

ABBREVIATED NOTICE OF RESOURCE AREA DELINEATION

Filing Under the Massachusetts Wetlands Protection Act M.G.L. Chapter 131, Section 40 and the Town of Shutesbury Wetland Bylaw

Baker Road Project West Pelham Road (Parcel ID ZQ-6)

Shutesbury, Massachusetts

Submitted to:

Shutesbury Conservation Commission

Shutesbury Town Hall 1 Cooleyville Road Shutesbury, Massachusetts 01072

Filed by:

W.D. Cowls, Inc.

P.O. Box 9677 North Amherst, Massachusetts 01059

Prepared by:

TRC Companies

650 Suffolk Street Lowell, Massachusetts 01854

February 2021



February 25, 2021

Town of Shutesbury Conservation Commission Shutesbury Town Hall 1 Cooleyville Road Shutesbury, MA 01072

RE: Baker Road Project – West Pelham Road (Parcel ID ZQ-6)
Abbreviated Notice of Resource Area Delineation (ANRAD)
Updated Plans & Other Requested Items

Dear Commissioners:

On behalf of W.D. Cowls, Inc., TRC Companies (TRC) is pleased to submit updated wetland resource delineation plans and other materials related to the ANRAD for an approximately 47-acre portion of the parcel off Pratt Corner Road listed by the Shutesbury tax assessor as Parcel ID ZG-2 in Shutesbury, MA (Site). The attached materials are based on the following meetings, site visits, documents, and emails:

- Shutesbury Conservation Commission (SCC) meetings January 9, 2020 and February 11, 2021;
- Site visits with Stockman Associates on April 1 and May 7, 2020;
- Stockman Associates Peer Review Comments dated April 10 and June 25, 2020; and
- SCC email dated July 25, 2020.

The following items are attached:

- 1. Attachment A Figure 1: Delineated Resources Map (February 2021)
- 2. Attachment B Wetland 8 & 9 Delineation Data Forms

Attachment A shows the delineated wetland resources at the Site based on the site visits with Stockman Associates. Per the discussion at the February 11, 2021 meeting, several flags associated with wetland W-MJR-3 were correct in the field but the adjustments were not shown on the plans. These flags were re-surveyed following the meeting and the locations have been updated. Other minor edits have been made as discussed with the SCC and the peer reviewer at the February 11, 2021 SCC meeting.

Attachment B includes wetland determination data forms for the two new wetlands (W-MJR-8 and W-MJR-9) identified during the review process.

We very much appreciate your review of this information and trust this letter and the attached documents meet the needs of the SCC to issue and Order of Resource Area Delineation. If you should have any questions, please do not hesitate to contact Maria Firstenberg at 978-735-3425 or via email at MFirstenberg@trccompanies.com or Jeff Brandt at 978-656-3662 or via email at JBrandt@TRCcompanies.com.

