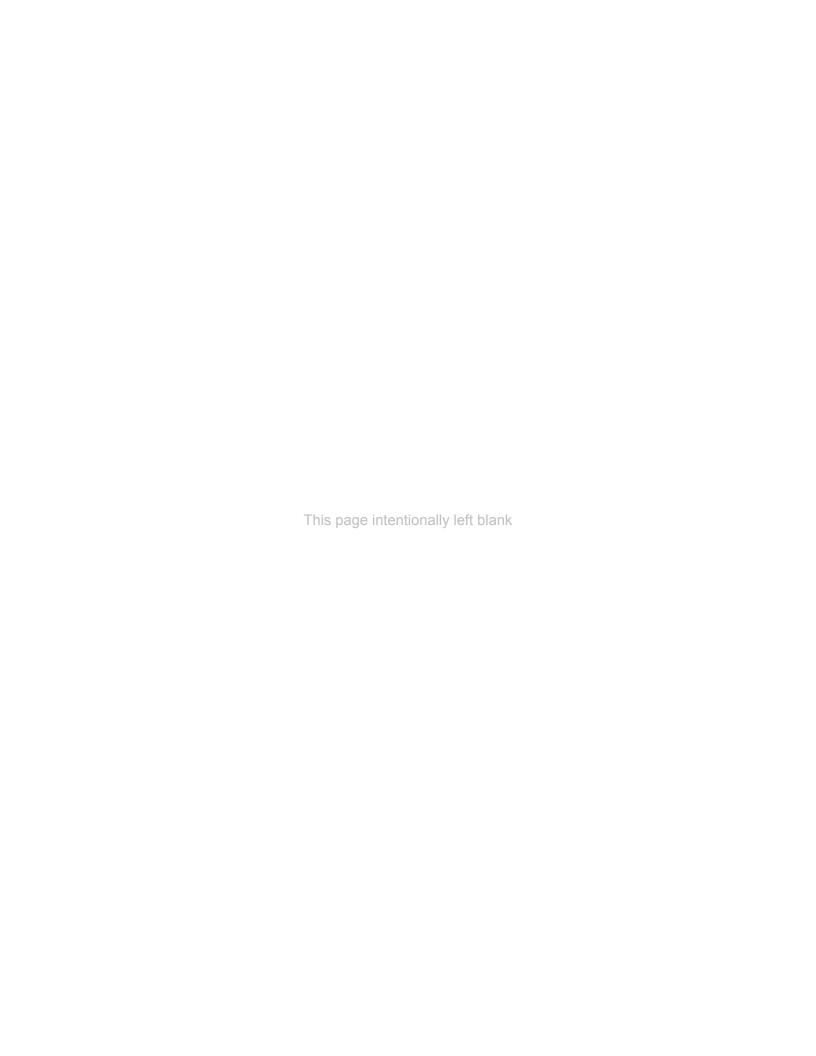
Appendix C – Wetlands Survey

Appendix C – Wetlands Survey





November 11, 2013

Mr. Mike Goodman Vice Mayor 101 East Main Street P.O. Box 70 Waverly, TN 37185

Subject: Wetland Boundary Field Determination

Waverly, Tennessee

GS&P Project No. 29856.00

Dear Mr. Goodman:

On October 22nd, 2013 I visited the Hood Container property in New Johnsonville, Tennessee in order to prepare of an addendum to a previous wetlands report for the route of a new utility line to the Kentucky Lake on the Tennessee River. Specifically, I went to do a detailed evaluation of the shoreline wetland boundary in an area of potential disturbance between an existing water line route and the reservoir edge. This shoreline inlet of Kentucky Lake is classified as an area of PF01Ch wetlands in the U.S. Fish and Wildlife Service's National Wetlands Inventory. My task was to fine tune the wetlands boundary information in the narrowest area between the existing waterline route and the Kentucky Lake shoreline.

On arrival at the site, I observed the overall site conditions between the western berm of the Hood Container Corporation's Final Pond #2 and the eastern boundary of the Kentucky Lake. The area along the toe of the berm has been subject to disturbance by the construction of the berm and the subsequent installation of a water line roughly parallel to the western berm. This area is maintained by mowing and is dominated by grassy vegetation. There were steel fence posts marking the location of the water line at intervals and I chose the two steel posts closest to the shoreline of the lake to anchor transect lines for field investigation. The northernmost steel post anchored Transect T1N, which proceeded on a bearing of 21° south of due west from the non-wetland area of the fence post to a point of obvious shoreline wetland conditions. The next steel post was approximately 98 feet away bearing SSE along the route of the water line; this southern steel post anchored Transect T3S. Transect T3S was routed 7° degrees south of due west from the steel post to the lake high water mark in the tree line. A middle transect was started at a point along the waterline route forty-eight feet SSE of the northernmost steel post. This transect was T2M and was chosen based on the closest visible seepage water pool in the tree line west of the Final Pond #2 berm. Figure #1 is a sketch representing the sample points along the transect lines used to locate the wetland boundary. Because of the small size of the investigated area, the wetland boundary was based on hydrology, soil characteristics, and vegetation types along the three transects. Investigation points were based on vegetation and micro-topography transitions observable in the field.



The spacing of the investigation points along each transect was chosen based on the field observations of the relative abundance of upland, facultative wet, and obligate vegetation types along the transect lines. Field data sheets for twelve points on three transects are attached, along with additional illustrations which include a copy of the Kentucky Lake operating guide and a microscopic scale photo of an oxidized rootlet typical of the soil in the undisturbed area along the wetland boundary.

