

APPENDIX 1:

Wetland Replication Field Data Forms



Town of Franklin

Wetland Replication Data Report



Site: 1
Investigators: Jeff Rogers

Franklin

MA

Norfolk County

Investigation Date: 10/10/2002 10:45

Weather: Overcast

Location: 1-1 Easting: 208,919.33 Northing: 871,353.82 NWIClass: Not A Wetland
Are Hydrophytic Plants Dominant? No Is Wetland Hydrology Present?: No
Are Hydric Soils Present?: No Is this a Wetland?: No Photos: 612,613,614
Comments: Boulders present, center of replication used as plot, invasive japanese knotweed abundant around edge of replication

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
GOLDEN-ROD,CANADA	Solidago canadensis	S [<5%]	FACU
RASPBERRY,COMMON RED	Rubus idaeus	S [<5%]	FAC-
MAPLE,RED	Acer rubrum	S [<5%]	FAC
Shrub			
KNOTWEED,JAPANESE	Polygonum cuspidatum	S [<5%]	FACU-
SASSAFRAS	Sassafras albidum	C [6-25%]	FACU-
GRAPE,FOX	Vitis labrusca	A [26-50%]	FACU
RASPBERRY,COMMON RED	Rubus idaeus	S [<5%]	FAC-
MAPLE,RED	Acer rubrum	S [<5%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Depth of Surfacewater: inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: >14 inches
Comments:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0-6	A1	10YR 3 / 2	Very Fine Sandy Loam		/	/	
6-14	A2	10YR 5 / 8	Fine Sandy Loam		/	/	14" refusal



Town of Franklin

Wetland Replication Data Report



Site: 1
Investigators: Jeff Rogers

Franklin

MA

Norfolk County

Investigation Date: 10/10/2002 10:45

Weather: Overcast

Location: 1-W Easting: 208,936.85 Northing: 871,352.64 NWIClass: Palustrine Forested Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 615,616
Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
BOG MOSS	Aulacomnium palustre	S [<5%]	NI
IVY, POISON	Toxicodendron radicans	S [<5%]	FAC
ARROW-WOOD	Viburnum dentatum	C [6-25%]	FAC
Shrub			
BUTTERNUT	Juglans cinerea	S [<5%]	FACU+
ARROW-WOOD	Viburnum dentatum	D [>50%]	FAC
Tree			
MAPLE, RED	Acer rubrum	D [>50%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Int. Flooded Depth of Surfacewater: inches
Depth to Groundwater: inches Depth to Saturation: >16 inches
Other Hydrologic Indicators present:
Buttressed Trees
Water-Stained Leaves

Comments:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0.5-0	O	/	Peaty Rootmass	/	/	/	
0-8	A	7.5YR 3 / 1	Fine Sandy Loam w/gravel	15	/	/	
8-16	B	10YR 3 / 3	Sandy Loam, Gravel	25	/	/	16" refusal



Town of Franklin

Wetland Replication Data Report



Site: 10 Franklin MA Norfolk County Investigation Date: 9/30/2002 14:00
Investigators: Bob Hartzel, Jeff Rogers, Ingeborg Hegman Weather: Sunny

Location: 10-W Easting: 206,589.77 Northing: 873,898.63 NWIClass: Palustrine Forested Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: No
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos:
Comments: Replication never built; Culvert diverts water away from wetland (impaired)

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
GREENBRIER, COMMON	Smilax rotundifolia	C [6-25%]	FAC
Shrub			
WITHE-ROD	Viburnum cassinoides	S [<5%]	FACW
PEPPER-BUSH, COAST	Clethra alnifolia	D [>50%]	FAC+
WITCH-HAZEL, AMERICAN	Hamamelis virginiana	C [6-25%]	FAC-
Tree			
OAK, NORTHERN RED	Quercus rubra	D [>50%]	FACU-
PINE, EASTERN WHITE	Pinus strobus	S [<5%]	FACU
MAPLE, RED	Acer rubrum	D [>50%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Depth of Surfacewater: inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: >16 inches
Comments: Hydrology is limited by installation of nearby culvert.

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
2-0	O	/	Peat		/	/	
0-2	A	10YR 2 / 2	Fine Sandy Loam		/	/	
2-14	B	10YR 3 / 3	Fine Sandy Loam	30	7.5YR 5 / 8	/	
14-16	C	7.5YR 4 / 6	Loamy Sand, Gravel		/	/	refusal at 16"



Town of Franklin

Wetland Replication Data Report



Site: 11 Franklin
Investigators: Bob Hartzel, Jeff Rogers

MA Norfolk County

Investigation Date: 10/4/2002 15:00
Weather: Sunny

Location: 11a-1 Easting: 205,753.38 Northing: 875,032.65 NWIClass: Palustrine Emergent Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 665,666
Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
DOCK, SWAMP	Rumex verticillatus	S [<5%]	OBL
RUSH, CANADA	Juncus canadensis	C [6-25%]	OBL
MONKEY-FLOWER, ALLEGHANY	Mimulus ringens	S [<5%]	OBL
CATTAIL, BROAD-LEAF	Typha latifolia	C [6-25%]	OBL
ELEOCHARIS SP.	Eleocharis sp.	S [<5%]	NI (OBL)
RUSH, SOFT	Juncus effusus	C [6-25%]	FACW+
REDTOP PANIC GRASS	Panicum rigidulum	C [6-25%]	FACW+
GRASS, RED-TOP PANIC	Panicum rigidulum	C [6-25%]	FACW+
SMARTWEED, PENNSYLVANIA	Polygonum pensylvanicum	S [<5%]	FACW
FRAGRANT-GOLDEN-ROD, FLAT-TOP	Euthamia graminifolia	S [<5%]	FAC
Shrub			
BLUEBERRY, HIGHBUSH	Vaccinium corymbosum	S [<5%]	FACW-
ARROW-WOOD, NORTHERN	Viburnum recognitum	S [<5%]	FACW-
MAPLE, RED	Acer rubrum	S [<5%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Int. Flooded Depth of Surfacewater: inches
Depth to Groundwater: inches Depth to Saturation: >16 inches

Other Hydrologic Indicators present:

Water-Stained Leaves
Pockets of Surface Water

Comments:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0-8	A	10YR 3 / 2	Fine Silty Loam		/	/	
8-16	C1	10YR 6 / 6	Med. Sand, w/Gravel	50	2.5YR 3 / 6	/	
16+	C2	10YR 6 / 2	Very Fine Silty Sand		/	/	



Town of Franklin

Wetland Replication Data Report



Site: 11 Franklin
Investigators: Bob Hartzel, Jeff Rogers

MA Norfolk County

Investigation Date: 10/4/2002 15:00
Weather: Sunny

Location: 11a-W Easting: 205,783.53 Northing: 875,029.60 NWIClass: Palustrine Forested Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 663,664
Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
WOOD-REEDGRASS,STOUT	Cinna arundinacea	S [<5%]	FACW+
ARROW-WOOD,NORTHERN	Viburnum recognitum	C [6-25%]	FACW-
TOUCH-ME-NOT,SPOTTED	Impatiens capensis	S [<5%]	FACW
BLACKBERRY,BRISTLY	Rubus hispidus	C [6-25%]	FACW
FERN,SENSITIVE	Onoclea sensibilis	A [26-50%]	FACW
IVY,POISON	Toxicodendron radicans	S [<5%]	FAC
Sapling/Lianas			
BURNING-BUSH,EASTERN	Euonymus atropurpureus	C [6-25%]	FACU
BUCKTHORN,GLOSSY	Rhamnus frangula	S [<5%]	FAC
Shrub			
ARROW-WOOD,NORTHERN	Viburnum recognitum	C [6-25%]	FACW-
BLUEBERRY,HIGHBUSH	Vaccinium corymbosum	C [6-25%]	FACW-
WITHE-ROD	Viburnum cassinoides	S [<5%]	FACW
Tree			
MAPLE,RED	Acer rubrum	D [>50%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Depth of Surfacewater: inches Other Hydrologic Indicators present:
Depth to Groundwater: inches Depth to Saturation: >20 inches
Comments:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0.5-0	O	/	Peat		/	/	
0-10	A	10YR 2 / 1	Silt Loam		/	/	
10-16	B	10YR 4 / 1	Loamy Fine Sand		/	/	
16-20	E	5YR 3 / 4	Loamy Fine Sand		/	/	
20+	C	2.5Y 5 / 4	Silt, Sand		/	/	



Town of Franklin

Wetland Replication Data Report



Site: 11 Franklin
Investigators: Bob Hartzel, Jeff Rogers

MA Norfolk County

Investigation Date: 10/4/2002 15:00
Weather: Sunny

Location: 11b-1 Easting: 205,680.08 Northing: 874,983.19 NWIClass: Palustrine Emergent Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 595,596,668,667
Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
BUTTER-CUP,NORTHERN SWAMP	Ranunculus septentrionalis	C [6-25%]	OBL
RUSH,SOFT	Juncus effusus	A [26-50%]	FACW+
BENTGRASS,PERENNIAL	Agrostis perennans	A [26-50%]	FACU
Sapling/Lianas			
MAPLE,RED	Acer rubrum	S [<5%]	FAC
Shrub			
ARROW-WOOD,NORTHERN	Viburnum recognitum	S [<5%]	FACW-
BLUEBERRY,HIGHBUSH	Vaccinium corymbosum	S [<5%]	FACW-

Representative Hydrologic Characteristics

Hydrologic Conditions: Depth of Surfacewater: inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: >18 inches
Comments:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0-8	A	10YR 3 / 2	Fine Sandy Loam	15	/	/	
8-18+	C	2.5Y 5 / 3	Very Fine Sandy Silt	50	/	/	



