Planning Board Meeting November 10, 2020 – 7:00 PM Town Hall



Meeting Materials

Planning Board Tuesday, November 10, 2020 7:00 PM – Town Hall

CALL TO ORDER

MINUTES October 27, 2020

COMMUNICATIONS

OLD BUSINESS

NEW BUSINESS

Formal Site Plan Review – Blue Wave Solar – Johnson Hill Road – Map 13 Lot 50

Formal Site Plan Review – Affordable Homes, Inc – Poland Corner Road – Map 11 Lot 5

ANY OTHER BUSINESS

ADJOURNMENT

POLAND PLANNING BOARD MINUTES OF MEETING October 27, 2020

Approved on _____, 2020

<u>CALL TO ORDER</u> – Chairperson Porter called the meeting to order at 7:00pm with Members Cheryl Skilling, Stephanie Floyd, Jimmy Walker, CEO Scott Neal, and Sarah Merrill present. Member George Greenwood is absent without notice.

<u>MINUTES</u> – <u>October 13, 2020</u> – Member Floyd moved to approve the minutes. Member Walker seconded the motion. Discussion: None Vote: 4-yes 0-no

COMMUNICATIONS – None

OLD BUSINESS - None

<u>NEW BUSINESS</u> – Formal Shoreland Zoning Application – Range Pond State Park, State of Maine, Dept. of Agriculture, Conservation and Forestry, Bureau of Parks and Lands – 26 State Park Road – Map 6 Lot 40A

Rob Prue of Pine Tree Engineering Inc and David Rodrigues from the Bureau of Parks and Lands presented the project to the Board. The project would relocate the control building/booth further away from Empire Road and add a second incoming lane with the new booth between the lanes. These changes will keep traffic from backing up onto Empire Road during busy times and allow for two people in the booth to be able to work safely.

Member Floyd moved to approve the checklist as complete. Member Walker seconded the motion. Discussion: None Vote: 4-yes 0-no

Member Floyd moved to approve the Formal Shoreland Zoning Application with the following conditions: the public hearing is waived, and the site walk is waived. Member Walker seconded the motion. Discussion: None Vote: 4-yes 0-no

Findings of Fact and Conclusions of Law for:

Minor Subdivision Application - Caleb Verrill - Wild Turkey Way

- Map 9 Lot 28 Sub-lots 2B and 3

Member Floyd moved to approve the Findings of Fact. Member Walker seconded the motion. Discussion: None Vote: 3-yes 0-no 1-abstained (Member Skilling abstained to avoid a conflict of interest).

ANY OTHER BUSINESS – None

POLAND PLANNING BOARD MINUTES OF MEETING October 27, 2020

Approved on _____, 2020

ADJOURN – Member Floyd moved to adjourn the meeting at 7:30 pm. Member Walker seconded the motion. Discussion: None Vote: 4-yes 0-no

Recorded by: Sarah Merrill

Planning Board

James Porter, Chairperson

Absent without Notice George Greenwood, Member

Stephane Floyd, Vice Chairperson

Cheryl Skilling, Member

James Walker, Member



BLUEWAVE

October 23, 2020

Scott Neal Code Enforcement Officer Town of Poland 1231 Maine Street Poland, ME 04274

Re: Poland Solar Project, Johnson Hill Road, Poland ME

Dear Scott,

We wanted to reach out and continue moving forward with the Poland Solar Project (Project) in collaboration with the Town of Poland. The Project team appreciates the information the Planning and Development Department has provided to date in conversations with myself and Chris Byers of our office. We are pleased to present these Formal Site Plan Review materials for your consideration.

BlueWave Solar (BlueWave) is proposing the development of the Poland Solar Project, a grid-scale solar energy generation facility to be owned and operated by its subsidiary, BWC Edwards Cove, LLC. Boyle Associates (Boyle) has been engaged as the lead consultant to support this Project. This letter is meant to serve as a primer, specifically for yourself and the Planning Board, to initiate Poland's Site Plan Review process and continue our interaction with the Town regarding this proposed Project.

The Project will be sited on the 145-acre parcel on Johnson Hill Road known as Tax Map 13, Lot 50. In recent years, this parcel has been harvested for timber. The entire Project, including all infrastructure such as solar arrays, equipment pads, access road, and interconnection equipment, will occupy a total of 19.6 acres (Site). Approximately 18.6 acres of tree clearing will be required to construct and operate the project. The total Project capacity is 3.5 megawatts (MW) and will interconnect to existing three-phase utility lines along Johnson Hill Road.

Boyle has supported BlueWave with environmental due diligence and the development of a proposed Site plan. We have performed a formal wetland and waterbody delineation, and the Project as proposed avoids impacts to protected natural resources.

Solar energy projects are very low impact in nature, and the solar arrays are not considered impervious surfaces by the Maine Department of Environmental Protection (MDEP). Additionally, the solar array panel racking system consists of steel piles driven or drilled into the ground to support the mounted panels and will not permanently impact or alter the land. When the useful life of the Project ends, it is decommissioned, and the Site is returned to a natural state. The Site would then be suitable for other uses and will not have any permanent impact or alteration from the Project.





The characteristics of the land, proximity to the existing transmission grid infrastructure, and the previously disturbed nature of the Site from timber harvesting make this location a suitable candidate for solar project development.

Thank you for your time and consideration. We will look forward to your feedback, and further discussions on the path forward.

Sincerely,

Dale F. Knapp, CSS, LSE, PWS, CEP Principal Boyle Associates, a subsidiary of CEA <u>dknapp@boyleassociates.net</u> 207-631-9134



Town of Poland, Maine Planning Board

Formal Site Plan Review

Instructions:

1. Read every part of this document. Failure to follow requirements can and will delay the Planning Board's decisions.
2. Fill out the forms on pages 1 through 6. Obtain or get copies of information as required by the application on these pages.
3. Use the "Submission Checklist" on pages 5 and 6 to make sure submission requirements are met.
a. The <u>checklist is a summary of the standard requirements in Section 509.8 of the Comprehensive Land Use Code</u> .
I. The actual Code wording may be found on-line at www.polandtownoffice.org. Go to the "Code Enforcement" page, select
"Comprenensive Land Use Code" at that bottom of the page. Harocopies are available for purchase at the town office.
b. Make sure all waiver requests have a written statement for each request. Check with the Code Enforcement Office to make sure items stated as "On File" are indeed in the town office.
stateu as On File ale indeed in the town once. Some requirements may need only a one paragraph or one contence statement. Make sure all requests are answered
A NUMBER OF CODIES OF THE ΔPPI ICATION ΔND DUE DATE
a A total of at least ten (10) copies of the plans and one PDE copy (on either cd or usb) are needed. Be sure to make a copy for yourself
b. The Code Enforcement Office must receive the original application, an additional 9 copies, and a digital PDE copy (either cd or usb) with
appropriate fees by 1:00 p.m. eleven (11) days before the stated meeting to be put on the upcoming agenda.
c. If review for missing information by the Code Enforcement Officer is desired, a copy must be submitted to the CEO at least 14 days prior to
the meeting.
d. The application must be on file for public review for at least 10 days prior to the meeting. Applications received after the Agenda is posted
may not be reviewed by the Board for your scheduled meeting date.
5. Check with this office to make sure that all departments have responded to your application prior to the meeting.
PROJECT NAME: Poland Solar Project
Date of Planning Board Review: / / Application #
ΟΤ ΙΝΕΩΡΜΔΤΙΩΝ:
$\frac{13}{100} = 13$
Tax Assessor's Map # Lor # Sub for #
Natershed: Inompson Lake
Property's Road Location: Johnson Hill Road, Poland, ME 04274
.ot Size: <u>145</u> or Sq. Ft. Road Frontage: <u>50 Ft.</u>
(ear lot created: est. 1899 (If unknown, give best estimate with "est." after date)
Zoning District(s): Farm and Forest Flood Zone: X Aquifer Overlay: none
Surrent use of lot: Recently timber harvested regenerating forestland
LAND OWNER(s):
Name(s) Milo S. Washer
Company
Mail Address: PO Box 221 Main Phone
Mail Address: PO Box 221 Main Phone
Mail Address: <u>PO Box 221</u> Main Phone
Mail Address: <u>PO Box 221</u> Main Phone Town/State/Zip Norway, ME 04268 Alternate Phone:

APPI Appli If Ian perm infor Name	LICANT or (cant is: idowner, wr hission to co mation: e(s): <u>BW(</u>	CONTACT PERSON: Landowner ite "Same" below and continue to onstruct on or use the land, or co Edwards Cove, LLC	Contractor \checkmark Renter $_$ E o next block below. If not the landowner, s py of a contract to buy from the landowner	Buyer submit a letter of r, along with the following
Com	pany <u>Blue</u>	Wave Solar		
Mail /	Address:	111 Huntington Ave., Suite 650	Main Phone:	
Towr	n/State/Zip	Boston, MA 02199	Alternate Phone:	
THIS C In In G O	APPLICAT commercial ndustrial nstitutional covernmenta open Space	I <mark>ON IS FOR:</mark> (Check all that a	New Development Change In Use Expansion of Use Expansion of Structure(s) Resumption of Use	
<u>EXIS</u> (This 1. <u>(</u>	TING LOT (page is to c General Does this lot	<u>CONDITIONS:</u> lescribe what is on your lot currently have any development? (If No, go t an existing Well	l) to "Proposed Development")	Yes
k	$\frac{1}{10000000000000000000000000000000000$	_No an existing Septic System		Yes
(i) <i>If y</i> c. Is there i) If ye	es, submit a copy of a septic permit, an existing Road Entry No es, will there be any changes/modifi	or drawing(s) showing size & location. cations?	Yes Yes
C	ii) (<i>If r</i> d. Any stru	No no, submit copy of appropriate road ctures to be removed No	entry application if entrance is onto a state or	town road.) Yes
2. <u>I</u>	I) If yo Existing Lai	es, submit information about the strund <u>ad Development & Improvements</u>	NOT Including Buildings	be alsposed of.
ł	or Acres o. Size of f or Acres	ields		Sq. Ft.
() () ()	c. Size of o d. Size of o e. Wetland	Iriveways/roads other non-vegetated areas s already filled		Sq. Ft. Sq. Ft. Sq. Ft.
3. <u>I</u> a b	Existing Ma a. Ground o. Total Gr c. Road Fr	<u>in Structure</u> Footprint oss Floor Space <i>(exterior dimensior</i> ontage Setback	ns of all floors)	Sq. Ft. Sq. Ft. Ft.

Д	d. e. f. g. h.	Side Setback Rear Setback Distance to Great Pond Distance to Stream Distance to Wetlands	Full Basement	Not applicable (over 250') Not applicable (over 250') Not applicable (over 250') Frost Walls	 Slab	Ft. Ft. Ft. Ft. Ft. Piers
ן. ב		sting Accessory Structure(c)				11015
э.		Total Number of Structures				
	а.					
	b.	Total Ground Footprint				<u> </u>
	С.	Total Floor Space				<u> </u>
	d.	Closest Road Setback				Ft.
	e.	Closest Side Setback				Ft.
	f.	Closest Rear Setback				Ft.
	a.	Distance to Great Pond		Not applicable (over 250')		Ft.
	ĥ	Distance to Streams		Not applicable (over 250')		Ft
	i.	Distance to Wetlands		Not applicable (over 250')		Ft.
6	Tot	al Existing Impervious Surfaces				Sa Ft
0.	<u>101</u>	Add 20 . 2d . 20 . Eb	<u>-</u>			
	d.	AUU 20 +2U + 3A + 5D				

PROPOSED DEVELOPMENT:

1.	Wetlands to be impacted	0	Sq. Ft.
2.	New footprint(s) and developed area(s):		
	a. Changes in building footprint(s)	575	Sq. Ft.
	b. Changes in driveway/roadway	19.038	Sq. Ft.
	c. Changes in patios, walkways, etc.	0	Sq. Ft.
	d. TOTAL (2a+2b+2c)	19,613	Sq. Ft.
З.	Percentage of lot covered by impervious surfaces:	0.31	%'
		11 (11 * 1000/)	

a. (Equals [areas on line 6 page 2 + line 2d above] / [Total lot area measured in sq. ft.] * 100%)

SUBMISSIONS:

Attach drawings and/or statements describing the following items, if applicable:

- a. Provide a copy of deed and Tax Assessor's information card.
- b. Provide a map of the general area showing land features within at least ½ mile of this lot.
- c. Provide site plan(s) of your lot with <u>existing</u> development and its dimensions shown.
- d. Provide site plan(s) of your lot with proposed development and its dimensions shown.
 - i. (May be combined on existing development drawing.)
- e. Provide detailed plans of proposed structural development and changes.
- f. Provide statements or drawings of methods of infrastructure:
 - i. Water supply
 - ii. Sewage disposal
 - iii. Fire protection
 - iv. Electricity
 - v. Solid waste disposal
- g. Type, size, and location of signs.
- h. Number of parking spaces.
- i. Provide phosphorus loading calculation if in a great pond watershed area.
- j. Anticipated date for start of construction.
- k. Anticipated date for completion of construction.
- I. Standard submissions requirements shall follow Section 509.8 of the Comprehensive Land Use Code. Copies of the Code are available for viewing at the Town Office and Library. Copies are available for purchase (\$25.00) in the Code Enforcement Office.
 - i. (Use checklist starting on page 6 for summary of usual requirements.)
- m. Other requirements unique to your project added by the Planning Board.

- 2. List all state and federal approvals, permits, and licenses required, if any, for the project: This includes but is not limited to the following:
 - 1. State highway entrance permit.
 - 2. Soil disturbances involving more than one acre.
 - 3. Impact on more than 4,300 square feet of any type wetland.
 - 4. Soil disturbances within 100 feet of lakes, rivers or streams.
 - 5. Activity within 75 feet, over the water, or in the water of lakes, rivers, or streams.
 - 6. Timber harvesting.
 - 7. Flood zones.
 - 8. Discharges and emissions

DISCLOSURE: (READ BEFORE SIGNING)

- I hereby acknowledge that I have read this application and pertinent sections of the ordinances, and state that the information in this document is to the best of my knowledge true and accurate. I agree to comply with all the Town of Poland's ordinances and the State of Maine's statutes regulating the activities sought in this application as well as any permit(s) approved for this application.
- 2. I understand that all construction of structures shall conform to or exceed the minimum requirements of the Maine Uniform Building and Energy Code, and the NFPA-101 Life Safety Code, 2009
- 3. I understand that any approval is valid for only the use(s) as specified in this application. The permitting authority must approve any change(s) made to the use(s) sought in the application. Any approval issued for this application is approved on the basis of truthful information provided by the applicant(s), and as allowed by the ordinances of the town.
- 4. I understand that it is my responsibility to assure that the lot description herein accurately describes its ownership, its boundary lines, and the setback measurements from the legal boundary lines.
- 5. I understand that I have the burden of proof as to the legal right to use the property, and that approval of this application in no way relieves me of this burden. Any approval issued does not constitute a resolution in favor of me or the landowner in any matters regarding the property boundaries, ownership, or similar titles.
- 6. I understand that all necessary **Building and Use Permits** shall be secured from the Code Enforcement Office after the Planning Board grants approval of this application.
- 7. I understand that a **Certificate of Occupancy or Compliance** shall be required prior to the start of any use or occupancy associated with this application unless a signed written waiver is issued with the permit. Fines and penalties may be issued if use or occupancy is started prior to the issuance of the certificate.
- 8. I understand that the **approval becomes invalid if** construction or use has not commenced within twelve (12) months of the Planning Board's approval date, construction is suspended for more than six (6) months and no notice for just cause is submitted prior to the end of the six (6) months, or it is found that false statements have been furnished in this application.
- 9. I understand that if I fail to comply with the aforementioned statements, a "STOP WORK" order may be issued for which I will immediately halt any construction and/or use(s) that are approved for this application. This failure may also require that I return the property to its natural state or as closely thereto before the use(s) was/were approved.
- 10. I understand that failure to follow these requirements will lead to Violation Notices and Citations that have fines and penalties. This in turn can lead to civil proceedings in District and/or Superior Court.
- 11. I understand that **all state and federal permits** are my responsibility as the applicant and/or owner and will secure the same prior to the start of the project.



10/23/2020

Applicant's Signature(s)

Date

Submission CHECKLIST

The <u>following list is a short summary</u> of the information required in Chapter 509.8 of the Comprehensive Land Use Code for the Town of Poland, Maine. Please checkmark or place an "X" in the left-hand columns if the information has been provided, if you request a waiver from submitting the information, or you believe the information is not applicable to your application. If a waiver(s) is requested, or the information is not applicable, a written explanation is required. Columns on the right are for the Planning Board's use.

For Applicant Use		Jse		For Planning Board Use		d Use	
Provided	Waiver Request	Not Applicable	Section 509.8.A Submission requirements	Received	On File	Waived	Not Applicable
$\overline{\mathbf{V}}$			1. Site Plan Drawings				
			2. Signed copy of application				
V			3.a. Name & address of owner				
			Name of development				
- V			Name & address of abutters within 500' of lot for development				
-V			Map of general location				
			Show all contiguous properties				
			Names, Map, & lot #'s on drawings				
- Ž			Copy of deeds, agreements				
			Engineer/ designer of plans				
V			Existing Conditions (Site Plan)				
- Ž			Zoning Districts on and/or abutting project's lot shown				
			Bearings & Distances shown on drawings				
- Ž			Location of utilities, culverts, drains				
V			Location, name of existing r/w				
- V			Location, dimensions of existing structures				
- Ž			Location, dimensions of existing roads, walks, parking, loading, etc.				
- V			Location of intersection within 200'				
			Location of open drains, wetlands, wildlife areas, historic sites, etc.				
V			Direction of surface drainage				
- V			100-yr. Floodplain				
			Signs				
			Easement, covenants, restrictions				
		Ť	Proposed Development (Site Plan)				
\checkmark			Location & dimensions of all new structures. New development delineated from existing development				
			Setback dimensions shown & met				
			Exterior lighting (Will meet full cutoff requirements)				
			Incineration devices				
$\overline{\mathbf{V}}$			Noise of machinery and operations				
			Type of odors generated				
Ž			Septic system and other soils reports				
V			Water supply				
			Raw & finished materials stored outside				
Ŭ Ž			Contours shown at PB specified intervals				
Ū V			Curbs, sidewalks, drives, fences, retaining walls, parking, etc.			1	
Ū.			Landscaping plan				
			Easements, r/w, legal restrictions				
		×	Abutters' property lines, names				
			TRAFFIC DATA				

For Applicant Use		Jse		For Planning Board Use		d Use	
Provided	Waiver	Not	Section 509.8.A Submission requirements	Received	On	Waived	Not
	Request	Applicable			File		Applicable
			Peak hour traffic				
			Traffic counts				
		$\overline{}$	Traffic accident data				
		$\overline{\mathbf{V}}$	Road capacities				
		$\overline{\mathbf{V}}$	Traffic signs, signals				
$\overline{}$		7	STORMWATER & EROSION				
			Method for handling stormwater shown				
			Flow direction				
			Catch basins, dry wells, ditches, etc.				
			Engineering Analysis of stormwater				
		,	Erosion control measures				
•			Hydrologist groundwater impact				
			Utility plans for all utilities				
		Ľ.	Cross-section profile of roads, walks				
		Ľ.	Construction drawings of roads, utilities				
		•	Cost analysis of project and financial capability demonstrated				
			Phosphorus control plan if in watershed of a great pond				
			Submission of waiver requests				
			Copies of state, federal applications, permits, &/or licenses required for this project.				
			Condition A.				
			Condition B.				
			Condition C.				
			Condition D.				
			Condition E.				

This application was first looked at by the Planning Board on <u>//</u> but does not create v of the review process.	ested rights in the initiation
By vote of the Board this application requires an on-site inspection:Yes If yes, an onsite inspection is scheduled for/ /at	No AMPM
By vote of the Board this application requires a public hearing: Yes If yes, public hearing is scheduled for / / at :	No AMPM
Conditions of Approval for Formal Site Review:	
Planning Board Chair	 Date

Site Review and Shoreland Zoning Review Fees:

Type of fee	Fee	Units or Comments
Application – sketch plans, Rough design	\$75.00	Each application (no other fees)
Application – formal	\$150.00	Each application + fees below
Notification of Abutters	\$0.75 per	All abutters within 500 ft. of the property must be notified.
Approval extension, Planning Board Approval only	\$50.00	One extension only (no other fees)
Escrow, minimum amount	\$700.00	When required by Planning Board
Extension of approval	\$100.00	Before approval expires
Auto graveyards, recycle business	\$5.00	Per vehicle storage slot (parking space)
Junkyard, Storage Lots	\$1.50	Per ft of outside storage
Residential Towers	\$20.00 + \$5.00	Based on Cost of Work
	per \$1,000.00	
Commercial Towers	\$20.00 + \$10.00	Based on Cost of Work
	per \$1,000.00	
Notifications	\$.75	Each Notification, First Class Mail sent by Town

1. B<u>uilding and Structures</u> may include up to five times the footprint area of the building for grounds improvements, exclusive of the building footprint, as part of the building review fee.

2. <u>Building and Grounds Improvement Fees</u>. The sum of these two fees may be limited to \$2,500.00 per application at the discretion of the Planning Board. (Junkyards, auto graveyards, recycling business, and towers excluded.

3. <u>Reduced Fees</u>: The Planning Board may, upon application therefore, allow a reduced total site review fees to \$50.00 in any case which it determines that the work for which the permit is sought will be performed within the Shoreland Zone. The project shall be intended solely for the purpose of protecting a Great Pond, Stream, River, or other Natural Resources through the implementation of Conservation, Best Management Practices, or other environmental safeguards. Also, the project shall not result in the enlargement of any building or structure or an intensification of the existing use of the property.

4. <u>Review Escrow Funds</u> may be used by the Town to pay for professional reviews an advice requested by the Planning Board or Code Enforcement Officer related to the applicant's proposed development. Review escrow funds deposited by the applicant not spent during the course of the Town's review shall be returned to the developer within sixty days after the Planning Board's decision on the application is final. If Professional review and advice fees exceed the amount deposited, the developer shall pay the amount outstanding before final approval or any permit is granted.

Town of Poland, Maine PLANNING BOARD AGENDA REQUEST

Date of meeting you are requesting to be scheduled for: ///M conducted from 7:00 to 10:00 PM in the Municipal Conference Room at the Town Office Map Lot Sub-lot	eetings are normally
Applicant's Name: Mailing Address: Town, State, Zip:	
Home Phone: Hours: Work Phone: Hours:	
Type of application:Sketch PlanSite ReviewShoreland Road location for project:	SubdivisionInformational
Zoning:Lake Watershed:	Nature of
business to be discussed (Brief description):	
IMPORTANT - READ CAREFULLY:	
This Office must receive the original application, plus nine (9) copies, a digital PDF configuration fees by Friday at 1:00 p.m., eleven (11) days before the stated meeting to be put on t	py (on either cd or usb), and appropriate he upcoming agenda.
 New business is scheduled on the agenda in the order this office receives this form. If you want your application reviewed for contents prior to the meeting, it must be in meeting. 	this office 14 days before the
 Should the Board choose to adjourn before all business is addressed, all remaining the next available meeting. 	business will be tabled until
Unfinished business is conducted before new business is addressed.	

Applicant's Signature:	Date:/ /	
OFFICE USE ONLY:		

Request Taken By:	Date:		Time:	:	<u>a.m.</u>	p.m.
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Contents

- Appendix A Site Plan
- Appendix B Narrative of Compliance
- Appendix C Stormwater and Erosion
- Appendix D Cost Analysis & Financial Capability
- Appendix E Financial Capability Letter
- Appendix F Aerial and Topographic Maps
- Appendix G Zoning Map
- Appendix H FEMA 100-Year Flood Map
- Appendix I Erosion Control Map
- Appendix J Topographic Flow Direction Map
- **Appendix K** List of Property Abutters
- **Appendix L** Title, Right, or Interest
- Appendix M Property Deed
- Appendix N Tax Assessor's Card
- Appendix O NRCS Soil Resource Report
- Appendix P Preliminary Construction Schedule
- Appendix Q Agent Authorization
- **Appendix R** MDEP Stormwater Permit by Rule Application

APPENDIX A: SITE PLAN



BLUEWAVE

MAPPING SOURCE DATA USED FOR PLAN COMPILATION

0'	100'	200'	300'
0"	1 "	2"	
STAND	ARD GRAPHIC	: SCALE (1"	= 100')
VALID W	HEN PLOTTED	ON 24" BY 30	6" MEDIA

SOLAR ARRAY DESIGN INFORMATION: DATE

Checked by: IAJ Scale: 1" = 100

APPENDIX B: NARRATIVE OF COMPLIANCE

NARRATIVE OF COMPLIANCE

Project Summary and Objectives

BlueWave Solar (BlueWave) is proposing the construction and operation of the Poland Solar Project (Project), a ground-mount solar array located off Johnson Hill Road in Poland, Maine. The Project will be sited on a 19.6-acre portion of the parcel known as Tax Map 13, Lot 50 (Site). This area will include all Project infrastructure such as solar arrays, equipment pads, access roads, and interconnection equipment.