Based on the field observations and the illustrations provided of the proposed outfall route ten feet west of and parallel with the trace of the water line, no wetland area will be disturbed if the outfall line disturbance is no more than fifteen feet west of the water line. For practical purposes, the field determined wetland boundary appears to follow very nearly the 364 foot contour of the topographic map west of the proposed outfall line boundary. Normal wet season / dry season variation in evapotranspiration, slight alterations in seepage rates in the subsurface due to temperature related permeability shifts from winter to summer, and variation in operating levels for Kentucky Lake are enough to account for the lack of completely saturated conditions at the fringe points along the wetland boundary on the day of inspection.

Please call me at (615) 770-8326 if you have any guestions.

Sincerely,

Gresham, Smith and Partners

of m. lentes

Randy M. Curtis

Senior Geologist, TN Registered Professional Geologist # TN0284 Tennessee Qualified Hydrologic Professional #1109-TN13

Attachments as stated:.

Copy: File 29856.00/00

- Area NWI map with outline of the wetland area.
- · Sketch Figure of Transect Locations and field investigation points,
- Applicable US Army Appendix C Data Forms for each data point, and
- Illustrative photographs and the Kentucky Lake Operating guide

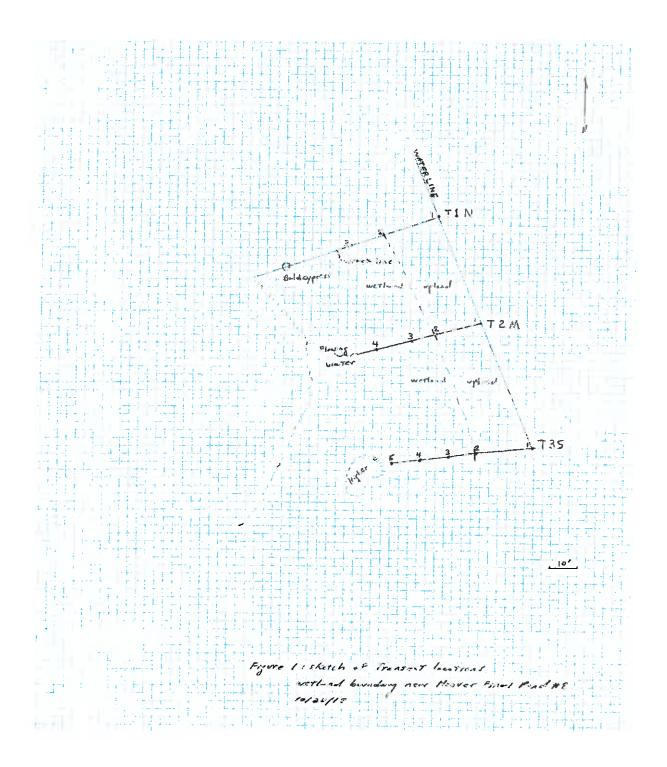


Figure 1: Three short transects were laid out downslope of the existing water line route.



Figure 2: Photo looking from south-southeast along water line route. Arrows denote Transect Initial Points matching the sketch in Figure 1. Foreground is T3S Point 1



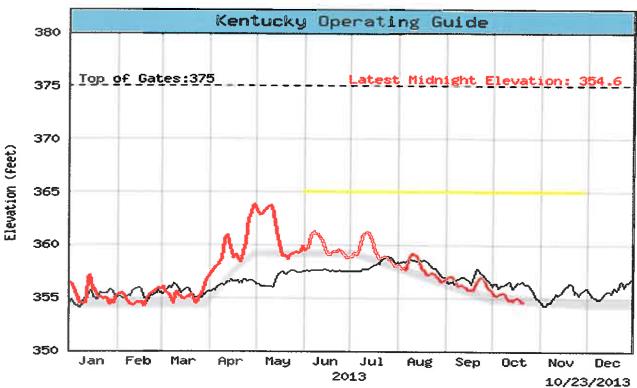


Figure 3: Kentucky Lake level in area of transects 10/22/13 compared to midnight elevation 10/23/13 (red line); Target yearly levels denoted by black line.





Figure 4: Representative soil at end of T1N transect and water near surface in soil boring.



Figure 5: Representative soil at Point 2, T3S transect and microphotograph of rootlet cast formed by iron mineralization.



NWI Classification

Oct 30, 2013

Wetlands

Estuarine and Marine Deepwater Freshwater Forested/Shrub Freshwater Emergent Estuarine and Marine

Freshwater Pond Lake

Riverine

Other

Riparian

Forested/Shrub Herbaceous

Riparian Status

Digital Data

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All welfands related data should be used in accordance with the layer metadate found on the Wetlands Mapper wab site.

User Remarks:

000 (8)

29856.00 wetland boundary field map project

	1 /10
Project/Site: Coty of Warry / Havel Catender City/County: 1	umphray 5 Sampling Date: 10/08/13
Applicant/Owner: City of warry	State: TW Sampling Point: T/N P1
Investigator(s): Rendy M. Curtis Section, Township	
Landform (hillslope, terrace, etc.): Shorelyne / bern Local relief (concave,	
Subregion (LRR or MLRA): <i>LRR N</i> Lat: <i>N 36</i> ° 65 ′ 11 ″	Inna: 4/87°56'46" Datum: WG5-85'
Soil Map Unit Name: Paden 511 Joan	NWI classification: PFBICh Wost is lake
Are climatic / hydrologic conditions on the site typical for this time of year? Yes !	
	Are "Normal Circumstances" present? Yes NoNo
, , , , , , , , , , , , , , , , , , , ,	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling poi	nt locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Hydrophytic Vegetation Present? YesNo/ No/ Remarks:	etland? Yes No _/
Remarks: Transcet / North storts at & stoe) p	ist the ground area over
the plant motor line. POYR 4/6 sandy lo millet. Mun transact toward large eyps	em panic grass, bermole,
millet. Mun transort toward large cypi	cos in Shoreline, borny 569°W
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living	Roots (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2)
Water Marks (B1) — Presence of Reduced fron (C4) Sediment Denosits (B2) — Recent Iron Reduction in Tilled Sc	
Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5) Upland
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No _/ Depth (inches):	Wattand Hydrology Present? Yes No
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Remarks:	
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Oyental Share Trees Grass	
over tel I shove 170	
ways.	
- V	
	i

