

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Thorndike Place Prepared by: BSC Group, Inc. (SMM & EPS) Project location: Isolated Area, behind houses DEP File #: _____

Check all that apply:

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number: 1 (Wetland)	Transect Number: 1	Date of Delineation: 10/15/2020
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)
			E. Wetland Indicator Category*

Trees

<i>Ailanthus altissima</i> / Tree of Heaven	63%	52%	Yes	NI
* <i>Acer rubrum</i> / Red maple	38%	31%	Yes	FACW+
* <i>Acer negundo</i> / Box elder	10.5%	9%	No	FAC+
* <i>Ulmus rubra</i> / Slippery elm	10.5%	9%	No	FAC

Total Percent Cover: 122%

Shrubs/ Saplings

* <i>Acer negundo</i> / Box elder	10.5%	100%	Yes	FAC+
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Total Percent Cover: 10.5%

Herbaceous

<i>Fallopia japonica</i> / Japanese knotweed	63%	86%	Yes	FACU-
<i>Alliaria petiolata</i> / Garlic mustard	10.5%	14%	No	FACU-

Total Percent Cover: 73.5%

Vines

<i>Celastrus orbiculatus</i> / Asian bittersweet	10.5%	50.00%	Yes	FACU
<i>Vitis labrusca</i> / Fox grape	10.5%	50.00%	Yes	FACU

Total Percent Cover: 21%

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 2

Number of dominant non-wetland indicator plants: 3

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes no

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
title/date: WebSoil Survey/ 2020
map number: 655
soil type mapped: Udorthents, wet substratum
hydric soil inclusions: Yes

Are field observations consistent with soil survey? yes no
Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color	Texture
Ap	0-14"	10YR 2/1 (60%)	-	Sandy loam
		10YR 2/2 (40%)	-	
B	14"+	2.5YR 8/4 (90%)	-	Sandy loam
		10YR 7/8 (10%)	-	

Remarks: Area previously disturbed

3. Other:

Conclusion: Is soil hydric? yes no

Other Indicators of Hydrology: (check all that apply & describe)

- Site Inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: _____
- Water marks: _____
- Drift lines: _____
- Sediment Deposits: _____

- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded Data (streams, lake, or tidal gauge; aerial photo; other):
- Other: Buttressing of *Ailanthus altissima*

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants		X

Wetland hydrology present:

Hydric soil present	X	
Other indicators of hydrology present	X	

Sample location is in a BVW

X

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Check all that apply:

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number: 2 (Upland)		Transect Number: 1	Date of Delineation: 10/15/2020
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*

Trees

* <i>Acer negundo</i> / Box elder	85.5%	64%	Yes	FAC+
<i>Ailanthus altissima</i> / Tree of Heaven	38%	28%	No	NI
<i>Quercus alba</i> / Northern white oak	10.5%	8%	No	FACU-

Total Percent Cover: 134 %

Shrubs/ Saplings

* <i>Acer negundo</i> / Box elder	63%	52%	Yes	FAC+
<i>Rosa multiflora</i> / Multiflora rose	38%	31%	No	FACU
* <i>Ulmus rubra</i> / Slippery elm	20.5%	17%	No	FAC

Total Percent Cover: 121.5%

Herbaceous

<i>Alliaria petiolate</i> / Garlic mustard	85.5%	100%	Yes	FACU-
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Total Percent Cover: 85.5%

Vines

Absent

Total Percent Cover: 0%

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 2

Number of dominant non-wetland indicator plants: 1

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes no

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
title/date: WebSoil Survey/ 2020
map number: 655
soil type mapped: Udorthents, wet substratum
hydric soil inclusions: Yes

Are field observations consistent with soil survey? yes no
Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color	Texture
O	1-0"			
A	0-3"	10YR 2/2	-	Sandy loam
B	3-9"	10YR 3/3	-	Sandy loam

