

NWA041A overview looking southwest.

NWA043

	ION DATA FORM - Midwest Region
Project/Site: Hayward Solar City	County: Freeborn County Sampling Date: 4/30/2020
Applicant/Owner: Hayward Solar LLC	State: Minnesota Sampling Point: NWA043A
Investigator(s). Apryl Jenninch	Legal relief (concerve, convex, none):
Slope (%): 1 Lat: /3° 30' 16 08"	
Soil Man Unit Name: Klossner muck	
Are climatic/bydrologic conditions of the site typical for this time	of the year? V (If no explain in remarks)
Are vegetation X soil or hydrology	significantly disturbed?
Are vegetation soil or hydrology	Are normal circumstances
SUMMARY OF FINDINGS	(If needed, explain any answers in remarks.)
Hydrophytic vegetation present? N	
Hydric soil present? N	Is the sampled area within a wetland? N
Indicators of wetland hydrology present? N	If yes, optional wetland site ID:
Remarks: (Explain alternative procedures here or in a separate in the second se	report.)
VEGETATION Ose scientific names of plants.	Dominance Test Worksheet
Tree Stratum (Plot size:) % Cover	Species Staus Number of Dominant Species
1 , , , , , , , , , , , , , , , , , , ,	that are OBL, FACW, or FAC: 0 (A)
2	Total Number of Dominant
3	Species Across all Strata: 0 (B)
4	Percent of Dominant Species
5 <u> </u>	- Total Cover
Sapling/Shrub stratum (Plot size:	Prevalence Index Worksheet
1	Total % Cover of:
2	OBL species 0 x 1 = 0
3	FACW species 0 x 2 = 0
4	FAC species 0 x 3 = 0
5	FACU species $0 \times 4 = 0$
U	$\begin{array}{c} - \text{Total Cover} \\ - \text{Column totals} \\ - $
	$\frac{1}{2} = \frac{1}{2} = \frac{1}$
3	Hydrophytic Vegetation Indicators:
4	Rapid test for hydrophytic vegetation
5	Dominance test is >50%
6	Prevalence index is ≤3.0*
/	Morphogical adaptations* (provide
9	supporting data in Remarks or on a separate sheet)
10	Problematic hydrophytic vegetation*
	_= Total Cover(explain)
1	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
2	Hydrophytic
0	= Total Cover vegetation present? N
Remarks: (Include photo numbers here or on a separate sheet) 100% bare ground, recently tilled.	

SOIL

Profile Des	cription: (Descr	ibe to th	e depth needed	to docu	ment the	e indicat	or or confirm the ab	sence of indicators.)
Depth (Inchos)	Color (moist)	0/-	Color (moint)	<u>ox ⊦eat</u> ∞	ures Typo*	1 00**	Toyturo	Pomorko
(incries)		70		70	i ype"	LUC	r exture	remarks
0-12	10YR 2/1	100					Silt loam	
12-24	5Y 4/1	99	10YR 4/6	<1	С	PL	Clay	
					L			
Type: C =	Concentration, D	= Depleti	on, RM = Reduce	ed Matrix	k, MS = N	Aasked S	Sand Grains. **Loc	cation: PL = Pore Lining, M = Matrix
Hydric So	bil Indicators:		-			(0.1)	Indicators for P	roblematic Hydric Soils:
His	tisol (A1)		Sar	idy Gley	ed Matrix	(S4)		Redox (A16) (LRR K, L, R)
HIS 	tic Epipedon (A2)		Sar	nay Read	(S5)		Dark Surface	e(S7)(LKKK, L)
Bia	CK HISUC (A3) drogon Sulfido (A)	4)	Sui		luix (50) ku Minor			r Dark Surface (TE12)
	atified Lavers (A5	+) \	Loa		ky Matri	ai (F1) v (E2)		Dark Surface (TFTZ)
20	m Muck (Δ10))	L02	niny Giey	eu Main atrix (F3)	∧ (I ∠)		
	nleted Below Dark	Surface	(A11) Rec	lox Dark	Surface	(F6)		
	ck Dark Surface (A12)	Der	pleted Da	ark Surfa	(F7)	*Indicators of	hydrophytic vegetation and weltand
Sa	ndy Mucky Minera	al (S1)	Rec	lox Depr	essions	(F8)	hvdrology mu	ist be present, unless disturbed or
5 c	m Mucky Peat or	Peat (S3)			()	, 3,	problematic
	Laver (if observ	ed).						-
	Layer (II Observ	eu).					Hydric soil pre	sent? N
ype.)enth (inch	oc).				-		riyunc son pre	
					-			
IYDROL	OGY							
Vetland Hy	drology Indicato	ors:						
Primary Ind	<u>icators (minimum</u>	of one is	required; check	all that a	pply)		Secondary	Indicators (minimum of two required)
Surface	Water (A1)			Aquatic	Fauna (B	313)	Surf	ace Soil Cracks (B6)
High Wa	ater Table (A2)			True Aq	uatic Pla	nts (B14)	Drai	nage Patterns (B10)
	on (A3)			Hydroge	en Sulfide	Odor (C	1) Dry-	Season Water Table (C2)
	nt Deposite (B2)			(C3)	a Rhizosp	oneres on	Living Roots Cray	ration Visible on Aerial Imageny (CQ)
Drift De	(B3)			Presenc	e of Red	uced Iron	(C4) Stur	ted or Stressed Plants (D1)
Algal Ma	at or Crust (B4)			Recent	Iron Redu	uction in T	Filled Soils Geo	morphic Position (D2)
Iron Der	posits (B5)			(C6)			FAC	-Neutral Test (D5)
Inundati	on Visible on Aeria	al Imager	y (B7)	Thin Mu	ck Surfac	ce (C7)		(-)
Sparsel	y Vegetated Conca	ave Surfa	ce (B8)	Gauge	or Well Da	ata (D9)		
Water-S	Stained Leaves (B9	9)		Other (E	Explain in	Remarks	;)	
ield Obse	rvations:							
Surface wat	er present?	Yes	No	Х	Depth (inches):		
Vater table	present?	Yes	No	X	Depth (inches):		Indicators of wetland
saturation p	oresent?	Yes	No	X	Depth (inches):		nydrology present? N
includes ca	ipiliary fringe)							
Describe re	corded data (strea	am gaug	e, monitoring wel	l, aerial p	photos, p	revious i	nspections), if availabl	e:
Remarke [.]								
tomarito.								