YULINIA DELETIMINATION DATA	1-100/17
Project/Site: Coty of Waren by / Havel Contenter City/County: //	sampling Date: /2/33//3
Applicant/Owner: C.ty of warry	State: TW Sampling Point: TVN Fact 2
Investigator(s): M. Curtis Section, Township,	Range: Part 2 30 From Pi, 563 W
Landform (hillslope, terrace, etc.): Shoreline floern Local relief (concave, of	convex, none): Slope (%):
Subregion (LRR or MLRA): LRR N Lat: N 36 ° 05 ' 11 " L	ong: W87°56'46" Datum: WG5-84
Soil Map Unit Name: Parken 511 Joan	NWI classification: PFBICh wort of lake
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No	(If no, explain in Remarks.)
	re "Normal Circumstances" present? Yes No
	needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling poin	
SUMMARY OF FINDINGS - Attacts site map showing sampling point	t locations, danseots, important location, other
Hydrophytic Vegetation Present? Yes No Is the Samp	led Area
Hydric Soil Present? Yes No within a Wel	/
Wetland Hydrology Present? Yes No	
Remarks: print 12, 20 from gant 1, born; 589W, col	just troves 17° any four good !
Post 2 soil 2.5 y 3/3 with polo yellow 2.5 1/3 -	read SUR 4/6 100/ 21000
and strocks, routlet arous reduce, very moist 51	ita class
1	
HYDROLOGY	Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators:	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)	Surface Sur Cracks (B5) Sparsely Vegetated Concave Surface (B8)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely vegetated contave sortate (55) Drainage Patterns (B10)
High Water Table (A2) Saturation (A3) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Re	
	Dry-Season Water Table (C2)
Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soil	4
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
/ Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	✓ FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No / Depth (inches):	No.
Gallador resident finas)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	ons), if available:
Kentucky lake operating punde, 10/22/13	W.L. whout 4.5 down
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection from two for force of the personny force of the force of t	there are DOTTIE and Sometweel
Breek William 200 1 (12)	
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low chance soil, existed sto dis	
low chance son , and	

Fac'no	11571.1		Dominant		Dominance Test works	sheet:	
ee Stratum (Plot size: Follows	_)1		Species?		Number of Dominant Sp		/03
The state of the s		-		106/	That Are OBL, FACW, o	ir FAC:	(A)
Acar rubium	<u> </u>			FAC	Total Number of Domina	ant	
				ē	Species Across All Strat	ia:	(B)
					Percent of Deminant Sn	posios	
					Percent of Dominant Sp That Are OBL, FACW, of	or FAC:	(A/E
					Prevalence Index work		
			= Total Cov	'Ar	Total % Cover of:	Multiply	by:
50% of t	otal cover:				OBL species	x1=	
pling/Shrub Stratum (Plot size:					FACW species	x 2 =	
					FAC species	x3=	
					FACU species	x 4 =	
					UPL species		
					Column Totals:		
<u> </u>							
		-			Prevalence index	= B/A =	
			· —		Hydrophytic Vegetatio	n Indicators:	
	 				1 - Rapid Test for H	lydrophytic Vegeta	ation
					2 - Dominance Tes		
					3 - Prevalence Inde		
			= Total Cov	rer	4 - Morphological A		de supportir
50% of 1	total cover:	20% of	total cover			or on a separate	
erb Stratum (Plot size:)				Problematic Hydror	·	
Poly sonin hydro	pro roido	<u> </u>		06/	- Problematic Hydro,	myno vogotanon	(Expiani)
UNACE Stidies				Fax.	1. D. A. Albandala and		alam emuni
					¹ Indicators of hydric soil be present, unless distu		
					Definitions of Four Ve		
					Delititions of Long Ac	getadon otrata.	
					Tree - Woody plants, e	xcluding vines, 3 is	n. (7.6 cm) (
					more in diameter at bre	ast height (DBH), i	regardiess o
					height.		
		-			Sapling/Shrub - Wood	ly plants, excluding	g vines, less
			-		than 3 in. DBH and gream) tall.	ater than or equal t	to 3.28 ft (1
)	_				1		
1					Herb - All herbaceous		
			= Total Cov		of size, and woody plan	its less than 3.28 f	t tall.
50% of	total cover	20% o	f total cover		Woody vine - All wood	ly vines greater tha	an 3.28 ft in
/gody Vine Stratum (Plot size:)				height.		
				·	Lively-selection		
					Hydrophytic Vegetation	1	
•			= Total Co	ver	Present? Ye	s <u>//</u> No_	
50% of	total cover:				1		
Remarks: (Include photo numbers here	or on a separati	2 311 55 L.)					

