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Planning Department**  
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## MEMO

DATE: November 18, 2021

TO: Windham Planning Board  
FROM: Steve Puleo, Town Planner  
Cc: Amanda Lessard, Planning Director  
Sebago Solar, LLC  
Kirk Ball, P.E. Acheron Engineering Services  
Development Review Team

RE: 20-25: Sebago Solar, LLC - Major Site Plan & Conditional Use Final Plan Review  
Planning Board Meeting & Public Hearing: November 22, 2021

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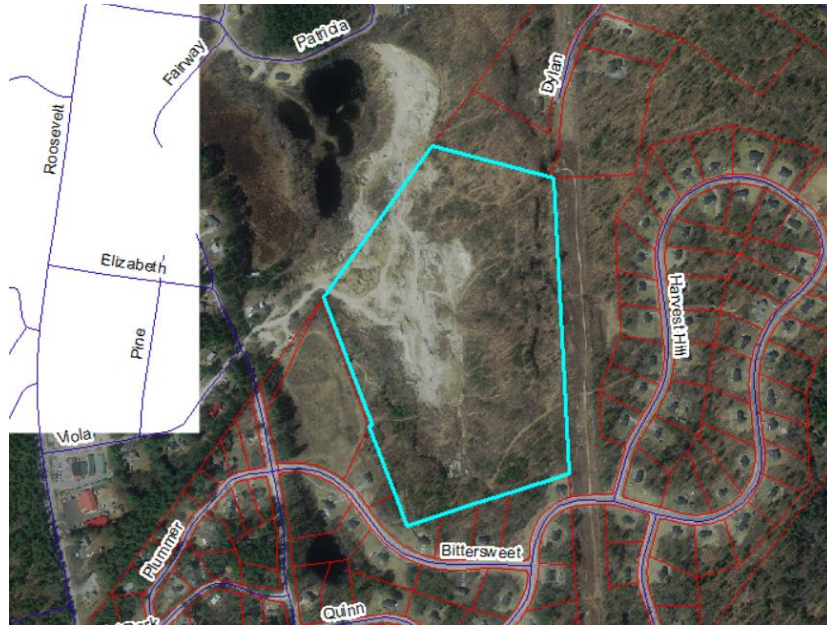
### Overview –

This application is for a new a 19.9-acre, ~ 5MW solar project on a portion of the 40 acre property east of Pipeline Road owned by Wiley R.N. & Sons. About half of the project parcel is an existing gravel pit and the remainder is wooded area. The parcel abuts the Raymond/Windham Town line. Access to the pit is planned to be from the Raymond side of the parcel.

Public Utility Facility is a conditional use in the Light-Density Residential District where the project is proposed to be located. In accordance with Section 516.B the Planning Board shall serve as the review authority. The applicant has submitted a written statement with the final plan application describing how the conditional use will meet the review criteria of Section 516.

The Planning Board reviewed the Sketch Plan on October 26, 2020 and a site walk was held on November 7, 2020. Since then, the applicant has submitted a final plan application, obtained site plan approval from the Town of Raymond for a 600LF access drive (Boulder Bend Drive) off of Pipeline Road to serve the development, filed a Stormwater PBR with MDEP, and responded to staff comments on the application.

Tax Map: 23 Lots: 4B. Zone: Light-Density Residential District (RL)



Aerial View of the subject parcel relative to surrounding properties and street network.

## SITE PLAN REVIEW

### Staff Comments:

1. Complete Application: *The staff finds complete the final major site plan and conditional use applications for a Planning Board review.*

**MOTION:** The site plan application for project 20-25 Sebago Solar is found complete in regard to the submission requirements based on the application checklist, but the Planning Board retains the right to request more information where review criteria are not fully addressed.

2. Waivers: None requested
3. Public Hearing: The Planning Board public hearing is scheduled for November 22, 2021.
4. Site Walk: A site walk was held on November 7, 2020.

Findings of Fact and conclusions for the

### **Windham Planning Board,**

**MOTION:** The Major Site Plan and Conditional Use applications for 20-25 Sebago Solar on Tax Map: 23 Lot: 4B is to be **(approved with conditions/denied)** with the following findings of fact and conclusions.