Sincerely,

TRC Companies

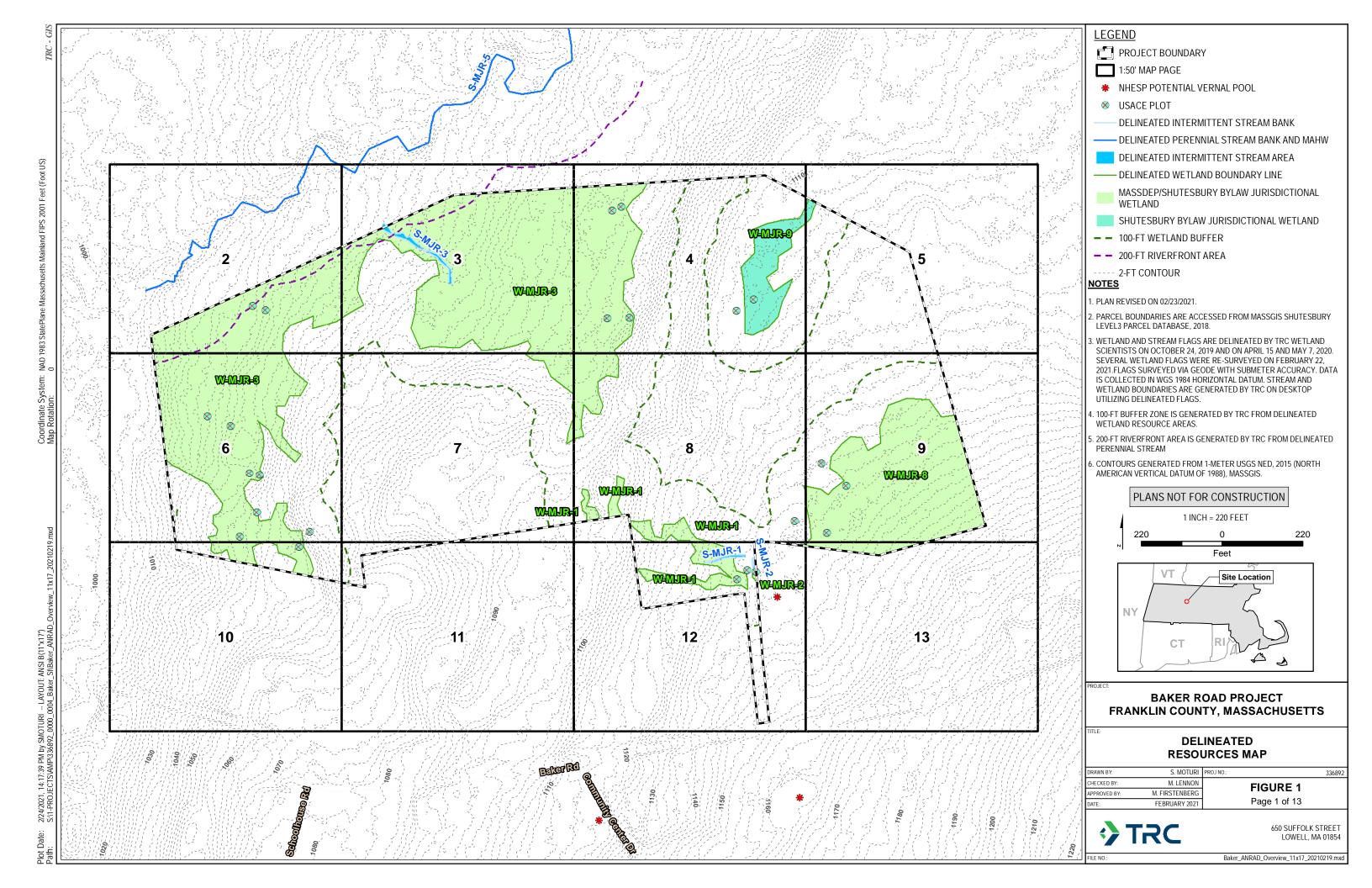
Jeff Brandt

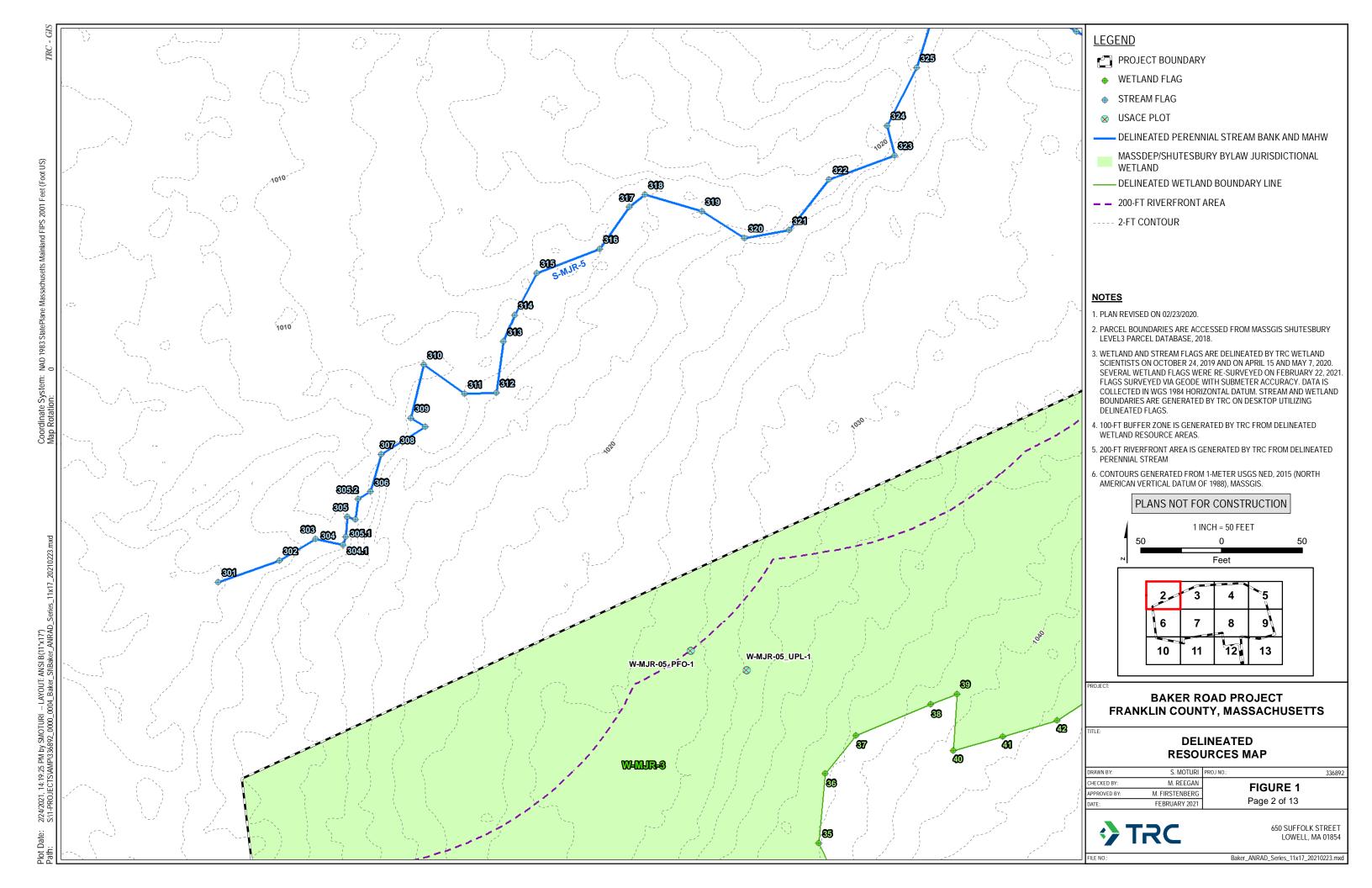
Senior Project Manager

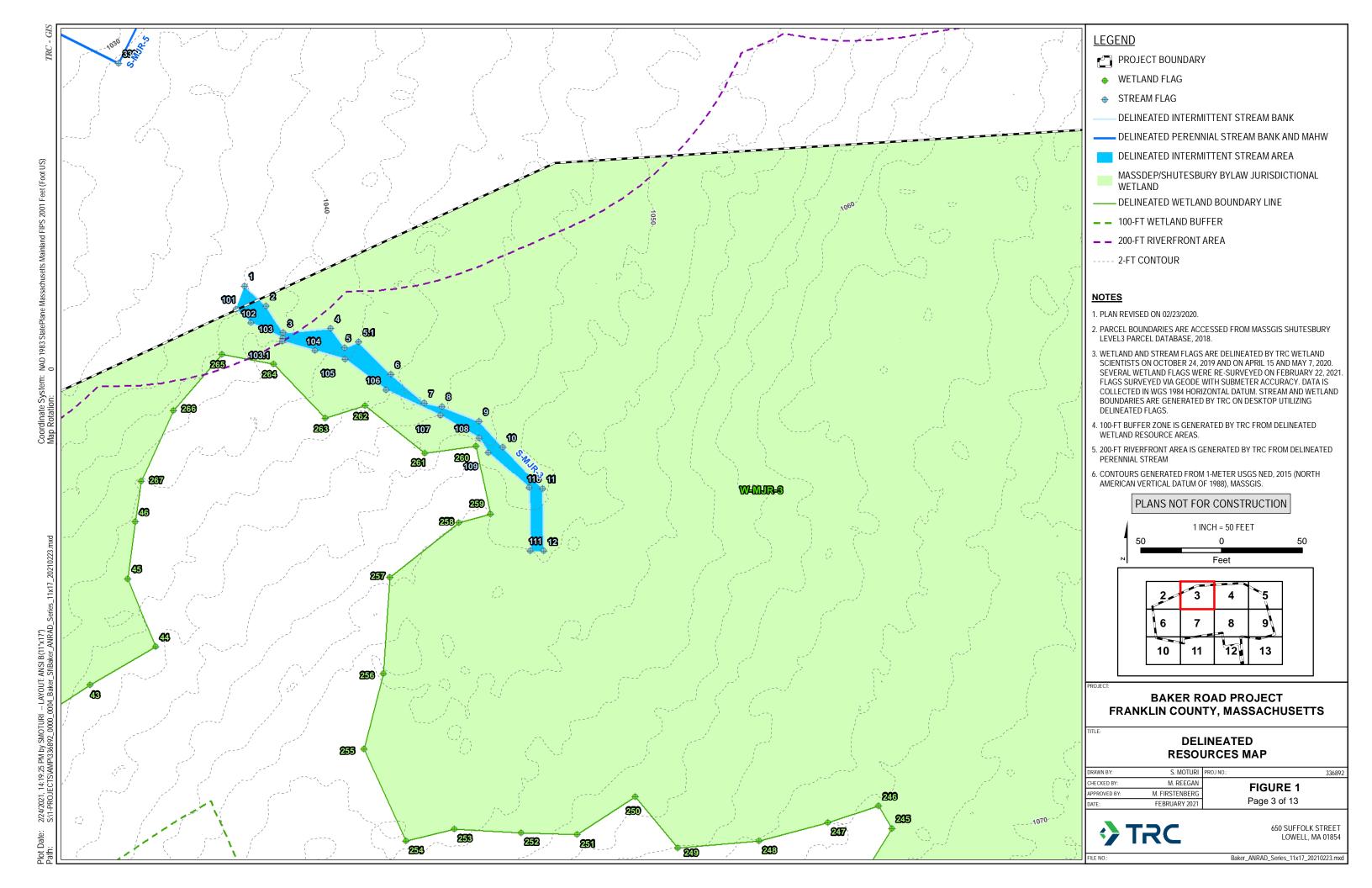
Brondt

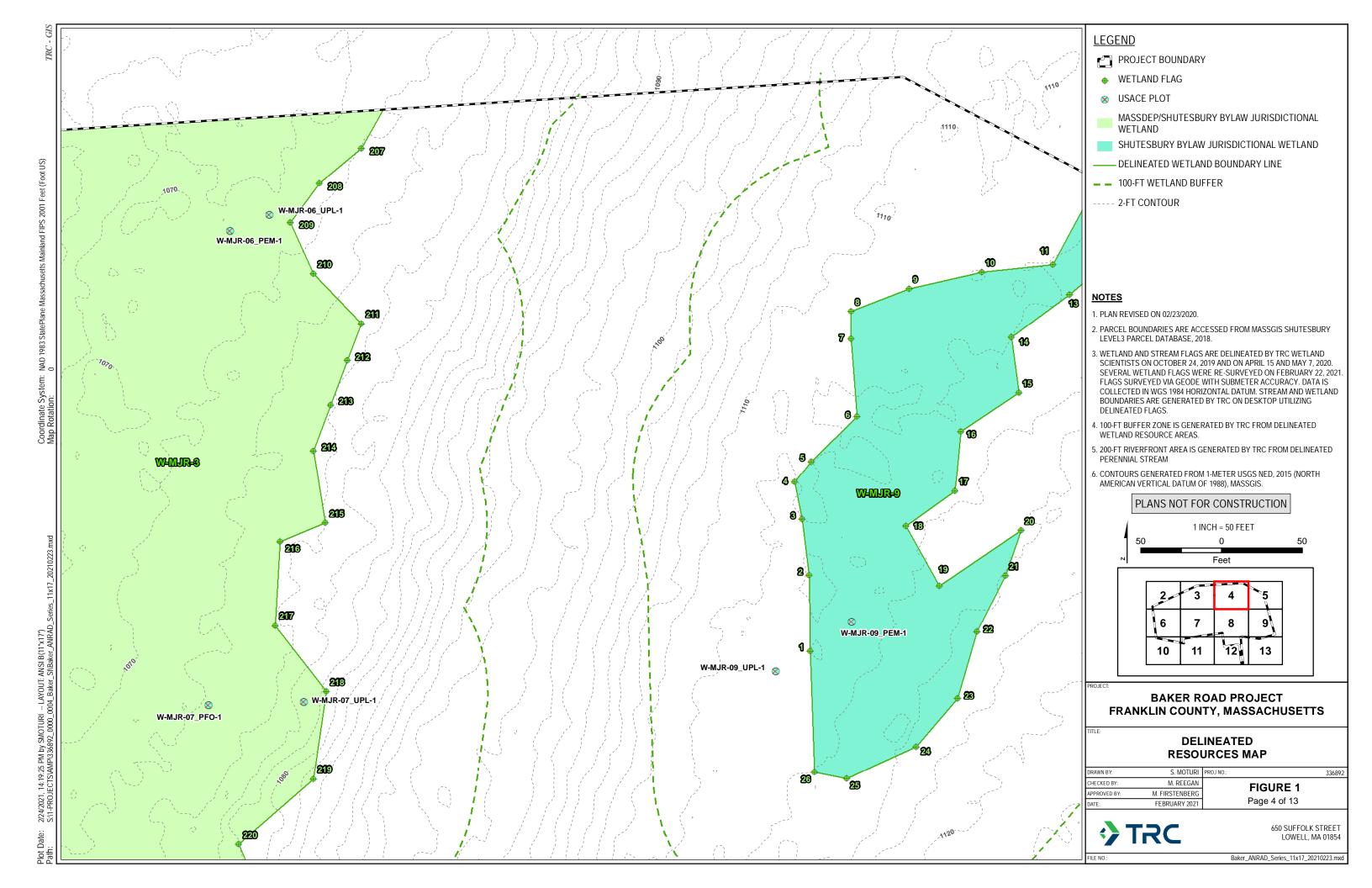
ATTACHMENT A Figure 1: Delineated Resources Map (February 2021)

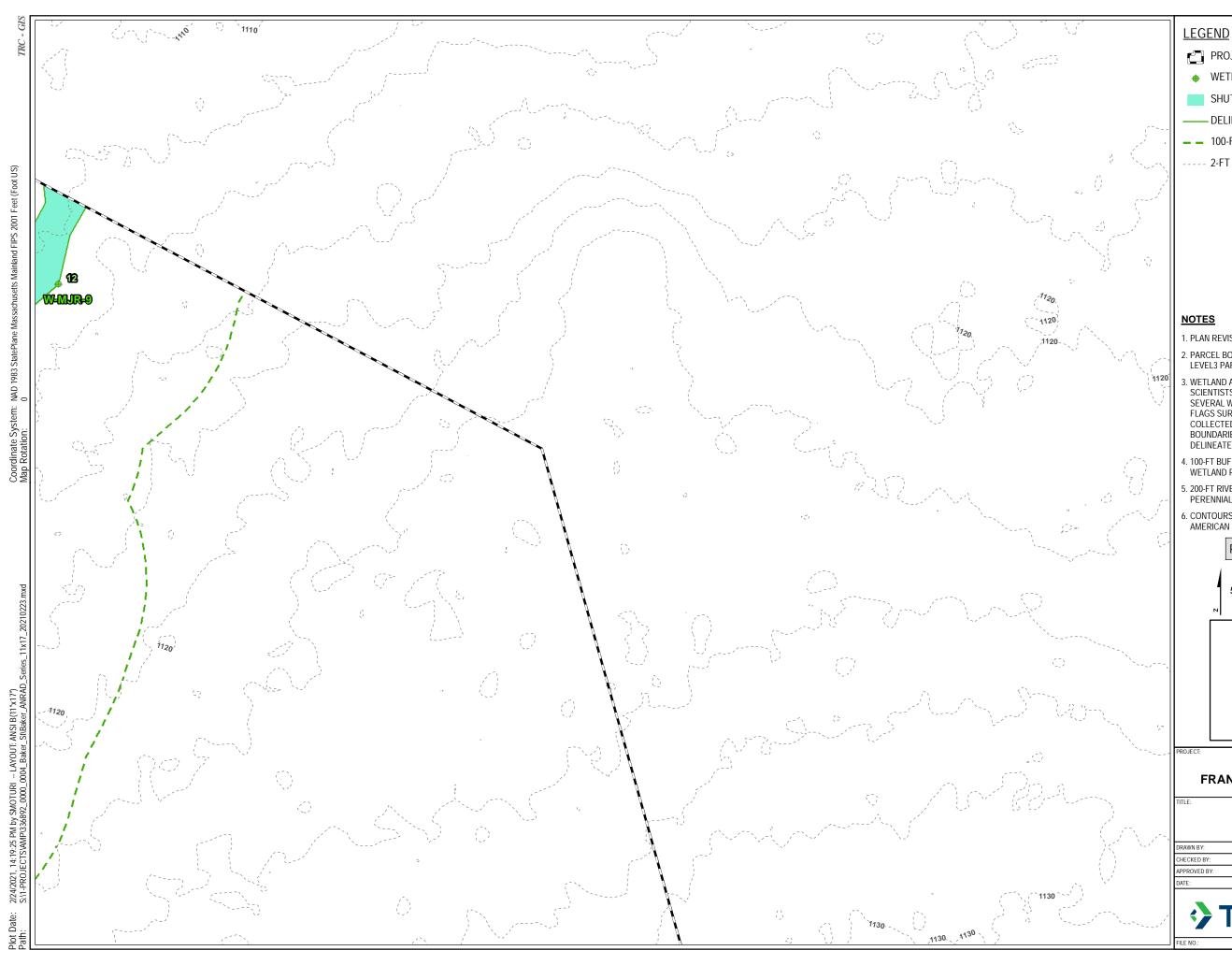












PROJECT BOUNDARY

WETLAND FLAG

SHUTESBURY BYLAW JURISDICTIONAL WETLAND

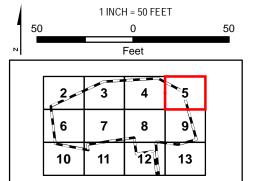
– DELINEATED WETLAND BOUNDARY LINE

– – 100-FT WETLAND BUFFER

---- 2-FT CONTOUR

- 1. PLAN REVISED ON 02/23/2020.
- 2. PARCEL BOUNDARIES ARE ACCESSED FROM MASSGIS SHUTESBURY LEVEL3 PARCEL DATABASE, 2018.
- COLLECTED IN WGS 1984 HORIZONTAL DATUM. STREAM AND WETLAND BOUNDARIES ARE GENERATED BY TRC ON DESKTOP UTILIZING DELINEATED FLAGS.
- 4. 100-FT BUFFER ZONE IS GENERATED BY TRC FROM DELINEATED
- 5. 200-FT RIVERFRONT AREA IS GENERATED BY TRC FROM DELINEATED
- 6. CONTOURS GENERATED FROM 1-METER USGS NED, 2015 (NORTH AMERICAN VERTICAL DATUM OF 1988), MASSGIS.