During operation, the proposed Project will not require municipal utility services such as public water, sewage, stormwater, or solid waste disposal.

Preserve & Enhance the Landscape

The proposed Project will preserve the landscape to the maximum extent practicable. The Project will require approximately 18.6-acres of tree clearing; however, once the construction is complete, the Site will be seeded with a native conservation mix to promote the establishment of meadow conditions throughout the solar array. In order conform with the rural character of the surrounding area, a 7-foot tall agricultural-style fence will surround the Project to protect the solar panels and electrical equipment.

Solar arrays will not require ballasted foundations and will instead rely on ground screws or pile-driven posts to mount solar panel racking. This installation method minimizes native soil disturbance which in turn lowers any potential risk for erosion and sedimentation during or after construction. When the Project is decommissioned, these pilings can be removed, and the land would remain suitable for agricultural or other uses. Additionally, no permanent parking areas or traffic impact will be associated with the operation of the Project. No lighting will be constructed as part of the Project

Drainage / Stormwater

The proposed Project will not alter surface water drainage in a way that will adversely affect neighboring properties. Due to the low impact nature of the infrastructure, the Maine Department of Environmental Protection (MDEP) does not consider solar panels to be an impervious surface. Because the solar racking is raised off the ground at least 36 inches, continuous meadow conditions throughout the Project array will provide stormwater treatment. Meadow conditions will allow for sufficient stormwater infiltration and the stormwater handling capacity of the Site will not be significantly alter as a result of Project construction. To meet the stormwater treatment requirements, the Site will not be mowed more than twice per year.

Water Supply

The proposed Project does not have any operational water demand. No water source will be needed on Site.

Soil Erosion

The proposed Project will be constructed in a manner to prevent soil erosion and will not significantly impact the stormwater capacity of the Site. As currently designed, the Project will avoid impacts to jurisdictional natural resources, and all development will be confined to non-jurisdictional upland areas. The Natural Resources Conservation Service (NRCS) soil map is provided in **Appendix O**.

To avoid the risk of sediment detachment and transportation, Project construction will incorporate erosion and sedimentation control Best Management Practices (BMPs). For example, site preparation will occur incrementally in 5-acre blocks, waiting until an entire block has been stabilized before beginning construction work in the subsequent block. See below for BMPs the Project will implement:

List of Best Management Practices:

- Meadow conditions present under solar array will be mowed no more than twice per year
- A conservation seed mix will be used to stabilize and revegetate the Site
- Site preparation will be completed incrementally in 5-acre blocks and stabilized prior to the opening of subsequent blocks
- Silt fence will be properly installed around the Project perimeter during the entire construction phase
- Hay bales will be available on Site at an appropriate volume to address stabilization.
- An Environmental Inspector will be employed to oversee the installation and condition of all erosion and sedimentation control BMPs employed at the Site both prior to and during construction
- The use of pile-driven foundations will allow the racking to follow the existing contours of the Site and will minimize the need for regrading and soil disturbance

Wastewater

The Project does not require wastewater disposal, as no wastewater will be produced during construction or long-term operation. During Project construction, temporary toilet facilities will be provided for personnel use. Transportation and maintenance of these facilities will be provided by a Maine–licensed wastewater service provider. Any wash water produced during Project construction will be released on concrete pads, gravel surfaces, or in previously disturbed upland areas.

Sewage Waste Disposal

The proposed Project will not produce any sewage and does not include a subsurface waste disposal system.

Solid Waste

Solid waste generated from the Project will primarily derive from tree clearing, construction, and the installation of the solar equipment. Following construction, generation of operational solid waste is not expected. After tree clearing, all remaining stumps will either be left in place or ground onsite and used

to make erosion control mulch. All woody debris that is not able to be chipped onsite will be hauled offsite and disposed of at a nearby transfer station. Solid waste generated during clearing and construction of the Project will be hauled by a Category A, state-licensed transporter and disposed of at a local waste management facility offsite.

Fire Protection

A Knox box will be installed at the entrance gate, and the applicant will coordinate with the Poland Fire Department for the correct key control and Knox box product type required. The 20-foot-wide access road that will be constructed through the center of the Site, running north to south, will allow for emergency vehicle access throughout. See **Appendix A: Site Plan**, for proposed location of the Knox box and access road.

Electricity

The proposed Project will include interconnection infrastructure (overhead lines on utility poles) that will connect to the existing 3-phase utility line along Johnson Hill Road. See **Appendix A: Site Plan** for more detail on the design.

Title, Right, or Interest

On December 12, 2019, a subsidiary of BlueWave Solar, BWC Edwards Cove, LLC, executed an Option Agreement with the landowner, Milo S. Washer, for development of a solar facility at the Site. The Option Agreement is included as **Appendix L**.

Existing Easements, Covenants, & Restrictions on the Property

Project parcels do not have any existing easements, covenants, or restrictions. No new easements are needed for this Project.

Project Approximate Start & End Dates

Construction is anticipated to begin in Spring 2021 and will be complete in Fall 2022. A preliminary construction schedule is included as **Appendix P.**

Vehicular Access and Traffic

The Project entrance and access will be off Johnson Hill Road. During the operation of the project, vehicle access will be minimal. The site may be visited by a technician approximately four times per year to monitor the Site and perform routine maintenance. In the event of a monitoring system alert, a technician may be sent to the Site to ensure the equipment is operating correctly. Mowing will take place no more than twice per year. The Project will not significantly increase traffic volume at either of the road turnouts or along Johnson Hill Road. No improvements, signs, signals, or markers are necessary for traffic safety during construction or operation of this Project.

Noise

The electrical transformers utilized for this Project produces low levels of noise during operations. Typical sound levels are approximately 63 dBA measured at 10 meters from the equipment. To minimize noise impact on the area, this equipment will be located in the center of the Site, approximately 265 feet away from abutting parcel boundaries.

Odors

The clearing and construction phases of the Project may result in limited and short-term odors produced by equipment emissions. Any odors produced during this phase would not extend beyond the Site. Longterm operation of the solar energy generation facility and all associated electrical equipment will not produce any odors, precluding any need for odor control or elimination.

Waiver Requests

A waiver is requested for the phosphorus control plan required by the Formal Site Plan Review application (see page 6 of the Application Form). In the place of the phosphorus control plan, a Stormwater Permit by Rule was filed with the MDEP on October 23, 2020. See **Appendix R** for a full copy of the application.

APPENDIX C: STORMWATER AND EROSION

1

STORMWATER & EROSION

The Poland Solar Project (Project) is located on a 19.6-acre portion of the parcel known as Tax Map 13, Lot 50 off Johnson Hill Road in Poland, Maine (Site). The Site includes predominantly upland forest that is regenerating after a recent timber harvest. The Site will include approximately 0.45 acres of total impervious area (i.e., access roads, equipment pads, racking posts, and fence posts). In accordance with 38 MRSA § 420-D, a Stormwater Permit By Rule (PBR) application was submitted to the Maine Department of Environmental Protection on October 23, 2020. The Stormwater PBR application is included as Appendix R.

Vegetated meadow conditions will be implemented within the solar array areas to provide treatment of stormwater produced by the panel posts and racks as well as the equipment pads. Slopes within the solar array areas are generally less than 15%. Solar array meadow conditions will not be mowed more than twice per year and will remain vegetated.

Roadside vegetated buffers will also be implemented for the treatment of the proposed gravel access roads and will comply with design guidelines presented in the Maine Stormwater Best Management Practices Manual (BMP Manual), Volume III, Chapter 5 – Vegetated Buffers, Section 5.3 – Buffer Adjacent to the Downhill Side of a Road (i.e. Roadside Buffer). Access roads will be designed to include runoff conveyance ditches that will protect road surfaces and will transport stormwater to established meadow buffers for treatment.

The total non-linear impervious area of the proposed Project consists of 25 square feet for racking posts, 30 square feet for fence posts, and 520 square feet for equipment pads. Linear components of the Project consist of the proposed 20-foot wide gravel access roads. Approximately 1,680 linear feet of gravel access roads will be either constructed or improved, resulting in 19,038 square feet of total proposed linear impervious area.

APPENDIX D: COST ANALYSIS & FINANCIAL CAPABILITY

COST ANALYSIS & FINANCIAL CAPABILITY

The Poland Solar Project (Project) aims to provide approximately 3.5 megawatts (MW) of renewable power to the local electrical grid that contributes to Maine's renewable energy production goals and delivers benefits to local energy consumers.

Project Costs by Category

Category	Total
System Size	3.5 MW AC
Modules	\$1,800,000
Racking	\$700,000
Inverters	\$450,000
BOS	\$2,250,000
Electrical/Civil Labor	\$1,200,000
Interconnection	\$300,000
Development	\$300,000
Total	\$7,000,000

Company Background

Founded in 2010, BlueWave Solar (BlueWave) was formed with the vision of protecting the planet by transforming access to renewable energy. For the next several years, BlueWave worked with regulators to bring community solar into the marketplace and started signing up customers for savings. In 2017, BlueWave achieved B Corp Certification, a reflection of the commitment to protecting the places where they do business and the people who call them home. Recently, BlueWave began financing home residential solar installations and has introduced options for commercial and industrial property owners to lease their rooftops as community solar sites. Having developed dozens of solar projects in Massachusetts and Rhode Island over the past decade, BlueWave now looks to develop several projects in Maine's burgeoning solar market.

Management Team

John DeVillars, Co-Founder / Chairman

John DeVillars is a clean energy and environmental professional with substantial leadership experience in both the public and private sectors. Mr. DeVillars' public service career includes service as Secretary of the Environment for the Commonwealth of Massachusetts, Chair of the Massachusetts Water Resources

Authority, and Chief of Operations for Governor Michael Dukakis. In 1993 he was appointed New England Administrator of the United States Environmental Protection Agency by President Bill Clinton, a post he served in until 2000. He has received numerous awards for his environmental service, including the President's Award of the Nature Conservancy, given annually for national leadership in environmental affairs.

His private sector career includes founding and leading the Environmental Management practice for the national accounting firm Coopers and Lybrand (PWC); serving as Executive Vice President of Brownfields Recovery Corporation, a brownfields real estate investment and development company with assets in Massachusetts and the U.S. Virgin Islands; and as Lecturer on Environmental Leadership at the Massachusetts Institute of Technology.

Mr. DeVillars serves on numerous public and private company and non-profit boards including as a member of the Executive Committee of the New England Clean Energy Council; Chair of the Advisory Board of the Acadia Center, a leading research and advocacy group on the forefront of efforts to combat global climate change; Chairman's Council of the Trustees of Reservations; and Director of the Massachusetts Environmental Trust. In 2012 he was appointed by the United States EPA Administrator to serve on the agency's National Advisory Council on Environmental Policy and Technology. For the 2016-2017 academic year, in addition to exercising his responsibilities on behalf of BlueWave, Mr. DeVillars served as a Senior Fellow at Harvard University's Mossavar-Rahmani Center for Business and Government. As a senior fellow at the Center, he focused on the role of public utilities in meeting the climate change challenge.

Mr. DeVillars earned his MPA degree from Harvard University and his BA from the University of Pennsylvania.

Eric Graber-Lopez, Co-Founder / President

Eric Graber-Lopez is deeply involved in all aspects of BlueWave's development activities with leadership responsibilities for project financing. He and Mr. DeVillars joined forces to launch BlueWave's solar development activities.

Prior to joining BlueWave, Mr. Graber-Lopez served as Vice President and Senior Equity Analyst on the Specialty Equity Growth Team at Putnam Investments, where he helped manage \$8 billion in U.S. midand large-cap growth equity portfolios. At Putnam, he focused on the energy, alternative energy, materials, and utilities sectors and was responsible for his team's investments in those sectors in both public and private markets. Mr. Graber-Lopez started as a Senior Equity Analyst within Putnam's Global Equity Research Group and was a member of the Natural Resources and Utilities fund teams. During his years on the sell-side, Mr. Graber-Lopez focused on the Energy and Utilities industries and was ranked by several leading industry surveys as being among the top analysts in his field. Mr. Graber-Lopez has extensive experience in firm valuation, mergers and acquisitions advisory services, private equity transactions, and portfolio management.

Trevor Hardy, Co-Founder / CEO

As Chief Executive Officer of BlueWave, Trevor leads all aspects of the company's finance, operations, and expansion activity. Trevor joined BlueWave as a founding executive in early 2012 and helped grow the company into one of the most respected solar developers and community solar service providers in New

England. During his tenure at BlueWave, Trevor has played an integral role in driving growth and expansion to a national platform focused on community solar customer management and client services.

Prior to joining BlueWave, Trevor was a Senior Director of Acquisitions and Development at Tishman Speyer, one of the largest and most respected real estate companies in the world. As a real estate private equity professional, he gained extensive expertise in acquisitions, development, financing and asset management. He was also the Regional Finance Director of the Boston region and was intimately involved in all aspects of Tishman Speyer's regional business.

Born in South Africa, Trevor was a Skye Foundation Fellow and also awarded a Fulbright scholarship to study at MIT, where he completed MS degrees in both Design Technology and Real Estate Development. He also holds a Bachelor of Building Arts and a Bachelor of Architecture from the Nelson Mandela Metropolitan University.

Financial Capability

Bluewave, through its backing from MMA Energy Capital (MMA), has all the capital necessary to develop, construct and operate the Project. Ultimately, construction financing may be employed, which will be determined by Management as start of construction approaches based on then-current market conditions, construction timelines and other considerations. In addition to the strong balance sheet provided by MMA, BlueWave's management team has extensive experience financing large–scale, complex energy and infrastructure projects. BlueWave is willing to provide evidence that final construction financing is in place, whether from its parent at MMA, or through other construction financing, prior to commencement of construction. Please see Appendix E, for a letter from MMA executives describing their partnership with, and financial commitments to BlueWave and its project pipeline, including the \$7 M Poland Solar Project.

APPENDIX E: FINANCIAL CAPABILITY LETTER



October 20, 2020

To Whom it May Concern:

This letter serves as documentation that MMA Energy Capital (a business name of Hunt Investment Management, LLC) has closed several loans with BWC Holdings, LLC or its subsidiaries ("BlueWave"), including construction financing, development financing and mezzanine financing totaling \$155,000,000. We most recently closed an \$18.5M, 36-month development facility. The permitted uses under the loan allows BlueWave to utilize the facility as its main source of capital for the development of their current and future solar project pipeline which would include permitting and interconnection costs for its Maine portfolio. The current available capacity under the facility is approximately \$6.5M.

Sincerely,

Megan T. Sophocles

Megan Sophocles Senior Vice President

APPENDIX F: AERIAL AND TOPOGRAPHIC MAPS







PROJECT NUMBER: 681

OCTOBER 19, 2020



APPENDIX G: ZONING MAP



APPENDIX H: FEMA 100-YEAR FLOOD MAP








APPENDIX I: EROSION CONTROL MAP







APPENDIX J: TOPOGRAPHIC FLOW DIRECTION MAP





Approximate Flow Direction



SCALE: 450 1 inch = 450 feet

TOPOGRAPHICAL DATA MAP POLAND SOLAR PROJECT: POLAND, MAINE

PROJECT NUMBER: 681

OCTOBER 19, 2020

___Feet 900

APPENDIX K: LIST OF PROPERTY ABUTTERS





POLAND SOLAR PROJECT

List of Abutters

PARCEL NUMBER	PROPERTY	OWNER NAME	OWNER	OWNER	OWNER STATE &
	ADDRESS		ADDRESS	CITY/TOWN	ZIP CODE
	OFF KNOLL RD				
0013-0030A POLAND, ME 04274		M. S. HANCOCK INC.	PO BOX 299	CASCO	ME 04015
	JOHNSON HILL RD				
0013-0054	POLAND, ME 04274	EUNICE LONG	2 LORD RD	CASCO	ME 04015
	514 JOHNSON HILL				
0013 0052			514 JOHNSON HILL		ME 04274
0013-0052		GARCIA		FOLAND	
	RD		502 JOHNSON HILL		ME 04274
0013-0052B	POLAND, ME 04274	EUGENE N. PILOTE	RD	POLAND	WE 04274
	511 JOHNSON HILL				
	RD				
0013-0053	POLAND, ME 04274	GRACEFUL FARM	1115 INTERVALE RD	NEW GLOUCESTER	ME 04260
	488 JOHNSON HILL				
0012 0051				CA8CO	ME 04015
0013-0031			2 LORD RD	CASCO	
	RD	ROBERT A	481 JOHNSON HILL		ME 04274
0013-0053A	POLAND, ME 04274	CROMWELL	RD	POLAND	WE 04274
	JOHNSON HILL RD	HEALTHCARE			
0013-0053B	POLAND, ME 04274	MANAGEMENT	1115 INTERVALE RD	NEW GLOUCESTER	ME 04260
	JOHNSON HILL RD	ROBERT L.			
0013-0049	POLAND, ME 04274	BERGERON	161 FAIRWAY DR	AUBURN	ME 04210
	463 JOHNSON HILL				
0040 00400	RD	TRAVIS J.	463 JOHNSON HILL		ME 04274
0013-0049A	POLAND, ME 04274	BACHELDER	RD	POLAND	
					ME 04074
0013-0048A	POLAND ME 04274	GLEN PICARD	RD	POLAND	ME 04274
	458 JOHNSON HILL				
	RD	DANIEL J.	458 JOHNSON HILL		MF 04274
0013-0048	POLAND, ME 04274	DESJARDINS	RD	POLAND	•
	454 JOHNSON HILL				
0010 0017			454 JOHNSON HILL		ME 04274
0013-0047	POLAND, ME 04274	BUELL LIVING TRUST	I KD	POLAND	



0013-0045C	445 JOHNSON HILL RD POLAND, ME 04274	DAVID HODGKISS	445 JOHNSON HILL RD	POLAND	ME 04274
0013-0044A	444 JOHNSON HILL RD POLAND, ME 04274	DONALD R. CARRIER	444 JOHNSON HILL RD	POLAND	ME 04274
0013-0044	30 DEER RUN LN 0013-0044 POLAND, ME 04274		30 DEER RUN LN	POLAND	ME 04274
0013-0044B	JOHNSON HILL RD POLAND, ME 04274	PHILIP B. & KATHLEEN M. FEINSOT	139 DICKINSON DR	WHEATON	IL 60187
0013-0043C	328 JOHNSON HILL RD POLAND, ME 04274	ROBERT M. MARCOTTE	328 JOHNSON HILL RD	POLAND	ME 04274
0013-0043F	314 JOHNSON HILL RD POLAND, ME 04274	ROGER M. LANDRY	314 JOHNSON HILL RD	POLAND	ME 04274
0013-0043B	298 JOHNSON HILL RD POLAND, ME 04274	ROBERT P. MARTEL	91 SUNSET COVE LN	POLAND	ME 04274
0013-0043A	276 JOHNSON HILL RD POLAND, ME 04274	KYLE BURRELL	276 JOHNSON HILL RD	POLAND	ME 04274
0013-0040	186 JOHNSON HILL RD POLAND, ME 04274	JULIE Y. NYE	186 JOHNSON HILL RD	POLAND	ME 04274
0013-0028	JOHNSON HILL RD POLAND, ME 04274	DAVID M. MACMAHON	95 BUNTING LN	POLAND	ME 04274
0013-0029	108 JOHNSON HILL RD POLAND, ME 04274	DONALD J. FERRY	108 JOHNSON HILL RD	POLAND	ME 04274
0013-0030	76 JOHNSON HILL RD POLAND, ME 04274	DONALD FORTIN	76 JOHNSON HILL RD	POLAND	ME 04274

APPENDIX L: TITLE, RIGHT, OR INTEREST

OPTION AGREEMENT

THIS OPTION AGREEMENT ("Option") is entered into as of the last date set forth below (the "Effective Date") by **Milo S Washer, an Individual**, of **PO Box 221**, **Norway, ME 04268** hereinafter referred to as the "Owner," and **BWC Edwards Cove, LLC**, a Delaware limited liability company with offices at 111 Huntington Ave, Suite 650, Boston, MA 02199, hereinafter referred to as "BlueWave." Owner and BlueWave are at times collectively referred to hereinafter as the "Parties" or individually as the "Party".

WITNESSETH:

WHEREAS, Owner is the owner of certain real estate located on Johnson Hill Road, Poland, Maine, 04274, referred to on the Poland Assessor's Database as 0013-0050, and being further described in Book 9715, Page 146 in the Androscoggin County County Registry of Deeds, comprising a total of approximately 144.0 acres of land and improvements (the "Property" as shown in Exhibit A); and

WHEREAS, BlueWave is investigating the development of a portion of the Property comprised of approximately **20.6** acres of land and improvements (the "Project Site") for electricity generation (the "Project"); and

WHEREAS, BlueWave desires to obtain from the Owner an option to lease the Project Site, the location and size as generally depicted on Exhibit B; and

WHEREAS, the parties wish to reduce the terms and conditions of their agreement to writing.

NOW THEREFORE, in consideration of the promises set forth herein and other good and valuable consideration and the mutual benefits accruing to each party, the receipt and value of which is hereby acknowledged, the parties hereby covenant and agree as follows:

Owner hereby grants to BlueWave for a three hundred sixty-five (365) day period ("First Option Period"), in connection with the Project and subject to the terms and conditions

contained herein, the exclusive right to explore the development of any portion of the Property for electricity generation and to lease the Project Site, for the purpose of installation, maintenance and operation of a solar energy electric generating facility ("Facility") comprised of solar panels, utility wires, poles, cables, conduits and pipes, and related ground mounted equipment subject to terms and conditions of a Land Lease Agreement, the terms and conditions of which shall include, but shall not be limited to, the matters set forth in Paragraph 10 below.

 Prior to the expiration of the First Option Period BlueWave may extend the Option for an additional three hundred sixty-five (365) days (the "Second Option Period") upon written notice to Owner and payment by BlueWave of an additional, nonrefundable deposit of

expiration of the Second Option Period BlueWave may extend the Option for an additional three hundred sixty-five (365) days (the "Third Option Period") upon written notice to Owner and payment by BlueWave of an additional, nonrefundable deposit of

("Third Option Deposit"). Together, the First Option Deposit, Second Option Deposit, and Third Option Deposit are referred to herein as "Deposits". Together, the First Option Period, Second Option Period, and Third Option Period are called "Option Periods". Blue Wave shall have the right to terminate the Option, as to all or any part of the Property, at any time and for any reason, with immediate effect during the Second, and Third Option Periods.

3. The Option may be further extended beyond the Option Periods by mutual agreement in writing. Should BlueWave fail to exercise the Option during the Option Periods or any extension thereof, except for matters that specifically survive, all rights and privileges granted hereunder shall be deemed completely surrendered, this Option terminated, and no additional money shall be payable by either Party to the other. The Deposits shall be deemed refundable at any point during the Option Periods in the event that BlueWave relies on a specific representation by Owner that is negligently or deliberately misleading.

