



33. Wetland data point A1 soil profile and close-up of hydric features. 9/28/2021



34. Upland data point A2 soil profile. No indicators of hydric soils were present. 9/28/2021



35. View of upland area near upland data point A2, looking west. 9/28/2021



36. View of RSD5 between Wetland A and inlet of Culvert 2 under SR 258, looking east. 9/28/2021





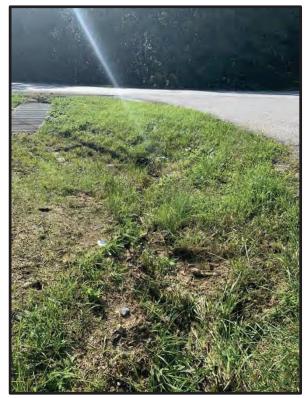
37. View of RSD1 located along the east side of N CR 100 E, looking north. RSD1 ultimately drains into UNT 1 to White Lick Creek. 9/28/2021



38. View of RSD1 and inlet of Culvert 1 under a driveway, located east of N CR 100 E, looking south. 9/28/2021



39. View of RSD2 and outlet of Culvert 1 under a driveway, located east of N CR 100 E, looking north. RSD2 ultimately drains into UNT 1 to White Lick Creek 9/28/2021



40. View of RSD2 and inlet of Culvert 2 under SR 258, looking southeast. 9/28/2021





41. View of UNT 1 to White Creek, looking southeast (downstream). The OHWM in this area measured 3.6 feet wide and 3 inches deep. Blue arrow signifies flow direction. 9/28/2021



42. View of UNT 1 to White Creek and outlet of Culvert 2 under SR 258, looking northwest (upstream). 9/28/2021



43. View of UNT 1 to White Creek and outlet of Culvert 3 under N CR 100 E, looking west (upstream). 9/28/2021



44. View of UNT 1 to White Creek and inlet of Culvert 3 under N CR 100 E, looking east (downstream). 9/28/2021

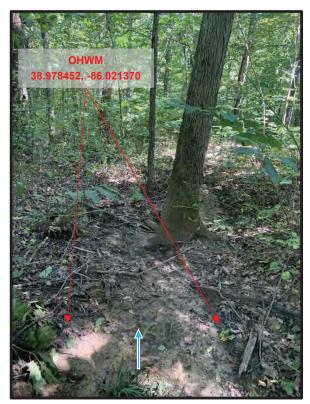




45. View of UNT 1 to White Creek along SR 258, looking west (upstream). 9/28/2021



46. View of UNT 1 to White Creek at confluence with RSD8, looking northeast (downstream). 9/28/2021



47. View of UNT 2 to White Creek, looking east (downstream). The OHWM in this area measured 3.5 feet wide and 2 inches deep. 9/28/2021



48. View of UNT 2 to White Creek, looking northwest (upstream). 9/28/2021





49. View of UNT 2 to White Creek and inlet of Culvert 4 under N CR 100 E, looking east (downstream). 9/28/2021



50. View of UNT 2 to White Creek, looking southwest (upstream). 9/28/2021



51. View of RSD6 to UNT 2 to White Creek located along the west side of N CR 100 E, looking south. 9/28/2021



52. View of RSD6 located west of N CR 100 E, looking north. 9/28/2021





53. View of RSD6 located west of N CR 100 E, looking north towards UNT 2 to White Creek. 9/28/2021



54. View of RSD7 to UNT 1 to White Creek, located south of SR 258, looking southwest from SR 258. 9/28/2021



55. View of RSD7, located south of SR 258, looking northeast. 9/28/2021



56. View of RSD8 to UNT 1 to White Creek located along the south side of SR 258, looking west. 9/28/2021





57. View of RSD8 to UNT 1 to White Creek located along the south side of SR 258, looking east. 9/28/2021



58. View of RSD9 located along the south side of SR 258, looking west. RSD9 ultimately drains into UNT 3 to White Creek. 9/28/2021



59. View of RSD9 and inlet of Culvert 6 under a driveway, located south of SR 258, looking west. 9/28/2021



60. View of RSD10 to UNT 3 to White Creek and outlet of Culvert 6 under a driveway, located south of SR 258, looking east. 9/28/2021





61. View of RSD10 located south of SR 258, looking west towards UNT 3 to White Creek. 9/28/2021



62. View of UNT 3 to White Creek and new box culvert (CV 258-036-4.73) under SR 258, looking north (upstream). 9/28/2021



63. View of UNT 3 to White Creek, looking south (downstream). The OHWM in this area measured 6 feet wide and 2 inches deep. 9/28/2021



64. View of dredged section of UNT 3 to White Creek and new box culvert (CV 258-036-4.73) under SR 258, looking south (downstream). 9/28/2021





65. View of dredged section of UNT 3 to White Creek and vegetation removal along banks, looking north (upstream). 9/28/2021



66. View of RSD11 located along the north side of SR 258, looking west. RSD11 drains into Wetland B. 9/28/2021



67. View of RSD11 into Wetland B located along the north side of SR 258, looking east. 9/28/2021



68. View of Wetland B, located within a roadside ditch along the north side of SR 258 and west of N CR 100 E, looking east. 9/28/2021





69. View of Wetland B and surrounding terrain, looking east. 9/28/2021



70. View of Wetland B, looking south. 9/28/2021



71. View from within Wetland B looking out towards surrounding terrain, looking west. 9/28/2021



72. View of Wetland B, with shovel located at wetland data point B1, looking west. B1 passed the dominance for hydrophytic vegetation. 9/28/2021





73. Wetland data point B1 soil profile and close-up of hydric features. 9/28/2021



74. Upland data point B2 soil profile. No indicators of hydric soils were present. 9/28/2021



75. View of upland area near upland data point B2, looking north. 9/28/2021

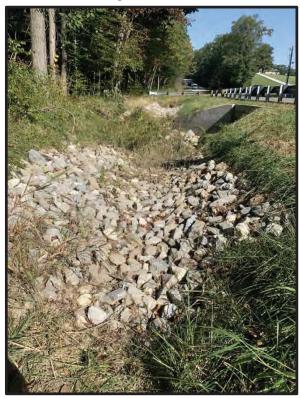


76. View of RSD12 between Wetland B and UNT 3 to White Creek, located along the north side of SR 258, looking east. 9/28/2021





77. View of RSD12 between Wetland B and UNT 3 to White Creek, located along the north side of SR 258, looking west. 9/28/2021



78. View of RSD12 transitioning to riprap-lined, between Wetland B and UNT 3 to White Creek, located north of SR 258, looking east. 9/28/2021



79. Upland data point C2 soil profile. No indicators of hydric soils were present. 9/28/2021



80. View of upland area near upland data point C2, looking north. 9/28/2021





81. View of RSD13 to UNT 4 to White Creek located along the north side of SR 258, looking east. 9/28/2021



82. View of RSD13 to UNT 4 to White Creek located along the north side of SR 258, looking west. 9/28/2021



83. View of riprap-lined RSD13 to UNT 4 to White Creek located north of SR 258, looking southeast. 9/28/2021



84. View of sediment-filled, riprap-lined RSD13 to UNT 4 to White Creek, located north of SR 258, looking northwest. 9/28/2021





85. View of beginning of UNT 4 to White Creek, looking southeast (upstream). 9/28/2021



86. View of UNT 4 to White Creek, looking north (downstream). The OHWM in this area measured 1.6 feet wide and 0.5 inches deep. 9/28/2021



87. View of Pond 1 located west of N CR 100 E, looking northwest. 9/28/2021



88. View of Pond 1 and drain inlet, looking southwest. 9/28/2021





89. View of Wetland D, located within a depression west of N CR 100 E and north of SR 258, looking southeast. 9/28/2021



90. View of Wetland D and surrounding terrain, looking east. 9/28/2021



91. View of Wetland D, looking northwest. 9/28/2021



92. View of Wetland D, looking south. 9/28/2021





93. View from within Wetland D, looking out towards surrounding terrain, looking north. 9/28/2021



94. Wetland data point D1 soil profile and close-up of hydric features. 9/28/2021



95. Upland data point D2 soil profile. No indicators of hydric soils were present. 9/28/2021



96. View of upland area near upland data point D2, looking east. 9/28/2021





97. View of RSD14 between Wetland D and inlet of Culvert 5 under N CR 100 E, looking north. 9/28/2021

Project/Site: SR 258 Sight Distance Improvement (Des No	o. 1295633) (City/County:	Jackson (County	Sampling Date: 9/28/21	
Applicant/Owner: INDOT				State: IN	Sampling Point: A1	
Investigator(s): Marion Wells & Claudia McAllister-Peterso	n, CMT	Section, Tov	wnship, Ra	nge: <u>S6 T6N R5E</u>		
Landform (hillslope, terrace, etc.): Roadside ditch		L	ocal relief	(concave, convex, none):	Concave	
Slope (%): 5 Lat: 38.979345		Long: <u>-86.0</u>	20861		Datum: NAD 83	
Soil Map Unit Name: CkkC2 - Cincinnati silt loam, 6 to 12	percent slope	es, eroded		NWI or WWI c	lassification: N/A	
Are climatic / hydrologic conditions on the site typical for th						
Are Vegetation, Soil, or Hydrology					present? Yes X No	
Are Vegetation, Soil, or Hydrology				eeded, explain any answe		
SUMMARY OF FINDINGS – Attach site map			g point l	ocations, transects	, important features	, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	No		e Sampled in a Wetlar		<u> </u>	
Tomano.						
VEGETATION – Use scientific names of plants	S.					
<u>Tree Stratum</u> (Plot size:) 1		Dominant Species?	Status	Dominance Test work Number of Dominant S That Are OBL, FACW,	pecies	(A)
2				Total Number of Domin Species Across All Stra		(B)
4. 5.	_			Percent of Dominant Sp That Are OBL, FACW,		(A/B)
Sapling/Shrub Stratum (Plot size:)		= Total Cov	er	Prevalence Index wor	ksheet:	
1				Total % Cover of:		-
2				OBL species10		
3				· · ·	x 2 = 0	•
4				· ·	x 3 = 0	
5				· -	x 4 = 0 x 5 = 0	
Herb Stratum (Plot size:)		= Total Cov	er	Column Totals: 10		(B)
1. Eleocharis obtusa	90	Y	OBL	Column Fotale.	(,,	(5)
2. Echinochloa muricata	10	N	OBL	Prevalence Index	•	-
3				Hydrophytic Vegetation		
4				X Dominance Test is		
5				X Prevalence Index is	s ≤3.0° ptations¹ (Provide supportir	
6				data in Remarks	s or on a separate sheet)	ıg
7				Problematic Hydro	phytic Vegetation ¹ (Explain	1)
8 9						
10				¹ Indicators of hydric soi be present, unless distu	il and wetland hydrology mu	ust
		= Total Cov	er	be present, unless diste	Tibed of problematic.	
Woody Vine Stratum (Plot size:)				Harden alle Ca		
1				Hydrophytic Vegetation		
		= Total Cov	er		s <u>X</u> No	
Remarks: (Include photo numbers here or on a separate	sheet.)			ı		

					n the absence of	maioatoron
Depth <u>Matrix</u>		x Feature				
(inches) Color (moist) %	Color (moist)	%	<u>Type¹</u>	Loc ²	Texture	Remarks
0-18 10YR 5/2 75	7.5YR 5/8	20	C	PL/M	Clay+Silt	
	Gley1 6/5GY	5	С	M		
		-				
¹ Type: C=Concentration, D=Depletion, RM	=Reduced Matrix, CS	S=Covered	d or Coate	d Sand G		on: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:					Indicators for	r Problematic Hydric Soils³:
Histosol (A1)		Gleyed Ma				airie Redox (A16)
Histic Epipedon (A2)		Redox (S5				ganese Masses (F12)
Black Histic (A3)		d Matrix (S			Other (Ex	plain in Remarks)
Hydrogen Sulfide (A4)		Mucky Mir	. ,			
Stratified Layers (A5) 2 cm Muck (A10)	X Deplete	Gleyed Ma				
Zern Muck (A10) Depleted Below Dark Surface (A11)		u iviatrix (i Dark Surfa				
Thick Dark Surface (A11)		d Dark Suna			³ Indicators of	hydrophytic vegetation and
Sandy Mucky Mineral (S1)		o Dark Su Depressio				ydrology must be present,
5 cm Mucky Peat or Peat (S3)		эоргосого	110 (1 0)			sturbed or problematic.
Restrictive Layer (if observed):						
Type:						
Depth (inches):					Hydric Sail Dr	esent? Yes X No
					Hydric 30ii Fi	esent: Tes X NO
Remarks:						
HYDROLOGY						
HYDROLOGY Wetland Hydrology Indicators:						
Wetland Hydrology Indicators:	ired: check all that as	(vlac			Secondary	Indicators (minimum of two required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is requi			es (B9)			Indicators (minimum of two required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is requi	Water-Sta	ined Leav	` '		Surface	e Soil Cracks (B6)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required) X Surface Water (A1) High Water Table (A2)	Water-Sta Aquatic Fa	ined Leav auna (B13)		Surface Draina	e Soil Cracks (B6) ge Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is requivable) X Surface Water (A1) X High Water Table (A2) X Saturation (A3)	Water-Sta Aquatic Fa True Aqua	ined Leav auna (B13 itic Plants) (B14)		Surface Drainag Dry-Se	e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2)
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Reset Form	Print Form
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Project/Site: <u>SR 258 Sight Distance Improvement (Des No.</u>	1295633) (City/Co	unty:	Jackson (County	Sampling Date:	9/28/21	
					State: IN			
Investigator(s): Marion Wells & Claudia McAllister-Peterso								
Landform (hillslope, terrace, etc.): Hillslope				•		None		
Slope (%): 20 Lat: 38.979357							3	
Soil Map Unit Name: CkkC2 - Cincinnati silt loam, 6 to 12								
Are climatic / hydrologic conditions on the site typical for the						·		
Are Vegetation, Soil, or Hydrology							X No	
Are Vegetation, Soil, or Hydrology								
SUMMARY OF FINDINGS – Attach site map							eatures, et	c.
Hydrophytic Vegetation Present? Yes	No X		1- 41	0	A			
Hydric Soil Present? Yes	No X			Sampled a Wetlan		No <u>×</u>		
Wetland Hydrology Present? Yes	No <u>X</u>		WILIIII	a vvetiaii	iu: 165	NOX	_	
Remarks:								
VEGETATION – Use scientific names of plants	 3.							
	Absolute	Domir	nant I	ndicator	Dominance Test work	sheet:		\neg
Tree Stratum (Plot size: 30' radius) 1					Number of Dominant S That Are OBL, FACW,		1 (A)	
2					Total Number of Domin Species Across All Stra		2 (B)	
4					Species Across Air Stra	<u></u>	<u>Z</u> (D)	
5.					Percent of Dominant Sp That Are OBL, FACW,		0.00 (A/E	3)
Sapling/Shrub Stratum (Plot size:15' radius)		= Total	l Cove	r	Prevalence Index wor	kshoot:		_
1					Total % Cover of:		oly by:	
2.					OBL species0			
3.					FACW species 0			
4.					FAC species20) x 3 =	60	
5					FACU species80) x 4 =	320	
		= Total			UPL species0	x 5 =	0	
Herb Stratum (Plot size: 5' radius)	00			FAOU	Column Totals:10	<u>10</u> (A)	380 (B))
Paspalum notatum Setaria pumila		Y		FACU FAC	Prevalence Index	= B/A = :	3.80	
Dinaggua fullanum		N		FACU	Hydrophytic Vegetation			\dashv
4. Trifolium repens					Dominance Test is			
5					Prevalence Index is			
6.					Morphological Ada	ptations ¹ (Provide	e supporting	
7.						s or on a separat	· ·	
8					Problematic Hydro	phytic Vegetation	า' (Exp l ain)	
9					1			
10					¹ Indicators of hydric soi be present, unless dist			
Woody Vine Stratum (Plot size: 20' radius	100	= Total	I Cove	r				\dashv
Woody Vine Stratum (Plot size: 30' radius) 1					Hydrophytic Vegetation			
2						s No_	<u> </u>	
		= Total	I Cove	r				
Remarks: (Include photo numbers here or on a separate	sheet.)				1			\neg

Profile Descripti Depth	Matrix		Re	dox Feature	es			
	Color (moist)	%	Color (moist)	%	_Type ¹	Loc ²	Texture	Remarks
0-4	10YR 4/2	100					Loam	
	10YR 4/2	25	10YR 5/8				Clay	
- 10 _	101111112		10111070					
				_				
¹ Type: C=Conce		letion, RM=F	Reduced Matrix,	CS=Covere	d or Coate	d Sand G		ation: PL=Pore Lining, M=Matrix.
Hydric Soil Indic								or Problematic Hydric Soils ³ :
Histosol (A1)				y Gleyed Ma				Prairie Redox (A16)
Histic Epiped				y Redox (S				nganese Masses (F12)
Black Histic (ed Matrix (Other (E	Exp l ain in Remarks)
Hydrogen Su				y Mucky Mi				
Stratified Lay				y Gleyed M				
2 cm Muck (A	(10) Iow Dark Surface	· (A11)		eted Matrix (x Dark Surfa				
Depleted Bei		# (A11)		ted Dark Sun			3Indicators	of hydrophytic vegetation and
	y Mineral (S1)			x Depressio				hydrology must be present,
	Peat or Peat (S3	3)	11000	A Dopressio	///o (1 0)			disturbed or problematic.
Restrictive Laye								
-	,							
								3
Denth (inches))·						Hydric Soil F	Present/ Yes NO A
Depth (inches):						Hydric Soil F	Present? Yes No X
Remarks:):		_				Hydric Soil F	Present? Yes No _X
			_				Hydric Soil F	resent? YesNo _X
Remarks:	ogy Indicators:		ed; check all that	apply)				y Indicators (minimum of two required
Remarks: IYDROLOGY Wetland Hydrolo	ogy Indicators: s (minimum of o			apply)	/es (B9)		Secondar	
Remarks: IYDROLOGY Wetland Hydrolo Primary Indicators Surface Wate	ogy Indicators: s (minimum of o		Water-S	tained Leav	` ,		Secondar Surfa	y Indicators (minimum of two required
Remarks: IYDROLOGY Wetland Hydrolo Primary Indicators	ogy Indicators: s (minimum of o er (A1) Fable (A2)		Water-S Aquatic		3)		Secondar Surfa Drain	y Indicators (minimum of two required
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Remarks: IYDROLOGY Wetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or or Iron Deposits Inundation V Sparsely Veg Field Observatio Surface Water Pr Water Table Pres Saturation Preser (includes capillary Describe Records	ogy Indicators: s (minimum of orer (A1) Fable (A2) A3) (B1) eposits (B2) s (B3) Crust (B4) s (B5) isible on Aerial Ingetated Concave ons: eesent? your control of the contr	magery (B7) e Surface (Bi es N es N es N	Water-S Aquatic True Aq Hydroge Oxidizer Presence Recent Thin Mu) Gauge (8) Other (E	tained Leav Fauna (B13 uatic Plants en Sulfide O d Rhizosphe se of Reduce lron Reduct ck Surface or Well Data explain in Re (inches): (inches): (inches):	B) (B14) (dor (C1) eres on Liv ed Iron (C4) ion in Tilled (C7) (C9) emarks)	d Soils (Co	Secondar Surfa Drain Dry-S Crayl (C3) Satur Stunt G) Geon FAC-	ry Indicators (minimum of two required for Soil Cracks (B6) flage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) fled or Stressed Plants (D1) floorphic Position (D2) floorward Test (D5)
Remarks: IYDROLOGY Wetland Hydrolo Primary Indicators Surface Wate High Water T Saturation (A Water Marks Sediment De Drift Deposits Algal Mat or or Iron Deposits Inundation V Sparsely Veg Field Observatio Surface Water Pr Water Table Pres Saturation Preser (includes capillary Describe Records	ogy Indicators: s (minimum of orer (A1) Fable (A2) A3) (B1) eposits (B2) s (B3) Crust (B4) s (B5) isible on Aerial Ingetated Concave ons: eesent? your control of the contr	magery (B7) e Surface (Bi es N es N es N	Water-S Aquatic True Aq Hydroge Oxidizer Presence Recent Thin Mu) Gauge (8) Other (E	tained Leav Fauna (B13 uatic Plants en Sulfide O d Rhizosphe se of Reduce lron Reduct ck Surface or Well Data explain in Re (inches): (inches): (inches):	B) (B14) (dor (C1) eres on Liv ed Iron (C4) ion in Tilled (C7) (C9) emarks)	d Soils (Co	Secondar Surfa Drain Dry-S Crayl (C3) Satur Stunt G) Geon FAC-	ry Indicators (minimum of two required not soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) need or Stressed Plants (D1) morphic Position (D2) Neutral Test (D5)