NWA043A overview looking south.

NWA044

		idwest Region	4/20/2020
Project/Site: Hayward Solar City	County: Freeborn Col	Inty Sampling Date:	4/30/2020
Applicant/Owner: Hayward Solar LLC		Sampling Point:	NWA044A
	Section, Township		R20W S11
Landform (nillslope, terrace, etc.): Swale		ve, convex, none):	
Siope (%): 1 Lat: 43 39 17.60	Long:93*12*8	.42 Datum:	WG584
Soli Map Unit Name: Klossner muck	NVVI (NA
Are comatic/hydrologic conditions of the site typical for this time	of the year? Y (in no, explain in remarks)	
Are vegetation <u>A</u> , soil , or hydrology	- significantly disturbed?	Are "normal circur	nstances"
SUMMARY OF FINDINGS		(If needed, explain any an	swers in remarks.)
Hydrophytic vegetation present? N			
Hydric soil present? N	Is the sampled area w	vithin a wetland?	N
Indicators of wetland hydrology present? Y	If yes, optional wetlan	d site ID:	
Remarks: (Explain alternative procedures here or in a separate in the second se	report.)		
Absolute	Dominant Indicator	Dominance Test Worksh	eet
Tree Stratum (Plot size:) % Cover	Species Staus	Number of Dominant Specie	es
1		that are OBL, FACW, or FAC	C: 0 (A)
2		Total Number of Domina	nt
3		Species Across all Strat	a: <u>0</u> (B)
4		Percent of Dominant Specie	es
<u> </u>	= Total Cover		с. <u>0.00 %</u> (А/В)
Sapling/Shrub stratum (Plot size:)		Prevalence Index Works	heet
1		Total % Cover of:	
2		OBL species 0 x	1 = 0
3		FACW species 0 x	2 = 0
4		FAC species 0 x	3 = 0
5	- Total Cover	FACU species 0 x	4 = 0
Herb stratum (Plot size:)		Column totals 0 (A	$\frac{3}{0}$ (B)
1		Prevalence Index = B/A =	.,(2)
2			
3		Hydrophytic Vegetation	Indicators:
4		Rapid test for hydroph	ytic vegetation
5		Dominance test is >50)%
6		Prevalence index is ≤	3.0*
7		Morphogical adaptatio	ns* (provide
8		supporting data in Rer	marks or on a
10		Problematic hydrophy	tic vegetation*
0	= Total Cover	(explain)	
1		*Indicators of hydric soil and w present, unless disturb	etland hydrology must be ed or problematic
2		Hydrophytic	
0	= Total Cover	vegetation present? N	
Remarks: (Include photo numbers here or on a separate sheet)		L · · · ·	_
100% bare ground, recently tilled.			

