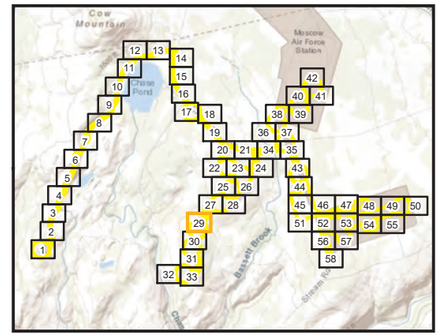
Legend

- Study Area
- 20 Foot Contour
- Turbine Location
- Wetland Continuation Line
- Delineated Wetland (Summer)
- Delineated Watercourse (Summer)



N

0 125 250 Feet

Figure 3
Sheet 29 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

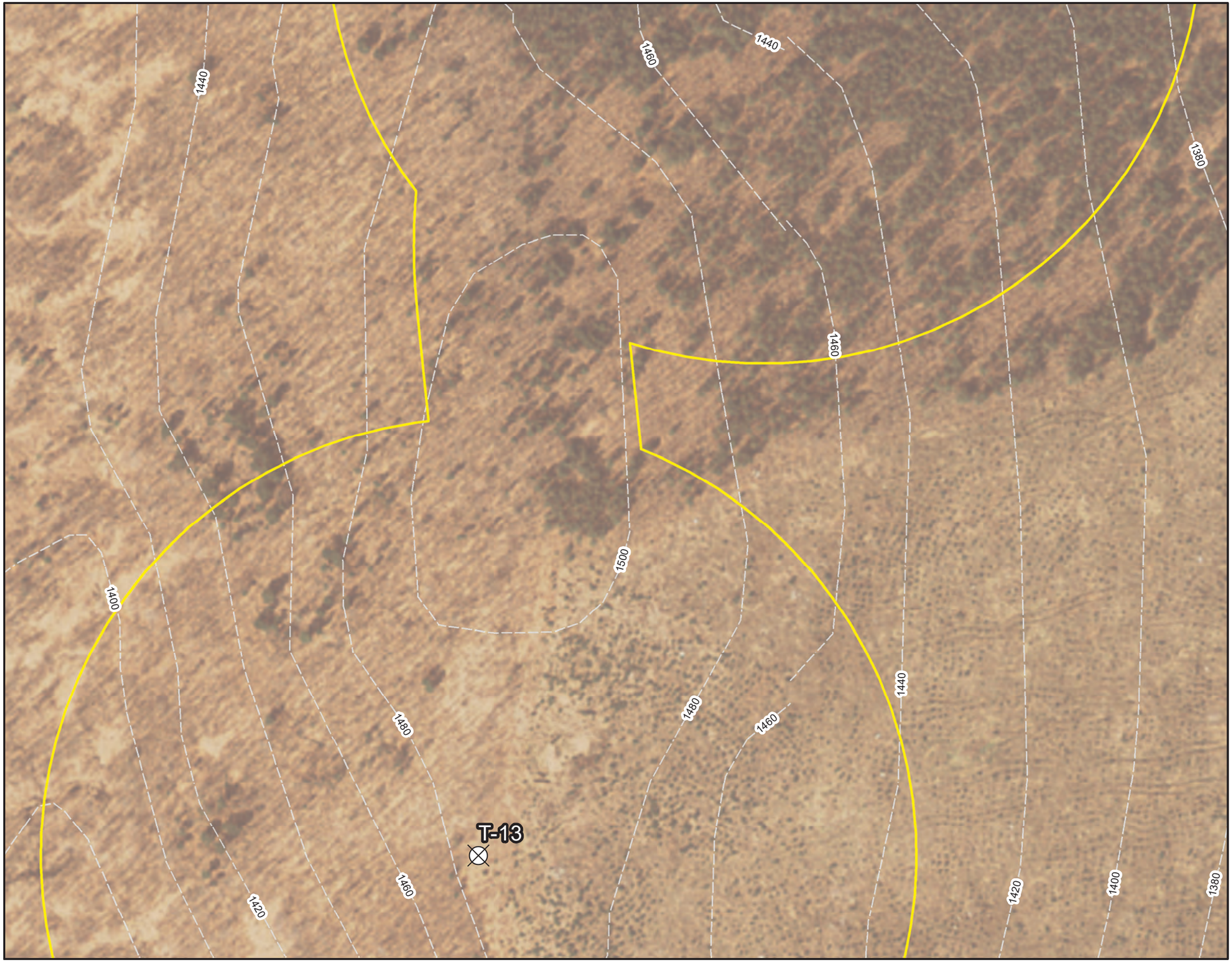
Prepared By: TETRA TECH

Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

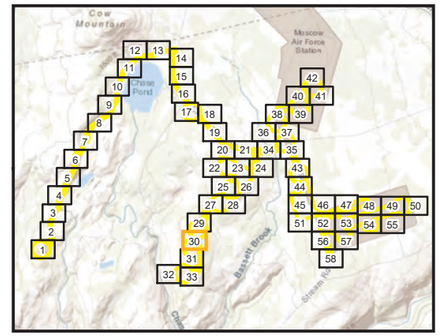
Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction



Legend

- Study Area
- 20 Foot Contour
- Turbine Location



N

0 125 250 Feet

Figure 3
Sheet 30 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

Date: 05/2021

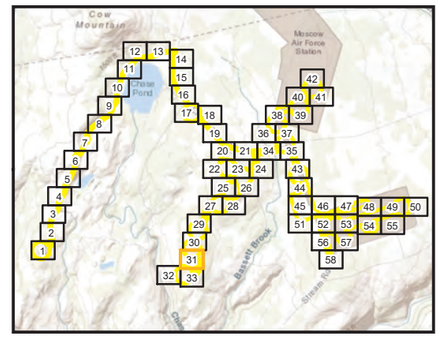
Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction

Legend

- Study Area
- 20 Foot Contour
- Natural Vernal Pool
- Delineated Watercourse



N

0 125 250 Feet

Figure 3
Sheet 31 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

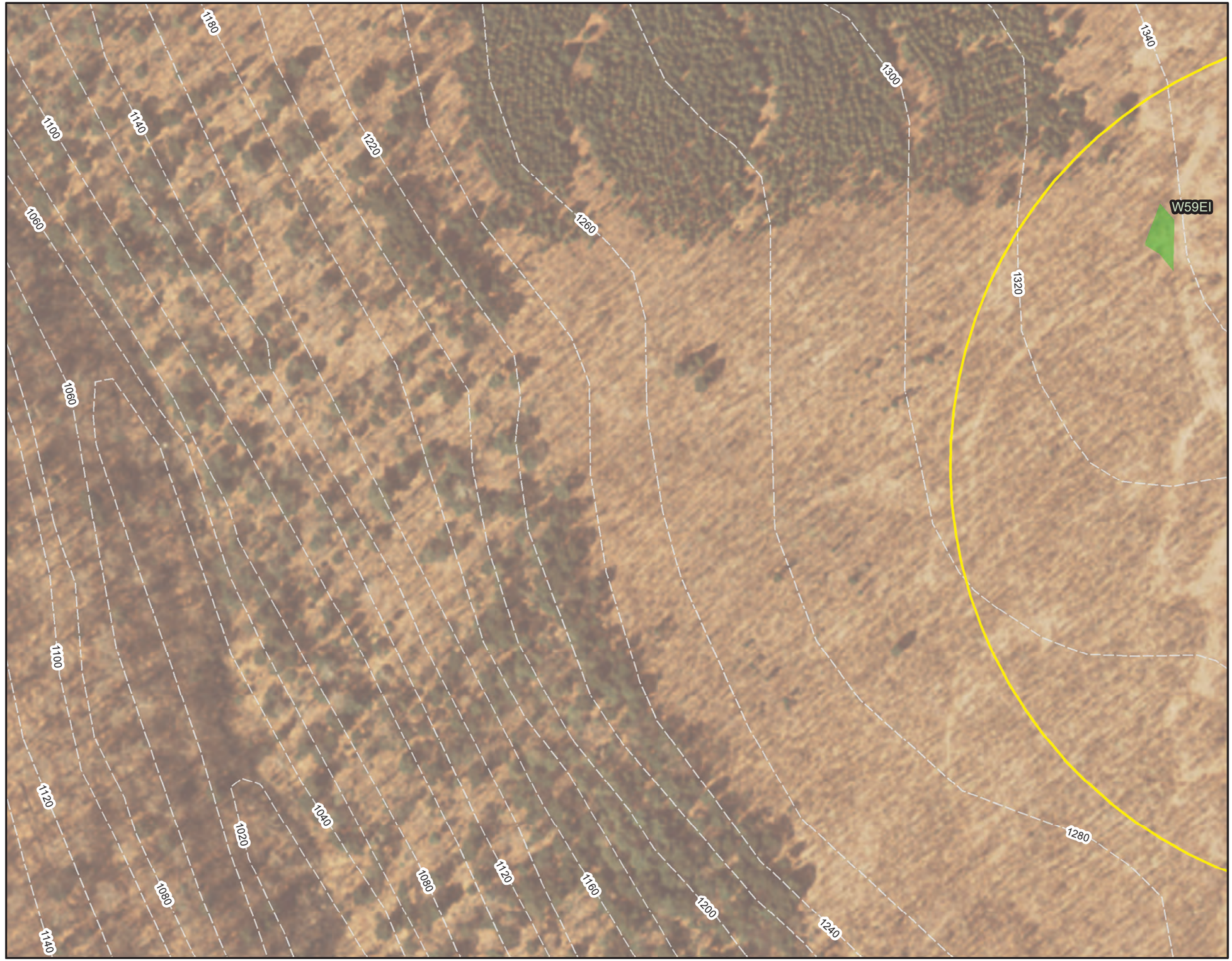
Prepared By: TETRA TECH

Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

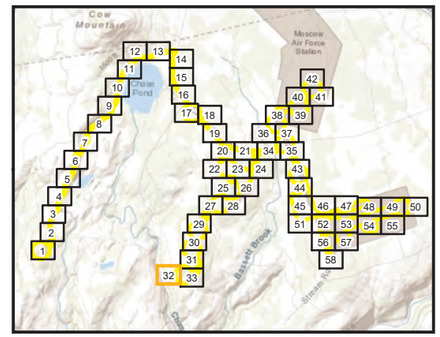
Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction



Legend

- Study Area
- 20 Foot Contour
- Delineated Wetland (Summer)



Feet
0 125 250

Figure 3
Sheet 32 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

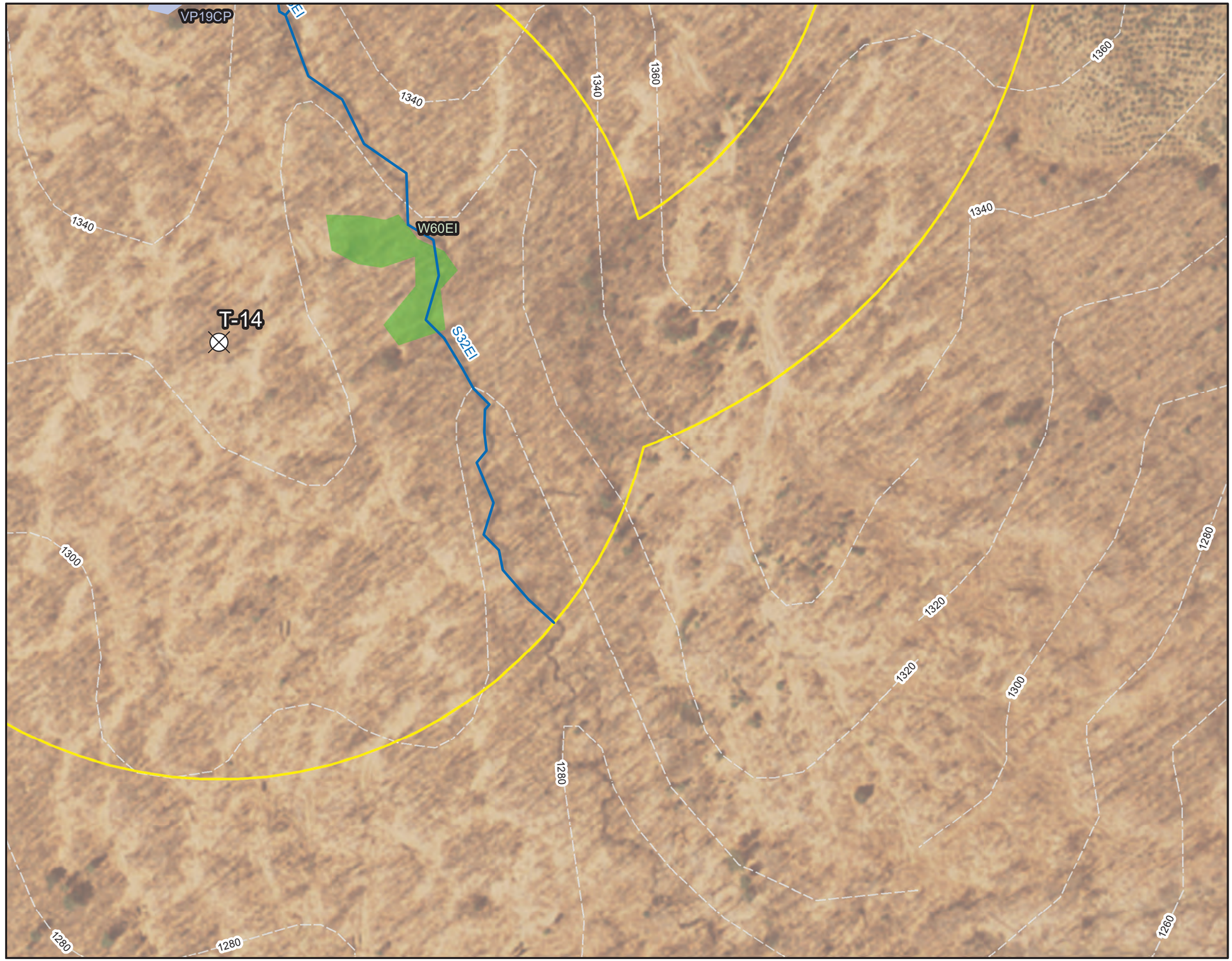
Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

Date: 05/2021

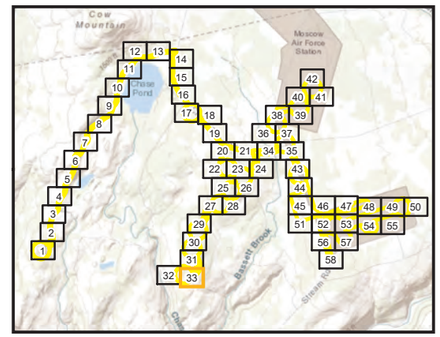
Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North



Legend

- Study Area
- 20 Foot Contour
- Turbine Location
- Natural Vernal Pool
- Delineated Wetland
- Delineated Watercourse



N

0 125 250 Feet

Figure 3
Sheet 33 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

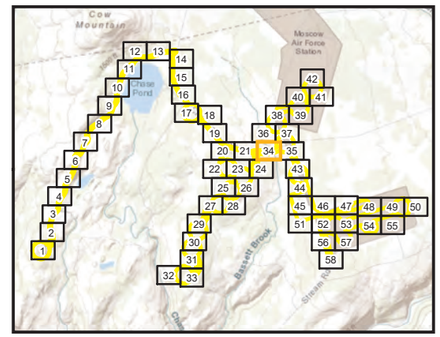
Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Legend

- Study Area
- 20 Foot Contour
- Wetland Continuation Line
- Delineated Wetland (Summer)
- Delineated Watercourse (Summer)



N

0 125 250 Feet

Figure 3
Sheet 34 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

Date: 05/2021

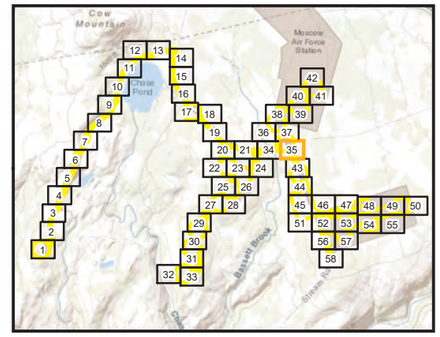
Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction

Legend

- Study Area
- 20 Foot Contour
- Turbine Location
- Wetland Continuation Line
- Delineated Wetland (Summer)



N

0 125 250 Feet

Figure 3
Sheet 35 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

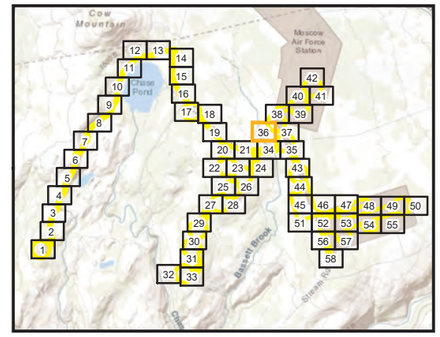
Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Legend

- Study Area
- 20 Foot Contour
- Wetland Continuation Line
- Delineated Wetland (Summer)



N

0 125 250 Feet

Figure 3
Sheet 36 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

Date: 05/2021

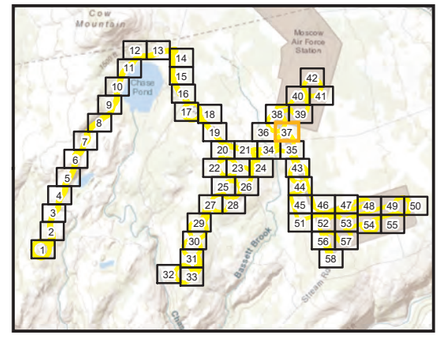
Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction

Legend

- Study Area
- 20 Foot Contour
- Turbine Location
- Wetland Continuation Line
- Delineated Wetland