WEILAND DETERMINATION DATA FORM	1-100/13
Project/Site: Coty of Warn & Itanal Costantor City/C	ounty: //umphray5 Sampling Date: /0/00/13
Applicant/Owner: C. P. of Ward	State: 700 Sampling Four. 71/1/
Investigator(s): Rendy M. Curtis Section	on, Township, Range: Dank 3, 32 From Fr. January
Landform (hillslope, terrace, etc.): shoreline /bern Local reli	ef (concave, convex, none): Slope (%): 0-10
Subregion (LRR or MLRA): LRR N Lat: N36° 05'	/1" Long: <u>W 87° 56′ 46"</u> Datum: <u>W G 5-84</u>
Soil Map Unit Name: Paden 51t loan	NWI classification: PFBICh
Are climatic / hydrologic conditions on the site typical for this time of year? Ye	
Are Vegetation, Soil, or Hydrology significantly disturt	
Are Vegetation, Soil, or Hydrology naturally problems	
	•
SUMMARY OF FINDINGS - Attach site map showing sam	ipling point locations, transcos, important total es, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks: 7 5 4/2 with black Str.	caks, 5-trutad chy muck with
regardatues birs	
INDROLOGY	
HYDROLOGY	Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
/ Two A workin Diament	
Surface Water (A1) ✓ High Water Table (A2) — Hydrogen Sulfide Odd	
Saturation (A3) Oxidized Rhizosphere	
Water Marks (B1) Presence of Reduced	
Sediment Deposits (B2) Recent iron Reductio	
✓ Drift Deposits (B3) (A March 2) Thin Muck Surface (C	
Algai Mat or Crust (B4) Other (Explain in Ren	narks) Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3) Microtopographic Relief (D4)
Water-Stained Leaves (B9)	FAC-Neutral Test (D5)
Aquatic Fauna (B13)	
Field Observations: Surface Water Present? Yes No/ Depth (inches):	
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Called and Henrice	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Remarks:	re I doment, butter bush and road
•	
maple near transcrit line &	WI have at about 35 am TIN
trusces love, some stry no	HIC and smarthead (much paypound)
Bold eypsess and open water who	NI 10-20' Further out on 567'W
being	
	· ·

Sampling Point: 7/1/ Pont 3 VEGETATION (Four Strata) - Use scientific names of plants. Tree Stratum (Plot size: You partied 1557 Absolute Species? Status

1. Salin Magra Species? Status Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2. Accr roborn FAC Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: 50% of total cover: _____ 20% = Total Cover OBL species _____ x 1 = ____ __ 20% of total cover:__ FACW species _____ x 2 = ____ Sapling/Shrub Stratum (Plot size:_____) 1. Cophelanthro occidentials abl FAC species _____ x 3 = ____ FACU species _____ x 4 = ____ UPL species _____ x 5 = _____ Column Totals: _____ (A) ____ (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 7.____ ___ 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ = Total Cover ____ 4 - Morphological Adaptations¹ (Provide supporting 50% of total cover: _____ 20% of total cover:__ data in Remarks or on a separate sheet) Herb Stratum (Plot size: ___ Problematic Hydrophytic Vegetation¹ (Explain) 1. JUNUS CEINUS 2. Poly annya hydroparecondes _____ Ob! ¹Indicators of hydric soil and wetland hydrology must 3. Ortice disser be present, unless disturbed or problematic. 4. Blokan- Francisco **Definitions of Four Vegetation Strata:** Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. 10.__ Herb - All herbaceous (non-woody) plants, regardless = Total Cover of size, and woody plants less than 3.28 ft tali. 50% of total cover: _____ 20% of total cover: Woody vine - All woody vines greater than 3.28 ft in Woody Vine Stratum (Plot size: _____) Hydrophytic Vegetation Yes No ____ Present? ____ = Total Cover 50% of total cover: _____ 20% of total cover:_ Remarks: (Include photo numbers here or on a separate sheet.) Some very swell buldayers , this year's secolings.

