terrestrial habitat that borders on the east side of Wetland A-2 as it extends to the boundary of Northern Parcel. This conserved area contains optimal CTH habitat that supports forested wetland habitat that would be used during the summer and intervening/adjacent forested uplands, providing suitable habitat for both migration linking those habitats as well as optimal terrestrial hibernation habitat. (SRNS 2, response 37)

257. As a result of the redesign, the project would comply with the BMPs and not result in a likely adverse impact to Vernal Pool 1. (SRNS 2, response 37)

258. For Vernal Pool E, the buffer from the nearest project activity in Area 3 was expanded as part of the redesign from approximately 60 feet to approximately 150 feet (to limit of disturbance) and approximately 205 feet (to fence line) from the southwest solar array. An approximately 400 foot buffer is being provided on the east side of Vernal Pool E to the solar array located in the eastern portion of the Site. (SRNS 2, response 37)

259. SRNS, as part of the redesign, also moved the stormwater basin proximate to Vernal Pool-E to the north so that the stormwater outfall from the new basin would be approximately 200 feet from Vernal Pool-E, allowing for sufficient travel distance and time of concentration to avoid any hydrology or water quality impacts by the time it reaches Vernal Pool-E. (SRNS 2, response 37)

260. SRNS considered moving the stormwater basin to the south, but that would have resulted in changes to existing drainage patterns that potentially could have had a negative effect on the hydrology of Vernal Pool-E; diverting some of the watershed away from Vernal Pool-E could result in shortening of the pool's hydroperiod and decrease the depth of inundation to a degree that juvenile development of vernal pool indicator species and successful metamorphosis would not occur before the pool dried up. (SRNS 2, response 37)

261. The primary directional corridor for Vernal Pool-E is associated with Wetland E, particularly to the north where it links to optimal forested terrestrial habitat in the northeast corner of the project. This conserved area contains optimal CTH habitat that supports forested wetland habitat that would be used during the summer and intervening/adjacent forested uplands that provide suitable habitat for both migration linking those habitats as well as optimal terrestrial hibernation habitat. (SRNS 2, response 37)

262. As a result of the redesign, the project would comply with the BMPs and not result in a likely adverse impact to Vernal Pool-E. (SRNS 2, response 37)

263. While the wetlands in the area of the former gravel pit are small in size and may not be providing significant wetland function and values, in the context of the landscape they are an important habitat because they currently support some listed species. There is also a DEEP designated Critical Habitat in that area. That area provides unique and important ecological habitat to the Site and to the region and supports a wide diversity and assemblage of amphibians and reptiles – some of which are state listed species of special concern. (Tr. 3, pp. 46-47, 57)

Visibility

264. The project would consist of non-reflective solar panels measuring approximately 11 feet high surrounded by an approximate six-foot tall security fence with one foot of barbed wire. (SRNS 1, p. 19; SRNS 6, Attachment 4)

265. The solar panels are designed to absorb incoming solar radiation and minimize reflectivity and are installed at a fixed angle of 25 degrees. Only a small percentage of incidental light will be reflected off the panels. This incidental light is significantly less reflective than common building materials, such as steel, and the surface of smooth water (SRNS 1, p. 19; SRNS 6, Attachment 4)

266. A majority of the project will be shielded from view due to existing landscaping and topographical conditions. (SRNS 1, p. 19)

267. No scenic areas would be physically or visually impacted by the project. No recognized scenic areas, outlooks, or designated scenic roads are located proximate to the Site. No public hiking trails or other potential public non-vehicular trails were found to be present in the area that would serve as potential observation points. (SRNS 1, p. 21)

268. Most of the project will be set back from adjoining roadways and behind vegetative buffers. Some portions of the project may be visible from a public roadways and adjoining parcels. The majority of the project is located within the interior of the parcels that make up the Site. The interior location combined with existing topography and wooded buffers, which will remain after development of the project, will result in relatively limited visibility of the project from publicly accessible vantage points. (SRNS 1, p. 21)

