

# We Are Up Project

# **Initial Study & Proposed Mitigated Negative Declaration**

We Are Up

20 March 2023

County of Humboldt PLN-2022-18047 CUP/SP APN 509-181-057



# Initial Study / Proposed MND We Are Up Project

#### Prepared for:



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#### Prepared by:



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# Appendices

#### Appendix A Figures

Figure 1 Vicinity Map

Figure 2 Conceptual Site Map

Figure 3 Main and Mezzanine Layout

Figure 4 Upper and Top Layout

Appendix B Air Quality Modeling Results

Appendix C Aquatic Resources Delineation and Sensitive Habitat Report Rev2

Appendix D Botanical Memorandum Rev1

# Appendix A

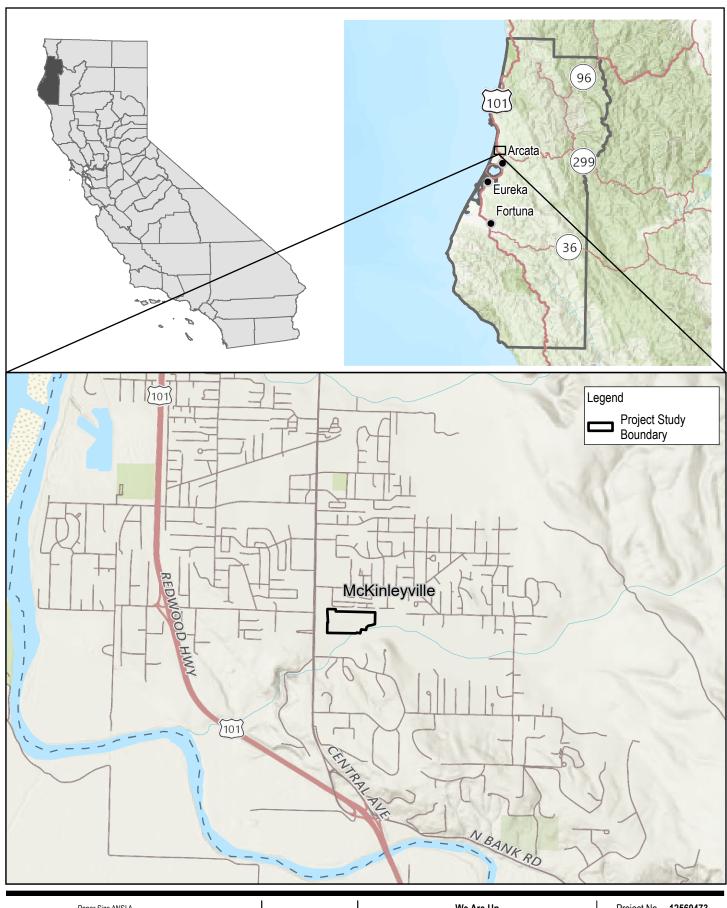
## **Figures**

Figure 1 Vicinity Map

Figure 2 Conceptual Site Map

Figure 3 Main and Mezzanine Layout

Figure 4 Upper and Top Layout





Map Projection: Lambert Conformal Conic Horizontal Datum: North American 1983 Grid: NAD 1983 StatePlane California II FIPS 0402 Feet



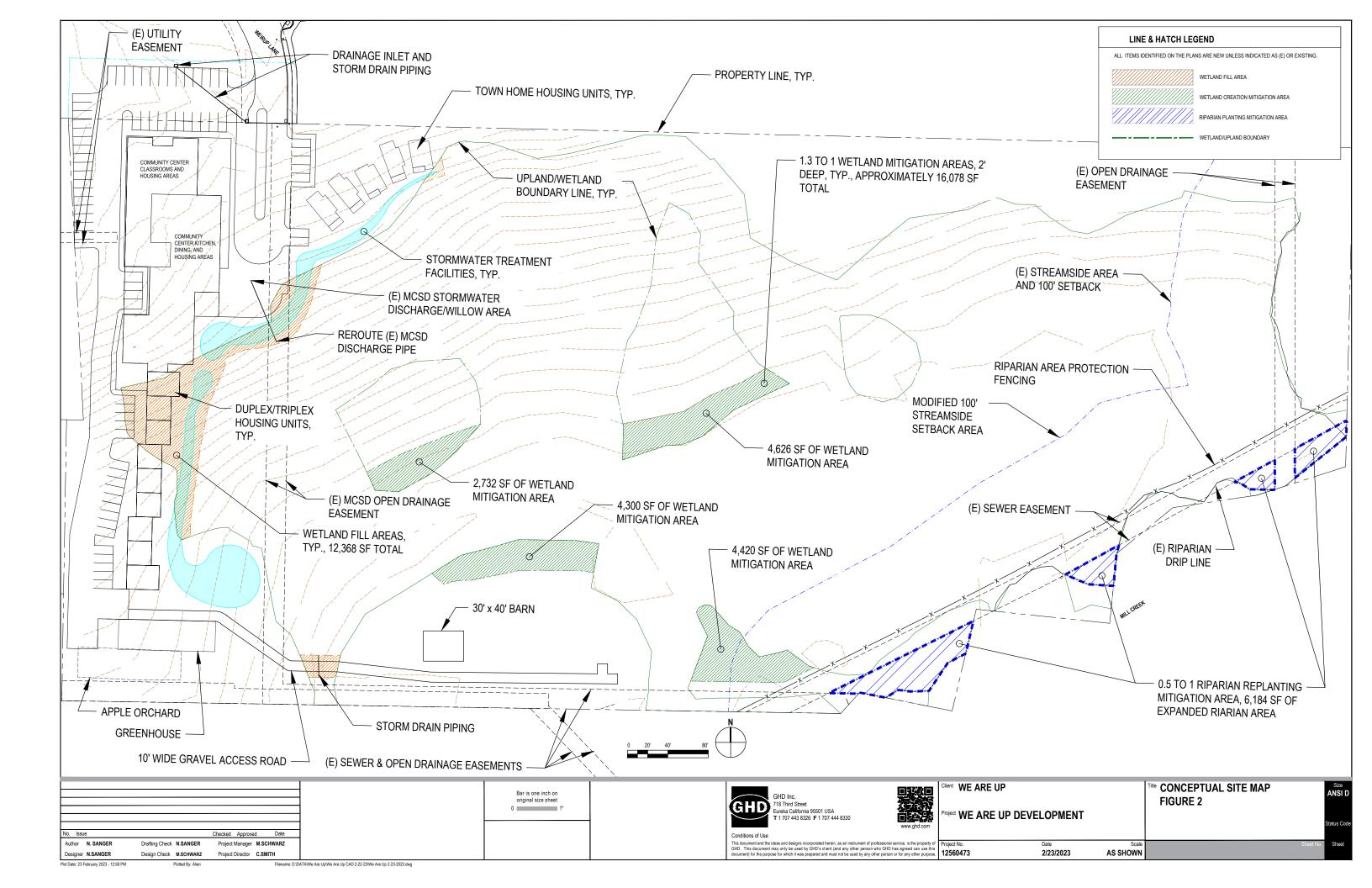
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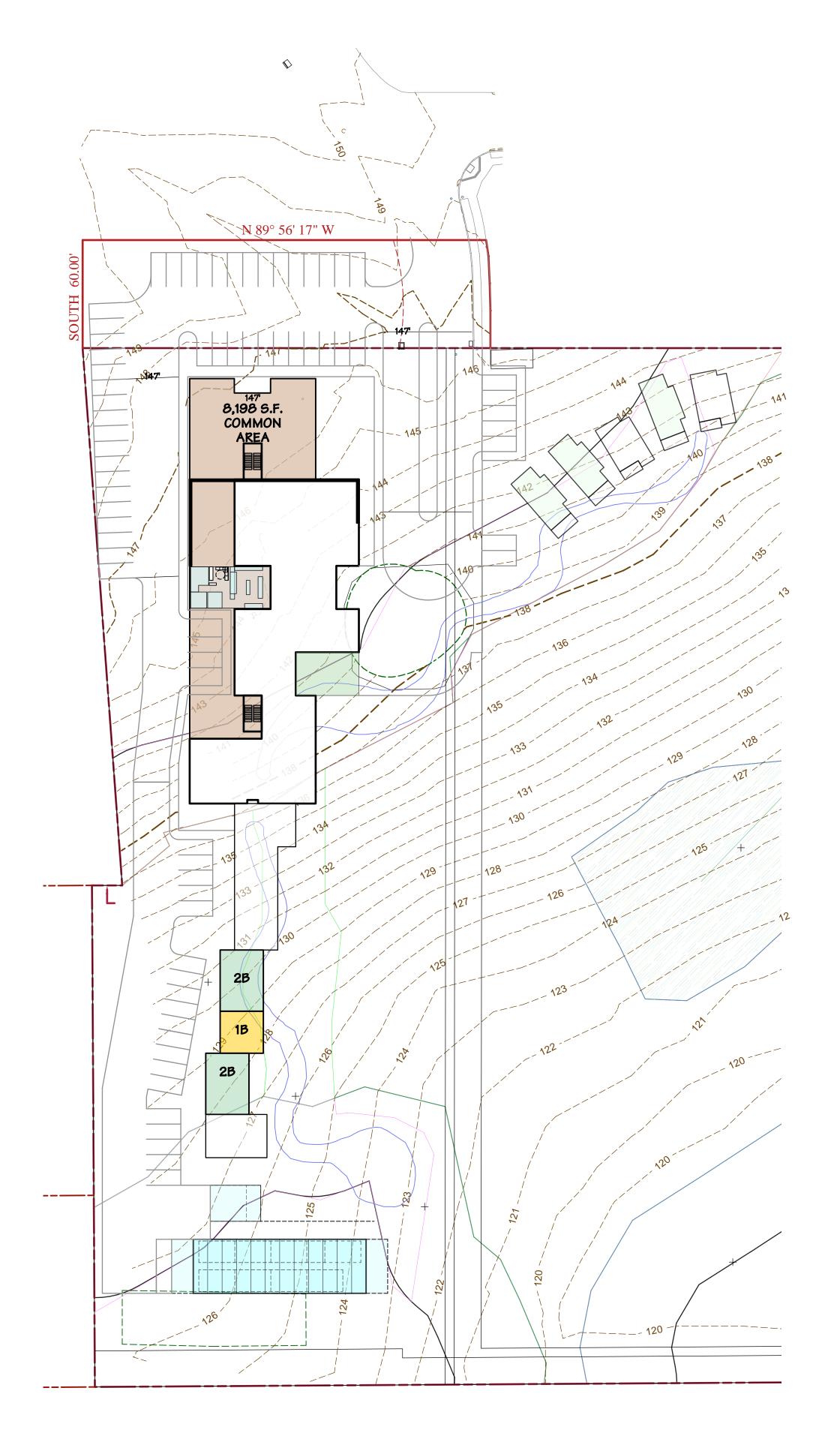
Project No. 12560473 Revision No. -

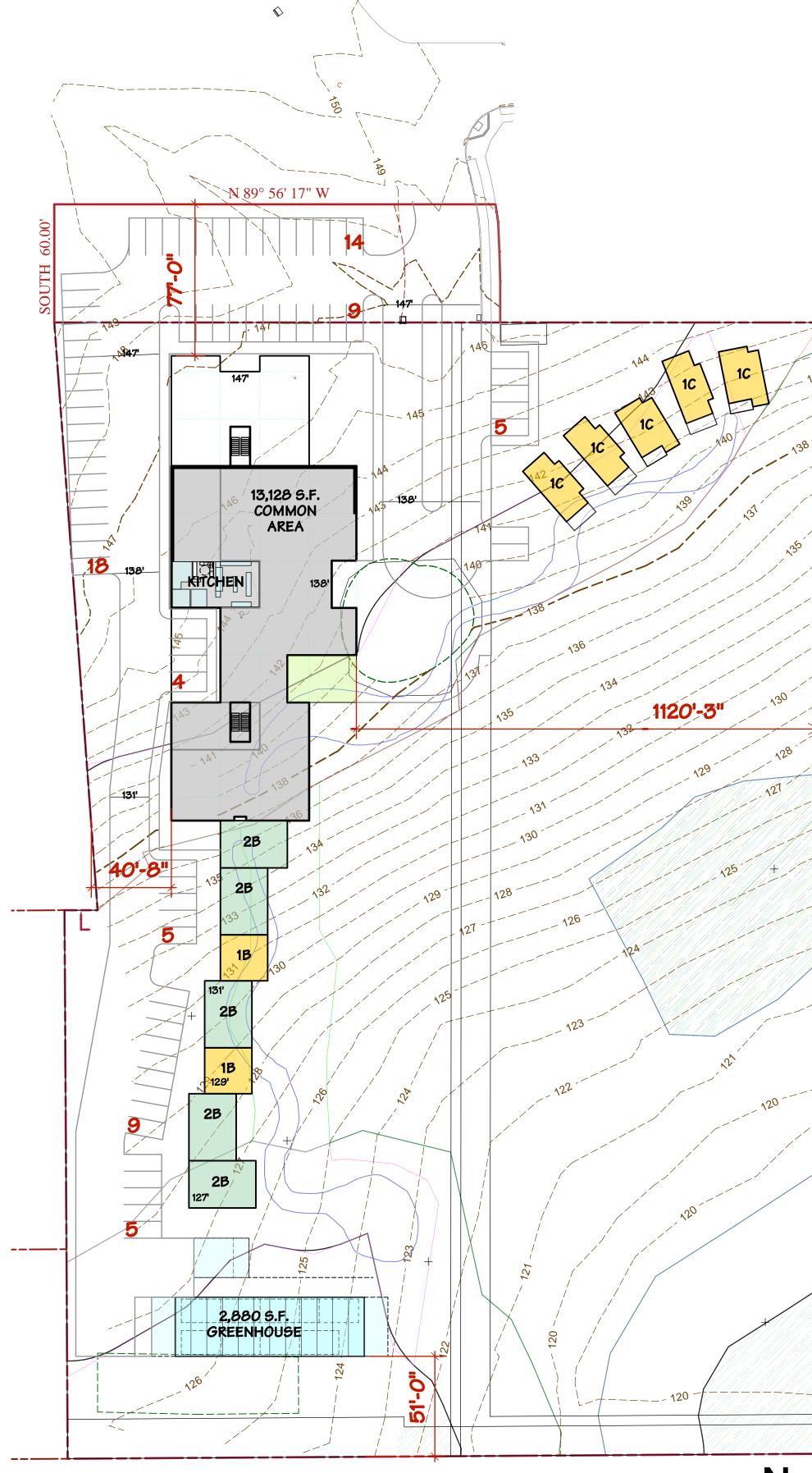
on No. -Date **9/26/2022** 

**Vicinity Map** 

FIGURE 1







MEZZANINE LEVEL

MAIN LEVEL





PRC	)PO	SED USES	
ID	#	USE	PROPOSED FLOOR AREA
1B	3	ONE BEDROOM UNIT	550 SQ.FT.
1C	5	ONE BEDROOM UNIT	575 SQ.FT.
2B	7	TWO BEDROOM UNIT	820 SQ.FT.
Α		MAIN LEVEL PUBLIC AREAS	13,128 SQ.FT.
В		MID LEVEL PUBLIC AREAS	8,198 SQ.FT.
G		GREENHOUSE	2,880 SQ.FT.

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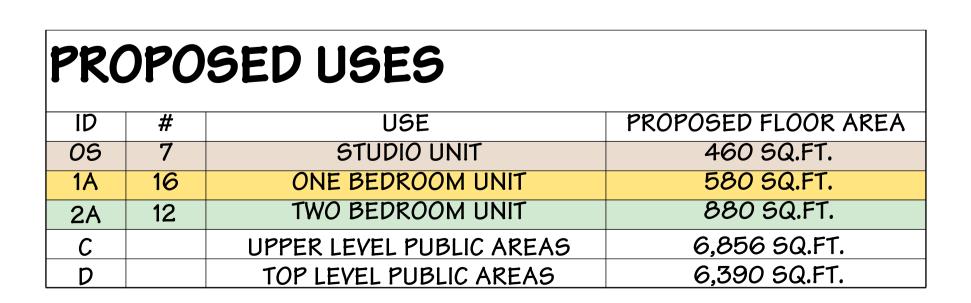
FIGURE 3

Main and Mezzanine Layout









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FIGURE 4

Upper and Top Layout

# Appendix B

**Air Quality Modeling Results** 

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We Are Up - Construction - Humboldt County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## We Are Up - Construction Humboldt County, Annual

#### 1.0 Project Characteristics

#### 1.1 Land Usage

(lb/MWhr)

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Educational	1.00	User Defined Unit	0.00	30,000.00	0
Parking Lot	73.00	Space	0.66	29,200.00	0
User Defined Recreational	3,600.00	User Defined Unit	0.00	3,600.00	0
Congregate Care (Assisted Living)	50.00	Dwelling Unit	3.13	32,000.00	69

(lb/MWhr)

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	103
Climate Zone	1			Operational Year	2026
Utility Company	Pacific Gas and Elec	ctric Company			
CO2 Intensity	203.98	CH4 Intensity	0.033	N2O Intensity	0.004

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Const. Begin in 2024 or 2025

Land Use - Greenhouse and Add'l facilites added as 'Educational' land use. 50 residential units, 69 residents

(lb/MWhr)

Construction Phase - Demolition and Grading durations increased to 22 days. All other phases are model defaults.