N

Feet

0 125 250

Figure 3
Sheet 37 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

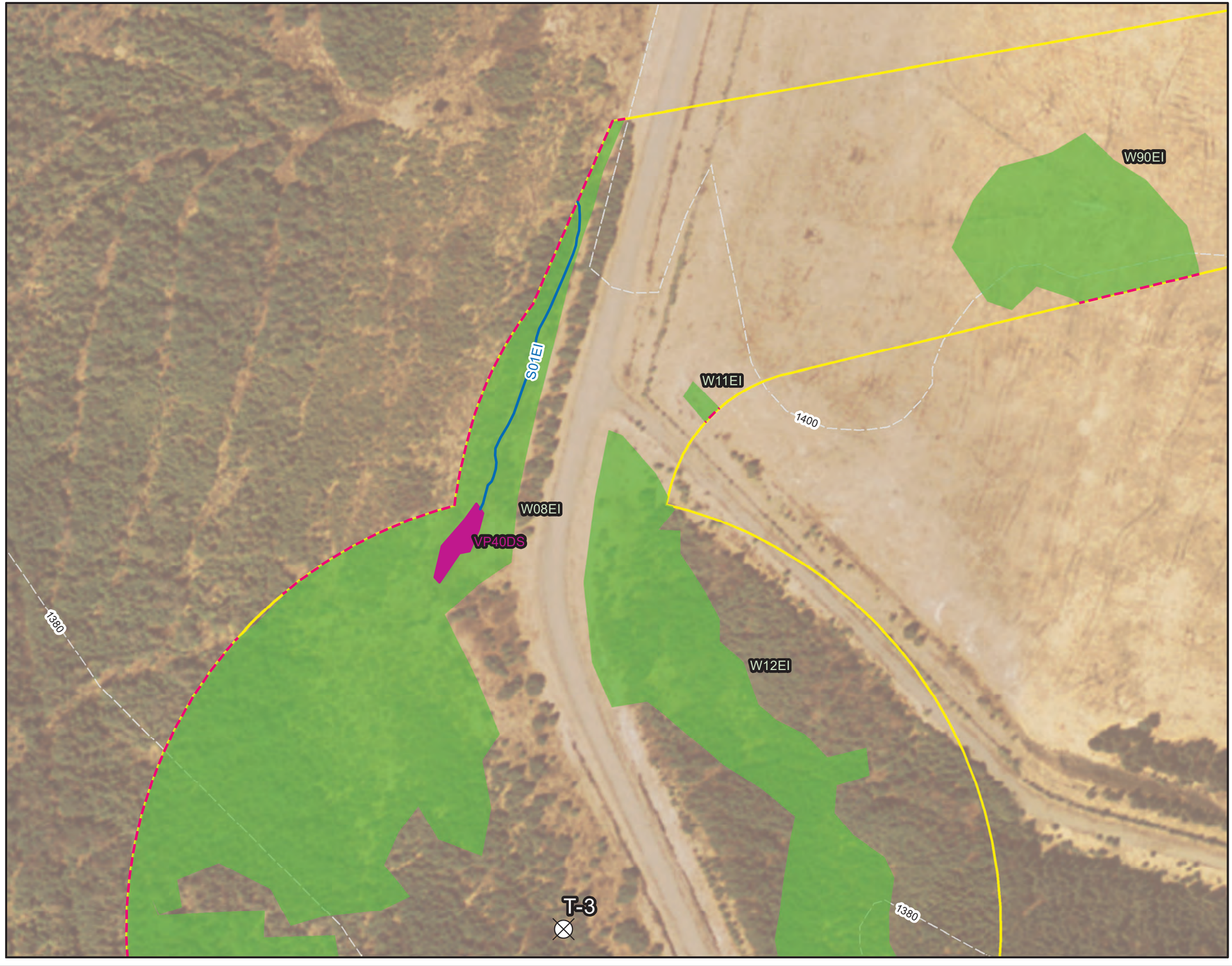
Prepared By: TETRA TECH

Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

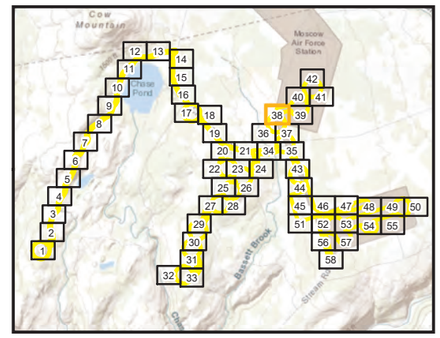
Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction



Legend

- Study Area
- 20 Foot Contour
- Turbine Location
- Wetland Continuation Line
- Natural-modified Vernal Pool
- Delineated Wetland (Summer)
- Delineated Watercourse



N

0 125 250 Feet

Figure 3
Sheet 38 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

Date: 05/2021

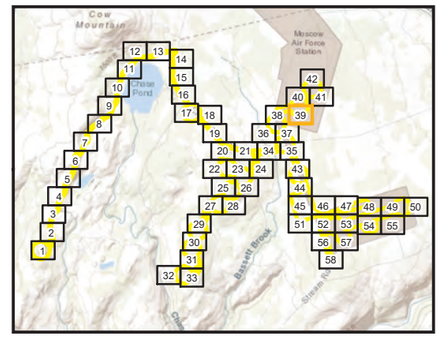
Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

W100EI
1400
T-2
W98EI
W90EI
W92EI
W91EI
1380

Legend

- Study Area
- 20 Foot Contour
- Turbine Location
- Wetland Continuation Line
- Delineated Wetland (Summer)



N

0 125 250 Feet

Figure 3
Sheet 39 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

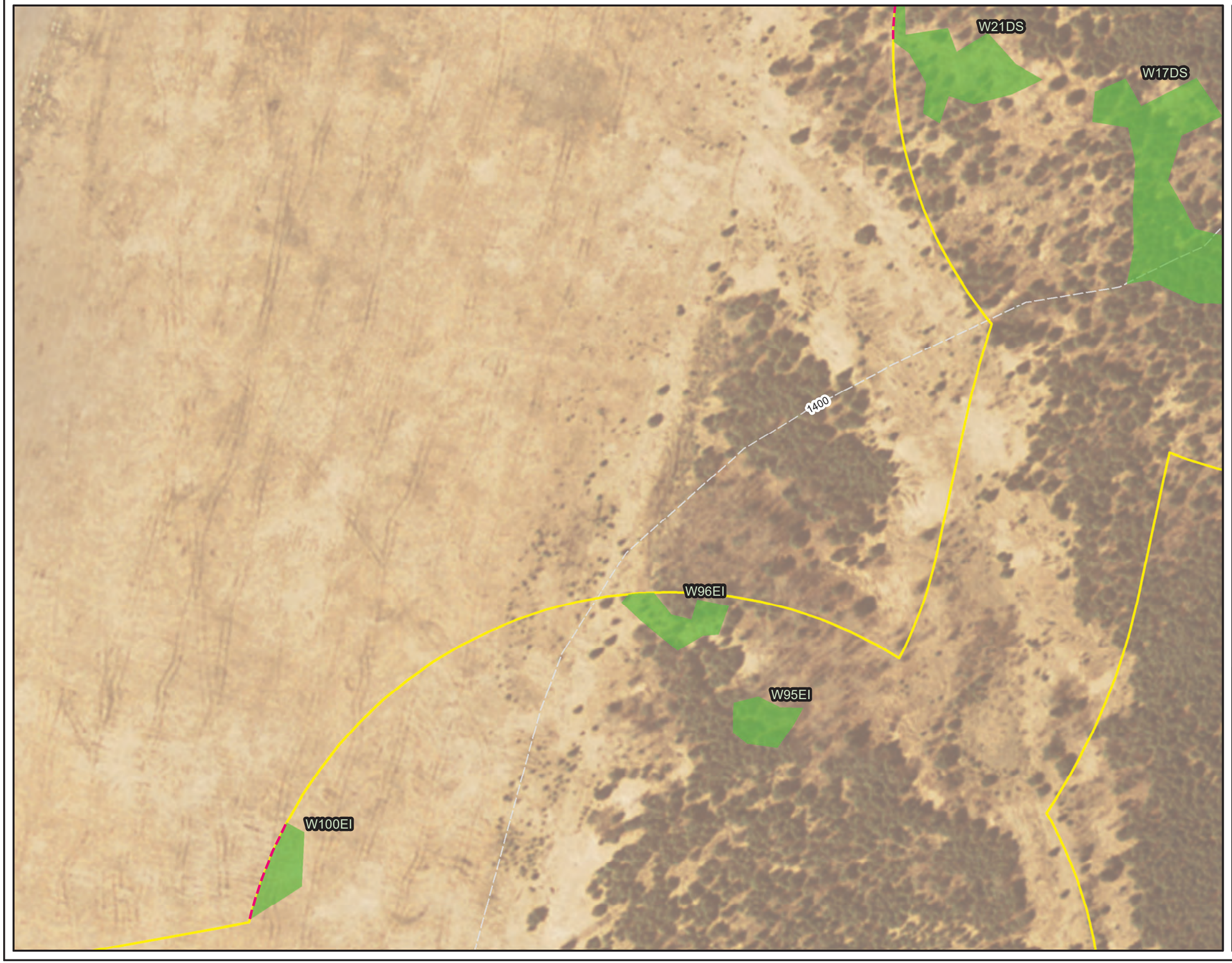
Prepared By: TETRA TECH

Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

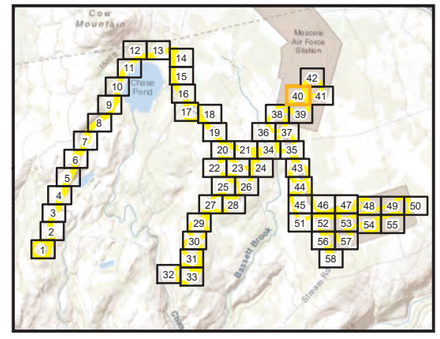
Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction



Legend

- Study Area
- 20 Foot Contour
- Wetland Continuation Line
- Delineated Wetland (Summer)



N

0 125 250 Feet

Figure 3
Sheet 40 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

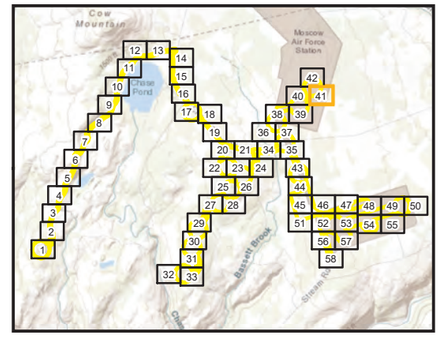
Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Legend

- Study Area
- 20 Foot Contour
- Turbine Location
- Wetland Continuation Line
- Delineated Wetland (Summer)
- Delineated Watercourse (Summer)



N

0 125 250 Feet

Figure 3
Sheet 41 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

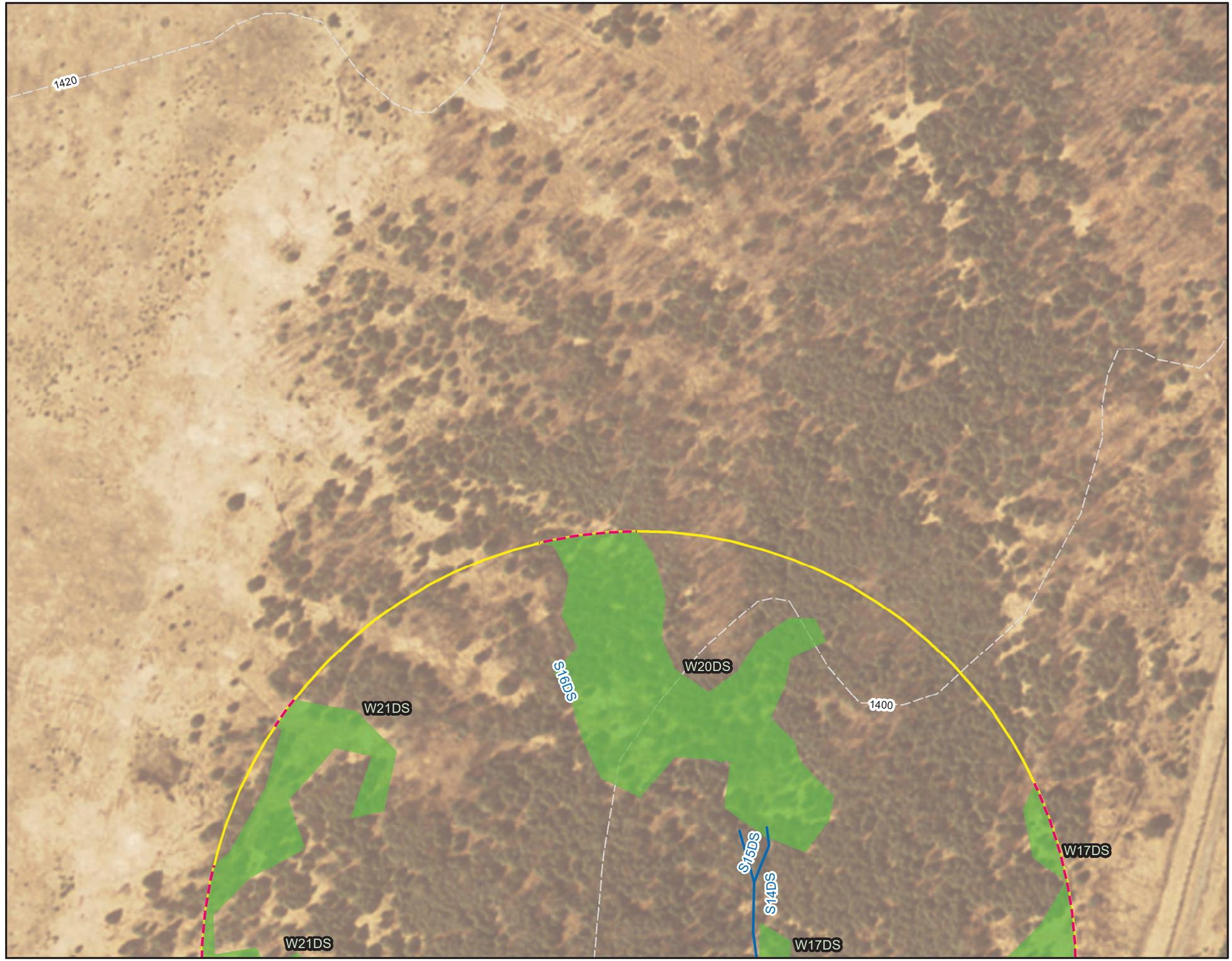
Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

Date: 05/2021

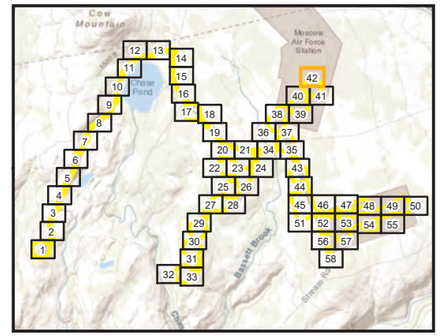
Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North



Legend

- Study Area
- 20 Foot Contour
- Turbine Location
- Wetland Continuation Line
- Delineated Wetland (Summer)
- Delineated Watercourse (Summer)



N

0 125 250 Feet

Figure 3
Sheet 42 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

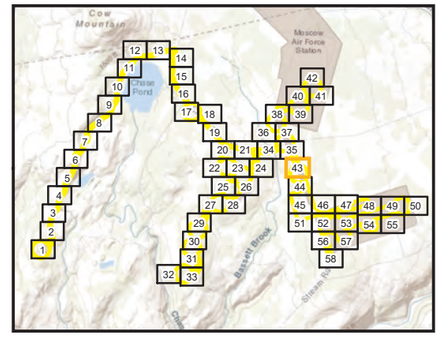
Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Legend

- Study Area
- 20 Foot Contour
- Turbine Location
- Wetland Continuation Line
- Delineated Wetland (Summer)
- Delineated Watercourse (Summer)



N

0 125 250 Feet

Figure 3
Sheet 43 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

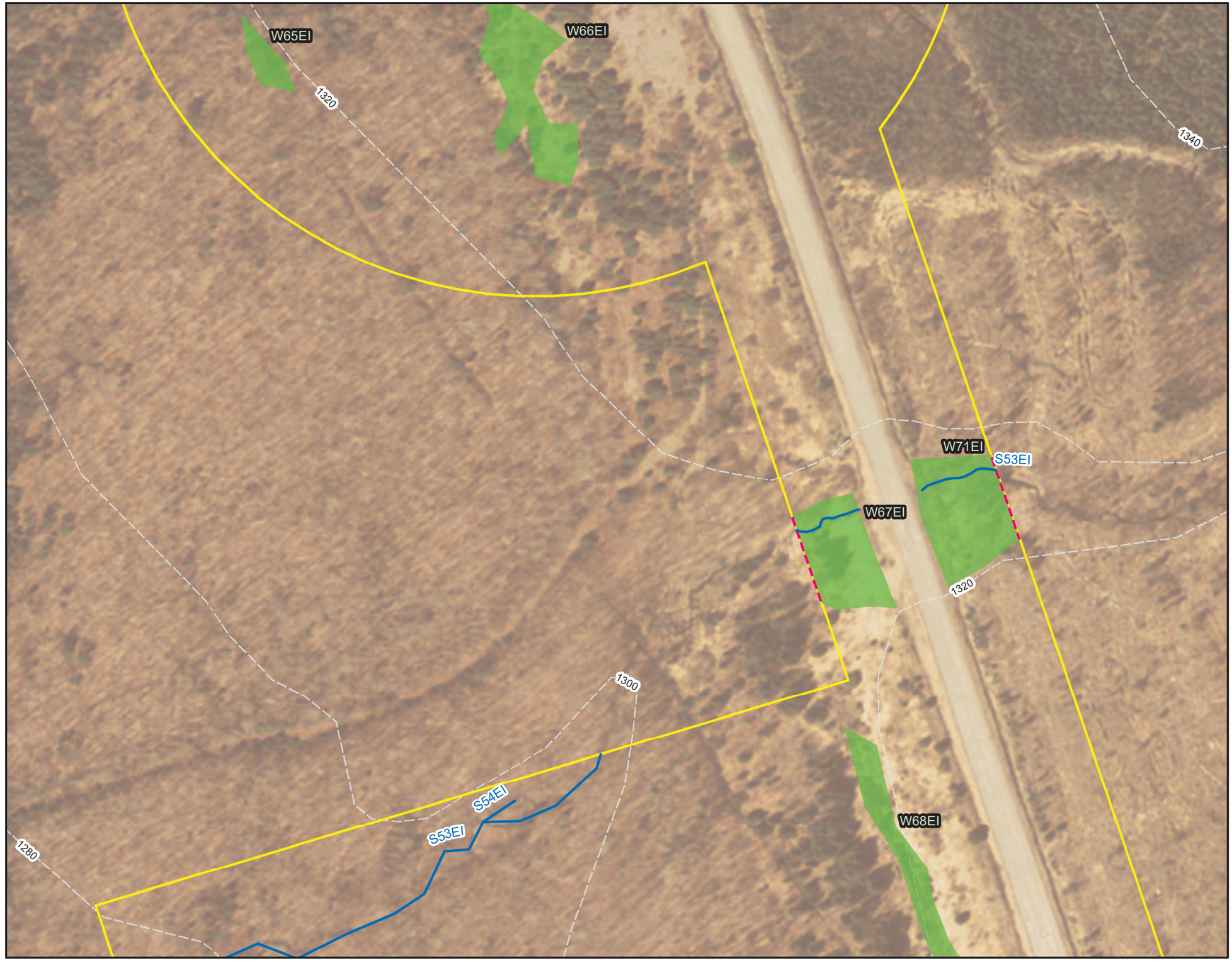
Prepared By: TETRA TECH

Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

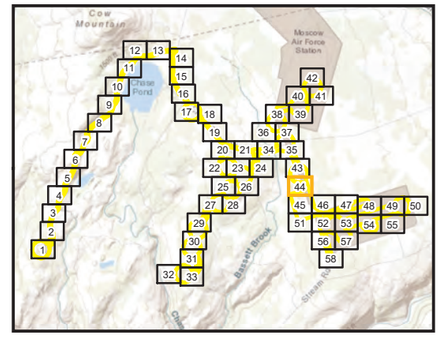
Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction



Legend

- Study Area
- 20 Foot Contour
- Wetland Continuation Line
- Delineated Wetland (Summer)
- Delineated Watercourse (Summer)



N

Feet
0 125 250

Figure 3
Sheet 44 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

Date: 05/2021

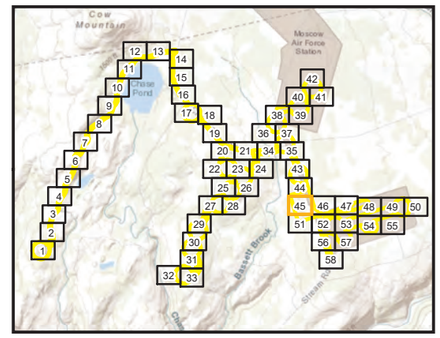
Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction

Legend

- Study Area
- 20 Foot Contour
- NECEC Wetland
- Non-natural Vernal Pool
- Delineated Wetland (Summer)
- Delineated Watercourse (Summer)



N

0 125 250 Feet

Figure 3
Sheet 45 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

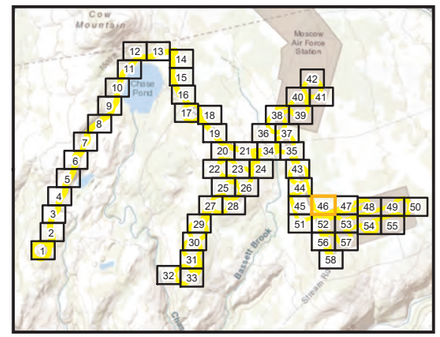
Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Legend

- Study Area
- NECEC Wetland



N

0 125 250 Feet

Figure 3
Sheet 46 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

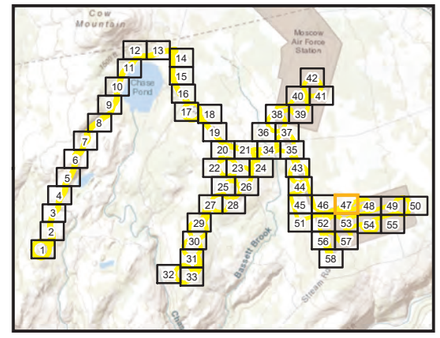
Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Legend

- Study Area
- 20 Foot Contour
- NECEC Wetland
- Delineated Wetland (Summer)
- Delineated Wetland (Winter)



N

0 125 250 Feet

Figure 3
Sheet 47 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

Date: 05/2021

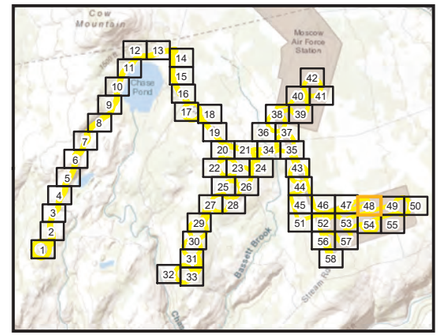
Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction

Legend

- Study Area
- 20 Foot Contour
- NECEC Wetland



N

0 125 250 Feet

Figure 3
Sheet 48 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

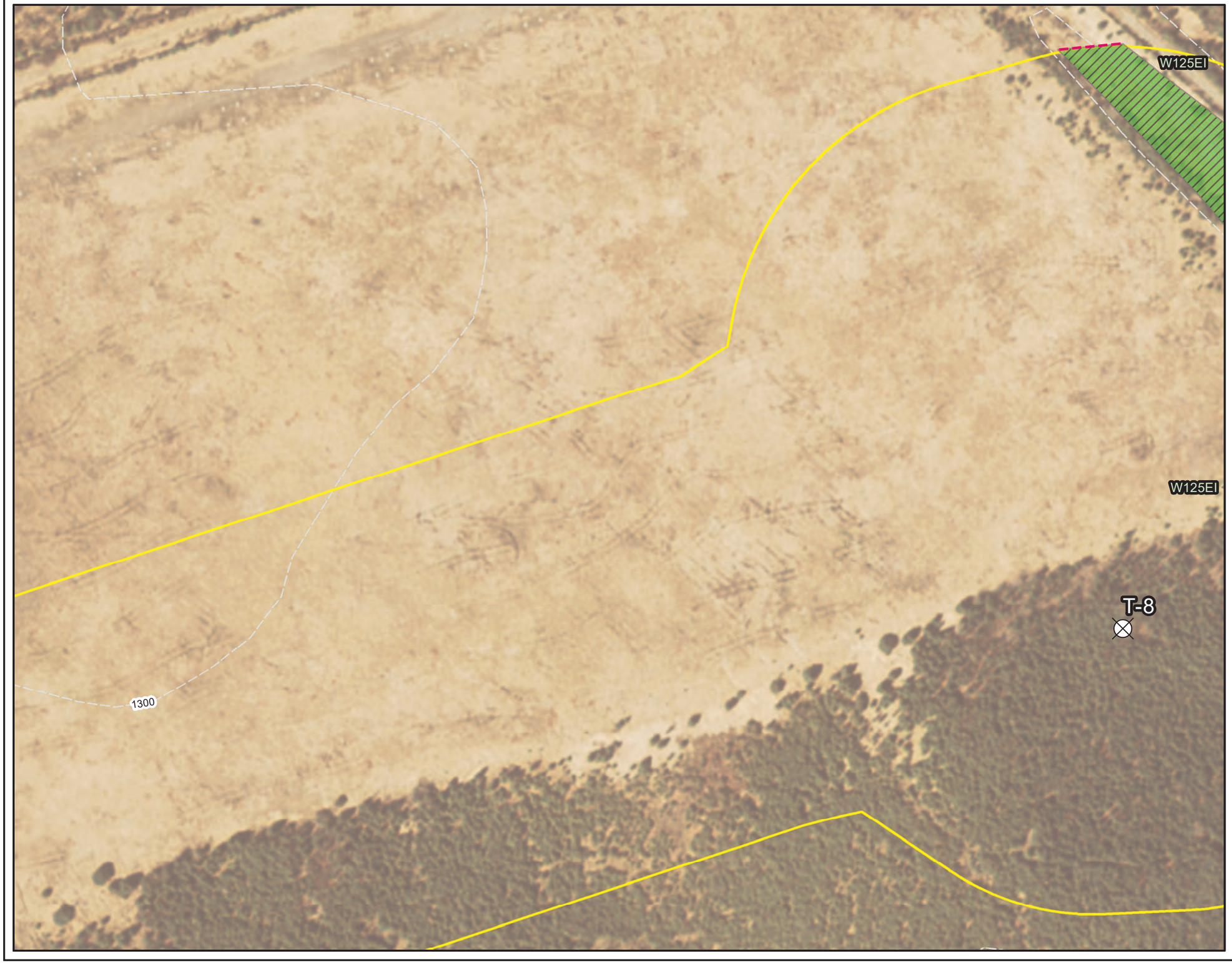
Prepared By: TETRA TECH

Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

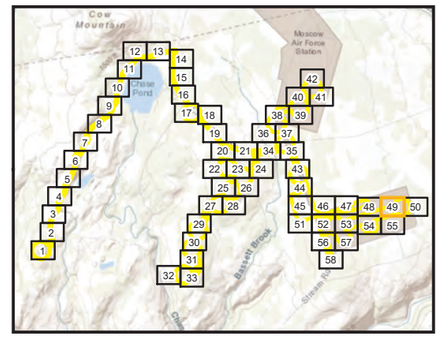
Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction



Legend

- Study Area
- 20 Foot Contour
- Turbine Location
- Wetland Continuation Line
- Delineated Wetland (Winter)



N

Feet

0 125 250

Figure 3
Sheet 49 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

Date: 05/2021

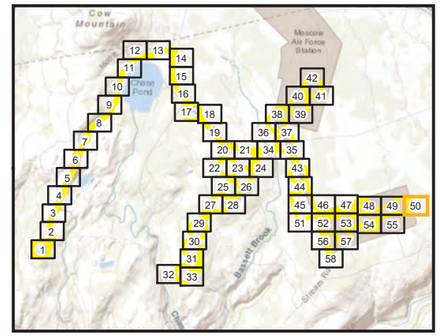
Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction

Legend

- Study Area
- 20 Foot Contour
- Wetland Continuation Line
- Delineated Wetland (Winter)



N

0 125 250 Feet

Figure 3
Sheet 50 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

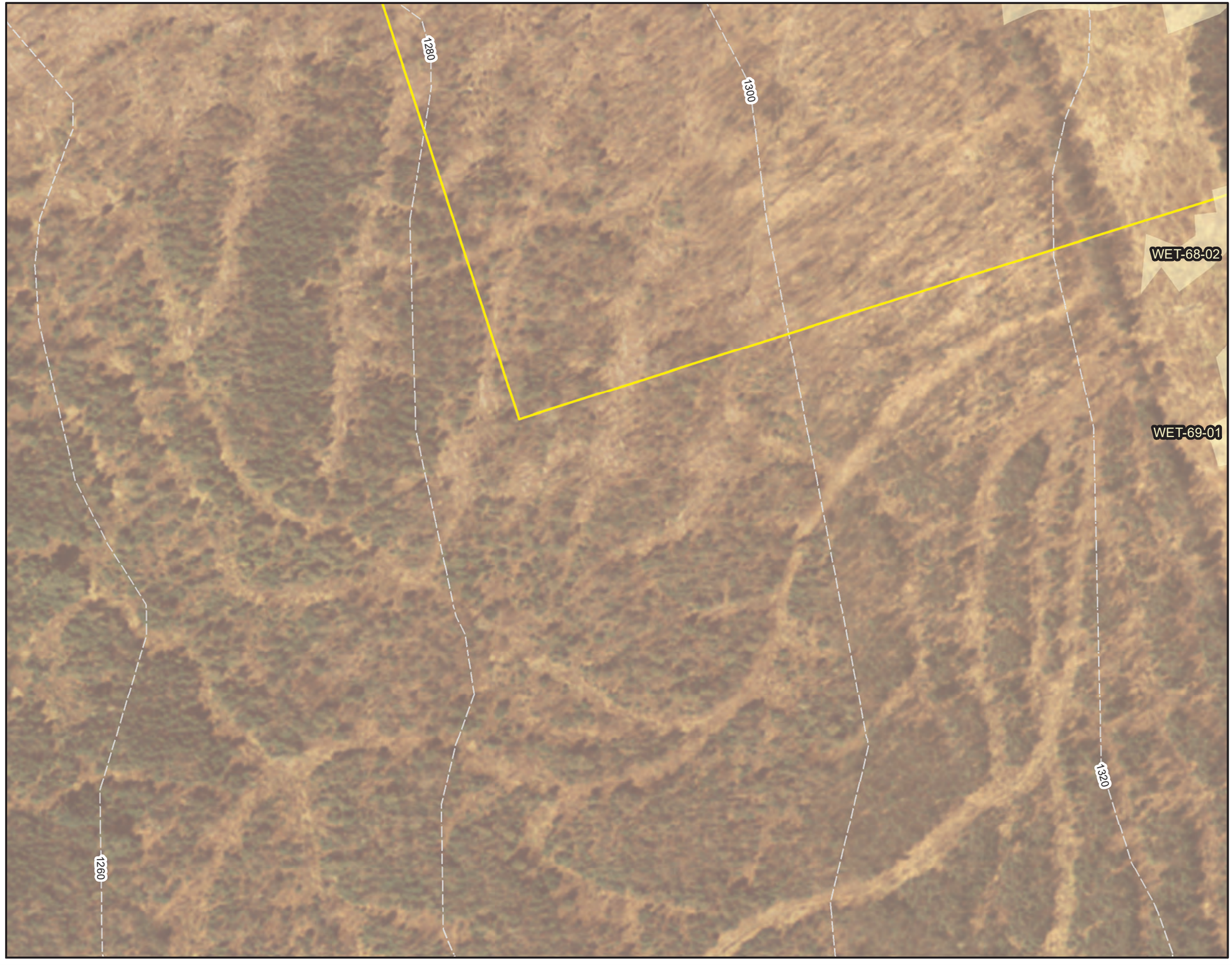
Prepared By: TETRA TECH

Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

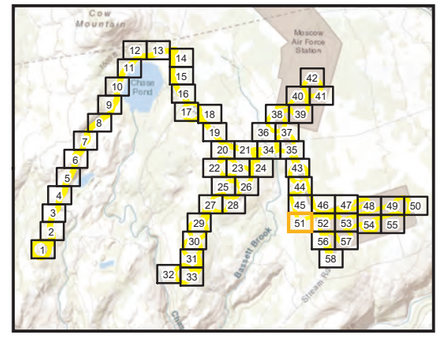
Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction



Legend

- Study Area
- 20 Foot Contour
- NECEC Wetland



N

0 125 250 Feet

Figure 3
Sheet 51 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

Date: 05/2021

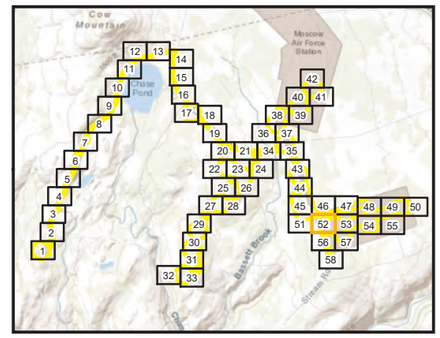
Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction

Legend

- Study Area
- 20 Foot Contour
- Wetland Continuation Line
- NECEC Wetland
- Delineated Wetland (Summer)



N

0 125 250 Feet

Figure 3
Sheet 52 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

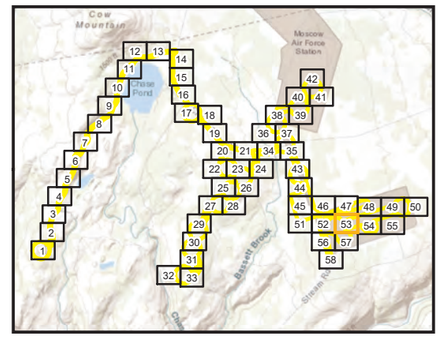
Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Legend

- Study Area
- 20 Foot Contour
- Wetland Continuation Line
- Delineated Wetland (Winter)



N

0 125 250 Feet

Figure 3
Sheet 53 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

Date: 05/2021

Source: Esri, et. al., 2020; Tetra Tech, 2020-21; Western Maine Renewables, 2021

Coordinate System: World Geodetic System, 1984 Universal Transverse Mercator, Zone 19 North

Not for Construction

Legend

- Study Area
- 20 Foot Contour
- Turbine Location
- Wetland Continuation Line
- Potential Vernal Pool
- Delineated Wetland (Winter)

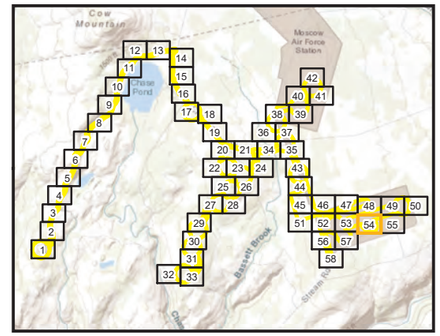


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Figure 3
Sheet 54 of 58
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Western Maine Renewable Energy Project