269. SRNS conducted a review of qualitative visual impacts from the project. Two observation points where chosen at the perimeter of the Site along State Route 184 to assess the potential for visual impacts after development of the project is complete. This analysis began with capturing digital photographs at two locations on September 30, 2020. Three dimensional models of the original project design, including perimeter fencing, were created and rendered onto the existing photographs to present a realistic view from each observation point after project construction. (SRNS 1, p. 22; SRNS 1, Exhibit Y)

270. The following is a summary of each observation point:
    a. Observation Point (OP) 1 is the westbound lane of State Route 184 directly opposite 454 Providence New London Turnpike (State Route 184). The view from OP 1 is looking along the westbound lane of State Route 184 and represents the location with the greatest visibility potential to motorists. Exhibit Y, Figure 2 shows the existing conditions from OP 1. Exhibit Y, Figure 3 shows the proposed conditions from OP 1.
    b. OP 2 is also the westbound lane of State Route 184 directly opposite 454 Providence New Lon-don Turnpike (State Route 184). The view from OP 2 is looking directly at a location where it is anticipated that existing trees will be removed as part of the Project and represents the location with the greatest

visibility potential to pedestrian or vehicle passenger traffic along the State Route 184. This would also be representative of the visibility potential from 454 Providence New London Turnpike (State Route 184). Exhibit Y, Figure 4 shows the existing conditions from OP 2. Exhibit Y, Figure 5 shows the proposed conditions from OP 2.

(SRNS 1, p. 22)

271. Due to existing vegetation along the northerly side of State Route 184, the northwest and northeast solar arrays – Area 1 and Area 2, respectively – will not be visible from a public right of way. The redesign increased the tree buffer between State Route 184 and the solar arrays in Area 1 and Area 2 from 110 feet to 180 feet. (SRNS 2, response 3(a))

272. SRNS also provided the Council with a photographic site visit, which included photographs of the Site from public road(s) or publicly accessible area(s) as well as Site-specific locations depicting site features. (SRNS 1, Attachment 14)

273. Seven homes are expected to have year round views of some portion of the solar arrays. (SRNS 2, response 3(a))

274. SRNS spoke with several abutters who have expressed interest in increasing the height of existing stonewalls along their existing property lines to help mitigate visual impacts and maintain the character of the area. (SRNS 2, response 3(a); Tr. 1, p. 18)

275. As part of the redesign, SRNS relocated the fence line in several areas around access roadways to reduce the potential visual impact from public right of ways and/or abutting properties. In Area 1, 470 linear feet of fence was removed. In Area 2, 690 linear feet of fence was removed. In Area 4, 1,680 linear feet of fence was removed. With these modifications, SRNS will use a bar gate at several access road entrances. These changes should substantially reduce the general public's view of the fence while traveling along public rights of way. (SRNS 5, response 20)

276. SRNS has reached out to all abutting property owners. Many of the abutting property owners attended a site walk with SRNS in March 2021. SRNS has engaged in discussions with several of the abutting property owners. (SRNS 6, response (p); Tr. 3, p. 88)

277. SRNS's discussions with the property owner of 476 Providence New London Turnpike regarding visual mitigation during operation of the project are ongoing. At SRNS's expense, straw bales will be deployed across a portion of this property owner's southern and western property line for the duration of construction to block views of the project from the home and dog kennel, as well as provide noise mitigation from construction activity. (Tr. 1, p. 59)

278. SRNS's discussions with the property owner at 477 Providence New London Turnpike regarding visual mitigation during operation of the project are ongoing. This property

owner requested SRNS evaluate installing a screening fence along a portion of the shared property line (in addition to the security chain link fence that is part of the project) and replace existing native vegetation with infill evergreen trees. SRNS is currently evaluating this request and is committed to working in good faith towards a visual screening solution. (SRNS 6, response (p))