Trips and VMT - Grading Hauling Trips 5 mile distance

Demolition - Approximately 3,800 SF demo (House, sheds, and barn)

Grading - 1,800 CY Import. 1,600 CY Export. All other cut/fill balanced onsite

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	8.00	22.00
tblGrading	MaterialExported	0.00	1,600.00
tblGrading	MaterialImported	0.00	1,800.00
tblLandUse	LandUseSquareFeet	0.00	30,000.00
tblLandUse	LandUseSquareFeet	0.00	3,600.00
tblLandUse	LandUseSquareFeet	50,000.00	32,000.00
tblLandUse	Population	143.00	69.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.033
tblProjectCharacteristics	CO2IntensityFactor	0	203.98
tblProjectCharacteristics	N2OIntensityFactor	0	0.004
tblTripsAndVMT	HaulingTripLength	20.00	5.00

#### 2.0 Emissions Summary

#### 2.1 Overall Construction <u>Unmitigated Construction</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					tor	ıs/yr							МТ	7yr		
2024	0.1954	1.6553	1.8979	3.6600e- 003	0.1792	0.0712	0.2504	0.0768	0.0666	0.1434	0.0000	321.5393	321.5393	0.0676	5.5100e- 003	324.8695
2025	0.9709	0.5587	0.7760	1.4400e- 003	0.0228	0.0227	0.0455	6.1700e- 003	0.0213	0.0275	0.0000	125.6901	125.6901	0.0248	2.1300e- 003	126.9424
Maximum	0.9709	1.6553	1.8979	3.6600e- 003	0.1792	0.0712	0.2504	0.0768	0.0666	0.1434	0.0000	321.5393	321.5393	0.0676	5.5100e- 003	324.8695

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 3.0 Construction Detail

#### **Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
		0 80	41010004	5/3/0004	WOOK		5 5
1	Demolition	Demolition	4/8/2024	5/7/2024	5	22	Existing Facility Demo
2	Site Preparation	Site Preparation	5/4/2024	5/10/2024	5	5	
3	Grading	Grading	5/11/2024	6/11/2024	5	22	
4	Building Construction	Building Construction	5/23/2024	4/9/2025	5	230	
5	Paving	Paving	4/10/2025	5/5/2025	5	18	
6	Architectural Coating	Architectural Coating	5/6/2025	5/29/2025	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 22

Acres of Paving: 0.66

Residential Indoor: 64,800; Residential Outdoor: 21,600; Non-Residential Indoor: 50,400; Non-Residential Outdoor: 16,800; Striped Parking Area: 1,752

#### **OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

#### **Trips and VMT**

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling
	Count	Number	Number	Number	Length	Length	Length	Class	Class	Vehicle Class
Demolition	6	15.00	0.00	17.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	425.00	10.80	7.30	5.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	62.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

#### **3.1 Mitigation Measures Construction**

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 3.2 **Demolition - 2024**

#### **Unmitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Fugitive Dust					1.8700e- 003	0.0000	1.8700e-003	2.8000e- 004	0.0000	2.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0247	0.2297	0.2168	4.3000e- 004		0.0106	0.0106		9.8100e- 003	9.8100e-003	0.0000	37.3957	37.3957	0.0105	0.0000	37.6572
Total	0.0247	0.2297	0.2168	4.3000e- 004	1.8700e- 003	0.0106	0.0124	2.8000e- 004	9.8100e- 003	0.0101	0.0000	37.3957	37.3957	0.0105	0.0000	37.6572

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e				
Category		tons/yr											МТ/уг							
Hauling	2.0000e- 005	1.4200e- 003	2.4000e- 004	1.0000e- 005	1.4000e- 004	1.0000e- 005	1.5000e-004	4.0000e- 005	1.0000e- 005	5.0000e-005	0.0000	0.4917	0.4917	0.0000	8.0000e- 005	0.5147				
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
Worker	8.0000e- 004	5.2000e- 004	5.0300e- 003	1.0000e- 005	1.2700e- 003	1.0000e- 005	1.2800e-003	3.4000e- 004	1.0000e- 005	3.5000e-004	0.0000	1.0336	1.0336	4.0000e- 005	4.0000e- 005	1.0464				
Total	8.2000e- 004	1.9400e- 003	5.2700e- 003	2.0000e- 005	1.4100e- 003	2.0000e- 005	1.4300e-003	3.8000e- 004	2.0000e- 005	4.0000e-004	0.0000	1.5253	1.5253	4.0000e- 005	1.2000e- 004	1.5611				

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.3 Site Preparation - 2024

#### **Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e- 003	0.0679	0.0458	1.0000e- 004		3.0700e- 003	3.0700e-003		2.8300e- 003	2.8300e-003	0.0000	8.3643	8.3643	2.7100e- 003	0.0000	8.4319
Total	6.6500e- 003	0.0679	0.0458	1.0000e- 004	0.0491	3.0700e- 003	0.0522	0.0253	2.8300e- 003	0.0281	0.0000	8.3643	8.3643	2.7100e- 003	0.0000	8.4319

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	ns/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e- 004	1.4000e- 004	1.3700e- 003	0.0000	3.5000e- 004	0.0000	3.5000e-004	9.0000e- 005	0.0000	9.0000e-005	0.0000	0.2819	0.2819	1.0000e- 005	1.0000e- 005	0.2854
Total	2.2000e- 004	1.4000e- 004	1.3700e- 003	0.0000	3.5000e- 004	0.0000	3.5000e-004	9.0000e- 005	0.0000	9.0000e-005	0.0000	0.2819	0.2819	1.0000e- 005	1.0000e- 005	0.2854

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.4 Grading - 2024

#### **Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	ns/yr							МТ	/yr		
Fugitive Dust					0.0781	0.0000	0.0781	0.0377	0.0000	0.0377	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0183	0.1873	0.1624	3.3000e- 004		7.9700e- 003	7.9700e-003		7.3300e- 003	7.3300e-003	0.0000	28.6703	28.6703	9.2700e- 003	0.0000	28.9021
Total	0.0183	0.1873	0.1624	3.3000e- 004	0.0781	7.9700e- 003	0.0861	0.0377	7.3300e- 003	0.0450	0.0000	28.6703	28.6703	9.2700e- 003	0.0000	28.9021

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	ns/yr							МТ	/yr		
Hauling	3.4000e- 004	0.0122	4.2900e- 003	4.0000e- 005	8.8000e- 004	8.0000e- 005	9.6000e-004	2.4000e- 004	8.0000e- 005	3.2000e-004	0.0000	3.5291	3.5291	1.0000e- 005	5.5000e- 004	3.6947
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e- 004	5.2000e- 004	5.0300e- 003	1.0000e- 005	1.2700e- 003	1.0000e- 005	1.2800e-003	3.4000e- 004	1.0000e- 005	3.5000e-004	0.0000	1.0336	1.0336	4.0000e- 005	4.0000e- 005	1.0464
Total	1.1400e- 003	0.0128	9.3200e- 003	5.0000e- 005	2.1500e- 003	9.0000e- 005	2.2400e-003	5.8000e- 004	9.0000e- 005	6.7000e-004	0.0000	4.5627	4.5627	5.0000e- 005	5.9000e- 004	4.7412

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 3.5 Building Construction - 2024 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	/yr							МТ	/yr		
Off-Road	0.1170	1.0688	1.2853	2.1400e- 003		0.0488	0.0488		0.0459	0.0459	0.0000	184.3200	184.3200	0.0436	0.0000	185.4097
Total	0.1170	1.0688	1.2853	2.1400e- 003		0.0488	0.0488		0.0459	0.0459	0.0000	184.3200	184.3200	0.0436	0.0000	185.4097

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tor	ns/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5300e- 003	0.0713	0.0215	2.7000e- 004	8.1700e- 003	4.7000e- 004	8.6400e-003	2.3700e- 003	4.5000e- 004	2.8200e-003	0.0000	25.5428	25.5428	1.1000e- 004	3.6100e- 003	26.6213
Worker	0.0240	0.0154	0.1502	3.4000e- 004	0.0380	2.4000e- 004	0.0383	0.0101	2.2000e- 004	0.0104	0.0000	30.8764	30.8764	1.3100e- 003	1.1800e- 003	31.2596
Total	0.0266	0.0867	0.1717	6.1000e- 004	0.0462	7.1000e- 004	0.0469	0.0125	6.7000e- 004	0.0132	0.0000	56.4192	56.4192	1.4200e- 003	4.7900e- 003	57.8809

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 3.5 Building Construction - 2025 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Off-Road	0.0485	0.4427	0.5710	9.6000e- 004		0.0187	0.0187		0.0176	0.0176	0.0000	82.3314	82.3314	0.0194	0.0000	82.8153
Total	0.0485	0.4427	0.5710	9.6000e- 004		0.0187	0.0187		0.0176	0.0176	0.0000	82.3314	82.3314	0.0194	0.0000	82.8153

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tor	ns/yr							МТ	7/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1000e- 003	0.0310	9.3700e- 003	1.2000e- 004	3.6500e- 003	2.0000e- 004	3.8500e-003	1.0600e- 003	1.9000e- 004	1.2500e-003	0.0000	11.2201	11.2201	5.0000e- 005	1.5800e- 003	11.6910
Worker	0.0101	6.1600e- 003	0.0617	1.5000e- 004	0.0170	1.0000e- 004	0.0171	4.5200e- 003	9.0000e- 005	4.6200e-003	0.0000	13.3530	13.3530	5.3000e- 004	4.9000e- 004	13.5110
Total	0.0112	0.0372	0.0711	2.7000e- 004	0.0206	3.0000e- 004	0.0209	5.5800e- 003	2.8000e- 004	5.8700e-003	0.0000	24.5731	24.5731	5.8000e- 004	2.0700e- 003	25.2020

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.6 Paving - 2025

#### **Unmitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons	s/yr							МТ	/yr		
Off-Road	7.3800e- 003	0.0678	0.1096	1.7000e- 004		3.1700e- 003	3.1700e-003		2.9300e- 003	2.9300e-003	0.0000	14.7404	14.7404	4.6300e- 003	0.0000	14.8562
Paving	8.6000e- 004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	8.2400e- 003	0.0678	0.1096	1.7000e- 004		3.1700e- 003	3.1700e-003		2.9300e- 003	2.9300e-003	0.0000	14.7404	14.7404	4.6300e- 003	0.0000	14.8562

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	ns/yr							МТ	7/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e- 004	5.0000e- 004	5.0500e- 003	1.0000e- 005	1.3900e- 003	1.0000e- 005	1.4000e-003	3.7000e- 004	1.0000e- 005	3.8000e-004	0.0000	1.0920	1.0920	4.0000e- 005	4.0000e- 005	1.1049
Total	8.3000e- 004	5.0000e- 004	5.0500e- 003	1.0000e- 005	1.3900e- 003	1.0000e- 005	1.4000e-003	3.7000e- 004	1.0000e- 005	3.8000e-004	0.0000	1.0920	1.0920	4.0000e- 005	4.0000e- 005	1.1049

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#### We Are Up - Construction - Humboldt County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.7 Architectural Coating - 2025

**Unmitigated Construction On-Site** 

	ROG	NOx	CO	SO2	· ·	haust M10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons/yr								МТ	/yr		
Archit. Coating	0.9001				0.0	0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5400e- 003	0.0103	0.0163	3.0000e- 005		000e- 004	4.6000e-004		4.6000e- 004	4.6000e-004	0.0000	2.2979	2.2979	1.3000e- 004	0.0000	2.3011
Total	0.9016	0.0103	0.0163	3.0000e- 005		000e- 004	4.6000e-004		4.6000e- 004	4.6000e-004	0.0000	2.2979	2.2979	1.3000e- 004	0.0000	2.3011

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	ns/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e- 004	3.0000e- 004	3.0300e- 003	1.0000e- 005	8.3000e- 004	0.0000	8.4000e-004	2.2000e- 004	0.0000	2.3000e-004	0.0000	0.6552	0.6552	3.0000e- 005	2.0000e- 005	0.6630
Total	5.0000e- 004	3.0000e- 004	3.0300e- 003	1.0000e- 005	8.3000e- 004	0.0000	8.4000e-004	2.2000e- 004	0.0000	2.3000e-004	0.0000	0.6552	0.6552	3.0000e- 005	2.0000e- 005	0.6630

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### We Are Up - Operation Humboldt County, Annual

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Urbanization

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	73.00	Space	0.66	29,200.00	0
User Defined Recreational	3,600.00	User Defined Unit	0.00	3,600.00	0
Congregate Care (Assisted Living)	50.00	Dwelling Unit	3.13	32,000.00	69

Precipitation Freq (Davs)

103

#### 1.2 Other Project Characteristics

Urban

		. ,			•
Climate Zone	1			Operational Year	2026
Utility Company	Pacific Gas and Elec	etric Company			
CO2 Intensity (lb/MWhr)	160	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

2.2

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project Operations. PG&E CO2 intensity factor adjusted to 2020 PCL Base Plan

Wind Speed (m/s)

Land Use - Greenhouse and Add'I facilities added as 'Educational' land use. 50 residential units, 69 residents

Construction Phase - Operation Only

Vehicle Trips - 46.7 Daily on-way Trips. Avg. 0.934 trips/dwelling unit

Fleet Mix - Fleet Assumed 50/25/25 LDA/LDT1/LDT1

Woodstoves - No Fireplaces

Water And Wastewater - Indoor water demand: 2.2 MG/Year

Energy Use - Defaults = 3,972.46 total kWh/size/year. Non-title 24 electricity increased from 3,054.10 to 4,112.89 to account for Project-specific total annual energy demand estimates (161,000 KWh/year)

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	27.50	0.00
tblFireplaces	NumberWood	17.50	0.00
tblFleetMix	HHD	8.6230e-003	0.00
tblFleetMix	LDA	0.47	0.50
tblFleetMix	LDT1	0.07	0.25
tblFleetMix	LDT2	0.21	0.25
tblFleetMix	LHD1	0.05	0.00
tblFleetMix	LHD2	9.9950e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.15	0.00
tblFleetMix	MH	3.3880e-003	0.00
tblFleetMix	MHD	6.4800e-003	0.00
tblFleetMix	OBUS	1.0290e-003	0.00
tblFleetMix	SBUS	1.4230e-003	0.00
tblFleetMix	UBUS	2.1500e-004	0.00
tblLandUse	LandUseSquareFeet	0.00	3,600.00
tblLandUse	LandUseSquareFeet	50,000.00	32,000.00
tblLandUse	Population	143.00	69.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	160
tblVehicleTrips	ST_TR	2.93	0.93
tblVehicleTrips	SU_TR	3.15	0.93
tblVehicleTrips	WD_TR	2.60	0.93
tblWater	IndoorWaterUseRate	3,257,701.28	2,200,000.00

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 2.0 Emissions Summary

#### 2.1 Overall Construction

Not Applicable

#### 2.2 Overall Operational

**Unmitigated Operational** 

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tor	ns/yr							MT	/yr		
Area	0.2163	0.0121	0.8673	1.5300e- 003		0.0777	0.0777		0.0777	0.0777	10.1068	0.6721	10.7789	0.0480	0.0000	11.9789
Energy	1.0200e- 003	8.7100e- 003	3.7100e- 003	6.0000e- 005		7.0000e- 004	7.0000e-004		7.0000e- 004	7.0000e-004	0.0000	25.2462	25.2462	3.3200e- 003	5.6000e- 004	25.4973
Mobile	0.0169	0.0168	0.1724	4.0000e- 004	0.0477	2.7000e- 004	0.0479	0.0127	2.5000e- 004	0.0129	0.0000	36.3174	36.3174	1.6700e- 003	1.3900e- 003	36.7746
Waste						0.0000	0.0000		0.0000	0.0000	9.2625	0.0000	9.2625	0.5474	0.0000	22.9474
Water						0.0000	0.0000		0.0000	0.0000	0.6980	1.3856	2.0836	0.0720	1.7300e- 003	4.3977
Total	0.2343	0.0376	1.0434	1.9900e- 003	0.0477	0.0786	0.1263	0.0127	0.0786	0.0913	20.0673	63.6214	83.6886	0.6724	3.6800e- 003	101.5958

#### 3.0 Construction Detail

**Not Applicable** 

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 4.0 Operational Detail - Mobile