Project/Site: SR 258 Sight Distance Improvement (Des No.	1295633)	City/Count	y: Jackson (County	Sampling Date:	9/28/21
				State: IN		
Investigator(s): Marion Wells & Claudia McAllister-Peterso					–	
Landform (hillslope, terrace, etc.): Roadside ditch			•		Concave	
Slope (%): 5 Lat: 38.979006						
Soil Map Unit Name: StdAH - Stendal silt loam, 0 to 2 per						
Are climatic / hydrologic conditions on the site typical for th					·	
Are Vegetation, Soil, or Hydrology						< No ■
Are Vegetation, Soil, or Hydrology						
SUMMARY OF FINDINGS – Attach site map						atures, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Yes X I Yes X			he Sampled		N ₂	
Wetland Hydrology Present? Yes X		Wit	hin a Wetlan	id? Yes	No	•
Remarks: VEGETATION – Use scientific names of plants	.					
Plants	Absolute	Dominan	nt Indicator	Dominance Test work	rehoot:	1
Tree Stratum (Plot size: 30' radius) 1	% Cover	Species?	Status	Number of Dominant S That Are OBL, FACW,	pecies	(A)
2				Total Number of Domin Species Across All Stra		(B)
4. 5.				Percent of Dominant Sp That Are OBL, FACW,		00 (A/B)
Carling/Charle Charters (Districts 45) redice		= Total Co	over	Prevalence Index wor	kshoot:	
Sapling/Shrub Stratum (Plot size: 15' radius) 1				Total % Cover of:		, bv [.]
2				OBL species40		
3				FACW species50		
4.				FAC species 0		
5				FACU species0	× 4 =	0
		= Total Co		UPL species0	x 5 =	0
Herb Stratum (Plot size: 5' radius)	40	V	FACIAL	Column Totals: 90	<u>)</u> (A)	140 (B)
Phalaris arundinacea Echinochloa muricata	<u>40</u> 20		_ <u>FACW</u> OBL	Prevalence Index	= B/A = 1.5	56
o Chyceria striata		N	OBL	Hydrophytic Vegetation		
4. Cyperus esculentus		N	FACW	X Dominance Test is		
5. Typha X glauca	4.0	N	OBL	X Prevalence Index is	s ≤3.0 ¹	
6.			_	Morphological Ada	ptations¹ (Provide s	supporting
7				data in Remarks —— Problematic Hydro	s or on a separate :	·
8				Problematic Hydro	pnytic vegetation	(Explain)
9				¹ Indicators of hydric soi be present, unless dist		
Moody Vino Stratum (Districts 201 dive	90	= Total Co	over	-	-	
Woody Vine Stratum (Plot size: 30' radius) 1.				Hydrophytic Vegetation		
2		= Total Co		Present? Ye	s <u>X</u> No	
		- rotal CC	Jv∈I			
Remarks: (Include photo numbers here or on a separate	sheet.)					

SOIL	Sampling Point: B1

rofile Description Depth	Matrix		Rec	lox Feature	es			
	olor (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-18	10YR 5/2	80	7.5YR 4/6	20	С	M	silty clay	W/ sand
								-
				_				
ype: C=Concent	ration. D=Depl	etion. RM=I	Reduced Matrix. 0	CS=Covere	d or Coate	d Sand G	rains. ² Lo	cation: PL=Pore Lining, M=Matrix.
ydric Soil Indicat		,	•					for Problematic Hydric Soils ³ :
Histosol (A1)			Sandy	Gleyed Ma	atrix (S4)		Coast	Prairie Redox (A16)
_ Histic Epipedon (A2)		Sandy	Redox (S5	5)		Iron-N	langanese Masses (F12)	
Black Histic (A				ed Matrix (\$			Other	(Explain in Remarks)
Hydrogen Sulfi				/ Mucky Mi	. ,			
Stratified Layer				Gleyed M	, ,			
2 cm Muck (A1 Depleted Below		(Δ11)		ted Matrix (Dark Surfa				
Depleted Below Thick Dark Sur		5 (A11)		ted Dark Sun			³ Indicator	s of hydrophytic vegetation and
Sandy Mucky N				Depressio				nd hydrology must be present,
5 cm Mucky Pe	. ,	3)			()			s disturbed or problematic.
estrictive Layer ((if observed):							
Type:								
Depth (inches): emarks:							Hydric Soi	I Present? Yes X No
							Hydric Soi	I Present? Yes <u>X</u> No
demarks:							Hydric Soi	I Present? Yes X No
YDROLOGY Vetland Hydrolog	y Indicators:							
emarks: 'DROLOGY Vetland Hydrolog	y Indicators:		ed; check all that a	apply)				ary Indicators (minimum of two require
POROLOGY Vetland Hydrolog rimary Indicators (Surface Water	y Indicators: (minimum of o (A1)		Water-St	ained Leav	, ,		Second Sur	ary Indicators (minimum of two require face Soil Cracks (B6)
POROLOGY Vetland Hydrolog rimary Indicators (Surface Water High Water Tal	y Indicators: (minimum of o (A1) ble (A2)		Water-St Aquatic I	ained Leav Fauna (B13	3)		Second Sur _X_ Dra	ary Indicators (minimum of two require face Soil Cracks (B6) iinage Patterns (B10)
rimary Indicators (Surface Water High Water Tal Saturation (A3)	y Indicators: (minimum of o (A1) ble (A2)		Water-St Aquatic I True Aqu	ained Leav Fauna (B13 uatic Plants	3) s (B14)		<u>Second</u> Sur Dra Dry	ary Indicators (minimum of two require face Soil Cracks (B6) hinage Patterns (B10) r-Season Water Table (C2)
rimary Indicators (Surface Water High Water Tal Saturation (A3) Water Marks (B	y Indicators: (minimum of o (A1) ble (A2))		Water-St Aquatic I True Aqu Hydroge	tained Leav Fauna (B13 uatic Plants n Sulfide O	B) s (B14) odor (C1)		Second Sur Dry Cra	ary Indicators (minimum of two require face Soil Cracks (B6) ninage Patterns (B10) Season Water Table (C2) nyfish Burrows (C8)
/DROLOGY /etland Hydrolog rimary Indicators (_ Surface Water _ High Water Tal Saturation (A3) _ Water Marks (B _ Sediment Depo	y Indicators: (minimum of o (A1) ble (A2)) (B1) posits (B2)		<pre>Water-Si Aquatic I True Aqu Hydroge Oxidized</pre>	tained Leav Fauna (B13 uatic Plants n Sulfide O Rhizosphe	B) (B14) dor (C1) eres on Livi		<u>Second</u> Sur Dra Dry Cra (C3) Sat	ary Indicators (minimum of two require face Soil Cracks (B6) ninage Patterns (B10) -Season Water Table (C2) nyfish Burrows (C8) uration Visible on Aerial Imagery (C9)
rimary Indicators (Surface Water High Water Tal Saturation (A3) Water Marks (E Sediment Depo	y Indicators: (minimum of o (A1) ble (A2)) (B31) posits (B2) (B3)		Water-Si Aquatic I True Aqu Hydroge Oxidized Presence	tained Leav Fauna (B13 uatic Plants n Sulfide O Rhizosphe e of Reduce	3) s (B14) edor (C1) eres on Livi ed Iron (C4)	Second Sur Dry Cra (C3) Sat Stu	ary Indicators (minimum of two require face Soil Cracks (B6) ninage Patterns (B10) r-Season Water Table (C2) nyfish Burrows (C8) nuration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
/DROLOGY /etland Hydrolog rimary Indicators (_ Surface Water _ High Water Tal	y Indicators: (minimum of o (A1) ble (A2)) (B1) posits (B2) (B3) rust (B4)		Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent I	tained Leav Fauna (B13 Jatic Plants In Sulfide O Rhizosphe Ton Reduct	B) (B14) (dor (C1) eres on Livi ed Iron (C4) ion in Tilled)	Second	ary Indicators (minimum of two required face Soil Cracks (B6) thinage Patterns (B10) reseason Water Table (C2) things (C8) the surrows (C8) the surrows (C8) the surrows (C9) the dor Stressed Plants (D1) comorphic Position (D2)
POROLOGY Vetland Hydrolog rimary Indicators (Surface Water High Water Tal Saturation (A3) Water Marks (E Sediment Depo Drift Deposits (Algal Mat or Cr Iron Deposits (y Indicators: (minimum of	ne is require	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent II	rained Leav Fauna (B13 uatic Plants n Sulfide O Rhizosphe e of Reduct ron Reduct ck Surface	B) Idor (C1) Peres on Livi Edition (C4) Find the Iron (C4) Find the Iron (C4) Find the Iron (C7))	Second	ary Indicators (minimum of two require face Soil Cracks (B6) ninage Patterns (B10) r-Season Water Table (C2) nyfish Burrows (C8) nuration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
POROLOGY Vetland Hydrolog rimary Indicators (Surface Water High Water Tal Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (Algal Mat or Cr Iron Deposits (Inundation Visi	y Indicators: (minimum of o (A1) ble (A2)) 31) osits (B2) rust (B4) B5) ble on Aerial I	ne is require	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent I Thin Muc	rained Leav Fauna (B13 uatic Plants n Sulfide O Rhizosphe e of Reduct ron Reduct ck Surface r Well Data	B) In (B14) Indoor (C1) Indoor (C1) Indoor (C1) Indoor (C4) Indoor (C4) Indoor (C7) Indoor (C7) Indoor (C9) Indoor)	Second	ary Indicators (minimum of two required face Soil Cracks (B6) thinage Patterns (B10) reseason Water Table (C2) things (C8) the surrows (C8) the surrows (C8) the surrows (C9) the dor Stressed Plants (D1) comorphic Position (D2)
POROLOGY Vetland Hydrolog rimary Indicators (Surface Water High Water Tal Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (Algal Mat or Cr Iron Deposits (Inundation Visi Sparsely Veger	y Indicators: (minimum of o (A1) ble (A2)) 31) osits (B2) (B3) rust (B4) B5) ble on Aerial Intated Concave	ne is require	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent I Thin Muc	rained Leav Fauna (B13 uatic Plants n Sulfide O Rhizosphe e of Reduct ron Reduct ck Surface r Well Data	B) In (B14) Indoor (C1) Indoor (C1) Indoor (C1) Indoor (C4) Indoor (C4) Indoor (C7) Indoor (C7) Indoor (C9) Indoor)	Second	ary Indicators (minimum of two required face Soil Cracks (B6) thinage Patterns (B10) reseason Water Table (C2) things (C8) the surrows (C8) the surrows (C8) the surrows (C9) the dor Stressed Plants (D1) comorphic Position (D2)
/DROLOGY /etland Hydrolog rimary Indicators (_ Surface Water _ High Water Tal \(\) Saturation (A3) _ Water Marks (B _ Sediment Depo _ Drift Deposits (_ Algal Mat or Cr _ Iron Deposits (_ Inundation Visi _ Sparsely Vege ield Observation	y Indicators: (minimum of o (A1) ble (A2)) 31) osits (B2) (B3) rust (B4) B5) ble on Aerial II tated Concave	ne is require magery (B7) e Surface (B	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent I Thin Muc Gauge o Other (E	rained Leav Fauna (B13 uatic Plants in Sulfide O Rhizosphe e of Reduce ron Reduct ck Surface ir Well Data xplain in Re	B) I (B14) Idor (C1) I eres on Livi I ed Iron (C4) I ion in Tilled I (C7) I (D9) I emarks)) I Soils (C	Second	ary Indicators (minimum of two required face Soil Cracks (B6) thinage Patterns (B10) reseason Water Table (C2) things (C8) the surrows (C8) the surrows (C8) the surrows (C9) the dor Stressed Plants (D1) comorphic Position (D2)
YDROLOGY Vetland Hydrolog Vetland Hydrolog Vetland Hydrolog Vetland Hydrolog Vetland Hydrolog Vetland Hydrolog Surface Water High Water Tal K Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (Algal Mat or Cr Iron Deposits (Inundation Visi Sparsely Veger Vetland Observations	y Indicators: (minimum of o (A1) ble (A2)) 31) posits (B2) (B3) rust (B4) B5) ble on Aerial II tated Concave s:	ne is require magery (B7) s Surface (B	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent II Thin Muc Gauge o Other (E	rained Leav Fauna (B13 uatic Plants n Sulfide O Rhizosphe e of Reduct ron Reduct ck Surface r Well Data xplain in Re	B) f (B14) dor (C1) eres on Livi ed Iron (C4) ion in Tilled (C7) i (D9) emarks)) I Soils (C	Second	ary Indicators (minimum of two required face Soil Cracks (B6) thinage Patterns (B10) reseason Water Table (C2) things (C8) the surrows (C8) the surrows (C8) the surrows (C9) the dor Stressed Plants (D1) comorphic Position (D2)
YDROLOGY Vetland Hydrolog Vetland Hydrolog Inimary Indicators (Surface Water High Water Tal K Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (Algal Mat or Cr Iron Deposits (Inundation Visi Sparsely Veger ield Observations Surface Water Preservations	y Indicators: (minimum of or (A1) ble (A2)) B31) posits (B2) B3) rust (B4) B5) ble on Aerial Intated Concave s: sent? Y6	magery (B7) s Surface (B	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent II Thin Muc Gauge o 8) Other (E	rained Leav Fauna (B13 uatic Plants In Sulfide O Rhizosphe In Geduct In Reduct In Sulface In Well Data Inches): Inches):	(B14) Idor (C1) Idor (C1) Idor (C1) Idor (C4) Idor (C4) Idor (C7) Idor (C9)) I Soils (C	Second Sur X Dra Dry Cra (C3) Sat Stu 6) X Gee X FAC	ary Indicators (minimum of two require face Soil Cracks (B6) ninage Patterns (B10) r-Season Water Table (C2) nyfish Burrows (C8) nuration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) comorphic Position (D2) C-Neutral Test (D5)
YDROLOGY Vetland Hydrolog Vetland Hydrolog Vetland Hydrolog Vetland Hydrolog Vetland Hydrolog Vetland Hydrolog Surface Water High Water Tal K Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (Algal Mat or Cr Iron Deposits (Inundation Visi Sparsely Veger Vetland Observations	y Indicators: (minimum of o (A1) ble (A2)) 31) osits (B2) B3) rust (B4) B5) ble on Aerial Intated Concave s: sent? Y0 nt? Y0	magery (B7) s Surface (B	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent II Thin Muc Gauge o Other (E	rained Leav Fauna (B13 uatic Plants In Sulfide O Rhizosphe In Geduct In Reduct In Sulface In Well Data Inches): Inches):	(B14) Idor (C1) Idor (C1) Idor (C1) Idor (C4) Idor (C4) Idor (C7) Idor (C9)) I Soils (C	Second Sur X Dra Dry Cra (C3) Sat Stu 6) X Gee X FAC	ary Indicators (minimum of two required face Soil Cracks (B6) thinage Patterns (B10) reseason Water Table (C2) things (C8) the surrows (C8) the surrows (C8) the surrows (C9) the dor Stressed Plants (D1) comorphic Position (D2)
YDROLOGY Vetland Hydrolog Yrimary Indicators (Surface Water High Water Tal Saturation (A3) Water Marks (B Sediment Depo Drift Deposits (Algal Mat or Cr Iron Deposits (Inundation Visi Sparsely Veger ield Observations Furface Water Preservater Table Preservation Present's includes capillary f	y Indicators: (minimum of or (A1) ble (A2)) 31) posits (B2) (B3) rust (B4) B5) ble on Aerial Intated Concave s: sent? Your (A)	magery (B7) Surface (B es N es N	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent II Thin Muc Gauge o 8) Other (E	rained Leav Fauna (B13 uatic Plants In Sulfide O Rhizosphe of Reduct or Reduct ok Surface or Well Data explain in Ref inches): inches): inches):	(B14) Idor (C1) Idor (C1) Idor (C1) Idor (C4) Idor (C4) Idor (C7) Idor (C9)) H Soils (C	Second Sur X Dra Dry Cra Sat Stu Stu A FAG	ary Indicators (minimum of two require face Soil Cracks (B6) ninage Patterns (B10) r-Season Water Table (C2) nyfish Burrows (C8) nuration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) comorphic Position (D2) C-Neutral Test (D5)
YDROLOGY Vetland Hydrolog Vetland Hydrolog Inimary Indicators (Indicators (Ind	y Indicators: (minimum of or (A1) ble (A2)) 31) posits (B2) (B3) rust (B4) B5) ble on Aerial Intated Concave s: sent? Your (A)	magery (B7) Surface (B es N es N	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent II Thin Muc Gauge o 8) Other (E	rained Leav Fauna (B13 uatic Plants In Sulfide O Rhizosphe of Reduct or Reduct ok Surface or Well Data explain in Ref inches): inches): inches):	(B14) Idor (C1) Idor (C1) Idor (C1) Idor (C4) Idor (C4) Idor (C7) Idor (C9)) H Soils (C	Second Sur X Dra Dry Cra Sat Stu Stu A FAG	ary Indicators (minimum of two require face Soil Cracks (B6) ninage Patterns (B10) r-Season Water Table (C2) nyfish Burrows (C8) nuration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) comorphic Position (D2) C-Neutral Test (D5)
rimary Indicators (Surface Water High Water Tal Saturation (A3) Water Marks (E Sediment Depo Drift Deposits (Algal Mat or Cr Iron Deposits (Inundation Visi Sparsely Vege ield Observation: urface Water Prese vater Table Present aturation Present ncludes capillary frescribe Recorded	y Indicators: (minimum of or (A1) ble (A2)) 31) posits (B2) (B3) rust (B4) B5) ble on Aerial Intated Concave s: sent? Your (A)	magery (B7) Surface (B es N es N	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent II Thin Muc Gauge o 8) Other (E	rained Leav Fauna (B13 uatic Plants In Sulfide O Rhizosphe of Reduct or Reduct ok Surface or Well Data explain in Ref inches): inches): inches):	(B14) Idor (C1) Idor (C1) Idor (C1) Idor (C4) Idor (C4) Idor (C7) Idor (C9)) H Soils (C	Second Sur X Dra Dry Cra Sat Stu Stu K FAG	ary Indicators (minimum of two require face Soil Cracks (B6) ninage Patterns (B10) r-Season Water Table (C2) nyfish Burrows (C8) nuration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) comorphic Position (D2) C-Neutral Test (D5)