279. SRNS's discussions with the property owner at 116 Boombridge Road regarding visual mitigation during operation of the project are ongoing. Based on the project design, the owner will have limited seasonal views of the project from her home. The back of the property owner's residence has a southwest orientation and is more than 500 feet from the project's limits of disturbance. Furthermore, between this home and the Site boundary, on the owner's property, are a significant stand of mature trees, the property owner's own ground-mounted solar arrays, and an open lawn area. These existing visual obstructions on this property owner's parcel are in addition to more than 40 feet of existing mature trees that will remain undisturbed on the Site and this property to the north of the project's limit of disturbance closest to this property owner's property line. All of these existing buffers, which will remain after construction of the project, are visible on SRNS 6, Attachment 6 (Map Identifying Project Property Lines and Abutters Closest to Projects Limit of Disturbance) and SRNS 6, Attachment 14 (Photographs), Part 2, Photos 8 and 9. (SRNS 6, response (p))

280. The nearest publicly accessible recreational area is he Samuel Cote Preserve on the south side of Route 216 (Clarks Falls Road) approximately 0.90 miles from the project's limits of disturbance. The project will not be visible from the Samuel Cote Preserve. (SRNS 2, response 42)

Historic and Archaeological Resources

281. SRNS had an Archaeological Sensitivity Assessment (ASA) prepared for the Site in June 2019. The ASA identified historic resources in portions of the Site. SRNS avoided direct impacts to these areas of the Site in its design, to the extent possible. The ASA also identified approximately 57 acres considered to possess moderate to high sensitivity for containing archaeological resources and recommended that these areas be subjected to subsurface testing using shovel tests. (SRNS 1, p. 23; SRNS 1, Exhibit P)

282. On June 11, 2019, the ASA was submitted to the Connecticut State Historic Preservation Office (SHPO) for review. In a letter response received July, 25, 2019 from SHPO via Catherine Labadia, Deputy State Historic Preservation Officer and Staff Archaeologist, SHPO concurred with the findings of the ASA and the proposed scope of work for a future Phase I-A Archaeological Field Analysis to be performed at the Site to evaluate sensitive areas. (SRNS 1, p. 23; SRNS 1, Exhibit Q and Exhibit R)

283. SRNS had the SHPO-approved work completed and a Phase I-A Technical Report (Phase I RAS) completed in November 2020. The Phase I RAS determined that no further archaeological investigations are warranted and the project will have no impact

to potentially significant archaeological sites based on its findings. (SRNS 1, p. 23; SRNS 1, Exhibit S and Exhibit T)

284. On November 25, 2020, the Phase I RAS was submitted to the SHPO. The Phase I RAS concluded that after extensive investigation that no further investigations are warranted and the project will have no impact on potentially significant archeological sites. (SRNS 1, p. 23; SRNS 1, Exhibit T and Exhibit S)

285. On December 28, 2020, the SPHO issued a letter to PAL concurring with PAL's conclusion and stating that "no historic properties will be affected by the proposed activities." (SRNS 1, p. 23; SRNS 1, Exhibit X)

286. Remnant field stone walls can still be seen in several wooded areas of the Site. Stone walls and piles within the fence line are will be removed as part of the clearing and site preparation process. Stone walls and piles outside of the project's fence line, including those demarcating property boundaries, will be maintained to the fullest extent possible. In addition, a small cemetery is located in the westerly portion of the Site. All development will occur at least 100 feet from this area so as to avoid encountering any unmarked graves. (SRNS 1, pp. 23-24)

287. The Phase I RAS includes a detailed assessment of the entire 'northern parcel' including 'Old Route 184', where the area was deemed 'sensitive', which meant that there was the potential to recover archaeological evidence of past Native American occupation/activity. Subsequent field work was conducted, and it did not recover any evidence of Native American activity in the area. The ASA and Phase-I RAS were completed in a manner that meets the standards of the SHPO. (SRNS 2, response 3(a); SRNS 2, response 3(b))