#### **4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tor	ıs/yr							МТ	/yr		
Mitigated	0.0169	0.0168	0.1724	4.0000e- 004	0.0477	2.7000e- 004	0.0479	0.0127	2.5000e- 004	0.0129	0.0000	36.3174	36.3174	1.6700e- 003	1.3900e-003	36.7746
Unmitigated	0.0169	0.0168	0.1724	4.0000e- 004	0.0477	2.7000e- 004	0.0479	0.0127	2.5000e- 004	0.0129	0.0000	36.3174	36.3174	1.6700e- 003	1.3900e-003	36.7746

#### **4.2 Trip Summary Information**

	Ave	erage Daily Trip Rat	e	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	46.70	46.70	46.70	133,667	133,667
Parking Lot	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	46.70	46.70	46.70	133,667	133,667

#### **4.3 Trip Type Information**

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	10.80	7.30	7.50	42.30	19.60	38.10	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
User Defined Recreational	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.500000	0.250000	0.250000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.467585	0.065185	0.206638	0.147892	0.048469	0.009995	0.006480	0.008623	0.001029	0.000215	0.033079	0.001423	0.003388
User Defined Recreational	0.467585	0.065185	0.206638	0.147892	0.048469	0.009995	0.006480	0.008623	0.001029	0.000215	0.033079	0.001423	0.003388

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 5.0 Energy Detail

Historical Energy Use: N

#### **5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	ıs/yr							МТ	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15.1567	15.1567	3.1300e- 003	3.8000e- 004	15.3478
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15.1567	15.1567	3.1300e- 003	3.8000e- 004	15.3478
NaturalGas Mitigated	1.0200e- 003	8.7100e- 003	3.7100e-003	6.0000e- 005		7.0000e- 004	7.0000e-004		7.0000e- 004	7.0000e-004	0.0000	10.0895	10.0895	1.9000e- 004	1.8000e- 004	10.1495
NaturalGas Unmitigated	1.0200e- 003	8.7100e- 003	3.7100e-003	6.0000e- 005		7.0000e- 004	7.0000e-004		7.0000e- 004	7.0000e-004	0.0000	10.0895	10.0895	1.9000e- 004	1.8000e- 004	10.1495

## **5.2 Energy by Land Use - NaturalGas Unmitigated**

	NaturalGas Use	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					tor	ns/yr							МТ	√yr		
Congregate Care (Assisted Living)	189070	1.0200e- 003	8.7100e-003	3.7100e- 003	6.0000e- 005		7.0000e-004	7.0000e- 004		7.0000e- 004	7.0000e-004	0.0000	10.0895	10.0895	1.9000e-004	1.8000e- 004	10.1495
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		1.0200e- 003	8.7100e-003	3.7100e- 003	6.0000e- 005		7.0000e-004	7.0000e- 004		7.0000e- 004	7.0000e-004	0.0000	10.0895	10.0895	1.9000e-004	1.8000e- 004	10.1495

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 5.3 Energy by Land Use - Electricity <u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT/	/yr	
Congregate Care (Assisted Living)	198623	14.4150	2.9700e-003	3.6000e- 004	14.5967
Parking Lot	10220	0.7417	1.5000e-004	2.0000e- 005	0.7511
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		15.1567	3.1200e-003	3.8000e- 004	15.3478

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 6.0 Area Detail

#### **6.1 Mitigation Measures Area**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	0.2163	0.0121	0.8673	1.5300e- 003		0.0777	0.0777		0.0777	0.0777	10.1068	0.6721	10.7789	0.0480	0.0000	11.9789
Unmitigated	0.2163	0.0121	0.8673	1.5300e- 003		0.0777	0.0777		0.0777	0.0777	10.1068	0.6721	10.7789	0.0480	0.0000	11.9789

#### 6.2 Area by SubCategory

#### **Unmitigated**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory tons/yr						MT/yr										
Architectural Coating	0.0102					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1409					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0510	7.5500e- 003	0.4627	1.5100e- 003		0.0755	0.0755		0.0755	0.0755	10.1068	0.0000	10.1068	0.0473	0.0000	11.2880
Landscaping	0.0142	4.5800e- 003	0.4046	2.0000e- 005		2.1800e- 003	2.1800e-003		2.1800e- 003	2.1800e-003	0.0000	0.6721	0.6721	7.5000e- 004	0.0000	0.6909
Total	0.2163	0.0121	0.8673	1.5300e- 003		0.0777	0.0777		0.0777	0.0777	10.1068	0.6721	10.7789	0.0480	0.0000	11.9789

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 7.0 Water Detail

#### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category		M	Г/уг	
Mitigated	2.0836	0.0720	1.7300e- 003	4.3977
Unmitigated	2.0836	0.0720	1.7300e- 003	4.3977

#### 7.2 Water by Land Use Unmitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	-/yr	
Congregate Care (Assisted Living)	2.2 / 2.05377	2.0836	0.0720	1.7300e- 003	4.3977
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0/0	0.0000	0.0000	0.0000	0.0000
Total		2.0836	0.0720	1.7300e- 003	4.3977

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#### We Are Up - Operation - Humboldt County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 8.0 Waste Detail

#### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e			
	MT/yr						
Mitigated	9.2625	0.5474	0.0000	22.9474			
	9.2625	0.5474	0.0000	22.9474			

## 8.2 Waste by Land Use

#### **Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	-/vr	
24.14 000	10110			,,,	
Congregate Care (Assisted Living)	45.63	9.2625	0.5474	0.0000	22.9474
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		9.2625	0.5474	0.0000	22.9474

# Appendix C

Aquatic Resources Delineation and Sensitive Habitat Report Rev2



# Aquatic Resources Delineation and Sensitive Habitat Report\_Rev2

We Are Up Housing Project

March 01, 2023



# Aquatic Resources Delineation and Sensitive Habitat Report\_Rev2 We Are Up Housing Project

#### This document has been prepared for:



We Are Up 4636 Fieldbrook Rd #109 McKinleyville, CA 95519

#### By:



**GHD** 

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March 01, 2023

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Table 8	Sensitive Natural Communities

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Figure 1. Vicinity Map

Figure 2. Project Study Boundary

Figure 3. Wetland Delineation and Sensitive Habitats

Figure 4. NRCS Soils Map

Figure 5. Mill Creek Wetland Overlay

Figure 6. FEMA Floodplain

Figure 7. NWI Wetlands

Figure 8. Monitoring Wells and Hydro Pits

Appendix B Wetland Delineation Data Sheets

Appendix C Site Photographs

Appendix D Rapid Assessment Forms

Appendix E NRCS Custom Soil Resources Report

Appendix F Record of Climatological Observations and WETS Table

# 1. Summary

GHD prepared this Aquatic Resources Delineation and Sensitive Habitat Report and accompanying appendices on behalf of We Are Up (Client), in support of the proposed We Are Up Housing Project (Project) within the community of McKinleyville, California (Appendix A Figure 1). The surveys were conducted within the Project Study Boundary (PSB) as shown in **Appendix A, Figure 2**. GHD conducted the aquatic resource delineation fieldwork on September 17th, 22nd, November 19th, December 2nd, 2021, and January 25th, 2022. A site visit was made on September 15, 2022 to assess a small area added in the northwest corner of the PSB resulting from a lot line adjustment after the wetland delineations were completed. The area encompassed by the expanded PSB is approximately 0.36 acres, most of which is comprised of regularly mowed field, and the remainder is gravel and paved surfaces. Hydrology monitoring through groundwater monitoring wells was conducted in January and February of 2023. United States Army Corps of Engineers (USACE) three-parameter wetlands were mapped based on wetland indicative vegetation, hydric soils, and wetland hydrology. GHD conducted a CDFW protocol level Sensitive Natural Community (SNC) survey on September 14th, 2021. GHD also mapped the Riparian drip line as required by the 2017 Humboldt General Plan. Three-parameter wetlands were mapped as shown in **Appendix A, Figure 3**. The Project is within the McKinleyville Community Plan which requires mapping of one-parameter wetlands (including threeparameter wetlands) requirements. No one-parameter wetlands were found in addition to the threeparameter identified in Figure 3 (McKinleyville Community Plan, 2002). There were two Sensitive Natural Communities (SNCs) observed within the PSB.

The aquatic resource delineation identified one three-parameter wetland with hydric soil, hydrophytic vegetation, and hydrology indicators, and two SNCs. The three-parameter wetland extends throughout most of the PSB. The total area of the three-parameter wetland mapped within the PSB is 8.68 acres and the total area of SNCs mapped within the PSB is 1.6 acres (**Appendix A, Figure 3**). The three-parameter wetlands are hydrologically connected to Mill Creek, a tributary of Mad River (a navigable water) and is likely USACE and Regional Water Quality Control Board (RWQCB) jurisdictional. The total area of three-parameter wetlands encompasses 8.68 acres, or 56.2% of the PSB.

# 2. Introduction

This report supports the Project's environmental documentation, permitting, and construction planning as deemed appropriate. The proposed PSB encompasses 15.4 acres (**Appendix A Figure 3**). This report is subject to, and must be read in conjunction with, the limitations set out in Section 6, Special Terms and Conditions, and the assumptions and qualifications contained throughout the report.

# 2.1 Site Location and Project Description

The PSB consists of partially developed, and grassy and vegetated open space, just west of Grocery Outlet in McKinleyville, California (**Appendix A, Figure 1**). The PSB is bordered by residential areas to the north and west, and by Mill Creek to the south, and a forested lot to the east. The property is a generally flat to mildly sloped grassland field, with several small clumps of trees within, and bordered by trees to the south and west of the property. The study of this Project is an investigation of uplands, wetlands, and SNCs on the parcel to inform future proposed development.

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# 2.2 Regulatory Background

#### 2.2.1 Federal

#### Waters of the United States

The Code of Federal Regulations (CFR), 40 CFR § 230.3 states the following:

The term waters of the United States are defined as:

- (1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (2) All interstate waters including interstate wetlands;
- (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
  - (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
  - (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - (iii) Which are used or could be used for industrial purposes by industries in interstate commerce;
- (4) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (5) Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;
- (6) The territorial sea;
- (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States. (40 CFR § 230.3).

#### **Wetlands Definition**

40 CFR § 230.3 continues and defines, "(t) The term wetlands are defined as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas" (40 CFR § 230.3).

#### **Wetland Delineation Manual**

The 1987 USACE Wetland Delineation Manual provides guidelines and methods to determine whether an area is a wetland subject to federal regulation under Section 404 of the Clean Water Act. The manual specifies that wetland hydrology, soil, and vegetation indicators must be present to identify a wetland (USACE 1987, p. 10). In addition, the Wetlands Delineation Manual states, "If hydrophytic vegetation is

being maintained only because of man-induced wetland hydrology that would no longer exist if the activity (e.g., irrigation) were to be terminated, the area should not be considered a wetland," (USACE, 1987).

#### Federal Geographic Data Committee (FGDC) Wetland Classification Standard

The Classification of Wetlands and Deepwater Habitats of the United States (FGDC, 2013) provides a nationally standardized hierarchical system for classifying wetland and deepwater habitats based on Cowardin et al. (1979). The National Wetland Inventory (NWI), a publicly available resource that provides information on the distribution of wetlands in the U.S., classifies wetlands according to the FDGC standard. The FDGC classification is based on a definition of wetlands with at least one of the three wetland attributes: predominantly hydrophytic vegetation, predominantly hydric soil, and hydrology. However, they state that all available information should be used, and all three attributes should be considered if they are present (FGDC, 2013).

#### 2.2.2 State

The State Water Resources Control Board's (SWRCB) April 2019 Procedures for Discharges of Dredged or Fill Material to Waters of the State says the following:

An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes, or the area lacks vegetation.

The Water Code defines "waters of the state" broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state." "Waters of the state" includes all "waters of the U.S." The following wetlands are waters of the state:

- 1. Natural wetlands.
- 2. Wetlands created by modification of a surface water of the state, and
- 3. Artificial wetlands that meet any of the following criteria:
  - a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
  - b. Specifically identified in a water quality control plan as a wetland or other water of the state;
  - c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
  - d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):
    - i. Industrial or municipal wastewater treatment or disposal,
    - ii. Settling of sediment,

- iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
- iv. Treatment of surface waters,
- v. Agricultural crop irrigation or stock watering,
- vi. Fire suppression,
- vii. Industrial processing or cooling,
- viii. Active surface mining even if the site is managed for interim wetlands functions and values,
- ix. Log storage,
- x. Treatment, storage, or distribution of recycled water, or
- xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
- xii. Fields flooded for rice growing.

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not waters of the state. If an aquatic feature meets the wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the state" (SWRCB, 2019).

The February 2020 Draft Guidance State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State further clarifies as follows:

Human activity can cause changes to the surrounding landscape (e.g., grading activities, road construction, direct hydromodification) such that wetlands form where wetlands did not previously exist. Where such artificial wetlands are now a relatively permanent part of the natural landscape, and are not subject to ongoing operation and maintenance, they are waters of the state. By requiring that the wetlands are relatively permanent, the framework excludes wetlands that are temporary or transitory. That they are part of the natural landscape also indicates the relative permanence of the wetlands and suggests that the wetland is self-sustaining without ongoing operation and maintenance activities and provides similar ecosystem services as natural wetlands. By way of example, this category of wetlands includes situations where water flow is permanently redirected as the result of human activity, such as grading in another area, such that new wetlands form in areas that were previously dry. These wetlands may not be natural wetlands because they result from human activity and they were not formed by modifying a water of the state (rather they were an indirect result), but nevertheless they take on the function of natural wetlands such that they should be considered waters of the state. This category would not include artificial wetlands constructed for specific purposes listed in section II.3.d because the construction of the artificial wetlands would be too recent to be deemed "historic" and the artificial wetland would likely require ongoing maintenance such that they would not be deemed "relatively permanent," and/or the artificial wetland is not part of the "natural landscape" (SWRCB, 2020).

The RWQCB carry out and regionally regulate the SWRCB's definition of Waters of the State.

#### 2.2.3 McKinleyville Community Plan

The McKinleyville Community Plan (2002, updated 2017) defines wetland areas using a 1-parameter definition as follows (p. 49):

Wetland Areas shall be defined according to the criteria utilized by the CA Dept. of Fish and Game (also included in the County's Open Space Implementation Standards). In summary, the definition requires that a given area satisfy at least one of the following three criteria:

- 1. The presence of at least periodic predominance of hydrophytic vegetation; or,
- 2. predominately hydric soils; or,
- 3. periodic inundation for seven (7) consecutive days.

For this study, "hydrophytic vegetation" is deemed to be plants that have their roots in saturated soil (reduced conditions) during the growing season (i.e., water table at the surface). Hydrophytic plants are FACW or wetter (OBL) per the wetlands indicator status as defined by the 2020 National Wetland Plant List (USACE 2020) and are the dominant plant species in any given plot.

# 3. Methodology

# 3.1 Aquatic Resources Delineation Approach

GHD scientists conducted the aquatic resource delineation on September 17th, 22nd, November 19th, December 2nd, 2021, and January 25th, 2022. The PSB expanded after the initial wetland delineations, and on September 15, 2022, GHD scientists visited this site to assess the presence or absence of aquatic resources. Groundwater monitoring occurred in the winter of 2022-2023 to further investigate hydrology onsite and aided in determining wetland boundaries.

To define a wetland, the USACE requires that vegetation, soil, and hydrology (three-parameters) all show wetland attributes (USACE 1987; USACE 2010). The wetland delineation used USACE criteria from the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region (Version 2.0) (USACE 2010). The current standard field forms provided by the USACE (2010) were used to collect vegetation, soils, and hydrology data (Appendix B).

In potential three-parameter wetland areas, vegetation, soil, and hydrology data were collected in a transect across the upland/wetland boundary with two plots (upland/wetland) per transect. The naming convention used on datasheets to designate upland or wetland plots associated with a transect is -U or -W, respectively.

Three-parameter wetland/upland boundaries and plots were mapped in the field with an Eos Arrow 100 Submeter Global Positioning System (GPS) Receiver with Global Navigation Satellite System (GNSS) and an iPad running ArcGIS Collector software. The wetland/upland boundary was recorded with the GPS unit as needed to map the wetland's spatial extent. The points were then connected in the office using ArcMap software for figure creation and the boundaries were clipped to the extent of the PSB.

Each three-parameter wetland area was designated with a number (e.g., W1). The wetland points were also labeled with their respective wetland number. In addition to the wetland sampling points, upland sampling points were described. These were labeled beginning with a "U" and numbered in sequence (e.g., U1, U2). The upland sampling points were completed to confirm and document the absence of any wetland indicators (soils, hydrology, and vegetation). **Appendix B** contains all datasheets recorded during the delineation.