Project/Site: SR 258 Sight Distance Improvement (Des No	o. 1295633) (Citv/Countv	Jackson	County	Sampling Date:	9/28/21
				State: IN		
Investigator(s): Marion Wells & Claudia McAllister-Peterso						
Landform (hillslope, terrace, etc.): Hillslope			•	-	None	
Slope (%): _5						
	·					
Soil Map Unit Name: StdAH - Stendal silt loam, 0 to 2 per						
Are climatic / hydrologic conditions on the site typical for the						✓ NI.
Are Vegetation, Soil, or Hydrology	-					<u> </u>
Are Vegetation, Soil, or Hydrology						
SUMMARY OF FINDINGS – Attach site map	snowing	sampling	g point i	ocations, transects	, important re	atures, etc.
Hydrophytic Vegetation Present? Yes X	No	ls th	e Sampled	l Area		
Hydric Soil Present? Yes			in a Wetlar		NoX_	
Wetland Hydrology Present? Yes	NoX					
Remarks:						
VEGETATION – Use scientific names of plants						
	Absolute	Dominant	Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30' radius) 1.		Species?	Status	Number of Dominant S That Are OBL, FACW,	•	(A)
2				Total Number of Domin		
3				Species Across All Stra	nta: <u>4</u>	(B)
4. 5.				Percent of Dominant Sport That Are OBL, FACW,		00 (A/B)
		= Total Cov	er			
Sapling/Shrub Stratum (Plot size: 15' radius)	40	V	E4 0\4/	Prevalence Index wor		
1. Fraxinus pennsylvanica			FACW	Total % Cover of:		
2. <u>Tilia americana</u>		Y		OBL species 0 FACW species 80		160
3. <u>Ulmus americana</u>		Y		FAC species 50		
4				FACU species 30	<u> </u>	
5		= Total Cov		UPL species 0		0
Herb Stratum (Plot size: 5' radius)		- Total Cov	CI	Column Totals: 16	~~	430 (B)
1. Ambrosia trifida	50	Y	FAC	Column Fotale.		(5)
2. Phalaris arundinacea	10	N	FACW	Prevalence Index	= B/A =2.	.69
3. Agrostis gigantea	10	N	FACW	Hydrophytic Vegetation		
4				X Dominance Test is		
5				X Prevalence Index i		
6				Morphological Ada	ptations¹ (Provide s or on a separate	
7				Problematic Hydro	•	•
8				Troblematic riyaro	priytic vegetation	(Explain)
9				¹ Indicators of hydric soi	il and wetland hydr	rology must
10				be present, unless dist		
Woody Vine Stratum (Plot size: 30' radius)	70	= Total Cov	er			
1				Hydrophytic		
2.				Vegetation		
		= Total Cov	er	Present? Ye	s <u>X</u> No _	
Remarks: (Include photo numbers here or on a separate	sheet)					
Tromains. (molddo prioto numbers nere or on a separate	, silecti)					

SOIL	Sampling Point: B2

Profile Desc	ription: (Describe	to the depth	needed to docu	ment the i	indicator o	or confirm	n the absence of	findicators.)
Depth	Matrix			ox Feature				
(inches)	Color (moist)		Color (moist)	%	Type ¹	<u>Loc²</u>	<u>Texture</u>	Remarks
0-18	10YR 5/4	_ <u>100</u> _		_			Clay+Silt	
						-		
				_				
				_				
¹ Type: C=Co	oncentration, D=De	pletion, RM=R	educed Matrix, C	S=Covere	d or Coate	d Sand Gr	rains. ² Locat	tion: PL=Pore Lining, M=Matrix.
Hydric Soil I								or Problematic Hydric Soils³:
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		Coast Pr	rairie Redox (A16)
Histic Ep	oipedon (A2)			Redox (S5			Iron-Mar	nganese Masses (F12)
Black His				d Matrix (S			Other (E	xp l ain in Remarks)
	n Sulfide (A4)		-	Mucky Min				
	d Layers (A5)			Gleyed Ma				
2 cm Mu	d Below Dark Surfa	ce (Δ11)		ed Matrix (Dark Surfa				
	ark Surface (A12)	ce (ATT)		ed Dark Su			³ Indicators o	f hydrophytic vegetation and
	lucky Mineral (S1)			Depressio				nydrology must be present,
5 cm Mu	icky Peat or Peat (S	S3)					un l ess d	isturbed or problematic.
Restrictive L	_ayer (if observed):						
Type:								
Depth (inc	ches):						Hydric Soil P	resent? Yes No X
Remarks:							1	
HYDROLO	GY							
Wetland Hyd	drology Indicators	:						
Primary Indic	cators (minimum of	one is required	d; check all that a	pp l y)			Secondary	Indicators (minimum of two required)
Surface '	Water (A1)		Water-Sta	ained Leav	es (B9)		Surfac	ce Soil Cracks (B6)
	iter Table (A2)			auna (B13	, ,			age Patterns (B10)
Saturation			True Aqu					eason Water Table (C2)
	larks (B1)		·	Sulfide O				sh Burrows (C8)
Sedimer	nt Deposits (B2)		Oxidized	Rhizosphe	res on Livi	ing Roots	(C3) Satura	ation Visible on Aerial Imagery (C9)
Drift Dep	oosits (B3)		Presence	of Reduce	ed Iron (C4	!)	Stunte	ed or Stressed Plants (D1)
Algal Ma	at or Crust (B4)		Recent In	on Reducti	ion in Tilled	d Soi l s (C6	6) Geom	orphic Position (D2)
Iron Dep	osits (B5)		Thin Muc	k Surface ((C7)		FAC-N	Neutral Test (D5)
Inundation	on Visib l e on Aerial	Imagery (B7)	Gauge or	Well Data	(D9)			
Sparsely	Vegetated Concav	e Surface (B8	Other (Ex	plain in Re	emarks)			
Field Observ	vations:							
Surface Wate	er Present?	Yes No	Depth (ir	nches):		_		
Water Table	Present?	YesNo	Depth (ir	nches):		_		
Saturation Pr	resent?	Yes No	Depth (ir	nches):		Wetl	and Hydrology	Present? Yes No _X_
(includes cap						+:	if a sailable.	
Describe Red	corded Data (strear	n gauge, moni	toring well, aerial	pnotos, pr	evious ins	pections),	if available:	
Damasilia								
Remarks:								

Project/Site: SR 258 Sight Distance Improvement (Des	No. 1295633) (City/County	: Jackson	County	Sampling Date: _	9/28/21
Applicant/Owner: INDOT	<u> </u>	, ,		State: IN		
Investigator(s): Marion Wells & Claudia McAllister-Peter	son, CMT	Section. To	wnship. Rai			
			•	(concave, convex, none):	None	
Soil Map Unit Name: StdAH - Stendal silt loam, 0 to 2 pe					·	Δ
Are climatic / hydrologic conditions on the site typical for					· · · · · · · · · · · · · · · · · · ·	, , , , , , , , , , , , , , , , , , ,
						/ N.
Are Vegetation, Soil, or Hydrology						No
Are Vegetation, Soil, or Hydrology	naturally pro	blematic?	(It ne	eded, explain any answer	's in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	ap showing	samplin	g point l	ocations, transects	, important fea	atures, etc.
Hydrophytic Vegetation Present? Yes	No <u>×</u>					
	No X		e Sampled		No. Y	
Wetland Hydrology Present? Yes	No	With	in a Wetlar	10? Yes	No <u>×</u>	1
Remarks:						
	<u> </u>					
VEGETATION – Use scientific names of plar		Danisant	In diameters	Daminana Tarkasada	- h 4:	
Tree Stratum (Plot size:30' radius)	Absolute % Cover	Dominant Species?		Dominance Test works		
1. Quercus alba	40	Υ	FACU	Number of Dominant Sp That Are OBL, FACW, or		(A)
2. Liquidambar styraciflua	10	N	FACW	Total Number of Densin		
3. Fraxinus pennsylvanica	10	N	FACW	Total Number of Domina Species Across All Stra		(B)
4				Descent of Deminent Co		
5				Percent of Dominant Sp That Are OBL, FACW, of		00 (A/B)
Carling/Charle Ctrature (Blat size) 451 radius		= Total Cov	/er	Prevalence Index worl	kshoot:	
Sapling/Shrub Stratum (Plot size: 15' radius) 1. Lindera benzoin		Y	EAC\\\	Total % Cover of:		, bv:
2. Asimina triloba				OBL species 0		0
3			1710	FACW species 60		120
4				FAC species 40	<u> </u>	120
5.				FACU species 90) x 4 =	360
		= Total Cov	/er	UPL species0	x 5 =	0
Herb Stratum (Plot size: 5' radius)				Column Totals:19	<u>0</u> (A) <u>f</u>	600 (B)
1. Asarum canadense	40	<u>Y</u>	FACU	Prevalence Index	- B/A - 3	16
Geum canadense Urtica dioica		N	FAC.W/	Hydrophytic Vegetation		
				Dominance Test is		
4				Prevalence Index is		
5 6				Morphological Adap		supporting
7.				data in Remarks	s or on a separate	sheet)
8.				Problematic Hydrop	ohytic Vegetation ¹	(Exp l ain)
9.				1		
10				¹ Indicators of hydric soil be present, unless distu		
	60	= Total Cov	/er	The processing armood another		
Woody Vine Stratum (Plot size: 30' radius)	40	.,	E4011	I le el un ula esti a		
1. Parthenocissus quinquefolia		<u> </u>	<u>FACU</u>	Hydrophytic Vegetation		
2		= Total Cov			s No:	<u>×_</u>
		- 10(a) C0(/ei			
Remarks: (Include photo numbers here or on a separa	ate sheet.)					

SOIL	Sampling Point: C2

Depth	Matrix		Read	ox Features				
(inches)	Color (moist)	%	Color (moist)	%	_Type ¹	Loc ²	Texture	Remarks
0-18	10YR 5/3	85	10YR 5/8	5	C	M	_Si l t+Loam_	
	10YR 5/1	10						
	oncentration, D=De	oletion, RM=	Reduced Matrix, C	S=Covered	or Coate	d Sand G		ation: PL=Pore Lining, M=Matrix.
Hydric Soil								for Problematic Hydric Soils ³ :
Histoso	, ,			Gleyed Ma				Prairie Redox (A16)
	pipedon (A2) istic (A3)			Redox (S5)				anganese Masses (F12)
	en Sulfide (A4)			d Matrix (S Mucky Min			Other (Explain in Remarks)
	d Layers (A5)		-	Gleyed Ma				
	uck (A10)			ed Matrix (F				
Deplete	d Below Dark Surfac	ce (A11)	Redox	Dark Surfa	ce (F6)			
_	ark Surface (A12)			ed Dark Sui	. ,			of hydrophytic vegetation and
	Mucky Mineral (S1)		Redox	Depressior	ıs (F8)			l hydrology must be present,
	ucky Peat or Peat (S	,					unless	disturbed or problematic.
_	Layer (if observed)):						
Type:							Usadala Gall	Duranus V
Depth (in Remarks:	cnes):						Hydric Soil	Present? Yes NoX_
Wetland Hy	drology Indicators							
Wetland Hy Primary Indi	drology Indicators cators (minimum of				(D0)			ry Indicators (minimum of two required
Wetland Hy Primary Indi Surface	drology Indicators cators (minimum of Water (A1)		Water-Sta	ined Leave	, ,		Surfa	ace Soil Cracks (B6)
Wetland Hy Primary Indi Surface High W	drology Indicators cators (minimum of Water (A1) ater Table (A2)		Water-Sta	nined Leave auna (B13)	. ,		Surf	ace Soil Cracks (B6) nage Patterns (B10)
Wetland Hy Primary Indi Surface High Wi	cators (minimum of Water (A1) ater Table (A2) on (A3)		Water-Sta Aquatic F True Aqua	ained Leave auna (B13) atic Plants ((B14)		Surfa Drail Dry-	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)
Wetland Hy Primary Indi Surface High Water Mater	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1)		Water-Sta Aquatic Factor True Aqua Hydrogen	ained Leave auna (B13) atic Plants (Sulfide Od	(B14) lor (C1)	ing Roots	Surfa Drain Dry- Cray	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8)
Wetland Hy Primary Indi Surface High Wi Saturati Water N	cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)		Water-Sta Aquatic F True Aqua Hydrogen Oxidized	nined Leave auna (B13) atic Plants (Sulfide Od Rhizospher	(B14) lor (C1) res on Liv	_	Surfa Drain Dry- Cray (C3) Satu	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9)
Wetland Hy Primary Indi Surface High Water N Sedime Drift De	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)		Water-Sta Aquatic Factor True Aqua Hydrogen Oxidized	nined Leave auna (B13) atic Plants (Sulfide Od Rhizospher of Reduce	(B14) lor (C1) res on Liv d Iron (C4	!)	Surfa Drain Cray Cray (C3) Satu Stun	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1)
Primary Indi Surface High Water N Sedime Drift De Algal M	cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Iro	ained Leave auna (B13) atic Plants (Sulfide Od Rhizospher of Reduced on Reduction	(B14) dor (C1) res on Liv d Iron (C4 on in Tille	!)	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
Wetland Hy Primary Indi Surface High Water N Sedime Drift De Algal M Iron De	cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one is require	Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Iro	nined Leave auna (B13) atic Plants (Sulfide Od Rhizospher of Reduced on Reductic s Surface (((B14) dor (C1) res on Liv d Iron (C4 on in Tille C7)	!)	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1)
Wetland Hy Primary Indi Surface High Water Now Sedime Drift De Algal Model Inundat	cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	one is require	Water-Sta Aquatic Factor Advantage True Aqua Hydrogen Oxidized Presence Recent Iru Thin Mucl	ained Leave auna (B13) atic Plants (Sulfide Od Rhizospher of Reduced on Reduction & Surface (0 Well Data	(B14) for (C1) res on Liv d Iron (C4 on in Tiller C7) (D9)	!)	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
Wetland Hy Primary Indi Surface High Water Nater Nate	cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concav	one is require	Water-Sta Aquatic Factor Advantage True Aqua Hydrogen Oxidized Presence Recent Iru Thin Mucl	ained Leave auna (B13) atic Plants (Sulfide Od Rhizospher of Reduced on Reduction & Surface (0 Well Data	(B14) for (C1) res on Liv d Iron (C4 on in Tiller C7) (D9)	!)	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
Wetland Hy Primary Indi Surface High Wi Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel	cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concaverations:	one is require Imagery (B7) re Surface (B	Water-Sta Aquatic Factor Advantage True Aqua Hydrogen Oxidized Presence Recent Iru Thin Mucl	ained Leave auna (B13) atic Plants (Sulfide Od Rhizospher of Reduced on Reduction Surface (U Well Data	(B14) flor (C1) fles on Liv d Iron (C4 on in Tiller C7) (D9) marks)	H) d Soils (Co	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
Wetland Hy Primary Indi Surface High Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concaverations: ter Present?	one is require Imagery (B7 re Surface (B	Water-Sta Aquatic F. Aquatic F. True Aqua Hydrogen Oxidized I Presence Recent Iro Thin Mucl Gauge or Other (Ex	ained Leave auna (B13) atic Plants (Sulfide Od Rhizospher of Reduced on Reduction Surface (C Well Data plain in Res	(B14) for (C1) fes on Liv d Iron (C4 on in Tiller C7) (D9) marks)	t) d Soils (Co	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
Wetland Hy Primary Indi Surface High Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Table Saturation F (includes ca	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concaverations: ter Present?	Imagery (B7 re Surface (B Yes N Yes N	Water-Sta	ained Leave auna (B13) atic Plants (Sulfide Od Rhizospher of Reduced on Reduction of Surface ((Well Data plain in Ref aches): aches): aches):	(B14) dor (C1) res on Liv d Iron (C4 on in Tiller C7) (D9) marks)	d Soils (Ce	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Wetland Hy Primary Indi Surface High Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Table Saturation F (includes ca	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concave rvations: ter Present?	Imagery (B7 re Surface (B Yes N Yes N	Water-Sta	ained Leave auna (B13) atic Plants (Sulfide Od Rhizospher of Reduced on Reduction of Surface ((Well Data plain in Ref aches): aches): aches):	(B14) dor (C1) res on Liv d Iron (C4 on in Tiller C7) (D9) marks)	d Soils (Ce	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Table Saturation F (includes ca Describe Re	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concaverations: ter Present?	Imagery (B7 re Surface (B Yes N Yes N	Water-Sta	ained Leave auna (B13) atic Plants (Sulfide Od Rhizospher of Reduced on Reduction of Surface ((Well Data plain in Ref aches): aches): aches):	(B14) dor (C1) res on Liv d Iron (C4 on in Tiller C7) (D9) marks)	d Soils (Ce	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Wetland Hy Primary Indi Surface High Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Table Saturation F (includes ca	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concaverations: ter Present?	Imagery (B7 re Surface (B Yes N Yes N	Water-Sta	ained Leave auna (B13) atic Plants (Sulfide Od Rhizospher of Reduced on Reduction of Surface ((Well Data plain in Ref aches): aches): aches):	(B14) dor (C1) res on Liv d Iron (C4 on in Tiller C7) (D9) marks)	d Soils (Ce	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Table Saturation F (includes ca Describe Re	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concaverations: ter Present?	Imagery (B7 re Surface (B Yes N Yes N	Water-Sta	ained Leave auna (B13) atic Plants (Sulfide Od Rhizospher of Reduced on Reduction of Surface ((Well Data plain in Ref aches): aches): aches):	(B14) dor (C1) res on Liv d Iron (C4 on in Tiller C7) (D9) marks)	d Soils (Ce	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
Wetland Hy Primary Indi Surface High Wi Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Table Saturation F (includes ca Describe Re	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concaverations: ter Present?	Imagery (B7 re Surface (B Yes N Yes N	Water-Sta	ained Leave auna (B13) atic Plants (Sulfide Od Rhizospher of Reduced on Reduction of Surface ((Well Data plain in Ref aches): aches): aches):	(B14) dor (C1) res on Liv d Iron (C4 on in Tiller C7) (D9) marks)	d Soils (Ce	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Wetland Hy Primary Indi Surface High Wi Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Table Saturation F (includes ca	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concaverations: ter Present?	Imagery (B7 re Surface (B Yes N Yes N	Water-Sta	ained Leave auna (B13) atic Plants (Sulfide Od Rhizospher of Reduced on Reduction of Surface ((Well Data plain in Ref aches): aches): aches):	(B14) dor (C1) res on Liv d Iron (C4 on in Tiller C7) (D9) marks)	d Soils (Ce	Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)