288. The SHPO agreed with the ASA and Phase-I RAS findings and issued a letter of concurrence that the project would not adversely affect any historic properties and the low-density scatter of common types of historic artifacts is not eligible for listing. The SHPO's letter of concurrence found that:
    a. the project would not affect any historic properties;
    b. the low-density scatter of common types of historic artifacts is not eligible for listing on the National Register of Historic Places; and
    c. no additional testing of the Site is warranted

    (SRNS 2, response 3(b); SRNS 1, Exhibit X)

289. After extensive review and fieldwork, SRNS has no reason to believe and is not aware of any incomplete or undocumented artifacts as suggested by the Town. (SRNS 2, response 3(b))

290. The small family cemetery in the westerly portion of the Site, southwest of Area 3, will have a 100-foot buffer from development activity associated with the project. The cemetery is not still active and SRNS is not aware of any visitors to the cemetery in recent years. (SRNS 6, Attachment 4; Tr. 1, pp. 84-85)

Wildlife

291. Extensive field and habitat surveys were conducted on the Site to characterize potential special-status plants, wildlife, and their associated habitat that may occur on the Site. In particular, the following were performed over the course of 24 site visits:
    a. Vernal Pool Habitat Investigation – April 2017, 2018, 2019, and 2020 (see Exhibit U, § 6.2);
    b. Amphibian Breeding Season Field Survey – 2017, 2018, 2019, and 2020 (see Exhibit U, § 5.2);
    c. Listed Plant Targeted Survey – November 2018 (see Exhibit U, § 5.2); and
    d. Wetland and Waterway Delineation – April 2017, November 2018, and May and June 2019 (see Exhibit U, § 5.2).

    (SRNS 1, p. 24; SRNS 1, Exhibit U)

292. HDR also completed an updated Phase I Environmental Site Assessment in April 2020. (SRNS 1, p. 24; SRNS 1, Exhibit J)

293. An eastern spadefoot (*Scaphiopus holbrookii*) survey is currently underway. (SRNS 2, response 3(a); Tr. 1, p. 33)

294. The eastern spadefoot survey will include nocturnal visual encounter surveys and radio-tracking of eastern spadefoots to better inform project planning to minimize any potential impacts to eastern spadefoots and their habitats. (SRNS 2, response 31)

295. Xeric sparsely vegetated and scarified habitats occur naturally as sand barrens and some well-drained floodplains, but also develop from anthropogenic activities such as sand and gravel mining operations. Many small- to moderate-sized parcels of scarified land, especially abandoned sand and gravel pits, serve as important habitat for several state listed amphibian and reptile species including the eastern spadefoot, eastern box turtle (*Terrapene c. carolina*), and eastern hog-nosed snake (*Heterodon platirhinos*). (SRNS 6, response (p))

296. In many areas of Connecticut, currently abandoned and overgrown sand and gravel pits offer excellent opportunities to expand early successional habitats for these species, especially when embedded within a mosaic of upland and wetland habitats. To protect this habitat and its diverse species assemblage, the arrays in the southern parcels were relocated to minimize environmental impacts. Management practices to promote habitat value of the sand and gravel pit areas on the southern parcels will include leaving buffers around ephemeral seasonal wet depressions that may not be identifiable as regulated wetlands but are nonetheless valuable breeding areas for amphibians (especially eastern spadefoot and fowler's toad (*Bufo fowleri*)). (SRNS 6, response (p))

297. The eastern spadefoot distribution in Connecticut is strongly correlated with Pleistocene glacial lake deposits. They are associated with low-lying (typically below 300 feet (91 m) in elevation) early successional and agricultural habitats, underlain by well-drained sandy and gravelly soils. In eastern Connecticut, eastern spadefoot

populations are strongly correlated with Hinckley Soil deposits. The percent slope of Hinckley Soils is not a factor in the likelihood of eastern spadefoot presence. (SRNS 2, response 30)

298. Although species surveys are still being conducting which will guide additional habitat management on the Site, the project planning and design process has taken into consideration the importance of this xeric landscape and the long-term role this habitat may play in conserving future regional and statewide biological diversity. (SRNS 6, response (p))