Town of Franklin

Wetland Replication Data Report



Site: 11 Franklin
Investigators: Bob Hartzel, Jeff Rogers

MA Norfolk County

Investigation Date: 10/4/2002 15:00
Weather: Sunny

Location: 11b-W Easting: 205,693.21 Northing: 874,966.14 NWIClass: Palustrine Forested Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 597,598
Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
SEDGE,UPTIGHT	Carex stricta	D [>50%]	OBL
Sapling/Lianas			
BUCKTHORN,GLOSSY	Rhamnus frangula	S [<5%]	FAC
Shrub			
BLUEBERRY,HIGHBUSH	Vaccinium corymbosum	S [<5%]	FACW-
ARROW-WOOD,NORTHERN	Viburnum recognitum	S [<5%]	FACW-
Tree			
MAPLE,RED	Acer rubrum	D [>50%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Seasonally Flooded Depth of Surfacewater: inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: >18 inches Buttressed Trees
Comments:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
2-0	O	/			/	/	
0-8	A	10YR 2 / 1	Fine Sandy Silt		/	/	
8-12	B	10YR 5 / 3	Fine Sandy Silt	40	10YR 5 / 4	/	
12-18	C	2.5Y 6 / 1	Silty Clay Loam	15	/	/	



Town of Franklin

Wetland Replication Data Report



Site: 11 Franklin
Investigators: Bob Hartzel, Jeff Rogers

MA Norfolk County

Investigation Date: 10/4/2002 15:00
Weather: Sunny

Location: 11c-1 Easting: 205,678.30 Northing: 875,398.11 NWIClass: Palustrine Aquatic Bed

Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 669
Comments: Frogs, wildlife evidence (chewed vegetation); Flag represents soil location; Many tree/shrub plantings failed.

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
<i>Herbs</i>			
SEEDBOX,MARSH	Ludwigia palustris	A [26-50%]	OBL
CATTAIL,BROAD-LEAF	Typha latifolia	S [<5%]	OBL
CATTAIL,NARROW-LEAF	Typha angustifolia	S [<5%]	OBL
WEED,PICKEREL	Pontederia cordata	C [6-25%]	OBL
LOOSESTRIFE,SWAMP	Lysimachia terrestris	C [6-25%]	OBL
ELEOCHARIS SP.	Eleocharis sp.	C [6-25%]	NI (OBL)
WOOL-GRASS	Scirpus cyperinus	C [6-25%]	FACW+
SEDGE,BLUNT BROOM	Carex tribuloides	C [6-25%]	FACW+
SEEDBOX,BUSHY	Ludwigia alternifolia	A [26-50%]	FACW+
RUSH,SOFT	Juncus effusus	A [26-50%]	FACW+
IRONWEED,NEW YORK	Vernonia noveboracensis	S [<5%]	FACW+
ASTER,CALICO	Aster lateriflorus	S [<5%]	FACW-
STEEPLE-BUSH	Spiraea tomentosa	S [<5%]	FACW
SMARTWEED,PENNSYLVANIA	Polygonum pensylvanicum	S [<5%]	FACW
BLACKBERRY,BRISTLY	Rubus hispidus	S [<5%]	FACW
FLATSEDEGE,STRAW-COLOR	Cyperus strigosus	S [<5%]	FACW
STARWORT,LESSER	Stellaria graminea	A [26-50%]	FACU-

Representative Hydrologic Characteristics

Hydrologic Conditions: Perm. Flooded Depth of Surfacewater: 6 inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: 0 inches
Comments: Permanently Inundated

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0-10	A	10YR 2 / 2	Sand, Silt		/	/	
10-20+	C	2.5Y 5 / 3	Silt, Clay and Sand		/	/	



Town of Franklin

Wetland Replication Data Report



Site: 11 Franklin
Investigators: Bob Hartzel, Jeff Rogers

MA Norfolk County

Investigation Date: 10/4/2002 15:00
Weather: Sunny

Location: 11c-W Easting: 205,704.18 Northing: 875,436.75 NWIClass: Palustrine Emergent Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 609,610
Comments: Pulpie Loostrife Abundant; Wildlife use (paths, tracks, feeding); 10ft to edge of stream bank

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
SEDGE,FRINGED	Carex crinita	A [26-50%]	OBL
SMARTWEED,DOTTED	Polygonum punctatum	C [6-25%]	OBL
TEARTHUMB,ARROW-LEAF	Polygonum sagittatum	C [6-25%]	OBL
FLOWER,CARDINAL	Lobelia cardinalis	S [<5%]	FACW+
LOOSESTRIFE,PURPLE	Lythrum salicaria	A [26-50%]	FACW+
FERN,SENSITIVE	Onoclea sensibilis	C [6-25%]	FACW
Shrub			
BUTTONBUSH,COMMON	Cephalanthus occidentalis	S [<5%]	OBL
WITHE-ROD	Viburnum cassinoides	C [6-25%]	FACW
Tree			
MAPLE,RED	Acer rubrum	C [6-25%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Seasonally Flooded Depth of Surfacewater: inches
Depth to Groundwater: inches Depth to Saturation: 0 inches
Comments: **Other Hydrologic Indicators present:** Buttressed Trees

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
17-0	O	10YR 2 / 1	Muck, Fine Sand		/	/	
0+	C	10YR 5 / 2	Sand, Gravel		/	/	



Town of Franklin

Wetland Replication Data Report



Site: 12 Franklin MA Norfolk County Investigation Date: 9/30/2002 15:13
Investigators: Bob Hartzel, Jeff Rogers, Ingeborg Hegman Weather: Sunny

Location: 12-1 Easting: 205,815.25 Northing: 871,159.34 NWIClass: Palustrine Emergent Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?:
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos:
Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
<i>Herbs</i>			
SEDGE,FRINGED	Carex crinita	S [<5%]	OBL
TEARTHUMB,ARROW-LEAF	Polygonum sagittatum	S [<5%]	OBL
BUTTER AND EGGS	Linaria vulgaris	S [<5%]	NI
RUSH,SOFT	Juncus effusus	C [6-25%]	FACW+
SNEEZEWEED,COMMON	Helenium autumnale	C [6-25%]	FACW+
IRONWEED,NEW YORK	Vernonia noveboracensis	C [6-25%]	FACW+
WOOL-GRASS	Scirpus cyperinus	S [<5%]	FACW+
VERVAIN,BLUE	Verbena hastata	S [<5%]	FACW+
ELM,AMERICAN	Ulmus americana	S [<5%]	FACW-
JOE-PYE-WEED,HOLLOW	Eupatoriadelphus fistulosus	S [<5%]	FACW
GOLDEN-ROD,CANADA	Solidago canadensis	A [26-50%]	FACU
MAPLE,RED	Acer rubrum	S [<5%]	FAC
FRAGRANT-GOLDEN-ROD,FLAT-TOP	Euthamia graminifolia	C [6-25%]	FAC
GOLDEN-ROD,WRINKLED	Solidago rugosa	A [26-50%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Depth of Surfacewater: inches Other Hydrologic Indicators present:
Depth to Groundwater: inches Depth to Saturation: >20 inches
Comments:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0-15	A	10YR 3 / 2	Fine Sandy Loam		/	/	
15-20	B	10YR 4 / 4		15	/	/	



Town of Franklin

Wetland Replication Data Report



Site: 12 Franklin MA Norfolk County Investigation Date: 9/30/2002 15:13
Investigators: Bob Hartzel, Jeff Rogers, Ingeborg Hegman Weather: Sunny

Location: 12-W Easting: 205,810.31 Northing: 871,179.46 NWIClass: Palustrine Emergent Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos:
Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
<i>Herbs</i>			
SMARTWEED,DOTTED	Polygonum punctatum	S [<5%]	OBL
CAREX SP.	Carex sp.	C [6-25%]	NI
ASTER,CALICO	Aster lateriflorus	D [>50%]	FACW-
CREEPER,VIRGINIA	Parthenocissus quinquefolia	S [<5%]	FACU

Representative Hydrologic Characteristics

Hydrologic Conditions: Depth of Surfacewater: inches Other Hydrologic Indicators present:
Depth to Groundwater: inches Depth to Saturation: 15 inches
Comments:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0-7	A1	10YR 3 / 2	Sandy Loam		/	/	
7-15	A2	10YR 3 / 1			/	/	
15+	B	10YR 4 / 4			/	/	20" refusal



Town of Franklin

Wetland Replication Data Report



Site: 2 Franklin
Investigators: Bob Hartzel, Jeff Rogers

MA Norfolk County

Investigation Date: 10/4/2002 13:07
Weather: Overcast

Location: 2-1 Easting: 207,834.42 Northing: 869,813.89 NWIClass: Not A Wetland

Are Hydrophytic Plants Dominant? No Is Wetland Hydrology Present?: No

Are Hydric Soils Present?: No Is this a Wetland?: No Photos:

Comments: Replication not built, soils not investigated

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
CREEPER,VIRGINIA	Parthenocissus quinquefolia	C [6-25%]	FACU
GRAPE,FOX	Vitis labrusca	C [6-25%]	FACU
RASPBERRY,COMMON RED	Rubus idaeus	C [6-25%]	FAC-
	Equisetum sp.	S [<5%]	
Sapling/Lianas			
WITHE-ROD	Viburnum cassinoides	A [26-50%]	FACW
CREEPER,VIRGINIA	Parthenocissus quinquefolia	C [6-25%]	FACU
Shrub			
WITHE-ROD	Viburnum cassinoides	A [26-50%]	FACW
	Cornus sp.	S [<5%]	
Tree			
STAGHORN SUMAC	Rhus typhina	D [>50%]	NI