SOIL

Profile Des	cription: (Descr	ibe to th	e depth needed	to docu	ment the	e indicat	or or confirm the a	absence of indicators	s.)
Depth	Matrix		Re	dox Feat	ures				-
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Rer	marks
0-12	10YR 2/1	100	,				Silt loam		
10.15	EV 4/4	100					Clay		
12-15	5Y 4/1	100					Clay		
15-21	5Y 4/1	100					Sandy clay	Saturated	
21-30	5Y 4/1	100					Clay		
*Type: C = 0	Concentration. D	= Depleti	on. RM = Reduc	ed Matrix	. MS = N	Aasked S	and Grains. **L	_ocation: PL = Pore Lir	ning. M = Matrix
Hydric Sc	oil Indicators:	200100			.,		Indicators for	Problematic Hydric S	Soils:
His	tisol (A1)		Sa	ndv Gleve	ed Matrix	(S4)	Coast Pra	irie Redox (A16) (I RR	KIR)
His	tic Eninedon (A2)			ndy Oleye	v (95)	(0+)	Dark Surfa		κ, Ε, κ)
	$(\Lambda 2)$		Oai		$r_{\rm v}(00)$		Iron-Mana	anese Masses (F12) (I	IRRKIR)
	uk Hisuu (AS) Aragan Sulfida (A.	4)			unx (30)		Vory Sholl	ance Masses (112) (1	$(\mathbf{X}, \mathbf{X}, \mathbf{L}, \mathbf{X})$
	arogen Sunde (A4	+)	LOa		ky iviinera	ai (F1)	Very Shall	ow Dark Surface (TFT.	2)
	auneo Layers (Ab)	LOa	amy Gley		X (FZ)		nam m remarks)	
		0 (atrix (F3)				
	bleted Below Dark	Surface	(A11)Re	dox Dark	Surface	(F6)			
	ck Dark Surface (A12)		pleted Da	ark Surfa	ce (⊢7)	*Indicators	of hydrophytic vegetati	on and weltand
Sar	ndy Mucky Minera	al (S1)	Re	dox Depr	essions	(F8)	hydrology	must be present, unles	s disturbed or
5 ci	m Mucky Peat or	Peat (S3)					problematic	
Restrictive	Layer (if observ	ed):				[
Type:		,					Hvdric soil r	present? N	
Depth (inch	es).				-				
					-				
	201/								
HYDROL	JGY								
Wetland Hy	drology Indicate	ors:							
Primary Indi	<u>cators (minimum</u>	of one is	required; check	all that a	pply)		Second	ary Indicators (minimu	m of two required
Surface	Water (A1)			Aquatic	Fauna (B	13)	S	urface Soil Cracks (B6)	
High Wa	ater Table (A2)			True Aq	uatic Plai	nts (B14)	D	rainage Patterns (B10)	
Saturati	on (A3)			Hydroge	en Sulfide	Odor (C	1) D	ry-Season Water Table	(C2)
Water M	larks (B1)			Oxidized	d Rhizosp	heres on	Living Roots C	rayfish Burrows (C8)	
Sedime	nt Deposits (B2)			(C3)			X S	aturation Visible on Aeri	al Imagery (C9)
Drift De	posits (B3)			Presenc	e of Red	uced Iron	(C4) Si	tunted or Stressed Plant	ts (D1)
Algal Ma	at or Crust (B4)			Recent I	Iron Redu	uction in T	Tilled Soils X G	eomorphic Position (D2))
Iron Dep	oosits (B5)			(C6)			F/	AC-Neutral Test (D5)	
Inundati	on Visible on Aeria	al Imager	/ (B7)	Thin Mu	ck Surfac	ce (C7)			
Sparsel	Vegetated Conca	ave Surfa	ce (B8)	Gauge o	or Well Da	ata (D9)			
Water-S	tained Leaves (B9))		Other (E	xplain in	Remarks)		
Field Obse	vations:								
Surface wat	er present?	Yes	No	Х	Depth (i	inches):			
Water table	present?	Yes	No	Х	Depth (i	inches):		Indicators of weth	and
Saturation p	resent?	Yes	X No		Depth (i	inches):	15	hydrology prese	nt? Y
(includes ca	pillary fringe)								
Describe re	corded data (strea	am daude	e. monitorina wel	l. aerial p	hotos, p	revious ir	nspections), if availa	able:	
	(5 5		· F	, F		. ,,		
Remarks:									
l									



NWA044A overview looking east.

NWA052

WETLAND DETERMINATI	ON DATA FORM - Mi	dwest Region
Applicant/Ourport Howard Solar LLC	State: Minnegate	Sampling Date: 4/30/2020
Applicant/Owner: Hayward Solar LLC	State: Minnesota	
Londform (hillogo, terroop, etc.):	Section, Township,	
Slope (%): 1 Lat: 42° 28' 42 12"		e, convex, none). Concave
Slope (%): 1 Lat: 43 38 42.13	Long: -93 11 3.5	8 Datum: WGS84
Are elimetic/bydralegie conditions of the site typical for this time .	of the year? V (If	
Are vegetation X soil or hydrology	significantly disturbed?	
Are vegetation, soil, or hydrology	naturally problematic?	Are "normal circumstances"
SUMMARY OF FINDINGS		(If needed, explain any answers in remarks.)
Hydrophytic vegetation present? N		
Hydric soil present? N	Is the sampled area wit	hin a wetland? N
Indicators of wetland hydrology present? N	If yes, optional wetland	site ID:
Remarks: (Explain alternative procedures here or in a separate r	eport.)	
	Dominant Indicator	Dominance Test Worksheet
Tree Stratum (Plot size:) % Cover	Species Staus	Number of Dominant Species
1		that are OBL, FACW, or FAC: 0 (A)
2	·	Total Number of Dominant
3	·	Species Across all Strata: 0 (B)
4 5	·	Percent of Dominant Species
	= Total Cover	
Sapling/Shrub stratum (Plot size:		Prevalence Index Worksheet
1		Total % Cover of:
2		OBL species 0 x 1 = 0
3	·	FACW species $0 \times 2 = 0$
4	·	FAC species $0 \times 3 = 0$
⁵	= Total Cover	FACU species $0 \times 4 = 0$
Herb stratum (Plot size:)		Column totals 0 (A) 0 (B)
, ,		Prevalence Index = $B/A =$
2	·	
3	·	Hydrophytic Vegetation Indicators:
4		Rapid test for hydrophytic vegetation
5	·	Dominance test is >50%
6	·	Prevalence index is ≤3.0*
/	·	Morphogical adaptations* (provide
9	·	supporting data in Remarks or on a separate sheet)
10	= Total Cover	Problematic hydrophytic vegetation*
Woody vine stratum (Plot size:)		
1		rindicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
2	·	Hydrophytic
0	= Total Cover	vegetation present? N
Remarks: (Include photo numbers here or on a separate sheet) 100% bare ground, recently tilled.	· · · · · · · · · · · · · · · · · · ·	