Project/Site: Cake of Warray / Hagol Contamitor Ci	ity/County: //umphray 5 Sampling Date: 10/00/13
Applicant/Duman	State: TV Sampling Point: T2M P1
Applicantiowner. Cry 4	State: TN Sampling Point: TEM Pleaction, Township, Range: port 1, TEM ideale musect
Landform (hillislope, terrace, etc.): Shoreline floern Loca	relief (concave, convex, none): Slope (%):
Subregion (LRR or MLRA): LRR / Lat: 136 05	5'11" Long: <u>W 87° 56' 46"</u> Datum: <u>W G 5-84</u>
Soil Map Unit Name: Peden 5:17 Joen	NWI classification: PFBICh West of loke
Are climatic / hydrologic conditions on the site typical for this time of year	
Are Vegetation, Soil, or Hydrology significantly di	sturbed? Are "Normal Circumstances" present? Yes / No
Are Vegetation, Soil, or Hydrology naturally probi	
	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No / Yes No / Yes No /	Is the Sampled Area within a Wetland? Yes No
south past from N gest Trase The	
5 48 4/6 5; ity clay with chart frag	ments fill over moter line - Light prof
rotten chart tryments 2/50 prose	
HYDROLOGY	Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators:	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)	0.1 (00)
Surface Water (A1) True Aquatic Plan	The state of the s
High Water Table (A2) Hydrogen Sulfide	heres on Living Roots (C3) Moss Trim Lines (B16)
	iction in Tilled Soils (C6) Crayfish Burrows (C8)
Sediment Deposits (B2) Recent Iron Redu Drift Deposits (B3) Thin Muck Surface	7 (00)
Algal Mat or Crust (B4) Other (Explain in	1 1 1 1 1 1 1 1
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (89)	Microtopographic Rellef (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):_	1
Water Table Present? Yes No Depth (inches):_	
Saturation Present? Yes No _Y Depth (inches):_	Wetland Hydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if available:
Remarks:	
Remarks: Penic pross, some milet, b	sommed and force
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PMIRCUSITE: (_7774 PM PMIRANEY M / 174001 (_4/174/A)XXY CITY/COUNTY, /7 (/7/17/A)XXY SAITIBILITY CATO, / T/ P T//
Project/Site: Coty of Warry / Havel Contamber City/County: 1/umphray 5 Sampling Date: 10/00/13
Applicant/Owner: Cty of warry State: TN Sampling Point: TEM Y
Investigator(s): Rendy M. Curtis Section, Township, Range: 16 from fort I, bearing 575 W
Landform (hillslope, terrace, etc.): Shorelyne floren Local relief (concave, convex, none): Concave Slope (%): 0-10
Subregion (LRR or MLRA): 1 PR N Lat: 136° 05' 11" Long: W87° 56' 46" Datum: W65-84
Soil Map Unit Name: Peden 5:17 Joan NWI classification: PFBICh Page
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed?
• • •
, and vogstation
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Is the Sampled Area
Hydric Soil Present? Yes No within a Wetland? Yes No
Wetland Hydrology Present? Yes No
Remarks: 10 MR 3/2, Very derk Junely loom with quarte pebbles, orly of fill eff
HYDROLOGY
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3)
Water-Stained Leaves (B9) Microtopographic Relief (D4)
Aquatic Fauna (B13) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No Depth (inches): Depth (inches):
Water Table Present? Yes No V Depth (inches):
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No V
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Describe
Describe
Remarks: Road supice, Yoke Weed Johnson Grass, Thyry soft of
Remarks: Road supice, Yoke Weed Johnson Grass, Thyry soft of
Remarks: Road supice, Yoke Weed Johnson Grass, Thyry softh of
Remarks: Roof supic, Yoke Weed, Johnson Grass, Thyry Dotth of
Remarks: Roof supic, Yoke Weed, Johnson Grass, Thyry Dotth of
Remarks: Road supice, Yoke Weed Johnson Grass, Thyry softh of

Project/Site: Coty of Warry / Have Catanter City/County: Humph	Sampling Date: /0/20//3
Applicant/Owner: City of warrers	State: TV Sampling Point: T2MP3
Investigator(s): Section, Township, Range:	5
Landform (hillslope, terrace, etc.): Shorelyne floren Local relief (concave, convex, no	ne): Slope (%):
Subregion (LRR or MLRA): LRR N Lat: N 36° 65' 11" Long: W	187 36 96 " Datum: WG3-39
Soil Map Unit Name: Paden 5,17 Joan	NWI classification: PF61Ch wt Jun
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal	! Circumstances" present? Yes No
	explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point location	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No
Remarks: 10 YR 5/2 motrix with black mayings	stand orns and 5 yr s/s
mo HIGS, MONST ENT NO Free water.	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Algal Mat or Crust (B4) Thin Muck Surface (C7) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
	Geomorphic Position (D2)
✓ Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches): Wetland	fydrology Present? Yes V No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available recorded Data (stream gauge, monitoring well, aerial photos, previous inspections).	aliable;
Remarks:	
Remarks: black willow and read myste strying not. Sport being shed from aboutly a britanto. oras Aut 30 Surther wast.	tos, hecheans layer
To Further Wast	
Orce of To	ł,
	1
	1
1	ı

and the life had been a life to	- 100/13
Project/Site: Coty of Warre by / Haved Contentor City/County: Humph	Sampling Date: /5/5//
Applicant/Owner: City of word	State: TW Sampling Point: Tam Point
Investigator(s): Nenda M. Curts Section, Township, Range:	38 Frange Pi, lary 57500
Landform (hillslope, terrace, etc.): Shoreline floern Local relief (concave, convex, no	ne): Slope (%): <i>O-10</i>
Subregion (LRR or MLRA): LRR N Lat: N 36 ° 65 '11" Long: W	87°56'46" Datum: WG5-84
Soil Map Unit Name: Peden 5,17 Joan	NWI classification: PF61Ch otlah
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No	
	I Circumstances" present? Yes No
-	explain any answers in Remarks.)
, and to gottation	•
SUMMARY OF FINDINGS – Attach site map showing sampling point location	ons, transects, important teatures, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes V No Is the Sampled Area within a Wetland? Wetland Hydrology Present?	Yes <u>v</u> No
send and grove mexed in	as, sittly dry with Jone
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Geomorphic Position (D2)
fron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No _Y Depth (inches):	
Water Table Present? Yes // No Depth (inches):_/0"	
	lydrology Present? Yes No
(includes capillary fringe)	šieblo
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	mane.
Remarks: Button bushes (mussue) bordery orce of	Frence & Fou ForT
worr of simple point; Floring mater & 30% 5	-writer was 1, for of
serge over Frage of Shoveline	

Sampling Point: TEM Part 4 VEGETATION (Four Strata) - Use scientific names of plants. Tree Stratum (Plot size: Feet northol) Absolute Species? Status Dominance Test worksheet: **Number of Dominant Species** That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: = Total Cover 50% of total cover: ______ 2 OBL species _____ x 1 = ____ 20% of total cover: FACW species _____ x 2 = ____ Sapling/Shrub Stratum (Plot size:_____) FAC species _____ x 3 = ____ FACU species _____ x 4 = ____ UPL species _____ x 5 = ____ Column Totals: ______ (A) _____ (B) Prevalence Index = B/A = ____ Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% __ 3 - Prevalence Index is ≤3.0¹ = Total Cover ___ 4 - Morphological Adaptations1 (Provide supporting 50% of total cover: ____ 20% of total cover: data in Remarks or on a separate sheet) Herb Stratum (Plot size: _____) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. **Definitions of Four Vegetation Strata:** Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of heiaht. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. 10.___ Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. = Total Cover 50% of total cover: _____ 20% of total cover:__ Woody vine - All woody vines greater than 3.28 ft in Woody Vine Stratum (Plot size: _____) Hydrophytic Vegetation Yes _____ No ____ Present? = Total Cover 50% of total cover: _____ 20% of total cover:___ Remarks: (Include photo numbers here or on a separate sheet.)