Representative Hydrologic Characteristics

Representative Soil Characteristics



Town of Franklin

Wetland Replication Data Report



Site: 2 Franklin
Investigators: Bob Hartzel, Jeff Rogers

MA Norfolk County

Investigation Date: 10/4/2002 13:07
Weather: Overcast

Location: 2-W Easting: 207,819.80 Northing: 869,813.31 NWIClass: Palustrine Emergent Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos:
Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
SMALL-REEDGRASS, NUTTALL'S	Calamagrostis cinnoideis	D [>50%]	OBL
SKUNK-CABBAGE	Symplocarpus foetidus	S [<5%]	OBL
CATTAIL, BROAD-LEAF	Typha latifolia	S [<5%]	OBL
CREEPER, VIRGINIA	Parthenocissus quinquefolia	S [<5%]	FACU
Sapling/Lianas			
ELDER, AMERICAN	Sambucus canadensis	S [<5%]	FACW-
Tree			
ALDER, SPECKLED	Alnus rugosa	C [6-25%]	FACW+
MAPLE, RED	Acer rubrum	A [26-50%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Saturated Depth of Surfacewater: inches
Depth to Groundwater: inches Depth to Saturation: 0 inches
Comments: Other Hydrologic Indicators present:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
6-0	O	/	Muck		/	/	
0-14	A	10YR 2 / 2	Fine Sandy Loam	30	10YR 6 / 8	10YR 6 / 1	
14-18	B	10YR 3 / 1	Sandy Loam		/	/	
18+	C	2.5Y 5 / 2	Sand		/	/	



Town of Franklin

Wetland Replication Data Report



Site: 3 Franklin
Investigators: Bob Hartzel, Jeff Rogers

MA Norfolk County

Investigation Date: 10/2/2002 1:00
Weather: Sunny

Location: 3-1 Easting: 208,106.61 Northing: 873,029.77 NWIClass: Palustrine Emergent Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present? Yes
Are Hydric Soils Present? Yes Is this a Wetland? Yes Photos: 581,585
Comments: High wildlife habitat; using entire replication; beaver chewings and muskrat paths

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
BEDSTRAW,STIFF MARSH	Galium tinctorium	S [<5%]	OBL
SEDGE,SHALLOW	Carex lurida	C [6-25%]	OBL
SEDGE,THREE-WAY	Dulichium arundinaceum	S [<5%]	OBL
DUCKWEED,LESSER	Lemna minor	S [<5%]	OBL
CATTAIL,NARROW-LEAF	Typha angustifolia	C [6-25%]	OBL
BURREED,AMERICAN	Sparganium americanum	D [>50%]	OBL
ARROW-HEAD,BROAD-LEAF	Sagittaria latifolia	S [<5%]	OBL
WATER STARWORT	Callitriche palustris	S [<5%]	NI
WOOL-GRASS	Scirpus cyperinus	S [<5%]	FACW+
RUSH,SOFT	Juncus effusus	S [<5%]	FACW+
JOE-PYE-WEED,HOLLOW	Eupatoriadelphus fistulosus	S [<5%]	FACW
	Gramineae sp.	A [26-50%]	
Shrub			
ROSE,SWAMP	Rosa palustris	C [6-25%]	OBL
ALDER,SPECKLED	Alnus rugosa	C [6-25%]	FACW+

Representative Hydrologic Characteristics

Hydrologic Conditions: Perm. Flooded Depth of Surfacewater: 8 inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: 0 inches
Comments: Flooded with 6-9 inches water during drought conditions

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
2-0	O	/	Muck		/	/	
0-12	A	10YR 3 / 2	Fine Sandy Loam		/	/	
12-18	C	5Y 4 / 2	Sand, Gravel		/	/	



Town of Franklin

Wetland Replication Data Report



Site: 3 Franklin
Investigators: Bob Hartzel, Jeff Rogers

MA Norfolk County

Investigation Date: 10/2/2002 1:00
Weather: Sunny

Location: 3-W Easting: 208,086.38 Northing: 873,012.28 NWIClass: Palustrine Emergent Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 584
Comments: High wildlife habitat; hummock and hollows

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
BEGGAR-TICKS,NODDING	Bidens cernua	D [>50%]	OBL
ASTER,SWAMP	Aster puniceus	S [<5%]	OBL
BURREED,AMERICAN	Sparganium americanum	S [<5%]	OBL
BEDSTRAW,STIFF MARSH	Galium tinctorium	S [<5%]	OBL
CATTAIL,NARROW-LEAF	Typha angustifolia	S [<5%]	OBL
DUCKWEED,LESSER	Lemna minor	S [<5%]	OBL
SEDGE,SHALLOW	Carex lurida	C [6-25%]	OBL
DUCKWEED,GREATER	Spirodela polyrhiza	S [<5%]	OBL
WOOL-GRASS	Scirpus cyperinus	C [6-25%]	FACW+
FERN,SENSITIVE	Onoclea sensibilis	S [<5%]	FACW
TOUCH-ME-NOT,SPOTTED	Impatiens capensis	S [<5%]	FACW
FERN,MASSACHUSETTS	Thelypteris simulata	S [<5%]	FACW
Shrub			
ROSE,SWAMP	Rosa palustris	C [6-25%]	OBL
ALDER,SPECKLED	Alnus incana	C [6-25%]	NI
ARROW-WOOD,NORTHERN	Viburnum recognitum	S [<5%]	FACW-
MAPLE,RED	Acer rubrum	S [<5%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Perm. Flooding Depth of Surfacewater: 3 inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: 0 inches
Comments: Flooded with 2-4 inches water during drought conditions, hummock and hollows

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
10-0	O	/	Muck, Sand		/	/	
0-4	B1	10YR 5 / 2	Fine Sand, Silt		/	/	
4-6	B2	10YR 6 / 1	Fine Sand, Silt		/	/	
6-10	C	10YR 5 / 1	Sand, Gravel		/	/	



Town of Franklin

Wetland Replication Data Report



Site: 4 Franklin MA Norfolk County Investigation Date: 9/30/2002 10:00
Investigators: Bob Hartzel, Jeff Rogers, Ingeborg Hegman Weather: Sunny

Location: 4-1 Easting: 204,209.40 Northing: 865,585.51 NWIClass: Palustrine Scrub-Shrub Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?:
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 627,628,629
Comments: Grading problems

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
SKUNK-CABBAGE	Symplocarpus foetidus	S [<5%]	OBL
SMARTWEED, WATER	Polygonum amphibium	C [6-25%]	OBL
MONKEY-FLOWER, ALLEGHANY	Mimulus ringens	S [<5%]	OBL
SEDGE, SHALLOW	Carex lurida	C [6-25%]	OBL
SMARTWEED, DOTTED	Polygonum punctatum	C [6-25%]	OBL
GOLDEN-ROD, ROUGH-LEAF	Solidago patula	C [6-25%]	OBL
RUSH, SOFT	Juncus effusus	A [26-50%]	FACW+
TOUCH-ME-NOT, SPOTTED	Impatiens capensis	C [6-25%]	FACW
STEEPLE-BUSH	Spiraea tomentosa	C [6-25%]	FACW
GRAPE, FOX	Vitis labrusca	C [6-25%]	FACU
FALSE-BUCKWHEAT, CLIMBING	Polygonum scandens	S [<5%]	FAC
Sapling/Lianas			
ELM, AMERICAN	Ulmus americana	S [<5%]	FACW-
MAPLE, SILVER	Acer saccharinum	S [<5%]	FACW
WILLOW, BEBB	Salix bebbiana	S [<5%]	FACW
MAPLE, RED	Acer rubrum	S [<5%]	FAC
Shrub			
STAGHORN SUMAC	Rhus typhina	C [6-25%]	NI
ELDER, AMERICAN	Sambucus canadensis	A [26-50%]	FACW-
SPICEBUSH, NORTHERN	Lindera benzoin	S [<5%]	FACW-
RASPBERRY, COMMON RED	Rubus idaeus	C [6-25%]	FAC-

Representative Hydrologic Characteristics

Hydrologic Conditions: Depth of Surfacewater: inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: >18 inches
Comments:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0-9	A	10YR 3 / 1	Very Fine Silt Loam	15	/	/	
9-18	B	2.5Y 5 / 3	Very Fine Silt w/Sand	40	/	/	



Town of Franklin

Wetland Replication Data Report



Site: 4 Franklin MA Norfolk County Investigation Date: 9/30/2002 10:00
Investigators: Bob Hartzel, Jeff Rogers, Ingeborg Hegman Weather: Sunny

Location: 4-2 Easting: 204,217.28 Northing: 865,585.75 NWIClass: Palustrine Scrub-Shrub Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?:
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 630,631,632
Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
IRIS, YELLOW	Iris pseudacorus	S [<5%]	OBL
TOUCH-ME-NOT, SPOTTED	Impatiens capensis	S [<5%]	FACW
RASPBERRY, COMMON RED	Rubus idaeus	D [>50%]	FAC-
GOLDEN-ROD, WRINKLED	Solidago rugosa	A [26-50%]	FAC
FRAGRANT-GOLDEN-ROD, FLAT-TOP	Euthamia graminifolia	C [6-25%]	FAC
Shrub			
STAGHORN SUMAC	Rhus typhina	C [6-25%]	NI
WINTERBERRY, COMMON	Ilex verticillata	S [<5%]	FACW+
ELDER, AMERICAN	Sambucus canadensis	C [6-25%]	FACW-
WILLOW, BEBB	Salix bebbiana	S [<5%]	FACW
GRAPE, FOX	Vitis labrusca	C [6-25%]	FACU
Tree			
BIRCH, RIVER	Betula nigra	S [<5%]	FACW

Representative Hydrologic Characteristics

Hydrologic Conditions: Depth of Surfacewater: inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: >18 inches
Comments:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0-9	A	10YR 3 / 1	Very Fine Silt Loam	10	/	/	
9-18	B	2.5Y 6 / 4	Very Fine Silt Loam	40	/	/	