SOIL

Depth (Inches) 0-20 20-25 25-30 Type: C = 0 Hydric Sc His His Bla Hydric Sc 2 c Depth Stra 2 c Stra 5 c Cestrictive	Matrix Color (moist) 10YR 2/1 5Y 5/2 5Y 5/2 Concentration, D il Indicators: tisol (A1) tic Epipedon (A2 ck Histic (A3) drogen Sulfide (A atified Layers (A5 m Muck (A10) bleted Below Dar ck Dark Surface m Mucky Pieat or Layer (if observ	% 100 99 95 95 95 95 95 95 95 95 95 95 95 95	Re Color (moist) 10YR 4/6 10YR 4/6 10YR 4/6 n, RM = Reduct Sar Stri Loa Loa (A11) Red Red	dox Feat % 1 5 ed Matrix ed Matrix ndy Gley ndy Redo ipped Ma amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	ures Type* C C C C C C C C C C C C C C C C C C C	Loc** PL PL Asked S (S4) (F4) (F4) (F4) (F4) (F4) (F5) (F5) (F5) (F5) (F5) (F5) (F5) (F5	Texture Silt Ioam Clay Clay Clay Clay Indicators for Coast Prain Dark Surfa Inon-Manga Very Shalld Other (expl *Indicators c	Remarks
(Incnes) 0-20 20-25 25-30 Type: C = 0 Hydric Sc His His Bla Hyd Stra 2 c Del Thi Sar 5 c Cestrictive Spe: Depth (inchologies)	Color (moist) 10YR 2/1 5Y 5/2 5Y 5/2 Concentration, D il Indicators: tisol (A1) tic Epipedon (A2 ck Histic (A3) drogen Sulfide (A atified Layers (A5 m Muck (A10) pleted Below Dar ck Dark Surface m Mucky Peat or Layer (if observer)	% 100 99 95 95 95 95 95 9 95 9 95 9 95 9 95 9 95 95	Color (moist) 10YR 4/6 10YR 4/6 10YR 4/6 10YR 4/6 Sar Sar Stri Loa Dep (A11) Red Red	M 1 5 ed Matrix ed Matrix ndy Gley ndy Redo ipped Ma amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	C C C C C C C C C C C C C C C C C C C	Loc ^{**} PL PL PL Aasked S (S4) (S4) (S4) (S4) (S4) (F6) (cc (F7) (F8)	Silt loam Clay Clay Clay Clay Clay Clay Clay Clay	Remarks Remarks
0-20 20-25 25-30 Type: C = 0 Hydric So His His Bla Hydric So Stra 2 c Del Thi Sar 5 c Vestrictive Vpe: Depth (inch-	10YR 2/1 5Y 5/2 5Y 5/2 Concentration, D ii Indicators: tisol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A atified Layers (A5) m Muck (A10) oleted Below Dar ck Dark Surface m Mucky Minera m Mucky Peat or Layer (if observ	100 99 95 = Depletio 4) (A12) al (S1) Peat (S3) ed):	10YR 4/6 10YR 4/6 n, RM = Reduce n, RM = Reduce Sar Sar Loa Loa (A11) Ree Ree	ed Matrix ed Matrix ndy Gleye ndy Redo ipped Ma amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	C C C C C C C C C C C C C C C C C C C	PL PL Aasked S (S4) (F1) x (F2) (F6) cce (F7) (F8)	Silt loam Clay Clay Clay isand Grains. **L Indicators for Coast Prain Dark Surfa Iron-Manga Very Shallo Other (exp *Indicators o	ocation: PL = Pore Lining, M = Matrix Problematic Hydric Soils: rie Redox (A16) (LRR K, L, R) ice (S7) (LRR K, L) anese Masses (F12) (LRR K, L, R) by Dark Surface (TF12) lain in remarks) of hydrophytic vegetation and weltand
20-25 25-30 Type: C = 0 Hydric So His His Bla Hydric So Stric 2 c c Del Thi Sar 5 c c Vype: Deth (inch- Remarks:	5Y 5/2 5Y 5/2 5Y 5/2 Concentration, D il Indicators: tisol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A atified Layers (A5) m Muck (A10) bleted Below Dar ck Dark Surface m Mucky Minera m Mucky Peat or Layer (if observ	99 95 = Depletio	10YR 4/6 10YR 4/6 n, RM = Reduct n, RM = Reduct Sar Sar Loa Loa Loa Dep (A11) Rec Rec	1 5 ed Matrix ndy Gleyn ndy Redo ipped Ma amy Muc amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	C C C C C C C C C C C C C C C C C C C	PL PL Aasked S (S4) (F1) x (F2) (F6) cce (F7) (F8)	Clay Clay Clay and Grains. **L Indicators for Coast Prain Dark Surfa Iron-Manga Very Shallo Other (expl *Indicators of	ocation: PL = Pore Lining, M = Matrix Problematic Hydric Soils: rie Redox (A16) (LRR K, L, R) ice (S7) (LRR K, L) anese Masses (F12) (LRR K, L, R) bow Dark Surface (TF12) lain in remarks) of hydrophytic vegetation and weltand
25-30 Type: C = (Hydric So His His Bla Hyd Str. 2 c Del Thi Sar 5 c Cestrictive ype: Depth (inchologies)	5Y 5/2 Concentration, D il Indicators: tisol (A1) tic Epipedon (A2 ck Histic (A3) drogen Sulfide (A atified Layers (A5 m Muck (A10) bleted Below Dar ck Dark Surface m Mucky Minera m Mucky Peat or Layer (if observer)	95 = Depletio 4) (A12) al (S1) Peat (S3) ed):	10YR 4/6	5 ed Matrix ndy Gley ndy Redo ipped Ma amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	C MS = M ed Matrix (S5) trix (S6) ky Minera red Matrix atrix (F3) Surface ark Surface	PL Masked S (S4) (S4) (F1) x (F2) (F6) ce (F7) (F8)	Clay Clay Cand Grains. **L Indicators for Coast Prain Dark Surfa Iron-Manga Very Shallo Other (expl *Indicators c	ocation: PL = Pore Lining, M = Matrix Problematic Hydric Soils: rie Redox (A16) (LRR K, L, R) ce (S7) (LRR K, L) anese Masses (F12) (LRR K, L, R) bow Dark Surface (TF12) lain in remarks) of hydrophytic vegetation and weltand