Project/Site: <u>SR 258 Sight Distance Improvement (Des No.</u>	1295633)	City/County	/: Jackson	County	Sampling Date: _	9/28/21
				State: IN		
Investigator(s): Marion Wells & Claudia McAllister-Peterson						
Landform (hillslope, terrace, etc.): Depression			-		Concave	
Slope (%): <u>5</u> Lat: <u>38.979448</u>						
Soil Map Unit Name: BocD3 - Bonnell silty clay loam, 10 to						
Are climatic / hydrologic conditions on the site typical for thi				<u> </u>		
Are Vegetation, Soil, or Hydrology:	•				•	€ No.
						<u> </u>
Are Vegetation, Soil, or Hydrology SUMMARY OF FINDINGS - Attach site map				eded, explain any answe		aturos oto
		Sampin	ig point it	Jeanons, transects	, important le	atures, etc.
Hydrophytic Vegetation Present? Yes X		ls ti	ne Sampled	Area		
Hydric Soil Present? Yes X N		with	nin a Wetlar	nd? Yes X	No	_
Wetland Hydrology Present? Yes X N	10					
Remarks.						
VEGETATION – Use scientific names of plants						
VEGETATION OSE SCIENTING HARTIES OF Plants	Absolute	Dominan	t Indicator	Dominance Test work	sheet:	
<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)				Number of Dominant S		
1				That Are OBL, FACW,		(A)
2				Total Number of Domin	ant	
3				Species Across All Stra	ta: <u>6</u>	(B)
4				Percent of Dominant Sp	pecies	
5				That Are OBL, FACW,	or FAC: <u>83.3</u>	33 (A/B)
Sapling/Shrub Stratum (Plot size:15' radius)		= Total Co	ver	Prevalence Index wor	ksheet:	
1				Total % Cover of:	Multiply	y by:
2				OBL species75	<u> </u>	75
3				FACW species15		
4				FAC species0		
5				FACU species0		
Herb Stratum (Plot size: 5' radius)		= Total Co	ver) x 5 =	50
1. Leersia oryzoides	45	Υ	OBL	Column Totals:10	<u>0</u> (A)	<u>155</u> (B)
2. Carex Iurida	10	Y	OBL	Prevalence Index	= B/A =1.	55
3. Senecio vulgaris	10	Y	UPL	Hydrophytic Vegetation	on Indicators:	
4. Juncus effusus	10	Y	OBL	X Dominance Test is	>50%	
5. Schoenoplectus tabernaemontani	10	Y	OBL_	X Prevalence Index is		
6. Agrostis gigantea	10	Y	FACW	Morphological Ada	ptations ¹ (Provide s or on a separate	supporting
7. Verbena hastata	5	N	FACW	Problematic Hydro	•	·
8				1 Toblematic Trydrol	mytic vegetation	(Explain)
9			·	Indicators of hydric soi	I and wetland hvdr	ology must
10				be present, unless distu		
Woody Vine Stratum (Plot size: 30' radius)	100	= Total Co	ver			
1				Hydrophytic		
2.				Vegetation Present? Yes	s X No	
		= Total Co	ver			
Remarks: (Include photo numbers here or on a separate	sheet.)					
, , , , , , , , , , , , , , , , , , , ,	,					

Sampling Point: D1	
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Depth	cription: (Descr Matr		h needed to docu Red	ox Features		or connitt	i uie auselice of	muicatuis.j
(inches)	Color (moist		Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-18	10YR 4/2	80	10YR 5/8	20	C	PL/M	Clay+Silt_	
-								
	-	 .						
¹Type: C=C	oncentration, D=	 Depletion, RM=	Reduced Matrix, C	S=Covered	or Coate	d Sand G	rains. ² Locati	on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators fo	r Problematic Hydric Soils ³ :
Histoso	. ,			Gleyed Ma			Coast Pra	airie Redox (A16)
	pipedon (A2)			Redox (S5				ganese Masses (F12)
	listic (A3)			ed Matrix (S			Other (Ex	plain in Remarks)
	en Sulfide (A4)			Mucky Mir				
	d Layers (A5) uck (A10)			Gleyed Ma ed Matrix (F				
	d Below Dark Su	rface (A11)		ed Matrix (r Dark Surfa				
	ark Surface (A12			ed Dark Suna			³ Indicators of	hydrophytic vegetation and
	Mucky Mineral (S			Depression	. ,			ydrology must be present,
	ucky Peat or Pea	•		•	,			sturbed or problematic.
Restrictive	Layer (if observ	ed):						
Type:								
Depth (in	rches):						Hydric Soil Pr	esent? Yes X No
Remarks:								
								_
HYDROLC Wetland Hy	drology Indicate	ore:						
_			ed; check all that a	nnly)			Secondary	Indicators (minimum of two required)
X Surface	,	or one is requir		ained Leave	ac (B0)			e Soil Cracks (B6)
	ater Table (A2)			aineu Leavi auna (B13)			· · · · · · · · · · · · · · · · · · ·	ge Patterns (B10)
X Saturati			Aquatic I					eason Water Table (C2)
·	/larks (B1)			Sulfide Od				sh Burrows (C8)
	nt Deposits (B2)		X Oxidized			ina Roots		tion Visible on Aerial Imagery (C9)
Drift De	. , ,			of Reduce		-	—	d or Stressed Plants (D1)
·	at or Crust (B4)			on Reduction				orphic Position (D2)
Iron De			Thin Muc			. CO., C (C C		eutral Test (D5)
	ion Visib l e on Aeı	rial Imagery (B7						outiai 100t (20)
	y Vegetated Con		· — -		' '			
Field Obser	·							
Surface Wa	ter Present?	Yes X	No Depth (in	nches):	1			
Water Table			No Depth (in			_		
Saturation F			No Depth (in			Wetl	and Hvdrology P	resent? Yes X No
(includes ca	pillary fringe)							
Describe Re	ecorded Data (stre	eam gauge, mo	nitoring well, aerial	photos, pro	evious ins	pections),	if available:	
Remarks:								
Recieves see	ps from pond bern	n & drains to culv	vert under CR100E to	o RSD1 to UI	NT 1 to Wh	ite Creek.		
	•							

Project/Site: SR 258 Sight Distance Improvement (Des No	o. 1295633) (City/Co	unty: Jackso	n County	Sampling Date:	9/28/21
				State: IN		
Investigator(s): Marion Wells & Claudia McAllister-Peters					. 0 -	
Landform (hillslope, terrace, etc.): _Terrace			•		None	
Soil Map Unit Name: BocD3 - Bonnell silty clay loam, 10						
Are climatic / hydrologic conditions on the site typical for t					·	
Are Vegetation, Soil, or Hydrology						⟨ No
Are Vegetation, Soil, or Hydrology	-					
SUMMARY OF FINDINGS – Attach site ma						atures, etc.
Hydrophytic Vegetation Present? Yes	No X	Π.	a tha Camania	ad Aman		
Hydric Soil Present? Yes	No X		s the Sample within a Wetla		No <u></u> X	
Wetland Hydrology Present? Yes	No		within a vveti			-
Remarks:						
VEGETATION – Use scientific names of plant	s.					
Tree Stratum (Blot size: 30' radius)	Absolute		nant Indicator es? Status		sheet:	
Tree Stratum (Plot size:30' radius) 1				 Number of Dominant S That Are OBL, FACW, 		(A)
2				Total Number of Domir		(B)
4 5				Percent of Dominant S	pecies	
0.		= Total	Cover	That Are OBL, FACW,	or FAC: 100.	. <u>00</u> (A/B)
Sapling/Shrub Stratum (Plot size: 15' radius)		, otal	00101	Prevalence Index wor	ksheet:	
1				Total % Cover of:		y by:
2				OBL species		
3				FACW species		
4				FAC species7		
5				FACU species 2		0
Herb Stratum (Plot size: 5' radius)		= Total	Cover	UPL species0 Column Totals:9		305 (B)
1. Poa pratensis	75	Υ	FAC		<u> </u>	(B)
2. Taraxacum officinale	10	N	FACU	Prevalence Index	c = B/A =3.	21
3. Plantago lanceolata		N	FACU	Hydrophytic Vegetati	on Indicators:	
4				_ X Dominance Test is		
5				Prevalence Index i		
6				Morphological Ada	aptations' (Provide s or on a separate	supporting
7				Problematic Hydro	•	·
8				-	p.i.y.iio regetation	(=//pie)
9 10				¹ Indicators of hydric so be present, unless dist		
Mark Mark Olympia (Blade)	95	= Total	Cover		-	
Woody Vine Stratum (Plot size:30' radius) 1				Hydrophytic Vegetation		
2					es No	<u>×_</u>
		= Total	Cover			
Remarks: (Include photo numbers here or on a separat	e sheet.)			•		

SOIL Sampling Point: D2

I Danielle	NA=4.1						m the abser	,
Depth Colo	Matrix r (moist)	Colo	Redo r (moist)	x Feature %	s Type ¹	Loc ²	- Texture	e Remarks
			YR 3/6	-		-		
				2		M	silt+loan	<u> </u>
5-18 10	YR 3/2 6	<u> </u>	YR 4/6	20	C	M	clay	
		Gley	/1 5/5GY	20	C	M	_	
							_	
					·			
							_	
¹ Type: C=Concentrat		n, RM=Reduce	ed Matrix, CS	S=Covere	d or Coate	d Sand (² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicator	rs:						Indicat	ors for Problematic Hydric Soils ³ :
Histosol (A1)		,		Gleyed Ma				ast Prairie Redox (A16)
Histic Epipedon (A2)			Redox (S5				n-Manganese Masses (F12)
Black Histic (A3)	(0.4)			d Matrix (S	,		Oth	her (Explain in Remarks)
Hydrogen Sulfide		,	-	viuску iviii G l eyed Ma	neral (F1)			
Stratified Layers 2 cm Muck (A10)		•	-	d Matrix (
Depleted Below [1)		Dark Surfa				
Thick Dark Surface	•	'/			ırface (F7)		³ Indica	itors of hydrophytic vegetation and
Sandy Mucky Mir		•		Depressio				tland hydrology must be present,
5 cm Mucky Peat	or Peat (S3)						unl	less disturbed or problematic.
Restrictive Layer (if	observed):							
Туре:								
Depth (inches):							Hydric S	Soil Present? Yes No _X_
Remarks:								
HYDROLOGY								
HYDROLOGY Wetland Hydrology	Indicators:							
Wetland Hydrology		required: che	ck all that an	vylav)			Seco	ondary Indicators (minimum of two required)
Wetland Hydrology Primary Indicators (m	inimum of one is	required; che			es (B9)			ondary Indicators (minimum of two required) Surface Soil Cracks (B6)
Wetland Hydrology Primary Indicators (m Surface Water (A	inimum of one is 1)	required; che	_ Water-Stai	ined Leav	` '		;	Surface Soil Cracks (B6)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table	inimum of one is 1)	_	_ Water-Stai _ Aquatic Fa	ined Leav una (B13)			Surface Soil Cracks (B6) Drainage Patterns (B10)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3)	inimum of one is 1) e (A2)	_	_ Water-Stai _ Aquatic Fa _ True Aqua	ined Leav una (B13 tic Plants) (B14)			Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1	inimum of one is a1) a (A2)		_ Water-Stai _ Aquatic Fa _ True Aqua _ Hydrogen	ined Leav iuna (B13 itic Plants Sulfide O) (B14) dor (C1)	ing Root		Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposi	inimum of one is (A2) ts (B2)		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav una (B13 tic Plants Sulfide O Rhizosphe	(B14) dor (C1) res on Liv			Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposit Drift Deposits (B3)	inimum of one is (1) (A2) ts (B2) (B3)	- - - - -	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav nuna (B13 tic Plants Sulfide O Rhizosphe of Reduce) (B14) dor (C1) res on Liv ed Iron (C4	·)	= 1 = 1 = 1 s (C3) = 3	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposit Drift Deposits (B3 Algal Mat or Crus	inimum of one is (1) (A2) (ts (B2) (st (B4)	- - - - -	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence	ined Leav nuna (B13 tic Plants Sulfide O Rhizosphe of Reduce n Reducti) (B14) dor (C1) res on Liv ed Iron (C4 on in Tilled	·)	s (C3) 3	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposit Drift Deposits (B3 Algal Mat or Crus Iron Deposits (B3 Inundation Visible Sparsely Vegetat Field Observations: Surface Water Preser Water Table Present? Saturation Present? (includes capillary frim Describe Recorded D	inimum of one is (1) (A2) (A2) (S3) (S4 (B4) (S6) (S6) (S6) (S7) (S7) (S7) (S7) (S7) (S7) (S7) (S7	ery (B7)	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence of Recent Iro Thin Muck Gauge or N Other (Exp	ined Leavarined Leavarined (B13 stic Plants Sulfide Or Reduce of Reduce (B15 surface (Well Data plain in Reduches):ches):ches):ches):ches):ches):ches	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 on in Tilled (C7) (D9) emarks)	d Soils (C	s (C3) 3 C6) 1	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): February 3, 2022

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

Claudia McAllister-Peterson Crawford, Murphy & Tilly, Inc. 8790 Purdue Rd Indianapolis, IN 46268

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: CENAP-OP-R-

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

Proposed improvements for the project (DES No: 1298633) includes lowering the existing State Road 258 (SR 258) roadway hill by approximately 5 feet and raising the existing roadway valleys on either side of the hill by approximately 15 feet to provide acceptable stopping sight distances to allow for safe and efficient movement of traffic. Roadway improvements are also required on N CR 100 E to accommodate the vertical profile change on SR 258. Drainage structure improvements are also required to accommodate the roadway profile changes. The existing 18 feet by 6 feet box culvert located at unnamed tributary 3 to White Creek will be lengthened with new headwalls/wingwalls constructed to accommodate the increased elevation of SR 258. 6 existing culverts in the project limits will be removed and replaced "in kind". An existing 12-inch pipe under the residential drives on the south side of SR 258 at the top of the hill will be removed, but no new structure will be placed at this location, as the roadside ditches will be graded to carry water away from these driveways.

Per the U.S. Geological Survey (USGS) Brownstown, Indiana Quadrangle Map, the project is situated within Sections 1 and 2, Township 6 North, and Range 4 East, and Sections 6 and 7, Township 6 North, and Range 5 East.

Land use in the vicinity of the project is residential and forested, surrounded by predominately forested areas.

(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: <u>IN</u> County: <u>Jackson</u> City: <u>-</u>
Center coordinates of site (lat/long in degree decimal format):

Lat. <u>38.979213</u>° N, Long. <u>-86.021602</u>° W

Universal Transverse Mercator: 16S 4314925.02 m Easting (x) 584746.85 m

Northing (y)

Name of nearest waterbody: White Creek

	Identify (estimate) amount of waters Non-wetland waters:linear Cowardin Class: Stream Flow: Wetlands:acres. Cowardin Class:			
	Name of any water bodies on the sit Tidal: <u>N/A</u> Non-Tidal: <u>N/A</u>	e that have b	een identified as Secti	on 10 waters:
E.	REVIEW PERFORMED FOR SITE I	EVALUATION	(CHECK ALL THAT API	PLY):
	☐ Office (Desk) Determination.☐ Field Determination.	Date: Date(s):		

- 1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.
- 2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

	ved for preliminary JD (check all that apply - checked and, where checked and requested, appropriately
Maps, plans, plots or plat submit General location map, aerial photog soils map, NWI map, NHD map, 12	by or on behalf of the applicant/consultant. ets/delineation report
☐ Data sheets prepared by the Co	rps:
Corps navigable waters' study:_	
Indiana.	aps. Cite scale & quad name: 1:24,000 Brownstown Quadrangle
	ervation Service Soil Survey. Citation:
http://websoilsurvey.nrcs.usda.gov/	
National wetlands inventory map	· / -
http://www.fws.gov/wetlands/Data/Mapp	<u>ber.ntml</u>
☐ State/Local wetland inventory ma	ap(s):
FEMA/FIRM maps: 18071C0185D,	eff. 11/19/2014.
Photographs: Aerial (N	:(National Geodetic Vertical Datum of 1929) ame & Date): State of Indiana Orthophotography, 2019. ame & Date): Site Photographs, 9/28/21.
	no. and date of response letter:
Other information (please specify	· ———
verified by the Corps and should not	recorded on this form has not necessarily been be relied upon for later jurisdictional
<u>determinations.</u>	
	Clar Mifflit Fet 2/3/2022
Signature and date of Regulatory Project Manager (REQUIRED)	Signature and date of person requesting preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude	Longitude	Cowardin class	Estimated amount of aquatic resource in review area	Class of aquatic resource
UNT 1 to White Creek	38.979116	-86.021191	R4SBC	707 linear feet (2.3 feet wide)	Non-section 10 water; subject to 404 jurisdiction – non-wetland waters; ephemeral flow
UNT 2 to White Creek	38.978452	-86.021370	R4SBC	182 linear feet (1.6 feet wide)	Non-section 10 water; subject to 404 jurisdiction – non-wetland waters; ephemeral flow
UNT 3 to White Creek	38.978871	-86.030210	R5UBH*	180 linear feet (8.0 feet wide)	Non-section 10 water; subject to 404 jurisdiction – non-wetland waters; perennial flow
UNT 4 to White Creek	38.979478	-86.026407	R4SBC	93 linear feet (1.0 feet wide)	Non-section 10 water; subject to 404 jurisdiction – non-wetland waters; ephemeral flow
Wetland A	38.979345	-86.020861	PEM1	0.005 acre	Non-section 10 water; subject to 404 jurisdiction – wetland
Wetland B	38.979006	-86.031023	PEM1	0.017 acre	Non-section 10 water; subject to 404 jurisdiction – wetland
Wetland D	38.979448	-86.021750	PEM1	0.059 acre	Non-section 10 water; subject to 404 jurisdiction – wetland

^{*} Cowardin Class determined from USFWS NWI online mapper.

From: Sperry, Steve < SSPERRY@indot.IN.gov > Sent: Wednesday, February 9, 2022 8:57 AM

To: Claudia McAllister-Peterson < cmcallister-peterson@cmtengr.com >; Rhoads, Matthew

<MRhoads@indot.IN.gov>

Cc: Curry, Jennifer < JCurry1@indot.IN.gov>; Romano, Dominick < dromano@blainc.com>

Subject: WOTUS Rpt. Approved: 1298633, SR 258, Jackson Co

Claudia,

Thank you for submitting the Waters report for the above referenced project.