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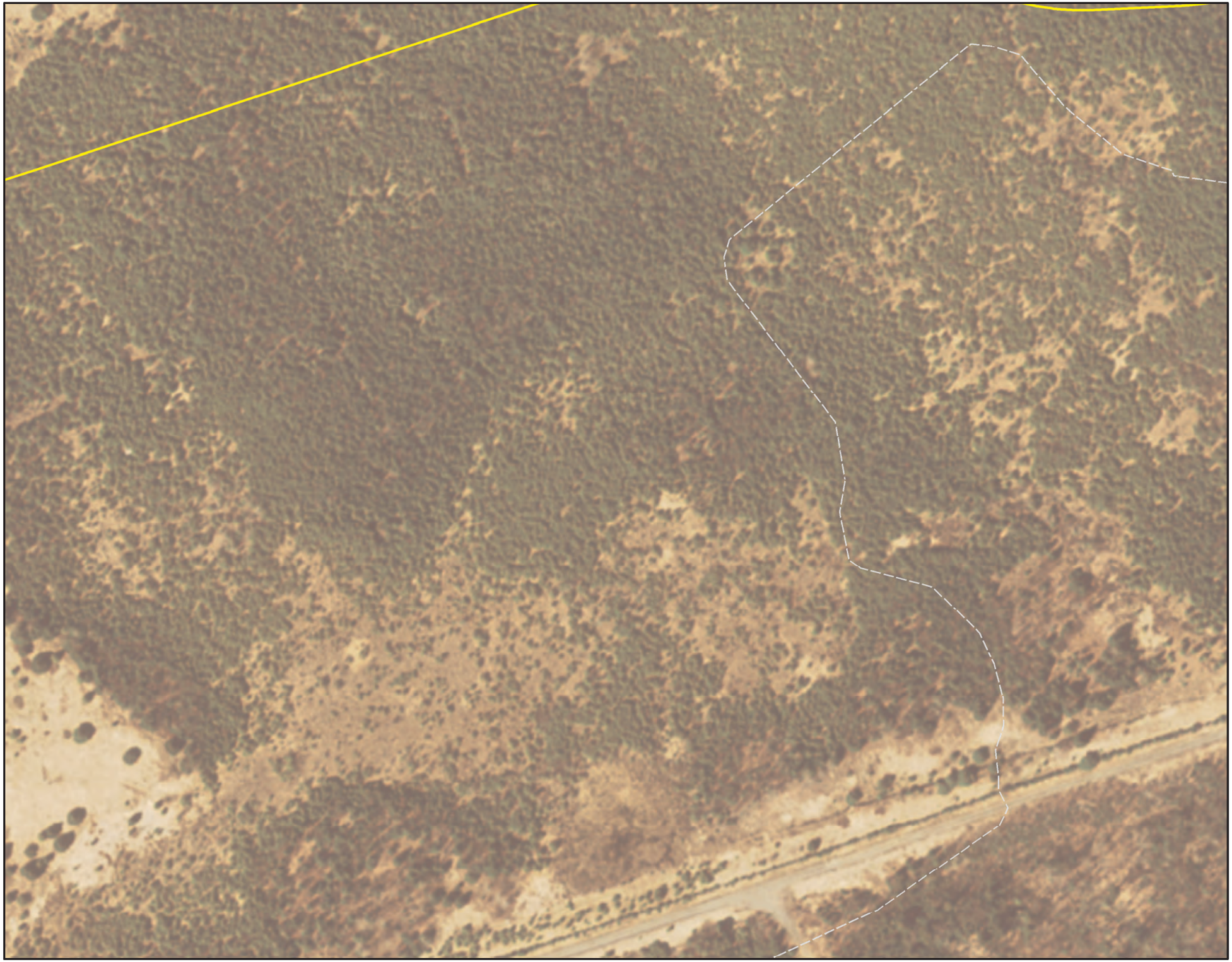
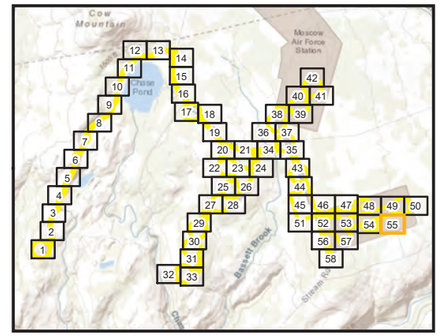


Legend

- Study Area
- 20 Foot Contour



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0 125 250 Feet

Figure 3
Sheet 55 of 58
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Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

Date: 05/2021

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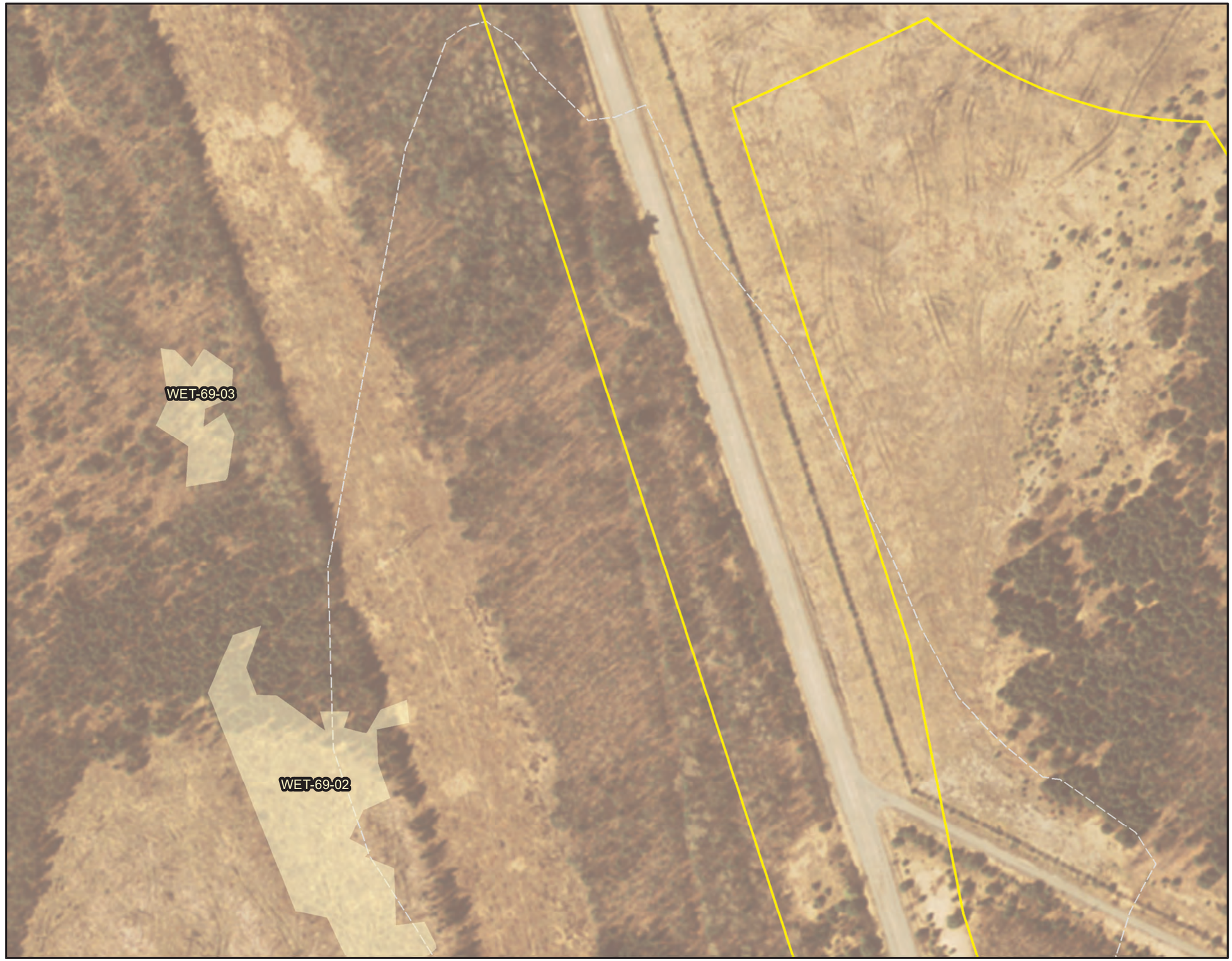
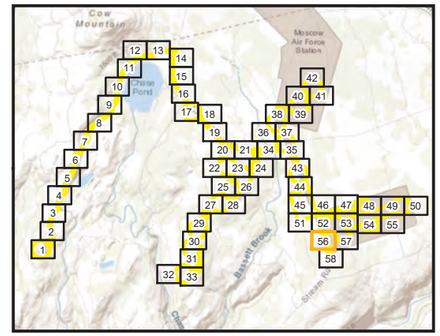


Legend

- Study Area
- 20 Foot Contour
- NECEC Wetland



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0 125 250 Feet

Figure 3
Sheet 56 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

Prepared For: Western Maine Renewables LLC

Prepared By: TETRA TECH

Date: 05/2021

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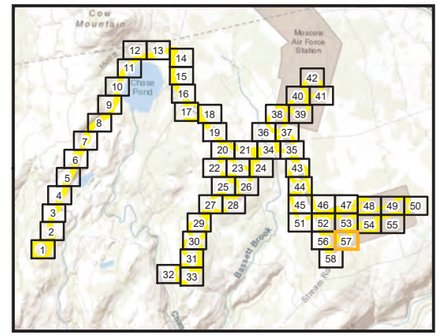
Not for Construction

Legend

- Study Area
- 20 Foot Contour
- Turbine Location
- Wetland Continuation Line
- Delineated Wetland (Winter)



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0 125 250 Feet

Figure 3
Sheet 57 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

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Date: 05/2021

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Not for Construction

Legend

- Study Area
- 20 Foot Contour
- NECEC Wetland

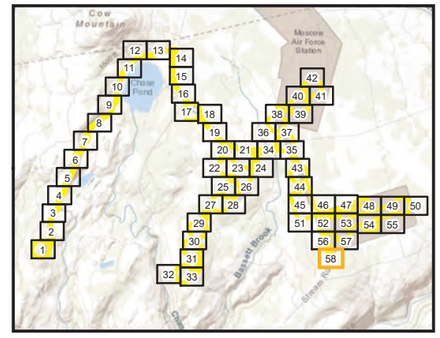

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Figure 3
Sheet 58 of 58
Aquatic Resource Survey Results
Western Maine Renewable Energy Project

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Appendix B. Natural Resources Summary Tables

Table 1. Vernal Pool Survey Results for the Western Maine Renewable Energy Project, Moscow, Maine.

Vernal Pool ID	Associated Wetland	Hydrology	MDEP NRPA Significant[1]	Pool Origin	First visit survey and counts			Second visit survey and counts			Notes
					Date[2]	Wood Frog (*Lithobates sylvaticus*)	Spotted Salamander (*Ambystoma maculatum*)	Date[2]	Wood Frog (*Lithobates sylvaticus*)	Spotted Salamander (*Ambystoma maculatum*)	
VP19CP	N/A	Ephemeral	Yes	Natural	5/20/2020	0	57	5/26/2020	10	57	Bullfrog (*Lithobates catesbeianus*) 5/20/20
VP21DS	W68EI	Ephemeral	No	Non-natural	4/29/2020	100+	100+	5/18/2020	30	40+	
VP22DS	W68EI	Ephemeral	No	Non-natural	4/29/2020	7	0	5/18/2020	7	0	
VP40DS	W08EI	Ephemeral	Yes	Natural-modified	5/6/2020	14	15	5/18/2020	18	40+	Two pair of spring peepers (*Pseudacris crucifer*) observed mating along with presence of green frogs (*Rana clamitans*) during 5/18/20 visit
PVP41EI	W115EI	Unknown	No	Non-natural	12/22/2020	N/A	N/A	N/A	N/A	N/A	PVP identified during winter surveys
PVP42EI	W111	Unknown	No	Non-natural	12/22/2020	N/A	N/A	N/A	N/A	N/A	PVP identified during winter surveys
PVP43EI	W107EI	Unknown	No	Non-natural	1/28/2021	N/A	N/A	N/A	N/A	N/A	PVP identified during winter surveys

1 – Significance based on Maine Department of Environmental Protection (MDEP) Natural Resources Protection Act (NRPA) (38 Maine Revised Statutes Annotated §§480-A et seq.) and Maine Significant Wildlife Habitat Rules (Chapter 335). Available online at: http://www.maine.gov/dep/land/nrpa/index.html (MDEP 2014).
2 – Species count numbers are the highest numbers counted between the two surveys.
3 – Blue spotted salamander (*Ambystoma laterale*) and fairy shrimp (*Anostraca* spp.) were not observed in any of the pools identified on-Site. No vernal pool-dependent listed species were observed.
PVP = potential vernal pool.

Table 2. Wetland Delineation Results for the Western Maine Renewable Energy Project, Moscow, Maine.

Wetland ID	Cowardian Classification[1]	Area (Acres)	Area (Sq. Ft.)	Summary Notes	Wetland of Special Significance[2]
W08EI	PEM/PSS/PFO	4.88	212,787.65	Large wetland complex characterized by pit/mound microtopography in forested areas, and high organic content in soils with sulfur odor in emergent areas. Contains VP04DS and S01EI. Common plants include bluejoint, Canada bunchberry, swamp dewberry, swamp violet, wild raisin, gray birch, and northern white cedar.	Yes
W11EI	PEM	0.02	898.36	A naturalized ditch along the edge of a USAF radar field. Common plants include swamp dewberry, highbush blueberry, horsetail, reed canary grass, blue flag iris, and broad leaf cattail.	No
W12EI	PFO	2.08	90,597.48	A large forested wetland complex that is connected to W13EI and W14EI offsite. A small portion of this wetland occurs as a naturalized ditch adjacent to an existing access road. Common plants include northern white cedar, red maple, black spruce, gray birch, wild rasin, bellwort, water avens, swamp violet and swamp dewberry.	No
W13EI	PFO	0.23	9,918.82	A large forested wetland complex that is connected to W12EI and W14EI offsite. Common plants include northern white cedar, red maple, black spruce, gray birch, winterberry holly, marginal wood fern, swamp violet, and creeping snowberry.	No
W14EI	PFO	1.55	67,343.12	A large forested wetland complex that is connected to W12EI and W13EI off site. A portion of this wetland occurs as a roadside ditch. Common plants include northern white cedar, red maple, black spruce, gray birch, winterberry holly, marginal wood fern, swamp violet, and creeping snowberry.	Yes
W15EI	PFO	0.16	6,885.38	A forested wetland that continues off site. A portion of this wetland contains a roadside ditch. Common plants include northern white cedar, wild rasin, red maple, winterberry holly, swamp dewberry and creeping snowberry.	No
W16EI	PFO	0.25	10,735.15	An isolated, forested wetland, with visible impacts from previous timber removal. Common plants include northern white cedar, red spruce, marginal wood fern, swamp violet, reed canary grass, and highbush blueberry.	No
W17DS	PFO/PSS	3.82	166,562.34	larger wetland complex within a USAF radar field. Contains S14DS. Common plants include northern white cedar, gray birch, black ash, red maple, meadowsweet, highbush blueberry, and winterberry holly.	Yes
W17EI	PFO	0.45	19,663.71	A forested wetland with visible impacts from previous timber removal. Contains S52EI, a tributary to Bassett Brook. Common plants include northern white cedar, winterberry holly, black spruce, and highbush blueberry.	Yes

Wetland ID	Cowardian Classification[1]	Area (Acres)	Area (Sq. Ft.)	Summary Notes	Wetland of Special Significance[2]
W18EI	PFO/PEM	0.05	2,241.53	An isolated seep wetland that drains into a roadside ditch. Common plants include northern white cedar, black spruce, sphagnum moss, swamp violet, interrupted fern, and water avens	No
W19EI	PFO	0.25	10,932.31	An isolated wetland with shallow soils. Common plants include balsam fir, red maple, meadowsweet, sensitive fern, and maple-leaf viburnum.	No
W20DS	PFO/EM1	1.29	56,200.29	Wetland occurs in a USAF radar field, contains S15DS and S15DS. Common plants include northern white cedar, red maple, balsam fir, meadowsweet, sensitive fern, horsetail, slender willow, and bluejoint.	Yes
W20EI	PFO	0.39	16,995.90	A small, forested, wetland that continues offsite. Common plants include sensitive fern, cinnamon fern, horsetail, swamp violet, northern white cedar, red maple, winterberry holly, and maple-leaf viburnum.	No
W21DS	PFO/EM1	0.62	27,102.37	Wetland occurs in a USAF radar field and continues outside of the Study Area. Common plants include northern white cedar, red maple, balsam fir, meadowsweet, sensitive fern, horsetail, slender willow, and bluejoint.	No
W29EI	PFO/PEM	0.38	16,459.80	A depressional wetland with soils that are shallow to bedrock; limit of excavation was 6-10 inches of dark organic muck. Common plants include black spruce, northern white cedar, red maple, wild rasin, bluejoint, slender willow, Canada bunchberry, and cinnamon fern.	No
W30EI	PEM/PFO	2.91	126,724.59	A larger wetland with seepy conditions on a hillslope; soils are shallow to bedrock and characterized by dark, muck. Common plants include cinnamon fern, tussock sedge, speckled alder, horsetail, slender willow, larch, red maple, jewelweed, interrupted fern, foam flower, and Canada bunchberry.	No
W33EI	PFO	1.09	47,428.50	A forested wetland with microtopography and a layer of sphagnum moss throughout; soils contain a dark surface with redoximorphic concentrations. Common plants include yellow birch, black ash, black spruce, larch, speckled alder, wild rasin, interrupted fern, and cinnamon fern.	No
W34EI	PEM	0.19	8,143.34	An emergent depressional wetland that is surrounded by upland forest. Common plants include swamp violet, joe-pye weed, cinnamon fern, sensitive fern, water avens, bellwort, tussock sedge, and bluejoint.	No
W35EI	PEM	0.06	2,746.31	A small depression with similar characteristics to Wetland W34EI. Common plants include swamp violet, joe-pye weed, cinnamon fern, sensitive fern, tussock sedge, and bluejoint.	No
W36EI	PEM	0.01	511.01	A small isolated, seep wetland; soils have a depleted matrix and redox concentrations. Common plants include sensitive fern, red maple, interrupted fern, and marginal wood fern.	No

Wetland ID	Cowardian Classification[1]	Area (Acres)	Area (Sq. Ft.)	Summary Notes	Wetland of Special Significance[2]
W37EI	PFO	0.07	3,039.67	An isolated depression surrounded by upland forest. Common plants include swamp violet, Canada bunchberry, joe-pye weed, cinnamon fern, sensitive fern, water avens and marginal wood fern.	No
W38EI	PFO	0.04	1,691.44	A forested wetland with microtopography and soils with containing a dark surface with redoximorphic concentrations. Common plants include tussock sedge, meadow rue, horsetail, interrupted fern, wild rasin, red maple, larch, black spruce, black ash and speckled alder.	No
W39EI	PFO	0.10	4,482.90	A small, isolated wetland surrounded by upland forest Common plants include swamp violet, Canada bunchberry, joe-pye weed, cinnamon fern, sensitive fern, water avens and marginal wood fern.	Yes
W40EI	PFO/PEM	0.38	16,697.37	A large, mostly forested wetland that continues outside the Study Area; soils are characterized by dark muck. Common plants include sensitive fern, cinnamon fern, swamp violet	No
W41EI	PEM	0.06	2,794.25	An emergent depression with dark organic soils. Common plants include Tussock sedge, bluejoint, sensitive fern, jewelweed, larch, and meadowsweet.	No
W42EI	PFO	0.05	2,250.08	An isolated depression with dark, mucky soils. Common plants include black ash, red spruce, speckled alder, fringed sedge, bellwort, strawberry, and striped maple.	Yes
W43EI	PFO	0.07	2,996.28	An isolated depression with dark mineral soils. Common plants include sensitive fern, interrupted fern, tussock sedge, fringed sedge, yellow bluebead-lilly, hobblebush, yellow birch, black ash, and striped maple.	Yes
W44EI	PEM	0.14	6,114.10	An isolated depression surrounded by upland forest. Common plants include swamp violet, Canada bunchberry, joe-pye weed, cinnamon fern, sensitive fern, water avens and marginal wood fern.	No
W47EI	PEM/PFO	0.18	7,745.87	Hillslope wetland with dominant upland vegetation. A small patch of blue flag iris and a small patch of swamp violet observed, but were not dominant, other plants include, red spruce, balsam fir, tussock sedge, red raspberry, sensitive fern, and meadowsweet.	No
W48EI	PFO	0.06	2,819.99	Forested wetland connected to S24EI. Common plants include black spruce, sensitive fern, bluejoint, red maple, and meadowsweet.	Yes
W49EI	PFO	0.05	2,041.11	Forested wetland connected to S24EI. Common plants include black spruce, sensitive fern, bluejoint, red maple, and meadowsweet.	Yes
W50EI	PEM	0.08	3,304.83	A grassy slope that leads to a roadside ditch. Common plants include meadow sweet, sensitive fern, and tussock sedge.	Yes