- 4. If applicable, during the Option Period(s), Owner, at BlueWave's sole expense, agrees to undertake the necessary steps for the release of the Premises from the provisions of 36 M.R.S.A. § 571-584-A (Tree Growth) or 36 M.R.S.A. § 1101-1121 (Farm and Open Space), including service of the request to the Town of **Poland** of the withdrawal the Premises from Tree Growth or Farm and Open Space classifications as provided for in §§ 581 or 1110. BlueWave shall be responsible to pay for all withdraw penalties and any other fees and taxes assessed to effectuate the release of the Premises from the provisions of §§ 571-584-A, or 1101-1121. If the Premises is burdened by restrictive covenants or easement in the name of a third party, Owner, at BlueWave's sole expense, agrees to undertake the necessary steps for the release of the Premises from the restrictive covenants or easement.
- 5. During the Option Period(s) and subject to the terms of the Option, BlueWave has the right to make all necessary governmental and utility company filings, survey, identify and flag wetlands, undertake geotechnical and environmental studies and investigations, and design the Facility at the Project Site. BlueWave agrees to keep Owner reasonably informed of all material events and activities associated with BlueWave's efforts. including the efforts necessary to secure all permits, negotiate agreements with third parties to purchase the output of the generating facility, file an interconnection application, survey, design, undertake subsurface geotechnical and environmental testing, financing activities and otherwise to advance the approvals necessary to proceed with the development, all at no monetary cost to Owner ("Due Diligence"). Owner shall provide BlueWave or its agents with information about the Property and in all other ways cooperate to the extent commercially reasonable in BlueWave's Due Diligence activities at no monetary cost to Owner, including the provision of access to the Property to BlueWave or its agents with twenty-four (24) hour advance notice. BlueWave agrees not to submit any applications or plans to any authority having jurisdiction over land-use and/or the issuance of permits without first obtaining the approval of same by Owner,

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which approval Owner agrees not to unreasonably withhold or delay. The final size and configuration of the Project Site, including access and utility easements, shall be approved in advance by Owner in its reasonable discretion.

- 6. If BlueWave does not exercise its Option as herein provided, it will immediately return all disturbed areas of the Property and Project Site to their former condition. This provision shall survive expiration or termination of this Option.
- All notices required or permitted to be given under this Option shall be given in writing to the addresses above, by certified mail, return receipt requested or by overnight mail via a qualified commercial courier. Notice is effective on the date posted.
- 8. The parties acknowledge this agreement grants BlueWave an irrevocable and exclusive option to lease the Property. In the event BlueWave exercises its option to lease the Property as above provided, the Owner shall be required to enter into a Lease Agreement, the terms and conditions of which shall include, but shall not be limited to, the matters set forth in Paragraph 10 below. Notwithstanding any condition to the contrary that may be contained in this Agreement, no clause shall be interpreted or deemed to be interpreted so as to render the Option conditional. For the avoidance of doubt, this Option shall be deemed for all intents and purposes to be unconditional and irrevocable and the parties shall proceed in good faith to enter into a mutually agreeable Land Lease Agreement no later than three (3) years from the Effective Date of this Option, failing which, except for matters that specifically survive, all rights and privileges granted and obligations required under this Option shall be deemed completely surrendered and each party releases the other from any and all further obligations hereunder.
- 9. The Land Lease Agreement shall contain mutually satisfactory terms and conditions which shall include, but not be limited to the following:
 - a. Initial term shall be for twenty (20) years ("Initial Term") commencing on the

date of Commercial Operation as defined below. Prior to the end of the Initial Term, BlueWave shall have the right, in its sole discretion, to elect to extend the Initial Term for up to four (4) five (5) year extensions (each such extension referred to as a "Renewal Terms"). BlueWave shall provide Owner written notice of its election to exercise the Renewal Term option on or before the commencement of the final year of the Initial Term, or the end of the then-current Renewal Term, whichever is later.

- b. Commencing upon the earlier of the date that BlueWave commences construction of the Project or installation of any component of the Facility ("Construction Phase") or the third (3rd) anniversary of the date that the Land Lease Agreement is fully executed, rent is payable to Owner, in advance, in equal installments at the beginning of each calendar month, at the annualized rate of the per megawatt (AC) of power planned and permitted to be installed, which rent shall continue until the date the Facility has been interconnected to the utility electric grid and commercial sale of energy on a commercial basis has commenced ("Commercial Operation").
- c. Commencing on the date that is the earlier of the date of commencement of Commercial Operation or one (1) year from the date of commencement of the Construction Phase, the rent is payable to Owner in advance, in four (4) equal installments at the beginning of each calendar quarter. The rent is payable at the annualized rate of the per megawatt (AC) of the Facility ("Installed Power"), which rent escalates annually throughout the Initial Term, and any extension term, on the anniversary date of the date of Commercial Operation by

over the amount of the rent due in the immediately preceding year.

- d. The parties agree to execute a Commencement Agreement to memorialize the commencement dates of the Construction Phase and Commercial Operation.
- e. The parties recognize that one Megawatt of installed capacity will require approximately five to seven acres of useable land on the Property. The parties recognize they have a common interest in maximizing the amount of solar

by which Owner or the Property is bound. If Owner is not a natural person, Owner is duly formed and validly existing entity and is qualified to do business in and in good standing under the laws of the State of Maine.

17. Notwithstanding anything appearing to the contrary in this Agreement, no direct or indirect partner, member or shareholder of either party (or any manager, director, officer, principal, trustee, employee or agent of any such direct or indirect partner, member or shareholder), disclosed or undisclosed, shall be personally liable for any debts, liabilities or obligations of the party, or for any claims against the party, arising out of or resulting from this Agreement. Any such debts, obligations, liabilities or claims shall be satisfied solely out of the assets of the obligated party. In no event shall any personal judgment be sought or obtained against any partner, member, manager, shareholder, director, officer, principal, employee, agent, or owner of either party, direct or indirect, disclosed or undisclosed.

Executed as an instrument under seal on $\frac{12-12}{,2019}$.

Milo S Washer By: 11 In kshei Name: Title: 🔾 701

STATE OF MAINE COUNTY OF Oxford, ss.

On this 12 day of <u>December</u>, 2019, before me, the undersigned notary public, personally appeared <u>Milo Walsur</u>, proved to me through satisfactory evidence of identification, which was <u>in <u>Derson</u></u>, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that s/he signed it voluntarily for jts stated purpose on behalf of <u>Milo Walsur</u>.

1) (1) by ala Printed Name: Non 11 My Commission Expires: 5-21-29

Executed as an instrument under seal on 1/2/2620, 2019

BWC Edwards Cove, LLC

By: BlueWave MA, LLC Its: Sole Member

By: BWC Holdings, LLC Its: Sole Member

By:	1500
Name:	Jonathan Mancini
Title:	Sr. Vice President

COMMONWEALTH OF MASSACHUSETTS COUNTY OF SJFS/K , ss

On this 2^{n^2} day of 3anacy, 2019, before me, the undersigned notary public, personally appeared 3onathon Macini, proved to me through satisfactory evidence of identification, which was <math>Personal knulcege, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that s/he signed it voluntarily for its stated purpose on behalf of BUC Quarty Care U.C.

Bachel m (but Printed Name: Rachel M My Commission Expires: 1/23/2026



EXHIBIT A: The Property



Exhibit B: The Project Site (note: exact usable acreage of the Project Site is to be determined)



APPENDIX M: PROPERTY DEED

ΝΟΤ ΝΟΤ ΑN ΑN Warranty Deed OFFICIAL ΟF FICIAL СОРҮ СОРҮ Know All Men By These Presents: ΝΟΤ ΝΟΤ That: Dale R. Verril of P. O. Box 299, South Paris, County of Oxford and State of Maine 04281FFICIAL OFFICIAL СОРҮ COPY For Consideration Paid Grants Unto:

Milo S. Washer of P. O. Box 221, Norway, County of Oxford and State of Maine 04268

With Warranty Covenants the land in Poland, County of Androscoggin and State of Maine, described as follows:

A certain lot or parcel of land situated in the Town of Poland, County of Androscoggin and State of Maine, and being all the remaining property as described in the following Deeds:

1. A Deed of Sale by Personal Representative from Jonathan E. Keene, Personal Representative of the Estate of George A. C. Keene, to Dale R. Verrill dated July 15th, 2016 and recorded in the Androscoggin County Registry of Deeds Book 9410, Page 234; and

2. A Warranty Deed from Toby C. Stewart, Heather E. Stewart and Carrie E. Skeffington to Dale Verrill dated July 12th, 2016 and recorded in the Androscoggin County Registry of Deeds Book 9410, Page 238.

Excepting and reserving however from the above premises that parcel of land as conveyed by Warranty Joint Tenancy Deed from Dale R. Verrill to Donald R. Carrier and Sara E. Carrier dated February 16th, 2017 and recorded in the Androscoggin County Registry of Deeds in Book 9549, Page 61.

Barbara L. Verrill, wife of the said Dale R. Verrill, joins as grantor and releases all rights by descent and all other rights.

Witness our hands and seals this day of Septem Dale R. Verril Barbara L.

Page 1 of 2 Pages

ΝΟΤ ΝΟΤ ΑN ΑN Warranty Deed C OFFI, ΑL $D{ale}R$ Verrill to Milo'S **/ashe**Ţ С ΝΟΤ ΝΟΤ ΑN A N State of Maine FICIAL OFFICTIAL September / // OKFORD, SS. COPY 2017

Then personally appeared the above named **Dale R. Verrill** and acknowledged the foregoing instrument to be his free act.

Before me Public. Notar

Type or print name:

My Commission Expires: Joline D. Tripp Notary Public State of Maine My Comm. Exp. July 29, 2023

SEAL

Page 2 of 2 Pages

1

verrill, dale r. to milo washer-johnson hill rd-145 ac-poland-sept.2017

> ANDROSCOGGIN COUNTY TINA M CHOUINARD REGISTER OF DEEDS

APPENDIX N: TAX ASSESSOR'S CARD



Property Card: JOHNSON HILL RD.

Poland, ME

NO PHOTO

AVAILABLE

Parcel ID: 0013-0050 **Trio Account #:** 1625

Owner: WASHER Co-Owner: Mailing Address: PO BOX 221 NORWAY, ME 04268

Valuation	Building Sketch
Card Number: 1 Acreage: 145 Land Value: \$55,430 Building Value: \$0 Total Value: \$0 Taxes: \$787	NO SKETCH AVAILABLE
Building Information	·
Year Built: Remodled: Living Area (sqft): Basement: Finished Basement: Number of Rooms: Number of Bedrooms: Number of Full Baths: Number of Half Baths:	Stories: Exterior Walls: Roofing Materials: Foundation: Insulation: Fireplace: Heating: A/C: Attic:



10/16/2020

Data shown on this report is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this report.

APPENDIX O: NRCS SOIL RESOURCE REPORT



United States Department of Agriculture

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants Custom Soil Resource Report for Androscoggin and Sagadahoc Counties, Maine



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/? cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



MAP LEGEND				MAP INFORMATION		
Area of Int	terest (AOI) Area of Interest (AOI)	8	Spoil Area Stony Spot	The soil surveys that comprise your AOI were mapped at 1:15,800.		
Soils	Soil Map Unit Polygons Soil Map Unit Lines Soil Map Unit Points Point Features	00 0 	Very Stony Spot Wet Spot Other Special Line Features	Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of		
() () () () () () () () () () () () () (Blowout Borrow Pit	Water Fea	tures Streams and Canals	scale.		
☆ ※	Clay Spot Closed Depression Gravel Pit	Interstate Highways Please rely on the bar s Pression Interstate Highways Vit US Routes	Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL:			
∴ © ∧	Gravelly Spot Landfill Lava Flow	Backgrou	 ✓ Major Roads ✓ Local Roads Major Roads ✓ Local Roads Major Roads 	Coordinate System: Web Mercator (EPSG:3857) Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the		
₩ % 0	Marsh or swamp Mine or Quarry Miscellaneous Water		Aerial Photography	Albers equal-area conic projection that preserves area, such as the accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as		
0 ~ +	Perennial Water Rock Outcrop Saline Spot			of the version date(s) listed below. Soil Survey Area: Androscoggin and Sagadahoc Counties, Maine Survey Area Data: Version 21, Jun 1, 2020		
	Sandy Spot Severely Eroded Spot Sinkhole Slide or Slin			Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Apr 29, 2012—Jun		
ø	Sodic Spot			26, 2016 The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background		

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ChD	Charlton very stony fine sandy loam, 15 to 25 percent slopes	12.1	13.4%
HrC	Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky	2.5	2.8%
Le	Leicester very stony fine sandy loam	7.9	8.7%
PbB	Paxton loam, 2 to 8 percent slopes	9.9	11.0%
PfC	Paxton very stony loam, 8 to 15 percent slopes	18.5	20.5%
WrB	Woodbridge loam, 0 to 8 percent slopes	19.0	21.0%
WsB	Woodbridge very stony loam, 0 to 8 percent slopes	20.4	22.5%
Totals for Area of Interest		90.3	100.0%

Map Unit Legend

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit

descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Androscoggin and Sagadahoc Counties, Maine

ChD—Charlton very stony fine sandy loam, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 9kcz Elevation: 10 to 3,500 feet Mean annual precipitation: 34 to 50 inches Mean annual air temperature: 37 to 46 degrees F Frost-free period: 60 to 160 days Farmland classification: Not prime farmland

Map Unit Composition

Charlton and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton

Setting

Landform: Till plains Landform position (three-dimensional): Dip Down-slope shape: Convex Across-slope shape: Convex Parent material: Coarse-loamy supraglacial meltout till derived from mica schist

Typical profile

H1 - 0 to 7 inches: fine sandy loam H2 - 7 to 24 inches: fine sandy loam H3 - 24 to 65 inches: fine sandy loam

Properties and qualities

Slope: 15 to 25 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 6s Hydrologic Soil Group: A Hydric soil rating: No

Minor Components

Paxton

Percent of map unit: 5 percent Landform: Drumlinoid ridges Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Interfluve, crest *Down-slope shape:* Convex *Across-slope shape:* Convex *Hydric soil rating:* No

Woodbridge

Percent of map unit: 3 percent Landform: Hills Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Tunbridge

Percent of map unit: 2 percent Hydric soil rating: No

Hollis

Percent of map unit: 2 percent Landform: Hills Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Interfluve, crest Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Charlton, slopes > 25 percent

Percent of map unit: 1 percent Landform: Till plains Landform position (three-dimensional): Dip Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Charlton, slopes < 15 percent

Percent of map unit: 1 percent Landform: Till plains Landform position (three-dimensional): Dip Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Hermon

Percent of map unit: 1 percent Landform: Till plains Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

HrC—Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky

Map Unit Setting

National map unit symbol: 2x1cy Elevation: 0 to 520 feet Mean annual precipitation: 36 to 65 inches Mean annual air temperature: 36 to 52 degrees F Frost-free period: 90 to 160 days Farmland classification: Farmland of statewide importance

Map Unit Composition

Lyman and similar soils: 45 percent *Tunbridge and similar soils:* 40 percent *Minor components:* 15 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Lyman

Setting

Landform: Ridges, hills

Landform position (two-dimensional): Summit, shoulder, backslope Landform position (three-dimensional): Crest, nose slope Down-slope shape: Convex Across-slope shape: Convex Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material *A - 1 to 3 inches:* loam *E - 3 to 5 inches:* fine sandy loam *Bhs - 5 to 7 inches:* loam *Bs1 - 7 to 11 inches:* loam *Bs2 - 11 to 18 inches:* channery loam *R - 18 to 79 inches:* bedrock

Properties and qualities

Slope: 8 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.5 percent
Depth to restrictive feature: 11 to 24 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 6s Hydrologic Soil Group: D Hydric soil rating: No

Description of Tunbridge

Setting

Landform: Hills, ridges Landform position (two-dimensional): Backslope, summit, shoulder Landform position (three-dimensional): Side slope, crest Down-slope shape: Linear Across-slope shape: Convex Parent material: Loamy supraglacial till derived from granite and grai

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 3 inches: moderately decomposed plant material *Oa - 3 to 5 inches:* highly decomposed plant material *E - 5 to 8 inches:* fine sandy loam *Bhs - 8 to 11 inches:* fine sandy loam *Bs - 11 to 26 inches:* fine sandy loam *BC - 26 to 28 inches:* fine sandy loam *R - 28 to 79 inches:* bedrock

Properties and qualities

Slope: 8 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.5 percent
Depth to restrictive feature: 21 to 41 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 6s Hydrologic Soil Group: C Hydric soil rating: No

Minor Components

Ragmuff

Percent of map unit: 5 percent Landform: Ridges, hills Landform position (two-dimensional): Backslope, footslope Landform position (three-dimensional): Base slope, side slope Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Abram

Percent of map unit: 5 percent Landform: Hills, ridges Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Nose slope, crest Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Peru

Percent of map unit: 4 percent Landform: Ridges, hills Landform position (two-dimensional): Backslope, footslope Landform position (three-dimensional): Base slope, side slope Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent Landform: Ridges, hills Landform position (two-dimensional): Shoulder, summit Landform position (three-dimensional): Nose slope, crest, free face Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Le—Leicester very stony fine sandy loam

Map Unit Setting

National map unit symbol: 9kdm Elevation: 0 to 2,500 feet Mean annual precipitation: 28 to 55 inches Mean annual air temperature: 37 to 52 degrees F Frost-free period: 90 to 195 days Farmland classification: Not prime farmland

Map Unit Composition

Leicester and similar soils: 85 percent *Minor components:* 15 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Leicester

Setting

Landform: Till plains Landform position (three-dimensional): Talf Down-slope shape: Concave Across-slope shape: Concave Parent material: Coarse-loamy supraglacial meltout till derived from mica schist

Typical profile

H1 - 0 to 7 inches: fine sandy loam

H2 - 7 to 24 inches: fine sandy loam

H3 - 24 to 65 inches: gravelly sandy loam

Properties and qualities

Slope: 0 to 2 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7s Hydrologic Soil Group: C/D Hydric soil rating: Yes

Minor Components

Whitman

Percent of map unit: 7 percent Landform: Till plains Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: Yes

Woodbridge

Percent of map unit: 4 percent Landform: Hills Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Wonsqueak

Percent of map unit: 2 percent Landform: Swamps Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Dip Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

Leicester, slopes > 8 percent

Percent of map unit: 2 percent Landform: Till plains Landform position (three-dimensional): Talf *Down-slope shape:* Concave *Across-slope shape:* Concave *Hydric soil rating:* Yes

PbB—Paxton loam, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9kf0 Elevation: 10 to 3,500 feet Mean annual precipitation: 34 to 50 inches Mean annual air temperature: 37 to 46 degrees F Frost-free period: 60 to 160 days Farmland classification: All areas are prime farmland

Map Unit Composition

Paxton and similar soils: 85 percent *Minor components:* 15 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Paxton

Setting

Landform: Drumlinoid ridges Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Interfluve, crest Down-slope shape: Convex Across-slope shape: Convex Parent material: Coarse-loamy lodgment till derived from mica schist

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 20 inches: fine sandy loam
H3 - 20 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: 18 to 40 inches to densic material
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 2e Hydrologic Soil Group: C Hydric soil rating: No

Minor Components

Woodbridge

Percent of map unit: 6 percent Landform: Hills Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Leicester

Percent of map unit: 3 percent Landform: Till plains Landform position (three-dimensional): Talf Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

Charlton

Percent of map unit: 3 percent Landform: Till plains Landform position (three-dimensional): Dip Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Tunbridge

Percent of map unit: 2 percent Landform: Till plains Landform position (two-dimensional): Summit Landform position (three-dimensional): Rise Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Paxton, slopes > 8 percent

Percent of map unit: 1 percent Landform: Drumlinoid ridges Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Interfluve, crest Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

PfC—Paxton very stony loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9kf4 Elevation: 10 to 3,500 feet Mean annual precipitation: 34 to 50 inches Mean annual air temperature: 37 to 46 degrees F Frost-free period: 60 to 160 days Farmland classification: Not prime farmland

Map Unit Composition

Paxton and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Paxton

Setting

Landform: Drumlinoid ridges Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Interfluve, crest Down-slope shape: Convex Across-slope shape: Convex Parent material: Coarse-loamy lodgment till derived from mica schist

Typical profile

H1 - 0 to 8 inches: loam

- H2 8 to 20 inches: fine sandy loam
- H3 20 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 8 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 18 to 40 inches to densic material
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 6s Hydrologic Soil Group: C Hydric soil rating: No

Minor Components

Charlton

Percent of map unit: 4 percent Landform: Till plains Landform position (three-dimensional): Dip Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Woodbridge

Percent of map unit: 4 percent Landform: Hills Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Tunbridge

Percent of map unit: 2 percent Hydric soil rating: No

Leicester

Percent of map unit: 2 percent Landform: Till plains Landform position (three-dimensional): Talf Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

Paxton, stone cover > 3 percent

Percent of map unit: 1 percent Landform: Drumlinoid ridges Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Interfluve, crest Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Paxton, slopes > 15 percent

Percent of map unit: 1 percent Landform: Drumlinoid ridges Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Interfluve, crest Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Paxton, slopes < 8 percent

Percent of map unit: 1 percent Landform: Drumlinoid ridges Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Interfluve, crest Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

WrB—Woodbridge loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9kfv Elevation: 10 to 2,500 feet Mean annual precipitation: 34 to 50 inches Mean annual air temperature: 37 to 46 degrees F *Frost-free period:* 60 to 160 days *Farmland classification:* All areas are prime farmland

Map Unit Composition

Woodbridge and similar soils: 85 percent *Minor components:* 15 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Woodbridge

Setting

Landform: Hills Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope Down-slope shape: Linear Across-slope shape: Linear Parent material: Coarse-loamy lodgment till derived from mica schist

Typical profile

H1 - 0 to 7 inches: loam H2 - 7 to 20 inches: loam H3 - 20 to 65 inches: fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 16 to 30 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 2e Hydrologic Soil Group: C Hydric soil rating: No

Minor Components

Colonel

Percent of map unit: 6 percent Landform: Drumlinoid ridges Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope Down-slope shape: Concave Across-slope shape: Linear Hydric soil rating: No

Leicester

Percent of map unit: 3 percent Landform: Till plains Landform position (three-dimensional): Talf Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

Woodbridge, slopes > 8 percent

Percent of map unit: 2 percent Landform: Hills Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Tunbridge

Percent of map unit: 2 percent Landform: Till plains Landform position (two-dimensional): Summit Landform position (three-dimensional): Rise Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Paxton

Percent of map unit: 2 percent Landform: Drumlinoid ridges Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Interfluve, crest Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

WsB—Woodbridge very stony loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9kfw Elevation: 10 to 2,500 feet Mean annual precipitation: 34 to 50 inches Mean annual air temperature: 37 to 46 degrees F Frost-free period: 60 to 160 days Farmland classification: Not prime farmland

Map Unit Composition

Woodbridge and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Woodbridge

Setting

Landform: Hills Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope Down-slope shape: Linear Across-slope shape: Linear Parent material: Coarse-loamy lodgment till derived from mica schist

Typical profile

H1 - 0 to 3 inches: loam H2 - 3 to 20 inches: loam H3 - 20 to 65 inches: fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 16 to 30 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 6s Hydrologic Soil Group: C Hydric soil rating: No

Minor Components

Colonel

Percent of map unit: 6 percent Landform: Drumlinoid ridges Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope Down-slope shape: Concave Across-slope shape: Linear Hydric soil rating: No

Leicester

Percent of map unit: 3 percent Landform: Till plains Landform position (three-dimensional): Talf Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

Tunbridge

Percent of map unit: 2 percent Landform: Ridges Landform position (two-dimensional): Shoulder Landform position (three-dimensional): Crest Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Paxton

Percent of map unit: 2 percent Landform: Drumlinoid ridges Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Interfluve, crest Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Woodbridge, slopes > 8 percent Percent of map unit: 2 percent

Percent of map unit: 2 percent Landform: Hills Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

AOI Inventory

This folder contains a collection of tabular reports that present a variety of soil information. Included are various map unit description reports, special soil interpretation reports, and data summary reports.

Map Unit Description (Brief, Generated)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, provide information on the composition of map units and properties of their components.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description (Brief, Generated)

Androscoggin and Sagadahoc Counties, Maine

Map Unit: ChD-Charlton very stony fine sandy loam, 15 to 25 percent slopes

Component: Charlton (85%)

The Charlton component makes up 85 percent of the map unit. Slopes are 15 to 25 percent. This component is on till plains. The parent material consists of coarseloamy supraglacial meltout till derived from mica schist. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria.

Component: Paxton (5%)

Generated brief soil descriptions are created for major soil components. The Paxton soil is a minor component.

Component: Woodbridge (3%)

Generated brief soil descriptions are created for major soil components. The Woodbridge soil is a minor component.

Component: Tunbridge (2%)

Generated brief soil descriptions are created for major soil components. The Tunbridge soil is a minor component.

Component: Hollis (2%)

Generated brief soil descriptions are created for major soil components. The Hollis soil is a minor component.

Component: Hermon (1%)

Generated brief soil descriptions are created for major soil components. The Hermon soil is a minor component.

Component: Charlton, slopes < 15 percent (1%)

Generated brief soil descriptions are created for major soil components. The Charlton, slopes < 15 percent soil is a minor component.