Matt,

The 2/3/2022 WOTUS report has been stamped approved. It has been posted to ProjectWise in the following location, <u>1298633 Waters report Approved 2.9.2022.pdf</u>. It can also be accessed using the following link,

 $\underline{https://documentcloud.adobe.com/link/track?uri=urn:aaid:scds:US:d8f4d997-310e-42e7-bfb2-05020c32b15e}$

The approved copy is the only report recognized by this Office. Copies that do not contain our approval stamp will not be accepted for permitting or any other use.

The information in this report should be used by the Project Designer to determine if Waters of the U.S. will be impacted by the project. If it appears that impacts will occur, then action will need to be taken to avoid them to the maximum practical extent. If avoidance is not feasible then impacts will need to be minimized to the maximum practicable extent. These steps must be taken before any mitigation can be considered. If it is determined that mitigation will be required, the Project Manager or Project Designer will need to coordinate with the Ecology and Waterway Permitting Office to discuss how this will be provided.

The Project Manager or designer should notify the Ecology and Waterway Permitting Office if there is any change to the project footprint presented in the approved report. Changes may require additional fieldwork and a new report to cover areas not previously investigated.

The report is valid for a period of five years from the date of the earliest fieldwork. If this approved report expires prior to submittal of the waterway permit applications a new report will need to be generated.

This e-mail serves as notice that the Project Designer is to complete the attached Permit Determination questionnaire. Once completed please have them submit it to <u>Steve Sperry</u>.

Should you have any questions or need additional information please contact me.

Thanks

Steve Sperry,

Ecology and Permits Coordinator, Multi-district East Team

INDOT, Office of Ecology and Waterway Permitting 100 N. Senate Ave., N758-ES

Indianapolis, IN 46204

Phone: (317)-417-3623

Remote Work Hours: 7:00-3:30



From: Sperry, Steve
To: Rhoads, Matthew

Cc: Curry, Jennifer; Slaymon, Shawn; Laura Sakach; Marion Wells; Dominick Romano

Subject: Preliminary Permit Determination Verification: 1298633, SR 258, Jackson Co

Date: Wednesday, April 13, 2022 2:46:26 PM

Attachments: <u>image001.png</u>

image002.png image003.png image004.png image005.png

1298633 PD EWPO Verification 4.13.2022.pdf

Stage 2 Plans SR 258 1298633.pdf

External Message: This email was sent from someone outside of CMT. Please use caution with links and attachments from unknown senders or receiving unexpected emails.

Matthew,

Refer to the attached. I have reviewed the plans and permit determination questionnaire provided by the consultant for this project. The following permits will be required:

- Stormwater (CSGP)
- 404 RGP. The consultant will need to complete and submit SF 51821.
- 401 WQC, IP. The consultant will need to complete and submit SF 51821.

NOTE: 923 If of mitigation will be required to compensate for permanent impacts to 923 If of jurisdictional stream. The consultant will need to include a description of the mitigation in the 51821 application.

No other permits are required

Please have the consultant submit the applications to this Office in accordance with the following guidelines:

Timeline

- 1. The target permit approval/on-hand date is two (2) weeks prior to Stage 3 submittal.
- 2. To calculate the first draft permit application submittal to EWPO, use the following formula. Please note, EWPO review time is based on the complexity of the permit application or the project:

Stage 3 Date - (Agency Review Time + EWPO Review Time) = Submittal Date to EWPO

Agency Review Timeframes:

4 months – 404/401 NWP or RGP, County Regulated Drain

5 months - CSGP, USACE Section 5

6-9 months - 401 IP

7 months - Section 10

9-12 months – CIF

20 months - 404 IP

We are providing this preliminary permit determination based on the information available at the

time of the review. If the project scope, plans and/or impacts change the designer should contact EWPO for an updated permit determination. A final permit determination will be undertaken when the applications listed above have been received by this Office.

If you have any questions or comments, please contact me and cc others as appropriate.

Thanks

Steve Sperry,

Ecology and Permits Coordinator, Multi-district East Team INDOT, Office of Ecology and Waterway Permitting

100 N. Senate Ave., *N758-ES*

Indianapolis, IN 46204 **Phone: (317)-417-3623**

Remote Work Hours: 7:30-4:00



Permit Determination Checklist | 2022

INDOT Ecology and Waterway Permitting Office (EWPO) Revised 3/11/2022

1. PROJECT SPECIFIC I	NFORMATION		Date: 4/7/2022						
Project Route/Type	State Route 258/Sight Distance Improvement								
INDOT Des. Number	1298633	Contract # R-412	258						
County	Jackson County								
Letting Date	10/12/2023 RF	10/12/2023 RFC Date - 8/2/2023 Stage 3 Due Date							
INDOT PM		Matthew Rhoa	ds, PE						
2. Preparer Contact Information			nc.						
3. Detailed Activity Description including Impacts to Regulated Resources (refer to permit checklists for required information)	The project includes hill by approximately side of the side of	an existing 12-inch driveway pipe under the residential drive buth side of SR 258 at the top of the hill will be removed, be sew structure will be placed at this location, as the roadside will be graded to carry water away from these driveways. Fing will be required for the project. No evidence of bats of or heard under (or in) any of the culverts. Cet will impact a total of approximately 0.022 acre of wetland feet (0.077 acre) of streams. Due to the loss of more than of stream and 0.03 acre of streambed, stream mitigation we No wetland mitigation is anticipated.							
4. Materials Used	are also attached. ☑ Waters Report ☑ NEPA Documents	☑ Regulatory Guida ☑ Project Plans	✓ USGS IN StreamStats						
Timeline	☑ Scope of Work	☑ IndianaMAP	☑ IPaC Official Species List						

Timeline

- 1. The target permit approval/on-hand date is two (2) weeks prior to Stage 3 submittal.
- 2. To calculate the first draft permit application submittal to EWPO, use the following formula. Please note, EWPO review time is based on the complexity of the permit application or the project:

Stage 3 Date - (Agency Review Time + EWPO Review Time) = Submittal Date to EWPO						
Agency Review Timeframes:						
4 months – 404/401 NWP or RGP, County Regulated Drain						
5 months – CSGP, USACE Section 5						
6-9 months – 401 IP						
7 months – Section 10						
9-12 months – CIF						
20 months – 404 IP						

5. 401 WQC (IDEM)/ 404 (USACE)

a. Are there jurisdictional streams, wetlands and/or open water within the project area?

✓ Yes – Type: ✓ Stream(s) ✓ Wetland(s) ✓ Open Water □ No [NPR]

b. If yes, what are the total impacts to the resources (reference the waters report)?

	PERMANENT IMPACTS	TEMPORARY IMPACTS
Wetlands	0.022 ac	0
type(s)	See attached impact table	N/A
total acres	See attached impact table	N/A
jurisdictional status	See attached impact table	N/A
Streams	923 ft	0
LF below OHWM	See attached impact table	N/A
acres below OHWM	See attached impact table	N/A
LF stream relocation	762 ft	N/A
net gain/loss	Loss of 87 ft	N/A
Open Water	0	0
total acres	N/A	N/A
jurisdictional status	N/A	N/A

c. Determine the appropriate permit application form. ▶ State Form 51937 \square Cumulative impacts are \square <500' \square <0.25 ac and/or \square <150' encapsulation ☐ There **is no** stream relocation associated with a structure. ▶ State Form 51821 \square Cumulative impacts are \square >500' \square >0.25 ac and/or \square >150' encapsulation ☑ There is stream relocation. ☑ NWP and/or RGP conditions are not met. ▶ USACE Form 4345 \square 404 IP – a single wetland or stream is impacted that is >1.0 acre or > 1,500' Mitigation

☑ If there is a loss of > 0.1 ac wetland or 0.03 ac of streambed (explain in Detailed Activity Description, item 3 above).

☑ Cumulative impacts > 300' stream and/or 0.1 ac wetland/stream.

6. 1	IDNR	Construction	in	a Floodway	(CIF)	State Form	42946
------	------	--------------	----	------------	-------	------------	-------

a. Is there any work being conducted below Q100 (inc	cluding change in elevation?)	☐ Yes ☑ No [NPR
b. Is any stream's individual drainage area ≥ 1 mile ² ?	UNT 3 StreamStats	Yes I No [NPR

Each crossing that will impact a DNR jurisdictional floodway will require a permit.

¥ Yes [NPR] ☐ No c. Rural Bridge Exemption

Permit Determination Checklist 2022

INDOT Ecology and Waterway Permitting Office (EWPO) Revised 3/11/2022

	Project must meet the following five requirements:	
	Construction/reconstruction project of a state highway bridge funded by I	NDOT.
	Upstream drainage area of the waterway is less than or equal to 50 square n	
	50 square miles).	(
	Project is in a rural area (if within two miles of an urban planning zone, incl	ude coordination with
	the local entity with jurisdiction).	idae eooramadon widi
	Project is limited to a bridge or culvert (bank stabilization, roadway repair, a	and stream relocation
	are not exempt activities).	and otteam retocation
	☐ Each building impacted by the project is higher than the regulatory flood el	evation (lowest
	elevation in the structure including the basement).	evacion (10 west
	d. Logjam and Sandbar Removal General License	☐ Yes [NPR] ☐ No
	e. Qualified Outfall Projects General License	☐ Yes [NPR] ☐ No
		☐ Yes ☐ No
	f. Mitigation	□ res □ No
7 (Construction Stormwater General Permit	
/. (□ V □ N- (NIDD)
	Will one (1) acre or more of soil be disturbed?	☑ Yes □ No [NPR]
	(Such as tree clearing, full-depth replacement, shoulder work, construction access, or	etc.)
	[Coordination with INDOT-ES Storm Water Team is required.]	
0 4	County Descripted During	
o. (County Regulated Drains	
	Is the project located on a regulated drain?	☐ Yes ☑ No [NPR]
	NOTE - Designation as a regulated drain may prevent construction of on-site mitig	gation. Include
	coordination with the entity with jurisdiction.	
n 6	Section 9 (USCG) and Section 10 (USACE)	
9. S		□ V □ NI- INIDDI
	Does the project impact a navigable waterway?	☐ Yes ☑ No [NPR]
10	Levee	
10.	Does the project impact a levee?	☐ Yes ☑ No [NPR]
	Does the project impact a leveer	i les i no [nrk]
11	Additional Considerations	
11.	✓ Fish Spawning (restriction of instream work between April 1 – June 30)	
	☐ Tree Clearing (restriction of clearing between April 1 – September 30)	
	Wildlife Concerns (e.g. wildlife crossing, etc.)	
	Adjacent project(s) - may be looked at cumulatively for impacts and mitigation	: ODW/O : 1: .\
	☐ Endangered, Threatened or Rare Species (see DNR Early Coordination letter, U	
	☐ Migratory Birds (see DNR Early Coordination letter, USFWS species list, visual	evidence such as
	nests)	
	☐ Bats (see USFWS species list, visual evidence such as guano, staining, etc.)	
	☐ Other Protected Species (see DNR Early Coordination letter, USFWS species list	The state of the s
	☐ Indiana designated waters - salmonid or outstanding state resource waters, critic	al wetland and aquatic
	sites	
	☐ US EPA Class V Injection Well	
	☐ St. Joseph Aquifer System	
	✓ St. Joseph Aquiter System ✓ Waters Report <5 years from date of first field visit	

If there are any special concerns, notify designer that the project should take these into consideration when completing the design and permit applications. Some special concerns may require extra coordination with agencies and possibly permits. If marked, notify the project manager in your permit determination response of these conflicts.

12. EWPO Preliminary Permit Determination Concurrence

This is a **preliminary** permit determination based on the information presented at the time of the request. **If scope and plans change the designer should contact us for a revised determination**. A final permit determination will be done at the time of permit application submittal and/or any changes to the scope of the project.

project.	
Permit Dete	rmination:
□ 404 N □ 3a □ 404 R □ 404 IF	□ 3b □ 3c □ 13 □ 14 □ 33 □ PCN □ no PCN □ no PCN
□ 401 W □ N □ RO □ IP □ CIF □ Count □ Storm □ USAC □ USAC □ USCG □ Mitiga	WP 3a 3b 3c 13 14 33 PCN no PCN GP y Drain water (CSGP) E Section 408 E Section 10 Section 9 tion
Project Note	es: (include special considerations such as wildlife crossings or protected species)
EWPO Revi	Stephen C. Sperry Stephen C. Digitally signed by Stephen C. Sperry Date: 4/13/2022 Date: 4/13/2022
For EWPO 1	Use Only:
Email to:	□ PM □ PD Preparer □ Storm Water Specialist □ Team Lead □ Other
Date sent:	Update: ☐ Milestones ☐ EWPS ☐ ProjectWise (file PD email)

Permit Determination Checklist

INDOT Ecology and Waterway Permitting Office (EWPO)
Revised 3/11/2022

Activity Description

Overview of Project Activities

The project includes lowering the existing SR 258 roadway hill by approximately 5 feet and raising the existing roadway valleys on either side of the hill by approximately 15 feet to provide acceptable stopping sight distances to allow for safe and efficient movement of traffic. Roadway improvements are also required on N CR 100 E to accommodate the vertical profile change on SR 258. The following drainage structure improvements are also required to accommodate the roadway profile changes:

- The existing 18 feet by 6 feet box culvert (CV 258-036-4.73) located at unnamed tributary (UNT)
 3 to White Creek will be lengthened with new headwalls/wingwalls constructed to
 accommodate the increased elevation of SR 258.
- 7 existing culverts in the project limits will be removed and replaced "in kind". Two of these
 culvert replacements will result in impacts to streams, including UNT 1 to White Creek and UNT
 2 to White Creek.
- An existing 12-inch driveway pipe under the residential drives on the south side of SR 258 at the
 top of the hill will be removed, but no new structure will be placed at this location, as the
 roadside ditches will be graded to carry water away from these driveways.

The project will require tree clearing. There are no other known wildlife concerns. No evidence of birds or bats was seen or heard under (or in) any of the culverts during the September 28, 2021 field reconnaissance site visit.

Four (4) streams and three (3) wetlands were identified within the project area. This project will result in impacts to streams and wetlands as described below.

The project will result in 923 LF (0.077 ac) of permanent impacts to streams and 0.022 acres of impacts to jurisdictional wetlands. No isolated wetlands are anticipated to be impacted by the project.

Approximately 10.5 acres of land disturbance will occur.

Permanent Impacts

Cumulative permanent impacts to streams impacted by the project are: 923 linear feet (0.077 acre) due to riprap placement for erosion control, roadway and drainage grading, culvert extensions, and two stream relocations. A total of 762 linear feet of stream will be relocated, resulting in 87 linear feet of net stream loss. The project will result in a total of 121 linear feet of new encapsulation. Cumulative permanent impacts to wetlands impacted by the project are 0.022 acre. Worst-case impacts were determined based on an estimate of the construction limits required for construction of the project. Impact summary tables are attached, and impacted water resources are shown on the attached plan sheets.

UNT 1 to White Creek – UNT 1 to White Creek will be impacted due to grading, placement of riprap for erosion control, a culvert extension, and stream relocation to accommodate the grade changes. Approximately 659 linear feet of UNT 1 to White Creek will be relocated to a new 685-foot segment, located approximately 67 feet south of the existing channel at N CR 100 E and approximately 13-50 feet south of the existing channel along SR 258. Within the relocated segment of the stream, the existing 40-foot culvert underneath N CR 100 E will be extended 74 feet to a new 114-foot culvert, resulting in 74 linear feet of new encapsulation. The stream relocation and new encapsulation will result in a net loss of 48 linear feet of open channel. Within the relocated segment of the stream, approximately 8 linear feet of riprap will be placed below the OHWM. An additional 10 linear feet of riprap will be placed below the OHWM outside of the stream relocation. Approximately 5 linear feet will be regraded. A total of approximately 674 linear feet (0.06 acre) of UNT 1 to White Creek will be impacted, resulting in 48 linear feet of net stream loss.

UNT 2 to White Creek – UNT 2 to White Creek will be impacted due to grading, placement of riprap for erosion control, a culvert extension, and stream relocation to accommodate the grade changes. Approximately 103 linear feet of UNT 2 to White Creek will be relocated to a new 100-foot segment, located approximately 10 feet south of the existing channel at N CR 100 E. Within the relocated segment of the stream, the existing 28-foot culvert underneath N CR 100 E will be extended 36 feet to a new 64-foot culvert, resulting in 36 linear feet of new encapsulation. The stream relocation and new encapsulation will result in a net loss of 39 linear feet of open channel. Within the relocated segment of the stream, approximately 30 linear feet will be regraded, and 6 linear feet of riprap will be placed below the OHWM. A total of approximately 103 linear feet (0.01 acre) of UNT 2 to White Creek will be impacted, resulting in 39 linear feet of net stream loss.

UNT 3 to White Creek – UNT 3 to White Creek will be impacted due to grading, placement of riprap for erosion control, and a culvert extension, to accommodate the increased elevation of SR 258. The culvert extension will result in approximately 11 linear feet new encapsulation, approximately 41 linear feet will be regraded, and 23 linear feet of riprap will be placed below the OHWM. A total of approximately 75 linear feet (0.01 acre) of UNT 3 to White Creek will be impacted.

UNT 4 to White Creek – UNT 4 to White Creek will be impacted due to grading to accommodate the grade changes. Approximately 71 linear feet (0.003 acre) of UNT 4 to White Creek will be impacted.

Wetlands— In order to construct the roadway profile improvements at the SR 258 and N CR 100 E intersection, and complete associated grading, three (3) jurisdictional wetlands will be impacted. See attached Summary of Wetland Impacts table.

Temporary Impacts

At this time, all impacts are expected to be permanent. Temporary impacts due to dewatering methods are not yet known but are expected to be located completely within the footprint of permanent impacts.

Mitigation

The preferred alternative minimizes surface water resource impacts to the greatest extent possible. Due to the loss of more than 300 linear feet of stream and 0.03 acre of streambed, mitigation will be required.