Wetland ID	Cowardian Classification[1]	Area (Acres)	Area (Sq. Ft.)	Summary Notes	Wetland of Special Significance[2]
W51EI	PEM/PSS	0.88	38,426.98	A large hillslope wetland that starts at the ditch Watercourse S25EI and continues outside of the study area. Common plants include sensitive fern, speckled alder, tussock sedge, and timothy grass.	No
W52EI	PFO	0.07	3,040.78	A hillslope wetland fed by two watercourses, S28EI and S27EI. Common plants include red maple, speckled alder, and cinnamon fern.	No
W53EI	PEM	0.29	12,484.21	Hillside with skidder trails that create drainages throughout. There are a mix of hydric and no-hydric vegetation, this area is likely naturalized due to previous disturbance. Common plants include Christmas fer, gooseberry, bluejoint, raspberry, marginal wood fern, and meadowsweet.	No
W54EI	PEM	0.04	1,736.58	Naturalized skidder trail with sensitive fern and cinnamon fern.	No
W55EI	PEM	0.05	1,988.05	An isolated, regenerating wetland characterized by impacted area due to timber harvesting activities. Common plants include tussock sedge, sensitive fern, black spruce and red maple.	No
W56EI	PFO	0.12	5,357.21	A small forested depression with depleted soils connected to S29EI. Common plants include jewelweed, cinnamon fern, sensitive fern, larch, and red maple.	Yes
W59EI	PEM	0.03	1,451.66	A naturalized skidder may be an old laydown area, soils are a dark fine sandy loam with a high organic content. Common plants include tussock sedge, New York fern, red raspberry, and jewelweed.	No
W60EI	PFO	0.23	9,966.57	Connected to Watercourse S32EI on both sides, soils are shallow to bedrock. Common plants include New York fern, bedstraw, jewelweed, water avens, black ash, red maple, and fringed sedge.	Yes
W61EI	PEM	0.21	9,013.32	A naturalized depression adjacent to the road and has a culvert inlet. Common plants include sensitive fern, cinnamon fern, joe-pye weed, blue flag iris, meadowsweet and jewelweed.	No
W63EI	PEM	0.09	3,921.84	A naturalized roadside depression that is fed by watercourse S36EI from the east. Common plants include meadowsweet, tussock sedge, and purple vetch.	No
W64EI	PEM/PSS/PFO	0.30	12,877.70	Connected to wetland W63EI through a culvert where it begins as a PEM but transitions from PSS to PFO farther away from the road, wetland continues outside of the Study Area. Common plants include speckled alder, black ash, red maple, sensitive fern, meadowsweet, water avens, broad leaf cattail, blue flag iris, and meadow rue.	No

Wetland ID	Cowardian Classification[1]	Area (Acres)	Area (Sq. Ft.)	Summary Notes	Wetland of Special Significance[2]
W65EI	PFO	0.05	2,272.07	An isolated depression that appears to be a naturalized abandoned roadbed; bare ground makes up approximately 55% of the herbaceous layer. Common plants include swamp violet, sensitive fern, interrupted fern, red maple, white birch, and yellow birch.	No
W66EI	PEM	0.38	16,692.92	An isolated wetland adjacent to an existing electrical transmission line. Common plants include bluejoint, tussock sedge, sensitive fern, speckled alder, fringed sedge, and marginal wood fern.	No
W67EI	PEM	0.22	9,680.48	A roadside depression that has been influenced by a culvert that has been impacted by North American beaver; some standing water and saturated soils. Wetland contains watercourse S53EI. Common plants include bluejoint, tussock sedge, horsetail, sensitive fern, reed canary grass, and broad leaf cattail.	No
W68EI	PEM	0.70	30,607.03	A naturalized wetland between a road and an electrical transmission line. Wetland contains VP21DS and VP22DS. Common plants include broad leaf cattail, sensitive fern, blue flag iris, and bluejoint.	Yes
W69EI	PFO	0.10	4,423.08	An isolated depression surrounded by upland forest. Common plants include scirpus cyperinus, bluejoint, carex stricta, strawberry, yellow birch, red maple, bellwort, and canada bunchberry.	No
W70EI	PFO	0.02	836.40	A naturalized wetland in an old skidder path. Common plants include black birch, yellow birch, tussock sedge, cinnamon fern, and sensitive fern.	No
W71EI	PEM	0.29	12,425.68	A beaver impoundment in a roadside depression with a culvert partially clogged from beaver activity. Contains watercourse S53EI. Common plants include bluejoint, tussock sedge, sensitive fern, broad leaf cattail, and reed canary grass.	No
W81EI	PFO	1.45	63,057.88	A forested swamp that extends off site. Common plants include northern white cedar, red maple, black spruce, yellow birch, cinnamon fern, sensitive fern, royal fern, and Canada bunchberry.	No
W83EI	PEM/PSS	0.43	18,670.20	An emergent/scrub shrub wetland characterized by past disturbance from timber harvesting. Common plants include black ash, black spruce, swamp currant, sensitive fern, and bluejoint.	No
W86EI	PFO	0.18	7,863.86	Hillslope wetland with dominant upland vegetation. A small patch of harlequin blueflag and a small patch of swamp violet observed, but were not dominant, other plants include, red spruce, balsam fir, tussock sedge, red raspberry, sensitive fern, meadowsweet, and horsetail.	No
W89EI	PEM	0.03	728.45	An naturalized wetland near a recently harvested area. Common plants include tussock sedge, wood aster, yellow birch and red maple.	No
W90EI	PEM/PSS	0.84	36,752.91	An naturalized wetland in a USAF radar field. Common plants include cottongrass bullrush, meadowsweet, Queen Anne's lace, yarrow, wood aster, northern white cedar, and speckled alder.	No

Wetland ID	Cowardian Classification[1]	Area (Acres)	Area (Sq. Ft.)	Summary Notes	Wetland of Special Significance[2]
W92EI	PFO	2.97	129,210.06	A forested, regenerating wetland in a USAF radar field. Common plants include black spruce, white pine, northern white cedar, yarrow, sensitive fern, and tussock sedge.	No
W95EI	PFO	0.08	3,287.70	An isolated regenerating wetland in a USAF radar field. Common plants include northern white cedar, red spruce, red maple, eastern hemlock, winterberry holly, interrupted fern, sensitive fern, and reed canary grass.	No
W96EI	PFO	0.09	4,045.39	An isolated regenerating wetland in a USAF radar field. Common plants include northern white cedar, red spruce, red maple, eastern hemlock, winterberry holly, interrupted fern, sensitive fern, and reed canary grass.	No
W98EI	PEM/PSS	0.16	7,078.31	An isolated regenerating wetland in a USAF radar field. Common plants include northern white cedar, red spruce, red maple, eastern hemlock, winterberry holly, interrupted fern, sensitive fern, and reed canary grass.	No
W99EI	PEM/PSS	0.07	2,997.91	A naturalized wetland in a ditch between a substation/powerline and gravel road. Common plants include reed canary grass, interrupted fern, larch, black spruce, meadowsweet, quaking aspen, and red maple	No
W100EI	PEM/PSS	0.08	3,504.00	An emergent wetland in a highly disturbed previously developed site. Common Plants include reed canary grass, interrupted fern, larch, black spruce, meadowsweet, quaking aspen, and red maple.	No
W105EI	PEM/PSS	0.13	5,672.80	A naturalized ditch within a USAF radar field, adjacent to a road. Common plants include horsetail, sensitive fern, meadowsweet, and wood aster.	No
W106EI	PEM/PSS	0.06	2,766.97	A naturalized wet meadow wetland a USAF radar field. Common plants include reed canary grass, meadowsweet, purple vetch, bedstraw	No
W107EI	PEM	0.05	2,011.67	An emergent wetland in a previous landing area for a logging operation with sensitive fern, meadowsweet, and cottongrass bullrush, delineated in the winter 2021.	No
W108KN	PSS	0.08	3,667.27	A scrub shrub wetland with signs of disturbance from forestry operations. Common plants include sheep laurel, rhodora, gray birch, cottongrass bullrush, and wild rasin, delineated in the winter 2021.	No
W109EI	PEM	0.06	2,720.20	An emergent wetland in a previous logging landing area. Common plants include sensitive fern, sheep laurel, rhodora, and meadow sweet, delineated in the winter 2021.	No

Wetland ID	Cowardian Classification[1]	Area (Acres)	Area (Sq. Ft.)	Summary Notes	Wetland of Special Significance[2]
W110KN	PFO	0.01	637.33	A forested sloping wetland that extends off site. Common plants include yellow birch, red maple, and quaking aspen, delineated in the winter 2021.	No
W111EI	PFO	0.01	402.13	A small forested wetland that extends off site containing red maple and yellow birch, delineated in the winter 2021.	No
W112EI	PFO	0.10	4,212.32	A forested wetland with a perennial watercourse, S13EI, flowing through. This wetland contains red maple, yellow birch, and northern white cedar, delineated in the winter 2021.	Yes
W113KN	PSS/PFO	0.45	19,706.49	A large forested and scrub shrub wetland complex with two perennial tributaries (S13EI and S03EI) to Chase Pond. Balsam fir, speckled alder, and larch are the dominant tree species, delineated in the winter 2021.	Yes
W114EI	PFO	0.01	290.95	A small forested wetland that appears to be a borrow pit that is mapped as a potential vernal pool, delineated in the winter 2021.	No
W115EI	PFO	0.02	657.28	A small forested wetland that appears to be a borrow pit that is potential vernal pool PVP01EI. Contains yellow birch and speckled alder, delineated in the winter 2021.	No
W116KN	PFO	0.03	1,197.06	A small forested red maple swamp that contains S05KN. Red maple and red spruce are the dominant trees in this wetland, delineated in the winter 2021.	Yes
W117KN	PFO	0.06	2,467.93	A forested seep wetland on a side slope, delineated in the winter 2021.	No
W118KN	PSS/PFO	0.52	22,788.04	A large forested and scrub shrub swamp with beaver activity and possible Inland Wading Bird and Waterfowl Habitat. This wetland is connected to W120EI off site. Common plants includes northern white cedar and speckled alder, delineated in the winter 2021.	Yes
W119KN	PFO/PEM	0.05	1,961.05	A forested and emergent wetland that appears to be a possible borrow pit or naturalized area previously disturbed from timber harvesting activities. Northern white cedar, speckled alder, cottongrass bullrush, and sensitive fern are the common plants, delineated in the winter 2021.	No
W120EI	PEM	0.80	34,939.84	A large emergent swamp mapped as Inland Wading Bird and Waterfowl Habitat and beaver activity. This wetland is connected to W118KN offsite. Common plants includes speckled alder, sensitive fern, cottongrass bullrush, balsam fir, and yellow birch, delineated in the winter 2021.	Yes
W121EI	PEM	0.00	39.30	A small, naturalized emergent wetland on the side of the road. Common plants includes sensitive fern and cottongrass bullrush, delineated in the winter 2021	No

Wetland ID	Cowardian Classification[1]	Area (Acres)	Area (Sq. Ft.)	Summary Notes	Wetland of Special Significance[2]
W122KN	PFO	0.04	1,933.89	A naturalized wetland occurring in a skidder trail. Common plants includes yellow birch and northern white cedar, delineated in the winter 2021.	No
W123NJ	PEM	6.09	265,318.11	Previously disturbed wetland within a USAF Radar Station field. Common plants include broad leaf cattail, sensitive fern, quaking aspen, and reed canary grass. A portion of this wetland was delineated in the winter of 2021.	No
W124EI	PSS	4.32	188,341.81	Previously disturbed logging yard and skidder trail(s). Common plants include S. Alba, Scirpus cubensus, red maple and Kalmia sp., delineated in the winter 2021	NO
W125EI	PEM	1.83	79,652.70	Previously disturbed logging road enterance, Common plants include Apirea, rodora calmia solidago, gray birch, delineated in the winter 2021	No
W126EI	PSS	0.30	13,053.06	Previously disturbed wetland within a transmission corridor. Common plants include white cedar, white birch, carex stricta, and meadow sweet, delineated in the winter 2021	No
WET-68-02	PEM/PSS	2.09	91,180.30	NECEC Wetland - Previously disturbed wetland within the existing CMP transmission corridor. Common plants include wool-grass, nodding sedge, rattlesnake mannagrass, fowl mannagrass, sensitive fern, cinnamon fern, wrinkle leaved goldenrod and spotted touch-me-not.	No
WET-68-03	PSS	0.06	2,730.83	NECEC Wetland - Previously disturbed wetland within the existing CMP transmission corridor. Common plants include speckled alder, meadowsweet species, pussy willow, balsam fir, sensitive fern, cinnamon fern, soft rush and spotted touch-me-not.	No

1 – PFO = palustrine forested; PEM = palustrine emergent; PSS = palustrine scrub-shrub; PFO/PSS = palustrine forested/palustrine scrub-shrub; PSS/PFO = palustrine scrub-shrub/palustrine forested; PFO/PEM = palustrine forested/palustrine emergent; PEM/PFO = palustrine emergent/palustrine forested; PEM/PSS= palustrine emergent/palustrine scrub-shrub; and PEM/PSS/PFO = palustrine emergent/palustrine scrub-shrub/palustrine forested (Cowardin et. al., 1979).
2 – Maine Wetlands of Special Significance (WOSS) designations, as defined in the Maine Department of Environmental Protection Natural Resource Protection Act (38 M.R.S.A. §§480-A et seq.) and the Maine Wetland Protection Rules (Chapter 310). Areas of significant habitat according to the Maine Department of Environmental Protection.

Table 3. Watercourse Delineation Results for the Western Maine Renewable Energy Project, Moscow, Maine.

Watercourse ID	Flow Regime[1]	Length (feet)	Bank full Width (Feet)	Substrate	Bank Depth (Inches)	Notes/Related Resources
S01EI	Intermittent	94	5	50% muck, 20% sand, 20% gravel, 10% cobbles	12	Intermittent watercourse inside W08EI that is connected to VP40DS
S14DS	Intermittent	417	1	Vegetated muck	6	Flows north/northwest and diffuses into Wetland W17DS.
S15DS	Intermittent	67	4	Vegetated	12	Previousy disturbed resource within USAN radar field, flows northwest toward W20DS.
S16DS	Intermittent	27	4	Vegetated muck	10	Short watercourse flowing northwest within wetland.
S21EI	Ephemeral	296	2	30% sand, 10% cobbles, 40% muck, 30% gravel	12	Flows southeast through Study Area toward Stream Road.
S24EI	Intermittent	227	3	40% cobbles, 40% gravel, 10% sand, 10% muck	12	Flows southeast from wetland W49EI, with a small contributing seep, eventually crossing a broken culvert and into wetland W48EI
S26EI	Intermittent	156	2	40% muck, 40% sand, 20% gravel	12	watercourse begins at culvert and flows Northeast toward S27EI and eventually W52EI
S27EI	Intermittent	77	2	40% muck, 40% sand, 20% gravel	12	This is connected to Watercourse S26EI
S28EI	Intermittent	120	2	30% cobbles, 20% muck, 30% sand, 20% gravel	12	This watercourse starts at the road side ditch and flows east over the road (there is no culvert) downslope to Wetland W48EI
S29EI	Ephemeral	102	2	Muck/vegetated bottom	12	Starts as sheet flow that channelizes and flows southeast into Wetland W56EI
S32EI	Intermittent	969	8	40% large cobbles, 40% sand, 20% gravel	12	Starts as sheet flow from an old skidder rut flows south through the Study Area briefily intersecting with wetland W60EI
S33EI	Intermittent	157	4	30% muck, 20% cobbles, 30% sand, 20% gravel	12	Short watercourse flows south to S32EI

Watercourse ID	Flow Regime[1]	Length (feet)	Bank full Width (Feet)	Substrate	Bank Depth (Inches)	Notes/Related Resources
S36EI	Intermittent	73	2	40% muck, 40% sand, 20% gravel	12	Originates from Wetland W63EI and flows northeast beyond the Study Area boundary.
S51EI	Perennial	236	20	50% boulders, 50% cobbles	48	Bassett Brook flows south through an existing 7' culvert.
S52EI	Intermittent	237	4	50% sand, 50% cobbles	24	Tributary to Basset Brook, flows southwest from wetland W17EI and through a culvert.
S53EI	Ephemeral	830	6	50% cobbles, 50% sand	30	Watercourse flows west through wetlands W71EI and W67EI. A Tributary to Bassett Brook.
S54EI	Ephemeral	44	3	50% cobbles, 50% sand	30	Small tributary to S53EI.
S03EI	Ephemeral/ Intermittent	80	30	TBD	20	Watercourse was delineated during the winter, flows south under existing bridge.
S13EI	Perennial	68	12	TBD	TBD	Watercourse was delineated in the winter, large watercourse flowing west into the wetland complex that contributes to Chase Pond on the northeast side of the pond.
S55EI	Ephemeral	40	TBD	TBD	3	Watercourse was delineated in the winter, flows north into wetland W112EI
S56KN	Perennial	183	12	TBD	TBD	Watercourse was delineated in the winter, flows south, then along a roadside ditch (east) and through a culvert in the road toward the wetland connected to Chase Pond.
S57EI	Intermittent	72	TBD	TBD	TBD	Watercourse was delineated in the winter, flows southeast through an existing culvert in the road and toward the large wetland on the north side of Chase Pond.
S58EI	Intermittent	69	TBD	TBD	TBD	Watercourse was delineated in the winter, flows south through existing culvert in road and toward Chase Pond.
S59EI	Perennial	110	4	TBD	TBD	Watercourse was delineated in the winter, flows south through small bridge or box culvert in road and toward Chase Pond.
S60KN	Perennial	162	10	TBD	TBD	Watercourse was delineated in the winter, flows south through culvert, then along a roadside ditch (east) eventually turning south toward Chase Pond.