299. An initial review of the Natural Diversity Database (NDDB) mapping for threatened, endangered, or special concern species or critical habitats was first conducted in 2016. This review showed several "estimated habitats" for listed species near the Site but not overlap-ping the Site. DEEP's NDDB mapping, revised in June 2020, also did not show any Natural Diversity Area overlaps with the Site. (SRNS 1, p. 24; SRNS 1, Exhibit U and Exhibit V; Tr. 1, pp. 12-13)

300. In 2017, SRNS's consultant requested an NDDB State-Listed Special review by DEEP. DEEP's response noted the presence of six listed species in the vicinity of the Site:

    a. Sparkling Jewel-wing (Threatened; *Calopteryx dimidiata*);
    b. Eastern Pearlshell (Special Concern; *Margaritifera margaritifera*);
    c. Low Frostweed (Special Concern; *Crocanthermum propinquum*);
    d. Hoary Plaintain (Special Concern; *Plantago virginica*);
    e. Red Bat (Special Concern; *Lasiurus borealis*); and
    f. Eastern Spadefoot (Endangered; *Scaphiopus holbrookii*).

    (SRNS 1, p. 25; SRNS 1, Exhibit V, Appendix E)

301. In order to confirm no NDDB habitat areas were present on the Site, SRNS's consultant requested and was authorized to conduct several targeted surveys for Connecticut-listed species. (SRNS 1, p. 25; SRNS 1, Exhibit V, Appendix E)

302. The sparkling jewelwing was not specifically surveyed for. This species requires flowing waters that tend to be perennial. The intermittent streams present on the Site would not be preferred by this species, if it were present. If this species were to be present at the flowing streams on the Site, the project development activities would not affect these habitats and the sparkling jewelwing would be secure. (SRNS 1, p. 25; SRNS 1, Exhibit U; Tr. 1, pp. 12-13)

303. It was determined that the eastern pearlshell would not be found at the Site, since the Site does not contain any suitable habitat – perennial streams – for this species. (SRNS 1, p. 25; SRNS 1, Exhibit U; Tr. 1, pp. 12-13)

304. SRNS's consultant conducted a moderate-intensity survey for the Low Frostweed. This survey was focused on any areas of the Site with the highest probability of occurrence – *e.g.*, the open sand-barren type habitats. The likelihood of this species being present

on the Site is relatively low. Regardless, to the extent this species' preferred habitats are found at this Site, they will be left intact and will not be influenced in any way by the project. (SRNS 1, p. 25; SRNS 1, Exhibit U; Tr. 1, pp. 12-13)

305. SRNS's consultant searched the Site for hoary plantain during several visits. The searches were focused on open sunny sites with previously disturbed soil, as well as areas with sandy, dry soil. This included the dirt roads and residual sandy/gravelly quarry area on the Site. This species was not found, however, the open quarry areas will all be preserved. As such, the project will not adversely affect this species, if it is located at the Site. (SRNS 1, p. 25; SRNS 1, Exhibit U; Tr. 1, pp. 12-13)

306. SRNS's consultant found that it was possible the eastern red bat and the northern long-eared bat (NLEB) could utilize portions of the Site during roosting season. The presence of mature forest, forested edges, wetlands, and on-site or nearby open water sources, contributed to this assessment. Surveys for these species were not conducted, because, as a precautionary mitigative measure, tree clearing for the project will be restricted in accordance with 4(d) rule requirements of the Endangered Species Act (ESA), associated with the conservation of NLEB. Tree clearing will be limited pursuant to NDDB's restrictions for the Site. (SRNS 1, p. 26; SRNS 1, Exhibit U; Tr. 1, pp. 12-13)

307. Following construction, significant wooded areas will remain on the Site, or in the vicinity, and expansion of edge habitat will occur, providing additional foraging lanes for bats. These measures will ensure the Site continues to provide suitable habitat for the Connecticut and federally listed bats during the Spring and Summer activity period. (SRNS 1, p. 26; SRNS 1, Exhibit U; Tr. 1, pp. 12-13)