PLANS NOT FOR CONSTRUCTION



BAKER ROAD PROJECT FRANKLIN COUNTY, MASSACHUSETTS

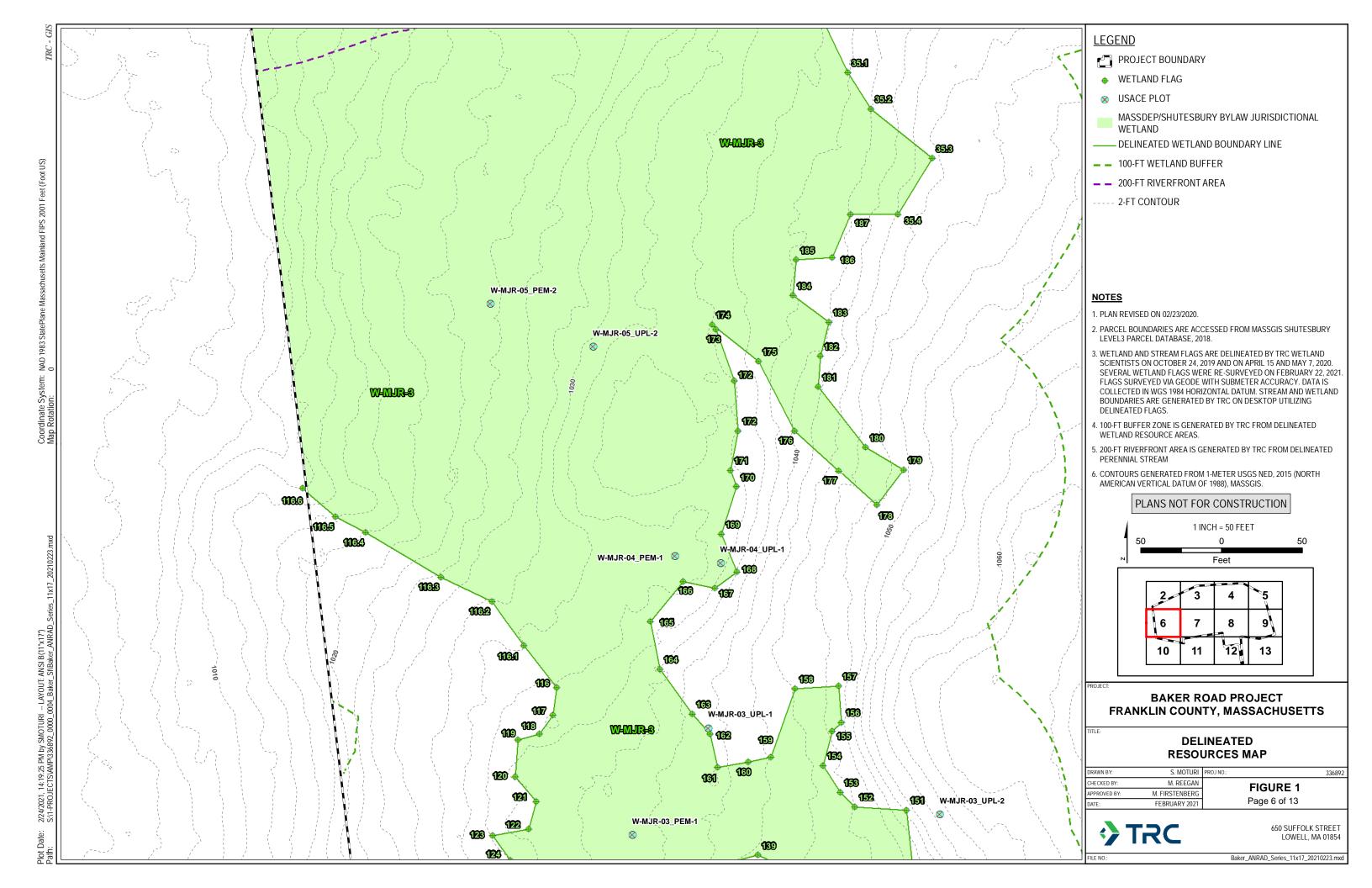
DELINEATED RESOURCES MAP

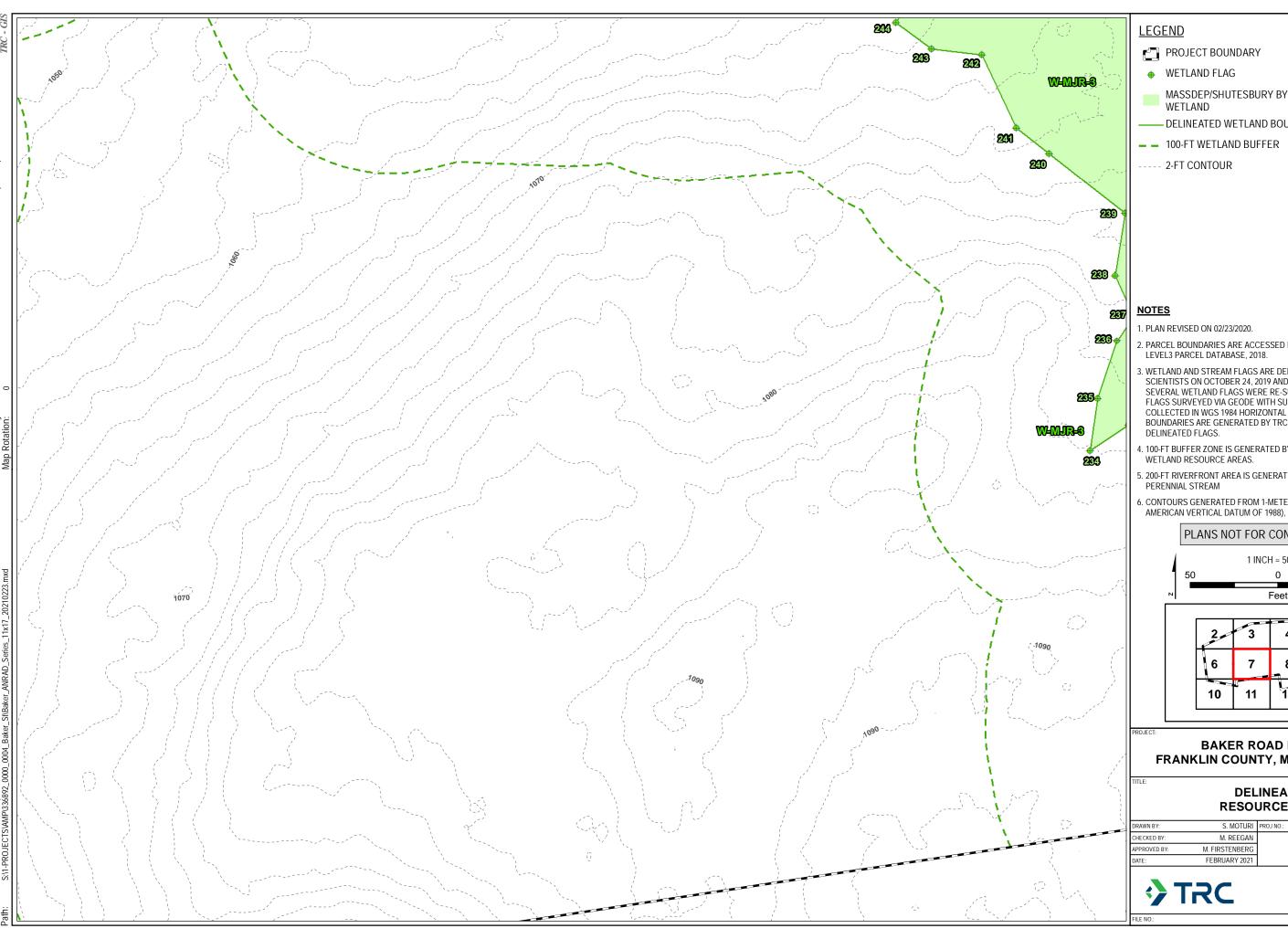
	DRAWN BY:	S. MOTURI
	CHECKED BY:	M. REEGAN
	APPROVED BY:	M. FIRSTENBERG
- 1		

FIGURE 1 Page 5 of 13



650 SUFFOLK STREET LOWELL, MA 01854

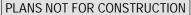


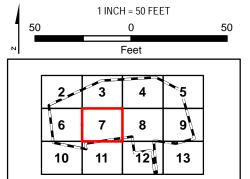


MASSDEP/SHUTESBURY BYLAW JURISDICTIONAL

— DELINEATED WETLAND BOUNDARY LINE

- 2. PARCEL BOUNDARIES ARE ACCESSED FROM MASSGIS SHUTESBURY
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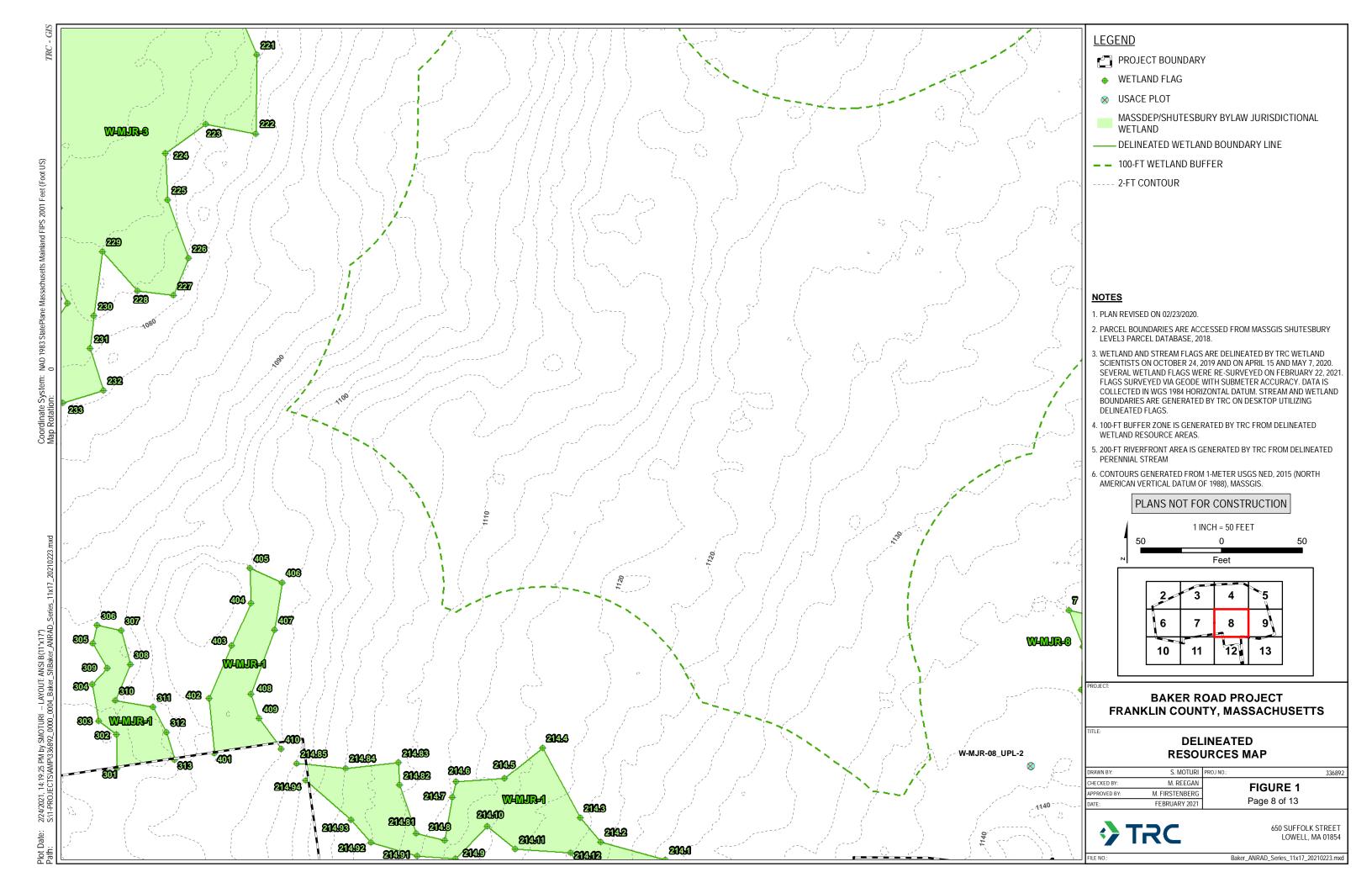
BAKER ROAD PROJECT FRANKLIN COUNTY, MASSACHUSETTS

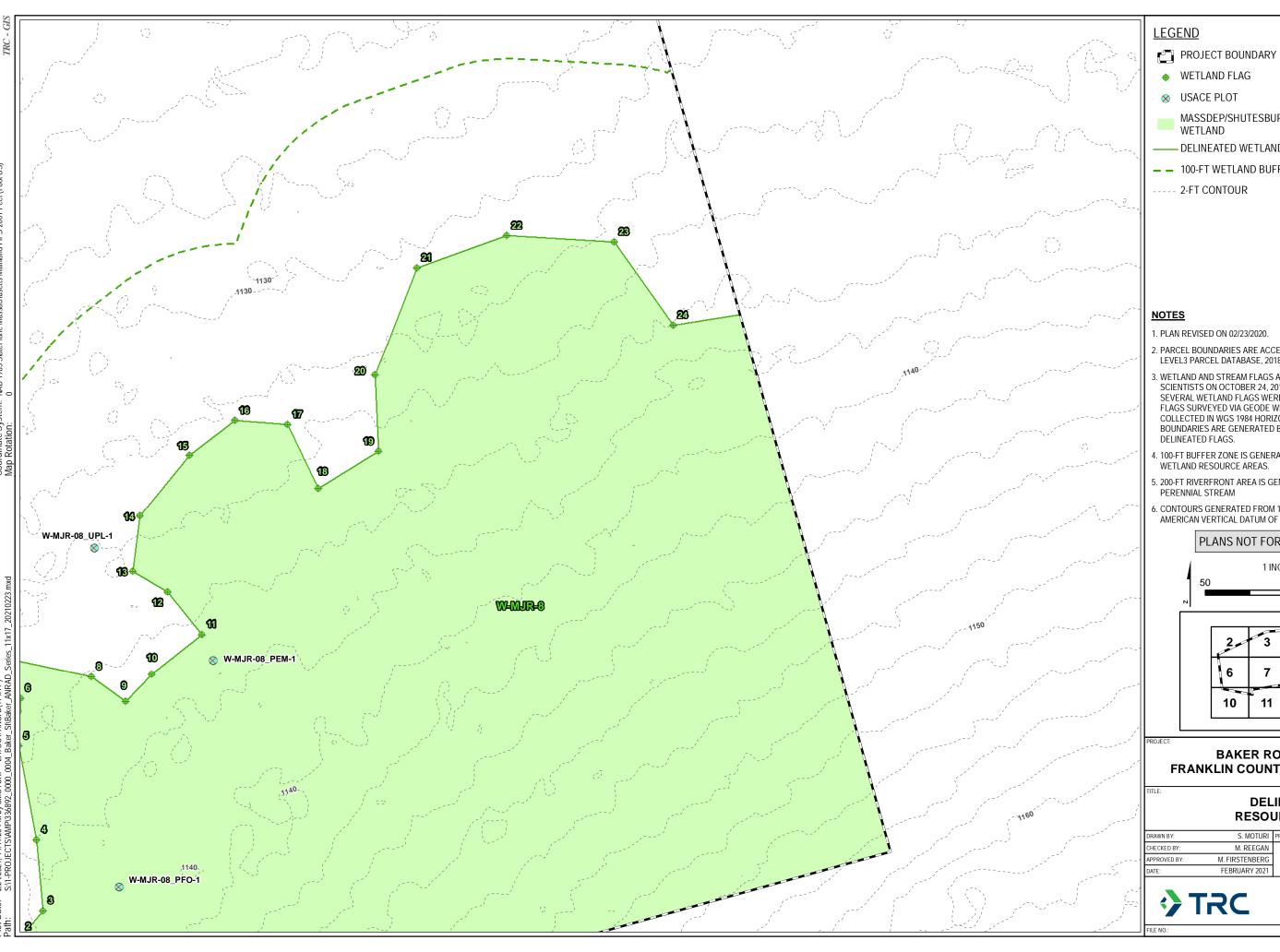
DELINEATED RESOURCES MAP

FIGURE 1

Page 7 of 13

650 SUFFOLK STREET LOWELL, MA 01854





WETLAND FLAG

MASSDEP/SHUTESBURY BYLAW JURISDICTIONAL

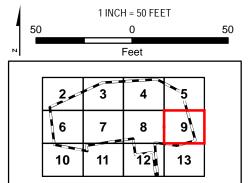
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BAKER ROAD PROJECT FRANKLIN COUNTY, MASSACHUSETTS