Component: Charlton, slopes > 25 percent (1%)

Generated brief soil descriptions are created for major soil components. The Charlton, slopes > 25 percent soil is a minor component.

Map Unit: HrC—Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky

Component: Lyman (45%)

The Lyman component makes up 45 percent of the map unit. Slopes are 8 to 15 percent. This component is on hills on uplands. The parent material consists of loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist. Depth to a root restrictive layer, bedrock, lithic, is 11 to 24 inches (depth from the mineral surface is 10 to 20 inches). The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 85 percent. Below this thin organic horizon the organic matter content is about 8 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria.

Component: Tunbridge (40%)

The Tunbridge component makes up 40 percent of the map unit. Slopes are 8 to 15 percent. This component is on hills on uplands. The parent material consists of loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist. Depth to a root restrictive layer, bedrock, lithic, is 21 to 41 inches (depth from the mineral surface is 20 to 33 inches). The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 85 percent. Below this thin organic horizon the organic matter content is about 3 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria.

Component: Ragmuff (5%)

Generated brief soil descriptions are created for major soil components. The Ragmuff soil is a minor component.

Component: Abram (5%)

Generated brief soil descriptions are created for major soil components. The Abram soil is a minor component.

Component: Peru (4%)

Generated brief soil descriptions are created for major soil components. The Peru soil is a minor component.

Component: Rock outcrop (1%)

Generated brief soil descriptions are created for major soil components. The Rock outcrop soil is a minor component.

Map Unit: Le-Leicester very stony fine sandy loam

Component: Leicester (85%)

The Leicester component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on till plains. The parent material consists of coarseloamy supraglacial meltout till derived from mica schist. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, May, June, October, November, December. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 7s. This soil meets hydric criteria.

Component: Whitman (7%)

Generated brief soil descriptions are created for major soil components. The Whitman soil is a minor component.

Component: Woodbridge (4%)

Generated brief soil descriptions are created for major soil components. The Woodbridge soil is a minor component.

Component: Wonsqueak (2%)

Generated brief soil descriptions are created for major soil components. The Wonsqueak soil is a minor component.

Component: Leicester, slopes > 8 percent (2%)

Generated brief soil descriptions are created for major soil components. The Leicester, slopes > 8 percent soil is a minor component.

Map Unit: PbB—Paxton loam, 2 to 8 percent slopes

Component: Paxton (85%)

The Paxton component makes up 85 percent of the map unit. Slopes are 2 to 8 percent. This component is on drumlinoid ridges on uplands. The parent material consists of coarse-loamy lodgment till derived from mica schist. Depth to a root restrictive layer, densic material, is 18 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 33 inches during March, April. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Woodbridge (6%)

Generated brief soil descriptions are created for major soil components. The Woodbridge soil is a minor component.

Component: Leicester (3%)

Generated brief soil descriptions are created for major soil components. The Leicester soil is a minor component.

Component: Charlton (3%)

Generated brief soil descriptions are created for major soil components. The Charlton soil is a minor component.

Component: Tunbridge (2%)

Generated brief soil descriptions are created for major soil components. The Tunbridge soil is a minor component.

Component: Paxton, slopes > 8 percent (1%)

Generated brief soil descriptions are created for major soil components. The Paxton, slopes > 8 percent soil is a minor component.

Map Unit: PfC—Paxton very stony loam, 8 to 15 percent slopes

Component: Paxton (85%)

The Paxton component makes up 85 percent of the map unit. Slopes are 8 to 15 percent. This component is on drumlinoid ridges on uplands. The parent material consists of coarse-loamy lodgment till derived from mica schist. Depth to a root restrictive layer, densic material, is 18 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of

water saturation is at 33 inches during March, April. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria.

Component: Woodbridge (4%)

Generated brief soil descriptions are created for major soil components. The Woodbridge soil is a minor component.

Component: Charlton (4%)

Generated brief soil descriptions are created for major soil components. The Charlton soil is a minor component.

Component: Leicester (2%)

Generated brief soil descriptions are created for major soil components. The Leicester soil is a minor component.

Component: Tunbridge (2%)

Generated brief soil descriptions are created for major soil components. The Tunbridge soil is a minor component.

Component: Paxton, stone cover > 3 percent (1%)

Generated brief soil descriptions are created for major soil components. The Paxton, stone cover > 3 percent soil is a minor component.

Component: Paxton, slopes < 8 percent (1%)

Generated brief soil descriptions are created for major soil components. The Paxton, slopes < 8 percent soil is a minor component.

Component: Paxton, slopes > 15 percent (1%)

Generated brief soil descriptions are created for major soil components. The Paxton, slopes > 15 percent soil is a minor component.

Map Unit: WrB—Woodbridge loam, 0 to 8 percent slopes

Component: Woodbridge (85%)

The Woodbridge component makes up 85 percent of the map unit. Slopes are 0 to 8 percent. This component is on hills on uplands. The parent material consists of coarse-loamy lodgment till derived from mica schist. Depth to a root restrictive layer, densic material, is 16 to 30 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell

potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Colonel (6%)

Generated brief soil descriptions are created for major soil components. The Colonel soil is a minor component.

Component: Leicester (3%)

Generated brief soil descriptions are created for major soil components. The Leicester soil is a minor component.

Component: Tunbridge (2%)

Generated brief soil descriptions are created for major soil components. The Tunbridge soil is a minor component.

Component: Paxton (2%)

Generated brief soil descriptions are created for major soil components. The Paxton soil is a minor component.

Component: Woodbridge, slopes > 8 percent (2%)

Generated brief soil descriptions are created for major soil components. The Woodbridge, slopes > 8 percent soil is a minor component.

Map Unit: WsB—Woodbridge very stony loam, 0 to 8 percent slopes

Component: Woodbridge (85%)

The Woodbridge component makes up 85 percent of the map unit. Slopes are 0 to 8 percent. This component is on hills on uplands. The parent material consists of coarse-loamy lodgment till derived from mica schist. Depth to a root restrictive layer, densic material, is 16 to 30 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria.

Component: Colonel (6%)

Generated brief soil descriptions are created for major soil components. The Colonel soil is a minor component.

Component: Leicester (3%)

Generated brief soil descriptions are created for major soil components. The Leicester soil is a minor component.

Component: Paxton (2%)

Generated brief soil descriptions are created for major soil components. The Paxton soil is a minor component.

Component: Woodbridge, slopes > 8 percent (2%)

Generated brief soil descriptions are created for major soil components. The Woodbridge, slopes > 8 percent soil is a minor component.

Component: Tunbridge (2%)

Generated brief soil descriptions are created for major soil components. The Tunbridge soil is a minor component.

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Poland Solar Project

APPENDIX P: PRELIMINARY CONSTRUCTION SCHEDULE

BLUEWAVE



Poland Solar Project

APPENDIX Q: AGENT AUTHORIZATION LETTER

BLUEWAVE

10/15/20

Re: Agent Authorization, Solar Project Permitting Work

To Whom It May Concern,

This letter serves as acknowledgment of authorization for Boyle Associates to act on behalf of Bluewave regarding the submissions of all municipal permits and/or applications, MDOT Driveway/Entrance permit applications, DEP Stormwater Permit By Rule applications and any subsequent follow up correspondence related to these application submittals required for the development of solar project within Maine.

Any questions or clarifications regarding the representation can be directed to Colin Sexton, Director – Project Development at the contact info below:

Number: 774-254-7709 Email: csexton@bluewavesolar.com

Respectfully,

BWC Edwards Cove, LLC, a Delaware limited liability company

Un OST

By: _____ Name: Mark Sylvia Title: Authorized Signatory Poland Solar Project

APPENDIX R: MDEP STORMWATER PERMIT BY RULE APPLICATION

STORMWATER PERMIT BY RULE APPLICATION FOR THE POLAND SOLAR PROJECT Johnson Hill Road Poland, Maine

For BWC Edwards Cove, LLC

A Subsidiary of

BLUEWAVE

Prepared by:





Date: October 2020



Berry, Huff, McDonald, Milligan Inc. Engineers, Surveyors

 28 State Street
 Tel. (207) 839-2771

 Gorham, Maine 04038
 Fax (207) 839-8250

WILLIAM A. THOMPSON ROBERT C. LIBBY Jr WALTER E. PELKEY ANDREW S. MORRELL STEVEN J. BLAKE

October 23, 2020

Mr. James Beyer Regional Licensing and Compliance Manager Bureau of Land Recourses Eastern Maine Regional Office Maine Department of Environmental Protection 106 Hogan Road Bangor, Maine 04401

Re: Poland Solar Project Proposed 3.5-MW Solar Array Johnson Hill Road, Poland Stormwater Permit by Rule Application

Dear Jim,

On behalf of the Applicant, BWC Edwards Cove LLC, a subsidiary of BlueWave Solar, we are submitting a Stormwater Permit by Rule Application for a proposed 3.5-MW solar array located in the town of Poland Maine. Boyle Associates and BH2M have worked collaboratively to prepare this permit application package. BH2M has prepared the erosion and sedimentation control plans for the project, in accordance with Maine DEP guidelines. Boyle Associates has prepared the preliminary site plan and will serve as the direct Agent for the Applicant.

Development Description

The Applicant is proposing to construct solar arrays with a total output of 3.5 MW on a previously undeveloped site in Poland, Maine. The project is located along Johnson Hill Road in Poland. The site wooded area that shows signs of previous logging. Development of the proposed project will include new construction of solar panels, gravel access road, temporary staging area, underground conductors, and project equipment. The total area proposed for disturbance is approximately 19.6 acres, of this there will be approximately 18.6 acres of tree clearing. Construction of the project will occur incrementally in blocks of no more than 10-acres. Sequencing of construction will be structured so that 10-acre blocks will be stabilized prior to commencing construction of subsequent 10-acre blocks. Access to the proposed array will be from a gravel access road connecting to Johnson Hill Road.

Poland Solar October 23, 2020 Page 2

Permit Application Attachments

In support of the Application we have enclosed a check in the amount of \$68 and the following:

- Stormwater Permit by Rule Application
- ➢ Attachment A − Figures
- Attachment B Site Plan
- > Attachment C Erosion and Sedimentation Control Plans
- Attachment D Erosion and Sedimentation Control Inspection and Maintenance Plan
- ➢ Attachment E − Site Photos
- Attachment F Certificate of Good Standing
- Attachment G Soils Report
- ➢ Attachment H − Construction Schedule

If you have any questions about this application, or require any additional information for this submission please contact myself or Dale Knapp with Boyle Associates. We look forward to working with you on this project.

Sincerely,

Steven J. Blake, PE Senior Engineer

Encl.

Cc D. Knapp, Boyle Associates C. Byers, Boyle Associates C.Sexton, BlueWave Solar **STORMWATER PBR APPLICATION FORM** PLEASE TYPE OR PRINT IN INK ONLY Page 1

02/14

1. Name of Applicant:	C Edwards Cove, LLC			5. Name	of Agent	•									
	Colin S	in Sexton			(if applicable)										
2. Applicant's	111 Hu	Huntington Ave., Suite 650 6.						254	Co	mmercial Stre	et				
Mailing Address:	Boston.				0. Agent	Mer			Mer	errill's Wharf, Suite 101					
2 Applicant's	,	, • •	-			Mailin 7 Agont'	g Addres a Daytim	ss:		Port	tlan	d, Maine 0410	1		
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4. Applicant's email						8. Agent	's email a	addres	ss:						
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13. Type of Direct	🗖 Lake	not most at risk			14. An	14. Amount of Developed			□ Total # of acres						
Watershed:	🗖 Lake	e most at ri	sk			Area:					OR				
(Check all that apply)	🗖 Lake	e most at ri	sk, se	everely bloor	ming		[□ Total # ofsquare feet				
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24. DEP Staff Previously	7					25. Proje	ect starte	d	ΩY	es	If y	yes,		□ Yes	
contacted			10	•		prior to :	аррпсан	on:				mpieted		□ No	
26. Resubmission	,	□ Yes	If y	es, prior app	plica	tion #:				Pri ma	lor ma	project ger:			
27 Written Notice of				o of DED on	fore	amont at	. ff			1110	ına _.	gui.			
Violation?	\mathbf{I} res $\mathbf{-}$	involv	nam ed:	ie of DEP en	norc	ement sta	411								
28. Detailed Directions to	o the Pr	oiect Site:		From the ro	unda	bout of R	oute 202	& 302	in W	indha	am,	head towards	Rov	ite 302 W for	
(Attach senarate sheet	if neces	ssarv)		7.2 mi., ther	n turi	n right on	ME-85 N	1 for 8	mi., t	hen t	urn	right on ME-	11 N	for 1.8 mil.,	
20 Donowal of individua	latorm	watan nam	nit	DEP Permit	<u>to Joi</u> #:	nnson Hil	I Ka Ior I	<u>.5 mi.</u> P	and t roject	Man	ie w lage	<u>er:</u>	gnt	(east) side.	
29. Kenewai of mulvidua		water peri	m					-	10,000		B				
30. SUBMISSIONS ▼															
\Box This form	🗖 Dep	t. of Inland	ł	🗖 Pho	otos	of Area	For Ren	ewal o	of an	indiv	vidu	ial Stormwa	ıter	permit <u>only:</u>	
(signed and dated)	Fisheries and Wildlife ESC Plan This form (signed and dated)														
L Fee	Approval Site Plan			\square Copy of original storm				nwa	uer permit						
Doos the agent here	(11 1n E	ssential Ha	ibitat		c 1 1a	11									
Does the agent have an interest in this project? If yos, what is the interest?															
project: If yes, wh		rific A 7		NG AND G			FELO	CAT	FD 4	יזער	D A	CE 2			
	CLU	ITICAL		IS AND S	JUI	AIUK	LO LU	CAL.	LD (UL 2			

CERTIFICATIONS / SIGNATURES

Applicant's Statement: I am applying for a Stormy herein and I affirm that my and Federal agencies having	water PBR and ha project satisfies t ig jurisdiction over	ave attached the requ he applicable stormwa er this activity, to ac	ired PBR submissions. I have read the requir ater management standards. I authorize staff o ccess the project site for the purpose of deter	ements of State mining			
Signed:	1 4		Date:_10/23/2020				
Notice of Intent to Comply with Maine Construction General Permit	With this Stormwater PBR notification form and my signature below, I am filing notice of my intent to carry out work which meets the requirements of the Maine Construction General Permit. I have read and will comply with all of the MCGP standards. In addition, I will file a Notice of Termination (NOT) within 20 days of project completion.						
	f this form is not being signed by the landowner or lessee of the property, attach ocumentation showing authorization to sign.						
	Signed	u	Date:_10/23/2020				
BLUEWAVE

10/15/20

Re: Agent Authorization, Solar Project Permitting Work

To Whom It May Concern,

This letter serves as acknowledgment of authorization for Boyle Associates to act on behalf of Bluewave regarding the submissions of all municipal permits and/or applications, MDOT Driveway/Entrance permit applications, DEP Stormwater Permit By Rule applications and any subsequent follow up correspondence related to these application submittals required for the development of solar project within Maine.

Any questions or clarifications regarding the representation can be directed to Colin Sexton, Director – Project Development at the contact info below:

Number: 774-254-7709 Email: csexton@bluewavesolar.com

Respectfully,

BWC Edwards Cove, LLC, a Delaware limited liability company

Un OSEm

By: _____ Name: Mark Sylvia Title: Authorized Signatory

<u>Attachment A</u> Figures



REFERENCES: 1. USGS QUADRANGLE MECHANIC FALLS, ME 2018



⇒B	H2M
<u>Berry, Huff, McDon</u>	ald, Milligan Inc.
Engineers, S	Surveyors -
28 State Street Gorham, Maine 04038	Tel. (207) 839-2771 Fax (207) 839-8250



CASCO

Disclaimer: This information has been produced using a number of disparate data sources to support assessing activities. It should not be used for conveyances. Neither the Town of Poland nor Sebago Technics are responsible for map errors, omissions, misuse, misinterpretation, or correctness of the data.