Town of Franklin

Wetland Replication Data Report



Site: 4 Franklin MA Norfolk County Investigation Date: 9/30/2002 10:00
 Investigators: Bob Hartzel, Jeff Rogers, Ingeborg Hegman Weather: Sunny

Location: 4-W Easting: 204,217.60 Northing: 865,543.04 NWIClass: Palustrine Forested Wetland

Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
 Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 625,626
 Comments: Abundance of winterberry, elderberry and spice bush; multiflora rose present; flag and plot visible from road

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
GRASS,CANADA MANNA	Glyceria canadensis	S [<5%]	OBL
SKUNK-CABBAGE	Symplocarpus foetidus	S [<5%]	OBL
TEARTHUMB,ARROW-LEAF	Polygonum sagittatum	D [>50%]	OBL
BURREED,AMERICAN	Sparganium americanum	S [<5%]	OBL
BOG MOSS	Aulacomnium palustre	S [<5%]	NI
WOOD-REEDGRASS,STOUT	Cinna arundinacea	S [<5%]	FACW+
WOOL-GRASS	Scirpus cyperinus	S [<5%]	FACW+
FERN,SENSITIVE	Onoclea sensibilis	C [6-25%]	FACW
TOUCH-ME-NOT,SPOTTED	Impatiens capensis	C [6-25%]	FACW
Sapling/Lianas			
BIRCH,RIVER	Betula nigra	C [6-25%]	FACW
MAPLE,RED	Acer rubrum	C [6-25%]	FAC
Shrub			
SUMAC,POISON	Toxicodendron vernix	S [<5%]	OBL
SPICEBUSH,NORTHERN	Lindera benzoin	S [<5%]	FACW-
ELDER,AMERICAN	Sambucus canadensis	S [<5%]	FACW-
WILLOW,BEBB	Salix bebbiana	S [<5%]	FACW
ROSE,MULTIFLORA	Rosa multiflora	S [<5%]	FACU
ARROW-WOOD	Viburnum dentatum	C [6-25%]	FAC
Tree			
BIRCH,RIVER	Betula nigra	A [26-50%]	FACW
ASH,WHITE	Fraxinus americana	C [6-25%]	FACU
MAPLE,RED	Acer rubrum	C [6-25%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Saturated Depth of Surfacewater: inches **Other Hydrologic Indicators present:**
 Depth to Groundwater: inches Depth to Saturation: 0 inches Butressed Trees
 Water Marks

Comments: Seasonally flooded

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
22-20	Oi1	10YR 2 / 1	Muck		/	/	
20-16	Oi2	10YR 5 / 2	Silt		/	/	
16-0	Oa	10YR 2 / 1	Very Fine Sand, Muck		/	/	
0+	C	GLE Y 1 6 / 10	Fine Sand		/	/	



Town of Franklin

Wetland Replication Data Report



Site: 5 Franklin MA Norfolk County Investigation Date: 9/30/2002 11:30
Investigators: Bob Hartzel, Jeff Rogers, Ingeborg Hegman Weather: Sunny

Location: 5-1 Easting: 206,663.14 Northing: 867,254.62 NWIClass: Palustrine Scrub-Shrub Wetland

Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 637,638
Comments: Logs dumped in replication area. Section filled for adjacent construction. Does not support vernal pool habitat/function.

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
TEARTHUMB,ARROW-LEAF	Polygonum sagittatum	S [<5%]	OBL
SEDGE,FRINGED	Carex crinita	A [26-50%]	OBL
SEDGE,SHALLOW	Carex lurida	C [6-25%]	OBL
SHIELD-FERN,CRESTED	Dryopteris cristata	S [<5%]	FACW+
WOOL-GRASS	Scirpus cyperinus	D [>50%]	FACW+
TOUCH-ME-NOT,SPOTTED	Impatiens capensis	C [6-25%]	FACW
STEEPLE-BUSH	Spiraea tomentosa	S [<5%]	FACW
BLACKBERRY,BRISTLY	Rubus hispidus	S [<5%]	FACW
GOLDEN-ROD,WRINKLED	Solidago rugosa	S [<5%]	FAC
Sapling/Lianas			
ELM,AMERICAN	Ulmus americana	S [<5%]	FACW-
MAPLE,RED	Acer rubrum	S [<5%]	FAC
Shrub			
ALDER,SPECKLED	Alnus rugosa	C [6-25%]	FACW+
BLUEBERRY,HIGHBUSH	Vaccinium corymbosum	A [26-50%]	FACW-
ELDER,AMERICAN	Sambucus canadensis	C [6-25%]	FACW-
PEPPER-BUSH,COAST	Clethra alnifolia	C [6-25%]	FAC+
Tree			
MAPLE,RED	Acer rubrum	S [<5%]	FAC

Representative Hydrologic Characteristics

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0-10	A	10YR 2 / 2	Fine Sandy Loam		/	/	
10-18	C	2.5YR 6 / 2	Fine Sand, Silt		/	/	



Town of Franklin

Wetland Replication Data Report



Site: 5 Franklin MA Norfolk County Investigation Date: 9/30/2002 11:30
Investigators: Bob Hartzel, Jeff Rogers, Ingeborg Hegman Weather: Sunny

Location: 5-W Easting: 206,650.49 Northing: 867,272.22 NWIClass: Palustrine Forested Wetland

Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes

Are Hydric Soils Present?: Yes Is this a Wetland?: Yes

Photos:

Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
BOG MOSS	Aulacomnium palustre	S [<5%]	NI
ASTER,CALICO	Aster lateriflorus	S [<5%]	FACW-
TOUCH-ME-NOT,SPOTTED	Impatiens capensis	S [<5%]	FACW
IVY,POISON	Toxicodendron radicans	C [6-25%]	FAC
ARROW-WOOD	Viburnum dentatum	C [6-25%]	FAC
Sapling/Lianas			
ASH,GREEN	Fraxinus pennsylvanica	S [<5%]	FACW
MAPLE,RED	Acer rubrum	S [<5%]	FAC
Shrub			
BLUEBERRY,HIGHBUSH	Vaccinium corymbosum	S [<5%]	FACW-
ASH,GREEN	Fraxinus pennsylvanica	S [<5%]	FACW
DOGWOOD,SILKY	Cornus amomum	S [<5%]	FACW
WITHE-ROD	Viburnum cassinoides	S [<5%]	FACW
ARROW-WOOD	Viburnum dentatum	C [6-25%]	FAC
Tree			
ELM,AMERICAN	Ulmus americana	C [6-25%]	FACW-
OAK,WHITE	Quercus alba	S [<5%]	FACU-
MAPLE,RED	Acer rubrum	C [6-25%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Int. Flooded Depth of Surfacewater: inches
Depth to Groundwater: inches Depth to Saturation: 16 inches

Other Hydrologic Indicators present:

Sediment Deposition
Buttressed Trees
Water-Stained Leaves
Surface Scouring
Water Marks
Drainage Patterns

Comments: Recent evidence of flooding

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
2-0	O	/	Peat		/	/	
0-7	A	10YR 2 / 1	Sandy Loam		/	/	
7-18	B	10YR 5 / 2	Sand, Silt	50	10YR 6 / 6	10YR 5 / 1	
18+	C	10YR 4 / 1	Silt, Gravel		/	/	



Town of Franklin

Wetland Replication Data Report



Site: 6 Franklin
Investigators: Bob Hartzel, Jeff Rogers

MA Norfolk County

Investigation Date: 10/2/2002 10:30
Weather: Sunny

Location: 6-1 Easting: 210,915.17 Northing: 871,804.04 NWIClass: Palustrine Emergent Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?:
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos:
Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
MEADOW-SWEET,NARROW-LEAF	Spiraea alba	C [6-25%]	FACW+
BLACKBERRY,BRISTLY	Rubus hispidus	S [<5%]	FACW
SEDGE,POINTED BROOM	Carex scoparia	C [6-25%]	FACW
PINE,EASTERN WHITE	Pinus strobus	S [<5%]	FACU
GOLDEN-ROD,CANADA	Solidago canadensis	A [26-50%]	FACU
IVY,POISON	Toxicodendron radicans	C [6-25%]	FAC
FRAGRANT-GOLDEN-ROD,FLAT-TOP	Euthamia graminifolia	C [6-25%]	FAC
GOLDEN-ROD,WRINKLED	Solidago rugosa	C [6-25%]	FAC
Sapling/Lianas			
ELM,AMERICAN	Ulmus americana	C [6-25%]	FACW-
ASPEN,QUAKING	Populus tremula	S [<5%]	FACU
MAPLE,RED	Acer rubrum	S [<5%]	FAC
Shrub			
DOGWOOD,RED-OSIER	Cornus stolonifera	A [26-50%]	FACW+

Representative Hydrologic Characteristics

Hydrologic Conditions: Depth of Surfacewater: inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: >20 inches
Comments:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0-6	A	10YR 3 / 2	Fine Sandy Loam		/	/	
6-20	B	2.5Y 5 / 6	Very Fine Sand, Silt		/	/	
20+	C	2.5Y 6 / 6	Fine Sand	40	/	/	