DELINEATED RESOURCES MAP

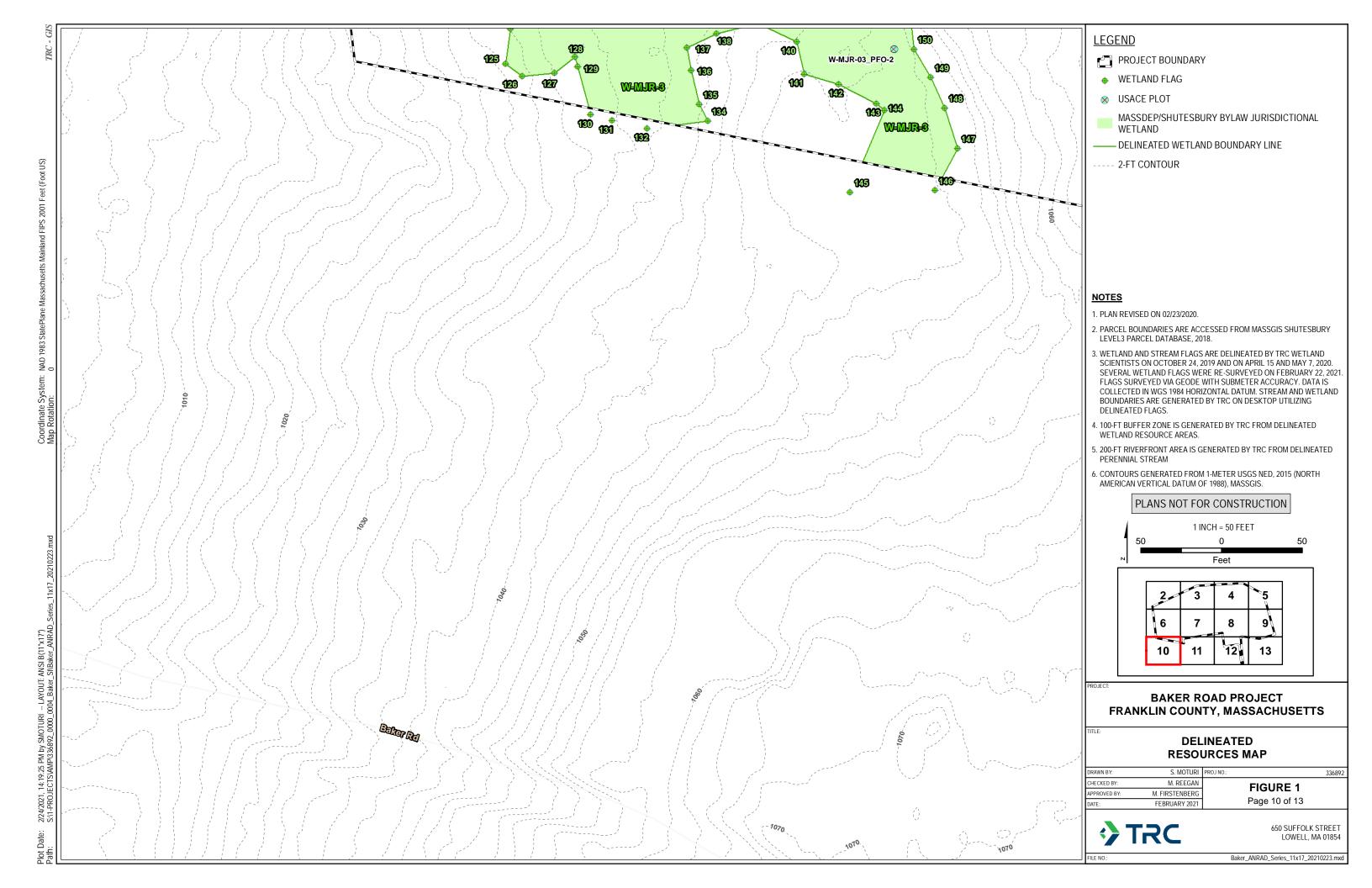
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	CHECKED BY:	M. REEGAN
1	APPROVED BY:	M. FIRSTENBERG
	DATE:	FEBRUARY 2021

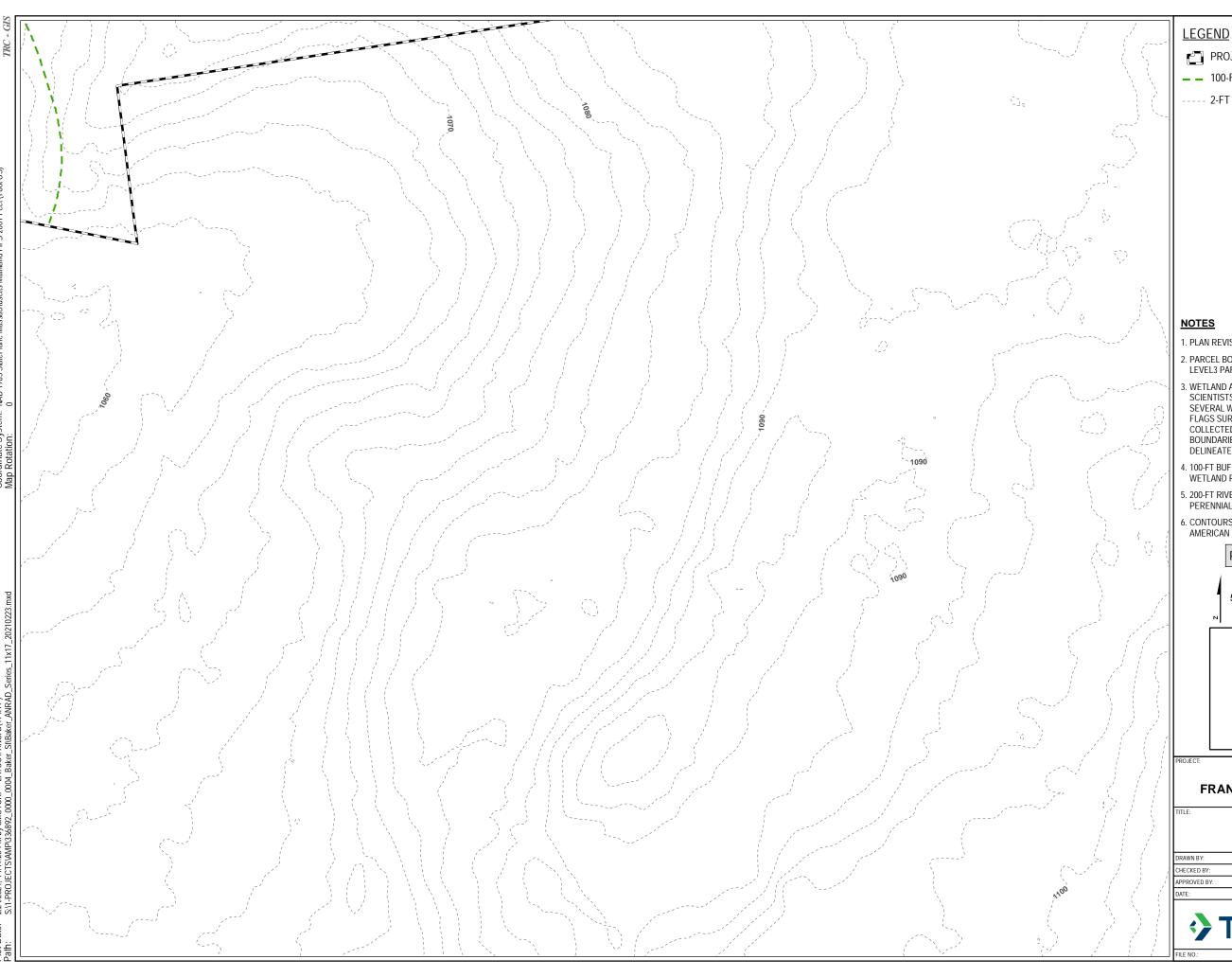
FIGURE 1

Page 9 of 13

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650 SUFFOLK STREET LOWELL, MA 01854





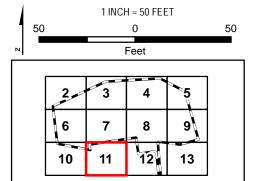
PROJECT BOUNDARY

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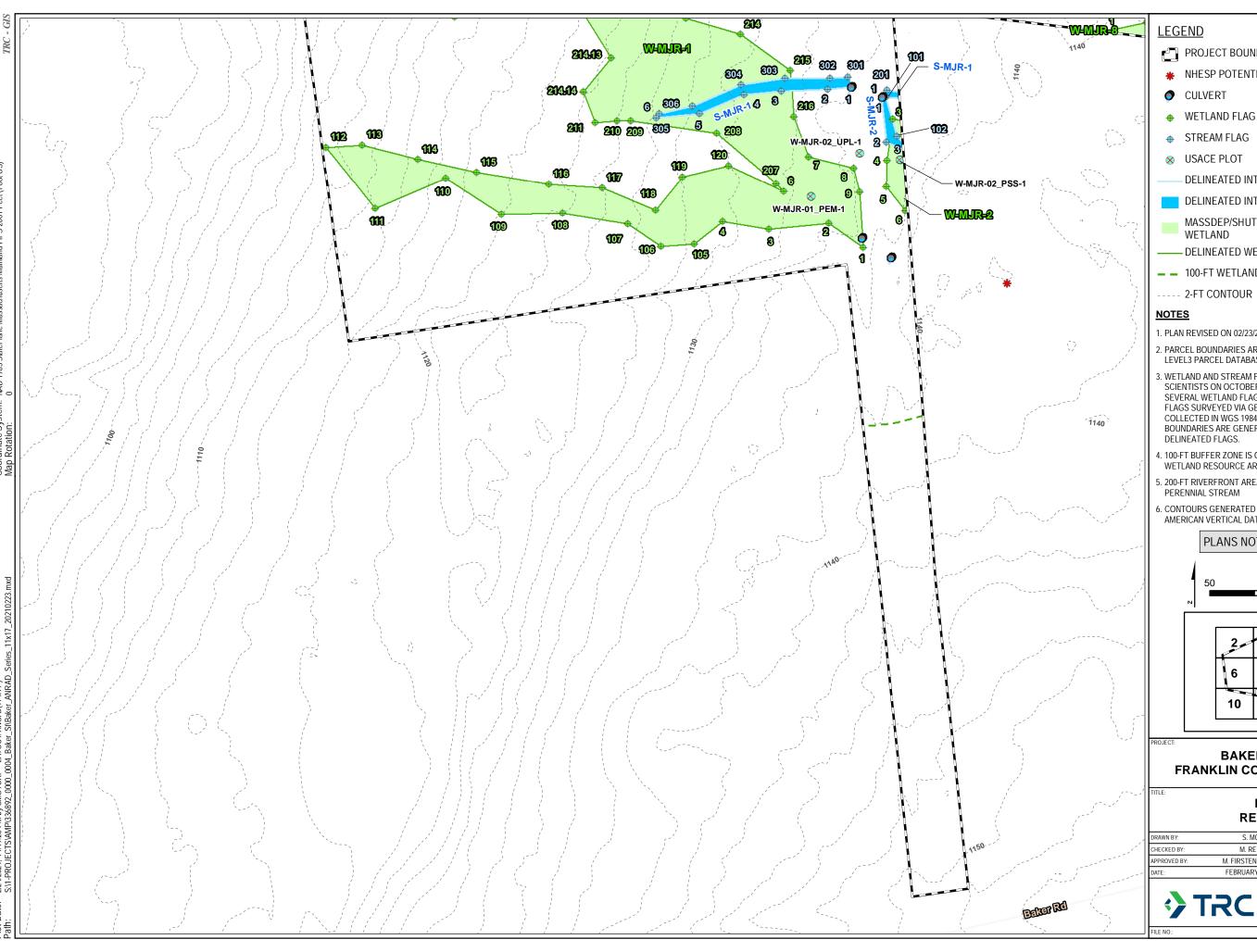
BAKER ROAD PROJECT FRANKLIN COUNTY, MASSACHUSETTS

DELINEATED RESOURCES MAP

	DRAWN BY:	S. MOTURI	PROJ NO.:
,	CHECKED BY:	M. REEGAN	FIGURE 1
/	APPROVED BY:	M. FIRSTENBERG	
	DATE:	FEBRUARY 2021	Page 11 of 13

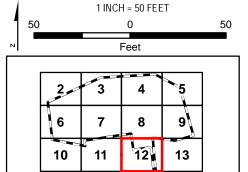


650 SUFFOLK STREET LOWELL, MA 01854



- PROJECT BOUNDARY
- * NHESP POTENTIAL VERNAL POOL
- CULVERT
- WETLAND FLAG
- STREAM FLAG
- USACE PLOT
- DELINEATED INTERMITTENT STREAM BANK
- DELINEATED INTERMITTENT STREAM AREA
- MASSDEP/SHUTESBURY BYLAW JURISDICTIONAL WETLAND
- DELINEATED WETLAND BOUNDARY LINE
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BAKER ROAD PROJECT FRANKLIN COUNTY, MASSACHUSETTS