05 Abutting Tax Map Number Subdivision Lot Number 8-33B Tax Parcel Lot Number

Waterbodies/Wetlands

<u>Legend</u>



Attachment B Site Plan



BLUEWAVE

MAPPING SOURCE DATA USED FOR PLAN COMPILATION

0'	100'	200'	300'
0"	1"	2"	
STANL	DARD GRAPHI	C SCALE (1"	= 100')
VALID V	WHEN PLOTTED	ON 24" BY 3	6" MEDIA

SOLAR ARRAY DESIGN INFORMATION: DATE

Checked by: IAJ Scale: 1" = 100





Approximate Flow Direction



SCALE: 450 1 inch = 450 feet

TOPOGRAPHICAL DATA MAP POLAND SOLAR PROJECT: POLAND, MAINE

PROJECT NUMBER: 681

OCTOBER 19, 2020

___Feet 900

<u>Attachment C</u> Erosion and Sedimentation Control Plans







A A C	THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION IN DEVELOPING AREAS AS CONTAINED IN THE LATEST REVISION OF TO THE 2016 MAINE EROSION AND SEDIMENT CONTROL BMP'S MANUAL FOR DESIGNERS AND ENGINEERS, AND THE LATEST REVISION TO THE 2014 MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS. SEE MANUALS FOR ADDITIONAL INFORMATION AND DETAILS. THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL STRUCTURES ARE SHOWN ON THE SITE PLAN.	1. WI 2. OV ALI DIT GR
1.	ALL CONSTRUCTION INSPECTIONS SHALL BE CONDUCTED BY SOMEONE WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING STANDARDS AND PERMIT CONDITIONS. CONSTRUCTION INSPECTIONS SHALL BE PERFORMED AT LEAST ONCE A WEEK, AND PRIOR TO AND 24 HOURS AFTER A WET WEATHER EVENT (0.5 INCHES OR MORE IN A 24 HOUR PERIOD). CONSTRUCTION INSPECTION AND CORRECTIVE ACTION DOCUMENTATION RECORDS SHALL BE MAINTAINED FOR A MINIMUM OF 5 YEARS.	LA A.
2.	2. THE SCOPE OF CONSTRUCTION INSPECTIONS INCLUDE THE EROSION AND SEDIMENTATION CONTROL MEASURES AS WELL AS DISTURBED AREAS, MATERIAL STORAGE AREAS, AND LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE.	В.
3.	3. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP'S", DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST REVISION.	
4. 5.	 MINIMUM TIME. AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN ONTREATED ON UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 7 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 75 FEET OF A WETLAND OR WATERBODY, THE AREA SHALL BE STABILIZED WITHIN 2 DAYS OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST. EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRES OF THE SITE IS WITHOUT STABILIZATION 	3. OV ALI MU
6.	AT ANY ONE TIME. 5. EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE MULCHED IN ONE DAY.	GR TH TEI WIN
7.	7. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO MORE THAN ONE ACRE OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION.	AN LEA CO
8.	B. SEDIMENT BARRIERS (EROSION CONTROL MIX, STONE CHECK DAMS, STABILIZED CONSTRUCTION ENTRANCE, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. THE CONTRACTOR SHALL MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.	Α.
9.	9. INSTALL EROSION CONTROL MIX AT TOE OF SLOPES TO FILTER SILT FROM RUNOFF, SEE E.C. MIX DETAIL FOR PROPER INSTALLATION. EROSION CONTROL MIX WILL REMAIN IN PLACE PER NOTE #7. THE USE OF AN EROSION CONTROL MIX BERM IS PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8% OR WHERE THERE IS FLOWING WATER.	В.
1(ALL ERSOION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED, AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY BEFORE AND FOLLOWING ANY SIGNIFICANT RAINFALL (0.5 INCH OR MORE IN A 24-HOUR PERIOD) OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSURE. IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF. EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF PERMANENT STABILIZATION. PERMANENT STABILIZATION IS 90% GRASS CATCH IN VEGETATED AREAS. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN ONE AND ONE HALF TO ONE (1.5 TO 1). 	C. 4. OV BY IF ST.
12	12. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PROTO	Α.
1;	 3. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED BY AUG. 15 OR 45 DAYS PRIOR TO THE FIRST KILLING FROST (OCT. 1) TO PROTECT FROM SPRING RUNOFF PROBLEMS. 	
14	4. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS. POST SEEDING SEDIMENT, IF ANY WILL BE DISPOSED OF IN AN ACCEPTABLE MANNER.	B.
1	5. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:	C.
	 a. FOUR INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. b. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P205-K20) OR EQUIVALENT. APPLY GROUND LIMESTONE 	5. MA IF
	C. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEEDED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEEDED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS: SEEDING RATE IS 1.03 LBS PER 1000 SQ, FT. LAWN QUALITY SOD MAY BE SUBSTITUTED FOR SEED. MIX SHALL CONTAIN 10% ANNUAL RYE GRASS.	ST EV WE CO RE
	d. HAY MULCH AT THE RATE OF 70-90 LBS PER 1000 SQUARE FEET FOR OVER 75% COVERAGE. FOR UNPROTECTED OR WINDY AREAS, ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD./BLOCK). HYDRAULIC MULCHES MAY ALSO BE USED, APPLIED AT A RATE OF 5 LBS PER 1000 SQUARE FEET FOR PAPER MULCH OR 40 LBS PER 1000 SQUARE FEET OR AS DIRECTED BY THE MANUFACTURER. ON SLOPES GREATER THAN 3:1 EROSION CONTROL MIX MAY BE USED, SEE EROSION	ST. SE
	e. FOR DISTURBED AREAS TO BE MAINTAINED IN POST-CONSTRUCTION AS A MEADOW BUFFER, APPLY NEW ENGLAND CONSERVATION WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC., OF AMHERST, MASSACHUSETTS OR APPROVED	00
14	EQUAL. 14. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS ONCE THE SITE IS STABILIZED WITH 90% GRASS CATCH IN VEGETATED AREAS. TEMPORARY EROSION AND SEDIMENT CONTROL BLANKET SHALL BE USED IN ALL DITCHES	NO
1	AND SWALES AS SHOWN IN DETAILS. 15. WETLANDS WILL BE PROTECTED WITH EROSION CONTROL MIX OR SILT FENCE INSTALLED AT THE EDGE FOR THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE, ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE	6. DU
16	PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS DURING WINTER CONSTRUCTION. 16. ALL STORMWATER WILL BE PREVENTED FROM RUNNING ONTO STOCKPILES. SEDIMENT BARRIERS WILL BE INSTALLED DOWN/CRADIENT OF ALL STOCKPILES	7. AR ST
13	7. PERMANENT POST-CONSTRUCTION BMP'S (VEGETATED SWALES, WET PONDS, ETC.) WILL NOT BE USED TO MANAGE FLOWS	TH
	DURING CONSTRUCTION WITHOUT SPECIAL PROTECTION AND/OR RESTORATION.	HOUSE
<u>A</u>	ADDITIONAL TEMPORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS):	<u>HOUSE</u> 1. <u>SP</u> 1. AP
<u>A</u> S	Sector Sector Sector Sector SUMMER (5/15 - 8/15) SUDANGRASS 40 LBS/ACRE OATS 80 LBS/ACRE ATE CUMMER (FADLY FADLY	HOUSE 1. <u>SP</u> 1. AP 2. <u>GR</u> MA
<u>A</u> Si L/ (8 F/ W	ADDITIONAL TEMPORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS): SEASON SEED SUMMER (5/15 - 8/15) SUDANGRASS 40 LBS/ACRE 0ATS 80 LBS/ACRE 8/15 - 9/15) SATE SUMMER/EARLY FALL PERENNIAL RYEGRASS 40 LBS/ACRE 8/15 - 9/15) SALL (9/15 - 11/1) WINTER RYE MULCH W/ DORMANT SEED 80 LBS/ACRE	HOUSE 1. <u>SP</u> 1. AP 2. <u>GR</u> MA TH DE INF PR
<u>م</u> 21 4 14 14 14 14 14 14 14 14 14 14 14 14	SEASON SEED RATE SUMMER (5/15 - 8/15) SUDANGRASS 40 LBS/ACRE OATS 80 LBS/ACRE .ATE SUMMER/EARLY FALL PERENNIAL RYEGRASS *ALL (9/15 - 11/1) WINTER RYE MULCH W/ DORMANT SEED 80 LBS/ACRE SPRING (4/1 - 7/1) OATS ATS 80 LBS/ACRE **SEED RATE ONLY **SEED RATE ONLY	HOUSE 1. <u>SP</u> 1. <u>SP</u> 1. <u>AP</u> 2. <u>GR</u> MA TH DE INF PR ST 3. <u>FU</u> NO
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	DURING CONSINCTION WITHOUT SPECIAL PROTECTION AND/OR RESIGNATION. NDDITIONAL TEMPORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS): SEASON SEED RETERMINAL REFORMED AND AND/OR RESIGNATION. SUMMER (5/15 - 8/15) SUDANGRASS 40 LBS/ACRE (0.415 - 9/15) ATE SUMMER/EARLY FALL PERENNIAL RYEGRASS 40 LBS/ACRE (8/15 - 9/15) TALL (9/15 - 11/1) WINTER RYE 112 LBS/ACRE (9/15 - 11/1) WINTER RYE 112 LBS/ACRE (0.41 - 7/1) OATS 80 LBS/ACRE ANNUAL RYEGRASS 40 LBS/ACRE (0.41 - 7/1) OATS 80 LBS/ACRE (0.45 - 41 OR) STALL BE EVEN (0.51 - 100 OR OF OR WIELOR OF MAINE DEP'S EROSION AND (1.50 SHALL CONSIST OF WELL-CRADED ORGANC COMPONENT 50 - 100 OF OR WIELOR OF MAINE DEP'S EROSION AND (1.50 SHALL BE EVEN.Y DISTRIBUTED AND APPLIED AT A THICKNESS OF 2' ON 3:1 SLOPES, WITH AN ADDITIONAL 1/2' PER 20' OF SLOPE OR A MAXIMUM OF 100' IN LENGTH. SLOPES GREATER THAN 3:1 LECM SHALL BE APPLIED AT THICKNESS OF 4'' OR 5'' OR SLOPE FOR A MAXIMUM OF 100' IN LENGTH. SLOPES GREATER THAN 45:1 MAY ALSO REQUIRE ADDITIONAL SLOPE STABILIZATION DEPENDING ON UPGRADIENT RUNOFF AND OTHER SITE SPECIFIC CONDITIONS. SEE SLOPE STABILIZATION DETAIL FOR ADDITIONAL INFORMATION. (1.50 FT TYP. (1.5	HOUSE 1. SP 1. AP 2. GR MA TH DE INF PR ST 3. FU NO US PR 4. DE 5. IR FO US PR 4. DE E E E E CO GR AF CO GR AF CO GR AF CO CO CO CO CO CO CO CO CO CO
	ADDITIONAL TEMPORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS): SEASON SEASON SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS): SUMMER (5/15 - 8/15) SUDANGRASS 40 LBS/ACRE OATS 80 LBS/ACRE 8/15 - 9/15) ALL (9/15 - 11/1) WINTER RYE 112 LBS/ACRE 11/1 LBS/ACRE 11/1 MULCH W/ DORMANT SEED 80 LBS/ACRE 12 LBS/ACRE 13/15 - 9/15) MINTER (11/1 - 4/1) MULCH W/ DORMANT SEED 80 LBS/ACRE **SEED RATE ONLY #ING (4/1 - 7/1) OATS 80 LBS/ACRE **SEED RATE ONLY #ROSION CONTROL MIX EROSION C	HOUSE 1. SP 1. AP 2. GR MA TH DE INF PR ST 3. FU US PR 4. DE 5. IR FO AF CO GR AR SE ME 6. NO AL EN CO - - -
	DURING CONSINCTION WITHOUT SPECIAL PROTECTION AND/OK RESIGNATION. SDDITIONAL TEMPORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS): SUMMER (5/15 - 8/15) SUDANGRASS 40 LBS/ACRE B/15 - 9/15) WITER RYE 112 LBS/ACRE B/15 - 9/15) WITER RYE 112 LBS/ACRE MITER (11/1 - 4/1) WITER RYE 112 LBS/ACRE WITER (11/1 - 4/1) WITER RYE 112 CLOSE RYE RECE SOUTE CONTROL MIX ROSION CONTROL MIX (CM) SHALL MEET THE REQUIREMENTS PROVIDED IN THE LATEST REVISION OF MAINE DEP'S EROSION AND LICON SALL BE CVENTY DISTIBUTED AND APPLIED AT A THICKNESS OF 2' ON 3:1 SLOPES WITH AN ADDITONAL 1/2' PER 20' OF SOR SLOPES CREATER THAN 60' IN LENGTH. SLOPES CREATER THAN 3:1 MAY ALSO REQUIRE ADDITIONAL SLOPE STABILIZATION DEPENDING ON UPGRADIENT RUNOFF AND OTHER SLOPES CREATER THAN 3:1 MAY ALSO REQUIRE ADDITIONAL SLOPE STABILIZATION DEPENDING ON UPGRADIENT RUNOFF AND OTHER STEE SPECIFIC CONDITIONS. SEE SLOPE STABILIZATION DETAIL FOR ADDITIONAL INFORMATION. 10 FT TYP. A MORE ADDITIONAL SLOPE STABILIZATION DEFENDING ON UPGRADIENT RUNOFF AND OTHER SHEE TING SHEE TING A MORE ADDITIONAL SLOPE STABILIZATION DETAIL FOR ADDITIONAL SLOPE STABILIZATION DEFENDING ON UPGR	HOUSE 1. SP 1. AP 2. GR MA TH DEF ST 3. FU NO ST 3. FU NO ST AP A A A A A A A A A A A A A
	DURING CONSIDENTIAL WITHOUT SPECIAL PROTECTION AND/OR RESIDENTIAL. SEASON SEAD SUMMER (5/15 - 8/15) SUMMER (5/15 - 8/15) SUMMER (5/15 - 8/15) SUMMER (25/15 - 8/15) SUMMER (25/15 - 11/1) WINTER RYE 112 LBS/ACRE BO LBS/ACRE BO LBS/ACRE SPRING (4/1 - 7/1) OATS BO LBS/ACRE MULCH W/ DORMANT SEED BO LBS/ACRE **SEED RATE ONLY ROSION CONTROL MIX ROSION CON	HOUSE 1. SP 1. AP 2. GR MA TH DE NM PR ST 3. FU ST 3. FU ST ST ST ST ST ST ST ST ST ST
	DUDING CONSIDER THAT SEED MATURE (FOR PERIODS LESS THAN 12 MONTHS): SEADE SUMMER (5/15 - 8/15) SUDANGRASS 40 LBS/ACRE ATE SUMMER/EARLY FALL PERENNIAL RYEGRASS 40 LBS/ACRE ATE SUMMER/EARLY FALL PERENNIAL RYEGRASS 40 LBS/ACRE MINTER (1/1 - 7/1) MINTER TYE 11 / LBS/ACRE ANNUAL RYEGRASS 40 LBS/ACRE ANNUAL RYEGRASS 40 LBS/ACRE MINTER (1/1 - 7/1) CATS 80 LBS/ACRE ANNUAL RYEGRASS 40 LBS/ACRE ANNUAL RYEGRASS 40 LBS/ACRE MINTER (1/1 - 7/1) CATS 80 LBS/ACRE MINTER (1/1 - 7/1) MINTER (1/1 - 7/1) MIN	HOUSE 1. SP 1. AP 2. GR MA TH DEF PR ST 3. FU NO US PR 4. DE FO AF CO GR AF CO CO CO CO CO CO CO CO CO CO
	DURING CONSIDUCTION WINDOF SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS): SEASON SEASON SUMMER (5/15 - 8/15) SUMMER (5/15 - 8/15) SUMMER (5/15 - 8/15) SUMMER (1/1 - 7/1) ANULCH W/ DORMANT SEED BIO LBS/ACRE ANNUAL RYEORASS 40 LBS/ACRE ANNUAL RYEORASS 40 LBS/ACRE SOUNDER/CARLY FALL PERENNIAL RYEORASS 40 LBS/ACRE ANNUAL RYE	HOUSE 1. SP 1. AP 2. GR MA TH DEF PR ST 3. FU NO ST AP 2. GR MA MA TH DEF PR ST 3. FU NO ST PR ST AP PR ST PR AP PR ST PR PR ST PR PR ST PR PR PR PR ST PR PR PR PR PR PR PR PR PR PR
	DURITIONAL TENEORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHSE SUMMER (5/15 - 8/15) SUDANGRASS 40 LBS/ACRE ATE SUMMER/EARLY FALL PERENNAL RECRASS 40 LBS/ACRE ATE SUMMER/EARLY FALL PERENNAL RECRASS 40 LBS/ACRE MILER (1/1 - 4/1) MILER YE TIL 225/ACRE MILER (1/1 - 4/1) MILER YE DOWNANT SEED BD LBS/ACRE ANNUAL RYCGRASS 40 LBS/ACRE MILER (1/1 - 4/1) WILER SECOND CONTROL MIX REGION CONTROL MIX REGION CONTROL MIX REGION CONTROL MIX REGION CONTROL MIX (ECM) SHALL MEET THE REQUIREMENTS PROVIDED IN THE LATEST REVISION OF MAINE DEP'S EROSION AND LIDS/ACRE MILER (1/1 - 4/1) MILER (1/1 - 4/1) MILER (ECM) SHALL MEET THE REQUIREMENTS PROVIDED IN THE LATEST REVISION OF MAINE DEP'S EROSION AND LIDS/ACRE REGION CONTROL MIX REGION CONTROL MIX REGION CONTROL MIX REGION CONTROL MIX (ECM) SHALL MEET THE REQUIREMENTS PROVIDED IN THE LATEST REVISION OF MAINE DEP'S EROSION AND LIDS/ACRE RAMINAL CONSIST OF WELL-GRADED ORGANIC COMPONENT 50 - 1008 OF DRY WELGHT, AND COMFRIED OF FIBROUS AND LIDS/ACRE REGION CONTROL MIX REGION LONTROL MIX REGION CONTROL MIX (ECM) SHALL MEET THE REQUIREMENTS PROVIDED IN THE LATEST REVISION OF MAINE DEP'S EROSION AND LIDS/ACRE FRAMASING OF 1000 IN LENGTH, SUCCES FABILIZATION DEAL L'SPE PREVENT THAN 3.1 BUT LESS THAN 1:1. CIDS SHALL CONSIST OF WELL-GRADED ORGANIC COMPONENT 50 - 1008 OF DRY WELGHT, AND COMFRIED OF FIBROUS AND LIDS/ACRE FRAMASING OF 1000 ILEGGIN, SUCCES GRADET THAN 3.1 BUT LESS THAN 1:1. CIDS SHALL BE AVENTY DISTIBUTED AND APPLED AT HICKNESS OF 2' ON 3:1 SUCPES, WITH AN ADDIONAL 1/2' PER 20 OF DIST SOFES GRATER THAN 3:1 MULENTH, SLOPES GRATER THAN 3:1. LOPES GRATER THAN 3:1 MULENTH, SLOPES GRATER THAN 3:1. LOPES GRATER THAN 3:1 MULENTH, SLOPES GRATER THAN 3:1. DUE STOPS SOFE THAN 3:1 MULENTH, SLOPES GRATER THAN 3:1. MULENTH, SLOPES GRATER THAN 50 MILENTH, SLOPES GRATER THAN 3:1. MULENTH,	HOUSE 1. SP 1. AP 2. GR MA TH DEN ST 3. FUNC US PR 4. DE 5. TR FO AF COC R AL CO - - - - - - - - - - - - -
	DUBING LOUSINGLING WINDUT SEED ARTICLE (FOR PERIODS LESS THAN 12 MONTHS): SEASON SUDARGRAPY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS): SEASON ATE SUMMER (5/15 - 8/15) SUDARGRAPY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS): SEASON ATE SUMMER (5/15 - 8/15) MULER VIEW FOR STATUS (1) PERIONIAL RYEGRASS 40 LBS/ACRE 3/15 - 9/15) MULER VIEW FOR (1/1 - 4/1) WULCH W/ DORMANT SEED B0 LBS/ACRE **SEED RATE ONLY **SEED RATE THAN 0: LOCAL A TAICKNESS OF 2'' ON 31 SLOPES; STATU AN ADDITONAL 12SS THAN 1:1. **SEED RATE THAN 0:1 NOT 10 UNLY **SEED RATE THAN 0:1 NOT 10 UNLY **SEED RATE THAN 0:1 NOT 10:0 SLOPES CREATER THAN 0:1 NOT 10 OF NOT 10 CAN 10 PERION **SEE SECTION ACA **SEED RATE THAN 0:1 NOT 1:S SEE SLOPE STABULZATION DETAIL FOR ADDITONAL INFORMATION. **SEED RATE THAN 0:1 NOT 1:S SEE SLOPE STABULZATION DETAIL FOR ADDITONAL SLOPE STABULZATION DETAIL ON UPGRADENT RUNOFF AND OTHER SECTION ACA **SEED RATE THAN 0:1 NOT SLOPE SCALE ON THE SAME ADDITONAL SLOPE STABULZATION DETAIL FOR ADDITONAL SLOPE STABULZATION DETAIL FOR ADDITONAL SLOPE **SEED RATE THAN 0:1 NOT 1:S SEE SLOPE STABULZATION DETAIL FOR ADDITONAL SLOPE SCALE ON UPGRADENT RUNOFF AND OTHER ************************************	HOUSE 1. SP 1. AP 2. GRMA TH DEN MA TH DEN PR ST 3. FUNOUS PR 4. DE ST NOUS PR 4. DE ST NOUS PR 4. DE FO AFC COC RAF COC COC RAF COC COC RAF COC COC COC COC COC COC COC CO
	DUBING LUNGTRUCTURE STRUCTURE (FOR PERIODS LESS THAN 12 MONTHS): STASON SUMMER (5/15 - 8/15) SUMMER (5/15 - 11/1) MULCH W/ DORMANT SEED 80 LBS/ACRE SUMMER (5/15 - 11/1) MULCH W/ DORMANT SEED 80 LBS/ACRE SUMMER (5/15 - 11/1) SUMMER (5/	HOUSE 1. SP 1. AP 2. GRMA TH DEN MA TH DEN PR ST 3. FUN ST 3. FUN ST ST ST ST ST ST ST ST ST ST
	DURINGLE UNDERGET SEED WITCHE FOR PERIODS LESS THAN 12 WORTHSL SLAMER (5/15 - 6/15) SLAMER (5/15 - 6/15) MULTER YALL PERINAL RYCERASS 40 LBS/ACRE BS/SCRE BS/SCRE MULC W/ DORWANT SEED BOL LBS/ACRE MULC SEEDES OF W/ DORWANT SEED BOL LBS/ACRE MULC M/ DORWANT SEED BOL LBS/ACRE MULC SEEDES OF W/ LBS/ACRE MULC SEEDES ADDE DOR UNAL SEED STABLIZATION DEFENSION ON UPGRADENT RUNOFF AND OTHER SANDBAG OR EQUIVALENT SUBJECTIC DOL DOL SEED STABLIZATION DEFINITION ALL BE APPLIED AT THICKNESS OF 4° OR 5° SONDTONOS: SEE SECTION A-A ELAN CONSTRUCTION SPECIFICATIONS MULT SENTING AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM OPEN CHANNELS, STORM DRAIN MAINTAIN AT LEAST 4 INCHES OF FREEDBOARD. TYPICAL DIRAC MAY FROM OPEN CHANNELS, STORM DRAIN MAINTAIN AT LEAST 4 INCHES OF FREEDBOARD. TYPICAL DIRAC MAY FROM OSTINUTION TRAFFIC.	HOUSE 1. SP 1. AP 2. GRMA TH DEN MA TH DEN PR ST 3. FUNCUS PR 4. DE S. TR NO S. TR OCR AF CO
	DURINGLAUSTROCARY SEED MUTURE (CRO PRODECIDE TABLE 24 MAINAL SAMARER (5/15 - 6/15) STATE SUMMER (5/15 - 6/15) STATE SUMMER (5/15 - 6/15) STATE SUMMER (5/15 - 6/15) STATE SUMMER (5/15 - 11/1) MITTER (1/1 - 14/1) MITTER (1/1 - 4/1) MITTER (HOUSE 1. SP 1. AP 2. GRMA TH DEN MA TH DEN PR ST 3. FUNCUSE 4. DE BE FO AF COR AR SE 6. NO AL COR AL AL AL COR AL AL COR AL AL COR AL COR AL COR AL AL AL COR AL COR AL AL AL AL AL COR AL AL AL AL AL AL AL AL AL AL
	DURINGL LEVERARY SED WITHOU SPECUE FINDLEND REVOLUTION REVOLUTION. SUBJECT LEVERARY SED WITHOUS PECUE (CON PERIODS LESS THAL 12 WONTHS). SEED STATE SUMMER (2/15 - 8/15) SUBJECT LEVERARY FAIL FREENNAL RECORDS to LESS/ACRE ATE SUMMER (2/1 - 7/2) WITHER PTC 112 LESS/ACRE ATE SUMMER (2/1 - 7/2) WITHER PTC 112 LESS/ACRE SEED ATE ONLY SEED ATE ONLY SEED ATE ONLY SEED CALE ON	HOUSE 1. SP 1. AP 2. GRM MA TH DEF PR ST 3. FUN NO ST 3. FUN NO ST 4. DE FO AF COR A
	DUDITION LINE WINDU SELDE TOULE LOS MAILON RESIDENT.	HOUSE 1. SP 1. AP 2. GRMA THE NMA THE ST 3. FUNDS PR 4. DE FO AF COR A

EROSION AND SEDIMENT CONTROL PLAN

CONCRETE WASHOUT STRUCTURE NTS

EROSION CONTROL DURING CONSTRUCTION WINTER CONSTRUCTION

- NTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15 VERWINTER STABILIZATION OF DITCHES AND CHANNELS: LL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS LINED TCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT ASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE DITCH FOR TE FALL AND WINTER.
- INSTALL A SOD LINING IN THE DITCH: A DITCH MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES: PINNING THE SOD ONTO THE SOL WITH PROPERTY INSTALLED SOU BY COORDER IN PROPER INSTALLATION INCLUDES: PINNING THE SOD ONTO THE SOL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOLL, AND ANCHORING SOD AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD FROM SLOUGHING DURING FLOW CONDITIONS. SEE THE PERMANENT VEGETATION BMP SECTION.
- INSTALL A STONE LINING IN THE DITCH: A DITCH MUST BE LINED WITH STONE RIPRAP BY NOVEMBER 15. A REGISTERED PROFESSIONAL ENGINEER MUST BE HIRED TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE CONTRACTOR WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.
- OVERWINTER STABILIZATION OF DISTURBED SLOPES: ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL SLOPES TO BE VEGETATED MUST BE SEEDED AND MULCHED BY SEPTEMBER 1. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE SREATER THAN 15% TO BE A SLOPE. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1. THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER. STABILIZE THE SOIL WITH "EMPORARY VEGETATION AND EROSION CONTROL MATS. BY OCTOBER 1 THE DISTURBED SLOPE MUST BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND THEN INSTALL EROSION CONTROL MATS OR INCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT EAST 75% OF THE SLOPE BY NOVEMBER 1. THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP AS DESCRIBED IN THE FOLLOWING STANDARDS.
- STABILIZE THE SOIL WITH SOD: THE DISTURBED SLOPE MUST BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SOIL WITH EROSION CONTROL MIX: EROSION CONTROL MIX MUST BE PROPERLY INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE. SEE THE EROSION CONTROL MIX NOTES FOR ADDITIONAL CRITERIA. STABILIZE THE SOIL WITH STONE RIPRAP:
- RWINTER STABILIZATION OF DISTURBED SOILS: SEPTEMBER 15, ALL DISTURBED SOLLS ON AREAS HAVING A SLOPE LESS THAN 15% MUST BE SEEDED AND MULCHED. THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO BILIZE THE SOIL FOR LATE FALL AND WINTER.
- STABILIZE THE SOIL WITH TEMPORARY VEGETATION: BY OCTOBER 1, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 90% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED BELOW.
- STABILIZE THE SOIL WITH SOD: STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLINIG THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. STABILIZE THE SOIL WITH MULCH:
- STABILIZE THE SOIL WITH MULCH: BY NOVEMBER 15, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL. PROVIDE NETTING ON ALL SLOPES GREATER THAN 8%.
- AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE TARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM ENT. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. ONCE A EK AND BEFORE AND AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE ONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM EPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND LCHING, THE CONTRACTOR SHALL, IN THE SPRING, INSPECT AND REPAIR ANY DAMAGES AND/OR BARE SPOTS. AN TABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85 TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.
- ABILIZATION SCHEDULE BEFORE WINTER: ALL DISTURBED AREAS MUST BE SEEDED AND MULCHED. ALL SLOPES MUST BE STABILIZED, SEEDED AND MULCHED. ALL GRASS LINED DITCHES AND CHANNELS MUST BE STABILIZED WITH MULCH OR AN EROSION PTEMBER 15 CONTROL BLANKET
- IF THE SLOPE IS STABILIZED WITH AN EROSION CONTROL BLANKET AND SEEDED. ALL DISTURBED AREAS TO BE PROTECTED WITH AN ANNUAL GRASS MUST BE SEEDED AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND MULCHED. CTOBER 1 VEMBER 15
- IRING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO
- IS AREA DURING THE WINTER, A DOUBLE LINE OF SEDIMENT BARRIERS MUST BE USED. KEEPING
- <u>ILL PREVENTION:</u> CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND PROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.
- ROUNDWATER PROTECTION: DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS IE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY SIGN OR AS A RESULT OF SOILS, TOPOGRAPHY, AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT FILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT EVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF DRAGE AND HANDLING OF THESE MATERIALS.
- GITIVE SEDIMENT AND DUST: ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN TICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MY NOT BE ED FOR DUST CONTROL. ANY OFFSITE TRACKING OF MUD OR SEDIMENT SHALL BE VACUUMED IMMEDIATELY AND IOR TO THE NEXT SIGNIFICANT STORM EVENT OR TO THE NEXT SIGNIFICANT STORM EVENT.
- BRIS AND OTHER MATERIALS: LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST PREVENTED FROM BECOMING A POLLUTANT SOURCE.
- ENCH OR FOUNDATION DE-WATERING: TRENCH DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, UNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER NOT THE EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVLY SUITED AND HINDERS CORRECT SAFE INSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDED AREA, EITHER THROUGH SAVITY OR PUMPING, AND MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT RE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.
- DMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:
- DISCHARGES FROM FIREFIGHTING ACTIVITY; FIRE HYDRANT FLUSHINGS; VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED); DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3) OF MAINE DEP 06-096 ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS; PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED. UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED; UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
- UNCONTAMINATED GROUNDWATER OR SPRING WATER; FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED; UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5) MAINE DEP 06-096 CHAPTER 500); POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND LANDSCAPE IRRIGATION.
- <u>VAUTHORIZED NON-STORMWATER DISCHARGES:</u> THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT JTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES COMPLIANCE WITH APPENDIX C(6) MAINE DEP 06-096 CHAPTER 500. SPECIFICALLY, THE DEPARTMENT'S PROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:
- COMPOUNDS OR OTHER CONSTRUCTION MATERIALS; FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.
- DITIONAL REQUIREMENTS: ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.



PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE DEVELOPMENT'S OWNER WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

ALL STONE LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED. SLOPES THAT ARE COVERED WITH RIPRAP MUST BE CONSTRUCTED BY THAT DATE.

REAS WITHIN 75 FEET OF STREAMS, WETLANDS, AND OTHER PROTECTED NATURAL RESOURCES THAT ARE NOT ABILIZED WITH VEGETATION BY DEC. 1 SHALL BE MULCHED AND ANCHORED WITH NETTING. IF WORK CONTINUES IN

<u>ON-STORMWATER DISCHARGES:</u> IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE LLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO NSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER

WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING

HAY OR STRAW BALE LAID W/ WRAPPING STRING AS SHOWN UNFINISHED GROUND

> REMOVE BALES UPON COMPLETION OF PAVING &/OR SEEDING



PUMPED DISCHARGE SEDIMENT CONTROL DEVICE ("DIRT BAG")

SIDE VIEW





NOTES:

- 1. Acceptable EC Measure details are provided below.
- At a minimum, EC measures meet ME DEP Standards and Specifications or previously approved interchangeable practices.
- 3. Limits of disturbance (or "construction demarcation") shall be installed prior to any earth disturbing activities.
- 4. Barrier Tape/Rope: for use where proposed disturbance borders non-wooded, vegetated areas more than 100 ft from the nearest water resource (stream, brook, lake, pond, wetland, etc.). Barrier tape is high visibility fiber-glass tape, minimum 3" in width commonly used in ski areas for demarcating closed areas. Barrier tape and rope should be attached to stakes, at a minimum height of 4 ft from the ground.



perimeter. 2. Each row of barrier tape to be 3" wide minimum.