Town of Franklin

Wetland Replication Data Report



Site: 6 Franklin
Investigators: Bob Hartzel, Jeff Rogers

MA Norfolk County

Investigation Date: 10/2/2002 10:30
Weather: Sunny

Location: 6-W Easting: 210,927.48 Northing: 871,797.32 NWIClass: Palustrine Forested Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos:
Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
FERN, SENSITIVE	Onoclea sensibilis	C [6-25%]	FACW
BLACKBERRY, BRISTLY	Rubus hispidus	S [<5%]	FACW
PINE, EASTERN WHITE	Pinus strobus	S [<5%]	FACU
SERVICE-BERRY, OBLONG-LEAF	Amelanchier canadensis	C [6-25%]	FAC
IVY, POISON	Toxicodendron radicans	S [<5%]	FAC
MAPLE, RED	Acer rubrum	S [<5%]	FAC
	Solidago sp.	S [<5%]	
Sapling/Lianas			
ELM, AMERICAN	Ulmus americana	S [<5%]	FACW-
CHERRY, BLACK	Prunus serotina	S [<5%]	FACU
MAPLE, RED	Acer rubrum	S [<5%]	FAC
Shrub			
ARROW-WOOD, NORTHERN	Viburnum recognitum	S [<5%]	FACW-
PINE, EASTERN WHITE	Pinus strobus	S [<5%]	FACU
SERVICE-BERRY, OBLONG-LEAF	Amelanchier canadensis	C [6-25%]	FAC
Tree			
ELM, AMERICAN	Ulmus americana	S [<5%]	FACW-
MAPLE, RED	Acer rubrum	D [>50%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Seasonally Flooded Depth of Surfacewater: inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: >20 inches Buttressed Trees
Comments: Seasonally inundated/saturated

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0.5-0	O	/	Mucky Peat		/	/	
0-6	A	10YR 3 / 2	Fine Sandy Loam		/	/	
6-20	B	2.5Y 5 / 6	Very Fine Sand, Silt	15	/	/	
20+	C	2.5Y 6 / 6	Fine Sand	40	/	/	



Town of Franklin

Wetland Replication Data Report



Site: 7 Franklin
Investigators: Bob Hartzel, Sara Konrad

MA Norfolk County

Investigation Date: 9/26/2002 14:12
Weather: Overcast

Location: 7-1 Easting: 208,013.92 Northing: 871,428.43 NWIClass: Palustrine Emergent Wetland

Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes

Are Hydric Soils Present?: Yes Is this a Wetland?: Yes

Photos:

Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
CATTAIL,NARROW-LEAF	Typha angustifolia	S [<5%]	OBL
TEARTHUMB,ARROW-LEAF	Polygonum sagittatum	C [6-25%]	OBL
CATTAIL,BROAD-LEAF	Typha latifolia	S [<5%]	OBL
SEDGE,SHALLOW	Carex lurida	S [<5%]	OBL
GRASS,CANADA MANNA	Glyceria canadensis	S [<5%]	OBL
FERN,ROYAL	Osmunda regalis	C [6-25%]	OBL
ASTER,SWAMP	Aster puniceus	S [<5%]	OBL
SEDGE,UPTIGHT	Carex stricta	C [6-25%]	OBL
BEAKRUSH,BROWINISH	Rhynchospora capitellata	S [<5%]	OBL
LOOSESTRIFE,PURPLE	Lythrum salicaria	A [26-50%]	FACW+
RUSH,SOFT	Juncus effusus	C [6-25%]	FACW+
FERN,CINNAMON	Osmunda cinnamomea	S [<5%]	FACW
JOE-PYE-WEED,HOLLOW	Eupatoriadelphus fistulosus	S [<5%]	FACW
TOUCH-ME-NOT,SPOTTED	Impatiens capensis	C [6-25%]	FACW
GOLDEN-ROD,GIANT	Solidago gigantea	S [<5%]	FACW
REED,COMMON	Phragmites australis	C [6-25%]	FACW
CREEPER,VIRGINIA	Parthenocissus quinquefolia	C [6-25%]	FACU
	Solidago sp.	C [6-25%]	
Sapling/Lianas			
ALDER,SPECKLED	Alnus rugosa	C [6-25%]	FACW+
ELM,AMERICAN	Ulmus americana	S [<5%]	FACW-
PINE,EASTERN WHITE	Pinus strobus	S [<5%]	FACU
ASPEN,QUAKING	Populus tremula	S [<5%]	FACU
MAPLE,RED	Acer rubrum	S [<5%]	FAC
COTTON-WOOD,EASTERN	Populus deltoides	S [<5%]	FAC
Shrub			
ROSE,SWAMP	Rosa palustris	S [<5%]	OBL
WINTERBERRY,COMMON	Ilex verticillata	S [<5%]	FACW+
ARROW-WOOD,NORTHERN	Viburnum recognitum	C [6-25%]	FACW-
ROSE,MULTIFLORA	Rosa multiflora	S [<5%]	FACU
IVY,POISON	Toxicodendron radicans	S [<5%]	FAC
Tree			
MAPLE,RED	Acer rubrum	C [6-25%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Seasonally Flooded

Depth of Surfacewater: inches

Other Hydrologic Indicators present:

Depth to Groundwater: inches

Depth to Saturation: >24 inches

Comments:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
1-0	O	/	Muck		/	/	
0-7	A1	10YR 2 / 1	Very Fine Sandy Loam, Muck	10	/	/	
7-14	A2	10YR 2 / 1	Fine Sandy Loam, Muck		/	/	
14-24	A3	10YR 2 / 2	Very Fine Sandy Loam		/	/	pockets of A2 mixed in A3



Town of Franklin

Wetland Replication Data Report



Site: 7 Franklin
Investigators: Bob Hartzel, Sara Konrad

MA Norfolk County

Investigation Date: 9/26/2002 14:12
Weather: Overcast

Location: 7-W Easting: 208,011.75 Northing: 871,437.20 NWIClass: Palustrine Forested Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 653,654
Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
SKUNK-CABBAGE	Symplocarpus foetidus	C [6-25%]	OBL
BOG MOSS	Aulacomnium palustre	S [<5%]	NI
LOOSESTRIFE, PURPLE	Lythrum salicaria	C [6-25%]	FACW+
FERN, SENSITIVE	Onoclea sensibilis	C [6-25%]	FACW
REED, COMMON	Phragmites australis	C [6-25%]	FACW
NIGHTSHADE, CLIMBING	Solanum dulcamara	S [<5%]	FAC-
Sapling/Lianas			
ALDER, SPECKLED	Alnus rugosa	C [6-25%]	FACW+
Shrub			
ROSE, SWAMP	Rosa palustris	S [<5%]	OBL
BLUEBERRY, HIGHBUSH	Vaccinium corymbosum	C [6-25%]	FACW-
ARROW-WOOD, NORTHERN	Viburnum recognitum	C [6-25%]	FACW-
TOUCH-ME-NOT, SPOTTED	Impatiens capensis	C [6-25%]	FACW
ROSE, MULTIFLORA	Rosa multiflora	S [<5%]	FACU
WITCH-HAZEL, AMERICAN	Hamamelis virginiana	S [<5%]	FAC-
Tree			
MAPLE, RED	Acer rubrum	C [6-25%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Seasonally Flooded Depth of Surfacewater: inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: >20 inches
Comments:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0-20	A	10YR 2 / 1	Fine Sandy Loam, Muck		/	/	
20-21	B	10YR 5 / 2	Very Fine Sand		/	/	



Town of Franklin

Wetland Replication Data Report



Site: 8 Franklin MA Norfolk County Investigation Date: 9/30/2002 14:00
Investigators: Bob Hartzel, Jeff Rogers, Ingeborg Hegman Weather: Sunny

Location: 8-1 Easting: 204,856.94 Northing: 875,362.32 NWIClass: Palustrine Scrub-Shrub Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: No
Are Hydric Soils Present?: No Is this a Wetland?: No Photos: 661,662
Comments: Deer droppings

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
CAREX SP.	Carex sp.	C [6-25%]	NI
BLUEBERRY,HIGHBUSH	Vaccinium corymbosum	C [6-25%]	FACW-
BLACKBERRY,BRISTLY	Rubus hispidus	S [<5%]	FACW
FERN,CINNAMON	Osmunda cinnamomea	A [26-50%]	FACW
PINE,EASTERN WHITE	Pinus strobus	S [<5%]	FACU
SARSAPARILLA,WILD	Aralia nudicaulis	C [6-25%]	FACU
TEABERRY	Gaultheria procumbens	S [<5%]	FACU
MAPLE,RED	Acer rubrum	S [<5%]	FAC
	Solidago sp.	S [<5%]	
Sapling/Lianas			
OAK,NORTHERN RED	Quercus rubra	S [<5%]	FACU-
ASPEN,QUAKING	Populus tremula	S [<5%]	FACU
BIRCH,GRAY	Betula populifolia	C [6-25%]	FAC
MAPLE,RED	Acer rubrum	C [6-25%]	FAC
COTTON-WOOD,EASTERN	Populus deltoides	D [>50%]	FAC
Shrub			
AZALEA,SWAMP	Rhododendron viscosum	S [<5%]	OBL
BLUEBERRY,HIGHBUSH	Vaccinium corymbosum	C [6-25%]	FACW-
WITHE-ROD	Viburnum cassinoides	S [<5%]	FACW
CHERRY,BLACK	Prunus serotina	S [<5%]	FACU
PINE,EASTERN WHITE	Pinus strobus	C [6-25%]	FACU
WITCH-HAZEL,AMERICAN	Hamamelis virginiana	C [6-25%]	FAC-
MAPLE,RED	Acer rubrum	S [<5%]	FAC
Tree			
COTTON-WOOD,EASTERN	Populus deltoides	C [6-25%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Depth of Surfacewater: inches Other Hydrologic Indicators present:
Depth to Groundwater: inches Depth to Saturation: >18 inches
Comments:

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
2-0	O	/	Muck		/	/	
0-3	A1	10YR 2 / 1	Fine Sandy Loam		/	/	
3-6	A2	10YR 2 / 2	Fine Sandy Loam		/	/	
6-12	B1	10YR 3 / 3	Fine Sandy Loam, Gravel		/	/	
12-15	B2	10YR 4 / 2	Sand, Gravel		/	/	
15-18+	C	10YR 5 / 2			/	/	



Town of Franklin

Wetland Replication Data Report



Site: 8 Franklin MA Norfolk County Investigation Date: 9/30/2002 14:00
Investigators: Bob Hartzel, Jeff Rogers, Ingeborg Hegman Weather: Sunny