Type: C = 0 Hydric Sc His His Bla Hyd Str 2 c 2 c Del Thi Sar 5 c Cestrictive Type: Depth (inchow Remarks:	Concentration, D il Indicators: tisol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A atified Layers (A5) m Muck (A10) bleted Below Dar ck Dark Surface m Mucky Minera m Mucky Peat or Layer (if observer)	4) (A12) (A12) (A12) (A12) Peat (S3) Peat (S3)	n, RM = Reduca Sar Sar Stri Loa Dej (A11) Rea Dej Rea	ed Matrix ndy Gley ndy Redo ipped Ma amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	ed Matrix (S5) htrix (S5) htrix (S6) ky Minera ed Matrix atrix (F3) Surface ark Surface	Masked S ((S4) (F2) (F6) (F6) (F8)	Sand Grains. **L Indicators for Coast Prain Dark Surfa Iron-Manga Very Shallo Other (expl *Indicators o	ocation: PL = Pore Lining, M = Matrix Problematic Hydric Soils: rie Redox (A16) (LRR K, L, R) ice (S7) (LRR K, L) anese Masses (F12) (LRR K, L, R) bw Dark Surface (TF12) lain in remarks) of hydrophytic vegetation and weltand
Type: C = 0 Hydric Sc His His Bla Hyd Str 2 c C De Thi Sar 5 c Sestrictive 'ype: Depth (inch	Concentration, D il Indicators: tisol (A1) tic Epipedon (A2 ck Histic (A3) drogen Sulfide (A atified Layers (A5 m Muck (A10) pleted Below Dar ck Dark Surface m Mucky Minera m Mucky Peat or Layer (if observer) es):	= Depletio = Depletio (A12) (A12) al (S1) Peat (S3) ed):	n, RM = Reduce Sar Sar Loa (A11) Red (A11) Red De Red	ed Matrix ndy Gleye ndy Redo ipped Ma amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	c, MS = M ed Matrix (S5) htrix (S6) ky Minera ed Matrix atrix (F3) Surface ark Surface essions (Aasked S (S4) (S4) (F1) (F2) (F6) (F6) (F6) (F8)	Sand Grains. **L Indicators for Coast Prain Dark Surfa Iron-Manga Very Shallo Other (expl *Indicators o	ocation: PL = Pore Lining, M = Matrix Problematic Hydric Soils: rie Redox (A16) (LRR K, L, R) ice (S7) (LRR K, L) anese Masses (F12) (LRR K, L, R) by Dark Surface (TF12) lain in remarks) of hydrophytic vegetation and weltand
Type: C = 0 Hydric So His His Bla Hydric Str. 2 c Del Thi Sar 5 c Cestrictive Ype: Depth (inch-	Concentration, D ii Indicators: tisol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A atified Layers (A5) m Muck (A10) oleted Below Dar ck Dark Surface m Mucky Minera m Mucky Peat or Layer (if observ Des):	= Depletio 4) (A12) al (S1) Peat (S3) ed):	n, RM = Reduce Sar Sar Loa (A11) Red (A11) Red Red	ed Matrix ndy Gleyn ndy Redo ipped Ma amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	c, MS = M ed Matrix ox (S5) htrix (S6) ky Minera red Matrix atrix (F3) Surface ark Surface ressions (Aasked S (S4) (S4) (F1) (F2) (F6) (F6) (F7) (F8)	and Grains. **L Indicators for Coast Prain Dark Surfa Iron-Manga Very Shallo Other (exp *Indicators o	ocation: PL = Pore Lining, M = Matrix Problematic Hydric Soils: rie Redox (A16) (LRR K, L, R) ice (S7) (LRR K, L) anese Masses (F12) (LRR K, L, R) bow Dark Surface (TF12) lain in remarks) of hydrophytic vegetation and weltand
Type: C = Hydric So His His His Bla Hyd Str. 2 c Del Thi Sar 5 c Cestrictive Sar 5 c Cestrictive Sar Sar 5 c	Concentration, D iii Indicators: tisol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A atified Layers (A5) m Muck (A10) bleted Below Dar ck Dark Surface m Mucky Minera m Mucky Minera m Mucky Peat or Layer (if observ as):	= Depletio 4) k Surface ((A12) al (S1) Peat (S3) ed):	n, RM = Reduct Sar Stri Loa (A11) Rec Dej Rec	ed Matrix ndy Gley ndy Redo ipped Ma amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	c, MS = M ed Matrix bx (S5) ttrix (S6) ky Minera red Matrix atrix (F3) Surface ark Surface ressions (Aasked S (S4) (S4) (F1) x (F2) (F6) ce (F7) (F8)	and Grains. **L Indicators for Coast Prain Dark Surfa Iron-Manga Very Shallo Other (expl *Indicators o	ocation: PL = Pore Lining, M = Matrix Problematic Hydric Soils: rie Redox (A16) (LRR K, L, R) ce (S7) (LRR K, L) anese Masses (F12) (LRR K, L, R) bow Dark Surface (TF12) lain in remarks) of hydrophytic vegetation and weltand