- 3. Barrier tape to be orange.
- 4. Secure barrier tape to stakes or existing tree trunks with bottom row at 4' distance from ground surface (minimum).
- 5. Maintain and replace as needed. Remove at completion of project.
- 6. In event the Contractor determines barrier tape is not sufficient, replace with orange construction fence or snow fence.

TYPICAL CONSTRUCTION LIMIT BARRIER NTS

POLAND SOLAR
Poland, Maine
BOYLE ASSOCIATES
KREBS & LANSING CONSULTING ENGINEERS164 Main Street, Suite 201 Colchester, Vermont 05446P: (802) 878-0375 www.krebsandlansing.com
⇒BH2M
<u>Berry, Huff, McDonald, Milligan Inc.</u>
Engineers, Surveyors 28 State Street Tel. (207) 839-2771 Gorham, Maine 04038 Fax (207) 839-8250
ISSUED FOR CLIENT REVIEW NOT FOR CONSTRUCTION
SOURCE DATA LEGEND
Civil Engineering: Krebs and Lansing Consulting Engineers, Inc. 164 Main Street, Suite 201 Colchester, Vermont 05446
Environmental: Boyle Associates 254 Commercial Street Merrill's Wharf, Suite 101 Portland, ME 04101
BH2M Inc. 28 State Street Gorham, ME 04038
STELEN J BANGENSED
REV. REVISIONS/COMMENTS DATE
Drawing Title:
EROSION AND
DETAILS
DATE of Issue: 10/22/2020
Drawn by: CRM Checked by: SJB
Drawing No.: Rev No.:
C-5.1

<u>Attachment D</u> Erosion and Sedimentation Control Inspection and Maintenance Plan

EROSION AND SEDIMENTATION CONTROL

INSPECTION AND MAINTENANCE PLAN

POLAND SOLAR PROJECT Poland, Maine

For BWC Edwards Cove, LLC

A Subsidiary of



Prepared by:





Date: October 2020



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LIST OF APPENDICES

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1.0 INTRODUCTION

The intent of this plan is to establish inspection and maintenance procedures to be implemented for erosion and sediment control best management practices (BMP's) during construction, as well as for post-construction stormwater BMP's, for the proposed Poland Solar Project, located in Poland, Maine. This plan has been prepared in conformance with the requirements set forth in 06-096 Chapter 500 – Stormwater Management and the Maine Construction General Permit.

1.1 **PROJECT DESCRIPTION**

BWC Edwards Cove, LLC is proposing to construct the Project, a fixed ground mount photovoltaic solar array off Johnson Hill Road in Poland, Maine. The Project is proposed to occupy a total of 19.6 acres on a portion of the parcels known as Tax Map 13 Lot 50. The project is required to obtain a Stormwater Permit By Rule to be compliant with Chapter 500 Rules. The generation capacity of the Project is designed to be 3.5 megawatts and electricity generated at the site will be interconnected to the existing distributed generation 3-phase power line along Johnson Hill Road.

The scope of work includes but is not limited to:

- Tree clearing (18.6 acres)
- Stump and boulder removal
- Construction of a 20' wide gravel access road
- Construction of a temporary staging area
- > Installation of solar panels and associated support equipment and structures
- Installation of buried and overhead collector lines
- Restoration of disturbed areas

Construction of the project will be planned to occur incrementally in blocks of no more than 10-acres. Sequencing of construction will be structured so that the 10-acre blocks will be stabilized prior to commencing construction of subsequent 10-acre blocks.



1.2 LIST OF PERMITS

The following is a list of Municipal, State, and Federal permits that have been granted for the Project:

<u>Municipal</u> Town of Poland Site Plan Permit

<u>State of Maine</u> Stormwater Management Law – Permit by Rule

<u>Federal</u> None

1.3 <u>REFERENCES</u>

This plan has been developed in accordance with the following references:

- Stormwater Management Law 38 M.R.S. §420-C and §420-D <u>http://legislature.maine.gov/statutes/38/title38sec420-C.html</u> <u>http://legislature.maine.gov/statutes/38/title38sec420-D.html</u>
- 06-096 Chapter 500 Stormwater Management <u>http://www.maine.gov/sos/cec/rules/06/096c500.docx</u>
- General Permit Construction Activity Maine Pollutant Discharge Elimination System (MPDES) <u>https://www.maine.gov/dep/land/stormwater/construction.html</u>
- Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers <u>https://www.maine.gov/dep/land/erosion/escbmps/esc_bmp_engineers.pdf</u>
- Maine Erosion and Sediment Control Practices Field Guide for Contractors <u>https://www.maine.gov/dep/land/erosion/escbmps/esc_bmp_field.pdf</u>
- MaineDOT Best Management Practices for Erosion and Sedimentation Control <u>https://www.maine.gov/mot/env/documents/bmp/BMP2008full.pdf</u>



1.4 <u>RESPONSIBLE PARTIES</u>

Preparer/Design Engineer:	BH2M 380B Main Street Gorham, ME 04038 (207) 839-2771
Owner:	BWC Edwards Cove, LLC
General Contractor:	
Third Party Inspector:	
Post Construction Stormwater Inspector:	

During construction the General Contractor will be responsible for implementing the erosion and sediment control BMP's as well as routine inspections and maintenance of the BMP's. The Owner will retain a third-party inspector to perform weekly inspections of the erosion and sediment control BMP's during construction.

Post-construction stormwater BMP inspections, maintenance, reporting, and required recertifications will be the responsibility of the Owner or their representatives



1.5 INSPECTION AND MAINTENANCE – DURING CONSTRUCTION

Anyone who conducts or directs an activity that involves exposing, filling or displacing soil or other earthen materials should take appropriate measures to prevent erosion and the loss of sediment beyond the project site or into a sensitive resource. Erosion and sediment control measures should be in place before the activity begins and should remain functional until the site is permanently stabilized. All measures should remain effective until all areas are permanently stabilized. Any disturbed area should be regularly inspected until the site is fully stabilized with either 90% grass cover or a permanent impervious surface such as pavement. A person who has the knowledge of erosion and sediment control measures and of stormwater management practices should inspect the site at a minimum once a week, and before and after a storm event. Any failing measure should be repaired or modified to adequately stabilize the site prior to the next storm event or no later than 7 calendar days. The inspection frequency table found in Appendix F shall be used as a guide for inspecting each specific BMP. The inspection form found in Appendix B shall be used to record the inspection, its outcome, and the required maintenance.

Refer to the Plans found in Appendix A for additional erosion and sediment control details and narratives

General Inspection, Maintenance, and Documentation Requirements

- 1. Inspection and corrective action: Inspect disturbed and impervious areas, erosion control measures, and material storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. Inspect these areas at least once a week as well as before and within 24 hours after a storm event, and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct the inspections.
- 2. Maintenance: If BMP's need to be repaired, the repair work should be initiated upon discovery of the problem but no later than the end of the next workday. If additional BMPs or significant repair of BMPs are necessary, implementation must be completed within 7 calendar days and prior to any storm event. All measures must be maintained in effective operating condition until areas are permanently stabilized.
- 3. Documentation: Maintain a binder with construction inspection forms summarizing the inspections and any corrective action taken. The forms must include the name and qualifications of the person making the inspections, the date of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicle access points to the parcel. Refer to Appendix B for the construction inspection form. Major observations must include BMP's that need maintenance, BMP's that failed to operate as designed or proved



inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the inspection form what corrective action taken and when it was taken. The Owner shall retain a copy of the inspection forms for a period of at least <u>five years</u> from the completion of permanent stabilization.

Site-Specific BMP's

Refer to Appendix D for inspection and maintenance requirements and frequencies of site-specific BMP's. Refer to the Plans found in Appendix A for narratives and details of the site-specific BMP's. The following is a list of the site-specific BMP's that may be required for the project:

- Sedimentation Barriers (Silt Fence or Erosions Control Mix Berm)
- Stabilized Construction Entrance
- ➢ Staging Area
- Construction Limit Barrier Fence
- Slope Stabilization
- Concrete Washout Structure
- Stone Check Dam
- ≻ Water Bar
- Level Spreader/Ditch Turnout
- Pumped Discharge Sediment Control Device "Dirt Bag"
- Temporary Sediment Trap
- Pipe Outlet Protection
- Temporary Grass/Stone Lined Swale

Winter Constriction

Winter construction is construction activity performed during the period from November 1 through April 15. If disturbed areas are not stabilized with permanent measures by November 1 or new soil disturbance occurs after November 1, but before April 15, then these areas must be protected and runoff from them must be controlled by additional measures and restrictions.

- 1. Site Stabilization: For winter stabilization, hay mulch is applied at twice the standard temporary stabilization rate. At the end of each construction day, areas that have been brought to final grade must be stabilized. Mulch may not be spread on top of snow.
- 2. Sediment Barriers: All areas within 75 feet of a protected natural resource must be protected with a double row of sediment barriers.
- 3. Ditches: All vegetated ditch lines that have not been stabilized by November 1, or will be worked during the winter construction period, must be stabilized with an appropriate stone lining backed by an appropriate gravel bed or geotextile unless specifically released from this standard by Maine DEP.



4. Slopes: Mulch netting must be used to anchor mulch on all slopes greater than 8% unless erosion control blankets or erosion control mix is being used on these slopes.

Refer to the Plans contained in Appendix A for additional winter construction erosion and sediment control requirements.

1.6 INSPECTION AND MAINTENANCE – POST-CONSTRUCTION

The long-term operation and maintenance of a stormwater management system is as critical to its performance as its design and construction. Proper operation and maintenance practices ensure that stormwater BMP's continue to improve water quality by removing pollutants effectively over the long-term and decreasing the risk of resuspending sediment. Without proper maintenance, BMPs are likely to fail and will no longer provide treatment of stormwater. The following includes a summary of the inspection, maintenance, and documentation requirements for post-construction stormwater BMP's.

Refer to the Plans contained in Appendix A for details and locations of site-specific post-construction BMP's.

General Inspection, Maintenance, and Documentation Requirements

- 1. Inspection and maintenance: All measures must be maintained in effective operating condition. A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct the inspections. The following areas, facilities, and measures must be inspected and identified deficiencies must be corrected. Areas, facilities, and measures other than those listed below may also require inspection on a specific site.
 - a. Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after significant rainfall events (0.5 inches in 24-hour period) to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.
 - b. Inspect ditches, swales and other open stormwater channels in the spring, in late fall, and after significant rainfall events (0.5 inches in 24-hour period) to remove any obstructions to flow, remove accumulated sediments and debris, to control vegetated growth that could obstruct flow, and to repair any erosion of the ditch lining. Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity. Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable. If the ditch has a riprap lining, replace riprap on areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones

have dislodged. The channel must receive adequate routine maintenance to maintain capacity and prevent or correct any erosion of the channel's bottom or side slopes.

- c. Inspect culverts in the spring, late fall, and after significant rainfall events (0.5 inches in 24-hour period) to remove any obstructions to flow; remove accumulated sediments and debris at the inlet, outlet, and within the conduit. Repair any erosion damage at the culvert's inlet and outlet.
- d. Inspect resource and treatment buffers once a year for evidence of erosion, concentrating flow, and encroachment by development. If flows are concentrating within a buffer, site grading, level spreaders, or ditch turn-outs must be used to ensure a more even distribution of flow into a buffer. Check down slope of all level spreaders and turn-outs for erosion. If erosion is present, adjust or modify the level spreader's or turn-out's lip to ensure a better distribution of flow into a buffer. Clean-out any accumulation of sediment within the level spreader bays or turn-out pools.
- 2. Regular maintenance
 - a. Clear accumulations of winter sand in parking lots and along roadways at least once a year, preferably in the spring. Accumulations on pavement may be removed by pavement sweeping. Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader. Grading of gravel roads, or grading of the gravel shoulders of gravel or paved roads, must be routinely performed to ensure that stormwater drains immediately off the road surface to adjacent buffer areas or stable ditches, and is not impeded by accumulations of graded material on the road shoulder or by excavation of false ditches in the shoulder. If water bars or open-top culverts are used to divert runoff from road surfaces, clean-out any sediments within or at the outlet of these structures to restore their function.
 - b. Manage each buffer's vegetation consistently with the requirements in any deed restrictions for the buffer. Wooded buffers must remain fully wooded and have no disturbance to the duff layer. Vegetation in non-wooded meadow buffers may not be mowed more than two times per year, and may not be cut shorter than six inches.
- 3. Documentation: Maintain a binder of inspection forms summarizing inspection, maintenance, and any corrective actions taken. The inspection forms must include the date on which each inspection or maintenance task was performed, a description of the inspection findings or maintenance completed, and the name of the inspector or maintenance personnel performing the task. Refer to Appendix C for inspection forms. If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed of after removal. The log must



be made accessible to Department staff and a copy provided to the Department upon request. The Owner shall retain a copy of the logs for a period of at least five years from the completion of permanent stabilization.

1.7 HOUSEKEEPING

The following performance standards shall apply:

- 1. Spill prevention. Controls must be used to prevent pollutants from construction and waste materials stored on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.
- NOTE: Any spill or release of toxic or hazardous substances must be reported to the Department. For oil spills, call 1-800-482-0777 which is available 24 hours a day. For spills of toxic or hazardous material, call 1-800-452-4664 which is available 24 hours a day. For more information, visit the Department's website at: http://www.maine.gov/dep/spills/emergspillresp/
 - 2. Groundwater protection. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials. Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.

See 06-096 Chapter 500 - Appendix D for license by rule standards for infiltration of stormwater.

NOTE: Lack of appropriate pollutant removal best management practices (BMPs) may result in violations of the groundwater quality standard established by 38 M.R.S.A. §465-C(1).

3. Fugitive sediment and dust. Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance (SCE)

should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, should wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.

NOTE: Dewatering a stream without a permit from the Department may violate state water quality standards and the *Natural Resources Protection Act*.

- 4. Debris and other materials. Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.
- NOTE: To prevent these materials from becoming a source of pollutants, construction and post- construction activities related to a project may be required to comply with applicable provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; and Maine pesticide requirements.
 - 5. Excavation de-watering. Excavation de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the Department.

NOTE: Dewatering controls are discussed in the "Maine Erosion and Sediment Control BMPs, Maine Department of Environmental Protection."

- 6. Authorized Non-stormwater discharges. Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:
 - a. Discharges from firefighting activity;

- b. Fire hydrant flushings;
- c. Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);
- d. Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);
- e. Dust control runoff in accordance with permit conditions and Appendix (C)(3);
- f. Routine external building washdown, not including surface paint removal, that does not involve detergents;
- g. Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;
- h. Uncontaminated air conditioning or compressor condensate;
- i. Uncontaminated groundwater or spring water;
- j. Foundation or footer drain-water where flows are not contaminated;
- k. Uncontaminated excavation dewatering (see requirements in Appendix C(5));
- 1. Potable water sources including waterline flushings; and
- m. Landscape irrigation.
- Unauthorized non-stormwater discharges. The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of nonstormwater, other than those discharges in compliance with 06-096 Chapter 500 - Appendix C (6). Specifically, the Department's approval does not authorize discharges of the following:
 - a. Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
 - b. Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;
 - c. Soaps, solvents, or detergents used in vehicle and equipment washing; and
 - d. Toxic or hazardous substances from a spill or other release.
- 8. Additional requirements. Additional requirements may be applied on a site-specific basis.

Appendix A Plans

<u>Appendix B</u> Construction Inspection Forms

CONSTRUCTION INSPECTION FORM FOR EROSION AND SEDIMENT CONTROL						
General Information:						
Site Name:	Date:		Inspected by:			
Owner:						
Retained 3PI:	Last Rain Date: Amount:					
Reason for Inspection:	Weekly	Winter Final Rain Event			Complaint	
Description of disturbed area:					I	
Photos:						
	YES/NO/NA COMMENTS					
1. Is an Erosion and Sediment Control Pla	an available?					
ESC plan on-site and followed						
Other:						
2. Are all erosion control practices install	ed properly, ma	intained a	nd func	tioning?		
Disturbed areas stable						
Concentrated flow inlet/outlet protection						
All areas at final grade						
Disturbed dormant areas stabilized						
Access roads and parking						
Hillsides and stockpiles						
Other:						
3. Are all sedimentation control practices	installed prope	rly, mainta	ained an	d functioning	?	
Construction entrance						
Sedimentation basins/traps/diversions						
Perimeter controls						
Check dams						
Other:						
4. Is maintenance of ESC measures, cons	truction activiti	es and ho	usekeep	ing kept-up?		
Sedimentation/erosion in ditches						
Tracked Sediment or dust at exits						
Hazardous material storage and spill control practices						
Waste management (concrete, hazardous						
Other:						
5. Violation, Corrective Actions, Recomm	endations					
Sediment discharged from site?						
Corrective action required?						
Site compliant with all permits?						
Notice of violation or stop work order issued?						
Comments/Corrective Actions (complete cor	rective actions b	efore the n	ext rain e	event and withi	n 7 day)	

<u>Appendix C</u> Post-Construction Inspection Forms

Poland Solar Project Post-Construction Inspection Form (Buffers/Level Sp	readers)				
Project name:	Date:		Inspected	by:	
Owner name:					
Last rain date:	Amount:				
Reason for inspection:	Rain Event	Monthly	Annually	Maint. Performed	Other (Specify)
General description of BMP condition:	I			1	
Photos: (Attach)					
Inspection Details		Comment	s	Mainte Requ	nance ired
Erosion or concentrated flows evident?					
Downgradient of level spreaders stable?					
Level spreaders built along contour?					
Evidence of accumulated sediment in level spreader trough?					
Number of level spreaders adequate for flow distribution?					
Buffer monumentation visible?					
Evidence of buffer vegetation removal or frequent mowing?					
Temporary or permanent structures within the buffer?					
Evidence of motorized vehicles operating in buffer?					
Trash, debris, or waste within buffer area?					

Poland Solar Project Post-Construction Inspection Form (Roadway and Parking Areas)						
Project name:	Date: Inspected by:					
Owner name:						
Last rain date:	Amount:					
Reason for inspection:	Rain Event	Monthly	Annually	Maint. Performed	Other (Specify)	
General description of BMP condition/recent mainte	enance per	formed:		1		
Photos: (Attach)						
Inspection Details		Comment	S	Mainte Requ	nance ired	
Winter sand accumulation apparent?						
Pavement Sweeping required?						
Gravel shoulders graded appropriately?						
Gravel road grading required?						
Low spots causing puddling?						
Additional Comments:						

Poland Solar Project Post-Construction Inspection Form (Storm Drain Sys	tom includ	ing catch ba	sine and cub	vorts)	
Project name:	Date:	ing catch ba	Inspected	by:	
Owner nemet					
Gwher hame.					
Last rain date:	Amount:				
Reason for inspection:	Rain	Monthly	Annually	Maint.	Other
	Event			Performed	(Specify)
General description of BMP condition/recent mainte	enance perf	formed:			
Photos: (Attach)					
Inspection Details		Comment	S	Mainte	enance
				Kequ	ired
Accumulated debris or sediment at inlet, outlet, or					
Eleve obstructions present?					
Flow obstructions present?					
Fraction apparent at autorst inlat/outlat?					
Erosion apparent at curvert iniet/outlet?					
A commutated debuic around eatch basin crote?					
Accumulated debris around catch basin grate?					
Assumpted debais in establishesin summ?					
Accumulated debris in catch basin sump?					
Electing debris or ails found in establishesing?					
Additional Comments:					

Poland Solar Project Post-Construction Inspection Form (Vegetated Area)					
Project name:	Date:		Inspected	by:	
Owner name:					
Last rain date:	Amount:				
Reason for inspection:	Rain Event	Monthly	Annually	Maint. Performed	Other (Specify)
General description of BMP condition/recent mainte	enance perf	formed:			
Photos: (Attach)					
Inspection Details		Comment	s	Mainte Requ	enance ired
All slopes and embankments well vegetated? Signs of sparse growth?					
Rill erosion apparent in vegetated areas?					
Downs slope of level spreaders/ditch turnouts stable?					
Mowing of vegetated areas appropriate?					
Additional Comments:					

<u>Appendix D</u> Inspection Frequency Checklist

EROSION AND SEDIMENT CONTROL MEASURES AND ACTIVITY	INSPECTION FREQUENCY		
	Weekly	Before and After a Storm	After Construction
SEDIMENT BARRIERS			
Sediment barriers are installed prior to soil disturbances	Х	Х	
Silt fences are keyed in and tight	Х	Х	
Barriers are repaired and replaced as necessary	Х	Х	
Barriers are removed when the site is stabilized - Silt			v
fence should be cut at the ground surface			X
TEMPORARY STABILIZATION			
Areas are stabilized if idle for 14 days or more	Х	Х	
Daily stabilization within 100 ft of a natural resource	Х	Х	
MULCH			
Seed and mulch within 7 days of final grading. Ground	Х	Х	
Erosion control mix is $1-6$ inch thick	X	X	
Erosion control blankets or hav mulch are anchored	×	X	
	Λ	X	
Vegetation provides 90% soil cover	X		X
Loam or soil amendment were provided	×		X
New seeded areas are mulched and protected from	Λ		Λ
vehicle foot traffic and runoff	Х	Х	Х
Areas that will remain unworked for more than 1 year			
are vegetated with grass	Х		
SLOPES AND EMBANKMENTS			
Final graded slopes and embankments are stabilized	X	X	X
Diversions are provided for areas with rill erosion	X	X	X
Areas steeper than 2:1 are riprapped	X		
Stones are angular, durable and various in size	X		
Riprap is underlain with a gravel layer or filter fabric	X X		
STORMWATER CHANNELS AND CULVERTS			
Ditches and swales are permanently stabilized-			
channels that will be riprapped have been over-	Х	Х	Х
excavated			
Ditches are clear of obstructions, accumulated			Ň
sediments or debris	Х	X	X
Ditch lining/bottoms are free of erosion	Х	Х	Х
Check dams are spaced correctly to slow flow velocity	X		
Underlying filter fabric or gravel is not visible	X	Х	Х
Culvert aprons and plunge pools are sized for			
expected flows volume and velocity	Х		
Stones are angular, durable and various in size	Х		
Culverts are sized to avoid upgradient flooding	X	Х	
Culvert protection extends to the maximum flow			
elevation within the ditch	Х	X	X
Culvert is embedded, not hanging	Х	Х	Х

CATCH BASIN SYSTEMS			
Catch basins are built properly	Х		
Accumulated sediments and debris are removed from		V	V
sump, grate and collection area		^	^
Floating debris and floating oils are removed from trap			Х
ROADWAYS AND PARKING SURFACES			
The gravel pad at the construction entrance is clear	×	V	
from sediments	^	^	
Roads are crowned		Х	Х
Cross drainage (culvert) is provided	Х		
False ditches (from winter sand) are graded		Х	Х
BUFFERS			
Buffers are free of erosion or concentrated flows		Х	Х
The downgradient of spreaders and turnouts is stable		Х	Х
Level spreaders are on the contour			Х
The number of spreaders and ditch turnouts is		V	V
adequate for flow distribution		^	^
Any sediment accumulation is removed from within		v	V
spreader or turnouts		^	^
STORMWATER BASINS AND TRAPS			
Embankments are free of settlement, slope erosion,		Y	Y
internal piping, and downstream swamping		^	^
All flow control structure or orifices are operational and		v	v
clear of debris or sediments		^	^
Any pre-treatment structure that collects sediment or		x	X
hydrocarbons is clean or maintained		~	Λ
Vegetated filters and infiltration basins have adequate			X
grass growth			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Any impoundment or forebay is free of sediment		Х	Х
WINTER CONSTRUCTION (November 1 st -April15th)	ГГ		
Final graded areas are mulched daily at twice the	Daily		
normal rate with hay, and anchor (not on snow)	Daily		
A double row of sediment barrier is provided for all			
areas within 100 ft of a sensitive resource (use erosion	Daily		
control mix on frozen ground)			
Newly constructed ditches are riprapped	Daily		
Slopes greater than 8% are covered with an erosion	Dailv		
control blanket or a 4-inch layer of erosion control mix			
HOUSEKEEPING PUNCH LIST	· · · · · · · · · · · · · · · · · · ·		
All disturbed areas are permanently stabilized, and			N/
plantings are established (grass seeds have			Х
germinated with 90% vegetative cover)			
All trash, sediments, debris or any solid waste have			V
detention structures discharge points, catch basins,			X
All ESC devices have been removed (sitt force and			
All ESC devices have been removed: (slit fence and			Х
All deliverables (sortifications, survey information, as			
An deriverables (certifications, survey information, as-			
pulli plans, reports, notice of termination (NOT), etc.) In			Х
submitted to town Maine DEP association owner etc.			