DELINEATED RESOURCES MAP

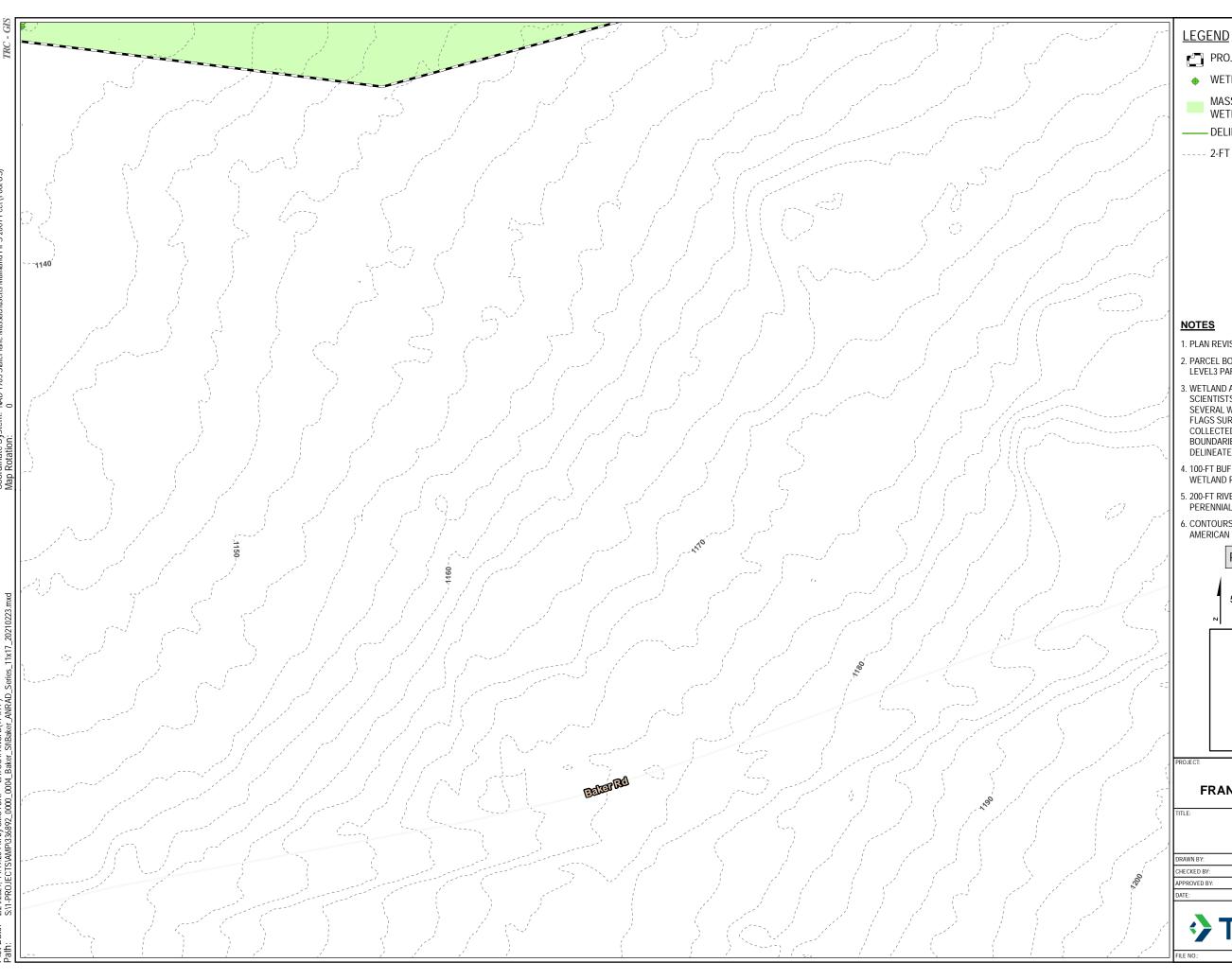
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	DRAWN BY:	S. MOTURI

FIGURE 1 Page 12 of 13

650 SUFFOLK STREET

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LOWELL, MA 01854



PROJECT BOUNDARY

WETLAND FLAG

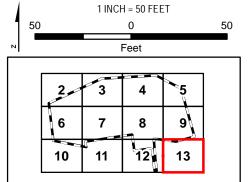
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PLANS NOT FOR CONSTRUCTION



BAKER ROAD PROJECT FRANKLIN COUNTY, MASSACHUSETTS

DELINEATED RESOURCES MAP

DRAWN BY:	S. MOTURI
CHECKED BY:	M. REEGAN
APPROVED BY:	M. FIRSTENBERG
DATE:	FEBRUARY 2021

FIGURE 1 Page 13 of 13

♦TRC

650 SUFFOLK STREET LOWELL, MA 01854

ATTACHMENT B Figure 2: Wetland 8 & 9 Delineation Data Forms



Project/Site: Baker	Ci	ity/County: Shutesh	oury, Franklin		Sampling Date: 2020-April-15		
Applicant/Owner: W.D. Cowls	s		State: MA	Sampling Point: W-MJR-08_PEM-1			
Investigator(s): Matt Regan, M	Iolly Lennon		Section, Township,	, Range:			
Landform(hillslope,terrace,etc.):	Depression	Loc	cal relief (concave, conv	vex, none):_	Concave	Slope (%): 0 to 1	
Subregion (LRR or MLRA):	LRR R		Lat: 42.422119025	52 Long:	-72.4274021108	Datum: WGS84	
Soil Map Unit Name: Chichest	ter fine sandy loam, 8 t	to 15 percent slopes	5		NWI classification	n:	
Are climatic/hydrologic condition	ns on the site typical fo	or this time of year?	Yes 🟒 No) (If no	, explain in Remarks.)		
Are Vegetation, Soil,	or Hydrology	_ significantly distur	bed? Are "Norm	al Circumst	ances" present?	Yes 🟒 No	
Are Vegetation, Soil,	or Hydrology	_ naturally problem	atic? (If needed,	, explain any	y answers in Remarks.	.)	
Hydrophytic Vegetation Present Hydric Soil Present?	t? Yes 🗸	_ No Is t	the Sampled Area with	in a Wetland	d? Yes	<u> </u>	
Wetland Hydrology Present? Remarks: (Explain alternative pr	· · · · · · · · · · · · · · · · · · ·		es, optional Wetland S	orte iD:	VV-IV	1JR-08	
HYDROLOGY							
Wetland Hydrology Indicators:						ć	
Primary Indicators (minimum of	i one is required; checi	k all that apply)		-	Indicators (minimum	of two required)	
Surface Water (A1)	W	ater-Stained Leaves	(B9)		e Soil Cracks (B6) ge Patterns (B10)		
<u></u> High Water Table (A2)		quatic Fauna (B13)			rim Lines (B16)		
✓ Saturation (A3)		arl Deposits (B15)			ason Water Table (C2)		
Water Marks (B1)		ydrogen Sulfide Odd		-	h Burrows (C8)		
Sediment Deposits (B2) Drift Deposits (B3)		xidized knizosphere resence of Reduced	es on Living Roots (C3)	3) Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		ecent Iron Reduction		Stunted or Stressed Plants (D1)			
Iron Deposits (B5)		nin Muck Surface (C			orphic Position (D2)		
Inundation Visible on Aerial		ther (Explain in Rem			v Aquitard (D3)		
Sparsely Vegetated Concave	Surface (B8)				opographic Relief (D4) eutral Test (D5)		
Field Observations:				FAC-NE	eutrai lest (D3)		
Surface Water Present?	Yes No _ ✓	Depth (inc	·hes)·				
		•		- 	hudrologu Dannara	Vos. 4 No.	
Water Table Present?	Yes No			- vveuana H	lydrology Present?	Yes No	
Saturation Present?	Yes No	Depth (inc	:hes): 0	_			
(includes capillary fringe)							
Describe Recorded Data (stream		cii, acriai priocos, pi	evious inspections, in	avaliable.			

<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)		Dominant		Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	3	(A)
1				Are OBL, FACW, or FAC:		
2				Total Number of Dominant Species Across All Strata:	3	(B)
3				Percent of Dominant Species That		
4				- Are OBL, FACW, or FAC:	100	(A/B)
5				Prevalence Index worksheet:		
6.				Total % Cover of:	Multiply	D. a
7.					Multiply x 1 =	-
	0	= Total Cove	er	OBL species 95	_	95
Sapling/Shrub Stratum (Plot size:15 ft)		-		FACW species 0	x 2 = _	0
1. Acer rubrum	15	Yes	FAC	FAC species 15	x 3 = _	45
2.				FACU species 0	x 4 =	0
3.				- UPL species0	x 5 =	0
4.				- Column Totals 110	(A)	140 (B)
-				Prevalence Index = B/A =	1.3	
5.				Hydrophytic Vegetation Indicators:		
6.				1- Rapid Test for Hydrophytic	Vegetation	
7				2 - Dominance Test is >50%	Ü	
	15	= Total Cove	er	\checkmark 3 - Prevalence Index is \le 3.01		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				4 - Morphological Adaptations	1 (Provide	supporting
1. Juncus effusus	65	Yes	OBL	data in Remarks or on a separate s	-	200008
2. Schoenoplectus tabernaemontani	30	Yes	OBL	Problematic Hydrophytic Vege		(plain)
3				¹Indicators of hydric soil and wetlar		
4.				present, unless disturbed or proble		6)
5.				Definitions of Vegetation Strata:		-
6.				Tree – Woody plants 3 in. (7.6 cm) c	r more in a	diameter at
7.				breast height (DBH), regardless of h		alameter at
8.				Sapling/shrub – Woody plants less	-	DBH and
9.				greater than or equal to 3.28 ft (1 n		
10				Herb – All herbaceous (non-woody)		gardless of
				size, and woody plants less than 3.2		5
11.				Woody vines – All woody vines grea		.28 ft in
12				height.		
	95	= Total Cove	er	Hydrophytic Vegetation Present?	Voc. / N	lo.
Woody Vine Stratum (Plot size: 30 ft)				nyuropriytic vegetation Fresents	162 <u>7</u> IV	10
1.				-		
2.				_		
3				_		
4.						
	0	= Total Cove	er			
Remarks: (Include photo numbers here or on a se		-				
Remarks: (include photo numbers here or on a se	parate sneet.)					

Profile Des	cription: (Describe	to the de	epth needed to do	cum	ent the i	indicato	r or confirm the a	bsence of indicato	rs.)
Depth	Matrix		Redox	Feat	ures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Text	ture	Remarks
0 - 6	10YR 2/1	100					Silty Cla	ıy Loam	
				_					
				_					
				_			-		
				_					
		· ——		_					
		· ——		_					
		. —		_					
				_					
				_					
				_					
¹Type: C = 0	Concentration, D =	Depletio	n, RM = Reduced	Matı	rix, MS =	Masked	Sand Grains. ² L	ocation: PL = Pore	Lining, M = Matrix.
Hydric Soil	Indicators:							Indicators for Pr	oblematic Hydric Soils³:
Histoso	l (A1)						R, MLRA 149B)	2 cm Muck (A	A10) (LRR K, L, MLRA 149B)
Histic E	pipedon (A2)		Thin Dark Sur	face	(S9) (LRR	R, MLR	A 149B)		Redox (A16) (LRR K, L, R)
	istic (A3)		Loamy Mucky			(LRR K, I	_)		Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		Loamy Gleyed					Dark Surface	
	d Layers (A5)		Depleted Mat						low Surface (S8) (LRR K, L)
	ed Below Dark Surfa	ace (A11						Thin Dark Su	rface (S9) (LRR K, L)
	ark Surface (A12)		Depleted Dar)			iese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Redox Depres	ssior	is (F8)			Piedmont Flo	oodplain Soils (F19) (MLRA 149B)
-	Gleyed Matrix (S4)							Mesic Spodio	: (TA6) (MLRA 144A, 145, 149B)
-	Redox (S5)							Red Parent N	Material (F21)
	d Matrix (S6)							Very Shallow	Dark Surface (TF12)
Dark Su	ırface (S7) (LRR R, M	ILRA 149	9B)					_✓ Other (Explai	in in Remarks)
3Indicators	of hydrophytic veg	etation a	and wetland hydro	ology	/ must be	e preser	nt, unless disturbe	ed or problematic.	
Restrictive	Layer (if observed):							·	
	Type:		Rock			Hvdric	Soil Present?	,	∕es _ ✓_ No
	Depth (inches):		6			1			
Remarks:	э ерен (шенез).								
	assumed to he hyd	ric due t	o the presence of	inur	ndation I	FΔCW ar	nd OBL vegetation	n species, and a de	finitive wetland boundary. Refusal
	rse fragments.	inc due t	o the presence of	iiiui	idation, i	I ACVV ai	id ODE vegetation	i species, and a de	militive wettaria bodilidary. Kerasar
auc to coul	se magments.								