Location: 8-W Easting: 204,868.14 Northing: 875,358.78 NWIClass: Palustrine Forested Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 659,650
Comments:

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
CAREX SP.	Carex sp.	S [<5%]	NI
WINTERBERRY, COMMON	Ilex verticillata	S [<5%]	FACW+
FERN, CINNAMON	Osmunda cinnamomea	S [<5%]	FACW
PARTRIDGE-BERRY	Mitchella repens	C [6-25%]	FACU
SARSAPARILLA, WILD	Aralia nudicaulis	S [<5%]	FACU
WITCHGRASS, DEER-TONGUE	Dichanthelium clandestinum	S [<5%]	FAC+
Sapling/Lianas			
PINE, EASTERN WHITE	Pinus strobus	S [<5%]	FACU
MAPLE, RED	Acer rubrum	C [6-25%]	FAC
Shrub			
AZALEA, SWAMP	Rhododendron viscosum	C [6-25%]	OBL
BLUEBERRY, Highbush	Vaccinium corymbosum	C [6-25%]	FACW-
WITHE-ROD	Viburnum cassinoides	C [6-25%]	FACW
PEPPER-BUSH, COAST	Clethra alnifolia	C [6-25%]	FAC+
MAPLE, RED	Acer rubrum	S [<5%]	FAC
Tree			
OAK, WHITE	Quercus alba	C [6-25%]	FACU-
MAPLE, RED	Acer rubrum	A [26-50%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Depth of Surfacewater: inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: >18 inches
Buttressed Trees
Water-Stained Leaves
Water Marks
Drainage Patterns

Comments: Hummocky, 6" deep root system indicating fluctuating water levels

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
2-0	O	/	Peat		/	/	
0-10	A	10YR 2 / 1	Loam		/	/	
10-16	B	10YR 2 / 2	Sandy Loam		/	/	
16-18+	C	10YR 4 / 2	Fine Sand	20	/	/	



Town of Franklin

Wetland Replication Data Report



Site: 9 Franklin
Investigators: Bob Hartzel, Sara Konrad

MA Norfolk County

Investigation Date: 9/26/2002 13:00
Weather: Overcast

Location: 9-1 Easting: 206,451.76 Northing: 874,337.07 NWIClass: Palustrine Emergent Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 673
Comments: Red maples border wetland

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
MONKEY-FLOWER, ALLEGHANY	Mimulus ringens	S [<5%]	OBL
CATTAIL, NARROW-LEAF	Typha angustifolia	S [<5%]	OBL
VERVAIN, BLUE	Verbena hastata	C [6-25%]	FACW+
RUSH, SOFT	Juncus effusus	D [>50%]	FACW+
WOOL-GRASS	Scirpus cyperinus	C [6-25%]	FACW+
LOOSESTRIFE, PURPLE	Lythrum salicaria	S [<5%]	FACW+
ARROW-WOOD, NORTHERN	Viburnum recognitum	S [<5%]	FACW-
WITCHGRASS, DEER-TONGUE	Dichanthelium clandestinum	S [<5%]	FAC+
Tree			
BIRCH, RIVER	Betula nigra	S [<5%]	FACW

Representative Hydrologic Characteristics

Hydrologic Conditions: Saturated Depth of Surfacewater: inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: 0 inches
Comments: Saturated to surface

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0.5-0	Oe	/	Peaty Muck		/	/	
0-6	A1	10YR 3 / 2	Fine Sandy Loam	20	5YR 4 / 6	/	
6-12	B1	2.5Y 4 / 2	Silt Loam, Sand	40	/	/	
12-15	B2	2.5Y 3 / 1		40	/	/	refusal at 15"



Town of Franklin

Wetland Replication Data Report



Site: 9 Franklin
Investigators: Bob Hartzel, Sara Konrad

MA Norfolk County

Investigation Date: 9/26/2002 13:00
Weather: Overcast

Location: 9-W Easting: 206,472.64 Northing: 874,313.99 NWIClass: Palustrine Emergent Wetland
Are Hydrophytic Plants Dominant? Yes Is Wetland Hydrology Present?: Yes
Are Hydric Soils Present?: Yes Is this a Wetland?: Yes Photos: 674
Comments: Near edge of replication, boundary uncertain

Vegetation

Common Name	Scientific Name	Dominance	Indicator Status
Herbs			
BUGLEWEED,VIRGINIA	Lycopus virginicus	S [<5%]	OBL
MONKEY-FLOWER,ALLEGHANY	Mimulus ringens	C [6-25%]	OBL
CATTAIL,BROAD-LEAF	Typha latifolia	C [6-25%]	OBL
IRONWEED,NEW YORK	Vernonia noveboracensis	S [<5%]	FACW+
ASTER,NEW YORK	Aster novi-belgii	C [6-25%]	FACW+
RUSH,SOFT	Juncus effusus	D [>50%]	FACW+
BLACKBERRY,BRISTLY	Rubus hispidus	S [<5%]	FACW
MINT,FIELD	Mentha arvensis	S [<5%]	FACW
TOUCH-ME-NOT,SPOTTED	Impatiens capensis	S [<5%]	FACW
STRAWBERRY,VIRGINIA	Fragaria virginiana	S [<5%]	FACU
GRAPE,FOX	Vitis labrusca	S [<5%]	FACU
FRAGRANT-GOLDEN-ROD,FLAT-TOP	Euthamia graminifolia	C [6-25%]	FAC

Representative Hydrologic Characteristics

Hydrologic Conditions: Depth of Surfacewater: inches **Other Hydrologic Indicators present:**
Depth to Groundwater: inches Depth to Saturation: 6 inches
Comments: Perched wetland

Representative Soil Characteristics

Depth (in)	Horizon	Matrix Color	Coarseness	Redox Percentage	Concentration Color	Reduction Color	Comments
0.5-0	O	/			/	/	
0-6	A	10YR 3 / 2	Fine Sandy Loam, Gravel		/	/	
6-18	B	10YR 4 / 2	Very Fine Sandy Loam	50	10YR 4 / 6	10YR 6 / 3	

APPENDIX 2:

Wetland Functions and Values Assessment Sheets

Wetland Function-Value Evaluation Form

Total area of wetland 2015 sf* Human made? yes Is wetland part of a wildlife corridor? _____ or a "habitat island"? X

Adjacent land use residential Distance to nearest roadway or other development 20 feet

Dominant wetland systems present _____ Not a wetland _____ Contiguous undeveloped buffer zone present NA

Is the wetland a separate hydraulic system? NA If not, where does the wetland lie in the drainage basin? NA

How many tributaries contribute to the wetland? NA Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. Replication #1













Latitude _____ Longitude _____

Prepared by: RH Date 2/18/03

Wetland Impact:
Type _____ Area _____

Evaluation based on:
Office ✓ Field ✓

Corps manual wetland delineation completed? Y _____ N _____

Function/Value	Suitability Y N		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7		In spite of non-wetland status, these functions are somewhat present.
 Floodflow Alteration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9, 13		In spite of non-wetland status, these functions are somewhat present.
 Fish and Shellfish Habitat	<input type="checkbox"/>	<input type="checkbox"/>			
 Sediment/Toxicant Retention	<input type="checkbox"/>	<input type="checkbox"/>			
 Nutrient Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3,4,8		In spite of non-wetland status, these functions are somewhat present.
 Production Export	<input type="checkbox"/>	<input type="checkbox"/>			
 Sediment/Shoreline Stabilization	<input type="checkbox"/>	<input type="checkbox"/>			
 Wildlife Habitat	<input type="checkbox"/>	<input type="checkbox"/>			
 Recreation	<input type="checkbox"/>	<input type="checkbox"/>			
 Educational/Scientific Value	<input type="checkbox"/>	<input type="checkbox"/>			
 Uniqueness/Heritage	<input type="checkbox"/>	<input type="checkbox"/>			
 Visual Quality/Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>			
ES Endangered Species Habitat	<input type="checkbox"/>	<input type="checkbox"/>			
Other	<input type="checkbox"/>	<input type="checkbox"/>			

Notes:

* Refer to backup list of numbered considerations.

* This replication area does not meet the regulatory definition of a wetland (lacks dominant wetland vegetation and hydric soils). However, its position adjacent to a stream and downgradient to adjacent uplands allows for the functions and values listed above to be somewhat relevant.

Wetland Function-Value Evaluation Form

Total area of wetland Not built Human made? NA Is wetland part of a wildlife corridor? NA or a "habitat island"? NA

Adjacent land use apartment building Distance to nearest roadway or other development NA

Dominant wetland systems present Not a wetland Contiguous undeveloped buffer zone present NA

Is the wetland a separate hydraulic system? NA If not, where does the wetland lie in the drainage basin? NA

How many tributaries contribute to the wetland? NA Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. Replication #2













Latitude _____ Longitude _____

Prepared by: RH Date 2/18/03

Wetland Impact:
Type _____ Area _____

Evaluation based on:
Office ☒ Field ☒

Corps manual wetland delineation completed? Y _____ N _____

Function/Value	Suitability Y N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge				In spite of non-wetland status, these functions are somewhat present.
 Floodflow Alteration				In spite of non-wetland status, these functions are somewhat present.
 Fish and Shellfish Habitat				
 Sediment/Toxicant Retention				
 Nutrient Removal				In spite of non-wetland status, these functions are somewhat present.
 Production Export				
 Sediment/Shoreline Stabilization				
 Wildlife Habitat				
 Recreation				
 Educational/Scientific Value				
 Uniqueness/Heritage				
 Visual Quality/Aesthetics				
ES Endangered Species Habitat				
Other				

Notes:

* Refer to backup list of numbered considerations.