308. The DEEP's NDDB requested that SRNS retain an eastern spadefoot specialist to conduct more robust surveys at the Site. SRNS retained Mr. Dennis Quinn to conduct these surveys starting in May 2021. (SRNS 1, pp. 26-27; SRNS 1, Exhibit U; Tr. 1, pp. 12-13)

309. As of July 8, 2021, Mr. Quinn had conducted 12 out of the 15 nocturnal surveys necessary before a final report summarizing the investigation can be completed. No eastern spadefoot have yet to be found on the Site. (Tr. 3, p. 33)

310. SRNS's consultant documented several additional Connecticut listed species of special concern. Those species were: the ribbon snake (*Thamnophis s. sauritus*), the eastern box turtle (*Terrapene c. carolina*), and the spotted turtle (*Clemmys guttata*). (SRNS 1, p. 27; SRNS 1, Exhibit U; Tr. 1, pp. 12-13)

311. Based on SRNS's consultant's observations, it is believed the ribbon snake is present in several portions of the Site. The project will be hundreds of feet away from the ribbon snake's preferred habitats and all of the vernal pool habitats on the Site are considered "conserved". Impacts to this species are highly unlikely. (SRNS 1, p. 27; SRNS 1, Exhibit U; Tr. 1, pp. 12-13)

312. One female eastern box turtle was observed on the Site. Based on the types of habitats at the Site, additional eastern box turtles may be present on the Site, especially in early successional and wooded areas along the wetland corridors. SRNS will undertake the standard search and exclusion protocol recommended by the DEEP prior to any land disturbance. (SRNS 1, p. 27; SRNS 1, Exhibit U; Tr. 1, pp. 12-13)

313. Habitats suitable for spotted turtles were observed at the Site and a spotted turtle was observed within a wetland area. Abundant prey for this species was also observed. As all of the vernal pools in the vicinity of the spotted turtle's preferred habitat will be preserved, following the project's development this species will be secure. SRNS will undertake the standard search and exclusion protocol recommended by the DEEP prior to any land disturbance. (SRNS 1, p. 27; SRNS 1, Exhibit U; Tr. 1, pp. 12-13)

314. It is unlikely that any of the species listed in the DEEP NDDB's May 2017 letter occur or breed at the Site, with the possible exception of eastern spadefoot. Additional surveys for this species are being conducted, consistent with the DEEP NDDB's request. The two listed plants, if they would be present, would only occur in the disturbed, sand barren-type habitats found in the southern portion of the Site. All of that habitat will be left intact, and beyond the influence of the project. (SRNS 1, pp. 27-28; SRNS 1, Exhibit U; Tr. 1, pp. 12-13)

315. The three additional special concern species that were observed (i.e., the ribbon snake, the eastern box turtle, and the spotted turtle) will all be secure following development of the project. This conclusion considered that SRNS will undertake the standard search and exclusion protocol recommended by the DEEP prior to any land disturbance. (SRNS 1, p. 28; SRNS 1, Exhibit U; Tr. 1, pp. 12-13)

316. Through the redesign SRNS eliminated any encroachment in the Vernal Pool Envelope of the highest productive vernal pools, Vernal Pool-1 and Vernal Pool-E. (SRNS 2, responses 26 and 37)

317. A comprehensive rare species protection plan will be developed through the SRNS ongoing consultation with the DEEP NDDB for northern long-eared bat, red bat, ribbon snake, eastern box turtle, spotted turtle, and potentially eastern spadefoot. The last three of these listed species are documented to occur in the southern portion of the Site that contains the former sand and gravel pit area. This area is not proposed to be disturbed by the project and SRNS intends to conserve this area, which in addition to supporting rare species also contains numerous vernal pool and wetland habitats. A protection plan will follow current best management practices recommended by the DEEP NDDB for protection of these species during construction of the project and will be similar to previous rare species protection plans that have been proposed on other Dockets and Petitions considered and approved by the Council. (SRNS 2, response 26)