Project/Site: Baker	City/County: Sh	utesbury, Franklin	Sampling Date: 2	.020-April-15		
Applicant/Owner: W.D. Cowls	S	State: MA	Sampling Point: W-	MJR_08_PFO-2		
Investigator(s): Matt Regan, M	Iolly Lennon	Section, Township,	Range:			
Landform(hillslope,terrace,etc.):	Depression	Local relief (concave, conv	ex, none): Concave	Slope (%): 0 to 1		
Subregion (LRR or MLRA): L	LRR R	Lat: 42.421833495	6 Long: -72.4275588524	Datum: WGS84		
Soil Map Unit Name: Chichest	ter fine sandy loam, 8 to 15 percent s	slopes	NWI classificat	ion:		
Are climatic/hydrologic conditior	ns on the site typical for this time of y	year? Yes <u>✓</u> No	(If no, explain in Remarks	5.)		
Are Vegetation, Soil,	or Hydrology significantly o	disturbed? Are "Norm	al Circumstances" present?	Yes _ ✓ No		
Are Vegetation, Soil,	or Hydrology naturally pro	blematic? (If needed,	explain any answers in Remarl	ks.)		
Hydrophytic Vegetation Present Hydric Soil Present? Wetland Hydrology Present?	Attach site map showing samp t? Yes _ ✓ _ No Yes _ ✓ _ No rocedures here or in a separate repo	Is the Sampled Area withi	n a Wetland? Ye	es No MJR_08		
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of	f one is required; check all that apply)	Secondary Indicators (minimu	m of two required)		
			Surface Soil Cracks (B6)			
Surface Water (A1) ⁄ High Water Table (A2)	Water-Stained L Aquatic Fauna (I		Drainage Patterns (B10)			
✓ Saturation (A3)	Aquatic Fadina (I		Moss Trim Lines (B16)			
Water Marks (B1)	Hydrogen Sulfid		Dry-Season Water Table (C	2)		
Sediment Deposits (B2)	, ,	pheres on Living Roots (C3)	Crayfish Burrows (C8)	l l (CO)		
Drift Deposits (B3)	Presence of Red	uced Iron (C4)	Saturation visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Recent Iron Red	uction in Tilled Soils (C6)	Stunted or Stressed Plants (D1)			
Iron Deposits (B5)	Thin Muck Surfa	ice (C7)	Geomorphic Position (D2)Shallow Aquitard (D3)			
Inundation Visible on Aerial	Imagery (B7) Other (Explain in	n Remarks)	Microtopographic Relief (D	14)		
Sparsely Vegetated Concave	Surface (B8)		FAC-Neutral Test (D5)	(-1)		
Field Observations:						
Surface Water Present?	Yes No _ _/ Dept	:h (inches):				
Water Table Present?		th (inches):	Wetland Hydrology Present?	Yes No		
Saturation Present?		th (inches):	Transfer of the series			
	res _/_ No Dept	in (inches). 4				
(includes capillary fringe)						
Describe Recorded Data (stream	n gauge, monitoring well, aerial phot	os, previous inspections), if a	available:			
Remarks:		<u> </u>	<u> </u>			

Tree Stratum (Plot size:30 ft)		Dominant		Dominance Test workshe			
		Species?	Status	Number of Dominant Spe Are OBL, FACW, or FAC:	ecies That	2	(A)
1. Tsuga canadensis	70	Yes	FAC	Total Number of Dominar	nt Snecies		
2				Across All Strata:	in species	3	(B)
3				Percent of Dominant Spe	cies That		
4				Are OBL, FACW, or FAC:		66.6	7 (A/B)
5				Prevalence Index worksh	eet:		
6				Total % Cover of	<u>.</u>	Multiply B	<u>/:</u>
7		Tatal Car		- OBL species	0	x 1 =	0
5 1: (51 1 5: (P)	70	= Total Cov	er	FACW species	0	x 2 =	0
Sapling/Shrub Stratum (Plot size: 15 ft)	20	V	FAC	FAC species	90	x 3 =	270
1. Tsuga canadensis	20	Yes	FAC	- FACU species	7	x 4 =	28
2. Kalmia latifolia	7	Yes	FACU	UPL species	0	x 5 =	0
3.				Column Totals	97	(A)	298 (B)
4				Prevalence Inde	ex = B/A =	3.1	
5				HydrophyticVegetationIn	dicators:		
6.				1- Rapid Test for Hy		egetation	
7				X_ 2 - Dominance Test	, ,	.0	
	27	= Total Cov	er	3 - Prevalence Index	x is ≤ 3.01		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				4 - Morphological Ad	daptations ¹	(Provide s	upporting
1				data in Remarks or on a s	separate sh	ieet)	
2				- Problematic Hydrop	ohytic Vege	tation¹ (Exp	lain)
3				Indicators of hydric soil a	and wetlan	d hydrolog	y must be
4				present, unless disturbed	d or problei	matic	
5				Definitions of Vegetation	Strata:		
6				Tree – Woody plants 3 in.	(7.6 cm) or	more in di	ameter at
7				breast height (DBH), rega	rdless of he	eight.	
8				Sapling/shrub – Woody p			BH and
9				greater than or equal to 3			
10				Herb – All herbaceous (no	, , ,		rdless of
11.				size, and woody plants le			
12.				Woody vines – All woody	vines great	er than 3.2	8 ft in
	0	= Total Cov	er	height.			
Woody Vine Stratum (Plot size:30 ft)		•		Hydrophytic Vegetation	n Present?	Yes/_	No
1.							
2.				-			
3.				-			
4.				-			
···		= Total Cov	er	-			
		·	٠.				

Remarks:(Includephotonumbershereoronaseparatesheet.)

Eastern hemlock is considered a wetland indicator plant under the MAWPA. Therefore, it has been considered as having an indicator status of FAC for this delineation rather than of FACU as listed by the U.S. Army Corps of Engineers.

		to the de				indicato	r or confirm the a	sence of indicators.)		
Depth Matrix Redox Features										
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0 - 6	10YR 2/2	100					Silt Loam			
6 - 10	10YR 5/1	100								
				_						
				_			-			
				_						
				_						
									_	
				_						
				_						
				_					_	
				_			-			
¹Type: C =	Concentration, D = [Depletion	n, RM = Reduced	Mat	rix, MS =	Masked	Sand Grains. ² L	cation: PL = Pore Lining	g, M = Matrix.	
	Indicators:							Indicators for Problem		
Histoso			Polyvalue Bel	۰۱۸۰ د	urface (C	(8) (I DD	R MIRA 1/10RN		•	
		-	_ ,				-	2 cm Muck (A10) (L		
	pipedon (A2)	-	Thin Dark Sur					Coast Prairie Redox	x (A16) (LRR K, L, R)	
l ——	istic (A3)	-	Loamy Mucky			(LKK K,	L)	5 cm Mucky Peat o	r Peat (S3) (LRR K, L, R)	
	en Sulfide (A4)		Loamy Gleyed					Dark Surface (S7) (L	LRR K, L)	
	ed Layers (A5)		Depleted Mat					Polyvalue Below Su	urface (S8) (LRR K, L)	
	ed Below Dark Surfa							Thin Dark Surface (
l ——	ark Surface (A12)	_	Depleted Dar)			lasses (F12) (LRR K, L, R)	
Sandy I	Mucky Mineral (S1)	-	Redox Depres	ssior	ıs (F8)				nin Soils (F19) (MLRA 149B)	
Sandy	Gleyed Matrix (S4)							·		
Sandy I	Redox (S5)							•	(MLRA 144A, 145, 149B)	
-	d Matrix (S6)							Red Parent Materia		
	urface (S7) (LRR R, M	II DA 1 <i>4</i> 01	D١					Very Shallow Dark		
Dark 30	urrace (37) (LKK K, IV	ILKA 1491	D)					Other (Explain in R	emarks)	
3Indicators	of hydrophytic vege	etation a	nd wetland hydr	olog	y must b	e preser	nt, unless disturbe	d or problematic.		
Restrictive	Layer (if observed):								_	
	Type:		se Fragments			Hydric	: Soil Present?	Yes _✓_ No		
	• •	Cour				liyanc	. John Tesent.	103110		
	Depth (inches):	-	10							
Remarks:										
Refusal du	e to coarse fragmer	nts.								

Project/Site: Baker	City/Coun	ty: Shutesbury, Franklin	า	Sampling Date: 2020-April-15		
Applicant/Owner: W.D. Cowls			State: MA	A Sampling Point: W-MJR-08_UPL-1		
Investigator(s): Matt Regan, Mo	olly Lennon	Section,	Township, Range:			
Landform(hillslope,terrace,etc.):	Hillslope	Local relief (co	ncave, convex, none)	: Convex	Slope (%): 1 to 3	
Subregion (LRR or MLRA): LF	RR R	Lat: 42.	4224425247 Long	: -72.4277730101	Datum: WGS84	
Soil Map Unit Name: Chicheste	r fine sandy loam, 8 to 15 pe	rcent slopes		NWI classificatio	n:	
Are climatic/hydrologic conditions		-	es No (If n	no, explain in Remarks.)		
Are Vegetation, Soil,	or Hydrology signific	cantly disturbed?	Are "Normal Circum	stances" present?	Yes No	
Are Vegetation, Soil,	or Hydrology natura	lly problematic?	(If needed, explain a	ny answers in Remarks	.)	
SUMMARY OF FINDINGS – A			tions, transects, ii	mportant features,	etc.	
Hydrophytic Vegetation Present?	Yes No	_				
Hydric Soil Present?	Yes No	✓ Is the Sampled	l Area within a Wetla	nd? Yes	s No <u>_</u> ∠	
Wetland Hydrology Present?	Yes _ ∠ _ No	If yes, optional	Wetland Site ID:			
Remarks: (Explain alternative pro Covertype is UPL.	cedures here or in a separate	e report)				
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	· Water-Sta Aquatic Fa Marl Depo Hydrogen	ined Leaves (B9) auna (B13)	Surfa Drain Moss Dry-S Cravf	ny Indicators (minimum ice Soil Cracks (B6) nage Patterns (B10) i: Trim Lines (B16) Geason Water Table (C2)		
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Presence Recent Iro	of Reduced Iron (C4) on Reduction in Tilled Sc < Surface (C7)	Satur Stunt oils (C6) Geon	ration Visible on Aerial II red or Stressed Plants (I norphic Position (D2)		
Inundation Visible on Aerial I	nagery (B7) Other (Exp	olain in Remarks)		ow Aquitard (D3)		
Sparsely Vegetated Concave S	Surface (B8)			otopographic Relief (D4) Neutral Test (D5)		
Field Observations:				•		
Surface Water Present?	Yes No	Depth (inches):				
Water Table Present?	Yes No	Depth (inches):	5 Wetland	Hydrology Present?	Yes No	
		•		,	—	
Saturation Present?	Yes No	Depth (inches):	5			
(includes capillary fringe)						
Describe Recorded Data (stream	gauge, monitoring well, aeria	al photos, previous insp	ections), if available:			
Remarks:						

<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)		Dominant Species?	Indicator Status	Dominance Test workshee Number of Dominant Spec			
1. Tayan canadansia	25	Yes	FAC	Are OBL, FACW, or FAC:	les mat	1	(A)
 Tsuga canadensis Pinus strobus 	20	Yes	FACU	Total Number of Dominant Across All Strata:	t Species	5	(B)
3				Percent of Dominant Speci	ies That	2 0	— (A/B)
5.				Are OBL, FACW, or FAC:			
6.				Prevalence Index workshe	et:		
7.				Total % Cover of:	0	Multiply By	
	45	= Total Cov	er	OBL species	0	x 1 =	0
Sapling/Shrub Stratum (Plot size:15 ft)	-	=		FACW species	0	x 2 =	0
1. Kalmia latifolia	65	Yes	FACU	FAC species	25	x 3 =	75
2.				FACU species	135	x 4 =	540
3.				UPL species	0	x 5 =	0
4.				Column Totals	155	(A) (515 (B)
5.				Prevalence Index	x = B/A =	4.0	
				Hydrophytic Vegetation Inc	dicators:		
6				1- Rapid Test for Hydi	rophytic V	egetation	
7				2 - Dominance Test is	> 50%	· ·	
	65	= Total Cov	er	3 - Prevalence Index i			
Herb Stratum (Plot size: <u>5 ft</u>)				4 - Morphological Ada		(Provide su	pporting
1. <i>Kalmia latifolia</i>	35	Yes	FACU	data in Remarks or on a se	•	-	111 . 0
2. <i>Mitchella repens</i>	10	Yes	FACU	Problematic Hydroph	nytic Veget	tation¹ (Expl	ain)
3				Indicators of hydric soil ar	nd wetland	d hydrology	must be
4				present, unless disturbed		, 0,	
5.				Definitions of Vegetation S	trata:		,
6.				Tree – Woody plants 3 in. (more in dia	meter at
7.				breast height (DBH), regard	-		
8.				Sapling/shrub - Woody pla	nts less th	nan 3 in. DB	H and
9.				greater than or equal to 3.			
10.				Herb – All herbaceous (nor	ן (n-woody	plants, rega	rdless of
11.				size, and woody plants less	s than 3.2	8 ft tall.	
12.				Woody vines – All woody v	ines great	er than 3.28	3 ft in
	45	= Total Cov	or	height.			
Woody Vine Stratum (Plot size: _ 30 ft)		_ TOTAL COV	CI	Hydrophytic Vegetation Pr	resent? Y	es No	1
·							
1				•			
2.							
3.							
4							
	0	= Total Cov	er				
Remarks: (Include photo numbers here or on a separat	e sheet.)						
Eastern hemlock is considered a wetland indicator plant to delineation rather than of FACU as listed by the U.S. Arn			refore, it has b	been considered as having an ind	icator statu	s of FAC for t	his

	-	to the d	-			indicato	r or confirm the a	absence of indicators.)
Depth	Matrix		Redox					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	e Remarks
0 - 5	10YR 2/2	100		_			Silt Loam	n
5 - 6	10YR 3/3	100		_			Silt Loam	m
				_				
	-			_			1	 -
				_				
	-			_			-	
				_			•	·
	-			_				
				_				
				_				
				_				
¹Type: C =	Concentration, D =	Depletion	on, RM = Reduced	Mat	rix, MS =	Masked	Sand Grains. ² L	Location: PL = Pore Lining, M = Matrix.
Hydric Soil	Indicators:							Indicators for Problematic Hydric Soils ³ :
Histoso			Polyvalue Bel	ow S	Surface (S	8) (LRR	R, MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		Thin Dark Sur					Coast Prairie Redox (A16) (LRR K, L, R)
	listic (A3)		Loamy Mucky					
	gen Sulfide (A4)		Loamy Gleyed				•	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	ed Layers (A5)		Depleted Mat					Dark Surface (S7) (LRR K, L)
Deplete	ed Below Dark Surfa	ace (A11						Polyvalue Below Surface (S8) (LRR K, L)
Thick D	ark Surface (A12)		Depleted Dar	k Su	rface (F7)		Thin Dark Surface (S9) (LRR K, L)
Sandy I	Mucky Mineral (S1)		Redox Depres	ssior	ıs (F8)			Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy	Gleyed Matrix (S4)							Piedmont Floodplain Soils (F19) (MLRA 149B)
-	Redox (S5)							Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
-	d Matrix (S6)							Red Parent Material (F21)
	urface (S7) (LRR R, N	ΛΙ DΔ 1./	QR)					Very Shallow Dark Surface (TF12)
Daik 30	111ace (37) (LKK K, N	ILIXA 14	90)					Other (Explain in Remarks)
3Indicators	of hydrophytic veg	etation	and wetland hydr	olog	y must b	e preser	nt, unless disturbe	ed or problematic.
Restrictive	Layer (if observed):							
	Type:		Rock			Hydric	Soil Present?	Yes No/_
	Depth (inches):		6					
Remarks:	(<u>I</u>		.
Kemarks.								