Permit Determination Checklist 2022

INDOT Ecology and Waterway Permitting Office (EWPO)
Revised 3/11/2022

Wetland Permanent Impacts											
Perm. Impacts Temp. Impacts											
Name	Type(s)	Jurisdictional Status	(ac)	(ac)							
	Emergent,										
Wetland A	Palustrine (PEM)	Federally Jurisdictional	0.005	0							
	Emergent,										
Wetland B	Palustrine (PEM)	Federally Jurisdictional	0.017	0							
	Emergent,										
Wetland D	Palustrine (PEM)	Federally Jurisdictional	0.004	0							
		Total	0.022	0							
	Strea	m Permanent Impacts									
	LF below	1	LF Stream								
Name	OHWM	Acres below OHWM	Relocation	Net Gain/Loss							
UNT 1 to White	47.4	0.07	(50	40							
Creek	674	0.06	659	48							
UNT 2 to White	4.02	0.04	402	20							
Creek	103	0.01	103	39							
UNT 3 to White	75	0.01	0	0							
Creek	75	0.01	0	0							
UNT 4 to White	71	0.003	0	0							
Creek	/ 1	0.003	U U	0							
Total	923	0.077	762	87							



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office 620 South Walker Street Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html

In Reply Refer To: April 27, 2022

Project Code: 2022-0036674

Project Name: SR 258 Sight Distance Correction (Des No. 1298633)

Subject: List of threatened and endangered species that may occur in your proposed project

location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - http://www.fws.gov/midwest/endangered/section7/s7process/index.html. This website contains step-by-step instructions which will help you

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process. For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of

Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- Migratory Birds
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Indiana Ecological Services Field Office 620 South Walker Street Bloomington, IN 47403-2121 (812) 334-4261

Project Summary

Project Code: 2022-0036674

Event Code: None

Project Name: SR 258 Sight Distance Correction (Des No. 1298633)

Project Type: Road/Hwy - Maintenance/Modification

Project Description: SR 258 Sight Distance Correction (Des No. 1298633)

This project (Des No. 1298633) is located approximately 6 miles west of Seymour, Indiana, near the intersection of SR 258 and N CR 100 E, within Sections 1 and 2, Township 6 North, and Range 4 East, and Sections 6 and 7, Township 6 North, and Range 5 East, on the U.S. Geological Survey (USGS) Brownstown, Indiana Quadrangle.

The project includes lowering the existing roadway crest by approximately 5 feet and raising the existing roadway sag vertical curves on either side of the crest by approximately 15 feet. The project limits are from approximately 0.55 mile west of N County Road (CR) 100 E to approximately 500 feet east of N CR 100 E. Roadway improvements are also required on N CR 100 E, from approximately 500 feet south and approximately 300 feet north of the SR 258 intersection, to accommodate the vertical profile change on SR 258.

Approximately 4.3 acres of permanent right of way and 1.9 acres of temporary right of way will be needed for the project. The construction of the project will require closure of SR 258 and detouring through-traffic using SR 135, US 50, and SR 11. The additional travel length due to this detour is approximately 10.5 miles. Other detours will be available for local traffic in the project vicinity using local and county roads. The project is planned to begin construction in Spring of 2024 and be completed by the end of Fall 2024.

Land use in the vicinity of the project is residential and forested. One stream flows east along the south side of SR 258 through an existing culvert underneath N CR 100 E. Another stream flows east through an existing culvert underneath N CR 100 E, south of SR 258. A third stream flows north through the forested area along the north side of SR 258. A fourth stream flows south underneath an existing SR 258 bridge near the west end of the study area.

A review of the USFWS database on September 27, 2021 did not indicate the presence of the Indiana bat or the northern long-eared bat within 0.5 mile of the study area. A total of eight culverts along SR 258 were inspected for bats. The September 28, 2021 culvert bat inspections state that no evidence of bats was seen or heard in any of the culverts. A BIAS inspection report was only available for one of the eight culverts, CV

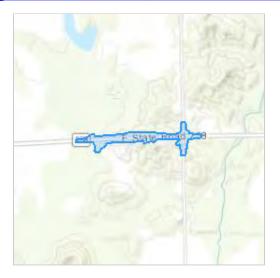
258-036-4.73, which also indicated no evidence of bats using the culvert was observed. Suitable summer habitat is located within and adjacent to the study area. Suitable summer habitat will be impacted for the construction of the project. The dominant tree species for removal include white oak (Quercus alba), Eastern white pine (Pinus strobus), red maple (Acer rubrum), slippery elm (Ulmus rubra), green ash (Fraxinus pennsylvanica), and sweet-gum (Liquidambar styraciflua). No more than 9.2 acres of trees will be removed for the project. 8 acres may be removed within 100 feet of the roadway and 1.2 acres may be removed 100-300 feet from the roadway. All tree clearing activities will occur outside of the Indiana bat and/or NLEB active season.

The project will require compensatory mitigation under the Rangewide In-Lieu Fee Program, The Conservation Fund. A mitigation payment for tree removal between 100-300 feet from the existing roadway was calculated using the following In-lieu fee formula: (acres of tree removal=1.2) x (mitigation ratio = 1.5) x (current dollar amount for IN = \$9,354) = \$16,837.20.

The project activities will include the use of percussives. The project will not include installing new or replacing existing permanent lighting. Although temporary lighting is not expected to be required for the construction of the project, it is possible some night work will be performed.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.979036750000006,-86.02623970813661,14z



Counties: Jackson County, Indiana

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an
office of the National Oceanic and Atmospheric Administration within the Department of
Commerce.

Mammals

NAME STATUS

Indiana Bat *Myotis sodalis*

Endangered

There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949

Northern Long-eared Bat Myotis septentrionalis

Threatened

No critical habitat has been designated for this species.

This species only needs to be considered under the following conditions:

• Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html

Species profile: https://ecos.fws.gov/ecp/species/9045

Insects

NAME STATUS

Monarch Butterfly *Danaus plexippus*

Candidate

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The Bald and Golden Eagle Protection Act of 1940.
- 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the <u>USFWS</u> <u>Birds of Conservation Concern</u> (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ <u>below</u>. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Lesser Yellowlegs <i>Tringa flavipes</i>	Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the	
continental USA and Alaska.	
https://ecos.fws.gov/ecp/species/9679	

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

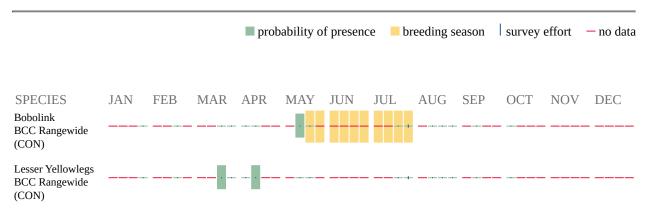
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern</u> (<u>BCC</u>) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u>

requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>AKN Phenology Tool</u>.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u>.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to <u>NWI wetlands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local <u>U.S. Army Corps of Engineers District</u>.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

■ <u>R5UBH</u>

FRESHWATER FORESTED/SHRUB WETLAND

• PFO1A

FRESHWATER POND

• PUBGh

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Seasonal water		Other:	_	Woodland/forest	ea			Other:			
Areas Assessed (check a											
Check all areas that apply. If an	area is not p	present in the structure, check the "not pre	sent	" box.							
Document all bat indicators obse	rved during	the assessment. Include the species pres	sent,	if known, and p	rov	de photo docu	mer	ntation as ind	licated.		
Area (check if assessed)		Assessment Notes	ΤF	vidence of E	Rat	s (include n	not	os if prese	nt)		
All crevices and cracks:		Not present	┿	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Juc	c (morado pr	 	Audible	Species		
Bridges/culverts: rough surf	acos or I	Not present	$\dashv \square$	Visual - live #		dead #	⊢	Odor	Species		
	aces or			Guano		dcad #	┢	Photos	-		
imperfections in concrete			┢	Staining			┢	1 110103			
Other structures: soffits, raf	ters, attic			<u> </u>			_				
areas		W Not propert	+	1			_	Audible	I ICharina		
Concrete surfaces (open roos	sting on [X Not present	$-\!$	Visual - live #		dead #	_	Audible Odor	Species		
` '	Suring Oil			Guano		ueau #	┢	Photos	- 		
concrete)			\vdash	Staining			┢	FIIOLOS			
		X Not present	╼	Otaming			╁	Audible	Species		
Spaces between concrete en	d walls 🏻 🗓	Not prosent	一	Visual - live #		dead #		Odor	Ореспез		
and the bridge deck				Guano			┢	Photos			
l land the zhage teek				Staining			Т	4			
Crack between concrete railir	nas on top	X Not present		Ť			Т	Audible	Species		
of the bridge deck	Gap		┺	Visual - live #		dead #		Odor	 		
L	. ×			Guano				Photos			
Railing	→			Staining				-			
		X Not present	F	1		<u></u>		Audible	Species		
Vertical surfaces on concrete	I-heams			Visual - live #		dead #		Odor			
Vertical surfaces on concrete	1 beams		L	Guano			L	Photos			
			┵	Staining			ᆫ	-			
	ļ	X Not present	_	1			$ldsymbol{le}}}}}}$	Audible	Species		
Spaces between walls, ceiling	g joists		F	Visual - live #		dead #	┡	Odor	_		
	·		⊩	Guano			┡	Photos	_		
		W Not propert	╬	Staining			⊢	Audible	Chasina		
Weep holes, scupper drains,		X Not present	$\dashv \Box$	Vieual live#		doad #	\vdash	Odor	Species		
inlets/pipes				Visual - live # dead # Guano		dead #	┢	Photos	_		
πιιοισ/ριρσο				Staining			\vdash	1. 110103	-		
	I	X Not present					\vdash	Audible	Species		
⊢	ļ		匸	Visual - live #		dead #		Odor			
All guiderails				Guano			┢	Photos	┪		
				Staining					┥ !		
		X Not present	┰	-			Т	Audible	Species		
All over or size inter-	ן ו	<u> </u>	٦_	Visual - live #	dead #		Odor				
All expansion joints				Guano		Т	Photos	7			
				Staining							
			T		1		//	11111	111		
_{Name:} Claudia McAllist	er-Pete	rson	s	gnature:	l	and the	U	Wif.	-let		

Dat of A	te & Time Assessment 9/28/2021 11 AM	DOT Project Number 1298633	Route/Facility Carried SR 258				ı	ounty Jackso	n	
Fed Str	<u>deral</u> ucture ID N/A	Structure Coordinates 38.978965, -86.029441 (latitude and longitude)	St (a	ructure Height ,	24"	ı	Stı Le	ructure ngth 40'		
St	ructure Type (check one)		Si	tructure Mat	eri	al (check all	th	at apply)		
Bri	dge Construction Style		De	eck Material	Ве	am Material	Er	nd/Back Wall I	Material	
\sim	Cast-in-place	Pre-stressed Girder		Metal		None		Concrete		
\supset	oust in place	0	╙	Concrete	Щ	Concrete	L	Timber		
\bigcirc	Flat Slab/Box	Steel I-beam	╙	Timber	Щ	Steel	╙	Stone/Masonry Other:		
$^{\circ}$	A A A		L	Open grid Other:	Щ	Timber Other:				
\circ	Truss / IVIV	O Covered	L		Ш			nce		
0	Parallel Box Beam	Other:	Ci	ulvert Material				Yes Unknown	◎ No	
Си	lvert Type	Other Structure		Metal Concrete			No	<u>otes:</u>		
	Box		┢	Plastic			12	4" CPP wit	h 1.5' cover	
ĕ	Pipe/Round		F	Stone/Masonry			i			
ŏ	Other:		r	Other:			i			
	ossings Traversed (check all th	est apply)	0	urrounding	Цa	hitat (chack	ചി	that apply)		
	,		12		ııa	Ditat (CHECK	all	Grassland		
	Bare ground	Open vegetation Closed vegetation	┢	Agricultural Commercial			┝	Ranching		
	Rip-rap Flowing water	Railroad	⊩	Residential-urbar			┢	Riparian/wetland		
		X Road/trail - Type: driveway	┡	Residential-rural	1		┢	Mixed use		
	Standing water Seasonal water	Other:	屵	Woodland/forest	he		┢	Other:		
			_	Woodiand/lorest	Ju			Other.		
	eas Assessed (check all that ap									
		present in the structure, check the "not pres								
Do	cument all bat indicators observed during	g the assessment. Include the species prese	ent,	if known, and p	rovi	de photo docui	ner	ntation as indica	ited.	
Ar	ea (check if assessed)	Assessment Notes	ĮΕ	vidence of E	at	s (include ph	not	os if present)	
	All crevices and cracks:	Not present		1			П	Audible	Species	
	Bridges/culverts: rough surfaces or		╙	Visual - live #		dead #		Odor		
	imperfections in concrete		Г	Guano			Г	Photos	İ	
	Other structures: soffits, rafters, attic			Staining				4	İ	
	areas			<u> </u>			•			
H	alcas	■ Not present					т	Audible	Species	
Щ	Concrete surfaces (open roosting on	Not procent	╙	Visual - live #		dead #	H	Odor	Оросіос	
Ш	concrete)		┢	Guano			H	Photos	i	
	osneroto)			Staining					i	
		X Not present		,			Г	Audible	Species	
Н	Spaces between concrete end walls	<u> </u>	╙	Visual - live #		dead #		Odor	Г '	
Н	and the bridge deck			Guano				Photos	1	
				Staining						
	Crack between concrete railings on top	X Not present		1				Audible	Species	
Ш	of the bridge deck Gap		Ь	Visual - live #		dead #		Odor		
Н	Railing 📗			Guano				Photos	ļ	
	Total I		╙	Staining			L			
		X Not present	┢	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		44.0	\vdash	Audible	Species	
	Vertical surfaces on concrete I-beams		F	Visual - live #		dead #	⊢	Odor		
			L	Guano			┡	Photos		
Н		Not present	⊬	Staining			\vdash	Nordible	0	
Ш		Not present		Visual - live #		dead #	\vdash	Audible Odor	Species	
	Spaces between walls, ceiling joists		F	Guano		ueau #	┢	Photos	ł	
			⊩	Staining			┢	FIIOLOS	ł	
		■ Not present		Ctaning			┢	Audible	Species	
Ы	Weep holes, scupper drains, and		匚	Visual - live #		dead #	H	Odor		
Ш	inlets/pipes			Guano			Т	Photos	1	
	1.1			Staining				-1	1	
П		X Not present					Г	Audible	Species	
Ы	All guidoraile		1—	Visual - live #		dead #	Г	Odor		
Н	All guiderails			Guano				Photos	ゴ	
Ш			Staining							
		X Not present	F	1				Audible	Species	
Н	All expansion joints		Visual - live #			dead#		Odor	_	
Н	, in expansion jointo		L	Guano				Photos		
Ш				Staining						
Na	_{lme:} Claudia McAllister-Pete	erson	Si	gnature:	1	Paul M		Allif-1	Petr	

_			$\overline{}$				_					
Dat of <i>F</i>	te & Time Assessment 9/28/2021 11 AM	DOT Project Number 1298633		oute/Facility arried			1		nty Jackson			
Fed Stru	ederal tructure ID N/A Structure Coordinates 38.979387, -86.00 (latitude and longitude)			ructure Height pproximate)	1.5	1	Str Le	ructure ngth 35'				
Structure Type (check one)			S	Structure Material (check all that apply)								
Bridge Construction Style			_	eck Material	_	`		nd/Back Wall I	Material			
_	Cast-in-place	Pre-stressed Girder	世	Metal	口	None	上	Concrete				
\supset	Cast-II-piace	OTTE-SILOSSER CITACI	L	Concrete		Concrete	辶	Timber				
	Flat Slab/Box	Steel I-beam TTT		Timber		Steel		Stone/Masonry				
\perp			E	Open grid Other:		Timber Other:	F	Other:				
O	Truss Side View	Covered	E	Otilei.		Other.		reosote Evidei				
0	Parallel Box Beam	Other:	Ci	ulvert Material	I			Yes Unknown	⊙ No			
Си	llvert Type	Other Structure	×	Metal	_			otes:				
		 	╄	Concrete			12	'x1.5' CMP	with 3'			
\mathcal{L}	Box Pipe/Round	<u>'</u>	\vdash	Plastic			4		With			
8	Other: Elliptical	Α)	\vdash	Stone/Masonry Other:	—		C	over				
			누			* ** * / L L	느					
Cr	ossings Traversed (check all th	at apply)	Sı	urrounding	Ha	bitat (check	all	that apply)				
	Bare ground	Open vegetation		Agricultural				Grassland				
	Rip-rap	Closed vegetation	L	Commercial				Ranching				
	Flowing water	Railroad	L	Residential-urbar				Riparian/wetland				
	Standing water	X Road/trail - Type: N County Rd 100 E	×	Residential-rural			\Box	Mixed use				
Ц	Seasonal water	Other:	上	Woodland/foreste	ed			Other:				
Ar	eas Assessed (check all that ap	(vlar										
		present in the structure, check the "not prese	ent	" hox								
		·			rovi	ide nhoto docu	mer	ntation as indica	hate			
			ent, if known, and provide photo documentation as indicated. Evidence of Bats (include photos if present)									
	/	Assessment Notes	E,	vidence of E	<u> 3at</u>	s (include pr	10t	os if present	.)			
	All crevices and cracks:	Not present	F	 _	_			Audible	Species			
	Bridges/culverts: rough surfaces or	,	\vdash	Visual - live #		dead #		Odor				
X	imperfections in concrete			Guano	_			Photos]			
	Other structures: soffits, rafters, attic	1		Staining	_							
	areas	1										
H	arcas	▼ Not present					Т	Audible	Species			
Ц	Concrete surfaces (open roosting on	Not procent	上	Visual - live #		dead #	\vdash	Odor	—			
	concrete)	1		Guano			┢	Photos	1			
		1		Staining			一	T HOLOS	1			
H		X Not present	世				┢	Audible	Species			
Ц	Spaces between concrete end walls	Not process	上	Visual - live #		dead #	\vdash	Odor	H-10000000			
Щ	and the bridge deck			Guano		┢	Photos	1				
	and the bridge door.	1	\vdash	Staining		\vdash	T HOLOS					
H	Crack between concrete railings on top	▼ Not present	世	Ottaining			┢	Audible	Species			
	of the bridge deck Gap	Not present	L	Visual - live #		dead #	\vdash	Odor	H openies			
Щ	3			Guano		4633 //	\vdash	Photos	1			
	Railing	1	\vdash	Staining			Н	THOUS	1			
H		X Not present	世	<u> </u>			\vdash	Audible	Species			
Н		Net procent	上	Visual - live #		dead #	\vdash	Odor	—			
Щ	Vertical surfaces on concrete I-beams			Guano			\vdash	Photos	1			
	,	1	\vdash	Staining			Н	Thotos	1			
H		X Not present	\vdash	<u> </u>			一	Audible	Species			
Ц	la e e e e e e e e e e e e e e e e e e e	N Not procent	上	Visual - live #		dead #	\vdash	Odor	H-100000000			
Щ	Spaces between walls, ceiling joists	1		Guano			\vdash	Photos	1			
	,	1	\vdash	Staining			┢	T HOLOG	1			
H	·	X Not present	世	<u> </u>			\vdash	Audible	Species			
Н	Weep holes, scupper drains, and	N Het process	上	Visual - live #		dead #	\vdash	Odor	—			
Щ	inlets/pipes	1		Guano			\vdash	Photos	†			
	, , , , , , , , , , , , , , , , , , , ,	1		Staining			\vdash	<u></u>				
H	,	X Not present	世	<u>,</u>			\vdash	Audible	Species			
Ц	 	National Property of the Prope	닎	Visual - live # dead		dead #		Odor	+ 1			
Щ	All guiderails	1		Guano			┢	Photos	†			
	'	1		Staining			\vdash	1	i			
H	·	▼ Not present	=	<u> </u>				Audible	Species			
Ц	 	, and provided the second seco	上	Visual - live #	dead #		H	Odor	 			
Ц	All expansion joints	1	\vdash	Guano			┢	Photos	†			
	,	1		Staining				<u> </u>	1			
H	,	·	一			7 -	7	10 11111	11/1-			
Na	_{ame:} Claudia McAllister-Pete	Si	ignature;	1	land 1.	H	Melit-	Het				