* This replication area was apparently never constructed.

Wetland Function-Value Evaluation Form

Total area of wetland 5826 sf Human made? yes Is wetland part of a wildlife corridor? yes or a "habitat island"? _____

Adjacent land use forested open space Distance to nearest roadway or other development 220 feet

Dominant wetland systems present Palustrine Emergent Contiguous undeveloped buffer zone present approx. 200 feet

Is the wetland a separate hydraulic system? no If not, where does the wetland lie in the drainage basin? adjacent to stream

How many tributaries contribute to the wetland? NA Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. Replication #3

Latitude _____ Longitude _____













Prepared by: RH Date 2/18/03

Wetland Impact:
Type _____ Area _____

Evaluation based on:

Office ☒ Field ☒

Corps manual wetland delineation
completed? Y _____ N _____

Function/Value	Suitability Y N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	<input checked="" type="checkbox"/>	7,9,15		In spite of non-wetland status, these functions are somewhat present.
 Floodflow Alteration	<input checked="" type="checkbox"/>	5,6,7,8,9,10,13		In spite of non-wetland status, these functions are somewhat present.
 Fish and Shellfish Habitat				
 Sediment/Toxicant Retention		3,4,10,12		
 Nutrient Removal	<input checked="" type="checkbox"/>	3,5,9,10,11,		In spite of non-wetland status, these functions are somewhat present.
 Production Export	<input checked="" type="checkbox"/>	1,4		
 Sediment/Shoreline Stabilization				
 Wildlife Habitat	<input checked="" type="checkbox"/>	4, 6,7,8,11,14,17,19, 20	X	Abundant signs of wildlife use: beaver chewings, mammal paths, birds, etc.
 Recreation				
 Educational/Scientific Value				
 Uniqueness/Heritage				
 Visual Quality/Aesthetics	<input checked="" type="checkbox"/>	2,5,6,9,10,11		Easy access and viewing from cart path south of Bridle Path Road
ES Endangered Species Habitat				
Other				

Notes:

* Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 11,416 sf Human made? yes Is wetland part of a wildlife corridor? _____ or a "habitat island"? X

Adjacent land use roads, forest, residential Distance to nearest roadway or other development 40 feet

Dominant wetland systems present Palustrine Scrub-Shrub Contiguous undeveloped buffer zone present no

Is the wetland a separate hydraulic system? no If not, where does the wetland lie in the drainage basin? adjacent to forested wetland

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. Replication #4













Latitude _____ Longitude _____

Prepared by: RH Date 2/18/03

Wetland Impact:
Type _____ Area _____

Evaluation based on:
Office ✓ Field ✓

Corps manual wetland delineation completed? Y _____ N _____

Function/Value	Suitability Y N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge		7		In spite of non-wetland status, these functions are somewhat present.
 Floodflow Alteration	✓	3,5,6,9,13,18		In spite of non-wetland status, these functions are somewhat present.
 Fish and Shellfish Habitat				
 Sediment/Toxicant Retention	✓	1,2,4,9, 10	X	
 Nutrient Removal	✓	3,4,7,8,9,10,11	X	In spite of non-wetland status, these functions are somewhat present.
 Production Export				
 Sediment/Shoreline Stabilization				
 Wildlife Habitat	✓	6,8,13		
 Recreation				
 Educational/Scientific Value				
 Uniqueness/Heritage				
 Visual Quality/Aesthetics				
ES Endangered Species Habitat				
Other				

Notes:

* Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 391 sf* Human made? yes Is wetland part of a wildlife corridor? _____ or a "habitat island"? X

Adjacent land use roads, forest, residential Distance to nearest roadway or other development 8 feet

Dominant wetland systems present Palustrine Scrub-Shrub Contiguous undeveloped buffer zone present no

Is the wetland a separate hydraulic system? no If not, where does the wetland lie in the drainage basin? adjacent to int. stream

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. Replication #5













Latitude _____ Longitude _____

Prepared by: RH Date 2/18/03

Wetland Impact:
Type _____ Area _____

Evaluation based on:
Office ✓ Field ✓

Corps manual wetland delineation completed? Y _____ N _____

Function/Value	Suitability Y N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge		7		In spite of non-wetland status, these functions are somewhat present.
 Floodflow Alteration				In spite of non-wetland status, these functions are somewhat present.
 Fish and Shellfish Habitat				
 Sediment/Toxicant Retention	✓	1,2,4		Limited function due to very small size.
 Nutrient Removal	✓	3,4,7,8,9,10,11	X	In spite of non-wetland status, these functions are somewhat present.
 Production Export				
 Sediment/Shoreline Stabilization				
 Wildlife Habitat	✓	8,13		Limited function due to very small size.
 Recreation				
 Educational/Scientific Value				
 Uniqueness/Heritage				
 Visual Quality/Aesthetics				
ES Endangered Species Habitat				
Other				

Notes:

* Refer to backup list of numbered considerations.

* Current replication area size (391 s.f.) is less than estimated constructed size (1,170 s.f.), due to recent filling of the center section as part of development on adjacent parcel. The replication does not meet its intended function as a vernal pool due to insufficient size and water holding capacity. Although shrub and herbaceous species provide wildlife food sources, area is too small to provide significant habitat values.

Wetland Function-Value Evaluation Form

Total area of wetland 3,916 sf Human made? yes Is wetland part of a wildlife corridor? _____ or a "habitat island"? X

Adjacent land use residential Distance to nearest roadway or other development 200 feet

Dominant wetland systems present Palustrine Scrub-Shrub Contiguous undeveloped buffer zone present no

Is the wetland a separate hydraulic system? no If not, where does the wetland lie in the drainage basin? adj. to forested wetland

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. Replication #6













Latitude _____ Longitude _____

Prepared by: RH Date 2/18/03

Wetland Impact:
Type _____ Area _____

Evaluation based on:
Office ☒ Field ☒

Corps manual wetland delineation completed? Y _____ N _____

Function/Value	Suitability Y N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge				In spite of non-wetland status, these functions are somewhat present.
 Floodflow Alteration	<input checked="" type="checkbox"/>	3,9,13,18		In spite of non-wetland status, these functions are somewhat present.
 Fish and Shellfish Habitat				
 Sediment/Toxicant Retention	<input checked="" type="checkbox"/>	2,4,9		potential attenuation of pesticides from adjacent lawns, etc.
 Nutrient Removal	<input checked="" type="checkbox"/>	4,8,9,10,11		In spite of non-wetland status, these functions are somewhat present.
 Production Export				
 Sediment/Shoreline Stabilization				
 Wildlife Habitat	<input checked="" type="checkbox"/>	6,7,8,13		
 Recreation				
 Educational/Scientific Value				
 Uniqueness/Heritage				
 Visual Quality/Aesthetics				
ES Endangered Species Habitat				
Other				

Notes:

* Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 2993 sf Human made? yes Is wetland part of a wildlife corridor? _____ or a "habitat island"? X

Adjacent land use road, forest, residential Distance to nearest roadway or other development 15 feet

Dominant wetland systems present Palustrine Emergent Contiguous undeveloped buffer zone present no

Is the wetland a separate hydraulic system? no If not, where does the wetland lie in the drainage basin? adj. to forested wetland

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. _____ Replication # 7













Latitude _____ Longitude _____

Prepared by: RH Date 2/18/03

Wetland Impact:
Type _____ Area _____

Evaluation based on:
Office ☒ Field ☒

Corps manual wetland delineation completed? Y _____ N _____

Function/Value	Suitability Y N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	<input type="checkbox"/>	<input type="checkbox"/>	7	In spite of non-wetland status, these functions are somewhat present.
 Floodflow Alteration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3,5,6,8,9,18	In spite of non-wetland status, these functions are somewhat present.
 Fish and Shellfish Habitat	<input type="checkbox"/>	<input type="checkbox"/>		
 Sediment/Toxicant Retention	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,4, 10, 15, 16	runoff from adjacent road
 Nutrient Removal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3,4,7,8,9,10,11	In spite of non-wetland status, these functions are somewhat present.
 Production Export	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,7,9,12,	
 Sediment/Shoreline Stabilization	<input type="checkbox"/>	<input type="checkbox"/>		
 Wildlife Habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7,8,13,14	good species diversity for a relatively small replication area
 Recreation	<input type="checkbox"/>	<input type="checkbox"/>		
 Educational/Scientific Value	<input type="checkbox"/>	<input type="checkbox"/>		
 Uniqueness/Heritage	<input type="checkbox"/>	<input type="checkbox"/>		
 Visual Quality/Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>		
ES Endangered Species Habitat	<input type="checkbox"/>	<input type="checkbox"/>		
Other	<input type="checkbox"/>	<input type="checkbox"/>		













Notes:

* Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 4560 sf Human made? yes Is wetland part of a wildlife corridor? yes or a "habitat island"? _____
 Adjacent land use road, forest, residential Distance to nearest roadway or other development 15 feet
 Dominant wetland systems present Palustrine Scrub-Shrub Contiguous undeveloped buffer zone present no
 Is the wetland a separate hydraulic system? no If not, where does the wetland lie in the drainage basin? adj. to forested wetland
 How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. Replication #8
 Latitude _____ Longitude _____
 Prepared by: RH Date 2/18/03
 Wetland Impact:
 Type _____ Area _____
 Evaluation based on:
 Office ☒ Field ☒
 Corps manual wetland delineation
 completed? Y _____ N _____

Function/Value	Suitability Y N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge		7,9		In spite of non-wetland status, these functions are somewhat present.
 Floodflow Alteration				In spite of non-wetland status, these functions are somewhat present.
 Fish and Shellfish Habitat				
 Sediment/Toxicant Retention	<input checked="" type="checkbox"/>	2,4,10		marginal wetland function due to inadequate grading
 Nutrient Removal	<input checked="" type="checkbox"/>	3,4,7,10,11		In spite of non-wetland status, these functions are somewhat present.
 Production Export				
 Sediment/Shoreline Stabilization				
 Wildlife Habitat	<input checked="" type="checkbox"/>	6,7	X	
 Recreation				
 Educational/Scientific Value				
 Uniqueness/Heritage				
 Visual Quality/Aesthetics				
ES Endangered Species Habitat				
Other				

Notes:

* Refer to backup list of numbered considerations.