Photo of Sample Plot North



Project/Site: Baker		City/County: Shut	tesbury, Franklin	Sampling Date: 2020-April-15			
Applicant/Owner: W.D. Cowls			State: MA	Sa	mpling Point: W-MJF	R-08_UPL-2	
Investigator(s): Matt Regan, Mo	olly Lennon		Section, Township,	Range:			
Landform(hillslope,terrace,etc.):	Hillslope		Local relief (concave, conv	/ex, none): Co	onvex	Slope (%): 0 to 1	
Subregion (LRR or MLRA): LF	RR R		Lat: 42.421995769	3 Long: -7	2.4280566537	Datum: WGS84	
Soil Map Unit Name: Chicheste	er fine sandy loam,	8 to 15 percent slo	pes		NWI classification	:	
Are climatic/hydrologic conditions	on the site typical	l for this time of ye	ar? Yes <u>✓</u> No	(If no, e	xplain in Remarks.)		
Are Vegetation, Soil,	or Hydrology _	significantly dis	sturbed? Are "Norm	al Circumstan	ices" present?	es 🟒 No	
Are Vegetation, Soil,	or Hydrology $_$	naturally probl	ematic? (If needed,	explain any a	inswers in Remarks.)		
SUMMARY OF FINDINGS – A	ttach site map s	showing samplir	ng point locations, trar	nsects, impo	ortant features, e	tc.	
Hydrophytic Vegetation Present?	Yes _	No _ _ _					
Hydric Soil Present?	Yes _	No / _	Is the Sampled Area withi	in a Wetland?	Yes .	No	
Wetland Hydrology Present?	Yes _	No / _	If yes, optional Wetland S	ite ID:			
			<u> </u>				
Remarks: (Explain alternative pro	cedures here or in	i a separate report)				
Covertype is UPL.							
,							
HYDROLOGY							
Wetland Hydrology Indicators:							
Primary Indicators (minimum of	one is required; ch	eck all that apply)		Secondary In	ndicators (minimum o	of two required)	
				-	Soil Cracks (B6)	•	
Surface Water (A1)		_Water-Stained Lea			Patterns (B10)		
High Water Table (A2)		Aquatic Fauna (B1		Moss Trim Lines (B16)			
Saturation (A3)		Marl Deposits (B1			on Water Table (C2)		
Water Marks (B1)		Hydrogen Sulfide		-	Burrows (C8)		
Sediment Deposits (B2)			neres on Living Roots (C3)	-	on Visible on Aerial Im	nagery (C9)	
Drift Deposits (B3)	_	Presence of Redu			or Stressed Plants (D	• •	
Algal Mat or Crust (B4)			ction in Tilled Soils (C6)		ohic Position (D2)	,	
Iron Deposits (B5)		Thin Muck Surface			Aquitard (D3)		
Inundation Visible on Aerial Ir	magery (B7)	Other (Explain in F	Remarks)		ographic Relief (D4)		
Sparsely Vegetated Concave S	Surface (B8)				tral Test (D5)		
Field Observations:				FAC-Neul	Ital Test (D3)		
Surface Water Present?	Yes No	./ Denth	(inches):				
Water Table Present?	Yes No	•	(inches):	- Wetland Hyd	drology Present?	Yes No	
Saturation Present?	Yes No		· · · · · · · · · · · · · · · · · · ·	- Victiona riye	nology i resent.		
	Tes NO	<u>v</u> Deptili	(inches):	-			
(includes capillary fringe)							
Describe Recorded Data (stream	gauge, monitoring	g well, aerial photos	s, previous inspections), if a	available:			
Remarks:							

' <u>'</u>							
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)		Dominant Species?	Indicator Status	Dominance Test worksh Number of Dominant Sp		2	(4)
1. Tsuga canadensis	20	Yes	FAC	Are OBL, FACW, or FAC:			(A)
2. Pinus strobus	10	Yes	FACU	Total Number of Domin	ant Species	4	(B)
3. Quercus rubra		No	FACU	Across All Strata:			(D)
4.			17100	Percent of Dominant Sp	ecies That	5 ((A/B)
5.				Are OBL, FACW, or FAC:			(700)
6.				Prevalence Index works	heet:		
7.				<u>Total % Cover of</u>	<u>of:</u>	Multiply	<u>By:</u>
7		= Total Cov		OBL species	0	x 1 =	0
5 1: (51 1 5: (51 . :	35	_= TOTAL COV	er	FACW species	0	x 2 =	0
Sapling/Shrub Stratum (Plot size: 15 ft)				FAC species	30	x 3 =	90
1. Kalmia latifolia		Yes	FACU	FACU species	25	x 4 =	100
2. Tsuga canadensis	10	Yes	FAC	UPL species	0	x 5 =	0
3				Column Totals	55	(A)	190 (B)
4				Prevalence Inc		3.5	170 (5)
5							·
6				Hydrophytic Vegetation			
7.				1- Rapid Test for H		egetation	
	20	= Total Cov	er	2 - Dominance Tes			
Herb Stratum (Plot size:5 ft)	-	=		3 - Prevalence Inde			
1.				4 - Morphological		-	supporting
2.				data in Remarks or on a			
3.				Problematic Hydro	. , .	-	
				¹Indicators of hydric soil		-	gy must be
4				present, unless disturbe		matic	
5				Definitions of Vegetation			
6				Tree – Woody plants 3 ir			diameter at
7				breast height (DBH), reg		_	
8				Sapling/shrub - Woody			DBH and
9				greater than or equal to			
10				Herb – All herbaceous (r	-		gardless of
11				size, and woody plants l			
12.				Woody vines – All wood	y vines great	ter than 3	.28 ft in
	0	= Total Cov	er	height.			
Woody Vine Stratum (Plot size:30 ft)	-	=		Hydrophytic Vegetation	Present?	/es N	lo <u> / </u>
1.							
2.				•			
3.				•			
4.				•			
4.		- Tatal Cau		•			
		_= TOTAL COV	er				
Remarks: (Include photo numbers here or on a sepa		= Total Cov		een considered as having an in	dicator etatue	of EAC for	
Remarks: (Include photo numbers here or on a sepa Eastern hemlock is considered a wetland indicator plan this delineation rather than of FACU as listed by the U.	t under the MA			een considered as having an ir	dicator status	of FAC for	

	cription: (Describe	to the de				indicato	r or confirm the	absence of indi	cators.)
Depth	Matrix		Redox	Feat	ures				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Textu	ure	Remarks
0 - 8	10YR 2/2	100		_			Sandy	Loam	
8 - 18	10YR 4/6	100		_			Sandy	Loam	
				_					
				_		-		_	
				_					
	•			_			-		
				_					
				_				_	
	-			_			-		
				_					
	-			_			-		
¹Type: C = 0	Concentration, D =	Depletio	n, RM = Reduced	Mat	rix, MS =	Masked	Sand Grains. ²	Location: PL = P	Pore Lining, M = Matrix.
Hydric Soil	Indicators:							Indicators fo	or Problematic Hydric Soils³:
Histoso	l (A1)		Polyvalue Bel	ow S	urface (S	88) (LRR	R, MLRA 149B)	2 cm Mu	ck (A10) (LRR K, L, MLRA 149B)
Histic E	pipedon (A2)		Thin Dark Sur	face	(S9) (LRF	R R, MLR	A 149B)		airie Redox (A16) (LRR K, L, R)
Black H	istic (A3)		Loamy Mucky			(LRR K,	L)		cky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		Loamy Gleyed						face (S7) (LRR K, L)
	ed Layers (A5)		Depleted Mat						e Below Surface (S8) (LRR K, L)
	ed Below Dark Surf								k Surface (S9) (LRR K, L)
l	ark Surface (A12)		Depleted Dar)			nganese Masses (F12) (LRR K, L, R)
_	Mucky Mineral (S1)		Redox Depre	ssior	ıs (F8)				nt Floodplain Soils (F19) (MLRA 149B)
-	Gleyed Matrix (S4)							Mesic Sp	odic (TA6) (MLRA 144A, 145, 149B)
_	Redox (S5)								ent Material (F21)
Strippe	d Matrix (S6)								llow Dark Surface (TF12)
Dark Su	ırface (S7) (LRR R, N	/ILRA 149	9B)					•	xplain in Remarks)
3Indicators	of hydrophytic veg	etation a	and wetland hydr	olog	v must b	e preser	nt. unless disturb		•
-	Layer (if observed):		, , , , , , , , , , , , , , , , , , ,	O.	,	1	,		
Reserve	Type:		None			Hydric	: Soil Present?		Yes No⁄_
	• •		None			liyanc	. John resent:		163 140 <u></u>
	Depth (inches):								-
Remarks:									

Photo of Sample Plot North



Project/Site: Baker	City/County: Shu	utesbury, Franklin	Sampling Date: 2020-April-15				
Applicant/Owner: W.D. Cowls	s	State: MA	Sampling Point: W	/-BAK-09_PSS-1			
Investigator(s): Matt Regan, N	iolly Lennon	Section, Township,	Range:				
Landform(hillslope,terrace,etc.):	: Hillslope	Local relief (concave, conv	/ex, none): Concave	Slope (%): 0 to 1			
Subregion(LRRorMLRA): LF	RR R	Lat: 42.423636987	'8 Long: -72.4284350128	Datum: WGS84			
Soil Map Unit Name: Pillsbury	y fine sandy loam, 0 to 8 percent slope	es, very stony	NWI classifica	ation:			
Are climatic/hydrologic condition	ns on the site typical for this time of ye	ear? Yes <u></u> ✓ No	(If no, explain in Remarl	ks.)			
Are Vegetation, Soil,	or Hydrology significantly d	isturbed? Are "Norm	al Circumstances" present?	Yes _ ✓ No			
Are Vegetation, Soil,	or Hydrology naturally prob	olematic? (If needed,	explain any answers in Rema	rks.)			
SUMMARY OF FINDINGS – A Hydrophytic Vegetation Present Hydric Soil Present?	Attach site map showing sampli t? Yes _ V No Yes _ No	ing point locations, trai	· · · · ·	es, etc. /es/_ No			
Wetland Hydrology Present?	Yes No	If yes, optional Wetland S	ite ID:	W-BAK-09			
HYDROLOGY							
Wetland Hydrology Indicators:							
Primary Indicators (minimum of	f one is required; check all that apply)		Secondary Indicators (minim	um of two required)			
Surface Water (A1)	⁄ Water-Stained Le	eaves (B9)	Surface Soil Cracks (B6)				
High Water Table (A2)	Aquatic Fauna (B		Drainage Patterns (B10)				
Saturation (A3)	Marl Deposits (B	15)	Moss Trim Lines (B16) Dry-Season Water Table (C2)				
Water Marks (B1)	Hydrogen Sulfide		Crayfish Burrows (C8)	(2)			
Sediment Deposits (B2)		heres on Living Roots (C3)	Saturation Visible on Aeri	al Imagery (C9)			
Drift Deposits (B3)	Presence of Redu	• •	Stunted or Stressed Plant				
Algal Mat or Crust (B4) Iron Deposits (B5)	Recent Iron Redu Thin Muck Surfac	uction in Tilled Soils (C6)	Geomorphic Position (D2)				
Inundation Visible on Aerial			Shallow Aquitard (D3)				
Sparsely Vegetated Concave	· · · · · · · · · · · · · · · · · · ·	Tremanie,	Microtopographic Relief (D4)			
			FAC-Neutral Test (D5)				
Field Observations:							
Surface Water Present?	•	n (inches):	-				
Water Table Present?	Yes _ No Depth	n (inches):	- Wetland Hydrology Present?	Yes No			
Saturation Present?	Yes No Depth	n (inches):					
(includes capillary fringe)							
Describe Recorded Data (stream Remarks:	n gauge, monitoring well, aerial photo	os, previous inspections), if	available:				