318. SRNS will utilize integrated pest management (IPM) techniques for the application of any herbicides or pesticides. However, the proposed vegetation management techniques for the project – livestock grazing within the fenced arrays and mechanical

for maintained vegetation around the fenced perimeter – generally do not require the application of herbicides, pesticides, or fertilizers. In the rare cases that such applications are required (*i.e.*, control of invasive plants if mechanical means are not feasible or successful), focused low-volume spot applications would occur and there would be no broad applications of herbicides or pesticides. (SRNS 2, response 26)

Geology

319. A geotechnical engineering report covering the entire Site, including the northern parcel, was conducted. (SRNS 2, response 48; SRNS 2, Attachment 15; SRNS 5, response 17; Tr. 3, p. 87)

Agriculture

320. SRNS extensively evaluated and considered whether disturbance of prime farmland soils impacts could be avoided. The project will only impact a small area of prime farmland soils (approximately 0.5 acres). Other sensitive environmental resources (*e.g.*, wetlands, vernal pools, rare species habitats) limit SRNS's ability to relocate the project in a manner that would avoid any prime farmland soils impacts. Considering the minimal area of prime farmland soils impacts associated with the project, there will not be a significant reduction to prime farmland soils to North Stonington or the region. (SRNS 2, response 27)

321. Limited area is available around the fenced arrays that could be used for the cultivation of crops and/or a community garden. Establishment of cultivated land around the perimeter of the project would require extensive clearing of mature vegetation that borders on wetlands, intermittent watercourses, and sensitive aquatic habitats (*i.e.*, vernal pools) and would be counter to the United States Department of Agriculture Natural Resources Conservation Service's national and state policy of maintaining and restoring buffers to protect water quality and wildlife habitat. (SRNS 2, response 27)

322. Within and around the fenced arrays SRNS will be utilizing a regionally appropriate and diverse seed mix in order to provide cost-effective soil stabilization, reach habitat and pollinator goals, and livestock production targets. (SRNS 2, response 27 and response 32)

323. SRNS takes an integrated management approach for all land and vegetation management needs. SRNS developed a site-specific management reflecting the unique management needs of the project based on various regulations, conservation goals, environmental attribute goals, and the local/regional community and cultural contexts. (SRNS 1, p. 17)

324. SRNS has an internal holistic land management program called "Regenerative Energy" in order to shift land management strategies throughout our operating fleet towards a more ecologically sensitive land management strategy. This is achieved through the integration of very specific regenerative agricultural practices into the long-term land

management strategy and an annual ecological monitoring program that informs managers of the outcomes of management decisions. SRNS has developed an Integrated Vegetation Management Plan (IVMP) for the project. (SRNS 1, p. 17; SRNS 1, Exhibit M)

325. SRNS will contract with local and/or regional ranchers to provide Adaptive Multi-Paddock sheep grazing (AMP Grazing). Both biological and mechanical control methods will be employed to meet solar industry vegetation management performance specifications. Herbicides will only to be used as required by local, state, and federal regulations for control of noxious and invasive weeds. It is SRNS's strong preference not to use herbicides. (SRNS 1, p. 17; SRNS 1, Exhibit M; SRNS 2, response 32)

326. AMP Grazing involves a flock being moved around the Site rapidly, mimicking the grassland-ruminant relationship. Flock size and grazing plan is based on many considerations, including: seasonal precipitation, forage quality/quantity, production goals, plant response variable, desired recovery period for vegetation/habitat goals. (SRNS 2, response 32)

327. AMP Grazing facilitates the sequestration of carbon and other GHGs in the soil, can reduce erosion through higher organic matter in soils, thereby increasing water infiltration and water holding capacity of the soils, and generally increases the health and value of the land and associated ecosystems. SRNS's use of AMP Grazing and other holistic land management practices are intended to distribute additional positive economic impacts locally and regionally while increasing biodiversity and keeping lands in agricultural production. (SRNS 1, p. 17; SRNS 1, Exhibit M)