Remarks: Area previously disturbed

3. Other:

Conclusion: Is soil hydric? yes no

Other Indicators of Hydrology: (check all that apply & describe)

- Site Inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: _____
- Water marks: _____
- Drift lines: _____
- Sediment Deposits: _____
- Drainage patterns in BVW: _____

- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded Data (streams, lake, or tidal gauge; aerial photo; other):
- Other: _

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants	X	
Wetland hydrology present:		
Hydric soil present		X
Other indicators of hydrology present	_____	X
Sample location is in a BVW		X no

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MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Thorndike Place Prepared by: BSC Group, Inc. (SMM & EPS) Project location: Arlington- Near flag D-18 DEP File #: _____

Check all that apply:

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number: 1 (Wetland)	Transect Number: 2	Date of Delineation: 10/15/2020
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)
			E. Wetland Indicator Category*

Trees

* <i>Acer negundo</i> / Boxelder	20.5%	32%	Yes	FAC+
* <i>Acer saccharinum</i> / Silver maple	20.5%	32%	Yes	FACW
<i>Populus tremulas</i> / Quaking aspen	20.5%	32%	No	FACU
<i>Prunus serotina</i> / Black cherry	3%	5%	No	FACU

Total Percent Cover: 64.5%

Shrubs/ Saplings

* <i>Rhamnus frangula</i> / Glossy buckthorn	20.5%	55%	Yes	FAC
* <i>Acer saccharinum</i> / Silver maple	10.5%	28%	Yes	FACW
* <i>Fraxinus pennsylvanica</i> / Green ash	3%	8%	No	FACW
<i>Rubus strigosus</i> / Common red raspberry	3%	8%	No	FAC-

Total Percent Cover: 37%

Herbaceous

* <i>Onoclea sensibilis</i> / Sensitive fern	85.5%	100%	Yes	FACW
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Total Percent Cover: 89%

Vines

Absent

Total Percent Cover: 0%

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 4

Number of dominant non-wetland indicator plants: 0

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes no

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
 title/date: WebSoil Survey/ 2020
 map number: 51A
 soil type mapped: Swansea muck
 hydric soil inclusions: Yes

Are field observations consistent with soil survey? yes no
 Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color	Texture
Oe	0-0.5"			
A	0-1"	10YR2/1	-	Mucky modified SL
Ae	1-4"	10YR 4/2	5YR3/4 (5%)	Mucky modified sandy loam
Bg	4-14"	2.5YR 6/3	7.5YR 4/6 (12%)	sandy loam

Remarks:

3. Other:

Conclusion: Is soil hydric? yes no

Other Indicators of Hydrology: (check all that apply & describe)

- Site Inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: _____
- Water marks: _____
- Drift lines: _____
- Sediment Deposits: _____

- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded Data (streams, lake, or tidal gauge; aerial photo; other):
- Other: _

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants	X	
Wetland hydrology present:		
Hydric soil present	X	
Other indicators of hydrology present		X_____
Sample location is in a BVW	X	

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MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Thorndike Place Prepared by: BSC Group, Inc. (SMM & EPS) Project location: Arlington- Near flag D-18 DEP File #: _____

Check all that apply:

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number: 2 (Upland)	Transect Number: 2	Date of Delineation: 10/15/2020
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)
			E. Wetland Indicator Category*

Trees

<i>Prunus serotina</i> / Black cherry	63%	75%	Yes	FACU
<i>Ailanthus altissima</i> / Tree of Heaven	20.5%	25%	No	NI
<i>Total Percent Cover: 83.5%</i>				

Shrubs/ Saplings

<i>Rhus hirta</i> / Staghorn sumac	20.5%	49%	Yes	NI
<i>Prunus serotina</i> / Black cherry	10.5%	25%	Yes	FACU
<i>Rubus strigosus</i> / Common red raspberry	10.5%	25%	No	FAC-
<i>Total Percent Cover: 41.5%</i>				