Watercourse ID	Flow Regime[1]	Length (feet)	Bank full Width (Feet)	Substrate	Bank Depth (Inches)	Notes/Related Resources
S61KN	Intermittent	41	TBD	TBD	TBD	Watercourse was delineated in the winter, flows south toward Chase Pond.
S62EI	Intermittent	86	TBD	TBD	TBD	Watercourse was delineated in the winter, flows east and through a culvert in the road, toward wetland W118KN.
S63KN	Perennial	98	6	TBD	TBD	Watercourse was delineated in the winter, flows south through culvert in road and toward Chase Pond.
S64KN	Intermittent	89	TBD	TBD	TBD	Watercourse was delineated in the winter, flows along ditch on north side of road, crosses road and flows south through wetland W116KN and toward Chase Pond.
S65KN	Intermittent	97	TBD	TBD	TBD	Watercourse was delineated in the winter, flows south toward existing road and then east along road as a ditch.
S66KN	Intermittent	105	TBD	TBD	TBD	Watercourse was delineated in the winter, flows northeast toward beaver impounded wetland W120EI.
S67EI	Intermittent	160	TBD	TBD	TBD	Watercourse was delineated in the winter. S53EI feet 16 & 17?
S68EI	Ephemeral	183	TBD	TBD	TBD	Watercourse was delineated in the winter.

1 – Perennial refers to a watercourse which has surface flow year-round during years of normal rainfall. Intermittent refers to watercourses that only have surface flow for part of the year. Ephemeral refers to watercourses or drainages that depend on rainfall or runoff for surface flow.

Appendix C. Maine State Vernal Pool Assessment Forms

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are required for pool registration.**
- **Clear photographs of a) the pool AND b) the indicators (one example of each species egg mass) are required for all observers.**

Observer's Pool ID: VP19CP **MDIFW Pool ID:** _____

1. PRIMARY OBSERVER INFORMATION

a. Observer name: E. Irvin with C. Parrish

b. Contact and credentials previously provided? ◉ No (submit Addendum 1) ○ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ◉ same as observer ○ other _____

b. Contact and credentials previously provided? ◉ No (submit Addendum 1) ○ Yes

c. Project Name: Western Maine Renewables

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ○ Yes ◉ No If no, was landowner permission obtained for survey? ◉ Yes ○ No

b. Landowner's contact information (required)

Name: Patriot Renewables, LLC Phone: _____

Street Address: 549 South Street City: Quincy State: MA Zip: 0226

c. ☐ Large Projects: check if separate project landowner data file submitted

4. VERNAL POOL LOCATION INFORMATION

a. Location Township: Moscow

Brief site directions to the pool (using mapped landmarks):

Located west of Chase Pond Road and east of Chase Stream. GIS location provided.

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: -69.877781° Latitude/Northing: 45.130875°

Coordinate system: NAD83

Check one:

◉ GIS shapefile
- send to Jason.Czapiga@maine.gov; observer has reviewed shape accuracy (Best)

○ The pool perimeter is delineated by multiple GPS points. (Excellent)
- Include map or spreadsheet with coordinates.

○ The above GPS point is at the center of the pool. (Good)

○ The center of the pool is approximately _____ m ○ ft ○ in the compass direction of _____ degrees from the above GPS point. (Acceptable)

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): _____

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- (•) Isolated depression
- ( ) Floodplain depression
- ( ) Pool associated with larger wetland complex
- ( ) Other: _____

■ Check all wetland types that best apply to this pool:

- ☐ Forested swamp
- ☐ Shrub swamp
- ☐ Peatland (fen or bog)
- ☐ Emergent marsh
- ☐ Wet meadow
- ☐ Lake or pond cove
- ☐ Abandoned beaver flowage
- ☐ Active beaver flowage
- ☐ Slow stream
- ☐ Floodplain
- ☑ Mostly unvegetated pool
- ☐ ATV or skidder rut
- ☐ Dug pond or borrow pit
- ☐ Roadside ditch
- ☐ Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: (•) Natural ( ) Natural-Modified ( ) Unnatural ( ) Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ( ) Permanent
- ( ) Semi-permanent (drying partially in all years and completely in drought years)
- (•) Ephemeral (drying out completely in most years)
- ( ) Unknown

Explain:

Intermittent inlet

■ Maximum depth at survey: ( ) 0-12" (0-1 ft.) (•) 12-36" (1-3 ft.) ( ) 36-60" (3-5 ft.) ( ) >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 50 ( ) m (•) ft Length: 60 ( ) m (•) ft

■ Predominate substrate in order of increasing hydroperiod:

- (•) Mineral soil (bare, leaf-litter bottom, or upland mosses present)
- ( ) Mineral soil (sphagnum moss present)
- ( ) Organic matter (peat/muck) shallow or restricted to deepest portion
- ( ) Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- ☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
- ☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
- ☐ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
- ☐ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
- ☐ Sphagnum moss (anchored or suspended)
- ☐ Wet site ferns (e.g. royal fern, marsh fern)
- ☐ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
- ☑ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
- ☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
- ☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
- ☐ No vegetation in pool

■ Faunal indicators (check all that apply):

- ☐ Fish
- ☑ Bullfrog or Green Frog tadpoles
- ☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- ( ) No inlet or outlet
- (•) Intermittent inlet or outlet
- ( ) Permanent inlet or outlet (channel with well-defined banks and permanent flow)
- ( ) Other or Unknown (explain): _____

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 5/20/2020, 5/26/2020

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ○ Yes ◉ No
- Was the entire pool surveyed for egg masses? ◉ Yes ○ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog	10	10		3	3		M	A							
Spotted Salamander	57	57		3	3		M	A							
Blue-spotted Salamander															
Fairy Shrimp[3]															

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☑ SVP ☐ Potential SVP ☐ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

Send completed form and supporting documentation to: Maine Dept. of Inland Fisheries and Wildlife
Attn: Vernal Pools
650 State Street, Bangor, ME 04401

NOTE: Digital submission (to Jason.Czapiga@maine.gov) of vernal pool field forms and photographs is only acceptable for projects with 3 or fewer assessed pools; larger projects must be mailed as hard copies.

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are required for pool registration.**
- **Clear photographs of a) the pool AND b) the indicators (one example of each species egg mass) are required for all observers.**

Observer's Pool ID: VP40DS **MDIFW Pool ID:** _____

1. PRIMARY OBSERVER INFORMATION

a. Observer name: E. Irvin with D. Santillo

b. Contact and credentials previously provided? ◉ No (submit Addendum 1) ○ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ◉ same as observer ○ other _____

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ○ Yes

c. Project Name: Western Maine Renewables

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ○ Yes ◉ No If no, was landowner permission obtained for survey? ◉ Yes ○ No

b. Landowner's contact information (required)

Name: Patriot Renewables, LLC Phone: _____

Street Address: 549 South Street City: Quincy State: MA Zip: 0226

c. ☐ Large Projects: check if separate project landowner data file submitted

4. VERNAL POOL LOCATION INFORMATION

a. Location Township: Moscow

Brief site directions to the pool (using mapped landmarks):

Adjacent to road and electrical transmission line.

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: 45.154913° Latitude/Northing: -69.857770°

Coordinate system: NAD83

Check one:

◉ GIS shapefile
- send to Jason.Czapiga@maine.gov; observer has reviewed shape accuracy (Best)

○ The pool perimeter is delineated by multiple GPS points. (Excellent)
- Include map or spreadsheet with coordinates.

○ The above GPS point is at the center of the pool. (Good)

○ The center of the pool is approximately _____ m ○ ft ○ in the compass direction of _____ degrees from the above GPS point. (Acceptable)

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): _____

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- ○ Isolated depression
- ○ Floodplain depression
- ◉ Pool associated with larger wetland complex
- ○ Other: _____

■ Check all wetland types that best apply to this pool:

- ☐ Forested swamp
- ☑ Shrub swamp
- ☐ Peatland (fen or bog)
- ☑ Emergent marsh
- ☐ Wet meadow
- ☐ Lake or pond cove
- ☐ Abandoned beaver flowage
- ☐ Active beaver flowage
- ☐ Slow stream
- ☐ Floodplain
- ☐ Mostly unvegetated pool
- ☐ ATV or skidder rut
- ☐ Dug pond or borrow pit
- ☐ Roadside ditch
- ☐ Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ○ Natural ◉ Natural-Modified ○ Unnatural ○ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

Pool was likely disturbed during construction of the adjacent road and/or electrical transmission line.

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ○ Permanent
- ○ Semi-permanent (drying partially in all years and completely in drought years)
- ◉ Ephemeral (drying out completely in most years)
- ○ Unknown

Explain:

Shallow and fully vegetated depression

■ Maximum depth at survey: ◉ 0-12" (0-1 ft.) ○ 12-36" (1-3 ft.) ○ 36-60" (3-5 ft.) ○ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 20 ○ m ○ ft Length: 90 ○ m ◉ ft

■ Predominate substrate in order of increasing hydroperiod:

- ◉ Mineral soil (bare, leaf-litter bottom, or upland mosses present)
- ○ Mineral soil (sphagnum moss present)
- ○ Organic matter (peat/muck) shallow or restricted to deepest portion
- ○ Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- ☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
- ☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
- ☐ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
- ☐ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
- ☐ Sphagnum moss (anchored or suspended)
- ☐ Wet site ferns (e.g. royal fern, marsh fern)
- ☑ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
- ☑ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
- ☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
- ☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
- ☐ No vegetation in pool

■ Faunal indicators (check all that apply):

- ☐ Fish
- ☑ Bullfrog or Green Frog tadpoles
- ☑ Other: spring peepers

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- ○ No inlet or outlet
- ◉ Intermittent inlet or outlet
- ○ Permanent inlet or outlet (channel with well-defined banks and permanent flow)
- ○ Other or Unknown (explain): _____

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 5/6/2020, 5/20/2020

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ○ Yes ◉ No
- Was the entire pool surveyed for egg masses? ◉ Yes ○ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog	18	18		3	3		M	A							
Spotted Salamander	40	40		3	3		M	A							
Blue-spotted Salamander															
Fairy Shrimp[3]															

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☑ SVP ☐ Potential SVP ☐ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

Send completed form and supporting documentation to: Maine Dept. of Inland Fisheries and Wildlife
Attn: Vernal Pools
650 State Street, Bangor, ME 04401

NOTE: Digital submission (to Jason.Czapiga@maine.gov) of vernal pool field forms and photographs is only acceptable for projects with 3 or fewer assessed pools; larger projects must be mailed as hard copies.

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

Appendix D. Wetland Determination Data Forms

TETRA TECH

WETLAND DETERMINATION DATA FORM
Northeast and Northcentral Region

Project/Site:	Western Maine Renewable Energy Project	Project #: 194-7130	Date: 09/09/20
Applicant:	Western Maine Renewables, LLC		County: Somerset
Investigator #1:	Emmy Irvin	Investigator #2:	State: ME
Soil Unit:	Colonel-Peru-Pillsbury association, 3 to 15 percent slopes	NWI/WWI Classification: Upland	Wetland ID: W08EI
Landform:	Terrace	Local Relief: Linear	Sample Point: **Upland**
Slope (%):	See topo map	Latitude: 45.151° Longitude: -69.858° Datum: NAD 83	

Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) ☐ Yes ☑ No

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?
Are Vegetation ☐, Soil ☑, or Hydrology ☑ naturally problematic?

Are normal circumstances present? ☐ Yes ☑ No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	☐ Yes ☑ No	Hydric Soils Present?	☐ Yes ☑ No
Wetland Hydrology Present?	☐ Yes ☑ No	Is This Sampling Point Within A Wetland?	☐ **Yes** ☑ **No**

Remarks: Statewide drought

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☑)

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B9 - Water-Stained Leaves
- ☐ B13 - Aquatic Fauna
- ☐ B15 - Marl Deposits
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C3 - Oxidized Rhizospheres on Living Roots
- ☐ C4 - Presence of Reduced Iron
- ☐ C6 - Recent Iron Reduction in Tilled Soils
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain in Remarks)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B10 - Drainage Patterns
- ☐ B16 - Moss Trim Lines
- ☐ C2 - Dry-Season Water Table
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☐ D1 - Stunted or Stressed Plants
- ☐ D2 - Geomorphic Position
- ☐ D3 - Shallow Aquitard
- ☐ D4 - Microtopographic Relief
- ☐ D5 - FAC-Neutral Test

Field Observations:

Surface Water Present?	☐ Yes ☑ No	Depth:	(in.)
Water Table Present?	☐ Yes ☑ No	Depth:	(in.)
Saturation Present?	☐ Yes ☑ No	Depth:	(in.)

Wetland Hydrology Present? ☐ Yes ☑ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A

Remarks: Statewide drought

SOILS

Map Unit Name: Colonel-Peru-Pillsbury association, 3 to 15 percent slopes Series Drainage Class: Poorly drained

Taxonomy (Subgroup): Loamy, isotic, frigid, shallow Aquic Haplorthods

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture (e.g. clay, sand, loam)
0	12	--	10YR	3/3	100	--	--	--	--	--	sandy loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☑):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat of Peat (**LRR K, L, R**)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (**LRR K, L**)
- ☐ S9 - Thin Dark Surface (**LRR K, L**)
- ☐ F12 - Iron-Manganese Masses (**LRR K, L, R**)
- ☐ F19 - Piedmont Floodplain Soils (**MLRA 149B**)
- ☐ TA6 - Mesic Spodic (**MLRA 144A, 145, 149B**)
- ☐ TF2 - Red Parent Material
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed) Type: ledge Depth: 12

Hydric Soil Present? ☐ Yes ☑ No

Remarks:

TETRA TECH

WETLAND DETERMINATION DATA FORM

Northeast and Northcentral Region

Project/Site: Western Maine Renewable Energy Project | Wetland ID: W08EI | Sample Point **Upland**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind.Status
1.	*Betula papyrifera*	5	N	FACU
2.	*Betula alleghaniensis*	20	Y	FAC
3.	*Picea rubens*	10	Y	FACU
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	35		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	*Picea rubens*	10	Y	FACU
2.	*Acer rubrum*	2	N	FAC
3.	*Viburnum acerifolium*	10	Y	UPL
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	22		

Herb Stratum (Plot size: 2 meter radius)

1.	*Dryopteris marginalis*	15	Y	FACU
2.	*Cornus canadensis*	20	Y	FAC
3.	*Medeola virginiana*	10	Y	FACU
4.	*Coptis trifolia*	2	N	FACW
5.	*Clintonia borealis*	5	N	FAC
6	*Osmunda claytoniana*	10	y	FAC
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	62		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***37.5%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	2	x 2 =	4
FAC spp.	57	x 3 =	171
FACU spp.	50	x 4 =	200
UPL spp.	10	x 5 =	50
Total	119 (A)		425 (B)

Prevalence Index = B/A = ***3.571***

Hydrophytic Vegetation Indicators:

- ☐ Yes ☑ No Rapid Test for Hydrophytic Vegetation
- ☐ Yes ☑ No Dominance Test is > 50%
- ☐ Yes ☑ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☑ No Morphological Adaptations (Explain) *
- ☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☑ No

Additional Remarks:

TETRA TECH

WETLAND DETERMINATION DATA FORM
Northeast and Northcentral Region

Project/Site:	Western Maine Renewable Energy Project	Project #: 194-7130	Date: 09/09/20
Applicant:	Western Maine Renewables, LLC		County: Somerset
Investigator #1:	Emmy Irvin	Investigator #2:	State: ME
Soil Unit:	Telos-Chesuncook association, 3 to 15 % slopes	NWI/WWI Classification: PEM	Wetland ID: W08EI
Landform:	Terrace	Local Relief: Linear	Sample Point: **Wetland**
Slope (%):	See topo map	Latitude: 45.154245 Longitude: -69.857881 Datum: NAD 83	

Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) ☐ Yes ☑ No

Are Vegetation ☐ , Soil ☑ , or Hydrology ☐ significantly disturbed?
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic?

Are normal circumstances present? ☐ Yes ☑ No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	☑ Yes ☐ No	Hydric Soils Present?	☐ Yes ☐ No
Wetland Hydrology Present?	☑ Yes ☐ No	Is This Sampling Point Within A Wetland?	☑ **Yes** ☐ **No**

Remarks: Statewide drought

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐)

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☑ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B9 - Water-Stained Leaves
- ☐ B13 - Aquatic Fauna
- ☐ B15 - Marl Deposits
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C3 - Oxidized Rhizospheres on Living Roots
- ☐ C4 - Presence of Reduced Iron
- ☐ C6 - Recent Iron Reduction in Tilled Soils
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain in Remarks)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B10 - Drainage Patterns
- ☐ B16 - Moss Trim Lines
- ☐ C2 - Dry-Season Water Table
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☐ D1 - Stunted or Stressed Plants
- ☐ D2 - Geomorphic Position
- ☐ D3 - Shallow Aquitard
- ☐ D4 - Microtopographic Relief
- ☐ D5 - FAC-Neutral Test

Field Observations:

Surface Water Present?	☐ Yes ☑ No	Depth:	(in.)
Water Table Present?	☐ Yes ☑ No	Depth:	(in.)
Saturation Present?	☑ Yes ☐ No	Depth: 0	(in.)