<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)		Dominant Species?	Indicator Status	Dominance Test works Number of Dominant		3	(A)
1. Pinus strobus	10	Yes	FACU	Are OBL, FACW, or FAC	:		(A)
2.				Total Number of Dom	inant Species	5	(B)
3.				Across All Strata:			(5)
4.	· · · · · · · · · · · · · · · · · · ·			Percent of Dominant S	•	60	(A/B)
5.				Are OBL, FACW, or FAC			
6.				Prevalence Index work			
7.				<u>Total % Cove</u>	<u>r of:</u>	<u>Multiply</u>	<u>By:</u>
•	10	= Total Cove	r	OBL species	90	x 1 =	90
Sapling/Shrub Stratum (Plot size:15 ft)				FACW species	10	x 2 =	20
1. Acer rubrum	35	Yes	FAC	FAC species	35	x 3 =	105
				FACU species	20	x 4 =	80
2. Kalmia latifolia	10	Yes	FACU	- UPL species	0	x 5 =	0
3.				- Column Totals	155	(A)	295 (B)
1				Prevalence I	ndex = B/A =	1.9	
5				Hydrophytic Vegetatio	n Indicators		
5				1- Rapid Test for		/egetation	
7				2 - Dominance Te		regetation	
	45	= Total Cove	r	✓ 3 - Prevalence In			
Herb Stratum (Plot size: <u>5 ft</u>)				4 - Morphologica		1 (Provide	sunnorting
1. Juncus effusus	70	Yes	OBL	data in Remarks or on			supporting
2. Schoenoplectus tabernaemontani	20	Yes	OBL	Problematic Hyd	•		nlain)
3. Coptis trifolia	10	No	FACW	Indicators of hydric se			
4.				present, unless distur		-	gy must be
5.				Definitions of Vegetati	· · · · · · · · · · · · · · · · · · ·	matic	
5.				Tree – Woody plants 3		r moro in	diameter at
7.				breast height (DBH), re			ulailletei at
8.				Sapling/shrub – Wood	-	_	NRH and
o. 9.				greater than or equal			obi i ailu
				Herb – All herbaceous			ardless of
10				size, and woody plants			Sur aress or
11				Woody vines – All woo			28 ft in
12				height.	ay vines grea	cer criair 5	2010111
	100	_= Total Cove	r		D	/a- ()	la.
Woody Vine Stratum (Plot size: <u>30 ft</u>)				Hydrophytic Vegetation	on Present?	res i	10
1							
2							
3							
4.							
	0	= Total Cove	r				
Remarks: (Include photo numbers here or on a se	narate sheet \	_					
Remarks. (include prioto flumbers here of on a se	sparate sneet.)						

	•	to the de	•			indicato	r or confirm the ab	osence of indicators.)
Depth _	Matrix		Redox				- .	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0 - 7	10YR 2/1	100		-			Silt Loam	
7 - 18	2.5Y 4/2	95	7.5YR 4/6	5	C	M	Silt Loam	
				_				
				- —				
	_		-	- —			-	
				- —				
¹Type: C = C	oncentration, D =	Depletio	n, RM = Reduced	Mat	rix, MS =	Masked	Sand Grains. ² Lo	ocation: PL = Pore Lining, M = Matrix.
Hydric Soil I	ndicators:							Indicators for Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be	low S	Surface (S	8) (LRR	R, MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Ep	pipedon (A2)		Thin Dark Su					Coast Prairie Redox (A16) (LRR K, L, R)
Black Hi			Loamy Muck					5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydroge	en Sulfide (A4)		Loamy Gleye					•
	d Layers (A5)		_✓ Depleted Ma	trix (F3)			Dark Surface (S7) (LRR K, L)
	d Below Dark Surfa	ace (A11)						Polyvalue Below Surface (S8) (LRR K, L)
Thick Da	ark Surface (A12)		Depleted Dar	k Su	rface (F7))		Thin Dark Surface (S9) (LRR K, L)
Sandy M	lucky Mineral (S1)		Redox Depre	ssior	ns (F8)			Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy G	ileyed Matrix (S4)							Piedmont Floodplain Soils (F19) (MLRA 149B)
-	edox (S5)							Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
_	Matrix (S6)							Red Parent Material (F21)
		AL DA 140)D)					Very Shallow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, M	ILKA 145	96)					Other (Explain in Remarks)
3Indicators	of hydrophytic veg	etation a	and wetland hydi	olog	y must b	e preser	nt, unless disturbe	d or problematic.
Restrictive L	ayer (if observed):	:						
	Type:		None			Hydric	Soil Present?	Yes No
	Depth (inches):			•		1		
Remarks:	э ор с. т. (е.т.е.э).					<u> </u>		
Remarks.								

Photo of Sample Plot North



Project/Site: Baker	City/County: Shut	esbury, Franklin	Sampling Date: 2020-April-15			
Applicant/Owner: W.D. Cowls		State: MA	Sampling Point: W	-MJR-09_UPL-1		
Investigator(s): Matt Regan, Molly	/ Lennon	Section, Township, F	Range:			
Landform(hillslope,terrace,etc.):	Hillslope	Local relief (concave, conve	ex, none): Convex	Slope (%): 0 to 1		
Subregion(LRRorMLRA): LRR R	Ł	Lat: 42.4236258818	Long: -72.4283759203	Datum: WGS84		
Soil Map Unit Name: Pillsbury fine	e sandy loam, 0 to 8 percent slopes	s, very stony	NWI classifica	tion:		
Are climatic/hydrologic conditions o	n the site typical for this time of year	ar? Yes <u>✓</u> No _	(If no, explain in Remark	s.)		
Are Vegetation, Soil,	or Hydrology significantly dis	turbed? Are "Norma	l Circumstances" present?	Yes No		
Are Vegetation, Soil,	or Hydrology naturally proble	ematic? (If needed, e	explain any answers in Remai	ks.)		
SUMMARY OF FINDINGS – Atta	ach site map showing samplir	ng point locations, trans	sects, important feature	s, etc.		
Hydrophytic Vegetation Present?	Yes No _ ✓					
Hydric Soil Present?	Yes No	Is the Sampled Area within	a 2 Wetland?	Yes No _ _ ∕_		
	Yes No√_	•		163 140 <u>_</u> /_		
Wetland Hydrology Present?		If yes, optional Wetland Sit	e ID:			
Remarks: (Explain alternative proce	dures here or in a separate report)	1				
Covertype is UPL. Cleared for timbe	er.					
HYDBOLOCY						
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	e is required; check all that apply)	9	Secondary Indicators (minimi	um of two required)		
6 6 14 (44)			Surface Soil Cracks (B6)	•		
Surface Water (A1)	Water-Stained Lea		Drainage Patterns (B10)			
High Water Table (A2)	Aquatic Fauna (B1		Moss Trim Lines (B16)			
Saturation (A3)	Marl Deposits (B15		Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide		Crayfish Burrows (C8)			
Sediment Deposits (B2)	·	neres on Living Roots (C3)	Saturation Visible on Aeria	al Imagery (C9)		
Drift Deposits (B3)	Presence of Reduc		Stunted or Stressed Plant	s (D1)		
Algal Mat or Crust (B4)		tion in Tilled Soils (C6)	Geomorphic Position (D2)			
Iron Deposits (B5)	Thin Muck Surface		Shallow Aquitard (D3)			
Inundation Visible on Aerial Ima		ternarks)	Microtopographic Relief (I	D4)		
Sparsely Vegetated Concave Su	rrace (B8)		FAC-Neutral Test (D5)			
Field Observations:						
Surface Water Present?	Yes No _ _/ Depth	(inches):				
Water Table Present?	Yes No/ Depth	(inches):	Wetland Hydrology Present?	Yes No _√_		
Saturation Present?	V N	(inches):	,			
		(IIICHES).				
(includes capillary fringe)						
Describe Recorded Data (stream ga	luge, monitoring well, aerial photos	s, previous inspections), if a	vailable:			
Remarks:						
Remarks.						

				1		1
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)		Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	3	(4)
1. Pinus strobus	40	Yes	FACU	Are OBL, FACW, or FAC:		(A)
2. Not Listed Plant	10	Yes	FAC	Total Number of Dominant Species	7	(D)
3.		103	1710	Across All Strata:		(B)
4.				Percent of Dominant Species That	42.9	(A /D)
				Are OBL, FACW, or FAC:	42.9	(A/B)
5				Prevalence Index worksheet:		
6				Total % Cover of:	Multiply I	By:
7				OBL species 0	x 1 =	0
	50	= Total Cov	er	FACW species 0	x 2 =	0
Sapling/Shrub Stratum (Plot size: 15 ft)				FAC species 30	x 3 =	90
1. Not Listed Plant	10	Yes	FAC	FACU species 90	x 4 =	360
2. Acer rubrum	10	Yes	FAC	UPL species 0	x 5 =	0
3. Kalmia angustifolia	10	Yes	FAC	Column Totals 120	(A)	450 (B)
4. Pinus strobus	10	Yes	FACU		3.8	430 (B)
5. Quercus rubra	0	No	FACU	Prevalence Index = B/A =	3.0	
6.				Hydrophytic Vegetation Indicators:		
7.				1- Rapid Test for Hydrophytic	/egetation	
· ·	40	= Total Cov	er	2 - Dominance Test is > 50%		
Herb Stratum (Plot size:5 ft)		·	C.	3 - Prevalence Index is $\leq 3.0^{1}$		
1. Kalmia latifolia	40	Yes	FACU	4 - Morphological Adaptations	¹ (Provide s	supporting
	40	163	FACO	data in Remarks or on a separate s	neet)	
2.				Problematic Hydrophytic Vege		'
3.				¹ Indicators of hydric soil and wetlar		gy must be
4				present, unless disturbed or proble	matic	
5				Definitions of Vegetation Strata:		
6				Tree – Woody plants 3 in. (7.6 cm) o	r more in c	liameter at
7				breast height (DBH), regardless of h	ieight.	
8.				Sapling/shrub – Woody plants less		BH and
9				greater than or equal to 3.28 ft (1 m		
10				Herb – All herbaceous (non-woody)		gardless of
11.				size, and woody plants less than 3.2		
12.				Woody vines – All woody vines grea	ter than 3.	28 ft in
	40	= Total Cov	er	height.		
Woody Vine Stratum (Plot size: 30 ft)		•		Hydrophytic Vegetation Present?	Yes N	o <u> </u>
1.						
2.				•		
3.						
4						
	0	= Total Cov	er			
Remarks: (Include photo numbers here or on a separat	e sheet.)					
Unidentified plant species have been conservatively assu	ımed to be w	etland indica	ator plants and	l have been assigned an indicator status of	FAC.	

	cription: (Describe	to the de				indicato	r or confirm the	absence of indi	cators.)
Depth _	Matrix		Redox						
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Textu		Remarks
0 - 6	10YR 2/2	100		_			Sandy I	Loam	
6 - 18	10YR 5/6	100		_			Sandy I	Loam	
				_			-		
				_					-
				_			-		
				_					
				_			-		
				_					
				_					
				_					
¹Type: C = C	oncentration, D =	Depletio	n, RM = Reduced	Mat	rix, MS =	Masked	Sand Grains. 2	Location: PL = P	Pore Lining, M = Matrix.
Hydric Soil I	ndicators:							Indicators fo	r Problematic Hydric Soils³:
Histosol	(A1)		Polyvalue Bel	ow S	Surface (S	88) (LRR	R, MLRA 149B)	2 cm Mu	ck (A10) (LRR K, L, MLRA 149B)
Histic Ep	oipedon (A2)		Thin Dark Sur	face	(S9) (LRF	R R, MLR	A 149B)		airie Redox (A16) (LRR K, L, R)
Black Hi	stic (A3)		Loamy Mucky	Mir Mir	neral (F1)	(LRR K,	L)		cky Peat or Peat (S3) (LRR K, L, R)
Hydroge	en Sulfide (A4)		Loamy Gleyed						face (S7) (LRR K, L)
	d Layers (A5)		Depleted Mat						e Below Surface (S8) (LRR K, L)
	d Below Dark Surfa	ace (A11							k Surface (S9) (LRR K, L)
l	ark Surface (A12)		Depleted Dar)			nganese Masses (F12) (LRR K, L, R)
Sandy M	lucky Mineral (S1)		Redox Depre	ssior	ıs (F8)				t Floodplain Soils (F19) (MLRA 149B)
Sandy G	ileyed Matrix (S4)								odic (TA6) (MLRA 144A, 145, 149B)
Sandy R	edox (S5)								ent Material (F21)
Stripped	d Matrix (S6)								llow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, N	/ILRA 149	9B)					•	kplain in Remarks)
3Indicators	of hydrophytic veg	otation	and watland budr	مامم	v must h	o procor	at uplace dicturb		•
-			and wetland nyur	olog	y must b	e preser	it, uriless disturb	ed of problema	atic.
	_ayer (if observed): 					l	5 115 12		V
	Type:		None			Hydric	: Soil Present?		Yes No⁄_
	Depth (inches):								
Remarks:									