Type: C = Hydric So His His Bla Hyd Str. 2 c De De Thi Sar 5 c Cestrictive Ype: Depth (inch-	Concentration, D ii Indicators: tisol (A1) tic Epipedon (A2 ck Histic (A3) drogen Sulfide (A atified Layers (A5 m Muck (A10) bleted Below Dar ck Dark Surface m Mucky Minera m Mucky Peat or Layer (if observ Des):	= Depletio 4) k Surface ((A12) al (S1) Peat (S3) ed):	n, RM = Reduct Sar Stri Loa (A11) Red Dej Red	ed Matrix ndy Gley ndy Redo ipped Ma amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	k, MS = M ed Matrix (S5) ttrix (S6) ky Minera red Matrix atrix (F3) Surface ark Surface ressions (Masked S ((S4) al (F1) x (F2) (F6) ce (F7)	and Grains. **L Indicators for Coast Prain Dark Surfa Iron-Manga Very Shallo Other (exp *Indicators o	ocation: PL = Pore Lining, M = Matrix Problematic Hydric Soils: rie Redox (A16) (LRR K, L, R) ice (S7) (LRR K, L) anese Masses (F12) (LRR K, L, R) ow Dark Surface (TF12) lain in remarks) of hydrophytic vegetation and weltand
Type: C = Hydric So His His Bla Hyo Str. 2 c De De Thi Sar 5 c Cestrictive Sar 5 c Cestrictive Sar Sar 5 c	Concentration, D bil Indicators: tisol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A atified Layers (A5) m Muck (A10) bleted Below Dar ck Dark Surface ndy Mucky Minera m Mucky Peat or Layer (if observ es):	L = Depletio 4) k Surface ((A12) al (S1) Peat (S3) ed):	n, RM = Reduce Sar Sar Loa (A11) Red Dej Red	ed Matrix ndy Gley ndy Redo ipped Ma amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	ed Matrix (S5) (S5) (S5) (Ky Minera (S6) (S6) (S6) (S6) (S6) (S6) (S6) (S6)	Δasked S (S4) al (F1) x (F2) (F6) ce (F7)	Indicators for Indicators for Coast Prain Dark Surfa Iron-Manga Very Shallo Other (expl *Indicators o	L ocation: PL = Pore Lining, M = Matrix Problematic Hydric Soils: rie Redox (A16) (LRR K, L, R) Ice (S7) (LRR K, L) anese Masses (F12) (LRR K, L, R) by Dark Surface (TF12) lain in remarks) of hydrophytic vegetation and weltand
Type: C = 1 Hydric Si His His Bla Hyd Stright 2 c Del Thi Sar 5 c Vepth (inchest) Vepth (inchest)	bil Indicators: ii Indicators: tisol (A1) tic Epipedon (A2 ck Histic (A3) drogen Sulfide (A atified Layers (A5 m Muck (A10) bleted Below Dar ck Dark Surface m Mucky Minera m Mucky Peat or Layer (if observer) es):	= Depletio 4) (A12) al (S1) Peat (S3) ed):	A11) Red (A11) Red (A11) Red (A11) Red (A11) Red (A11) Red (A11) Red (A11) Red	ed Matrix ndy Gleye ndy Redo ipped Ma amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	ed Matrix ox (S5) atrix (S6) ky Minera red Matrix atrix (F3) Surface ark Surface essions ((S4) al (F1) x (F2) (F6) ce (F7)	Indicators for Coast Prain Dark Surfa Iron-Manga Very Shallo Other (expl *Indicators o	Problematic Hydric Soils: rie Redox (A16) (LRR K, L, R) ice (S7) (LRR K, L) anese Masses (F12) (LRR K, L, R) bw Dark Surface (TF12) lain in remarks) of hydrophytic vegetation and weltand
His His Bla Hyu Str. 2 c De Thi Sau 5 c Cestrictive	an inicators. tisol (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A atified Layers (A5 m Muck (A10) oleted Below Dar ck Dark Surface m Mucky Minera m Mucky Peat or Layer (if observer) as):	4) ;) (A12) al (S1) Peat (S3) ed):	(A11) Sar Sar Loa Der (A11) Red Red	ndy Gley ndy Redo ipped Ma amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	ed Matrix ox (S5) atrix (S6) ky Minera red Matrix atrix (F3) Surface ark Surface ressions (((S4) al (F1) x (F2) (F6) ce (F7)	Coast Prai Dark Surfa Iron-Manga Very Shallo Other (expl *Indicators o	rie Redox (A16) (LRR K, L, R) ice (S7) (LRR K, L) anese Masses (F12) (LRR K, L, R) ow Dark Surface (TF12) lain in remarks)
His His Bla Hyu Str. 2 c De Thi Sau 5 c Sestrictive	tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A atified Layers (A5) m Muck (A10) oleted Below Dar ck Dark Surface m Mucky Minera m Mucky Peat or Layer (if observ	4) k Surface ((A12) al (S1) Peat (S3) ed):	(A11) Red (A11) Red (A11) Red (A11) Red	ipped Ma amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	bx (S5) htrix (S6) ky Minera red Matrix atrix (F3) Surface ark Surface ressions (al (F1) x (F2) (F6) ce (F7)	Dark Surfa Iron-Manga Very Shallo Other (exp	of hydrophytic vegetation and weltand