Wetland Hydrology Present? ☑ Yes ☐ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A

Remarks: Statewide drought

SOILS

Map Unit Name: Telos-Chesuncook association, 3 to 15 % slopes Series Drainage Class: somewhat poorly drained

Taxonomy (Subgroup): Loamy, isotic, frigid, shallow Aquic Haplorthods

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture (e.g. clay, sand, loam)
0	1	--	--	--	--	--	--	--	--	--	Organic hemic
1	18	--	2.5Y	3/2	65	5Y	4/1	25	D	M	silt loam
--	--	--	--	--	--	5YR	3/4	10	C	M	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☐):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☑ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat of Peat (**LRR K, L, R**)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (**LRR K, L**)
- ☐ S9 - Thin Dark Surface (**LRR K, L**)
- ☐ F12 - Iron-Manganese Masses (**LRR K, L, R**)
- ☐ F19 - Piedmont Floodplain Soils (**MLRA 149B**)
- ☐ TA6 - Mesic Spodic (**MLRA 144A, 145, 149B**)
- ☐ TF2 - Red Parent Material
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed) Type: ledge Depth: 18 inches

Hydric Soil Present? ☐ Yes ☐ No

Remarks:

TETRA TECH

WETLAND DETERMINATION DATA FORM

Northeast and Northcentral Region

Project/Site: Western Maine Renewable Energy Project | Wetland ID: W08EI | Sample Point **Wetland**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind.Status
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	0		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	0		

Herb Stratum (Plot size: 2 meter radius)

1.	*Typha angustifolia*	30	Y	OBL
2.	*Onoclea sensibilis*	20	Y	FACW
3.	*Scirpus cyperinus*	15	N	OBL
4.	*Carex stricta*	40	Y	OBL
5.	*Eutrochium maculatum*	20	Y	OBL
6	*Symphyotrichum novae-angliae*	5	N	FACW
7.	*Spiraea tomentosa*	10	N	FACW
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	140		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***100.0%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	105	x 1 =	105
FACW spp.	35	x 2 =	70
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0
Total	140 (A)		175 (B)

Prevalence Index = B/A = ***1.250***

Hydrophytic Vegetation Indicators:

- ☑ Yes ☐ No Rapid Test for Hydrophytic Vegetation
- ☑ Yes ☐ No Dominance Test is > 50%
- ☑ Yes ☐ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☑ No Morphological Adaptations (Explain) *
- ☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☑ Yes ☐ No

Remarks:

Additional Remarks:

TETRA TECH

WETLAND DETERMINATION DATA FORM
Northeast and Northcentral Region

Project/Site:	Western Maine Renewable Energy Project	Project #: 194-7130	Date: 09/09/20
Applicant:	Western Maine Renewables, LLC		County: Somerset
Investigator #1:	Emmy Irvin	Investigator #2:	State: ME
Soil Unit:	Telos-Chesuncook association, 3 to 15 percent slopes	NWI/WWI Classification: Upland	Wetland ID: W20EI
Landform:	Terrace	Local Relief: Linear	Sample Point: **Upland**
Slope (%):	See topo map	Latitude: 45.150300 Longitude: -69.853612 Datum: NAD 83	

Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) ☐ Yes ☑ No

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed?
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic?
Are normal circumstances present? ☐ Yes ☑ No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? ☐ Yes ☑ No
Wetland Hydrology Present? ☐ Yes ☑ No
Hydric Soils Present? ☐ Yes ☑ No
Is This Sampling Point Within A Wetland? ☐ **Yes** ☑ **No**

Remarks: Drought

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☑)

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B9 - Water-Stained Leaves
- ☐ B13 - Aquatic Fauna
- ☐ B15 - Marl Deposits
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C3 - Oxidized Rhizospheres on Living Roots
- ☐ C4 - Presence of Reduced Iron
- ☐ C6 - Recent Iron Reduction in Tilled Soils
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain in Remarks)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B10 - Drainage Patterns
- ☐ B16 - Moss Trim Lines
- ☐ C2 - Dry-Season Water Table
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☐ D1 - Stunted or Stressed Plants
- ☐ D2 - Geomorphic Position
- ☐ D3 - Shallow Aquitard
- ☐ D4 - Microtopographic Relief
- ☐ D5 - FAC-Neutral Test

Field Observations:

Surface Water Present?	☐ Yes ☑ No	Depth:	(in.)
Water Table Present?	☐ Yes ☑ No	Depth:	(in.)
Saturation Present?	☐ Yes ☑ No	Depth:	(in.)

Wetland Hydrology Present? ☐ Yes ☑ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A

Remarks: Statewide drought

SOILS

Map Unit Name: Telos-Chesuncook association, 3 to 15 percent slopes Series Drainage Class: Somewhat poorly drained

Taxonomy (Subgroup): Loamy, isotic, frigid, shallow Aquic Haplorthods

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture (e.g. clay, sand, loam)
0	17	--	10YR	4/2	100	--	--	--	--	--	sandy loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☑):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat of Peat (**LRR K, L, R**)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (**LRR K, L**)
- ☐ S9 - Thin Dark Surface (**LRR K, L**)
- ☐ F12 - Iron-Manganese Masses (**LRR K, L, R**)
- ☐ F19 - Piedmont Floodplain Soils (**MLRA 149B**)
- ☐ TA6 - Mesic Spodic (**MLRA 144A, 145, 149B**)
- ☐ TF2 - Red Parent Material
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed) Type: None Depth:

Hydric Soil Present? ☐ Yes ☑ No

Remarks:

TETRA TECH

WETLAND DETERMINATION DATA FORM

Northeast and Northcentral Region

Project/Site: Western Maine Renewable Energy Project | Wetland ID: W20EI | Sample Point **Upland**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind.Status
1.	*Betula papyrifera*	15	Y	FACU
2.	*Betula alleghaniensis*	35	Y	FAC
3.	*Acer rubrum*	5	N	FAC
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	55		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	*Betula alleghaniensis*	10	Y	FAC
2.	*Betula papyrifera*	10	Y	FACU
3.	*Viburnum acerifolium*	10	Y	UPL
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	30		

Herb Stratum (Plot size: 2 meter radius)

1.	*Dryopteris marginalis*	15	Y	FACU
2.	*Cornus canadensis*	20	Y	FAC
3.	*Medeola virginiana*	10	Y	FACU
4.	*Coptis trifolia*	2	N	FACW
5.	*Clintonia borealis*	2	N	FAC
6	*Osmunda claytoniana*	5	N	FAC
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	54		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***37.5%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	2	x 2 =	4
FAC spp.	77	x 3 =	231
FACU spp.	50	x 4 =	200
UPL spp.	10	x 5 =	50
Total	139 (A)		485 (B)

Prevalence Index = B/A = ***3.489***

Hydrophytic Vegetation Indicators:

- ☐ Yes ☑ No Rapid Test for Hydrophytic Vegetation
- ☐ Yes ☑ No Dominance Test is > 50%
- ☐ Yes ☑ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☑ No Morphological Adaptations (Explain) *
- ☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☑ No

Remarks:

Additional Remarks:

TETRA TECH

WETLAND DETERMINATION DATA FORM
Northeast and Northcentral Region

Project/Site:	Western Maine Renewable Energy Project		Project #: 194-7130	Date:	09/09/20
Applicant:	Western Maine Renewables, LLC			County:	Somerset
Investigator #1:	Emmy Irvin	Investigator #2:		State:	ME
Soil Unit:	Telos-Chesuncook association, 3 to 15 percent slopes, very stony		NWI/WWI Classification: PFO	Wetland ID:	W20EI
Landform:	Terrace	Local Relief: Linear		Sample Point:	**Wetland**
Slope (%):	See topo map	Latitude: 45.150300	Longitude: -69.853612	Datum: NAD 83	

Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) ☐ Yes ☐ No

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed?
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic?

Are normal circumstances present? ☐ Yes ☑ No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	☑ Yes ☐ No	Hydric Soils Present?	☐ Yes ☐ No
Wetland Hydrology Present?	☑ Yes ☐ No	Is This Sampling Point Within A Wetland?	☑ **Yes** ☐ **No**

Remarks: Statewide drought

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐)

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B9 - Water-Stained Leaves
- ☐ B13 - Aquatic Fauna
- ☐ B15 - Marl Deposits
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C3 - Oxidized Rhizospheres on Living Roots
- ☐ C4 - Presence of Reduced Iron
- ☐ C6 - Recent Iron Reduction in Tilled Soils
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain in Remarks)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B10 - Drainage Patterns
- ☐ B16 - Moss Trim Lines
- ☐ C2 - Dry-Season Water Table
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☐ D1 - Stunted or Stressed Plants
- ☐ D2 - Geomorphic Position
- ☐ D3 - Shallow Aquitard
- ☐ D4 - Microtopographic Relief
- ☐ D5 - FAC-Neutral Test

Field Observations:

Surface Water Present?	☐ Yes ☐ No	Depth:	(in.)
Water Table Present?	☐ Yes ☐ No	Depth:	(in.)
Saturation Present?	☐ Yes ☐ No	Depth:	(in.)

Wetland Hydrology Present? ☑ Yes ☐ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A

Remarks: Statewide drought

SOILS

Map Unit Name: Telos-Chesuncook association, 3 to 15 percent slopes, very stony — Series Drainage Class: somewhat poorly drained

Taxonomy (Subgroup): Loamy, isotic, frigid, shallow Aquic Haplorthods

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture (e.g. clay, sand, loam)
0	12	--	10YR	2/1	100	--	--	--	--	--	fine sandy loam
12	20	--	10YR	3/2	100	--	--	--	--	--	fine sandy loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☐):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☐ A11 - Depleted Below Dark Surface
- ☑ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat of Peat (**LRR K, L, R**)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (**LRR K, L**)
- ☐ S9 - Thin Dark Surface (**LRR K, L**)
- ☐ F12 - Iron-Manganese Masses (**LRR K, L, R**)
- ☐ F19 - Piedmont Floodplain Soils (**MLRA 149B**)
- ☐ TA6 - Mesic Spodic (**MLRA 144A, 145, 149B**)
- ☐ TF2 - Red Parent Material
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed) Type: none Depth:

Hydric Soil Present? ☐ Yes ☐ No

Remarks:

TETRA TECH

WETLAND DETERMINATION DATA FORM

Northeast and Northcentral Region

Project/Site: Western Maine Renewable Energy Project | Wetland ID: W20EI | Sample Point **Wetland**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind.Status
1.	*Fraxinus nigra*	20	Y	FACW
2.	*Acer rubrum*	30	Y	FAC
3.	*Betula papyrifera*	30	Y	FACU
4.	*Tsuga canadensis*	5	N	FACU
5.	*Picea rubens*	10	N	FACU
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	95		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	*Acer rubrum*	10	Y	FAC
2.	*Thuja occidentalis*	10	Y	FACW
3.	*Populus grandidentata*	1	N	FACU
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	21		

Herb Stratum (Plot size: 2 meter radius)

1.	*Acer rubrum*	10	Y	FAC
2.	*Onoclea sensibilis*	20	Y	FACW
3.	*Solidago canadensis*	2	N	FACU
4.	*Rubus hispidus*	15	Y	FACW
5.	*Carex stricta*	10	Y	OBL
6	*Cornus canadensis*	5	N	FAC
7.	*Symphyotrichum novae-angliae*	1	N	FACW
8.	*Medeola virginiana*	1	N	FACU
9.	*Maianthemum canadense*	5	N	FACU
10.	*Ribes lacustre*	20	Y	FACW
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	89		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***90.0%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	10	x 1 =	10
FACW spp.	86	x 2 =	172
FAC spp.	55	x 3 =	165
FACU spp.	54	x 4 =	216
UPL spp.	0	x 5 =	0
Total	205 (A)		563 (B)

Prevalence Index = B/A = ***2.746***

Hydrophytic Vegetation Indicators:

- ☐ Yes ☐ No Rapid Test for Hydrophytic Vegetation
- ☐ Yes ☐ No Dominance Test is > 50%
- ☐ Yes ☐ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☐ No Morphological Adaptations (Explain) *
- ☐ Yes ☐ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☑ Yes ☐ No

Remarks:

Additional Remarks:

TETRA TECH

WETLAND DETERMINATION DATA FORM
Northeast and Northcentral Region

Project/Site:	Western Maine Renewable Energy Project	Project #: 194-7130	Date: 09/09/20
Applicant:	Western Maine Renewables, LLC		County: Somerset
Investigator #1:	Emmy Irvin	Investigator #2:	State: ME
Soil Unit:	Chesuncook-Elliottsville-Telos association, 3 to 15%	NWI/WWI Classification: Upland	Wetland ID: W47EI
Landform:	Terrace	Local Relief: Linear	Sample Point: **Upland**
Slope (%):	See topo map	Latitude: 45.140627 Longitude: -69.8696469 Datum: NAD 83	

Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) ☐ Yes ☑ No

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic?

Are normal circumstances present? ☐ Yes ☑ No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	☐ Yes ☑ No	Hydric Soils Present?	☐ Yes ☑ No
Wetland Hydrology Present?	☐ Yes ☑ No	Is This Sampling Point Within A Wetland?	☐ **Yes** ☑ **No**

Remarks: Statewide drought

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☑)

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B9 - Water-Stained Leaves
- ☐ B13 - Aquatic Fauna
- ☐ B15 - Marl Deposits
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C3 - Oxidized Rhizospheres on Living Roots
- ☐ C4 - Presence of Reduced Iron
- ☐ C6 - Recent Iron Reduction in Tilled Soils
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain in Remarks)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B10 - Drainage Patterns
- ☐ B16 - Moss Trim Lines
- ☐ C2 - Dry-Season Water Table
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☐ D1 - Stunted or Stressed Plants
- ☐ D2 - Geomorphic Position
- ☐ D3 - Shallow Aquitard
- ☐ D4 - Microtopographic Relief
- ☐ D5 - FAC-Neutral Test

Field Observations:

Surface Water Present?	☐ Yes ☑ No	Depth:	(in.)
Water Table Present?	☐ Yes ☑ No	Depth:	(in.)
Saturation Present?	☐ Yes ☑ No	Depth:	(in.)

Wetland Hydrology Present? ☐ Yes ☑ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A

Remarks: Statewide drought

SOILS

Map Unit Name: Chesuncook-Elliottsville-Telos association, 3 to 15% Series Drainage Class: moderately well drained

Taxonomy (Subgroup): Coarse-loamy, isotic, frigid Aquic Haplorthods

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture (e.g. clay, sand, loam)
0	12	--	10YR	5/3	100	--	--	--	--	--	fine sandy loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☑):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat of Peat (**LRR K, L, R**)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (**LRR K, L**)
- ☐ S9 - Thin Dark Surface (**LRR K, L**)
- ☐ F12 - Iron-Manganese Masses (**LRR K, L, R**)
- ☐ F19 - Piedmont Floodplain Soils (**MLRA 149B**)
- ☐ TA6 - Mesic Spodic (**MLRA 144A, 145, 149B**)
- ☐ TF2 - Red Parent Material
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed) Type: NR Depth: 12

Hydric Soil Present? ☐ Yes ☑ No

Remarks:

TETRA TECH

WETLAND DETERMINATION DATA FORM

Northeast and Northcentral Region

Project/Site: Western Maine Renewable Energy Project | Wetland ID: W47EI | Sample Point **Upland**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind.Status
1.	*Betula lenta*	75	Y	FACU
2.	*Acer rubrum*	20	Y	FAC
3.	*Fraxinus nigra*	5	N	FACW
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	100		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	*Acer pensylvanicum*	5	N	FACU
2.	*Betula lenta*	20	Y	FACU
3.	*Acer rubrum*	10	N	FAC
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	35		

Herb Stratum (Plot size: 2 meter radius)

1.	*Medeola virginiana*	5	N	FACU
2.	*Polystichum acrostichoides*	20	Y	FACU
3.	*Phegopteris hexagonoptera*	5	N	FACU
4.	*Athyrium angustum*	5	N	FAC
5.	--	--	--	--
6	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	35		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***25.0%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	5	x 2 =	10
FAC spp.	35	x 3 =	105
FACU spp.	130	x 4 =	520
UPL spp.	0	x 5 =	0
Total	170 (A)		635 (B)

Prevalence Index = B/A = ***3.735***

Hydrophytic Vegetation Indicators:

- ☐ Yes ☑ No Rapid Test for Hydrophytic Vegetation
- ☐ Yes ☑ No Dominance Test is > 50%
- ☐ Yes ☑ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☑ No Morphological Adaptations (Explain) *
- ☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☑ No

Additional Remarks:

TETRA TECH

WETLAND DETERMINATION DATA FORM
Northeast and Northcentral Region

Project/Site:	Western Maine Renewable Energy Project	Project #: 194-7130	Date: 09/09/20
Applicant:	Western Maine Renewables, LLC		County: Somerset
Investigator #1:	Emmy Irvin	Investigator #2:	State: ME
Soil Unit:	Chesuncook-Elliottsville-Telos association, 3 to 15%	NWI/WWI Classification: PFO	Wetland ID: W47EI
Landform:	Terrace	Local Relief: Linear	Sample Point: **Wetland**
Slope (%):	See topo map	Latitude: 45.140674 Longitude: -69.869728 Datum: NAD 83	

Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) ☐ Yes ☑ No

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic?

Are normal circumstances present? ☐ Yes ☑ No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	☑ Yes ☐ No	Hydric Soils Present?	☑ Yes ☐ No
Wetland Hydrology Present?	☑ Yes ☐ No	Is This Sampling Point Within A Wetland?	☑ **Yes** ☐ **No**

Remarks: Statewide drought

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐)

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B9 - Water-Stained Leaves
- ☐ B13 - Aquatic Fauna
- ☐ B15 - Marl Deposits
- ☐ C1 - Hydrogen Sulfide Odor
- ☑ C3 - Oxidized Rhizospheres on Living Roots
- ☐ C4 - Presence of Reduced Iron
- ☐ C6 - Recent Iron Reduction in Tilled Soils
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain in Remarks)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B10 - Drainage Patterns
- ☐ B16 - Moss Trim Lines
- ☐ C2 - Dry-Season Water Table
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☐ D1 - Stunted or Stressed Plants
- ☐ D2 - Geomorphic Position
- ☐ D3 - Shallow Aquitard
- ☐ D4 - Microtopographic Relief
- ☐ D5 - FAC-Neutral Test

Field Observations:

Surface Water Present?	☐ Yes ☑ No	Depth:	(in.)
Water Table Present?	☐ Yes ☑ No	Depth:	(in.)
Saturation Present?	☐ Yes ☑ No	Depth:	(in.)