## FINDINGS OF FACT

### **709.A - On Premises Signs for Commercial/Recreational Uses:**

- A single sign is proposed for the project that will be no larger than 32 square feet and fixed to the perimeter fence

## **811. - MAJOR SITE PLAN PERFORMANCE STANDARDS**

### **812.A. - Utilization of the Site**

- The project will occupy 19.9 acres, approximately 50% of the project area is an active gravel pit area, the remaining area is forested. The design as submitted, utilizes all of the active gravel, reshaping pit embankments from nearly vertical to 20% and requires establishment of new vegetation. All environmentally sensitive areas have been identified and avoided to the greatest extent practicable.
- The site is a gravel pit mostly surrounded by wooded land. There are some homes on adjacent parcels to the south and east and one or two to the north.
- The project proposes to reclaim the gravel pit portion, where the project will be primarily located.
- The solar panels are currently proposed to occupy the pit area, and leave most of the wooded area untouched.
- Natural drainage off the project site and surrounding areas will not change.
- The developer plans to re-grade the site and use cut material from steep slopes on-site to avoid the need for trucks driving in and out during the grading operation.

### **812.B. - Vehicular Traffic; 812.C. - Parking and Loading; 812.D. - Pedestrian Traffic**

- The subject parcel is a nonconforming lot of record that does not have frontage on an existing road. The proposed project will not generate additional traffic in these areas, in fact it will be reduced. Once constructed, routine visits to the site will be two times per year to maintain vegetation height. However, additional visits may be required to replace damaged panels. It is estimated that site visits by maintenance crew could occur once per month in the worst-case scenario.
- Access to the site is through the Town of Raymond. After subsequent discussions with the Town of Raymond the following design changes have been incorporated into the project design and are reflected in the Town of Raymond site plan review notice of decision dated November 4, 2021:
  - Repaving the Pipeline/Viola/Boulder Bend intersection.
  - Reconstruction of the Boulder Bend intersection approach so that it meets the Raymond minor street standard.
  - Construction of a stormwater management system to convey stormwater runoff away from the intersection.
  - Increase the travel lane width of Boulder Bend to 20 feet.
  - Placement of road subbase meeting Raymond minor street standard.
  - Pave the first 200 feet of Boulder Bend.
  - Construction of a hammerhead aligned with the driveway for the project area. • Installation of fire lane signs.
- Per Section 812.B.4 Internal Vehicle Circulation: A 12-foot wide access road is proposed for maintenance access and emergency vehicles.
- Three parking spots are included in the design. Parking is located approximately 830 feet into the project site, adjacent to the turnaround and equipment pad #2.

- The project will be closed to all pedestrian traffic.

**812.E. - Stormwater Management; 812.F. - Erosion Control**

- Per Section 812.E, a stormwater plan was submitted that meets the standards DEP Chapter 500 Stormwater Management.
- New impervious and developed area associated with the project equals 13,144 SF (0.30 acres), 11,344 SF of impervious area for the access driveway and 1,800 SF for equipment pad #2. Equipment pad #1, the hammerhead and reconstruction of the access road (Boulder Bend) are located on existing impervious areas that predate the requirements to obtain an individual stormwater permit from the MDEP. The project does require submission of a Stormwater Permit by Rule (PBR) to the MDEP. A Stormwater PBR for the was filed on October 21, 2021.
- The proposed development is located within the Sebago Lake watershed, which is a watershed of a lake most at risk from new development as designated in Chapter 502: Direct Watersheds Of Lakes Most At Risk From New Development, And Urban Impaired Streams of the Maine Department of Environmental Protection, and therefore requires independent review per 807.F.6. The project shall be reviewed in compliance with the stormwater standards included in the Maine Department of Environmental Protection Chapter 500 including basic, general, phosphorus, flooding, and other standards.

**812.G. - Water Supply Provisions; 812.H. - Sewage Disposal Provisions**

- The project will not require a water supply.
- The development is not proposing a private subsurface wastewater disposal (septic) system.

**812.I. - Utilities**

- 3-Phase power exists near the edge of the property on the Raymond side. A short extension to the site, and some electrical equipment will need to be installed.
- All utilities shall be installed underground, per Site Plan ordinance.
- A power shut off should be located on site. An emergency service plan should be provided to local emergency services.