# 3.2 Botanical Methodology

Vegetation data collection consisted of listing the dominant species in the herbaceous, shrub, and tree layer within a standard-sized plot determined by the strata layer. Nomenclature follows *The Jepson Manual* (Baldwin et al. 2012), which was cross-checked to federal standard nomenclature to identify the indicator status. The species' wetland indicator status for the Western Mountains, Valleys, and Coast Region was denoted in the respective column, using the standard reference: *2020 National Wetland Plant List* (USACE 2020). This list classifies species based on the probability that they are found in wetlands (USACE 1987) as follows:

- Obligate (OBL): almost always in wetlands (99% probability)
- Facultative Wetland (FACW): usually occurring in wetlands (67% to 99% probability)
- Facultative (FAC): commonly occurring in wetlands and uplands (34% to 66% probability of occurring in wetlands)
- Facultative Upland (FACU): usually occurring in uplands (1% to 33% probability of occurring in wetlands)
- Upland (UPL): upland obligate, rarely in wetlands (1% in wetlands)

Species that do not appear on the list are considered to be in the upland category (Lichvar et al. 2018). Standard procedures for documenting hydrophytic vegetation indicators were used per the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (USACE 2010). Site photographs have been included as **Appendix C**. A separate Botanical Memo contains the locations and extents of mapped vegetation alliances and Sensitive Natural Communities within the PSB (GHD 2021). Wetland vegetation is considered an assembly of plants that are FAC or wetter.

# 3.3 Vegetation Mapping and Assessment

The vegetation community onsite was assessed in the field and classified at the alliance level according to the Manual of California Vegetation (Sawyer et al. 2009) using the Rapid Assessment method. Kelsey McDonald assessed potential SNCs according to protocol (CDFW 2018) and mapped Mill Creek's Riparian Drip line on September 14, 2021, in accordance with the Humboldt County General Plan as directed by the county (2021, Trevor Estlow, pers. comm.). Vegetation Rapid Assessment forms (Appendix D) were used to characterize the dominant vegetation and evaluate habitat quality, and this assessment provided the basis for designating vegetation as SNCs per CDFW should it qualify. Photo documentation of the habitat observed onsite can be found in **Appendix C**. The Rapid Assessment location was mapped using a point collected in the field with an Eos Arrow 100 Submeter Global Navigation Satellite System (GNSS) Receiver and an iPad running ArcGIS Collector software in the WGS84 datum. The location of the Vegetation Rapid Assessments is shown in Appendix A Figure 3. A Natural Resources Conservation Service (NRCS) soils map was consulted prior to conducting surveys (Appendix A Figure 4), as is required by CDFW's protocols for surveying and evaluating impacts to special status native plant populations and sensitive natural communities (CDFW 2018). The full NRCS Custom Soil Resource report for the PSB is available in Appendix E. Mapping of sensitive plant species will occur in the spring/summer of 2022 and the results will be transmitted in a separate report.

# 3.4 Soils Methodology

Hydric soils were defined based on the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (USACE 2010) procedures in combination with the Natural Resources Conservation Service's (NRCS) definitions presented in *Field Indicators of Hydric Soils in the United States* (USDA/NRCS 2018 version 8.2). Soil pits were dug to an approximate depth of 14 to 18 inches. Data on soil color, texture, and redoximorphic features were recorded. Any observed redoximorphic features (iron concentrations) were noted along with their percentage within the soil matrix, and care was taken to distinguish chromas of 1 and 2 are indicative of an iron-depleted soil within 12 inches of the soil surface (USACE 2010; USDA/NRCS 2018).

The *Munsell Soil Color Book* (COLOR, M. 2000) was used to describe the soil colors for the entire depth of the test pit. Moist, natural soil aggregate (ped) surfaces, which had not been crushed, were used to determine the soil's color. Soils with low chroma were verified as being hydric or upland with *Field Indicators of Hydric Soils in the United States* (Version 8.2, 2018).

#### 3.4.1 Existing Soils Information

The NRCS identifies three main soil units within the PSB (**Appendix A**, **Figure 4**; **and Appendix E**). A brief map unit description, as generated by the NRCS, is provided for each soil unit below (NRCS 2022). Although NRCS soil mapping is informative, the scale is generally too broad to definitively characterize potential wetlands. Please see the full report included as **Appendix E** for complete details.

#### Worswick-Arlynda complex 0 to 2 percent slopes

The Worswick-Arlynda complex 0 to 2 percent slopes map unit composition contains: 55% Worswick and similar soils, 15% Arlynda and similar soils, and 10% minor components. Worswick-Arlynda soils can be found in river valleys, backslopes and mountain bases; the parent material is alluvium derived from mixed sources rock. Worswick-Arlynda complex soils consist of silty loam in the top and lower horizons, with loamy and gravelly sand in the middle horizons. Worswick-Arlynda soils would be considered prime farmland if irrigated and drained. These soils are very poorly drained, and the depth to water table is 0 to 4 inches. Worswick-Arlynda complex is considered a hydric soil. This soil type is in the southeastern corner of the PSB and comprises 9.7% of the PSB.

#### Arcata and Candymountain, 0 to 9 percent slopes

The Arcata and Candymountain 0 to 9 percent slopes map unit composition contains: 50% Arcata and similar soils, 35% Candymountain and similar soils, and 15% minor components. Arcata and Candymountain soils can be found on marine terraces, backslopes and tread; the parent material is marine deposits derived from mixed sources. Arcata and Candymountain soils 0 to 9 percent consist of very fine to fine sandy loam. These soils are considered Prime farmland if irrigated. These soils are well drained, and the depth to water table is more than 80 inches. Arcata and Candymountain are not considered hydric soil. This soil type is in a very thin linear line that separates the Worsick-Arlynda complex 0 to 2% slopes from the Arcata and Candymountain soils 2 to 9% slopes, thus comprises a very small portion of the project area.

#### Arcata and Candymountain, 2 to 9 percent slopes

The Arcata and Candymountain 2 to 9 percent slopes map unit composition contains: 50% Arcata and similar soils, 35% Candymountain and similar soils, and 15% minor components. Arcata and Candymountain soils can be found on marine terraces, backslopes and tread; the parent material is marine deposits derived

from sedimentary sock. Arcata and Candymountain soils consist of loam, sandy loam, and fine sandy loam. Arcata and Candymountain soils are considered farmland of statewide importance. These soils are well drained, and the depth to water table is more than 80 inches. Arcata and Candymountain are not considered hydric soils. This soil type is in the main portion of the PSB and comprises 90.3% of the PSB.

# 3.5 Precipitation and Hydrology

GHD performed the investigation within the PSB during September 17th, 22nd, November 19th, December 2nd, 2021, and January 25th, 2022, starting at the end of the dry season and continuing through the winter wet season. Additionally, groundwater was monitored in the 2022-2023 water year. A WETS table showing climate data for the Arcata Eureka Airport, CA, Station is provided in **Appendix F** (NOAA 2022). The Mill Creek Wetlands overlay as defined can is shown in Figure 4 (**Appendix A, Figure 5**). The FEMA flood hazard map is included in **Appendix A, Figure 6** (FEMA 2022). Aerial photography and the National Wetland Inventory Mapper were referenced before conducting fieldwork (**Appendix A, Figure 7**) (NWI 2022). Wetland hydrology indicators, such as drainage patterns, material deposits, soil saturation, high water table, or surface water presence, were recorded in the field.

Field investigations were conducted in the winter of 2022-2023 and included visual observations, test pits, and soil characterization at seven hydrology pits, and monitoring of ten groundwater monitoring wells (piezometers) after 50 percent average annual rainfall was recorded for the nearest appropriate climate station (**Appendix A, Figure 8**). Each monitoring well ("MW") was designated with a number (e.g., MW-1), and each hydrology pit ("HP") was also designated with a number (e.g., HP-1). Precipitation data and rainfall measurements to aid in groundwater monitoring were taken from the NOAA rain gage at the Eureka Weather Forecast Office (WFO) on Woodley Island. The Eureka NOAA rain gauge is the station nearest to the project site with sufficient historical data (at least 20 years) required to analyze the average annual rainfall. **Appendix F** presents the NRCS WETS table data applicable to the Project site for the 2023 water year.

# 3.5.1 Groundwater Monitoring Well Installation

Ten monitoring wells (piezometers) were installed onsite on January 11, 2022 (MW-1 through MW-10) (**Appendix A, Figure 8**). The wells were installed in potential wetlands and mapped uplands. Wells installed in potential wetlands were installed to determine if wetlands hydrology exists or does not exist (groundwater with 12 inches of the surface for 14 consecutive days) and were used to inform this wetlands delineation (MW-2 and MW-3, located on the western portion of the property). Other wells were installed in uplands to inform wetlands creation (to be incorporated into the Wetlands Mitigation and Monitoring Plan) and stormwater infiltration (to inform the stormwater engineering design).

Wells were installed by hang auguring to a depth of four to five feet. One-inch PVC piping was used, with the bottom approximate one half of the wells being slots (and was wrapped with geofabric and had a slot size of 0.010 inches), and the top approximate one half being solid. The well was placed in the augured hole and back filled with clean, dry sand to approximately one foot from the ground surface. The remainder of the hole was filled with Bentonite hole plug, which was mounded around each well. Each well was then labelled, and prior to monitoring in 2023, the top of casing was measured (distance from the ground surface to the top of PCV pipe).

Once half of the annual average rainfall occurred monitoring of the wells commenced. Monitoring started on January 7, 2023 and was completed on February 21, 2023. Depth to groundwater was measured with an electronic groundwater measurement device that "beeped" when water was encountered. Depth to groundwater was measure in a tenth of a foot.

The U.S. Army Corps of Engineers (2005) provides a technical standard for monitoring hydrology. This standard requires 14 or more consecutive days of flooding or ponding, or a water table within 12 inches of the soil surface, during the growing season at a minimum frequency of 5 years in 10 (50 percent or higher probability) (National Research Council 1995). Groundwater was monitored once 50 percent of the average annual rainfall had been met and was monitored for five consecutive weeks (Day 0, 7, 14, 21, 28, and 35), after the 50 percent of average annual rainfall (**Appendix F**), starting on January 7, 2023 and completed on February 21, 2023.

Depth to groundwater was measured with an electronic groundwater measurement device that "beeped" when water was encountered (Heron Instruments Little Dipper water level data logger). Weekly measurements included the water depth for each well and depth to groundwater was measured in tenths of a foot. Groundwater elevations generally correlate to rainfall data, with groundwater elevations rising following precipitation events, and falling after and between events.

#### 3.5.2 Hydrology Soil Pits

In addition to MW-2 and MW-3 installed in the western portion of the property, "hydro-soil" pits (HPs) where excavated to determine groundwater condition surrounding MW-2 and MW-3 (**Appendix A**, **Figure 8**). Seven HPs were dug (HP-1 through HP-7) by hand, commencing on January 24, 2023 and terminating on February 21, 2023. During each visit each HP was hand dug with a sharpshooter to approximately 14-18 inches and remained open for 20-30 minutes prior to any measurement. For each visit, a new hole was excavated. Once the HP was left open for the time previously mentioned, depth to groundwater was measured from the surface. Measurement was in inches.

#### Soil Profile at Hydrology Soil Pits

At each HP location, soils data was collected on February 25, 2023, which was a sunny day. Soil pits were excavated to approximately 14 inches and data was collected regarding horizon depth, soil color, and redoximorphic features. Special attention was given to soil chroma color.

# 4. Results

The PSB contains one three-parameter wetland that is likely USACE and RWQCB jurisdictional and two Sensitive Natural Communities (SNCs) as well as a Riparian Drip line as defined by the Humboldt County General Plan. Upland sampling pits (plot locations) are also described to confirm and document the absence of wetland hydrology, hydric soils and hydrophytic plants in these uplands sampling areas. **Appendix A, Figure 3** shows the results of the three-parameter wetland delineation, and SNC determination based upon dominant vegetation. The Riparian Drip line was mapped per guidance from the Humboldt County General Plan and county staff.

#### 4.1 Wetland

One contiguous three-parameter wetland was mapped within the PSB totaling 8.68 acres. Please see the USACE Data Forms in **Appendix B** for more details and see **Appendix A**, **Figure 3** for the associated map. Soil pits and vegetation plots were conducted throughout the PSB totaling nine transect points (**Table 1**). An additional 143 soil pits (**Table 2**) were dug, of which 101 ended up being hydric and 42 were non hydric soils.

The determination of hydric and non-hydric soil on these 143 soil pits was solely based on soil features and morphology.

Groundwater monitoring also occurred after 50 percent average annual rainfall was observed for the 2022-2023 water year to further investigate hydrologic patterns on-site. Monitoring occurred every seven days for 35 consecutive days beginning 1/17/2023 and extending to 2/21/2023. Results from this monitoring are summarized in **Section 4.3**.

Wetland 1 was open and mostly free of rooted woody vegetation and is classified according to the Cowardin system as a Palustrine Emergent wetland (PEM) (FGDC 2013). The vegetation was primarily characterized by redtop (*Agrostis stolonifera*, FAC), reed fescue (*Festuca arundinacea*, FAC), common velvetgrass (*Holcus lanatus*, FAC), Italian rye grass (*Festuca perennis*, FAC), slough sedge (*Carex obnupta*, OBL), and mountain bod sedge (*Scirpus microcarpus*, OBL). Wetland 1 mostly passed the dominance test for hydrophytic vegetation (wetlands plots).

Soil in Wetland 1 consisted mostly of loams with a 10YR 3/2 upper horizon (0 to 4 or 6 inches) with 0% to 20% of 7.5YR 4/6 redoximorphic features and a 10YR 3/2 lower horizon (4 or 6 to14 inches) with distinct 10% to 30% of 7.5YR 4/6 redoximorphic features. The hydric soil indicator is Redox Dark Surface (F6). Wetland 1 was drier in some locations and wetter in others with standing water in the swales, appearing to drain south to Mill Creek. Primary indicators of wetland hydrology were a High Water Table (A2), Saturation (A2), and secondary indicators of wetland hydrology included geomorphic position (D2) and passing the vegetation FAC-neutral test (D5). Wetland 1 is hydrologically connected to a Mill Creek which is connected to the Mad River, a navigable waterway and is therefore assumed to be under USACE and RWQCB jurisdiction. Please see attached data forms for sample points W1T1-W and W1T1-U in **Appendix B** and **Table 1** for additional details.

Table 1 Wetland Transect Sampling Locations

Sample Point	Location (lat/long) center of transect (wetlands uplands boundary)
W1T1 / U1T1	(40.932710409, -124.098692428)
W1T2 / U1T2	(40.932734608, -124.098625034)
W1T3 / U1T3	(40.932764517, -124.097496859)
W1T4 / U1T4	(40.933062453, -124.099412379)
W1T5 / U1T5	(40.933518773, -124.099463200)
W1T6 / U1T6	(40.934214987, -124.098043217)
W1T7 / U1T7	(40.933722303, -124.097575092)
W1T8 / U1T8	(40.932748433, -124.097355161)
W1T9 / U1T9	(40.933377525, -124.098205482)

# 4.2 Uplands

Upland sampling points were also collected to characterize areas that are likely to be affected by the Project. No wetlands indicators were detected within the areas characterized by the upland pits and vegetation plots.

The upland sample points were located throughout the PSB, wherever the ground appeared to be slightly drier and higher than the surrounding areas. Upland areas were dominated by redtop (FAC), sweet vernal grass (*Anthoxanthum odoratum*, FACU), sweet vernal grass (FAC), ribwort (*Plantago lanceolata*, FACU), and hawkbit (*Leontodon saxatillis*, FACU). Soils did not show hydric soil characteristics and contained mostly a loam texture with an upper horizon of 10YR 3/3 from 0 to 9 inches with no redoximorphic features, and a lower horizon from 9 to 14 inches of 10YR 3/4 with usually 0% redoximorphic features. The site did not show any primary or secondary indicators of wetland hydrology. Vegetation plots did not pass the FAC Neutral test. While many plots contained primarily facultative plants, these plants were not acting as hydrophytic vegetation, and were present on convex slopes with well drained soils. Uplands were determined using a three-parameter approach, and while facultative plants may have been primarily present in many of the upland plots, there were also facultative upland or upland plants present with hydric soils and no hydrology was present. Out of all nine of the upland transect plots, none were determined to contain hydrophytic vegetation (**Table 2**). A total of 42 upland pits were dug to determine upland boundaries (**Table 3**).

Table 2 Upland Transect Plot Wetland Vegetation Determination

Upland Vegetation Plot ID	% Facultative or Wetter Vegetation	Pass Fac Neutral Test?	Prevalence Index	Wetlands Vegetation Present?
U1T1	50%	No	-	No
U1T2	50%	No	-	No
U1T3	50%	No	-	No
U1T4	50%	No	-	No
U1T5	100%	No	3.67	No
U1T6	100%	No	3.02	No
U1T7	50%	No	-	No
U1T8	100%	No	3.11	No
U1T9	50%	No	-	No

Table 3 Total Number of Hydric and Non-Hydric and Soil Pits

Wetland	Upland
101	42

# 4.3 Hydrology Monitoring

# 4.3.1 Groundwater Monitoring

Groundwater monitoring occurred every seven days from January 17 to February 21, 2023 by GHD soil scientist Misha Schwarz and technician Alex Crowe. Results are summarized in **Table 4.** Only MW-2 and

MW-3 are analyzed in this report because they were installed specifically to investigate the wetland boundary in the western portion of the PSB (results bolded and shaded blue in Table 4). Over the course of monitoring, several notable precipitation events occurred where measured rainfall was over 100 percent of average for that time of the month (January 17, 24, and 31, and February 2; **Appendix F**). Results demonstrated that groundwater levels (i.e., the water table) were not within 12 inches of the soil surface for 14 consecutive days, and thus wetland hydrology is not present at the site of MW-2 and MW-3. Hydrology monitoring from soil pits dug around these piezometers further informed the location of the wetland boundary in the western portion of the PSB, described in **Section 4.3.2**.