of A		DOT Project Number 1298633		<u>ourned</u>				ounty Jackson					
Fed Str	<u>deral</u> ucture ID N/A	Structure Coordinates 38.978508, -86.021639 (latitude and longitude)			36"		Structure Length						
St	ructure Type (check one)	S	Structure Material (check all that apply)										
Bri	idge Construction Style		De	eck Material	Ве		Er	nd/Back Wall N	Material				
0	Cast-in-place	O Pre-stressed Girder	F	Metal	\square	None Concrete	L	Concrete					
\vdash	0 0 0 0 0 0 0		╟	Concrete Timber	⊩	Concrete Steel	┞	Timber Stone/Masonry					
\circ	Flat Slab/Box	Steel I-beam I I I		Open grid	世	Timber		Other:					
0	Truss Side View	Covered	E	Other:		Other:		Creosote Evidence					
0	Parallel Box Beam	Other:	Ci	ulvert Material				Yes Unknown	◎ No				
Си	llvert Type	Other Structure	M	Metal Concrete			Νc	otes:					
0	Box	 	十	Plastic			3	6" CMP wit	th 3' cover				
0	Pipe/Round			Stone/Masonry									
	Other:		L	Other:			<u>1</u>						
	ossings Traversed (check all th		S	urrounding	На	bitat (check	all						
	Bare ground	Open vegetation	L	Agricultural				Grassland					
	Rip-rap	Closed vegetation	┡	Commercial Residential-urbar	-		L	Ranching Riparian/wetland					
	Flowing water Standing water	Railroad Road/trail - Type: N County Rd 100 E	┢	Residential-urbar	n		⊬	Mixed use					
	Seasonal water	Other:		Woodland/forest	ed		┢	Other:	<u> </u>				
	eas Assessed (check all that ap			4									
		present in the structure, check the "not pres	ent	" box.									
		g the assessment. Include the species prese			rovi	de photo docur	ner	nta <u>tion as indica</u>	ited.				
	rea (check if assessed)	Assessment Notes	_	Evidence of Bats (include photos if present)									
	All crevices and cracks:	Not present	世	1				Audible	Species				
	Bridges/culverts: rough surfaces or		乚	Visual - live #		dead #		Odor	 '				
\times	imperfections in concrete			Guano				Photos					
	Other structures: soffits, rafters, attic		L	Staining]						
Ц	areas	1	Ļ	-			_	T. e	10				
	Concrete surfaces (open roosting on	X Not present	匸	Visual - live #		dead #	L	Audible Odor	Species				
Щ	concrete)			Guano Staining			┢	Photos					
								11.5.55					
		X Not present		\(\(\) \(Audible	Species				
	Spaces between concrete end walls			Visual - live #		dead #	L	Odor					
	and the bridge deck			Guano Staining			H	Photos	_				
Н	Crack between concrete railings on top	¥ Not present	世	Stairing				Audible	Species				
	of the bridge deck Gap	Net process	厂	Visual - live #		dead #	H	Odor					
Ш	Railing			Guano				Photos					
Ш	Naming /		厂	Staining									
Щ	ı	X Not present	一	Visual - live #		dead #	L	Audible	Species				
Щ	Vertical surfaces on concrete I-beams		F	Guano		deau #	┝	Odor Photos	l				
				Staining			一	Filotos					
		X Not present	厂	1				Audible	Species				
П	Spaces between walls, ceiling joists		\models	Visual - live #		dead #		Odor					
	, 5,		\vdash	Guano Staining			Ļ	Photos					
H		X Not present	世	Stairing				Audible	Species				
Н	Weep holes, scupper drains, and	Thou process.	尴	Visual - live #		dead #	H	Odor					
Н	inlets/pipes			Guano				Photos					
Щ			ㅗ	Staining				T,	ļ				
	· ·	X Not present	╆	Visual live#		dood #		Audible Odor	Species				
	All guiderails		F	Visual - live # dead # Guano			┢	Photos					
	· ·			Staining				netee					
		X Not present	厂					Audible	Species				
Ы	All expansion joints		上	Visual - live # dead #				Odor					
М				Guano			Ļ	Photos					
ш			╄	Staining			,	V 40 May 12 May 1					
Na	_{ame:} Claudia McAllister-Pete	Si	ignature:	2	Part to	U	Allif-	Pet					

of A	te & Time Assessment 9/28/2021 11 AM	DOT Project Number 1298633		<u>ourriou</u>				ounty Jackson			
Fee Str	<u>deral</u> ucture ID N/A	N/A Structure Coordinates 38.979189, -86.02154 (latitude and longitude)			36"		Structure Length				
St	ructure Type (check one)	S	Structure Material (check all that apply)								
Bri	idge Construction Style		De	eck Material	Ве	eam Material	Er	nd/Back Wall N	Material		
0	Cast-in-place	O Pre-stressed Girder	F	Metal		None	L	Concrete			
\vdash	D 10 10 10 10 10 10 10 10 10 10 10 10 10		╟	Concrete Timber	╟┤	Concrete Steel	┡	Timber Stone/Masonry			
\circ	Flat Slab/Box	Steel I-beam I I I		Open grid		Timber		Other:			
0	Truss Side View	Covered	E	Other:		Other:		Creosote Evidence			
0	Parallel Box Beam	Other:		ulvert Material			0	Unknown	⊙ No		
Си	livert Type	Other Structure	×	Metal			No	<u>otes:</u>			
	Box	 	┢	Concrete Plastic			13	6" CMP wif	th 6" cover		
0	Pipe/Round		\vdash	Stone/Masonry				J J			
Ŏ	Other:	<u> </u>		Other:			<u>1</u>				
	ossings Traversed (check all th	nat apply)	S	urrounding	На	bitat (check	all	that apply)			
	Bare ground	Open vegetation	匚	Agricultural				Grassland			
	Rip-rap	Closed vegetation	L	Commercial				Ranching			
	Flowing water	Railroad	卜	Residential-urbar	n		L	Riparian/wetland			
	Standing water Seasonal water	Road/trail - Type: N County Rd 100 E Other:		Residential-rural Woodland/forest	ed		┡	Mixed use Other:			
	eas Assessed (check all that ap		<u> </u>	Woodiditidition	Cu		1	Otrici.			
		present in the structure, check the "not pres	ent	t" hox							
		g the assessment. Include the species prese			rovi	ide photo docur	ner	ntation as indica	ted.		
	ea (check if assessed)	Assessment Notes	_	vidence of E							
	All crevices and cracks:	Not present	는	<u> </u>	Jul	s (morado p.		Audible	Species		
	Bridges/culverts: rough surfaces or	Not present	匚	Visual - live # dead #			H	Odor	Орескез		
	imperfections in concrete			Guano				Photos			
	Other structures: soffits, rafters, attic			Staining							
	areas		L								
	10	Not present	╁─	1,, , , , ,			_	Audible	Species		
	Concrete surfaces (open roosting on			Visual - live # dead # Guano			-	Odor Photos	1		
	concrete)			Staining				FIIOLOS			
		Not present						Audible	Species		
П	Spaces between concrete end walls			Visual - live # dead # Guano				Odor			
	and the bridge deck						L	Photos			
	Create batture an agreete religione on ten	W Not procent	╄	Staining				Audible	Species		
	Crack between concrete railings on top of the bridge deck Gap	Not present	仁	Visual - live#		dead #		Odor	Species		
Ш		Í	\vdash	Guano			┢	Photos			
	Railing			Staining							
		X Not present	F	1				Audible	Species		
	Vertical surfaces on concrete I-beams		F	Visual - live # Guano		dead #	L	Odor			
			\vdash	Staining				Photos			
		X Not present	悻] =			┢	Audible	Species		
	Spaces between walls, ceiling joists		1	Visual - live #		dead #		Odor			
Н	opaces between wans, centing joists			Guano				Photos			
		X Not present	╇	Staining			_	Audible	Species		
Ш	Weep holes, scupper drains, and	Not present	仁	Visual - live #		dead #	_	Odor	Species		
Ш	inlets/pipes		Г	Guano		ueau #		Photos			
				Staining				"			
		X Not present	F				Audible	Species			
	All guiderails		F	Visual - live #	dead #	L	Odor				
				Guano Staining				Photos			
		X Not present	世	otaning -				Audible	Species		
	All expansion joints		1—	Visual - live #		dead #		Odor	 '		
Н	All expansion joints			Guano				Photos]		
			┺	Staining							
Na	_{ame:} Claudia McAllister-Pete	Si	ignature:	2	Part 1	Ü	Allif-	Pet			

Dat of A	te & Time Assessment 9/28/2021 11 AM	DOT Project Number 1298633	<u>Garriou</u>					^{ounty} Jackson					
Fed Stru	<u>deral</u> ucture ID N/A	Structure Coordinates 38.979107, -86.029785 (latitude and longitude)	<u>St</u> (a	ructure Height , pproximate)		Structure Length 65'							
Structure Type (check one)				Structure Material (check all that apply)									
Bri	dge Construction Style		D	eck Material	Ве	am Material	Εı	nd/Back Wa	II Ma	terial			
\sim	Cast-in-place	Pre-stressed Girder	Ė	Metal		None		Concrete					
\simeq	ouet in place	Of the subbook struct	╙	Concrete	Ш	Concrete	ᆫ	Timber					
0	Flat Slab/Box	Steel I-beam	⊩	Timber Open grid	Н	Steel Timber	₽	Stone/Masonry Other:					
0	Truss Side View	O Covered	E	Other:	F	Other:	C	reosote Evic	lence				
0	Parallel Box Beam	Other:	С	ulvert Material			◯ Yes			No			
Си	lvert Type	Other Structure	raket	Metal			Notes:						
	Box		┢	Concrete Plastic			11	5" CMP v	vith	1' cover			
	Pipe/Round		┢	Stone/Masonry			1						
ŏ	Other:	\sim		Other:			1						
	ossings Traversed (check all th	nat apply)	S	urrounding	На	bitat (check	al	that apply)				
	Bare ground	X Open vegetation	Ť	Agricultural			_	Grassland	<u>/</u>				
	Rip-rap	Closed vegetation	T	Commercial			۲	Ranching					
	Flowing water	Railroad		Residential-urba	n			Riparian/wetla	nd				
_	Standing water	Road/trail - Type:		Residential-rural				Mixed use					
	Seasonal water	Other:	X	Woodland/forest	ed			Other:					
	eas Assessed (check all that ap												
Che	eck all areas that apply. If an area is not	present in the structure, check the "not pres	ent	t" box.									
Dog	cument all bat indicators observed during	g the assessment. Include the species prese	ent,	if known, and p	rovi	de photo docu	mei	ntation as ind	cated	l.			
Ar	ea (check if assessed)	Assessment Notes	E	vidence of E	3at	s (include pl	าot	otos if present)					
	All crevices and cracks:	Not present	F	7			Г	Audible	Ť	Species			
	Bridges/culverts: rough surfaces or		┺	Visual - live # dead		dead #		Odor		•			
\times	imperfections in concrete			Guano				Photos					
	Other structures: soffits, rafters, attic		L	Staining			_		L				
	areas												
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	Concrete surfaces (open roosting on		\vdash	Visual - live #		dead #		Odor	_				
М	concrete)		┡	Guano			┡	Photos	_				
Н		Not present	╄	Staining			╆	Audible	_	Species			
Щ	Spaces between concrete end walls and the bridge deck	X Not present		Visual - live #		dead #		Odor	+	Species			
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	and the bridge door.			Staining			4:	Hotos					
	Crack between concrete railings on top	X Not present	F					Audible		Species			
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			H	Staining			┢	1 110100	\neg				
		X Not present	F	<u> </u>			Г	Audible		Species			
Н	Spaces between walls, ceiling joists			Visual - live #		dead #		Odor	$\Box \Box$	=			
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Щ	Weep holes, scupper drains, and	X Not present		Visual - live #		dead #	\vdash	Audible Odor	+	Species			
	inlets/pipes			Guano			\vdash	Photos	\dashv				
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Da of <i>I</i>	te & Time Assessment 9/28/2021 11 AM	DOT Project Number 1298633		oute/Facility arried		1	<u>County</u> Jackson						
Fed Str	<u>deral</u> ucture ID CV 258-36-4.73	Structure Coordinates 38.97898, -86.03038 (latitude and longitude)				Structure Height (approximate) 66" Structure Length 24'							
St	ructure Type (check one)	S	Structure Material (check all that apply)										
Bridge Construction Style			D	eck Material	Вє		Er	nd/Back Wa	II Ma	terial			
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$\overline{}$			巛	Concrete Timber	⊩	Concrete Steel	┢	Timber Stone/Masonr	v				
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0	Pipe/Round Other:	10	F	Stone/Masonry Other:			W	with 2' cover					
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	Bare ground	Open vegetation		Agricultural		,		Grassland	,				
	Rip-rap	Closed vegetation		Commercial				Ranching					
	Flowing water	Railroad	Ļ	Residential-urbar	n		┡	Riparian/wetla	and				
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Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.								l.					
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United States Department of the Interior



FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office 620 South Walker Street Bloomington, IN 47403-2121 Phone: (812) 334-4261 Fax: (812) 334-4273

http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html

IPaC Record Locator: 293-107416105 December 07, 2021

Subject: Consistency letter for the 'SR 258 Sight Distance Correction (Des No. 1298633)' project (no current TAILS record) under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **SR 258 Sight Distance Correction (Des No. 1298633)** (Proposed Action) may rely on the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, and is <u>likely to adversely affect</u> the endangered Indiana bat (*Myotis sodalis*) and/or the threatened Northern long-eared bat (*Myotis septentrionalis*). Consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required.

For Proposed Actions that include bridge/structure removal, replacement, and/or maintenance activities: If your initial bridge/structure assessments failed to detect Indiana bats, but you later detect bats during construction, please submit the Post Assessment Discovery of Bats at Bridge/Structure Form (User Guide Appendix E) to this Service Office. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service.

If the Proposed Action may affect any other federally-listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act

may also be required. In either of these circumstances, please advise the lead Federal action agency accordingly.

The following species may occur in your project area and **are not** covered by this determination:

• Monarch Butterfly *Danaus plexippus* Candidate

Project Description

The following project name and description was collected in IPaC as part of the endangered species review process.

Name

SR 258 Sight Distance Correction (Des No. 1298633)

Description

SR 258 Sight Distance Correction (Des No. 1298633)

This project (Des No. 1298633) is located approximately 6 miles west of Seymour, Indiana, near the intersection of SR 258 and N CR 100 E, within Sections 1 and 2, Township 6 North, and Range 4 East, and Sections 6 and 7, Township 6 North, and Range 5 East, on the U.S. Geological Survey (USGS) Brownstown, Indiana Quadrangle.

The project includes lowering the existing roadway crest by approximately 5 feet and raising the existing roadway sag vertical curves on either side of the crest by approximately 15 feet. The project limits are from approximately 0.55 mile west of N County Road (CR) 100 E to approximately 500 feet east of N CR 100 E. Roadway improvements are also required on N CR 100 E, from approximately 500 feet south and approximately 300 feet north of the SR 258 intersection, to accommodate the vertical profile change on SR 258.

Approximately 4.3 acres of permanent right of way and 1.9 acres of temporary right of way will be needed for the project. The construction of the project will require closure of SR 258 and detouring through-traffic using SR 135, US 50, and SR 11. The additional travel length due to this detour is approximately 10.5 miles. Other detours will be available for local traffic in the project vicinity using local and county roads. The project is planned to begin construction in Spring of 2024 and be completed by the end of Fall 2024.

Land use in the vicinity of the project is residential and forested. One stream flows east along the south side of SR 258 through an existing culvert underneath N CR 100 E. Another stream flows east through an existing culvert underneath N CR 100 E, south of SR 258. A third stream flows north through the forested area along the north side of SR 258. A fourth stream flows south underneath an existing SR 258 bridge near the west end of the study area.

A review of the USFWS database on September 27, 2021 did not indicate the presence of the Indiana bat or the northern long-eared bat within 0.5 mile of the study area. A total of eight culverts along SR 258 were inspected for bats. The September 28, 2021 culvert bat inspections state that no evidence of bats was seen or heard in any of the culverts. A BIAS inspection report was only available for one of the eight culverts, CV 258-036-4.73, which also indicated no evidence of bats using the culvert was observed. Suitable summer habitat is located within and adjacent to the study area. Suitable summer habitat will be impacted for the construction of the project. The dominant tree species for removal include white oak (Quercus alba), Eastern white pine (Pinus strobus), red maple (Acer rubrum), slippery elm (Ulmus rubra), green ash (Fraxinus pennsylvanica), and sweet-gum (Liquidambar

12/07/2021

styraciflua). No more than 9.2 acres of trees will be removed for the project. 8 acres may be removed within 100 feet of the roadway and 1.2 acres may be removed 100-300 feet from the roadway. All tree clearing activities will occur outside of the Indiana bat and/or NLEB active season.

The project will require compensatory mitigation under the Rangewide In-Lieu Fee Program, The Conservation Fund. A mitigation payment for tree removal between 100-300 feet from the existing roadway was calculated using the following In-lieu fee formula: (acres of tree removal=1.2) x (mitigation ratio = 1.5) x (current dollar amount for IN = \$9,354) = \$16,837.20.

The project activities will include the use of percussives. The project will not include installing new or replacing existing permanent lighting. Although temporary lighting is not expected to be required for the construction of the project, it is possible some night work will be performed.

Determination Key Result

Based on your answers provided, this project is likely to adversely affect the endangered Indiana bat and/or the threatened Northern long-eared bat. Therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the conclusion and Incidental Take Statement provided in the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

Qualification Interview

- 1. Is the project within the range of the Indiana bat^[1]?
 - [1] See Indiana bat species profile

Automatically answered

Yes

- 2. Is the project within the range of the Northern long-eared bat^[1]?
 - [1] See Northern long-eared bat species profile

Automatically answered

Yes

- 3. Which Federal Agency is the lead for the action?
 - A) Federal Highway Administration (FHWA)
- 4. Are *all* project activities limited to non-construction^[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)
 - [1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting. No
- 5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces^[1]?
 - [1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

No

- 6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum^[1]?
 - [1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

No

7. Is the project located **within** a karst area? *No*

- 8. Is there *any* suitable^[1] summer habitat for Indiana Bat or NLEB **within** the project action area^[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)
 - [1] See the Service's <u>summer survey guidance</u> for our current definitions of suitable habitat.
 - [2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the national consultation FAQs.