Common button bushes bordery scapy at Fost of distributed (hummerly) formal left from organi pand enstruction, non-smooth orce wast of mound formal orce.

Project/Site: Coty of	Word 4	Hoool	Costanter City/C	county: <u>// u/</u>	mphic	15	Sampling Date:_	10/00/13
Applicant/Owner:	2 20 10	vorb				State: TW	_ Sampling Poir	nt: <u>735 P1</u>
Applicant/Owner:	Mr. Con	**	Section	on, Township, Ra	lange: 6 n.	+1 T35 H	versont soul	here steel p
Landform (hillslope, terrace, et								
Subregion (LRR or MLRA):	PR 1	100 - 1 at	11 250 05	42 4 100	no: 448	7056'4	C " Datur	n: WG5-84
			70 30 03	LOI	nig. <u>27 9</u>	NIN -116	ALL OF A	116 -+ 1
Soil Map Unit Name: _ Pe -								1Ch atlas
Are climatic / hydrologic condit					(lf r	no, explain in Re	emarks.)	1
Are Vegetation, Soil	, or Hyd	lrology	significantly distur				resent? Yes	No
Are Vegetation, Soil	, or Hyd	rology	naturally problema	atic? (If n	needed, exp	lain any answer	s in Remarks.)	
SUMMARY OF FINDING	GS – Atta	ch site m	nap showing sam	pling point	locations	s, transects,	important fe	atures, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present?	,	Yes Yes Yes	No_/	Is the Sample within a Wetla	and?		_ No _/	-
Remarks: Part / Gover, uplant of	10 YR 1055	5/6	silty, chy	gay send,	, F=17 .	not consol	or unto	e Inc
HYDROLOGY								
Wetland Hydrology Indicato						•	ors (minimum of	two required)
Primary Indicators (minimum	of one is req					_ Surface Soil (Overfere (D8)
Surface Water (A1)		-	True Aquatic Plants (· · · · · · · · · · · · · · · · · · ·		etated Concave	Surrace (Bo)
High Water Table (A2)			Hydrogen Sulfide Od Oxidized Rhizosphere		· · · · · · · · · · · · · · · · · · ·	_ Drainage Pati		
Saturation (A3)			Presence of Reduced		ota (CO)		Vater Table (C2)	
Water Marks (B1) Sediment Deposits (B2)		_	Recent Iron Reductio		(C6) ==	_ Crayfish Burre		
Sediment Deposits (B2) Drift Deposits (B3)			Thin Muck Surface (C				ible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)		=3	Other (Explain in Rer	•		_ Stunted or Str	ressed Plants (D	1)
Iron Deposits (B5)		-	, .			_ Geomorphic i	Position (D2)	
Inundation Visible on Aer	ial Imagery (B7)			_	_ Shallow Aquit	ard (D3)	
Water-Stained Leaves (B					_	_ Microtopograp	phic Relief (D4)	
Aquatic Fauna (B13)						_ FAC-Neutral	Test (D5)	
Field Observations:								
Surface Water Present?			Depth (inches):					
Water Table Present?			Depth (inches):				.a. W	No V
Saturation Present?	Yes	_ No	_ Depth (inches):	w	etland Hyd	rology Present	? Yes	NO_Y
(includes capillary fringe) Describe Recorded Data (stre	am gauge, r	monitoring v	well, aerial photos, pre	vious inspection	ns), if availat	ole:	-	
Remarks:					- < 011	1-01-000	1-1-1-1	
Remarks:	17/25	1 John	San press	fere s) 5,5 5	Test of	(CASE C 1000	27 2
4			all the same of th		•		hedere	(046)
Co and por vol	F, Fol	1, no	sotur Fra	7			For	19
	-						100	40%
								1
								-

Project/Site: Coty of Warry / Have Coty/County: Humphray 5 Sampling Date: 10/20/1
Applicant/Owner: City of warry State: TV Sampling Point: 735 F
Investigator(s): Range: M. Curtis Section, Township, Range: 20 From P. Grang 583 W
Landform (hillstope, terrace, etc.): 5hore/ine /berm Local relief (concave, convex, none): Stope (%): 0-10
Subregion (LRR or MLRA): 1 RR N Lat: N 36 05 11 Long: W 87 56 46 Datum: W 65-8
Soil Map Unit Name: Peden 5:17 /own NWI classification: PFOICH
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain In Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No le the Sampled Area
Hydric Soil Present? Yes No within a Wetland? Yes No
Wetland Hydrology Present? Yes No
spots, moist but not sotrated.
HYDROLOGY
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Seturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)
V Iron Deposits (B5) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3)
Water-Stained Leaves (B9) Microtopographic Relief (D4)
Aquatic Fauna (B13) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No / Depth (inches):
Water Table Present? Yes No _Y Depth (inches):
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:
law chome soil, red notics, your stron has ably to
water papper mixed in with fortail millet. Fige one is
water papped mixed in with Fortail millet. Fige and is