328. Livestock grazing is not an integral component of the project, but does reduce the need for motorized landscaping vehicles and equipment and contributes to lowering operating expenses over the useful life of the project while keeping land in agricultural production. (SRNS 2, response 32)

329. SRNS consulted with the American Solar Grazing Association, a 501(c)(3) nonprofit organization with a network of interested sheep farmers in Connecticut. (SRNS 2, response 32)

330. Sheep could be located on the Site during the months of June, July, August, September, and/or October. (SRNS 2, response 32)

331. The sheep would be rotated through each array and/or subdivided array. The sheep would not spend more than three days in any one particular array or subdivided array. This results in manures being homogenously spread across the Site. Thus, the manure would serve to fertilize vegetation, which improves and expedites vegetation establishment leading to lower stormwater runoff and more infiltration (SRNS 2, response 32)

332. No shed or shelter on the Site is necessary or proposed for the sheep. (SRNS 2, response 32)

333. The postcard mailers sent to abutting property owners in 2020 included a request for a local sheep farmer partner. SRNS provided each abutting property owner with notice of the petition, after which time abutting property owners could access the petition on the Council's website. SRNS discussed its vegetation management plan, including sheep grazing, during a March 11, 2021 virtual public presentation to the Town Planning and Zoning Commission and with participants at a March 23, 2021 on-site community meeting and tour of the Site, which mainly consisted of Town officials and area residents. On both occasions SRNS received both positive feedback and interest for more information. SRNS has not been notified by any abutters of concerns with the utilization of sheep on the Site. The Site is already abutted by two canine kennels (454 Providence-New London Turnpike and 204 Boombridge Road)

Forest and Parks

334. UConn's Center for Land Use Education and Research's Forest Fragmentation Analysis (FFA) study, designates "core forest" as greater than 300 feet from non-forested habitat. This 300-foot zone is referred to as the "edge width" and represents sub-optimal breeding habitat for forest-interior birds due to decreased forest quality, increased levels of disturbance, and increased rates of nest predation and brood parasitism within this transitional forest edge. The FFA study identifies three categories of core forest: small (< 250 acres); medium (250-500 acres); and large (>500 acres). The absolute minimum forest patch size needed to support area-sensitive edge-intolerant species is 250 acres. This definition excludes forest areas whose habitat value is degraded by edge effects to a degree that no core forest patch exists. This definition is consistent with the criteria the DEEP utilizes in developing its GIS screening tool. (SRNS 2, response 3(b))

335. The project will impact approximately a 0.20 acre area of forest free from edge effects (greater than 300 feet from a forest edge). However, the total contiguous area of this forest is only 13.5 acres and as such would be classified as a small core forest patch at the very small end of that scale. Considering the small size of the existing small core forest patch and existing perforations and edge effect, the project would not likely result in a significant negative impact to core forest habitat. (SRNS 2, response 3(b); SRNS 2, Attachment 7)

336. The redesign reduced tree clearing on the Northern Parcels by nearly 50% – from 19.2 acres to 10.5 acres. (SRNS 2, response 3(b))

Neighborhood Concerns

337. Under CGS §16-50p, the Council is not required to take into account the status of property values. (CGS §16-50p; *Westport v. Conn. Siting Council*, 47 Conn. Supp. 382

(2001), *affirmed*, 260 Conn. 266 (2002); *Goldfisher v. Conn. Siting Council*, 2005 Conn. Super. LEXIS 306 (2005), *affirmed*, 95 Conn. App. 193 (2006))

338. Pursuant to CGS §16-50m, the Council, after giving due notice thereof, held a remote public comment hearing session on June 8, 2021 at 6:30 p.m. via Zoom conferencing. (Record; Tr. 3, p. 136)

339. One limited appearance statement was made at the remote public comment hearing session. Concerns included, but are not limited to, visibility of the project from the commenter's property and the accuracy of property boundaries shown on maps. (Record; Tr. 2)

340. The Council received three written limited appearance statements regarding the project. (Record)