Herbaceous

<i>Solidago canadensis</i> / Canada goldenrod	38%	65%	Yes	FACU
<i>Phytolacca americana</i> / American pokeweed	20.5%	35%	No	FACU+
<i>Total Percent Cover: 58.8%</i>				

Vines

Absent
Total Percent Cover: 0%

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 0

Number of dominant non-wetland indicator plants: 4

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes no

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
title/date: WebSoil Survey/ 2020
map number: 51A
soil type mapped: Swansea muck
hydric soil inclusions: Yes

Are field observations consistent with soil survey? yes no
Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color	Texture
A	0-1"	10YR 2/2		
Bw ₁	1-6"	10YR 3/3	-	Sandy loam
Bw ₂	6-12+"	10YR 4/4	-	Sandy loam

Remarks:

3. Other:

Conclusion: Is soil hydric? yes no

Other Indicators of Hydrology: (check all that apply & describe)

- Site Inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: _____
- Water marks: _____
- Drift lines: _____
- Sediment Deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____

- Water-stained leaves: _____
- Recorded Data (streams, lake, or tidal gauge; aerial photo; other):
- Other: _

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants		X
Wetland hydrology present:		
Hydric soil present		X
Other indicators of hydrology present		X_____
Sample location is in a BVW		X

form with the Request for Determination of Applicability or Notice of Intent.

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Thorndike Place Prepared by: BSC Group, Inc. (SMM & EPS) Project location: Arlington- Near flag C-14 DEP File #: _____

Check all that apply:

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I.

Vegetation	Observation Plot Number: 1 (Wetland)	Transect Number: 3	Date of Delineation: 10/15/2020
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)
			E. Wetland Indicator Category*

Trees

* <i>Populus deltoides</i> / Eastern cottonwood	20.5%	40%	Yes	FAC
<i>Ailanthus altissima</i> / Tree of Heaven	20.5%	40%	Yes	NI
* <i>Fraxinus pennsylvanica</i> / Green ash	10.5%	20%	Yes	FACW
<i>Total Percent Cover: 51.5 %</i>				

Shrubs/ Saplings

* <i>Rhus hirta</i> / Staghorn sumac	20.5%	60%	Yes	NI
* <i>Populus deltoides</i> / Eastern cottonwood	10.5%	31%	Yes	FAC
<i>Rosa multiflora</i> / Multiflora rose	3%	9%	No	FACU
<i>Total Percent Cover: 34%</i>				

Herbaceous

* <i>Solidago patula</i> / Rough stem goldenrod	38%	53%	Yes	OBL
<i>Phytolacca americana</i> / American pokeweed	20.5%	28%	Yes	FACU+
* <i>Rubus hispidus</i> / Creeping dewberry	10.5%	15%	No	FACW
* <i>Phragmites australis</i> / Common reed	3%	4%	No	FACW
<i>Total Percent Cover: 72%</i>				

Vines

Absent

Total Percent Cover: 0%

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 4

Number of dominant non-wetland indicator plants: 1

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes no

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
title/date: WebSoil Survey/ 2020
map number: 655
soil type mapped: Udorthents, wet substratum
hydric soil inclusions: Yes

Are field observations consistent with soil survey? yes no
Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color	Texture
A	0-1"	10YR 2/1	-	Sandy loam
Bc	1-14"+	10YR 4/2	Depletion: 7.5YR 4/6 (12%) 10YR 6/2 (10%)	Sandy loam

Remarks:

3. Other:

Conclusion: Is soil hydric? yes no

Other Indicators of Hydrology: (check all that apply & describe)

- Site Inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: _____
- Water marks: _____
- Drift lines: _____
- Sediment Deposits: _____
- Drainage patterns in BVW: Present _____

- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded Data (streams, lake, or tidal gauge; aerial photo; other):
- Other: _

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants	X	
Wetland hydrology present:		
Hydric soil present	X	
Other indicators of hydrology present	X	
Sample location is in a BVW	X	

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