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: <u>135 Rest</u> 2

	Absolute Dominant Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2		Total Number of Dominant Species Across All Strata:
5		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6		Prevalence Index worksheet:
7		Total % Cover of: Multiply by:
	= Total Cover	OBL species x1 =
	20% of total cover:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)		FAC species x 3 =
1		FACU species x 4 =
2		UPL species x 5 =
3		Column Totals: (A) (B)
4		(b)
5		Prevalence index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
8		2 - Dominance Test is >50%
9		3 - Prevalence Index is ≤3.01
50% of total cover:	= Total Cover	4 - Morphological Adaptations¹ (Provide supporting
	20% of total cover:	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	2/1	Problematic Hydrophytic Vegetation¹ (Explain)
1. p. Mesova hadroper		
2. SETEVIE UPVN:1902		¹ Indicators of hydric soil and wetland hydrology must
		be present, unless disturbed or problematic.
4		Definitions of Four Vegetation Strata:
5	·	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		more in diameter at breast height (DBH), regardless of
7		height.
8		Sapling/Shrub – Woody plants, excluding vines, less
9		than 3 in. DBH and greater than or equal to 3.28 ft (1
10		m) tall.
11,		Herb – Ali herbaceous (non-woody) plants, regardless
	= Total Cover	of size, and woody plants less than 3.28 ft tall.
50% of total cover:	20% of total cover:	Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)		height.
1		
2		
3	- K- K-	
4	<u> </u>	Hydrophytic
5		Vegetation
	= Total Cover	Present? Yes / No
50% of total cover:	20% of total cover:	
Remarks: (Include photo numbers here or on a separate s	heet.)	
prother I for broad	on andled re	attat Chamber and obligate
The state of the s	1 - long seller	1 plan micrograph of 8xon-
restotien promises 11	nting porting	that there and obligate r. Photomerogenh of son- a booked Figures
4.0	0 6	

Project/Site: Coty of Warry / Havel Cotomber City/County: Humphray 5 Sampling Date: 10/20/13
Applicant/Owner: Coty of awary State: TW Sampling Point: 735 PS
Investigator(s): None M. Curtis Section, Township, Range: 30 From 51 January 583"W
Landform (hillislope, terrace, etc.): 5hore/rac /berm Local relief (concave, convex, none): Con Cor C Slope (%): 0-10
Subregion (LRR or MLRA): LRR N Lat: N 36 ° 65 ′ 11 ″ Long: W 87 ° 56 ′ 46 ″ Datum: W65-85
Soil Map Unit Name: Peden 5:17 Joen NWI classification: PFBICh
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed?
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No le the Sampled Area
Hydric Soil Present? Yes No within a Wetland? Yes No
Wetland Hydrology Present? Yes V No No
Remarks: 2.5 y s/2 motory button 5 yr s/8 po Hlas, damp, but no free woter, larger areas of 5 the 5/8 and same black manger are stown
free water land ares of 5xe 5/2 and some black movemen se storm
Sport to batches in size
Spans to be seed in 2126.
HYDROLOGY
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2)
Sediment Deposits (B2)
Silit Septemb (50)
Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) fron Deposits (B5) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3)
Water-Stained Leaves (B9) Microtopographic Relief (D4)
Aquatic Fauna (B13) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No _/_ Depth (inches):
Saturation Present? Yes V No Depth (inches): 8 Wetland Hydrology Present? Yes V No
(includes capillary fringe)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks: No free water in hile bit situated at 8", sycomore, red
meple, smartweed. Low chans 5011, strocks, inmost, oblighte
herbricas, Smill green ash saplings.

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: $\overline{135P3}$

Trop Stretum (Plot size	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1. Plantons occidentalis	- PACW	That Are OBL, FACW, or FAC: (A)
2. Acel ribron		Total Number of Dominant
3		Species Across All Strata: (B)
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC:(A/B)
6		(42)
7		Prevalence Index worksheet:
	= Total Cover	Total % Cover of: Multiply by:
50% of total cover:	20% of total cover:	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)		FACW species x 2 =
	FAN	FAC species x 3 =
1. Fr-X-vrs pcn-xy/n went		FACU species x 4 =
	· — — —	UPL species x 5 =
3		Column Totals: (A) (B)
4		Goldmin Totals (A)
5		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
8	<u> </u>	2 - Dominance Test is >50%
9		3 - Prevalence Index is ≤3.0¹
	= Total Cover	4 - Morphological Adaptations¹ (Provide supporting
50% of total cover:	20% of total cover:	
Herb Stratum (Plot size:)		data in Remarks or on a separate sheet)
1. plyson besingsonder		Problematic Hydrophytic Vegetation ¹ (Explain)
		1.
3		¹Indicators of hydric soil and wetland hydrology must
4		be present, unless disturbed or problematic.
5		Definitions of Four Vegetation Strata:
6		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
		more in diameter at breast height (DBH), regardless of
7		height.
8		Sapling/Shrub – Woody plants, excluding vines, less
9		than 3 in. DBH and greater than or equal to 3.28 ft (1
10		m) tall.
11		Herb - All herbaceous (non-woody) plants, regardless
	= Total Cover	of size, and woody plants less than 3.28 ft tall.
50% of total cover:	20% of total cover:	Woody vine All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)		height.
1,		
2		
3		
4		Hydrophytic
5		Vegetation
	= Total Cover	Present? Yes No
50% of total cover:	20% of total cover:	
Remarks: (Include photo numbers here or on a separate s		
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