Table 4 Results from Monitoring Wells

	DATE: 1/17/2023		1/24/2023	1/31/2023	2/7/2023	2/14/2023	2/21/2023
	Rainfall YTD:		21.80	21.93	23.34	23.69	23.89
	Normal YTD:	18.93	20.39	21.77	23.15	24.52	25.96
	Current % Norm:	110.8%	106.9%	100.7%	100.8%	96.6%	92.0%
	Name(s) of Data Recorders:	M.Schwarz	M.Schwarz	M.Schwarz	M.Schwarz	A.Crowe	M.Schwarz
Monitoring Well Number	TOC (feet ags)	Water Depth (feet bgs) (DTW - TOC)	Water Depth (feet bgs) (DTW - TOC)	Water Depth (feet bgs) (DTW - TOC)  Water Depth (feet bgs) (DTW - TOC)		Water Depth (feet bgs) (DTW - TOC)	Water Depth (feet bgs) (DTW - TOC)
MW-1	0.90	1.00	1.55	2.08	1.60	1.27	2.08
MW-2	0.85	1.36	1.90	2.40	1.60	0.76	2.30
MW-3	1.04	0.61	1.06	1.71	0.71	0.50	1.58
MW-4	0.69	0.91	1.36	1.94	1.36	1.06	1.96
MW-5	0.90	1.00	1.50	2.55	1.55	1.86	2.74
MW-6	1.04	0.76	0.97	1.22	0.76	0.50	1.11
MW-7	1.02	0.68	0.78	1.01	0.73	0.17	0.73
MW-8	0.98	0.82	2.12	2.64	1.92	3.03	3.64
MW-9	1.08	1.32 2.22		3.52	1.54	1.12	3.07
MW-10	1.06	0.84	1.44	2.17	0.99	0.56	1.87

#### **NOTES:**

TOC = Top of Casing (measured in inches and converted to decimal-feet)

DTW = Depth to Water (measured at TOC)

Bgs = below ground surface

Ags = above ground surface

### 4.3.2 Hydrology Soil Pits

Seven hydrology soil pits were excavated around MW-2 and MW-3 to investigate the groundwater level in finer detail between and around the monitoring wells, concurrent with the dates that piezometers were monitored. Groundwater monitoring occurred every seven days from January 24 to February 21, 2023 by GHD soil scientist Misha Schwarz and Alex Crowe. Results are summarized in **Table 5.** Groundwater levels were not within 12 inches of the soil surface for 14 consecutive days for any of the hydrology pits. The wetland boundary was mapped in contour with HP-1, HP-3, HP-5, HP-7, and MW-3, as they appear to be at a transitional line where the water table becomes shallower. Three-parameter wetlands are delineated to the east of this line (**Appendix A, Figure 3**).

Table 5 Results from Hydrology Soil Pits

Hydro Pit	1/17/2023	1/24/2023	1/31/2023	2/7/2023	2/14/2023	2/21/2023
		DTW (inches bgs)	DTW (inches bgs)	DTW (inches bgs)	DTW (inches bgs)	DTW (inches bgs)
HP-1	-	14.50	16 (DRY)	14.50	5.25	18 (DRY)
HP-2	-	14 (DRY)	17 (DRY)	14.25	13.50	19 (DRY)
HP-3	1	15 (DRY)	17 (DRY)	16.00	11.75	21 (DRY)
HP-4	ı	15 (DRY)	15 (DRY)	13.50	9.00	18 (DRY)
HP-5	ı	15.25	15 (DRY)	10.00	7.50	18 (DRY)
HP-6	1	14 (DRY)	16 (DRY)	16.75	12.75	17 (DRY)
HP-7	-	14.25	15 (DRY)	10.00	4.50	18.00

NOTES: DTW (inches below ground surface) - Unless noted as "DRY"

# 4.4 Soil Monitoring

## 4.4.1 Soil Profile at Monitoring Wells 2 and 3

The soil profile was characterized for monitoring wells installation, summarized in **Table 6.** Soils throughout the profile were generally loam. Results demonstrated that the soils for MW-2 and MW-3 do not meet hydric soil indicators. While redoximorphic features were present in the soil profile, they were at a depth that does not qualify as a hydric soil indicator (in combination with matrix value and chroma). Soil matrix chromas were often too high (greater than 2) to qualify for hydric soils indicators associated with redox concentrations.

Table 6 Soil Profiles from Monitoring Wells

Hydro Pit	Soil Depth	Matrix	Redoximorphic Features <sup>1</sup>
	0-9"	10YR 2/2	None
	9-20"	10YR 3/3	None
MW-2	20-39"	2.5Y 4/3	15% FeC
	39-48"	2.5Y 5/3	10% FeC
	0-13"	10YR 3/2	None
	13-26"	10YR 4/3	15% FeC
MW-3	26-36"	10YR 4/4	5% FeC
	36-48"	10YR 5/4	5% FeC

<sup>1.</sup> FeC = iron concentrations (e.g., redoximorphic features).

# 4.4.2 Soil Profile at Hydrology Pits

The soil profile was characterized for hydrology pits on January 25, 2023, summarized in **Table 7**. Soils throughout the profile were generally loam. Results demonstrate that the soils for each hydrology pit do not meet hydric soil indicators. While redoximorphic features were present in some of the soil profiles, they were at a depth that does not qualify as a hydric soil indicator (in combination with matrix value and chroma). Soil matrix chromas were often too high (greater than 2) to qualify for hydric soils indicators associated with redox concentrations. At four of the soil pits, no redoximorphic features were observed.

Table 7 Soil Profiles from Hydrology Soil Pits

Hydro Pit	Soil Depth	Matrix	Redoximorphic Features <sup>1</sup>
HP-1	0-14"	10YR 3/2+	None
HP-2	0-9"	10YR 3/2+	None
	9-14"	10YR 3/2+	15% FeC
HP-3	0-14"	10YR 3/3	None
HP-4	0-10"	10YR 3/3	None

Hydro Pit	Soil Depth	Matrix	Redoximorphic Features <sup>1</sup>
HP-4	10-14"	10YR 3/2+	5% FeC
	0-10"	10YR 3/3	None
HP-5	10-14"	10YR 3/2+	5% FeC
LID C	0-10"	10YR 3/3	None
HP-6	10-14"	10YR 3/2+	5% FeC
HP-7	0-14"	10YR 3/2+	None

<sup>2.</sup> FeC = iron concentrations (e.g., redoximorphic features).

#### 4.5 Sensitive Natural Communities

The PSB contains two SNCs, totaling 1.6 acres. Please see attached Rapid Assessment datasheet in **Appendix D** for additional details and see **Appendix A**, **Figure 3** for the associated map. No wetlands were mapped within the boundaries of the SNCs. **Table 8** contains additional details.

#### 4.5.1 Sitka Spruce Alliance

The Sitka Spruce Alliance corresponds to the Rapid Assessment datasheet WEIR001 in **Appendix D**. The Sitka Spruce Alliance was observed in the north, northwest, and southwest edges of the PSB and covers 0.75 acres of the PSB. This SNC contained a tree canopy cover of 40% Stika spruce (*Picea sitchensis*), 35% red alder (*Alnus rubra*), and 20% incense cedar (*Thuja plicata*), and is associated with California blackberry (*Rubus ursinus*). The Sitka Spruce Alliance has a State ranking of S2, therefore qualifying it as an SNC.

#### 4.5.2 Coastal Willow Alliance

The Coastal Willow Alliance corresponds to the Rapid Assessment datasheet WEIR002 in **Appendix D**. The Coastal Willow Alliance was observed in the north, northwest, and southwest edges of the PSB and covers 0.85 acres of the PSB. This SNC contained a tree canopy cover of 2% red alder (*Alnus rubra*), a shrub layer of 85% coastal willow (*Salix hookeriana*), and 20% California blackberry. The Coastal Willow Alliance has a State ranking of S3, therefore qualifying it as an SNC.

Table 8 Sensitive Natural Communities

Sensitive Natural Community	Lat/Long	Area
Sitka Spruce Alliance (S2)	(40.9341790, -124.0968654)	0.75 acres
Coastal Willow Alliance (S3)	(40.9339933, -124.0968717)	0.85 acres

# 4.6 Riparian Corridor

The Riparian Corridor of Mill Creek was mapped to the drip line, and no wetlands were assessed underneath the canopy. The Riparian Dripline can be found in **Appendix A, Figure 3**. Much of the two SNCs are present within the Mill Creek Riparian corridor.

# 5. Conclusions

The aquatic resources delineation for the We Are Up Housing Project, completed on January 25<sup>th</sup>, 2022, determined the extent of three-parameter wetlands within the PSB based on hydrophytic vegetation, hydric soils, and wetland hydrology using methods and indicators outlined in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region (Version 2.0)* (USACE 2010). An additional site visit on September 15, 2022 to assess the presence or absence of aquatic resources in the expanded PSB determined the absence of wetland features from two soil pits that are characterized by upland soils and vegetation. Groundwater monitoring was conducted in January and February of 2023 to better understand hydrologic patterns on-site. The total area of three-parameter wetlands mapped within the PSB is 8.68 acres, or 56% of the PSB, and due to the hydrological connection with Mill Creek, are likely considered USACE and RWQCB jurisdictional. The area of Uplands on the site totals 5.07 acres, and all 11 upland plots contain no hydrophytic vegetation. The area of SNCs totals 1.6 acres, or 10% of the PSB. Wetlands were not mapped within the Riparian Corridor Dripline or underneath the SNC canopy. Wetland data forms are attached showing sample plot data collected in transects across wetland boundaries and additional upland sampling points (**Appendix B**) and Rapid Assessment data forms determining the SNC are attached (**Appendix D**).

# 6. Special Terms and Conditions

# 6.1 Purpose of this Report

GHD prepared this report for the Client, and the Client may only use and rely on this report for the purpose agreed upon between GHD and the Client, as set out in the scope and contract for work effort reported herein. GHD Inc. is not liable for any action arising out of the reliance of any third party on the information contained within this report. GHD otherwise disclaims responsibility to any entity other than the Client arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

# 6.2 Scope and Limitations

This report does not authorize any individuals to develop, fill, or alter the delineated wetlands. Verification of the delineation by jurisdictional agencies is necessary prior to the use of this report for planning and development purposes. A USACE jurisdictional approval letter is required to signify confirmation of delineation results. In situations where a field investigation determines that no jurisdictional wetlands occur, jurisdictional concurrence with these findings is recommended.

The delineation conclusions were based on the information available during the period of the investigation, which took place on in late 2021 to early 2022, with groundwater monitoring extending into early 2023.

The opinions, conclusions, and any recommendations in this report are based on conditions encountered and information reviewed by the date of preparation of the report. Site conditions may change after the date of this report. GHD does not accept responsibility arising from, or in connection with, any change to the site conditions. GHD is also not responsible for updating this report if the site conditions change unless contracted to do so.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions, and any recommendations in this report are based on the information obtained from and testing undertaken at or in connection with specific sample points. Conditions at other locations of the site may be different from the conditions found at the specific sample points.

# 7. References

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# 8. Report Preparers

#### 8.1 Client

We Are Up, 4535 Fieldbrook Road, McKinleyville, CA 95519 USA

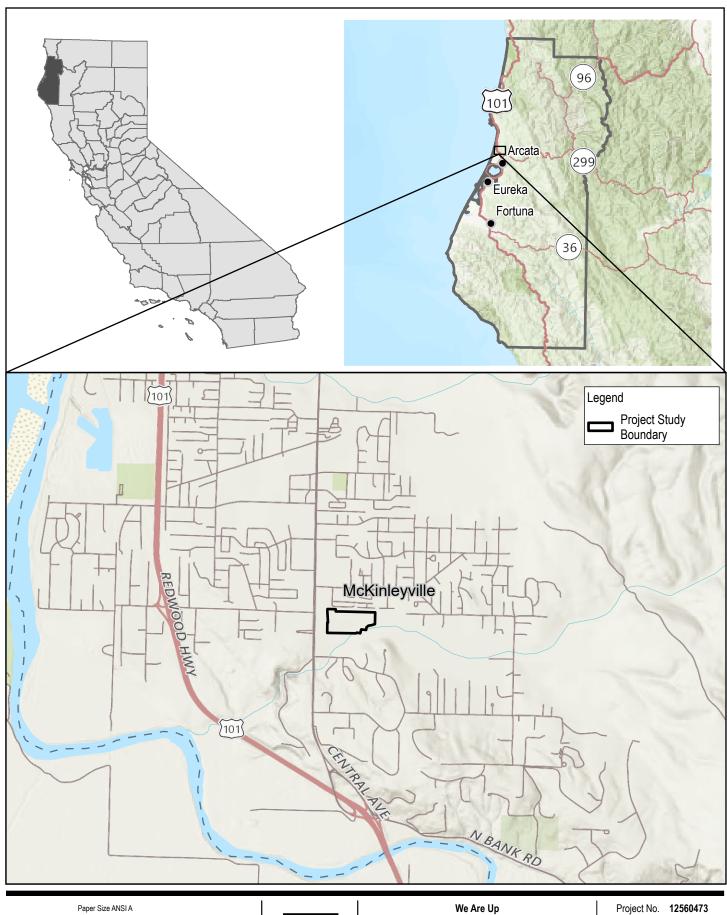
#### 8.2 GHD

This report was prepared by the following GHD staff:

Kolby Lundgren, Botanist/Wetland Scientist, kolby.lundgren@ghd.com, 707-267-2214

Misha Schwarz, Project Manager, misha.schwarz@ghd.com, 707-267-2259

# Appendix A Figures



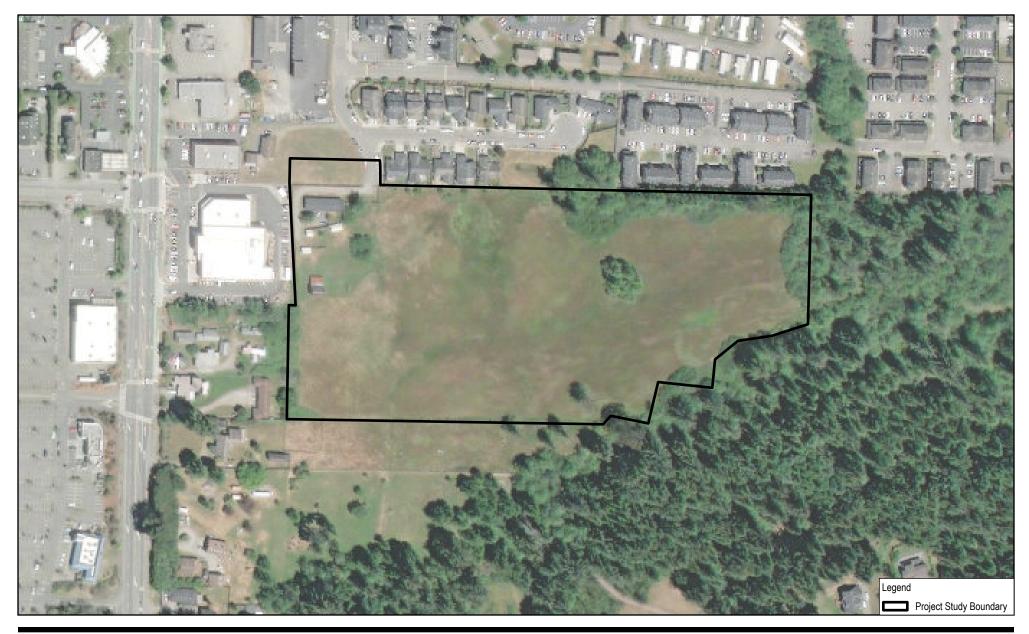


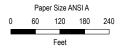


Project No. 12560473 Revision No. -

on No. -Date **9/26/2022** 

**Vicinity Map** 







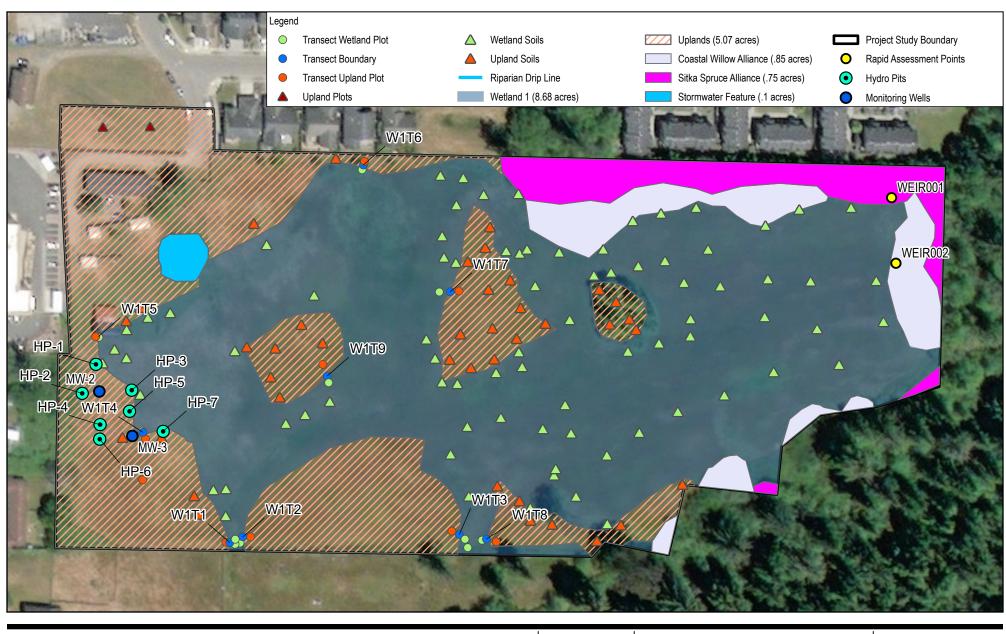


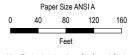
We Are Up

Project No. **12560473** Revision No. -

Date 9/26/2022

Project Study Boundary FIGURE 2







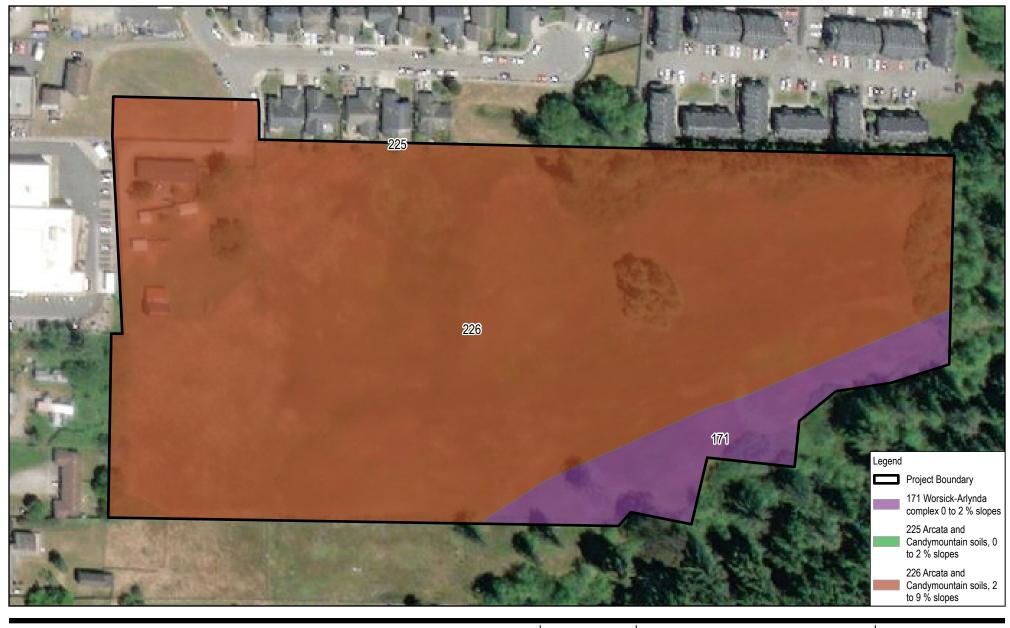


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Project No. 12560473 Revision No. -

Date 2/22/2023

**Wetland Delineation and Sensitive Habitats** 









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Project No. **12560473** Revision No. -

Date 9/26/2022

**NRCS Soil Survey** 









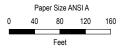
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Date 9/26/2022

Mill Creek Wetland Overlay







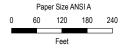


We Are Up

Project No. 12560473 Revision No. -Date 9/26/2022

**FEMA Floodplain** 





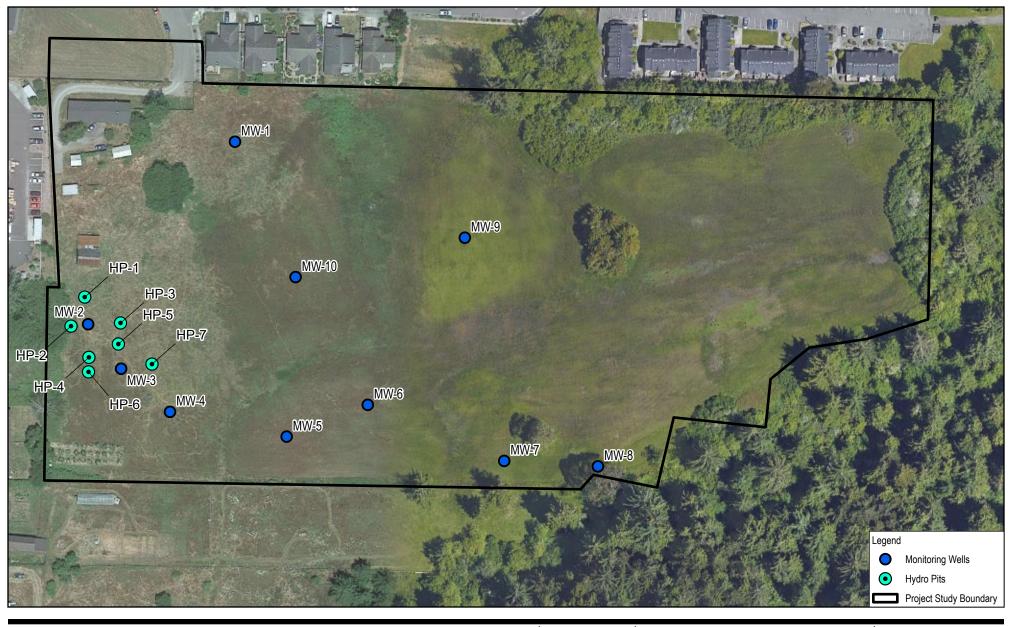


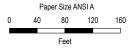


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Date 9/26/2022









Mary Keehn Property Development Keehn Development

Project No. **12560473** Revision No. -

Date 2/22/2023

**Monitoring Wells and Hydro Pits** 

# Appendix B

**Wetland Delineation Datasheets** 

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region City/County: Mckinlen ville / Humbold+Sampling Date: 9/17 Kechn Development State: A Sampling Point: (1) TT1-(1) Applicant/Owner: M Schwarz Section, Township, Range: 55 TEN RIE Local relief (concave, convex, none): COCLVC Slope (%): Landform (hillslope, terrace, etc.): \_ Lat: 40,93271041 Long: - 124,0986924 Datum: W6584 Subregion (LRR): 2-9% Slopes NWI classification: NA (andy mountain Soil Map Unit Name: Archta No \_\_\_\_\_ (If no, explain in Remarks.) Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_\_ Are "Normal Circumstances" present? Yes \_ significantly disturbed? Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_ (If needed, explain any answers in Remarks.) \_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_ naturally problematic? Are Vegetation \_\_\_ SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? No within a Wetland? Wetland Hydrology Present? Yes 、 Remarks: VEGETATION – Use scientific names of plants. Dominance Test worksheet: Absolute Dominant Indicator % Cover Species? Status Tree Stratum (Plot size:\_\_\_\_\_) 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: Sapling/Shrub Stratum (Plot size: \_\_\_\_\_) Prevalence Index worksheet: Total % Cover of: OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_ FACW species \_\_\_\_\_ x 2 = \_\_\_ FAC species \_\_\_\_ x 3 = \_\_\_ \_\_\_\_ x 4 = \_\_\_\_\_ FACU species = Total Cover UPL species Herb Stratum (Plot size: Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation √ 2 - Dominance Test is >50% EACL \_\_ 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants1 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) 10. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. = Total Cover Woody Vine Stratum (Plot size: Hydrophytic Vegetation Present? = Total Cover % Bare Ground in Herb Stratum Remarks:

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	d Below Dark Surface	e (A11)	Depleted						(Explain in Normana)
	ark Surface (A12)	Α Α	Redox Da	rk Sur	face (F6)			3Indicators	of hydrophytic vegetation and
1	lucky Mineral (S1)	-	Depleted			7)		wetland	hydrology must be present,
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	ter Table (A2)				, 2, 4A, an		cept		A, and 4B)
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Water M	` '				rtebrates	(B13)			Season Water Table (C2)
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	osits (B3)						ving Roots		morphic Position (D2) Swale
	t or Crust (B4)				Reduced		3,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		ow Aquitard (D3)
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Inundatio	n Visible on Aerial Im	nagery (B7)			in in Rem		, , ,		-Heave Hummocks (D7)
Sparsely	Vegetated Concave	Surface (B8)				-			
Field Observ	ations:							Water Committee	
Surface Wate	r Present? Yes	sNo	Y Depti	n (inch	es):				
Water Table F	Present? Yes	s No	Y Depti	inch	es):				
Saturation Pre		s No	10	inch	,		Wetlar	nd Hydrology Pr	esent? Yes X No
(includes capi	lary fringe)		7						NO
Describe Reco	orded Data (stream g	auge, monito	ring well, ae	rial ph	otos, prev	ious inspe	ections), if	available:	
Remarks:	B - C 1	Ton	1.14	04	cidion	1 1 6	a.ls		The state of the s
	Based on	lopost	uphic	10	ar time	٠ جي ٠	uu j		

#### WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region City/County: Mc Kinley wille Humbold+ Sampling Date: 9171 Keena for Mary Keehn Development State: CA Sampling Point: LOTTI-U Applicant/Owner: 6HO McDonald, M. Schwarz Section, Township, Range: 55 TON, RIE Landform (hillslope, terrace, etc.): None Local relief (concave, convex, none): None Slope (%): Lat: 40, 93271041 Long: -124. 0986924 Datum: W6584 Subregion (LRR): Soil Map Unit Name: Arcz+2 and Carly mountain, 2-9% slopes NWI classification: None Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes \_\_\_\_\_No\_\_ 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? No Yes is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Yes No Remarks: VEGETATION - Use scientific names of plants. Absolute Dominant Indicator **Dominance Test worksheet:** Tree Stratum (Plot size: % Cover Species? Status **Number of Dominant Species** That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species = Total Cover That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot size: ) Prevalence Index worksheet: Total % Cover of: OBL species FACW species FAC species FACU species = Total Cover UPL species Herb Stratum (Plot size: Column Totals: Prevalence Index = B/A = \_ FACU Hydrophytic Vegetation Indicators: FACY 1 - Rapid Test for Hydrophytic Vegetation FACU icus card ∠ 2 - Dominance Test is >50% Lestuca porenni √ 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants1 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 97\_ = Total Cover Woody Vine Stratum (Plot size: Hydrophytic Vegetation Present? = Total Cover % Bare Ground in Herb Stratum Remarks

SOIL	7.	4.			MI	55 Ke	chn 9/17/21	Sampling Point:	WIT
Profile Des	cription: (Descr	ribe to the	depth n	eeded to document the	indicator o	or confirm	n the absence of inc	dicators )	
Depai	IVIAII	IX		Redox Feature	es			sicators.)	
(inches)	Color (moist			Color (moist) %	Type	Loc <sup>2</sup>	Texture	Remarks	
0-6	104RZ/	2 /00	)	-	-		Loam	ixciliarks	
6-14	104RZ	12 10	$\overline{x}$ -						
				-			Silt Loam		
-					,	3 4 7			
					-				
	The state of the s								-
								The second secon	
					-				
¹Type: C=C	oncentration, D=	Depletion, I	RM=Rec	luced Matrix, CS=Covere	d or Coated	Sand Gr	olon <sup>2</sup> L costi	OL D	
Hydric Soil	Indicators: (Ap	plicable to	all LRR	s, unless otherwise not	ed.)	Sand Gra		PL=Pore Lining, M=Ma Problematic Hydric So	atrix.
Histosol	(A1)			Sandy Redox (S5)					olis";
Histic Ep	pipedon (A2)			Stripped Matrix (S6)			2 cm Muck (A10)		
Black Hi				Loamy Mucky Mineral (F	1) (except l	MIRA 1	Red Parent Material (TF2)		
	n Sulfide (A4)			Loamy Gleyed Matrix (F2	) )	**************************************	Very Shallow Dark Surface (TF12) Other (Explain in Remarks)		
Depleted	d Below Dark Sur	rface (A11)		Depleted Matrix (F3)	,		Other (Exp	iaiii in Remarks)	
Thick Da	ark Surface (A12)	)		Redox Dark Surface (F6)			Indicators of h	dronhutio t - tt -	ā.
	lucky Mineral (S1			Depleted Dark Surface (F	7)		Indicators of hydrophytic vegetation and		
	lleyed Matrix (S4		-	Redox Depressions (F8)			wetland hydrology must be present, unless disturbed or problematic.		
	ayer (if present	t):	149				difficos distal	bed of problematic.	
Type:	Topic State of the								
Depth (inc	ches):						Hydric Soil Preser	nt? YesNo	, X
Remarks:	- Anna					· · _			
HYDROLOG									
Wetland Hyd	Irology Indicato	rs:							
Primary Indica	ators (minimum c	of one requi	red; che	ck all that apply)			Sacandanila	d)	
	Vater (A1)			Water-Stained Leave	s (BO) /ava	4		dicators (2 or more requ	
High Wat	er Table (A2)			MLRA 1, 2, 4A, a		ept	Water-Sta	ained Leaves (B9) (MLI	RA 1, 2,
Saturation (A3)					na 46)		4A, and 4B)		
Water Marks (B1)			1.0	Salt Crust (B11)			Drainage Patterns (B10)		
Sediment Deposits (B2)			Aquatic Invertebrates			Dry-Season Water Table (C2)			
				Hydrogen Sulfide Odor (C1)  Saturation Visible on Aerial Image					
Drift Deposits (B3) Oxidia				Oxidized Rhizosphere	dized Kriizospheres along Living Roots (C3) Geomorphic Position (D2)				
Algal Mat or Crust (B4)				Presence of Reduced Iron (C4) Shallow Aquitard (D3)					
Iron Deposits (B5)				Recent Iron Reduction in Tilled Soils (C6)  FAC-Neutral Test (D5)					
Surface Soil Cracks (B6)				Stunted or Stressed Plants (D1) (LRR A)  Raised Ant Mounds (D6) (LRR A)					
Inundation	n Visible on Aeria	al Imagery (	(B7)	Other (Explain in Ren		,	Erent Una	it Mounds (D6) (LRR A	()
Sparsely \	Vegetated Conca	ave Surface	(B8)	. ,	,		riost-nea	ive Hummocks (D7)	
ield Observa			***************************************			T	1.		
Surface Water		Yes	No.	Depth (inches):				· ·	4/2
Vater Table P		Yes	-	Depth (inches):					
Saturation Pre		***************************************		-	7				
includes capill	lary fringe)	Yes		Depth (inches):		Wetlan	d Hydrology Preser	nt? YesNo	k
escribe Reco	rded Data (stream	m gauge, n	nonitorin	g well, aerial photos, prev	ious insper	ctions) if	available		
		,	47.	- manage protect	oos mapet	Juons), If a	avallable:	:	
emarks:	A.								10.