Bla Bla Hyu 2 c De Thi 5 c Restrictive	ck Histic (A3) drogen Sulfide (A atified Layers (A5 m Muck (A10) oleted Below Dar ck Dark Surface n Mucky Minera m Mucky Peat or Layer (if observ	4) k Surface ((A12) al (S1) Peat (S3) ed):	(A11) Rec	ipped Ma amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	atrix (S6) ky Minera red Matrix atrix (F3) Surface ark Surface ressions (al (F1) x (F2) (F6) ce (F7)	Iron-Manga Very Shallo Other (exp	anese Masses (F12) (LRR K, L, R) ow Dark Surface (TF12) lain in remarks) of hydrophytic vegetation and weltand
Hy Str 2 c De Thi 5 c Restrictive	Irogen Sulfide (A atified Layers (A5 n Muck (A10) oleted Below Dar ck Dark Surface ndy Mucky Minera n Mucky Peat or Layer (if observ	4) k Surface ((A12) al (S1) Peat (S3) ed):	(A11) Cel (A11)	amy Muc amy Gley pleted Ma dox Dark pleted Da dox Depr	ky Minera red Matrix atrix (F3) Surface ark Surfa ressions (al (F1) x (F2) (F6) ce (F7)	Very Shallo Other (exp *Indicators c	ow Dark Surface (TF12) lain in remarks) of hydrophytic vegetation and weltand
Str 2 c De Thi 5 c Restrictive	atified Layers (A5 m Muck (A10) oleted Below Dar ck Dark Surface ndy Mucky Minera m Mucky Peat or Layer (if observ	k Surface ((A12) al (S1) Peat (S3) ed):	(A11)Rec	amy Gley pleted Ma dox Dark pleted Da dox Depr	red Matrix atrix (F3) Surface ark Surfa ressions ((F2) (F6) ce (F7)	Other (exp	lain in remarks)
2 c De Thi Sau 5 c Restrictive Oppe: Depth (incho Remarks:	m Muck (A10) bleted Below Dar ck Dark Surface ndy Mucky Minera n Mucky Peat or Layer (if observ	ý (A12) al (S1) Peat (S3) ed):	(A11) Dej (A11) Red Dej Red	pleted Ma dox Dark pleted Da dox Depr	atrix (F3) Surface ark Surfa ressions ((F6) ce (F7)	*Indicators of	, of hydrophytic vegetation and weltand
De Thi Sau 5 c Restrictive Oppth (incho Remarks:	bleted Below Dar ck Dark Surface dy Mucky Minera m Mucky Peat or Layer (if observ	k Surface ((A12) al (S1) Peat (S3) ed):	(A11)Rec Dej Rec	dox Dark pleted Da dox Depr	Surface ark Surface ressions ((F6) ce (F7) (F8)	*Indicators c	of hydrophytic vegetation and weltand
Thi Sau 5 c Restrictive Depth (incho Remarks:	ck Dark Surface ady Mucky Minera n Mucky Peat or Layer (if observ es):	(A12) al (S1) Peat (S3) ed):	Dej Red	pleted Da dox Depr	ark Surfa essions (ce (F7)	*Indicators o	of hydrophytic vegetation and weltand
Sai 5 c Sestrictive ype: Depth (inch Remarks:	ndy Mucky Minera n Mucky Peat or Layer (if observ es):	al (S1) Peat (S3) ed):	Rec	dox Depr	essions ((E8)		
5 c Restrictive ype: Depth (inch Remarks:	n Mucky Peat or Layer (if observ es):	Peat (S3) ed):				(10)	hydrology r	nust be present, unless disturbed or
Restrictive ype: Depth (inch Remarks:	Layer (if observ	ed):						problematic
ÿpe:)epth (inch Remarks:	es):							
Depth (inch Remarks:	es):						Hydric soil p	vresent? N
emarks:					-			
ternarite.								
IYDROL	DGY							
Vetland Hy	drology Indicat	ors:						
Primary Ind	<u>cators (minimum</u>	of one is r	equired; check	all that a	pply)		<u>Seconda</u>	ary Indicators (minimum of two require
Surface	Water (A1)			_Aquatic	Fauna (B	313)	Su	urface Soil Cracks (B6)
High Wa	ater Table (A2)			True Aq	uatic Plar	nts (B14)	1) Dr	rainage Patterns (B10)
- Saturati	DN (A3) Iarke (B1)			- Hydroge	n Suillae Phizoco		Living Poots	y-Season Water Table (C2)
Sedime	nt Deposits (B2)				u Kilizosp		Living RootsCr	aturation Visible on Aerial Imagery (C9)
Drift De	posits (B3)			- Presence	e of Redu	uced Iron	(C4)St	unted or Stressed Plants (D1)
Algal M	at or Crust (B4)			Recent	Iron Redu	uction in T	Tilled Soils X Ge	eomorphic Position (D2)
Iron Dep	oosits (B5)			(C6)			FA	AC-Neutral Test (D5)
Inundati	on Visible on Aeri	al Imagery	(B7)	Thin Mu	ck Surfac	ce (C7)		
Sparsel	/ Vegetated Conc	ave Surface	e (B8)	Gauge	or Well Da	ata (D9)	、 、	
Water-S	tained Leaves (B	9)		_Other (E	xplain in	Remarks)	
ield Obse	vations:			N/	D (1 ()			
Surface wat	er present?	Yes -	No	<u>X</u>	Depth (i	inches):		Indiactors of watland
valer table	present?				Depth (I	inches):		hydrology present?
includes ca	pillary fringe)	163		~		inches).		
)escribe re				l aprial r	botos n	rovious ir	nspections) if availa	hle:
	porded data (stre		monitoring wol	i, aeriai p	notos, pi	ievious ii	ispections), il avalla	ible.
Jescribe re	corded data (stre	am gauge,	monitoring wel					
Jeschbere	corded data (stre	am gauge,	monitoring wel					
Remarks:	corded data (stre	am gauge,	monitoring wel					
Remarks:	corded data (stre	am gauge,	monitoring wel					
Remarks:	corded data (stre	am gauge,	monitoring wel					