**812.J. - Groundwater Impacts; 812.K. - Water Quality Protection**

- The project will not adversely impact the quality or quantity of ground water available to abutting properties. The project does not include a subsurface disposal system and there will not be any storage of petroleum or hazardous products. Formal closure gravel pit closure will be conduct per DEP standards. The full project area will pervious allowing for the infiltration of the same volume of surface water to infiltrate to the groundwater table in the area.
- Storage of fuel, chemicals, chemical or industrial wastes, and biodegradable raw materials is not proposed to support the project.

**812.L. – Hazardous, Special and Radioactive Materials**

- Handling, storage, and use of all materials identified by the standards of a federal or state agency as hazardous, special or radioactive is not proposed. Storage of flammable or explosive liquids, solids or gases is not proposed.

**812.M. – Shoreland Relationship**

- Not applicable, there is not an adjacent waterbody.

**812.N. - Technical and Financial Capacity**

- Development of the Sebago Solar project is led by Mainely Solar, with support from numerous consultants to comprise a team with extensive experience and knowledge in renewable energy development, including expertise in rezoning, permitting, financing, engineering, and environmental permitting.
- Sebago Solar estimates the total project cost to be \$8.27 million. Please refer to Appendix D for the detailed estimate. Sebago Solar is proposing to obtain financing from Key Bank.

**812.O. – Solid Waste Management; 812. P. – Historical and Archaeological Resources; 812.Q. - Floodplain Management**

- Solid waste generation will occur only during project construction and decommissioning. During construction, solid waste will consist of packing materials used to ship solar arrays and equipment such as cardboard, wood pallets, plastic packing material and stumps from grubbing activities. Most of the solid waste from shipping will be recycled, the remainder will be disposed of at a licensed landfill. Stumps will be ground or chipped, used as erosion control mix on site during construction or retained by the landowner for other construction projects.
- Review of historic gravel pit permitting files at the Maine DEP did not identify any area containing any historic or archaeological resource at the project site. In addition, Sebago Solar consulted with the Maine Historic Preservation Commission (MHPC). MHPC's letter dated September 2, 2021 indicates there are no National Register eligible properties on air adjacent to the project and the area is not considered sensitive for archaeological resources.
- The proposed buildings are not in the FEMA 100-year floodplain.

**812.R. – Exterior Lighting; 812.S. - Noise**

- Exterior light is proposed at each of the equipment pads shown on the proposed site plan. Fixtures are trapezoidal, 15 Watt, LED and have zero up light.
- A transformer that will emit 63 dB while power is being generated. In addition, several inverters will be required for the project that will emit 56 dB during hours of sunlight. Inverters will be mounted to solar panel racks as required. To meet the standards in Section 812.S of 55 dB during the day, an equipment setback of 30 feet from the property line was established. A single axis tracker system will emit sound if utilized for the project. The single axis tracker system uses small motors to rotate panels so they "track" the sun's location. Motors are mounted under the panels, which will shield the sound emissions.

**812.T. – Storage of Materials and Screening (Landscape Plan)**

- Storage of any material is not proposed.

**Conformity with Local Plans and Ordinances**

Land Use

- The minimum lot size and setback requirements of the RL zoning district.
- The proposed public utility facility use is conditional in the RL district if it meets the standards Section 516.



- The property is a nonconforming lot of record that does not have frontage on an existing road in the Town of Windham. The Town of Raymond has approved the 600 LF Boulder Bend drive for the purpose of providing the required street frontage.
- Non-residential uses in the RL are required to have a minimum 15' landscaped buffer.

### Comprehensive Plan

This project meets the goals and objectives of the 2017 Comprehensive Plan. The project is located in the rural area of the Future Land Use Plan.

### Others:

Conditional Use, Section 516. The project must comply with the review criteria. Conditional Use review criteria are listed following the Site Plan Review criteria.