INSPECTION AND MAINTENANCE PLAN FOR STORMWATER MANAGEMENT STRUCTURES (BMPS)				
	INSPECTION SCHEDULE	CORRECTIVE ACTIONS		
	Annually early	Inspect all slopes and embankments and replant areas of bare soil or with sparse growth		
VEGETATED AREAS	spring and after heavy rains	Armor rill erosion areas with riprap or divert the runoff to a stable area		
		Inspect and repair down-slope of all spreaders and turn-outs for erosion		
		Mow vegetation as specified for the area		
DITCHES, SWALES AND OPEN STORMWATER CHANNELS	Annually spring and late fall and after heavy rains	Remove obstructions, sediments or debris from ditches, swales and other open channels		
		Repair any erosion of the ditch lining		
		Mow vegetated ditches		
		Remove woody vegetation growing through riprap		
		Repair any slumping side slopes		
		Repair riprap where underlying filter fabric or gravel is showing or if stones have dislodge		
CULVERTS	Spring and late fall and after heavy rains	Remove accumulated sediments and debris at the inlet, outlet, or within the conduit		
		Remove any obstruction to flow		
		Repair any erosion damage at the culvert's inlet and outlet		
CATCH BASINS	Annually in the	Remove sediments and debris from the bottom of the basin and inlet grates		
	spring	Remove floating debris and oils (using oil absorptive pads) from any trap		
		Clear and remove accumulated winter sand in parking lots and along roadways		
ROADWAYS	Annually in the	Sweep pavement to remove sediment		
AND PARKING	spring or as needed	Grade road shoulders and remove accumulated winter sand		
AREAS		Clean out the sediment within water bars or open-top culverts		
		Ensure that stormwater runoff is not impeded by false ditches of sediment in the shoulder		
		Inspect buffers for evidence of erosion, concentrated flow, or encroachment by		
		development		
RESOURCE		Manage the buffer's vegetation with the requirements in any deed restrictions		
AND	Annually in the	Repair any sign of erosion within a buffer		
TREATMENT	spring	Inspect and repair down-slope of all spreaders and turn-outs for erosion		
BUFFERS		Install more level spreaders, or ditch turn-outs if needed for a better distribution of flow		
		Clean out any accumulation of sediment within the spreader bays or turnout pools		
		Mow non-wooded buffers no shorter than six inches and less than three times per year		
	Annually in fall and after heavy rains	Inspect the embankments for settlement, slope erosion, piping, and slumping		
WETPONDS		Mow the embankment to control woody vegetation		
AND		Inspect the outlet structure for broken seals, obstructed orifices, and plugged trash racks		
DETENTION		Remove and dispose of sediments and debris within the control structure		
BASINS		Repair any damage to trash racks or debris guards		
		Replace any dislodged stone in riprap spillways		
		Remove and dispose of accumulated sediments within the impoundment and forebay		
		Clean the basin of debris, sediment and hydrocarbons		
	Annually in the	Provide for the removal and disposal of accumulated sediments within the basin Renew the basin media if it fails to drain within 72 hours after a one inch rainfall event		
INFILTRATION BASINS	spring and late fall	Till seed and mulch the basin if vegetation is sparse		
		Repair riprap where underlying filter fabric or gravel is showing or where stones have		
		dislodged		
PROPRIETARY DEVICES	As specified by	Contract with a third-party for inspection and maintenance		
		Follow the manufacturer's plan for cleaning of devices		
		Contact the department for appropriate inspection and maintenance requirements for		
PRACTICES	for devices	other drainage control and runoff treatment measures.		
<u>Attachment E</u> Site Photos



BLUEWAVE

Photo 1. View of existing logging road leading from Johnson Hill Road in the southern portion of Site







Photo 2. View of shrub-dominated upland within Site Limit of Disturbance located in the southwest portion of the Site









Photo 3. View of upland area within the central portion of the Site

<u>Attachment F</u> Certificate of Good Standing



Corporate Name Search

Information Summary

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Tue Oct 20 2020 13:24:38. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
BWC EDWARDS COVE, LLC	20200874FC	LIMITED LIABILITY COMPANY (FOREIGN)	GOOD STANDING
Filing Date	Expiration Date	Jurisdiction	
02/24/2020	N/A	DELAWARE	
Other Names		(A=Assumed ; F=Former))

NONE

Clerk/Registered Agent

C T CORPORATION SYSTEM 128 STATE ST #3 AUGUSTA, ME 04330

Back to previous screen

New Search

Click on a link to obtain additional information.

List of Filings	<u>View list of filings</u>
Obtain additional information:	
Certificate of Existence (more info)	<u>Short Form without amendments</u> (<u>\$30.00)</u>

You will need Adobe Acrobat version 3.0 or higher in order to view PDF files. If you encounter problems, visit the <u>troubleshooting page</u>.



If you encounter technical difficulties while using these services, please contact the <u>Webmaster</u>. If you are unable to find the information you need through the resources provided on this web site, please contact the Bureau's Reporting and Information Section at 207-624-7752 or <u>e-mail</u> or visit our <u>Feedback</u> page.

<u>Attachment G</u> Soils Report



	MAP L	EGEND)	MAP INFORMATION
Area of Int	terest (AOI) Area of Interest (AOI)	8	Spoil Area Stony Spot	The soil surveys that comprise your AOI were mapped at 1:15,800.
Soils	Soil Map Unit Polygons Soil Map Unit Lines Soil Map Unit Points	00 \[\] \[\]	Very Stony Spot Wet Spot Other Special Line Features	Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of
Special ©	Blowout Borrow Pit	Water Fea	tures Streams and Canals	contrasting soils that could have been shown at a more detailed scale.
 ≫	Clay Spot Closed Depression	Transport	a tion Rails Interstate Highways	Please rely on the bar scale on each map sheet for map measurements.
*	Gravel Pit Gravelly Spot	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	US Routes Major Roads	Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)
ی ۸ طه	Lava Flow Marsh or swamp	Backgrou	Local Roads nd Aerial Photography	Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required
* 0 0	Mine or Quarry Miscellaneous Water Perennial Water			This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.
× + :::	Rock Outcrop Saline Spot Sandy Spot			Soil Survey Area: Androscoggin and Sagadahoc Counties, Maine Survey Area Data: Version 21, Jun 1, 2020
⊕ ♦	Severely Eroded Spot Sinkhole			Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.
Ф Ø	Sodic Spot			The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Custom Soil Resource Report

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ChD	Charlton very stony fine sandy loam, 15 to 25 percent slopes	12.1	13.4%
HrC	Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky	2.5	2.8%
Le	Leicester very stony fine sandy loam	7.9	8.7%
РbВ	Paxton loam, 2 to 8 percent slopes	9.9	11.0%
PfC	Paxton very stony loam, 8 to 15 percent slopes	18.5	20.5%
WrB	Woodbridge loam, 0 to 8 percent slopes	19.0	21.0%
WsB	Woodbridge very stony loam, 0 to 8 percent slopes	20.4	22.5%
Totals for Area of Interest	·	90.3	100.0%

<u>Attachment H</u> Construction Schedule

BLUEWAVE





Engineering Review Memorandum

То:	Town of Poland Planning Board	(STI # 20459)
From:	James Seymour, P.E., Planning Consultant, Sebago Technics, Inc.	
Date:	November 3, 2020	
Subject	November 10, 2020 Planning Board Meeting	
Project:	Poland/ Bluewave Solar Farm Project, Site Plan Review	
Applicant:	BWC Edwards Cove, LLC-dba BlueWave Solar, 111 Huntington Avenue, Suite 650, Boston, MA 02199 Tax Map 13 Lot 50	

I. <u>Project Description and Background</u>

This project qualifies as a Site Plan application, as it entails development for **the Poland/ BlueWave Solar Farm** facilities located off Johnson Hill Road. The project proposes to minimally disturb vegetation and utilize the natural land topography for the most part, to construct a 3.5 MW solar array farm. The utility service facility will involve installing solar panels, electrical equipment/lines, access, and fencing out over 19+/- acres.

The project is in Farm and Forest Zone, on property consisting of 145 acres. The site is currently used for forest harvesting purposes, and hosts wooded, and meadow vegetated areas. Our understanding that this project will have no wetlands located within the development area. The project also has requested a waiver of the Phosphorus Control/Export standards due to its limited impervious coverage, and that the Maine DEP allows for the exemption stormwater management permits, due to manner that solar panels are set in a meadow setting. We have prepared the following memorandum review comments to facilitate better understanding of the project, and site plan requirements.

II. <u>Technical Review</u>

We have reviewed the revised submitted information from Boyle Associates and BH2M Engineers, Surveyors Engineering, dated October 23, 2020 for the purposes of determining if the project is compliant with the Site Plan Standards (Sect 509.8) and meets the requirements as applied for the proposed commercial or private utility company development.

Site Plan Review:

The site design for the project essentially only includes a small area of the site for new impervious coverage to the existing site. Below are our concerns with the project as proposed:

1. The proposed project developed area is within a larger previously tree harvested lot, but appears to have been created as a result of a lot possibly cut off for a single-family residence. The site has some remaining frontage on Johnson Hill Road. However, without a formal boundary it is difficult to assess lots legal road

frontage (300 feet is required in the Farm and Forest District) The Planning Board should request a formal boundary survey to understand the ownership, and conveyances of rights such as the leased area, measured road frontage, easement rights for access and utilities, or if a private street is necessary to obtain legal lot frontage for development. This might alter the layout for solar panels as a private road would need a 50' ROW and then would have to adhere to the front yard setbacks off the Private Street for placement of the solar panels. That entail triggers a chain reaction of pushing the solar farm area, and limits of disturbance outward, which may then trip the 20-acre threshold for a requirement of a separate Maine DEP permit.

- 2. The applicant indicates the use of Stormwater BMP's but there is no plan showing the gravel access road grading, nor where the BMP's will be installed, nor how they will be directed in a buffer. This part of the application needs more information, such as some basic or simplified stormwater calculations for sizing a buffer, road/ditch grading and locations of measures to treat runoff and protect erosion. The site pitches away to the north, such that all the site runoff from the roughly 800 LF access gravel road will drain into the middle of lot and in the array areas. Please clarify how this will work in conjunction with the site array layout. The detail indicates the road will be superelevated but is not clear where drainage will end up. Where the applicant is requesting waiver of the Phosphorus control standards, we feel it is imperative to make sure that there is no channelized runoff from the proposed gravel access road, and that the design include provisions and measures to direct water into a meadow, or wooded buffer areas, such as possibly along proposed fence lines. It would be helpful to see the dedicated areas which should be inside the cleared areas which need to remain under 20 acres to avoid other Maine DEP regulations. With these added provisions as suggested, addressed by the applicant, we would be in favor of recommending the waiver request of a full phosphorus control evaluation.
- **3.** There is an existing wood haul road that wraps around the existing fenced, eastern perimeter of the site. Will the owner wish to retain site access over this road, to access his remaining property? The plan indicates this area will be seeded over, but if it is to be used as access, we would prefer to see it have at least a stabilized crushed stone transition off the hammerhead to avoid tracking of mud on to Johnson Hill Road. Also, a barricade to prevent access to outsiders such as ATV's and 4WD recreational trucks, might be considered.
- **4.** There are areas dedicated to be planted buffers, for screening the abutters sight lines, but we could not find any planting or landscape plan to indicate number, size or species to be proposed. Any buffer associated with the site plan shall be placed in restrictive easement on the plan or by deed.
- 5. The second leg of the access road will be grassed over with a gravel base and will terminate with a hammerhead. This should be verified by the Fire Dept as acceptable for cover and maneuverability. It would be helpful if the applicant can discus how these will be routinely or periodically maintained as well.

Poland/BlueWave Solar Farm-Johnson Hill Rd Site Plan – Engineering Peer Review-comments.

- 6. We would recommend that a note be added to the plan that access road/drive is for purposes of the solar farm only, and is not considered a Private Street or Backlot Driveway for other future single-family residential purposes, unless so built to Town standards. We also assume that minimally, the access will need be put into a utility easement for benefit of the Electrical/Utility company (CMP) where the land is leased, or it will be required to be a private road, implying utility rights.
- 7. Other items:
 - A. We recommend that the applicant acquire a letter of support for accessibility and if any fire suppression needs will be required from the Poland Fire Department as well.
 - B. The plan shall indicate that the site will be broken into 5-acre dedicated sectors and stabilized prior to moving on to the next planned sector. This is escribed in the construction plan and is part of the erosion and sedimentation plan but should be noted on the site plan possibly as construction notes.

III. <u>Recommendations:</u>

Upon review of the information provided in the submitted plans and documentations through October 23, 2020 we would recommend that the submission requirements be completed and reviewed as suggested. The project is for a site plan with the largest concern understanding, stormwater/phosphorus control, and access and the lot's legal frontage that are associated with a solar farm which will be reviewed as a utility service. The driveway/access designs, along with suggested Stormwater BMP's details could address water quality but the design is missing grading and locations of where such measures would go and how road runoff is collected, and treated. With these review comments addressed and clearly shown on the plans we could recommend support for accepting the waiver to the Planning Board. The Fire Department should assess if the grass service access is sufficient for their emergency access, other wise we feel the access is sufficient in dimensional design.

We suggest the applicant work through the final plan items with the Code Enforcement Officer and Planning Board at this hearing, as we feel the list of items is relatively important, it can be worked through with additional design information. The Planning Board could accept the application as complete (if lot required road frontage issue is resolved with a simultaneous private road review), but we would recommend waiting on any final approval, and require the applicant return with a final plan at a later meeting once all required design features and setbacks are addressed. However, if the road frontage issue is resolved without a private road design necessary, then the Board might apply conditions for all the items as noted above, that are not satisfactorily addressed prior to by staff, or at the public meeting, and are equally deemed acceptable to the Planning Board. As always these are recommendations to the Planning Board and not final determinations but merely offer guidance, and approvals if appropriate, are left with the Planning Board at their discretion

Respectfully Submitted, SEBAGO TECHNICS, INC.

James R. Seymour, P.E. Engineering Consultant



MEMO

To: Poland Planning Board

From: Wesley Harden, LG

Re: Northern Springs Mobile Home Park Storage Units

Date: October 30, 2020

On behalf of Affordable Homes, Inc., CES has prepared a formal site review application for storage containers proposed for the Northern Springs Mobile Home Park located on Poland Corner Road on Poland, Maine. The proposed action is to bring 20 shipping container boxes measuring 8 feet by 20 feet to the Site. The containers will be rented only to tenants of the Northern Springs Mobile Home Park for personal storage.

The proposed containers are considered accessory structures according to the land zoning standards in Chapter 5 Section 8.29(D) of the Poland Maine Comprehensive Land Use Code (CLUC). The boxes will be painted brown or green to blend in with existing vegetation and Site development in accordance with Chapter 5 Section 8.23 of the CLUC. The containers will rest directly on a 5,400-square foot gravel pad as shown on the Site Plan (attached) and will not have permanent foundations.

Affordable Homes looks forward to your review of this project.

Sincerely,

Wesley Harden, LG Project Geologist

JN: 13319.001



415 Lisbon Street, Suite 200 Lewiston, Maine 04240 T 207.795.6009 F 207.795.6128



Town of Poland, Maine Planning Board

Formal Site Plan Review

Instructions:

1.			<u></u>					
2.	Read every par	t of this document. Failure t	o tollow requirements ca	n and will delay the Planning Board's decisions.				
	Fill out the forms	s on pages 1 through 6. Obtain	or get copies of information	n as required by the application on these pages.				
3.	Use the "Submi	ssion Checklist" on pages 5 an	d 6 to make sure submissio	n requirements are met.				
	а. тпе <u>спеск</u>	list is a summary of the standa	ra requirements in Section	509.8 of the Comprehensive Land Use Code.				
	I. The	actual Code wording may be for	ound on-line at www.poland	dtownotfice.org. Go to the "Code Enforcement" page, select				
	"Comprehensive Land Use Code" at that bottom of the page. Hardcopies are available for purchase at the town office.							
	b. Make sure all waiver requests have a written statement for each request. Check with the Code Enforcement Office to make sure items stated as "On File" are indeed in the town office.							
	stated as "	On File" are indeed in the town	1 OTTICE.					
	C. Some requ		e paragraph or one sentenc	e statement. Make sure all requests are answered.				
4.		UPIES OF THE APPLICATION	IN AIND DUE DATE	either ed er uch) are needed. De sure te make a conviter voursel	f			
	a. A luiai ui a	Enforcement Office must recei	ians and one FDF copy (on	an additional 0 conjos, and a digital DDE conv (either ed or usb)	ı. vith			
	D. <u>The Coue</u>	foos by 1:00 p.m. alovon (1)	1) days boforo the stated r	an additional 9 copies, and a digital PDF copy (either cu of usb) v				
	c If review for	pr missing information by the (ode Enforcement Officer is	desired a convinue the submitted to the CEO at least 1/ days	nrior to			
	the meetin			s desired, a copy must be submitted to the GEO at least 14 days				
	d The applic	y. ation must be on file for public	review for at least 10 day	s prior to the meeting. Applications received after the Agenda is	nosted			
	may not be	reviewed by the Board for you	ur scheduled meeting date	s prior to the meeting. Applications received after the Agenda is	posicu			
5.	Check with this	office to make sure that all	departments have respon	ded to your application prior to the meeting.				
		-	<u></u>	<u> </u>				
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AP	PLIC	CANT or CONTACT PERSON:			
Ap	olica	nt is:LandownerContractorRenterBuye	r 		
If la	ando	owner, write "Same" below and continue to next block below. If not the landowner, sub-	mit a letter of		
pei	mis	sion to construct on or use the land, or copy of a contract to buy from the landowner, a	long with the fo	bliowing	
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	Ope	en Space Resumption of Use			
FΧ	ISTI	NG LOT CONDITIONS			
$\frac{D}{Th}$	nis pa	age is to describe what is on your lot currently)			
1.	Ge	neral			
	Do	es this lot have any development? (If No, go to "Proposed Development")	Yes		
		No			
	a.	Is there an existing Well	Yes		
		No			
	b.	Is there an existing Septic System	Yes		
		No N			
		i) If yes, submit a copy of a septic permit, or drawing(s) showing size & location.			
	С.	Is there an existing Road Entry	Yes		
		INU	Voc		
		I) If yes, will there be any changes/mounications?	165		
		ii) (If no submit conv of appropriate road entry application if entrance is onto a state or tow	vn road)		
	h	Any structures to be removed	Yes		
	u.	No	100		
		i) If yes, submit information about the structure to be removed and how any debris will be	disposed of.		
2.	Exi	isting Land Development & Improvements NOT Including Buildings	,		
	a.	Size of lawns		Sq. Ft.	
		or Acres			
	b.	Size of fields		_Sq. Ft.	proviously
		or Acres			approved
	С.	Size of driveways/roads		Sq. Ft.	approved mobile home
	d.	Size of other non-vegetated areas		Sq. Ft.	noulie nulle
~	е.	Wetlands already filled		_Sq. Ft.	μαικ
3.	<u>Exi</u>	Isting Main Structure		С~ Г ¹	
	d. h	Gluullu FUULIIIII Total Cross Floor Space (exterior dimensions of all floors)		_Sq. Fl.	
	ม. ด	Poad Frontage Setback		_34. Fl. Ft	
	С.	road Frontage Sciback			



a. (Equals [areas on line 6 page 2 + line 2d above] / [Total lot area measured in sg. ft.] * 100%)

SUBMISSIONS:

Attach drawings and/or statements describing the following items, if applicable:

- a. Provide a copy of deed and Tax Assessor's information card.
- b. Provide a map of the general area showing land features within at least ½ mile of this lot.
- c. Provide site plan(s) of your lot with <u>existing</u> development and its dimensions shown.
- d. Provide site plan(s) of your lot with proposed development and its dimensions shown.
 - i. (May be combined on existing development drawing.)
- e. Provide detailed plans of proposed structural development and changes.
- f. Provide statements or drawings of methods of infrastructure:
 - i. Water supply
 - ii. Sewage disposal
 - iii. Fire protection
 - iv. Electricity
 - v. Solid waste disposal
- g. Type, size, and location of signs.
- h. Number of parking spaces.
- i. Provide phosphorus loading calculation if in a great pond watershed area.
- j. Anticipated date for start of construction.
- k. Anticipated date for completion of construction.
- I. Standard submissions requirements shall follow Section 509.8 of the Comprehensive Land Use Code. Copies of the Code are available for viewing at the Town Office and Library. Copies are available for purchase (\$25.00) in the Code Enforcement Office.
 - i. (Use checklist starting on page 6 for summary of usual requirements.)
- m. Other requirements unique to your project added by the Planning Board.

- 2. List all state and federal approvals, permits, and licenses required, if any, for the project: This includes but is not limited to the following:
 - 1. State highway entrance permit.
 - 2. Soil disturbances involving more than one acre.
 - 3. Impact on more than 4,300 square feet of any type wetland.
 - 4. Soil disturbances within 100 feet of lakes, rivers or streams.
 - 5. Activity within 75 feet, over the water, or in the water of lakes, rivers, or streams.
 - 6. Timber harvesting.
 - 7. Flood zones.
 - 8. Discharges and emissions

DISCLOSURE: (READ BEFORE SIGNING)

- 1. I hereby acknowledge that I have read this application and pertinent sections of the ordinances, and state that the information in this document is to the best of my knowledge true and accurate. I agree to comply with all the Town of Poland's ordinances and the State of Maine's statutes regulating the activities sought in this application as well as any permit(s) approved for this application.
- 2. I understand that all construction of structures shall conform to or exceed the minimum requirements of the Maine Uniform Building and Energy Code, and the NFPA-101 Life Safety Code, 2009
- 3. I understand that any approval is valid for only the use(s) as specified in this application. The permitting authority must approve any change(s) made to the use(s) sought in the application. Any approval issued for this application is approved on the basis of truthful information provided by the applicant(s), and as allowed by the ordinances of the town.
- 4. I understand that it is my responsibility to assure that the lot description herein accurately describes its ownership, its boundary lines, and the setback measurements from the legal boundary lines.
- 5. I understand that I have the burden of proof as to the legal right to use the property, and that approval of this application in no way relieves me of this burden. Any approval issued does not constitute a resolution in favor of me or the landowner in any matters regarding the property boundaries, ownership, or similar titles.
- 6. I understand that all necessary **Building and Use Permits** shall be secured from the Code Enforcement Office after the Planning Board grants approval of this application.
- 7. I understand that a **Certificate of Occupancy or Compliance** shall be required prior to the start of any use or occupancy associated with this application unless a signed written waiver is issued with the permit. Fines and penalties may be issued if use or occupancy is started prior to the issuance of the certificate.
- 8. I understand that the **approval becomes invalid if** construction or use has not commenced within twelve (12) months of the Planning Board's approval date, construction is suspended for more than six (6) months and no notice for just cause is submitted prior to the end of the six (6) months, or it is found that false statements have been furnished in this application.
- 9. I understand that if I fail to comply with the aforementioned statements, a "STOP WORK" order may be issued for which I will immediately halt any construction and/or use(s) that are approved for this application. This failure may also require that I return the property to its natural state or as closely thereto before the use(s) was/were approved.
- 10. I understand that failure to follow these requirements will lead to Violation Notices and Citations that have fines and penalties. This in turn can lead to civil proceedings in District and/or Superior Court.
- 11. I understand that **all state and federal permits** are my responsibility as the applicant and/or owner and will secure the same prior to the start of the project.

Applicant's Signature(s)

Date

Submission CHECKLIST

The <u>following list is a short summary</u> of the information required in Chapter 509.8 of the Comprehensive Land Use Code for the Town of Poland, Maine. Please checkmark or place an "X" in the left-hand columns if the information has been provided, if you request a waiver from submitting the information, or you believe the information is not applicable to your application. If a waiver(s) is requested, or the information is not applicable, a written explanation is required. Columns on the right are for the Planning Board's use.