NWA052A overview looking northeast.

APPENDIX D: OFFSITE HYDROLOGY REVIEW OF NON-WETLAND AREAS

Tignature: Normal Vegetative Cover













Source: NAIP; Tetra Tech desktop review

Feature ID: NWA004 Map Grid: South

- CC Desktop Wetland
- Sample Point
- Project Area Boundary

Contour

Index
 Index Depression
 Intermediate
 Depression







Tł

Feature ID: NWA017 Map Grid: South

 \bigcirc Sample Point Project Area Boundary Contour — Index Index Depression Intermediate Depression



















T

TETRA TECH











Feature ID: NWA022 Map Grid: South

- Sample Point
 Project Area Boundary
 Contour
 Index
 Index Depression
 - Intermediate
- Depression





200





2019



Feature ID: NWA023 Map Grid: South

- \bigcirc Sample Point Project Area Boundary Contour — Index Index Depression
 - Intermediate
- Depression















Feature ID: NWA024 Map Grid: South

- CC Desktop Wetland
- Sample Point
- Project Area Boundary

Contour

Index
 Index Depression
 Intermediate
 Depression















Feature ID: NWA026 Map Grid: South

- CC Desktop Wetland
- Sample Point
- Project Area Boundary

Contour

IndexIndex DepressionIntermediateDepression















Feature ID: NWA027 Map Grid: South

- CC Desktop Wetland
- Sample Point
- Project Area Boundary

Contour

Index
 Index Depression
 Intermediate
 Depression







Signature: Crop Stress









Feature ID: NWA028 Map Grid: South

- CC Desktop Wetland
- Sample Point
- Project Area Boundary

Contour

Index
 Index Depression
 Intermediate
 Depression













- \sim Desktop Wetland
- Sample Point \bigcirc
- Project Area Boundary

Contour

— Index Index Depression Intermediate Depression