WETLAND DETERMINATION DA	TA FORM – Western Mou	intains, Valleys, and Coast Region
Project/Site: Heehn Applicant/Owner: GHD for May Keeh.	City/County: McV, b.	12 ville Hunbold Sampling Date 9/17/21
Applicant/Owner 6HD for Many Keeh.	- Done!	State: A Sampling Point: (1) 172-
Investigator(s). K. Mc Donzld M. Schin	≥ ✓ ₹ <sup>©</sup> Section, Township, Ra	inge: 55 T6N R1C
Landform (hillslope, terrace, etc.): Surale		
Subregion (LRR):	Lat. 46 937 13461	Long -124.698625 Datum 64584
Soil Map Unit Name. Archit 2nd Canolymn+	2 99/2 = Junes	ABAII classification: PFW
	,	
Are climatic / hydrologic conditions on the site typical for this		
Are Vegetation, Soil, or Hydrology s	-	"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology n	aturally problematic? (If no	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	0_V	1000
	o Is the Sampled within a Wetla	
Wetland Hydrology Present? Yes No.   Remarks:	o   Within a Wetlan	
Does not pass PI, but his	as hydrology and	1 SA115. 11 SA11 SA11 SA11
Does not \$235 1 1, out 11.	25 Myardiosy Mil	A Committee of the Comm
VEGETATION – Use scientific names of plan	ts.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1.	· ·	That Are OBL, FACW, or FAC: (A)
2		Total Number of Dominant
3		Species Across All Strata (B)
4.	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)	- total cover	Prevalence Index worksheet:
1.	The second secon	Total % Cover of: Multiply by:
2.		OBL species
3		FACW species O x 2 = O
4.		FAC species 88 x 3 = 264
5.	= Total Cover	FACU species 10 x 4 = 40
Herb Stratum (Plot size:	= Total Cover	UPL species O x 5 = O
1 Agraphis stolariters	GO Y FAC	Column Totals: <u>98</u> (A) <u>304</u> (B)
2 Festura perennis	10 Y FAC	Prevalence Index = B/A = 3.10
3 Lotus conjulations	8 <u> </u>	Hydrophytic Vegetation Indicators:
4. Holeus Janatus	10 - EAC	1 - Rapid Test for Hydrophytic Vegetation
5 Bromus hardaceus	5 - EACU	2 - Dominance Test is >50%
6. Hypochaerisradicata	5 - AW	N 3 - Prevalence Index is ≤3.0¹
7.		4 - Morphological Adaptations <sup>†</sup> (Provide supporting data in Remarks or on a separate sheet)
8.		5 - Wetland Non-Vascular Plants <sup>1</sup>
9	·	Problematic Hydrophytic Vegetation¹ (Explain)
10.		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11.	98 = Total Cover	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)		, p
1.		Hydrophytic
2.		Vegetation Present? Yes No
% Bare Ground in Herb Stratum	= Total Cover	
	. 0	
Remarks: Does not passFAC-no	MIZ	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		A Company of the Comp

Profile Description:         (Description)           Depth (inches)         Color (mo           O - 6         /OYR 2/	atrix ist) %	oth needed to docum Redox Color (moist)	x Features			n the absence of in	Sampling Point: W/T dicators.)
(inches) Color (mo	atrix ist) %	Redox	x Features				
		Color (moist)					
0-6 104KZ			%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture	Remarks
	2 90	7.54R 4/4	10	C .	M	Loan	N.
6-14 104 R31	<u>z eo</u>	754R 4/6	20	(	m	Loam	731
					5 75		
· ·			-				
Type: C=Concentration, D	=Depletion, RM	=Reduced Matrix, CS=		or Coate	d Sand Gra	ains <sup>2</sup> l ocation	Di a Doro Linia a Maldata
Hydric Soil Indicators: (A	pplicable to all	LRRs, unless otherv	vise noted	.)	u Sanu Gra		PL=Pore Lining, M=Matrix. Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)		Sandy Redox (S		,			
Histic Epipedon (A2)		Stripped Matrix (				2 cm Muck	
Black Histic (A3)		Loamy Mucky Mi		excent	MIRA 1)		Material (TF2)
Hydrogen Sulfide (A4)		Loamy Gleyed M		,veht		very shallo	ow Dark Surface (TF12)
Depleted Below Dark S	urface (A11)	Depleted Matrix (				Other (Exp	ain in Remarks)
Thick Dark Surface (A1.	2)	Redox Dark Surfa				3Indicators of h	rdeaphydia waastatta aa saa saa saa saa saa saa saa
Sandy Mucky Mineral (	S1)	Depleted Dark St	urface (F7)			mulcators of hy	drophytic vegetation and
Sandy Gleyed Matrix (S	4)	Redox Depressio				unless distri	ology must be present, bed or problematic.
Restrictive Layer (if prese	nt):					dilless distui	bed or problematic.
Type:							
Depth (inches):		·.				Hydric Soil Brans	Y
Remarks						Hydric Soil Preser	t? Yes No
en e	1.	A Section Section	i e se	1.			
/DROLOGY					\.		
etland Hydrology Indicat			territoria de la composición dela composición de la composición dela composición dela composición dela composición de la composición de la composición de la composición de la composición dela composición de la composición dela composición dela composición dela composición dela composición dela composición dela compos				
rimary Indicators (minimum	of one required.	check all that apply)				Secondary Inc	diagters (0
Surface Water (A1)		Water-Staine	d Leaves (	B0) (av	cont		dicators (2 or more required)
High Water Table (A2)			2, 4A, and		cept		nined Leaves (B9) (MLRA 1, 2,
_ Saturation (A3)		Salt Crust (B		40)		4A, an	
_ Water Marks (B1)						⚠ Drainage	Patterns (B10) Swale
, dedice invertebrates (B13)						Dry-Sease	on Water Table (C2)
					Saturation	Visible on Aerial Imagery (C9	
_ Drift Deposits (B3)		Oxidized Rhiz	zospheres a	along Li	ving Roots	(C3) X Geomorph	nic Position (D2) Swele
_ Algal Mat or Crust (B4)		Presence of F				Shallow A	quitard (D3)
Iron Deposits (B5)		Recent Iron R	Reduction in	Tilled S	Soils (C6)	FAC-Neut	ral Test (DE)
Surface Soil Cracks (B6)		Stunted or Str	Stunted or Stressed Plants (D1) (LRR A)				t Mounds (DO)
Inundation Visible on Aeri		Other (Explain			(	Front Use	t Mounds (D6) (LRR A)
Sparsely Vegetated Cond	ave Surface (B8	)			or the second	riost-riea	ve Hummocks (D7)
eld Observations:					<u> </u>	A	
rface Water Present?	Yes No	Depth (inche	e).	8.7			
iter Table Present?	Vae N	> Deptil (inche:	s):				
	resNo	Depth (inches	s);				
turation Present? cludes capillary fringe)	Yes No	X_ Depth (inches	s):		Wetland	d Hydrology Presen	12 Van X
scribe Recorded Data (stream				10 10 -		7	t? Yes / No
	3 -g-; mom	priori deriai prior	os, previou	is inspe	ctions), if a	ivailable:	The second secon
marks:	A CONTRACTOR OF THE PROPERTY O	i			and the same of th	The same of the same state of the same state of the same state of the same of	THE COLUMN TWO PROPERTY AND ASSESSMENT OF THE PROPERTY AND ASSESSMENT OF THE PROPERTY OF THE PROPERTY ASSESSMENT OF THE PROPERTY ASSESSMENT OF THE PROPERTY OF THE PRO
							A STATE OF THE STA

WETLAND DETERMINATI	ON DATA FORM – Wester	n Mountains, Valleys, and Coast Region
Project/Site: herm	City/County A	McKinley ville Humboldt Sampling Date: 9117/2
Applicant/Owner (2 HD for Mary	Keelan Developme	M State: CA Sampling Point: W171
Investigator(s): K Mc Donald, M.	SCHWAIT Section Town	ship Range: SS, T6N R1E
		oncave, convex, none): CONVCX Slope (%): 5
Subregion (LRR)	121 40.93273	346/ Long: -124.098625 Datum: W6585
		Slopes NWI classification: None
Are climatic / hydrologic conditions on the site typic		and the state of t
	*	Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology		
		point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	No Is the	Sampled Area
	No within	a Wetland? Yes No
Remarks		
C 200		
Leave the second	Action of the Control	
VEGETATION – Use scientific names	•	
Tree Stratum (Plot size:)	Absolute Dominant Ir % Cover Species?	Status
1		Number of Dominant Species That Are OBL, FACW, or FAC; (A)
2.		NAME OF THE PARTY
3.		
4		Percent of Dominant Species
Carling (Charle Charles / Clark size)	= Total Cove	That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:		Prevalence Index worksheet:
2.		Total % Cover of: Multiply by:
3.		OBL species x 1 =
4.		FACW species x 2 =
5.	Milenianian III.	FAC species x 3 =
1,002	= Total Cove	FACU species x 4 = UPL species x 5 =
Herb Stratum (Plot size: +W)  1. Agrastis stolonife	a ca y c	Column Totals: (A) (B)
2 ACTION STORMAN	10th 75 V 6	(1) 4
3 Festica arundinace	1 5	Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:
4. Holas Janatus	6	Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation
5 Davous Carot 2	4 F	2 - Dominance Test is >50%
6. Plantago lanciolata		ACU _ 3 - Prevalence Index is ≤3.0
7. Lotus corniculatos		4 - Morphological Adaptations (Provide supporting
8		data in Remarks or on a separate sheet)
9.	anners and the state of the sta	
10.		Problematic Hydrophytic Vegetation¹ (Explain)
11.		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size;	Total Cove	r
1		No. 1
2.		——— Hydrophytic Vegetation
4	= Total Cove	Present? Yes No
% Bare Ground in Herb Stratum		
Remarks:		
≰ 1990 at 199		

2011							He.	No. Commences (manhorston), particles in the little of
SOIL				MBS	Kee	L	7/17/21	. '111
Profile Des	cription: (Describe	to the dept	h needed to docum	nent the in	dicator	N VI	7/17/01	Sampling Point: W
			Peda	x Features	uicator (	or confirm	n the absence of	indicators.)
(inches)	Color (moist)	_%	Color (moist)	%	Type	Loc <sup>2</sup>	Tautum	
0-9	164R3/2	100	4	-	100			Remarks
9-14	104 R313	90	754R4/6	10			Loam_	ence of the second seco
			101119/8	10		M	Siltlean	
		_		Spr -		941 3 E		The state of the s
						- Million		The state of the s
		-						
-	1			-				
1								
Type: C=C	Concentration, D=Depl	letion, RM=F	Reduced Matrix, CS	=Covered of	or Coated	Sand Gr	aine 21 seeti	DI D
•	(Applica	able to all L	RRs, unless other	wise noted	l.)	ound Gra	Indicators	on: PL=Pore Lining, M=Matri for Problematic Hydric Soil:
mistosoi	f (A1)	_	Sandy Redox (S		•			luck (A10)
HISTIC E	pipedon (A2)		Stripped Matrix (	(S6)			Red Pa	rent Material (TF2)
	listic (A3) en Sulfide (A4)	_	Loamy Mucky M	ineral (F1)	(except l	MLRA 1)	Very St	hallow Dark Surface (TF12)
Priyatoge Depleted	d Below Dark Surface	- (414)	Loamy Gleyed N				Other (I	Explain in Remarks)
Thick Da	ark Surface (A12)	(A11) _	Depleted Matrix	(F3)				
	Mucky Mineral (S1)	_	<ul><li>Redox Dark Surf</li><li>Depleted Dark S</li></ul>	ace (F6)			3Indicators of	of hydrophytic vegetation and
Sandy G	Gleyed Matrix (S4)	_	Redox Depression	unace (F7)			wetland i	hydrology must be present,
Restrictive L	Layer (if present):		- Redox Depressi	JIIS (FO)	V		unless di	sturbed or problematic.
Type:								
Depth (inc	ches):		Militable language.					
Remarks							Hydric Soil Pre	esent? Yes No _
								1.
			1.54 (1.78)					
		- " - " - " - " - " - " - " - " - " - "						
YDROLO	GY					****		
Wetland Hyd	drology Indicators:							
	cators (minimum of on	e required:	chook all that annies					
	Water (A1)	ie required, i						y Indicators (2 or more require
Surface I	, ,		Water-Stain			ept	Water	r-Stained Leaves (B9) (MLRA
	ter Table (A2)							
High Wat	iter Table (A2)			2, 4A, and	I 4B)		4.4	and 4B)
High Wat Saturation	on (A3)		Salt Crust (E	311)			4A Drain	age Patterns (B10)
High Wat Saturation Water Ma	on (A3) arks (B1)		Salt Crust (E	311) rtebrates (l	B13)		4A Drain Dry-S	age Patterns (B10) eason Water Table (C2)
<ul><li>High Wat</li><li>Saturation</li><li>Water Ma</li><li>Sediment</li></ul>	on (A3) arks (B1) It Deposits (B2)		Salt Crust (E Aquatic Inve	311) rtebrates (l ulfide Odor	B13) (C1)		Drain Dry-S Satur	age Patterns (B10) leason Water Table (C2) ation Visible on Aerial Imager
High Wat Saturation Water Ma Sediment Drift Depo	on (A3) arks (B1) at Deposits (B2) assits (B3)		Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh	311) rtebrates (l ulfide Odor izospheres	B13) (C1) along Liv	ving Roots	Drain Dry-S Satur. s (C3) Geom	age Patterns (B10) leason Water Table (C2) ation Visible on Aerial Imager norphic Position (D2)
High Wat Saturation Water Ma Sediment Drift Depo	on (A3) arks (B1) th Deposits (B2) tosits (B3) th or Crust (B4)		Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of	311) rtebrates (l ulfide Odor izospheres Reduced li	313) (C1) along Liv ron (C4)		4A	age Patterns (B10) leason Water Table (C2) ation Visible on Aerial Imager norphic Position (D2) ow Aquitard (D3)
High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo	on (A3) arks (B1) th Deposits (B2) tosits (B3) th or Crust (B4) osits (B5)		Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron	311) irtebrates (l ulfide Odor izospheres Reduced li Reduction	B13) (C1) along Liv ron (C4) in Tilled S	Soils (C6)	4A	age Patterns (B10) leason Water Table (C2) lation Visible on Aerial Imager lorphic Position (D2) low Aquitard (D3) Neutral Test (D5)
High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S	on (A3) arks (B1) of Deposits (B2) oosits (B3) of or Crust (B4) oosits (B5) Soil Cracks (B6)	12000 /P.T.	Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S	311) rtebrates (l ulfide Odor izospheres Reduced II Reduction I tressed Pla	B13) (C1) along Liv ron (C4) in Tilled S	Soils (C6)	4A	age Patterns (B10) leason Water Table (C2) leason Wisher Table (C2) leation Visible on Aerial Imager loorphic Position (D2) low Aquitard (D3) leating Test (D5) leating Ant Mounds (D6) (LRR A)
High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation	on (A3) arks (B1) at Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Im		Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	311) rtebrates (l ulfide Odor izospheres Reduced II Reduction I tressed Pla	B13) (C1) along Liv ron (C4) in Tilled S	Soils (C6)	4A	age Patterns (B10) leason Water Table (C2) lation Visible on Aerial Imager lorphic Position (D2) low Aquitard (D3) Neutral Test (D5)
High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely	on (A3) arks (B1) at Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S		Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	311) rtebrates (l ulfide Odor izospheres Reduced II Reduction I tressed Pla	B13) (C1) along Liv ron (C4) in Tilled S	Soils (C6)	4A	age Patterns (B10) leason Water Table (C2) leason Wisher Table (C2) leation Visible on Aerial Imager loorphic Position (D2) low Aquitard (D3) leating Test (D5) leating Ant Mounds (D6) (LRR A)
High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely	on (A3) arks (B1) arks (B1) ot Deposits (B2) osits (B3) of or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave Seations:	Surface (B8)	Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	311) Intebrates (I Intebrates (I I I I I I I I I I I I I I I I I I I	B13) (C1) along Liv ron (C4) in Tilled S	Soils (C6)	4A	age Patterns (B10) leason Water Table (C2) leason Wisher Table (C2) leation Visible on Aerial Imager loorphic Position (D2) low Aquitard (D3) leating Test (D5) leating Ant Mounds (D6) (LRR A)
High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely Sield Observa	on (A3) arks (B1) at Deposits (B2) sosits (B3) t or Crust (B4) sosits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S ations: r Present? Yes	Surface (B8)	Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	entebrates (I ulfide Odor izospheres Reduced II Reduction tressed Pla in in Rema	B13) (C1) along Liv ron (C4) in Tilled S	Soils (C6)	4A	age Patterns (B10) leason Water Table (C2) leason Wisher Table (C2) leation Visible on Aerial Imager loorphic Position (D2) low Aquitard (D3) leating Test (D5) leating Ant Mounds (D6) (LRR A)
High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation	on (A3) arks (B1) at Deposits (B2) sosits (B3) t or Crust (B4) sosits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S ations: r Present? Yes	Surface (B8)	Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	entebrates (I ulfide Odor izospheres Reduced II Reduction tressed Pla in in Rema	B13) (C1) along Liv ron (C4) in Tilled S	Soils (C6)	4A	age Patterns (B10) leason Water Table (C2) leason Wisher Table (C2) leation Visible on Aerial Imager loorphic Position (D2) low Aquitard (D3) leating Test (D5) leating Ant Mounds (D6) (LRR A)
High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely ield Observa	on (A3) arks (B1) at Deposits (B2) sosits (B3) t or Crust (B4) sosits (B5) Soil Cracks (B6) an Visible on Aerial Im Vegetated Concave S ations: r Present? Yes esent? Yes	Surface (B8)  S No  S No	Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	entebrates (I ulfide Odor izospheres Reduced II Reduction tressed Pla in in Rema	B13) (C1) along Liv ron (C4) in Tilled S	Soils (C6) (LRR A)	Language Lan	age Patterns (B10) leason Water Table (C2) leason Wisher Table (C2) leation Visible on Aerial Imager loorphic Position (D2) low Aquitard (D3) leating Test (D5) leating Ant Mounds (D6) (LRR A)