Project/Site: Coty of Warray / Hand Contamber City/County: Humph	ray 5 Sampling Date: 10/23/15		
Applicant/Owner: City of warrang	State: TW Sampling Point: Fort 4		
Investigator(s): Section, Township, Range: Section, Township, Range:	10 From P bowin 582"W =		
Landform (hillslope, terrace, etc.): Shoreline Iberm Local relief (concave, convex, no	ne): Slope (%):		
Subregion (LRR or MLRA): LRP N Lat: N36° 65' 11" Long: W			
Soil Map Unit Name: Paden 5:14 Joan	NWI classification: PF61Ch		
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No			
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal	l Circumstances" present? Yes No		
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed,	explain any answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map showing sampling point location	ons, transects, important features, etc.		
Hydrophytic Vegetation Present? Yes No Is the Sempled Area			
Hydric Soil Present? Yes No within a Wetland?	Yes No No		
Wetland Hydrology Present? Yes No			
Remarks: 2.5/6/2 5-11 metring with 5/8 5/8 54rc	of s wet silty change no		
HYDROLOGY			
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)		
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)		
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)			
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)		
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)		
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1) Geomorphic Position (D2)		
<u>√</u> Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)		
Water-Stained Leaves (89)	Microtopographic Relief (D4)		
Aquatic Fauna (B13)	✓ FAC-Neutral Test (D5)		
Field Observations:			
Surface Water Present? Yes No / Depth (inches):			
Water Table Present? Yes No Depth (inches):			
	ydrology Present? Yes No		
(includes capillary fringe)	, , , , , , , , , , , , , , , , , , , ,		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	lable:		
Remarks: 5011 Wet but no Flow into hole, possibil	le surface tension		
matrin effect, silty chay . sweetyour, black a	willow, root my 15, Symus		
motifie exfect, solfy ely, sweetym, block willow, root my 10, Symun mild water pagepat. I'm almost soil, wet, obligate vigoutation			

Sampling Point: T3 5 Pant 4 VEGETATION (Four Strata) - Use scientific names of plants. Absolute Dominant Indicator % Cover Species? Status Dominance Test worksheet: Tree Stratum (Plot size: __ Number of Dominant Species Plantans occudence/vs FACU That Are OBL, FACW, or FAC: 2. Acor relamin Fre Total Number of Dominant 3. Faliny Myria - chi Species Across All Strata: Lowed whor Styr 217/va FAC Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: = Total Cover OBL species _____ x 1 = _____ 50% of total cover: ____ __ 20% of total cover:__ FACW species _____ x 2 = _____ Sapling/Shrub Stratum (Plot size:_____) FAC species x 3 = ____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = **Hydrophytic Vegetation Indicators:** ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% __ 3 - Prevalence Index is ≤3.01 ____ = Total Cover 4 - Morphological Adaptations (Provide supporting ___ 20% of total cover:___ 50% of total cover: data in Remarks or on a separate sheet) Herb Stratum (Plot size: Problematic Hydrophytic Vegetation¹ (Explain) 1. Polymonny landro proposed al _____ Dia ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. **Definitions of Four Vegetation Strata:** Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. 10._____ Herb - All herbaceous (non-woody) plants, regardless ____ = Total Cover of size, and woody plants less than 3.28 ft tall. 50% of total cover: _____ 20% of total cover: Woody vine - All woody vines greater than 3.28 ft in Woody Vine Stratum (Plot size: _____) Hydrophytic Vegetation Yes / No Present? = Total Cover 50% of total cover: _____ 20% of total cover: Remarks: (Include photo numbers here or on a separate sheet.)

EGETATION (Four Strata) – Use scientifi		Sampling Point:
Free Stratum (Plot size:)	Absolute Dominant Indicat <u>% Cover Species? Statu</u>	ie .
Startins Oceans The		
1 the first of the state of the	Fig	Indiale OBL, FACW, OF FAC: (A)
former who or Style in Flow	<i> 171</i>	Total Number of Dominant
		Species Across All Strata: (B)
		Percent of Dominant Species
		That Are OBL, FACW, or FAC: (A/B
		Prevalence Index worksheet:
<u> </u>		Total % Cover of: Multiply by:
	= Total Cover	
	20% of total cover:	
Sapling/Shrub Stratum (Plot size:)		FACW species x 2
·		FAC species x 3 =
·		FACU species x 4 =
·		Column Totals: (A) (B)
·		Prevalence Index = B/A =
i		
		Trydrophlytic vegetation indicators.
		1 - Rapid Test for Hydrophytic Vegetation
\		2 - Dominance Test is >50%
	= Total Cover	3 - Prevalence Index is ≤3.01
50% of total cover:	20% of total cover:	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size:)		data in Remarks or on a separate sheet)
Jaury 15 CORNING	ala	Problematic Hydrophytic Vegetation ¹ (Explain)
Utica focia		
		Indicators of hydric soil and wetland hydrology must
·		be present, unless disturbed or problematic.
•		
		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
		more in diameter at breast height (DBH), regardless of
·		
·		Sapling/Shrub – Woody plants, excluding vines, less
·		than 3 in. DBH and greater than or equal to 3.28 ft (1
0		m) tall.
1		Herb - All herbaceous (non-woody) plants, regardless
	= Total Cover	of size, and woody plants less than 3.28 ft tall.
50% of total cover:	20% of total cover:	Mandy sine All woods since greater than 2.39 ft in
Voody Vine Stratum (Plot size:)		Woody vine - All woody vines greater than 3.28 ft in height.
·		
		Hydrophytic Vegetation
·	= Total Cover	Present? Yes // No
50% of total cover:	20% of total cover:	
remarks: (Include photo numbers here or on a separal horgan to easy of trained horses or trappy of	te sheet.)	and sol in wew orea
	Jans (gras)	and wort towerds lake
micro typender burno	3-5 Theuse May	
The state of the s	THE PROPERTY LIE IN	