### CONCLUSIONS

1. The plan for development **reflects** the natural capacities of the site to support development.
2. ~~Buildings, lots, and support facilities **will/will not** be clustered in those portions of the site that have the most suitable conditions for development.~~
3. Environmentally sensitive areas, including but not limited to, wetlands; steep slopes; flood plains; significant wildlife habitats, fisheries, and scenic areas; habitat for rare and endangered plants and animals; unique natural communities and natural areas; and, sand and gravel aquifers **will** be maintained and protected to the maximum extent.
4. ~~The proposed site plan **has/does not have** sufficient water available for the reasonably foreseeable needs of the site plan.~~
5. The proposed site plan **will not** cause unreasonable soil erosion or a reduction in the land's capacity to hold water so that a dangerous or unhealthy condition results.
6. The proposed use and layout **will not** be of such a nature that it will make vehicular or pedestrian traffic no more hazardous than is normal for the area involved.
7. ~~The proposed site plan **will/will not** provide for adequate sewage waste disposal.~~
8. The proposed site plan **conforms** to a duly adopted site plan regulation or ordinance, comprehensive plan, development plan, or land use plan.
9. The developer **has** adequate financial capacity to meet the standards of this section.
10. The proposed site plan **will not** alone or in conjunction with existing activities, adversely affect the quality or quantity of ground water.
11. The proposed site plan **will** provide for adequate storm water management.
12. The proposed location and height of buildings or structure walls and fences, parking, loading and landscaping shall be such that it **will not** interfere or discourage the appropriate development in the use of land adjacent to the proposed site or unreasonable affect its value.
13. On-site landscaping **does** provide adequate protection to neighboring properties from detrimental features of the development that could be avoided by adequate landscaping.

### CONDITIONS OF APPROVAL

1. Approval is dependent upon, and limited to, the proposals and plans contained in the application dated October 5, 2020, as amended November 16, 2021, and supporting documents and oral representations submitted and affirmed by the applicant, and conditions, if any,

imposed by the Planning Board, and any variation from such plans, proposals and supporting documents and representations are subject to review and approval by the Planning Board or the Town Planner in accordance with Section 814.G. of the Land Use Ordinance.

2. Abandonment or Decommissioning

- a) Removal Requirements: At such time that the ground-mounted solar energy system described in this approval has reached the end of its useful life or has been abandoned consistent with the Abandonment description within this condition of approval, it shall be removed. The owner or operator shall physically remove the installation no more than 150 days after the date of discontinued operations. The owner or operator shall notify the Planning Board by certified mail of the proposed date of discontinued operations and plans for removal. Decommissioning shall consist of:
  - i. Physical removal of all solar energy systems, structures, equipment, security barriers and transmission lines from the site.
  - ii. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
  - iii. Stabilization or re-vegetation of the site as necessary to minimize erosion. The Site Plan Review Authority may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.
- b) Abandonment: Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, the large-scale groundmounted solar energy system shall be considered abandoned when it fails to operate for more than one year without the written consent of the Site Plan Review Authority. If the owner or operator of the solar energy system fails to remove the installation in accordance with the requirements of this section within 150 days of abandonment or the proposed date of decommissioning, the town retains the right, after the receipt of an appropriate court order, to enter and remove an abandoned, hazardous, or decommissioned large-scale ground-mounted solar energy system. As a condition of Site Plan approval, the applicant and landowner shall agree to allow entry to remove an abandoned or decommissioned installation.
- c) Surety: The applicant will provide financial assurance for the decommissioning costs in the form of a performance bond, surety bond, 'evergreen' letter of credit, or other means acceptable to the Town, for the total cost of decommissioning. The applicant will have the financial assurance mechanism in place prior to construction and will re-evaluate the decommissioning cost and financial assurance at the end of years, five, ten, and fifteen. Every five years after the start of construction, updated proof of acceptable financial assurance must be submitted to the Town for review.

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**CONDITIONAL USE REVIEW**

**FINDINGS OF FACT**

**Section 516.H.1. - Property Value**

- The current land use is an active gravel pit. When comparing the negative impacts to adjacent property from an active gravel pit to a utility scale solar project. The proposed project will have significantly less impact and will not depreciate the economic value of surrounding properties
- Staff recommends a performance guarantee in the amount of the cost of decommissioning the facility in the event the facility is ever abandoned and the Town would need to remove the equipment.