Wetland Hydrology Present? ☑ Yes ☐ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A

Remarks: Statewide drought

SOILS

Map Unit Name: Chesuncook-Elliottsville-Telos association, 3 to 15% Series Drainage Class: moderately well drained

Taxonomy (Subgroup): Coarse-loamy, isotic, frigid Aquic Haplorthods

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture (e.g. clay, sand, loam)
0	14	--	10YR	4/1	80	10YR	2/1	10	--	--	fine sandy loam
--	--	--	--	--	--	10YR	5/6	10	C	M	fine sandy loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☐):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☑ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat of Peat (**LRR K, L, R**)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (**LRR K, L**)
- ☐ S9 - Thin Dark Surface (**LRR K, L**)
- ☐ F12 - Iron-Manganese Masses (**LRR K, L, R**)
- ☐ F19 - Piedmont Floodplain Soils (**MLRA 149B**)
- ☐ TA6 - Mesic Spodic (**MLRA 144A, 145, 149B**)
- ☐ TF2 - Red Parent Material
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed) Type: LEDGE Depth: 14

Hydric Soil Present? ☑ Yes ☐ No

Remarks:

TETRA TECH

WETLAND DETERMINATION DATA FORM

Northeast and Northcentral Region

Project/Site: Western Maine Renewable Energy Project | Wetland ID: W47EI | Sample Point **Wetland**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind.Status
1.	*Larix laricina*	30	Y	FACW
2.	*Acer rubrum*	50	Y	FAC
3.	*Fraxinus nigra*	20	N	FACW
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	100		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	*Picea mariana*	5	N	FACW
2.	*Acer rubrum*	5	N	FAC
3.	*Fraxinus nigra*	5	N	FACW
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	15		

Herb Stratum (Plot size: 2 meter radius)

1.	*Onoclea sensibilis*	10	N	FACW
2.	*Parathelypteris noveboracensis*	10	N	FAC
3.	*Calamagrostis canadensis*	50	Y	OBL
4.	*Fragaria vesca*	30	Y	UPL
5.	--	--	--	--
6	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	100		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***75.0%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	50	x 1 =	50
FACW spp.	70	x 2 =	140
FAC spp.	65	x 3 =	195
FACU spp.	0	x 4 =	0
UPL spp.	30	x 5 =	150
Total	215 (A)		535 (B)

Prevalence Index = B/A = ***2.488***

Hydrophytic Vegetation Indicators:

- ☐ Yes ☑ No Rapid Test for Hydrophytic Vegetation
- ☑ Yes ☐ No Dominance Test is > 50%
- ☑ Yes ☐ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☑ No Morphological Adaptations (Explain) *
- ☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☑ Yes ☐ No

Additional Remarks:

TETRA TECH

WETLAND DETERMINATION DATA FORM
Northeast and Northcentral Region

Project/Site:	Moscow Renewable Energy Project		Project #: 194-7130	Date:	09/09/20
Applicant:	Patriot Renewables			County:	Somerset
Investigator #1:	Nicc Johnson	Investigator #2:	Emmy Irvin	State:	ME
Soil Unit:	Monarda-Telos complex, 0 to 8 percent slopes, very stony		NWI/WWI Classification: Upland	Wetland ID:	W106EI
Landform:	Terrace	Local Relief:	Linear	Sample Point:	**Upland**
Slope (%):	See topo map	Latitude: 45.136905	Longitude: -69.8302848	Datum:	NAD 83

Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) ☐ Yes ☐ No

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic?

Are normal circumstances present? ☐ Yes ☑ No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	☐ Yes ☑ No	Hydric Soils Present?	☐ Yes ☑ No
Wetland Hydrology Present?	☐ Yes ☑ No	Is This Sampling Point Within A Wetland?	☐ **Yes** ☑ **No**

Remarks: Statewide drought

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐)

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B9 - Water-Stained Leaves
- ☐ B13 - Aquatic Fauna
- ☐ B15 - Marl Deposits
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C3 - Oxidized Rhizospheres on Living Roots
- ☐ C4 - Presence of Reduced Iron
- ☐ C6 - Recent Iron Reduction in Tilled Soils
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain in Remarks)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B10 - Drainage Patterns
- ☐ B16 - Moss Trim Lines
- ☐ C2 - Dry-Season Water Table
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☐ D1 - Stunted or Stressed Plants
- ☐ D2 - Geomorphic Position
- ☐ D3 - Shallow Aquitard
- ☐ D4 - Microtopographic Relief
- ☐ D5 - FAC-Neutral Test

Field Observations:

Surface Water Present?	☐ Yes ☑ No	Depth:	(in.)
Water Table Present?	☐ Yes ☑ No	Depth:	(in.)
Saturation Present?	☐ Yes ☑ No	Depth:	(in.)

Wetland Hydrology Present? ☐ Yes ☑ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A

Remarks: Statewide drought

SOILS

Map Unit Name: Monarda-Telos complex, 0 to 8 percent slopes, very stony — Series Drainage Class: [E.g. moderately well, poorly, etc]

Taxonomy (Subgroup):

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture (e.g. clay, sand, loam)
0	12	--	10YR	4/3	100	--	--	--	--	--	FINE SANDY LOAM
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☐):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat of Peat (**LRR K, L, R**)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (**LRR K, L**)
- ☐ S9 - Thin Dark Surface (**LRR K, L**)
- ☐ F12 - Iron-Manganese Masses (**LRR K, L, R**)
- ☐ F19 - Piedmont Floodplain Soils (**MLRA 149B**)
- ☐ TA6 - Mesic Spodic (**MLRA 144A, 145, 149B**)
- ☐ TF2 - Red Parent Material
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed) Type: Depth:

Hydric Soil Present? ☐ Yes ☑ No

Remarks:

TETRA TECH

WETLAND DETERMINATION DATA FORM

Northeast and Northcentral Region

Project/Site: Moscow Renewable Energy Project | Wetland ID: W106EI | Sample Point **Upland**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind.Status
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	0		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	0		

Herb Stratum (Plot size: 2 meter radius)

1.	*Solidago canadensis*	30	Y	FACU
2.	*Rubus idaeus*	15	Y	FACU
3.	*Anaphalis margaritacea*	5	N	FACU
4.	*Lupinus polyphyllus*	5	N	FACU
5.	--	--	--	--
6	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	55		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***0.0%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	0	x 3 =	0
FACU spp.	55	x 4 =	220
UPL spp.	0	x 5 =	0
Total	55 (A)		220 (B)

Prevalence Index = B/A = ***4.000***

Hydrophytic Vegetation Indicators:

- ☐ Yes ☐ No Rapid Test for Hydrophytic Vegetation
- ☐ Yes ☐ No Dominance Test is > 50%
- ☐ Yes ☐ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☐ No Morphological Adaptations (Explain) *
- ☐ Yes ☐ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☑ No

Additional Remarks:

TETRA TECH

WETLAND DETERMINATION DATA FORM
Northeast and Northcentral Region

Project/Site:	Western Maine Renewable Energy Project	Project #: 194-7130	Date: 09/09/20
Applicant:	Western Maine Renewables, LLC		County: Somerset
Investigator #1:	Emmy Irvin	Investigator #2:	State: ME
Soil Unit:	☑Monarda-Telos complex, 0 to 8 percent slopes	NWI/WWI Classification: PEM/PSS	Wetland ID: W106EI
Landform:	Terrace	Local Relief: Linear	Sample Point: **Wetland**
Slope (%):	See topo map	Latitude: 45.156731 Longitude: -69.85413 Datum: NAD 83	

Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) ☐ Yes ☑ No

Are Vegetation ☐, Soil ☑, or Hydrology ☐ significantly disturbed?
Are Vegetation ☐, Soil ☑, or Hydrology ☐ naturally problematic?

Are normal circumstances present? ☐ Yes ☑ No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	☑ Yes ☐ No	Hydric Soils Present?	☐ Yes ☑ No
Wetland Hydrology Present?	☑ Yes ☐ No	Is This Sampling Point Within A Wetland?	☑ **Yes** ☐ **No**

Remarks: Statewide drought. Area is highly disturbed

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐)

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☐ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B9 - Water-Stained Leaves
- ☐ B13 - Aquatic Fauna
- ☐ B15 - Marl Deposits
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C3 - Oxidized Rhizospheres on Living Roots
- ☐ C4 - Presence of Reduced Iron
- ☐ C6 - Recent Iron Reduction in Tilled Soils
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain in Remarks)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B10 - Drainage Patterns
- ☐ B16 - Moss Trim Lines
- ☐ C2 - Dry-Season Water Table
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☑ D1 - Stunted or Stressed Plants
- ☑ D2 - Geomorphic Position
- ☐ D3 - Shallow Aquitard
- ☐ D4 - Microtopographic Relief
- ☑ D5 - FAC-Neutral Test

Field Observations:

Surface Water Present?	☐ Yes ☑ No	Depth:	(in.)
Water Table Present?	☐ Yes ☑ No	Depth:	(in.)
Saturation Present?	☐ Yes ☑ No	Depth:	(in.)

Wetland Hydrology Present? ☑ Yes ☐ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A

Remarks: Statewide drought. Area is highly disturbed

SOILS

Map Unit Name: ☑Monarda-Telos complex, 0 to 8 percent slopes Series Drainage Class: Somewhat poorly drained

Taxonomy (Subgroup): Loamy, mixed, active, acid, frigid, shallow Aeric Endoaquepts

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)		Matrix %	Mottles Color (Moist)		Mottles %	Mottles Type	Mottles Location	Texture (e.g. clay, sand, loam)
0	10	--	2.5Y	5/3	100	--	--	--	--	--	silt loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☑):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat of Peat (**LRR K, L, R**)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (**LRR K, L**)
- ☐ S9 - Thin Dark Surface (**LRR K, L**)
- ☐ F12 - Iron-Manganese Masses (**LRR K, L, R**)
- ☐ F19 - Piedmont Floodplain Soils (**MLRA 149B**)
- ☐ TA6 - Mesic Spodic (**MLRA 144A, 145, 149B**)
- ☐ TF2 - Red Parent Material
- ☐ TF12 - Very Shallow Dark Surface
- ☑ Other (Explain in Remarks)

[1] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed) Type: ledge Depth: 10

Hydric Soil Present? ☐ Yes ☑ No

Remarks: soils are highly disturbed

TETRA TECH

WETLAND DETERMINATION DATA FORM

Northeast and Northcentral Region

Project/Site: Western Maine Renewable Energy Project Wetland ID: W106EI Sample Point **Wetland**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind.Status
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	0		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	*Populus tremuloides*	10	y	FACU
2.	*Salix alba*	5	n	FACW
3.	*Alnus incana*	5	n	FACW
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	20		

Herb Stratum (Plot size: 2 meter radius)

1.	*Scirpus cyperinus*	5	n	OBL
2.	*Spiraea alba*	5	n	FACW
3.	*Trifolium pratense*	25	y	FACU
4.	*Rudbeckia hirta*	5	n	FACU
5.	*Galium aparine*	10	y	FACU
6	*Vicia americana*	5	n	FACU
7.	*Symphyotrichum pilosum*	5	n	FACU
8.	*Solidago canadensis*	20	y	FACU
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	80		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***0.0%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	5	x 1 =	5
FACW spp.	15	x 2 =	30
FAC spp.	0	x 3 =	0
FACU spp.	80	x 4 =	320
UPL spp.	0	x 5 =	0
Total	100 (A)		355 (B)

Prevalence Index = B/A = ***3.550***

Hydrophytic Vegetation Indicators:

- ☐ Yes ☑ No Rapid Test for Hydrophytic Vegetation
- ☑ Yes ☐ No Dominance Test is > 50%
- ☐ Yes ☑ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☑ No Morphological Adaptations (Explain) *
- ☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☑ Yes ☐ No

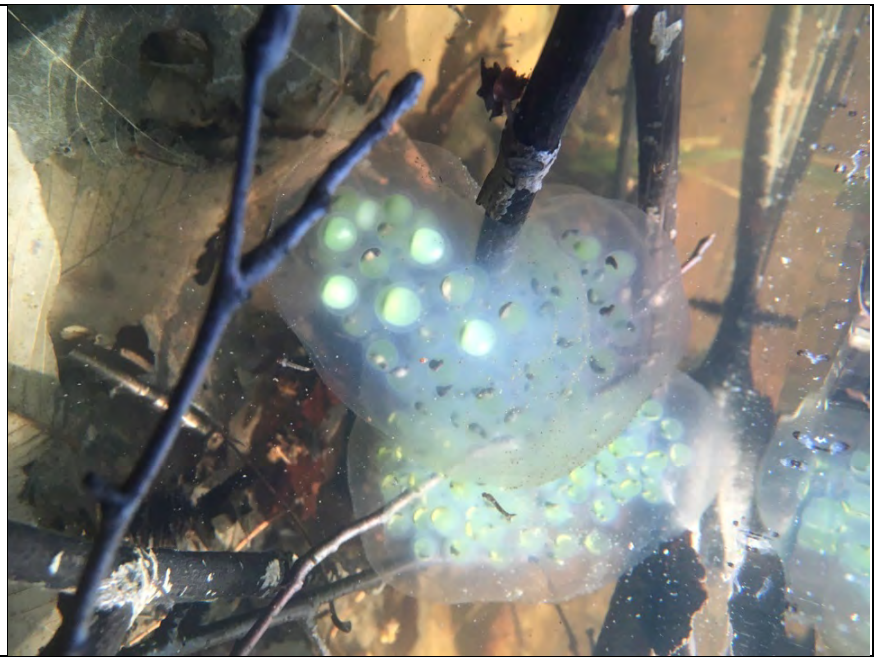
Additional Remarks:

Appendix E. Representative Photographs

Appendix D
Western Maine Renewable Energy Project
Representative Site Photographs

Vernal Pools

Photo: 01 Description: Vernal pool VP19CP, a significant vernal pool. Date: May 6, 2020 Source: Tetra Tech, Inc.	

Photo: 02 Description: Vernal pool VP19CP, a significant vernal pool. Photo depicts spotted salamander (*Ambystoma maculatum*) egg masses observed in the pool. Date: May 20, 2020 Source: Tetra Tech, Inc.	

Appendix D
Western Maine Renewable Energy Project
Representative Site Photographs

Photo: 03 Description: Vernal pool VP40DS, a natural-modified, significant vernal pool. Date: May 6, 2020 Source: Tetra Tech, Inc.	

Wetlands

Photo: 04 Description: Wetland W17DS, located adjacent to clearing near USAF Radar Station field road berm. Trees have buttressed roots with saturated soils present. Date: June 2, 2020 Source: Tetra Tech, Inc.	

Appendix D
Western Maine Renewable Energy Project
Representative Site Photographs

Photo: 05 Description: Wetland W60EI; watercourse S32EI runs through the northeast section of the wetland. Date: June 22, 2020 Source: Tetra Tech, Inc.	

Photo: 06 Description: Wetland W08EI; typical forested wetland with shallow soils to bedrock. Dark organic soils with depleted matrix 2–6 inches above rock ledge. Date: June 2, 2020 Source: Tetra Tech, Inc.	

Appendix D
Western Maine Renewable Energy Project
Representative Site Photographs

Photo: 07 Description: Wetland W17EI; larger forested wetland with shallow soils. Date: June 4, 2020 Source: Tetra Tech, Inc.	

Photo: 08 Description: Typical regenerating trees in upland forested area. Date: June 16, 2020 Source: Tetra Tech, Inc.	

Appendix D
Western Maine Renewable Energy Project
Representative Site Photographs

Photo: 09 Description: Wetland W34EI; depressional, emergent, wetland that is surrounded by upland forest. Date: June 16,2020 Source: Tetra Tech, Inc.	

Photo: 10 Description: Wetland W30EI; seepy wetland on hillslope shallow, dark organic muck over ledge/rock material; disturbed from timber harvest activities. Date: June 15, 2020 Source: Tetra Tech, Inc.	

Appendix D
Western Maine Renewable Energy Project
Representative Site Photographs

Photo: 11 Description: Wetland W61EI; emergent, naturalized, depression adjacent to the road. Date: June 23, 2020 Source: Tetra Tech, Inc.	

Photo: 12 Description: Wetland W43EI; forested isolated depression. Date: June 16, 2020 Source: Tetra Tech, Inc.	

Appendix D
Western Maine Renewable Energy Project
Representative Site Photographs

Photo: 13 Description: Wetland W21DS; emergent wetland in USAF Radar Station field. Some portions of the wetland continue into a forested area. Date: May 5, 2020 Source: Tetra Tech, Inc.	

Photo: 14 Description: Wetland W06KN continues off-Site and contains a watercourse that flows into Chase Pond. Date: December 22, 2020 Source: Tetra Tech, Inc.	

Appendix D
Western Maine Renewable Energy Project
Representative Site Photographs

Watercourses

Photo: 15 Description: Ephemeral watercourse S24EI; flows southeast from wetlands W49EI to W48EI. Date: June 17, 2020, 2020 Source: Tetra Tech, Inc.	

Photo: 16 Description: Intermittent watercourse S32EI; crosses the Study Area. Ephemeral watercourse S33EI is a tributary to this watercourse, and both flow through wetland W59EI. Date: June 22, 2020 Source: Tetra Tech, Inc.	

Appendix D
Western Maine Renewable Energy Project
Representative Site Photographs

Photo: 17 Description: Perennial watercourse S51EI (Bassett Brook); flows south and is crossed by a road proposed for accessing the western turbine pad locations. Date: July 21, 2020 Source: Tetra Tech, Inc.	

Photo: 18 Description: Watercourse S51EI (Bassett Brook); Photo of the approximately 7-foot culvert outlet with some damage. Date: September 10 , 2020 Source: Tetra Tech, Inc.	

Appendix D
Western Maine Renewable Energy Project
Representative Site Photographs

Photo: 19 Description: Intermittent watercourse S52EI; crosses a road that is proposed for accessing the western turbine locations. Date: September 23, 2020 Source: Tetra Tech, Inc.	

Photo: 20 Description: Watercourse S01KN flows south through a culvert in a road, towards Chase Pond. Date: December 22, 2020 Source: Tetra Tech, Inc.	

Appendix D
Western Maine Renewable Energy Project
Representative Site Photographs

Photo: 21 Description: General overview photo of a USAF Radar Station field. Note stunted vegetation in foreground and regenerating forested area in background. Date: June 4, 2020 Source: Tetra Tech, Inc.	

Photo: 22 Description: Stream Road, facing south. Date: June 23, 2020 Source: Tetra Tech, Inc.