Yes

12/07/2021

- 9. Will the project remove *any* suitable summer habitat^[1] and/or remove/trim any existing trees within suitable summer habitat?
 - [1] See the Service's <u>summer survey guidance</u> for our current definitions of suitable habitat. Yes
- 10. Will the project clear more than 20 acres of suitable habitat per 5-mile section of road/rail? No
- 11. Have presence/probable absence (P/A) summer surveys^{[1][2]} been conducted^{[3][4]} within the suitable habitat located within your project action area?
 - [1] See the Service's <u>summer survey guidance</u> for our current definitions of suitable habitat.
 - [2] Presence/probable absence summer surveys conducted within the fall swarming/spring emergence home range of a documented Indiana bat hibernaculum (contact local Service Field Office for appropriate distance from hibernacula) that result in a negative finding requires additional consultation with the local Service Field Office to determine if clearing of forested habitat is appropriate and/or if seasonal clearing restrictions are needed to avoid and minimize potential adverse effects on fall swarming and spring emerging Indiana bats.
 - [3] For projects within the range of either the Indiana bat or NLEB in which suitable habitat is present, and no bat surveys have been conducted, the transportation agency will assume presence of the appropriate species. This assumption of presence should be based upon the presence of suitable habitat and the capability of bats to occupy it because of their mobility.
 - [4] Negative presence/probable absence survey results obtained using the summer survey guidance are valid for a minimum of two years from the completion of the survey unless new information (e.g., other nearby surveys) suggest otherwise.

No

- 12. Does the project include activities **within documented Indiana bat habitat**^{[1][2]}?
 - [1] Documented roosting or foraging habitat for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)
 - [2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

13. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors?

Yes

- 14. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors occur^[1]?
 - [1] Coordinate with the local Service Field Office for appropriate dates.
 - B) During the inactive season
- 15. Does the project include activities within documented NLEB habitat^{[1][2]}?
 - [1] Documented roosting or foraging habitat for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)
 - [2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

16. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors?

Yes

- 17. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors occur?
 - B) During the inactive season
- 18. Will *any* tree trimming or removal occur **within** 100 feet of existing road/rail surfaces? *Yes*
- 19. Will *any* tree trimming or removal occur **between** 100-300 feet of existing road/rail surfaces?

Yes

20. Are *all* trees that are being removed clearly demarcated?

Yes

21. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?

No

22. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

No

23. Does the project include slash pile burning?

No

- 24. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)? *Yes*
- 25. Is there *any* suitable habitat^[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)
 - [1] See the Service's current <u>summer survey guidance</u> for our current definitions of suitable habitat. *Yes*
- 26. Has a bridge assessment^[1] been conducted **within** the last 24 months^[2] to determine if the bridge is being used by bats?
 - [1] See <u>User Guide Appendix D</u> for bridge/structure assessment guidance
 - [2] Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges that meet the physical characteristics described in the Programmatic Consultation, regardless of whether assessments have been conducted in the past. Due to the transitory nature of bat use, a negative result in one year does not guarantee that bats will not use that bridge/structure in subsequent years.

Yes

SUBMITTED DOCUMENTS

- BIAS CV 258-36-4.73_bat pages only.pdf https://ecos.fws.gov/ipac/project/ <u>YP2M3LTW55CE5EWFCNRHQSO3UA/</u> projectDocuments/107483224
- Culvert Inspection Forms-Combined Print.pdf https://ecos.fws.gov/ipac/project/YP2M3LTW55CE5EWFCNRHQSO3UA/
 projectDocuments/108009743

- 27. Did the bridge assessment detect *any* signs of Indiana bats and/or NLEBs roosting in/under the bridge (bats, guano, etc.)^[1]?
 - [1] If bridge assessment detects signs of *any* species of bats, coordination with the local FWS office is needed to identify potential threatened or endangered bat species. Additional studies may be undertaken to try to identify which bat species may be utilizing the bridge prior to allowing *any* work to proceed.

Note: There is a small chance bridge assessments for bat occupancy do not detect bats. Should a small number of bats be observed roosting on a bridge just prior to or during construction, such that take is likely to occur or does occur in the form of harassment, injury or death, the PBO requires the action agency to report the take. Report all unanticipated take within 2 working days of the incident to the USFWS. Construction activities may continue without delay provided the take is reported to the USFWS and is limited to 5 bats per project.

No

28. Will the bridge removal, replacement, and/or maintenance activities include installing new or replacing existing **permanent** lighting?

No

29. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

No

30. Will the project involve the use of **temporary** lighting *during* the active season?

31. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **temporary** lighting will be used?

Yes

32. Will the project install new or replace existing **permanent** lighting?

No

33. Does the project include percussives or other activities (**not including tree removal/ trimming or bridge/structure work**) that will increase noise levels above existing traffic/background levels?

Yes

- 34. Will the activities that use percussives (**not including tree removal/trimming or bridge/ structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the active season^[1]?
 - [1] Coordinate with the local Service Field Office for appropriate dates.

Yes

- 35. Will *any* activities that use percussives (**not including tree removal/trimming or bridge/ structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the inactive season^[1]?
 - [1] Coordinate with the local Service Field Office for appropriate dates.

Yes

36. Are *all* project activities that are **not associated with** habitat removal, tree removal/ trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

Examples: lining roadways, unlighted signage, rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

Yes

37. Will the project raise the road profile **above the tree canopy**?

No

38. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the active season within undocumented habitat.

39. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) and/or increase noise levels above existing traffic/background levels consistent with a No Effect determination in this key?

Automatically answered

Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the inactive season

40. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the Indiana bat's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

41. Is the habitat removal portion of this project consistent with a Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal that occurs outside the Indiana bat's active season is 100-300 feet from the existing road/rail surface, and is not in documented roosting/foraging habitat or travel corridors.

42. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the NLEB's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

43. Is the habitat removal portion of this project consistent with a Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal that occurs outside the NLEB's active season is 100-300 feet from the existing road/rail surface, and is not in documented roosting/foraging habitat or travel corridors.

44. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the bridge has been assessed using the criteria documented in the BA and no signs of bats were detected

45. General AMM 1

Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

Yes

46. Tree Removal AMM 1

Can *all* phases/aspects of the project (e.g., temporary work areas, alignments) be modified, to the extent practicable, to avoid tree removal^[1] in excess of what is required to implement the project safely?

Note: Tree Removal AMM 1 is a minimization measure, the full implementation of which may not always be practicable. Projects may still be NLAA as long as Tree Removal AMMs 2, 3, and 4 are implemented and LAA as long as Tree Removal AMMs 3, 5, 6, and 7 are implemented.

[1] The word "trees" as used in the AMMs refers to trees that are suitable habitat for each species within their range. See the USFWS' current summer survey guidance for our latest definitions of suitable habitat.

Yes

47. Tree Removal AMM 3

Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

Yes

48. Lighting AMM 1

Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

Yes

- 49. For Indiana bat, if applicable, compensatory mitigation measures are required to offset adverse effects on the species (see Section 2.10 of the BA). Please select the mechanism in which compensatory mitigation will be implemented:
 - 1. Range-wide In Lieu Fee Program, The Conservation Fund

Project Questionnaire

1. Have you made a No Effect determination for *all* other species indicated on the FWS IPaC generated species list?

N/A

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?

N/A

- 3. How many acres^[1] of trees are proposed for removal between 0-100 feet of the existing road/rail surface?
 - [1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

8

- 4. How many acres^[1] of trees are proposed for removal between 100-300 feet of the existing road/rail surface?
 - [1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

1.2

5. Please verify:

All tree removal will occur greater than 0.5 mile from any hibernaculum.

Yes, I verify that all tree removal will occur greater than 0.5 miles from any hibernaculum.

6. Is the project location 0-100 feet from the edge of existing road/rail surface?

Yes

7. Is the project location 100-300 feet from the edge of existing road/rail surface? *Yes*

8. Please verify:

No documented Indiana bat roosts or surrounding summer habitat within 0.25 mile of documented roosts will be impacted between May 1 and July 31.

Yes, I verify that no documented Indiana bat roosts or surrounding summer habitat within 0.25 mile of documented roosts will be impacted during this period.

9. Please verify:

No documented NLEB roosts or surrounding summer habitat within 150 feet of documented roosts will be impacted between June 1 and July 31.

Yes, I verify that no documented NLEB roosts or surrounding summer habitat within 150 feet of documented roosts will be impacted during this period.

10. Please describe the proposed bridge work:

All eight culverts along SR 258 described below were inspected for bats. The September 28, 2021 culvert bat inspections state that no evidence of bats was seen or heard in any of the culverts. A BIAS inspection report was only available for one of the eight culverts, CV 258-036-4.73.

 \bullet CV 258-36-4.73 -(Existing 18 x 6' box culvert): The existing headwalls/wingwalls will be removed and the structure will be lengthened by 8 LFT on the north side and 5 LFT on the south side of SR 258, and new headwalls/wingwalls will be constructed.

There are 6 existing culverts in the project limits that will be removed and replaced "in kind". These replacements include:

- 15" pipe under a field entrance on the north side of SR 258, \sim 100' east of the large box culvert
- 24" pipe under a residential driveway on the south side of SR 258, \sim 250' east of the large box culvert
- 36" pipe under the north approach of N CR 100 E
- 36" pipe under the north approach of N CR 100 E
- 36" pipe under SR 258, ~ 50' east of r the N CR 100 E intersection
- 36" pipe under N CR 100 E, ~ 300' south of the SR 258 intersection
- There is an existing 12" pipe under the residential drives on the south side of SR 258 at the top of the hill (~1,000' west of the N CR 100 E intersection) that will be removed, but no new structure will be placed at this location (the roadside ditches will be graded to carry water away from these driveways).
- 11. Please state the timing of all proposed bridge work:

The project is anticipated to begin construction in Spring of 2024 and be completed by the end of Fall 2024.

12. Please enter the date of the bridge assessment: 9/28/2021

Avoidance And Minimization Measures (AMMs)

This determination key result includes the committment to implement the following Avoidance and Minimization Measures (AMMs):

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.

TREE REMOVAL AMM 1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal.

Determination Key Description: FHWA, FRA, FTA Programmatic Consultation For Transportation Projects Affecting NLEB Or Indiana Bat

This key was last updated in IPaC on April 22, 2021. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the threatened **Northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should <u>only</u> be used to verify project applicability with the Service's <u>February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects</u>. The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is <u>not</u> intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.



United States Department of the Interior Fish and Wildlife Service



TAILS: 03E12000-2022-SLI-0366



Indiana Field Office (ES) 620 South Walker Street Bloomington, IN 47403-2121 Phone: (812) 334-4261 Fax: (812) 334-4273

January 24, 2022

Karstin Carmany-George Federal Highway Administration 575 N. Pennsylvania St. Room 254 Indianapolis, Indiana 46204 (sent via email)

RE: SR 258 Sight Distance Correction (Des No. 1298633), Jackson County, IN

Dear Ms. Carmany-George:

The U.S. Fish and Wildlife Service (Service) is responding to your request dated December 7, 2021, to verify that the proposed SR 258 Sight Distance Correction Project (the Project) may rely on the February 5, 2018, Programmatic Biological Opinion (BO) for federally funded or approved transportation projects that may affect the federally listed endangered Indiana bat (*Myotis sodalis*) and/or federally listed threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). We received your request and the associated LAA Consistency Letter on January 22, 2022.

This letter provides the Service's response as to whether the Federal Highway Administration may rely on the BO to comply with Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) for the Project's effects to the Indiana bat and/or NLEB.

The Federal Highway Administration has determined that the Project is *likely to adversely affect* the Indiana bat and/or the NLEB.

Conclusion

The Service has reviewed the effects of the proposed Project, which includes the Federal Highway Administration's commitment to implement any applicable mitigation measures as indicated on the LAA Consistency Letter. We confirm that the proposed Project's effects are consistent with those analyzed in the BO. The Service has determined that projects consistent with the conservation measures and scope of the program analyzed in the BO are not likely to jeopardize the continued existence of the Indiana bat and/or the NLEB. In coordination with your agency and the other sponsoring Federal

Transportation Agencies, the Service will reevaluate this conclusion annually in light of any new pertinent information under the adaptive management provisions of the BO.

Incidental Take

Indiana Bat

The Service anticipates that tree removal associated with the proposed Project will cause incidental take of Indiana bats. As described in the Incidental Take Statement (ITS) of the BO, such taking will be difficult to detect. The Service determined that it is appropriate to measure the amount or extent of incidental taking resulting from BO projects using the proposed acreage of tree removal from Indiana bat suitable habitat as a surrogate for the numbers of individuals taken.

The proposed Project will remove/trim no more than **9.2 acre(s)** of trees from habitat that is suitable for the Indiana bat. All tree removal will occur in winter (October 1 – March 30) and comply with all other conservation measures in the BO. Based on the BO, **8 acre(s)** of the removal are within 100 feet of the edge of pavement and therefore not anticipated to result in any adverse effects; **1.2 acre(s)** are within 100-300 feet and expected to result in adverse effects.

The Federal Highway Administration will use the mitigation ratio of **1.50** from Table 3 of the BO¹ to calculate the compensatory mitigation required to offset these adverse impacts for a total of **1.8 acres**² of trees that is suitable for the Indiana bat.

Based on the mitigation identified above² and the information provided in Table 2 of Exhibit E in The Conservation Fund's (TCF) In Lieu Fee (ILF) Instrument³, the Federal Highway Administration will contribute \$16,837.20 to TCF prior to the start of construction in order to comply with the mitigation requirements of the program of transportation projects reviewed in the BO. These calculations are based on the 2020-2021 Land Use Values in Table 2 of Exhibit E in TCF's ILF Instrument, which are applicable even if the project construction should occur in a different calendar year. At the time of payment, the Federal Highway Administration or designated non-federal representative shall notify the Service of compliance with the compensatory mitigation requirements as described above.

The purchase of species conservation credits and/or in-lieu fee contributions shall occur prior to construction of a transportation project covered under this programmatic consultation. Exceptions to this program stipulation include emergency projects that do not require a letting prior to construction. In these cases, purchase of credits and/or in-lieu fee contributions shall occur within three months of completion of the project. This timeframe allows for measuring the acres of habitat affected by the emergency project and for financial processing.

In addition, the Project may take up to 5 Indiana bats that were not detected during bridge/structure bat assessments conducted prior to implementing the proposed work. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service (refer to User Guide Appendix E - Post Assessment Discovery of Bats at

¹ https://www.fws.gov/midwest/endangered/section7/fhwa/pdf/IBAT_ILF_ratios_transportation_agencies.pdf

² XX acres * XX ratio

⁻

³https://www.f<u>ws.gov/midwest/endangered/section7/fhwa/pdf/IBAT_ExhibitE_Table2_FeeSchedule_LandValues.pdf</u>

Bridge/Structure Form). Although such take is reasonably certain to occur at up to 10 bridge/structure projects per year as included in the scope of the BO, it is a remote possibility for any individual project that is implemented consistent with the conservation measures of the BO.

The Service will add the acreage of Project-related tree removal to the annual total acreage attributed to the BO as a surrogate measure of Indiana bat incidental take and exempted from the prohibitions of Section 9 of the ESA. Such exemption is effective as long as your agency implements the reasonable and prudent measure (RPM) and accompanying terms and conditions of the BO's ITS.

The sole RPM of the BO's ITS requires the Federal Transportation Agencies to ensure that State/Local transportation agencies, who choose to include eligible projects under the programmatic action, incorporate all applicable conservation measures in the project proposals submitted to the Service for ESA section 7 compliance using the BO. The implementing terms and conditions for this RPM require the Federal Transportation Agencies to offer training to appropriate personnel about using the BO, and promptly report sick, injured, or dead bats (regardless of species) or any other federally listed species located in project action areas.

Northern Long-eared Bat

The Service anticipates that tree removal associated with the Project will cause incidental take of NLEBs. However, the Project is consistent with the BO, and such projects will not cause take of NLEB that is prohibited under the ESA section 4(d) rule for this species (50 CFR §17.40(o)). Therefore, the incidental take of NLEBs resulting from the Project does not require exemption from the Service.

Reporting Dead or Injured Bats

The Federal Highway Administration, its State/Local cooperators, and any contractors must take care when handling dead or injured Indiana bats and/or NLEBs, or any other federally listed species that are found at the Project site to preserve biological material in the best possible condition and to protect the handler from exposure to diseases, such as rabies. Project personnel are responsible for ensuring that any evidence about determining the cause of death or injury is not unnecessarily disturbed. Reporting the discovery of dead or injured listed species is required in all cases to enable the Service to determine whether the level of incidental take exempted by this BO is exceeded, and to ensure that the terms and conditions are appropriate and effective. Parties finding a dead, injured, or sick specimen of any endangered or threatened species must promptly notify this Service Office.

Reinitiation Notice

This letter concludes consultation for the Project, which qualifies for inclusion in the BO issued to the Federal Transportation Agencies. To maintain this inclusion, a reinitiation of this Project-level consultation is required where the Federal Highway Administration discretionary involvement or control over the Project has been retained (or is authorized by law) and if:

- 1. the amount or extent of incidental take of Indiana bat is exceeded;
- 2. new information reveals that the Project may affect listed species or critical habitat in a manner or to an extent not considered in the BO;

- 3. the Project is subsequently modified in a manner that causes an effect to listed species or designated critical habitat not considered in the BO; or
- 4. a new species is listed or critical habitat designated that the Project may affect.

Per condition #1 above, the anticipated incidental take is exceeded when:

- the Project removes trees of more than **1.2 acre(s)** of habitat suitable for the Indiana bat between 100-300 feet from the edge of pavement; or
- the Project takes more than 5 Indiana bats resulting from work on the bridge/structure.

In instances where the amount or extent of incidental take is exceeded, the Federal Highway Administration is required to immediately request a reinitiation of this Project-level consultation.

We appreciate your continued efforts to ensure that this Project is fully consistent with all applicable provisions of the BO. If you have any questions regarding our response or if you need additional information, please contact Robin McWilliams Munson at Robin_Mcwilliams@fws.gov.

Sincerely,

SCOTT PRUITT Digitally signed by SCOTT PRUITT PRUITT Date: 2022.01.24 14:44:35 -05'00'

Scott Pruitt Field Supervisor

Cc: (via email)
Sandy Bowman, INDOT, Indianapolis, IN
David Dye, INDOT, Indianapolis, IN
Laura Sakach, CMT Engineering, Indianapolis, IN
Ibat ILF coordinator – to be sent by INDOT at later date

From: Baker, Mindy <MBaker2@indot.IN.gov> Sent: Monday, September 27, 2021 11:12 AM To: Laura Sakach <Isakach@cmtengr.com> Cc: Dye, David <DDYE@indot.IN.gov>

Subject: RE: State Road 258 Sight Distance Correction (DES No. 1298633) Bat Database Review

Laura,

I have conducted a check of the USFWS confidential bat database for Des No. 1298633, and the results are stated below.

A review of the USFWS database did not indicate the presence of endangered bat species within 0.5 mile of the project area. Additional investigation to confirm the presence or absence of bats in or on any culverts, bridges or structures affected by the project will be necessary. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

Also, although I am the contact for USFWS bat database checks, David Dye will be the contact for your IPAC review.

Mindy Baker

Environmental Manager

185 Agrico Lane Seymour, IN 47274 Office: (812) 524-3746

Email: mbaker2@indot.in.gov