For	For Applicant Use			For Planning Board Use		d Use	
Provided	Waiver Request	Not Applicable	Section 509.8.A Submission requirements	Received	On File	Waived	Not Applicable
			1. Site Plan Drawings				
			2. Signed copy of application				
			3.a. Name & address of owner				
			Name of development				
			Name & address of abutters within 500' of lot for development				
			Map of general location				
			Show all contiguous properties				
			Names, Map, & lot #'s on drawings				
			Copy of deeds, agreements				
			Engineer/ designer of plans				
			Existing Conditions (Site Plan)				
			Zoning Districts on and/or abutting project's lot shown				
			Bearings & Distances shown on drawings				
			Location of utilities, culverts, drains				
			Location, name of existing r/w				
			Location, dimensions of existing structures				
			Location, dimensions of existing roads, walks, parking, loading, etc.				
			Location of intersection within 200'				
			Location of open drains, wetlands, wildlife areas, historic sites, etc.				
			Direction of surface drainage				
			100-yr. Floodplain				
			Signs				
			Easement, covenants, restrictions				
			Proposed Development (Site Plan)				
			Location & dimensions of all new structures. New development delineated from existing development				
			Setback dimensions shown & met				
			Exterior lighting (Will meet full cutoff requirements)				
			Incineration devices				
			Noise of machinery and operations				
			Type of odors generated				
			Septic system and other soils reports				
			Water supply				
			Raw & finished materials stored outside				
			Contours shown at PB specified intervals				
			Curbs, sidewalks, drives, fences, retaining walls, parking, etc.				
			Landscaping plan				
			Easements, r/w, legal restrictions				
			Abutters' property lines, names				
			TRAFFIC DATA				

For Applicant Use		Jse		For Planning Board Use			d Use
Provided	Waiver Request	Not Applicable	Section 509.8.A Submission requirements	Received	On File	Waived	Not Applicable
			Peak hour traffic				
			Traffic counts				
			Traffic accident data				
			Road capacities				
			Traffic signs, signals				
			STORMWATER & EROSION				
			Method for handling stormwater shown				
			Flow direction				
			Catch basins, dry wells, ditches, etc.				
			Engineering Analysis of stormwater				
			Erosion control measures				
			Hydrologist groundwater impact				
			Utility plans for all utilities				
			Cross-section profile of roads, walks				
			Construction drawings of roads, utilities				
			Cost analysis of project and financial capability demonstrated				
			Phosphorus control plan if in watershed of a great pond				
			Submission of waiver requests				
			Copies of state, federal applications, permits, &/or licenses required for this project.				
			Condition A.				
			Condition B.				
			Condition C.				
			Condition D.				
			Condition E.				

This application was first looked at by the Planning Boa of the review process.	ard on	<u>//</u> bu	it does no	ot create	vested	rights ir	n the initiation
By vote of the Board this application requires an on-site If yes, an onsite inspection is scheduled for	e inspectio /	n: /	_at	Yes :		AM	No PM
By vote of the Board this application requires a public here is scheduled for	nearing: /	1	_at	Yes :		AM	No PM
Conditions of Approval for Formal Site Review:							
Planning Board Chair		_			Date	1	1

Site Review and Shoreland Zoning Review Fees:

Type of fee	Fee	Units or Comments
Application – sketch plans, Rough design	\$75.00	Each application (no other fees)
Application – formal	\$150.00	Each application + fees below
Notification of Abutters	\$0.75 per	All abutters within 500 ft. of the property must be notified.
Approval extension, Planning Board Approval only	\$50.00	One extension only (no other fees)
Escrow, minimum amount	\$700.00	When required by Planning Board
Extension of approval	\$100.00	Before approval expires
Auto graveyards, recycle business	\$5.00	Per vehicle storage slot (parking space)
Junkyard, Storage Lots	\$1.50	Per ft of outside storage
Residential Towers	\$20.00 + \$5.00	Based on Cost of Work
	per \$1,000.00	
Commercial Towers	\$20.00 + \$10.00	Based on Cost of Work
	per \$1,000.00	
Notifications	\$.75	Each Notification, First Class Mail sent by Town

1. B<u>uilding and Structures</u> may include up to five times the footprint area of the building for grounds improvements, exclusive of the building footprint, as part of the building review fee.

2. <u>Building and Grounds Improvement Fees</u>. The sum of these two fees may be limited to \$2,500.00 per application at the discretion of the Planning Board. (Junkyards, auto graveyards, recycling business, and towers excluded.

3. <u>Reduced Fees</u>: The Planning Board may, upon application therefore, allow a reduced total site review fees to \$50.00 in any case which it determines that the work for which the permit is sought will be performed within the Shoreland Zone. The project shall be intended solely for the purpose of protecting a Great Pond, Stream, River, or other Natural Resources through the implementation of Conservation, Best Management Practices, or other environmental safeguards. Also, the project shall not result in the enlargement of any building or structure or an intensification of the existing use of the property.

4. <u>Review Escrow Funds</u> may be used by the Town to pay for professional reviews an advice requested by the Planning Board or Code Enforcement Officer related to the applicant's proposed development. Review escrow funds deposited by the applicant not spent during the course of the Town's review shall be returned to the developer within sixty days after the Planning Board's decision on the application is final. If Professional review and advice fees exceed the amount deposited, the developer shall pay the amount outstanding before final approval or any permit is granted.

Town of Poland, Maine PLANNING BOARD AGENDA REQUEST

Date of meeting you are requesting to be scheduled for: ///M conducted from 7:00 to 10:00 PM in the Municipal Conference Room at the Town Office Map Lot Sub-lot	eetings are normally
Applicant's Name: Mailing Address: Town, State, Zip:	
Home Phone: Hours: Work Phone: Hours:	
Type of application:Sketch PlanSite ReviewShoreland Road location for project:	SubdivisionInformational
Zoning:Lake Watershed:	Nature of
business to be discussed (Brief description):	
IMPORTANT - READ CAREFULLY:	
This Office must receive the original application, plus nine (9) copies, a digital PDF configuration fees by Friday at 1:00 p.m., eleven (11) days before the stated meeting to be put on t	py (on either cd or usb), and appropriate he upcoming agenda.
 New business is scheduled on the agenda in the order this office receives this form. If you want your application reviewed for contents prior to the meeting, it must be in meeting. 	this office 14 days before the
 Should the Board choose to adjourn before all business is addressed, all remaining the next available meeting. 	business will be tabled until
Unfinished business is conducted before new business is addressed.	

Applicant's Signature:	Date:		
OFFICE USE ONLY:			_

Request Taken By:	Date:		Time:	:	<u>a.m.</u>	p.m.
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SCALE:

PROPOSED SITE DEVELOPMENT NEW STORAGE AREA

REV: 13313.001 REV DATE: NTS





ABUTTERS LIST - NORTHERN SPRING MOBILE HOME PARK								
Owner	Address	Map-Lot						
William Flynt, Et. Al.	7 Flynt Drive, Poland, Maine	11-6						
John Flynt	7 Flynt Drive, Poland, Maine	11-6B						
William Flynt	14 Flynt Drive, Poland, Maine	11-6A						
The Isabelle Cottage, LLC	167 Poland Corner Road, Poland, Maine	11-6C						
Gregory Alan Frost	55 Lunt Lane, Poland, Maine	11-39A						
Small Woodland Owners	P.O. Box 836, Augusta, Maine	11-41						
Jacob Perron	112 Poland Corner, Road, Poland, Maine	11-42A						
Michael Tibbetts	117 Poland Corner Road, Poland, Maine	11-5B						
Susan Cole	164 Poland Corner Road, Poland, Maine	11-39-A001						
Robert Mullen	25 Old Plains Road, Poland, Maine	11-4						



PROJECT TITLE:	NORTHERN SPRING MOBILE HOME PARK	DWG:		BY:	WEH	
	POLAND CORNER ROAD, POLAND, MAINE			DATE:	2020-10-28	ОТ
	AERIAL PHOTOGRAPH DEPICTING PROPERTIES	JN:	13319.001	REV:		
v	NITHIN 0.5-MILES OF THE SUBJECT PROPERTY	SCALE:	NTS	REV DATE	<u>:</u> :	Engineers Enviro



WARRANTY DEED^{N O T} A N **ORRIN WELCH**, of A Eburn, County of Androscoggin, End State of Maine, C O P Y

ΝΟΤ

for consideration paid, grants to ΝΟΤ

ΝΟΤ

AFFORDABLE HOMES INC., a Maine corporation with a principal place of business in Auburn, County of Afidr Scoggin, I and State of Maine, F F I C I A L COPÝ СОРҮ

with WARRANTY COVENANTS, the land in Poland, County of Androscoggin, and State of Maine:

Certain lots or parcels of land, with any buildings thereon, situated in the Town of Poland, County of Androscoggin, and State of Maine, bounded and described as follows:

PARCEL ONE: Beginning at an iron rod which is set at the intersection of the westerly sideline of the Poland Corner Road and the extension of the rock wall which forms the northeasterly boundary of parcel one of the premises now or formerly of William F. Flynt and recorded in the Androscoggin County Registry of Deeds in Book 782, Page 434, dated June 12, 1958;

THENCE northwesterly by the stone wall and wire fence and land of said parcel one 360 feet to an iron rod set in the rock wall and which marks the intersection of a rock wall and wire fence;

THENCE continuing northwesterly by a rock wall and wire fence 360 feet to an iron rod set at the corner of the rock wall;

THENCE northeasterly 37 feet by the rock wall and wire fence and other land now or formerly of William F. Flynt to an iron rod set in the rock wall;

THENCE South 03° 20' 51" West 322.96 feet to an iron rod;

THENCE South 59° 55' 23" East 187.76 feet to an iron rod;

THENCE South 06° 15' 54" West to an iron rod set in the westerly sideline of the **Poland Corner Road:**

THENCE southwest by the westerly sideline of the Poland Corner Road 145 feet to the point of beginning.

The whole containing 1.4 acres.

PARCEL TWO: BEGINNING at an iron rod which is set upon the westerly sideline of the Poland Corner Road (formerly called the Harris Hill Road); the iron rod is also 345 feet northerly along the westerly sideline of the Poland Corner Road from the rock wall which forms the northeasterly boundary of parcel one of the premises now or formerly of William F. Flynt and recorded in the Androscoggin County Registry of Deeds in Book 782, Page 434, dated June 12, 1938, AN O T AN AN

THENCE SouthF80[®] 12' 16'^A West 200 feet by the westerly sideline of the Poland Corner Road to an iron rod; ^P Y C O P Y

THENCE North 06° 15' 54" East, 224 feet to an iron rod;

THENCE North 59° 55' 23" West 187.76 feet to an iron rod;

THENCE North 13° 20' 51" East 322.96 feet to an iron rod set in a rock wall;

THENCE North 73° 48' 54" East 106.67 feet to an iron rod set in a rock wall;

THENCE North 73° 05' 37" East 69.85 feet to an iron rod set in a rock wall;

THENCE North 42° 29' 39" East 37.58 feet to an iron rod set in a rock wall;

THENCE North 28° 13' 11" East 150.12 feet to an iron rod set in a rock wall;

THENCE North 9° 12' 59" East 134.31 feet to an iron rod set in a rock wall;

THENCE North 02° 18' 30" West 219.30 feet to an iron rod set in a rock wall;

THENCE North 82° 09' 35" East 84.29 feet to an iron rod;

THENCE North 32° 51' 39" East 176.78 feet to an iron rod;

THENCE North 17° 43' 55" East 130.88 feet to an iron rod;

THENCE North 27° 34' 10" East 78.53 feet to an iron rod;

THENCE South 79° 38' 13" East 146.59 feet to an iron rod;

THENCE North 88° 57' 50" East 210.20 feet to an iron rod; THENCE South 02° 03' 48" East 80.42 feet to an iron rod; THENCE South 04° 59' 10" West 488.65 feet to an iron rod;

THENCE South 62° 51' 18" West 140.84 feet to an iron rod;

THENCE South 36° 17^T 20" West 92.47 feet to an Niron Fod; A N THENCE South 14° 46' 13 West 357.29 feet to Fan Iron Fod; C O P Y THENCE South 02° 48' 52" West 141.80 feet to an iron rod; N O T THENCE South 46° 59' 44" West 167.37 feet to an Airon rod; O F F I C I A L THENCE South 46° 63' 22" West 101.29 feet to an iron rod; THENCE South 75° 08' 47" West 114.71 feet to an iron rod; THENCE South 12° 59' 48" West 73.18 feet to the point of beginning.

Containing 16.6 acres.

Being the same premises conveyed to Orrin Welch by warranty deed of Claude C. Tremblay, Marcel B. Poulin and Timothy F. Worden to be recorded in the Androscoggin County Registry of Deeds.

WITNESS my hand and seal this 30th day of April, 2002.

Fin P. Welch

State of Maine, Androscoggin, ss:

April 30, 2002

Personally appeared the above-named Orrin Welch and acknowledged the foregoing instrument to be his free act and deed,

Before me,

tary Public/Attorney at/Law

(print/type name of official)

f:\user\mary\welch.affordablehousingdeed

ANDROSCOGGIN COUNTY

Jeannine D. B

REGISTER OF DEEDS

Map Lo	ot 0011-0005	Account 1198	Locat	ion PO	LAND CORNE	R RD.		C	ard 1	Of	1 10	/28/2020
	BLE HOMES INC		Р	ropertv	Data			Assessm	ient Re	cord		
753 EMPI	RE RD		Neighborhood 58 Table 8			Vear	Buildings			Evemnt	Total	
	ME 04274				-	2020	Lunu	. 700	Dullul	195		
FULAND			Tree Crowth)	/00* 0		2020	285	5,700		1,000	0	286,700
			V Coordinate		0	-						
D4001D11	0 010050000 010050005		X Coordinate		0							
B4981511	0 B10050P83 B10050P85		T Coordinate	o 11 Dooid	U							
			Zone/Land Us	e 11 kesia	ential							
			Secondary Zor	ne 21								
			Topography		2 Rolling							
			4									
			1.Level	4.Below St	7.Rough							
			3.Above St	6.Swampy	8. 9.							
				villed Well	7 % Contic Sustam							
			Unitities 4 D	rilled well	7 & Septic System							
			1.Summer	4.Dr Well	7.Septic							
			2.Water	5.Dug Well	8.							
			3.Sewer	6.Lake	9.None							
			Street 1	Paved		┨─────						
			1.Paved	4.Proposed	7.			Land Data				•
			2.Semi Imp	5.Dirt	8. 0 Nono	Front Foot	Effective Influence Type Frontage Depth Factor Code			uence	Influence	
			5.Glavel	0.R/W	9.100110	-				Code	Codes	
Increction	Witnessed By:		TIF DISTRICT		0	11.Regular Lot					%	1.Market
пэресно	T WITTESSED Dy.		SPRING WOR	K	0	12.Delta Triangle					%	2.Frontage
				Sale Da	ata	14.Rear Land					%	4.Size
Х		Date	Sale Date		5/01/2002	15.Miscellaneous					%	5.Access
No /Date	Description	Date Insp	Price		337,500	_					%	6.Restriction
No./ Date		Date Insp.	Sale Type	5 Other		Courses East		C			<u>%</u>	7.Shape
			1.Land	4.Mobile	7.	Square Foot		Squar	e reet		0/0	9.Fract Share
			2.L & B 3 Building	5.Other	8. 9	16.Regular Lot					%	Acres
				0.	5.	18.Excess Land					%	30.Rear Land 1
			Financing		-	19.Condominium					%	31.Rear Land 2
Notes:			1.Convent	4.Seller	7. 8	20.Miscellaneous					%	33.Golf Course
			3.Assumed	6.Cash	9.Unknown						%	34.Pasture
			Validity	1 Arms Lo	nath Sale	Fract. Acre		Acreag	e/Sites			35.Cropland
			1 Valid	4 Split	7 Listing	21.Homesite (Frac	22		1.84	100	% 0	35.Urchard
			2.Related	5.Partial	8.0ther	22.Baselot (Fract	30		3.16	100	% 0	38.Mixed Wood TG
			3.Distress	6.Exempt	9.	Acres	31		6.81	100	% 0 % 0	39.Hardwood TG
			Verified			24.Homesite	29		5.00	100	% 0	40.Wasteland
			1.Buver	4.Agent	7.Family	25.Baselot			5.00		%	41.Gravel Pit
			2.Seller	5.Pub Rec	8.Other	26.Frontage 1					%	43.Camp Site
			3.Lender	6.MLS	9.	27.Frontage 2 28 Horticultural						44.Site Improveme
Poland						29.Developed Rear Total Acreage 16.81				45.M H Hook-up		
	-											46 Miscellaneous

										Poland	d
Map L	ot 0011.	-0005		Acco	ount 119	8	Locati	ion	POL	AND CO	RNER RD. Card 1 Of 1 10/28/2020
Building Style	2		SF Bsmt Livir	g			Layout				
1.Conv.	5.Colonial	9.Condo	Fin Bsmt Gra	de			1.Typical	4.		7.	Marchall Valuation
2.Ranch	6.Split	10.DBWD					2.Inadeq	5.		8.	Warshan Valuation Site Pricing Summary
3.Old Styl	7.Contemp	11.Cpfdt	Heat Type				3.Horrid	6.		9.	
4.Cape	8.Cottage	12.	1.HWBB	5.FWA	9.No He	eat 7	Attic				Cheap, (ow Cos), Average, Good, Excellent
Dwelling Unit	S		2.HWCI	6.GravWA	10.		1.1/4 Fin	4.Fu	ll Fin	7.	
Other Units			3.H Pump	7.Electric	11.		2.1/2 Fin	5.Fl/	Stair	8.	
Stories			4.Steam	8.Fl/Wall	12.		3.3/4 Fin	6.		9.None	Engineering
1.1	4.1.5	7.3.5	Cool Type			1	Insulation				Grading 473
2.2	5.1.75	8.4	1.Refrig	4.W&C Air	7.		1.Full	4.Mir	nimal	7.	Street Paving
3.3	6.2.5	9.	2.Evapor	5.	8.		2.Heavy	5.		8.	Detine and Walke
Exterior Walls	S		3.H Pump	6.	9.None		3.Capped	6.		9.None	
1.Wood	5.Shingle	9.Other	Kitchen Style				Unfinished %	5			Sewer
2.Vin/Al	6.Brick	10.	1.Modern	4.Obsolete	e 7.		Grade & Fact	or			Water <u>575</u>
, 3.Compos.	7.Stone	11.	2.Typical	5.	8.		1.1	4.4		7.7	Gas
4.Asbestos	8.Concrete	12.	3.Old Type	6.	9.None		2.2	5.5		8.	Electrical 160
Roof Surface			Bath(s) Style	-			3.3	6.6		9.Same	
1.Asphalt	4.Composit	7.	1.Modern	4.Obsolete	. 7.		SOFT (Footp	rint)			Buildings
2.Slate	5.Wood	8.	2.Typical	5.	8.		Condition	,			Miscellaneous 45.5
3.Metal	6.Other	9.	3.Old Type	6.	9.None		1.Poor	4.Av	a	7.V G	Total <u>1/1/1/2</u>
SE Masonry T	Frim		# Rooms				2.Fair	5.Av	a+	8.Exc	
			# Bedrooms				3.Ava-	6.Go	od	9.Same	
			# Full Baths				Phys. % Goo	d			$- \qquad \qquad$
Year Built			# Half Baths				Funct. % Go	- od			
Year Remode	led		# Addn Fixtu	res			Functional Co	ode			$70 \times 44/0 = 132300$
Foundation			# Fireplaces				1.Incomp	4.De	lap	7.	x.70
1.Concrete	4.Wood	7.	" Theplaces				2.O-Built	5.Bsi	mt	8.Other	72.610
2.C. Block	5.Slab	8.					3.Style	6.Siz	'e	9.None	
3.Br/Stone	6 Piers	9.				H	Fcon. % Goo	d		51110110	-
Basement						H	Economic Co	de			
1.1/4 Bmt	4.Full Bmt	7.	r	ГП	T		0.None	3.No	Power	9.None	
2 1/2 Bmt	5 Crawl Sp	8	-				1 Location	4 Ge	nerate	8	
3 3/4 Bmt	6	9 None			Softwar	0	2 Encroach	5 Era	ac Shr	9	
Bsmt Gar # (ars	Jinone			Softwar	e	Entrance Coc	1e 1 M	Measure	<u>.</u>	
Wet Basemer	nt		A	Division of Harris C	omputer Systems	!	1 M	4 CB	leasait	2 7 RP	
1 Dry	4 Wet	7					21	5 80	f		
2 Damp	5	7. 8					2.L 3 M&I	6 V		9	
2.Damp 3.Wot	5.	0. 0					Information (Code	1 Pola	nd Dumont	
5.000	0.	5.									
							2 DRB	5 PR		8 Town	
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Code Enforcement Office
Town of Poland. Maine
1231 Maine Street
Poland, Maine 04274-7328
Road Entrance Permit
Man # 11 Lot # 5 Subject # Dormit #
Permit # Permit # Permit #
Road Location: POLAND CJR, KD, - 2 MILE EASTOF FIRE JA Date: 10-19-10
Land Owner AFFORDABLEL Homes, INC. Tel. # 198-3236
Mailing Address: <u>753 EMPIREKO</u> , POLAND, ME 04274
Applicant/Contractor: <u>Jummin EnvironMenter Cons</u> . Tel. # 145-6009
Mailing Address: 640 MAIN ST. LONISTON, ME 04240
Purpose of Road Entrance:
Single Private Driveway Dual Entrance Private Driveway
X Road / Right of Way Log Landing Temp Entrance
Other - Please specify: ROADWAY WILL BE PRIVATE
Road Sight Distances
Field 650 n Feet Feet m $410 \rightarrow 21$
R.P. s 331 , 270^{2} New SR.P.
1357 ROADWAY A EXISTING GRAVEL
Show Obstructions k Show Obstructions k
(trees, bushes, bldgs., etc.)
Fill in information requested above.
1. Show distance to at least one reference point (R.P.) such as a utility pole, large tree, or survey maker.
Indicate above what the R.P. is, and flag or mark it on the lot.
2. Sight distances are to be from a point 3 ft above the ground and 12 ft away from the edge of the
existing roadway at the location of the new entryway.
taking this application to the Road Commissioner or other authorized agent
List any Deed or Planning Board restrictions:
Existing road is:State ownedTown ownedPrivate
Speed Limit on existing road 35 MPH None posted
Width of new traveled way ZO Ft
Width of new right of way (if applicable)
Slope of new entry to the existing roadway
(If drive/entry higher than existing road, use +%. If lower than existing road, use%.)

The Applicant and Property owner state and agree to the following:

. . . .
1. I have read and understand the provisions	of the Poland	Street Access	Ordinance as they	apply to
the work proposed in this application.				

- 2. I shall construct and maintain the entrance or other improvement in accordance with the provisions of the Poland Street Access Ordinance.
- 3. I agree to pay for or provide any culverts, grading, or other drainage work necessary to accommodate the scope of work applied for in this application, and to maintain necessary drainage on the affected existing road area.
- 4. The Road Commissioner or his agent will determine the necessary size and length of any culvert required. In those cases where unusual conditions exist or a commercial project is proposed, the applicant may be required to provide, at his expense, any necessary drainage calculations or watershed analysis to properly size any work required.
- 5. The applicant and/or property owner agree to pay for the cost of any public improvements required by this application.
- 6. The applicant and/or property owner agree to indemnify and hold harmless, the Town of Poland against all suits, claims, damages, and proceedings of every kind, arising out of the construction, maintenance or use, of said entrance or improvement within the right of way, including snow removal.
- 7. Submission of a scaled drawing on a separate sheet of paper showing the horizontal lay-out and vertical cross section of the project may be required.

Land Owner

. . . .

Kenfam

Applicant / Contractor

FOR TOWN USE:						
This Permit is:						
Approved	Denied		Approved by Me. D.O.T			
Approved with Modifica	tions (Specify)					
Culvert Required	Yes	No			Size	
If permit denied, reason for denial:						
			Permit Fee:	\$	50.00	
			Culvert	\$	-	
Road Commissioner or other authorized agent			Installation	\$	-	
			Other	\$		
			Total	\$	-	
Code Enforcement Officer						

NOTICE: Call DIG SAFE at 1-888-344-7233 BEFORE beginning excavation.

Applicant is to contact Road Commissioner or his Authorized Agent for an inspection upon completion of entryway. Main Office 998-4601 Code Enforcement Office 998-4604