Wetland replication provides only marginal wetland functions and values due to inadequate grading and limited hydrology.

Wetland Function-Value Evaluation Form

Total area of wetland 10,437 sf Human made? yes Is wetland part of a wildlife corridor? _____ or a "habitat island"? X

Adjacent land use residential Distance to nearest roadway or other development 40 feet

Dominant wetland systems present Palustrine Emergent Contiguous undeveloped buffer zone present no

Is the wetland a separate hydraulic system? yes If not, where does the wetland lie in the drainage basin? _____

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. Replication #9













Latitude _____ Longitude _____

Prepared by: RH Date 2/18/03

Wetland Impact:
Type _____ Area _____

Evaluation based on:
Office ✓ Field ✓

Corps manual wetland delineation completed? Y _____ N _____

Function/Value	Suitability Y N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge				In spite of non-wetland status, these functions are somewhat present. <input checked="" type="checkbox"/>
 Floodflow Alteration	<input checked="" type="checkbox"/>	3,5,6,7,8,9,18		In spite of non-wetland status, these functions are somewhat present. <input checked="" type="checkbox"/>
 Fish and Shellfish Habitat				
 Sediment/Toxicant Retention		4		
 Nutrient Removal		3,4,8,9,10,11		In spite of non-wetland status, these functions are somewhat present. <input checked="" type="checkbox"/>
 Production Export				
 Sediment/Shoreline Stabilization				
 Wildlife Habitat	<input checked="" type="checkbox"/>	6,7,8,13	X	
 Recreation				
 Educational/Scientific Value				
 Uniqueness/Heritage				
 Visual Quality/Aesthetics	<input checked="" type="checkbox"/>	9,11,12		
ES Endangered Species Habitat				
Other				

Notes:

* Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland Not built Human made? _____ Is wetland part of a wildlife corridor? NA or a "habitat island"? _____

Adjacent land use _____ residential _____ Distance to nearest roadway or other development 45 feet

Dominant wetland systems present _____ NA Contiguous undeveloped buffer zone present _____ no

Is the wetland a separate hydraulic system? NA If not, where does the wetland lie in the drainage basin? _____

How many tributaries contribute to the wetland? NA Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. Replication #10













Latitude _____ Longitude _____

Prepared by: RH Date 2/18/03

Wetland Impact:
Type _____ Area _____

Evaluation based on:
Office ☒ Field ☒

Corps manual wetland delineation completed? Y _____ N _____

Function/Value	Suitability Y N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge				In spite of non-wetland status, these functions are somewhat present.
 Floodflow Alteration				In spite of non-wetland status, these functions are somewhat present.
 Fish and Shellfish Habitat				
 Sediment/Toxicant Retention				
 Nutrient Removal				In spite of non-wetland status, these functions are somewhat present.
 Production Export				
 Sediment/Shoreline Stabilization				
 Wildlife Habitat				
 Recreation				
 Educational/Scientific Value				
 Uniqueness/Heritage				
 Visual Quality/Aesthetics				
ES Endangered Species Habitat				
Other				

Notes:

* Refer to backup list of numbered considerations.

It appears that this replication area was never constructed.

Wetland Function-Value Evaluation Form

Total area of wetland 1,600 sf Human made? yes Is wetland part of a wildlife corridor? yes or a "habitat island"? _____

Adjacent land use open space, commercial Distance to nearest roadway or other development 35 feet

Dominant wetland systems present Palustrine Emergent Contiguous undeveloped buffer zone present no

Is the wetland a separate hydraulic system? no If not, where does the wetland lie in the drainage basin? adj. to Mine Brook BVW

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. Replication #11-A

Latitude _____ Longitude _____













Prepared by: RH Date 2/18/03

Wetland Impact:
Type _____ Area _____

Evaluation based on:

Office ☒ Field ☒

Corps manual wetland delineation
completed? Y _____ N _____

Function/Value	Suitability Y N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge		7,10		In spite of non-wetland status, these functions are somewhat present.
 Floodflow Alteration	<input checked="" type="checkbox"/>	5,6,7,8,13,18	X	In spite of non-wetland status, these functions are somewhat present.
 Fish and Shellfish Habitat				
 Sediment/Toxicant Retention				
 Nutrient Removal	<input checked="" type="checkbox"/>	3,5,7,8,9,10,11		In spite of non-wetland status, these functions are somewhat present.
 Production Export		1,7,9		
 Sediment/Shoreline Stabilization				
 Wildlife Habitat	<input checked="" type="checkbox"/>	7,8,11,13,14,19,20	X	
 Recreation				
 Educational/Scientific Value				
 Uniqueness/Heritage				
 Visual Quality/Aesthetics				
ES Endangered Species Habitat				
Other				

Notes:

* Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 1000 sf Human made? yes Is wetland part of a wildlife corridor? yes or a "habitat island"? _____

Adjacent land use open space, commercial Distance to nearest roadway or other development 70 feet

Dominant wetland systems present Palustrine Emergent Contiguous undeveloped buffer zone present no

Is the wetland a separate hydraulic system? no If not, where does the wetland lie in the drainage basin? adj. to Mine Brook BVW

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. Replication #11-B

Latitude _____ Longitude _____













Prepared by: RH Date 2/18/03

Wetland Impact:
Type _____ Area _____

Evaluation based on:

Office ☒ Field ☒

Corps manual wetland delineation
completed? Y _____ N _____

Function/Value	Suitability Y N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge		7,10		In spite of non-wetland status, these functions are somewhat present.
 Floodflow Alteration	<input checked="" type="checkbox"/>	5,6,9,13,18		In spite of non-wetland status, these functions are somewhat present.
 Fish and Shellfish Habitat				
 Sediment/Toxicant Retention				
 Nutrient Removal	<input checked="" type="checkbox"/>	3,7,8,9,10,11		In spite of non-wetland status, these functions are somewhat present.
 Production Export		7		
 Sediment/Shoreline Stabilization				
 Wildlife Habitat	<input checked="" type="checkbox"/>	7,13	X	
 Recreation				
 Educational/Scientific Value				
 Uniqueness/Heritage				
 Visual Quality/Aesthetics				
ES Endangered Species Habitat				
Other				

Notes:

* Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 2900 sf Human made? yes Is wetland part of a wildlife corridor? yes or a "habitat island"? _____

Adjacent land use open space Distance to nearest roadway or other development 90 feet

Dominant wetland systems present Palustrine Emergent Contiguous undeveloped buffer zone present no

Is the wetland a separate hydraulic system? no If not, where does the wetland lie in the drainage basin? adj. to Mine Brook BVW

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. Replication #11-C

Latitude _____ Longitude _____













Prepared by: RH Date 2/18/03

Wetland Impact:
Type _____ Area _____

Evaluation based on:

Office ☒ Field ☒

Corps manual wetland delineation
completed? Y _____ N _____

Function/Value	Suitability Y N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge		7,10		In spite of non-wetland status, these functions are somewhat present.
 Floodflow Alteration	<input checked="" type="checkbox"/>	5,6,9,13,18		In spite of non-wetland status, these functions are somewhat present.
 Fish and Shellfish Habitat				
 Sediment/Toxicant Retention		3,4		
 Nutrient Removal	<input checked="" type="checkbox"/>	3,7,8,9,10,11		In spite of non-wetland status, these functions are somewhat present.
 Production Export		1,7,9		
 Sediment/Shoreline Stabilization				
 Wildlife Habitat	<input checked="" type="checkbox"/>	7,8,13,14,19,20	X	
 Recreation				
 Educational/Scientific Value				
 Uniqueness/Heritage				
 Visual Quality/Aesthetics				
ES Endangered Species Habitat				
Other				

Notes:

* Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 350 sf Human made? yes Is wetland part of a wildlife corridor? marginal* or a "habitat island"? _____

Adjacent land use commercial, transportation Distance to nearest roadway or other development 100 feet

Dominant wetland systems present Palustrine Emergent Contiguous undeveloped buffer zone present no

Is the wetland a separate hydraulic system? no If not, where does the wetland lie in the drainage basin? adj. to Mine Brook BVW

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. Replication #12

Latitude _____ Longitude _____













Prepared by: RH Date 2/18/03

Wetland Impact:
Type _____ Area _____

Evaluation based on:

Office ☒ Field ☒

Corps manual wetland delineation
completed? Y _____ N _____

Function/Value	Suitability Y N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge		7		In spite of non-wetland status, these functions are somewhat present.
 Floodflow Alteration	<input checked="" type="checkbox"/>	3,6,9,13,18		In spite of non-wetland status, these functions are somewhat present.
 Fish and Shellfish Habitat				
 Sediment/Toxicant Retention				
 Nutrient Removal	<input checked="" type="checkbox"/>	3,8,9,10,11		In spite of non-wetland status, these functions are somewhat present.
 Production Export				
 Sediment/Shoreline Stabilization				
 Wildlife Habitat		7,8,13		
 Recreation				
 Educational/Scientific Value				
 Uniqueness/Heritage				
 Visual Quality/Aesthetics				
ES Endangered Species Habitat				
Other				

Notes:

* Refer to backup list of numbered considerations.

* This very small replication area is connected to BVW adjacent to Mine Brook, but is largely isolated from functioning as part of a wildlife corridor by surrounding commercial land uses and fencing to west of I-495 offramp.