**Section 516.H.2 - Wildlife Habitat; Section 516.H.3 - Botanical Species:**

- The High Value Plant and Animal Habitats maps from Maine Department Inland Fisheries and Wildlife and Maine Natural Areas Program do not indicate any habitats of concern on or near the project site. In December of 2020, small isolated forested wetlands were identified outside the footprint of the gravel pit area. In addition, manmade wetlands were identified within the footprint of the existing active portion and reclaimed area of gravel pit. A DEP stream was also identified in December of 2020. Some of the wetlands identified contained potential vernal pool breeding habitat. During the spring of 2021 a vernal pool survey was conducted and determined none of the wetland areas are considered vernal pools.
- As proposed, all manmade wetlands will be filled to support the project. All forested wetlands outside of the gravel pit will remain, except for approximately 1,400 SF to support grading for solar panels and pit closure. The DEP stream will not be affected by the project and no construction activity will take place within 100 feet of the stream.
- Based on the information from studies and the project design the project will not damage any significant wildlife habitat, spawning grounds by the Maine Department of Inland Fisheries & Wildlife or rare or endangered botanical species identified by the Maine Department of Conservation or the Town of Windham Comprehensive Plan.

**Section 516.H.4. - Potable Water**

- The project will not require potable water.

**Section 516.H.5. - Sewage Disposal**

- The project will not require sewage disposal.

**Section 516.H.6. - Traffic**

- Routine visits to the site will be two times per year for maintain vegetation height.

**Section 516.H.7. - Public Safety**

- Access to the project will not change. Internal access is provided by a 12-foot-wide gravel access road. As proposed, the project will not overburden police, fire or rescue services.

**Section 516.H.8. - Vibration**

- The applicant should provide documentation if blasting is proposed to construct the proposed facility or if the use will produce recurrently generated vibrations.

**Section 516.H.9. - Noise**

- Transformer that will emit 63 dB while power is being generated. In addition, several inverters will be required for the project that will emit 56 dB during hours of sunlight.



Inverters will be mounted to solar panel racks as required. To meet the standards in Section 812.S of 55 dB during the day, an equipment set back of 30 feet from the property line was established.

**Section 516.H.10. - Off-Street Parking and Loading**

- The project is an unmanned site and off-street parking is not required to accommodate the project.

**Section 516.H.11. - Odors**

- The project will not emit any noxious or odorous matter.

**Section 516.H.12. - Air Pollution**

- The project will emit zero air emissions.

**Section 516.H.13. - Water Pollution**

- There will be no aquas discharge from the project site.

**Section 516.H.14. - Erosion and Sediment Control**

- Erosion and Sedimentation Control plan has been developed for the project meets the requirements of Maine Erosion and Sedimentation Control BMPs, in the DEP Chapter 500 Stormwater rules.

**Section 516.H.15. - Hazardous Material**

- There will be no discharge of hazardous material at or across the boundaries of the project.

**Section 516.H.16. - Zoning District and Performance Standards**

- Please refer to the following pages for description of how the project meets the Light-Density Residential Zone and Performance Standards.

**Section 516.H.17. - Solid Waste Management**

- Solid waste generation will occur only during project construction and decommissioning. During construction, solid waste will consist of packing materials used to ship solar arrays and equipment such as cardboard, wood pallets, plastic packing material and stumps from grubbing activities. Most of the solid waste from shipping will be recycled, the remainder will be disposed of at a licensed landfill. Stumps will be ground or chipped, used as erosion control mix on site during construction or retained by the landowner for other construction projects.

**CONCLUSIONS**

1. The proposed use **will not** depreciate the economic value of surrounding properties.
2. The proposed use **will not** damage significant wildlife habitat or spawning grounds identified by the Maine Department of Inland Fisheries and Wildlife or by the Town of Windham's Comprehensive Plan.
3. The proposed use **will not** damage rare or endangered botanical species as identified by the Maine Department of Conservation or by the Town of Windham's Comprehensive Plan.

4. The proposed use **has** access to potable water and **will not** burden either a groundwater aquifer or public water system.
5. The proposed use **has** adequate capacity to dispose of sewage waste.
6. The proposed use **has** adequate sight distance as established by current Maine DOT Highway Entrance and Driveway Rules.
7. The proposed use **will not** overburden police, fire and rescue services, as determined by response time, accessibility to the site of the proposed use, and numbers and types of emergency personnel and equipment presently serving the community.