Remarks:

		Western Mountains, Valleys, and Coast Region
Project/Site: <u>Nechn</u>	City/C	County: McKihles wille / Hunbold Sampling Date:
Applicant/Owner: 6HO for M	12mg Keeha	County: McKihler v. Ne / Hunhold+ Sampling Date: 9/17/
Investigator(s): 1 McCoald	M. Schwarz Secti	ion, Township, Range: 55, T4N, R1E
Landform (hillslope, terrace, etc.): 50	He Loca	al relief (concave, convex, none): Slope (%):
Subregion (LRR):	Lat: 40.32	76452 Long: -124.0974969 Datum: Whi
		5/M/S NWI classification: PEW
	/	Yes No (If no, explain in Remarks.)
		urbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydr		
		mpling point locations, transects, important features, e
annual and a second a second and a second and a second and a second and a second an		
1	res No	Is the Sampled Area
	res No No	within a Wetland? Yes No
Remarks:		*
*Web 1		
**		
VEGETATION - Use scientific na	mes of plants.	
		minant Indicator Dominance Test worksheet:
Tree Stratum (Plot size:		ecies? Status Number of Dominant Species
1.		
3.		
3,		
	= To	otal Cover That Are OBL, FACW, or FAC: (A/
Sapling/Shrub Stratum (Plot size:		Prevalence Index worksheet:
1.		Total % Cover of: Multiply by:
2		
3.		FACV species x z -
4		FAC species x 3 =
5-	= To	rtal Cover x 4 =
Herb Stratum (Plot size: 7	-	UPL species X 5 =
1 Carex amusta		Column Totals: (A)
2 festura armaina	CE YOY	Prevalence Index = B/A =
3. Agrestis stalonites	35 Y	Hydrophytic Vegetation Indicators:
4. Ranunculus repens		1 - Rapid Test for Hydrophytic Vegetation
5 Lotes corniculatus		2 - Dominance Test is >50%
6. Holcus lanatus		3 - Prevalence Index is ≤3.0¹
7.		4 - Morphological Adaptations¹ (Provide support data in Remarks or on a separate sheet)
8-		5 - Wetland Non-Vascular Plants¹
9		Problematic Hydrophytic Vegetation¹ (Explain)
10.		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11.	160 = Tota	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:		
1,	mparaticipa de la comparaticipa del comparaticipa de la comparaticipa del comparaticipa de la comparaticipa de la comparaticipa del comparaticipa del comparaticipa de la comparaticipa del	Hydrophytic
2.		Vegetation Present? Yes V
	= Tot	tal Cover
% Bare Ground in Herb Stratum		
Remarks Passes FAC-r	reutral	

			M 135		chn	1//// 61	Sampling Point: WI
Profile Description: (Describe to t	he depth ne	eded to doci	ument the i	indicator		m the absence of	
Matrix			lox Features		2. 20	and absence Of	marcators.)
(inches) Color (moist)	% C	olor (moist)	%	Type'	Loc <sup>2</sup>	Texture	Remarks
<u>0-5</u> 10483/2	90 7.5	TYR 16	10	1	M	/ -	Kemarks
5-14 1048 3/2	85 75	129/4	7.5	<u> </u>	n	Loam _	·
	70	1777	/			Silt Loam	
					A 1		
				77.4	and the second		
	4 4 .			-		Y	3
							Water State of the
	-				14		
							Management of the second secon
Type: C=Concentration, D=Depletion Hydric Soil Indicators: (Applicable	n, RM=Redu	iced Matrix, C	S=Covered	or Coate	d Sand Gr		n: PL=Pore Lining, M=Matrix.
Histosol (A1)			1,	a.)		Indicators f	or Problematic Hydric Soils <sup>3</sup> :
Histic Epipedon (A2)		Sandy Redox (					ick (A10)
Black Histic (A3)		Stripped Matrix		,		Red Par	ent Material (TF2)
Hydrogen Sulfide (A4)	L	oamy Mucky M	viinerai (F1)	(except	MLRA 1)		allow Dark Surface (TF12)
Depleted Below Dark Surface (A1		oamy Gleyed epleted Matrix				Other (E	xplain in Remarks)
Thick Dark Surface (A12)		edox Dark Su	rface (Ee\			3,	e san f
Sandy Mucky Mineral (S1)	→ n	epleted Dark	Surface (F0) **	<b>1</b>		Indicators of	hydrophytic vegetation and
Sandy Gleyed Matrix (S4)		edox Depress		<b>'</b>		wetland h	ydrology must be present,
estrictive Layer (if present):			10110 (1 0)			uniess ais	turbed or problematic
Type:	· Marine						
Depth (inches):						Hundrig Call Da	ent? Yes X No
					1 . 2	Try and Con Fies	ent? Yes No
lemarks:							ent tes /- No
							in tes /- No
'DROLOGY							Tes /- No
'DROLOGY etland Hydrology Indicators:	Wired check	(all that apply)					
'DROLOGY etland Hydrology Indicators: rimary Indicators (minimum of one rec	juired; check					Secondary	Indicators (2 or more required)
'DROLOGY  etland Hydrology Indicators:  imary Indicators (minimum of one reco  Surface Water (A1)	uired; check	_ Water-Stain	ed Leaves		sept	Secondary	Indicators (2 or more required)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of one red _ Surface Water (A1) _ High Water Table (A2)	uired; check	_ Water-Stain MLRA 1	ed Leaves , 2, 4A, and		cept	Secondary Water-	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B)
DROLOGY  etland Hydrology Indicators: imary Indicators (minimum of one red _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3)	uired; check	_ Water-Stain MLRA 1 _ Salt Crust (I	ed Leaves , <b>2, 4A, and</b> B11)	14B)	cept	Secondary Water-	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B)
TDROLOGY  etland Hydrology Indicators: imary Indicators (minimum of one reg Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	uired; check	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve	ned Leaves , <b>2, 4A, and</b> B11) ertebrates (E	1 <b>4B)</b> B13)	cept	Secondary  Water- 4A,  Drainag	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) Je Patterns (B10)
PROLOGY  Tetland Hydrology Indicators:  Timary Indicators (minimum of one recommany Indicators (Minimum of one recommany Indicators (Minimum of one recommany Indicators (MI)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)	juired; check	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve	ned Leaves , 2, 4A, and B11) ertebrates (E ulfide Odor	B13) (C1)		Secondary  Water- 4A,  Drainag  Dry-Se.  Saturat	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) pe Patterns (B10) 5 ( ) ason Water Table (C2)
PROLOGY  Tetland Hydrology Indicators:  Timary Indicators (minimum of one red  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)	juired; check	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh	ned Leaves ( , <b>2, 4A, and</b> B11) ertebrates (E ulfide Odor nizospheres	1 4B) B13) (C1) along Liv		Secondary  Water- 4A,  Drainag  Dry-Se.  Saturat	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) pe Patterns (B10) Sugle ason Water Table (C2) ion Visible on Aerial Imagery (C9
etland Hydrology Indicators: imary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	juired: check	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve	ned Leaves ( , <b>2, 4A, and</b> B11) ertebrates (E ulfide Odor nizospheres	1 4B) B13) (C1) along Liv		Secondary  Water- 4A,  Drainac  Dry-Se.  Saturat  (C3)  Geomo	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) Swale ason Water Table (C2) ion Visible on Aerial Imagery (C9 rphic Position (D2) Swale
retland Hydrology Indicators: imary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	juired; check	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of	ned Leaves ( , <b>2, 4A, and</b> B11) ertebrates (E ulfide Odor dizospheres Reduced Ir	14B) B13) (C1) along Liveron (C4)	ving Roots	Secondary  Water- 4A,  Drainag  Dry-Se.  Saturat  (C3)  Geomo	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) The Patterns (B10)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)		Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron	ned Leaves ( , 2, 4A, and ( B11) ertebrates (E ( ulfide Odor ( ilzospheres ( Reduced Ir ( Reduction in ( )	H4B)  B13)  (C1)  along Liveron (C4)  in Tilled S	ving Roots	Secondary  Water- 4A,  Drainag  Dry-Se.  Saturat  (C3)  Geomo  Shallow  FAC-Ne	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) De Patterns (B10) Swale ason Water Table (C2) Ion Visible on Aerial Imagery (C9 rphic Position (D2) Swale Aquitard (D3) Eutral Test (D5)
retland Hydrology Indicators: imary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S	ned Leaves ( , 2, 4A, and ( B11)  ertebrates (E ( ulfide Odor ( izospheres ( Reduced Ir ( Reduction interessed Pla	B13) (C1) along Livron (C4) in Tilled S	ving Roots	Secondary  Water- 4A,  Drainag  Dry-Se.  Saturat  (C3)  Geomo  Shallow  FAC-Ne  Raised	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) Be Patterns (B10) Signale Beason Water Table (C2) Beason Water Table (C2) Beason Water Table (C2) Beason Water Table (C3) Beason Water Table (C4) Beason Water Table (C4) Beason Water Table (C5) Beason Water Table (C4) Beason Water Table (C5) Beason Water Table (C5) Beason Water Table (C6) Beaso
CDROLOGY  etland Hydrology Indicators: imary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)		Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron	ned Leaves ( , 2, 4A, and ( B11)  ertebrates (E ( ulfide Odor ( izospheres ( Reduced Ir ( Reduction interessed Pla	B13) (C1) along Livron (C4) in Tilled S	ving Roots	Secondary  Water- 4A,  Drainag  Dry-Se.  Saturat  (C3)  Geomo  Shallow  FAC-Ne  Raised	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) De Patterns (B10) Swale ason Water Table (C2) Ion Visible on Aerial Imagery (C9 rphic Position (D2) Swale Aquitard (D3) Eutral Test (D5)
etland Hydrology Indicators: imary Indicators (minimum of one requirement of surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface		Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S	ned Leaves ( , 2, 4A, and ( B11)  ertebrates (E ( ulfide Odor ( izospheres ( Reduced Ir ( Reduction interessed Pla	B13) (C1) along Livron (C4) in Tilled S	ving Roots	Secondary  Water- 4A,  Drainag  Dry-Se.  Saturat  (C3)  Geomo  Shallow  FAC-Ne  Raised	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) Be Patterns (B10) Signale Beason Water Table (C2) Beason Water Table (C2) Beason Water Table (C2) Beason Water Table (C3) Beason Water Table (C4) Beason Water Table (C4) Beason Water Table (C5) Beason Water Table (C4) Beason Water Table (C5) Beason Water Table (C5) Beason Water Table (C6) Beaso
etland Hydrology Indicators: imary Indicators (minimum of one reconstruction) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surfaced (disperse)	(B7)	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves , 2, 4A, and B11) ertebrates (E ulfide Odor ilzospheres Reduced Ir Reduction in tressed Pla in in Reman	B13) (C1) along Livron (C4) in Tilled S	ving Roots	Secondary  Water- 4A,  Drainag  Dry-Se.  Saturat  (C3)  Geomo  Shallow  FAC-Ne  Raised	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) Be Patterns (B10) Signal (C9) Be Patterns (B10) Signal
/DROLOGY  /etland Hydrology Indicators:	(B7)	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves , 2, 4A, and B11) ertebrates (E ulfide Odor ilizospheres Reduced Ir Reduction in tressed Pla ain in Reman	B13) (C1) along Livron (C4) in Tilled S	ving Roots	Secondary  Water- 4A,  Drainag  Dry-Se.  Saturat  (C3)  Geomo  Shallow  FAC-Ne  Raised	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2, and 4B) Be Patterns (B10) S (Lo (e) ason Water Table (C2) Ion Visible on Aerial Imagery (C9) Tryphic Position (D2) S (Lo (e) e) Tryphic Aquitard (D3) Entral Test (D5) Ant Mounds (D6) (LRR A)
/DROLOGY  /etland Hydrology Indicators:	(B7)ce (B8)	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves , 2, 4A, and B11) ertebrates (E ulfide Odor aizospheres Reduced Ir Reduction in stressed Pla ain in Reman	B13) (C1) along Livron (C4) in Tilled S	ving Roots Soils (C6) (LRR A)	Secondary  Water- 4A,  X Drainag  Dry-Se.  Saturat  (C3) X Geomo  Shallow  FAC-Ne  Raised  Frost-H	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2, and 4B) De Patterns (B10) S (Jole ason Water Table (C2) Ion Visible on Aerial Imagery (C9 rephic Position (D2) S (Jole A) Paraylard (D3) Paraylard (D5) Ant Mounds (D6) (LRR A) Deave Hummocks (D7)
PROLOGY  Tetland Hydrology Indicators:  Timary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Id Observations:  Tace Water Present?  Test Table Pr	(B7)	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves , 2, 4A, and B11) ertebrates (E ulfide Odor eizospheres Reduced Ir Reduction in tressed Pla ein in Remar	id 4B) B13) (C1) along Liv ron (C4) in Tilled S ints (D1) rks)	ving Roots Soils (C6) (LRR A)	Secondary  Water- 4A,  Drainag  Dry-Se.  Saturat  (C3)  FAC-Ne  Raised  Frost-H	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2, and 4B) ge Patterns (B10) S Cook ason Water Table (C2) ion Visible on Aerial Imagery (C9 rephic Position (D2) S Cook Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A) eave Hummocks (D7)
retland Hydrology Indicators:  imary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Id Observations: face Water Present? Ves uration Present? Ves uration Present? Ves uration Present? Ves uration Recorded Data (stream gauge,	(B7)	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves , 2, 4A, and B11) ertebrates (E ulfide Odor eizospheres Reduced Ir Reduction in tressed Pla ein in Remar	id 4B) B13) (C1) along Liv ron (C4) in Tilled S ints (D1) rks)	ving Roots Soils (C6) (LRR A)	Secondary  Water- 4A,  Drainag  Dry-Se.  Saturat  (C3)  FAC-Ne  Raised  Frost-H	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2, and 4B) ge Patterns (B10) S (Job Le ason Water Table (C2) ion Visible on Aerial Imagery (C9 riphic Position (D2) S (Job Le a) Aquitard (D3) getral Test (D5) Ant Mounds (D6) (LRR A) geave Hummocks (D7)
PROLOGY  Tetland Hydrology Indicators:  Timary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Id Observations:  Tace Water Present?  Test Table Pr	(B7)	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves , 2, 4A, and B11) ertebrates (E ulfide Odor eizospheres Reduced Ir Reduction in tressed Pla ein in Remar	id 4B) B13) (C1) along Liv ron (C4) in Tilled S ints (D1) rks)	ving Roots Soils (C6) (LRR A)	Secondary  Water- 4A,  Drainag  Dry-Se.  Saturat  (C3)  FAC-Ne  Raised  Frost-H	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2, and 4B) De Patterns (B10) S (Jole ason Water Table (C2) Ion Visible on Aerial Imagery (C9 rephic Position (D2) S (Jole A) Paraylard (D3) Paraylard (D5) Ant Mounds (D6) (LRR A) Deave Hummocks (D7)
retland Hydrology Indicators:  imary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Id Observations: face Water Present? Ves uration Present? Ves uration Present? Ves uration Present? Ves uration Recorded Data (stream gauge,	(B7)	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves , 2, 4A, and B11) ertebrates (E ulfide Odor eizospheres Reduced Ir Reduction in tressed Pla ein in Remar	id 4B) B13) (C1) along Liv ron (C4) in Tilled S ints (D1) rks)	ving Roots Soils (C6) (LRR A)	Secondary  Water- 4A,  Drainag  Dry-Se.  Saturat  (C3)  FAC-Ne  Raised  Frost-H	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2 and 4B) De Patterns (B10) Signal (C9) De Patterns (B10) Signal
retland Hydrology Indicators:  imary Indicators (minimum of one red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface Id Observations: face Water Present? Ves uration Present? Ves uration Present? Ves uration Present? Ves uration Recorded Data (stream gauge,	(B7)	Water-Stain MLRA 1 Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves , 2, 4A, and B11) ertebrates (E ulfide Odor eizospheres Reduced Ir Reduction in tressed Pla ein in Reman	id 4B) B13) (C1) along Liv ron (C4) in Tilled S ints (D1) rks)	ving Roots Soils (C6) (LRR A)  Wetland	Secondary  Water- 4A,  Drainag  Dry-Se.  Saturat  (C3)  FAC-Ne  Raised  Frost-H	Indicators (2 or more required) Stained Leaves (B9) (MLRA 1, 2, and 4B) ge Patterns (B10) S (Lock ason Water Table (C2) ion Visible on Aerial Imagery (C9) rephic Position (D2) S (Lock a) repaired (D3) seutral Test (D5) Ant Mounds (D6) (LRR A) eave Hummocks (D7)

## WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

bregion (LRR): Arc2+2	Lat: 40	Local relief (concave, p. 93 276452  de, h. 2 - 9 90 ar? Yes No_disturbed? Are oblematic? (If ne	convex, none): NONE Slope (%): Sl
lydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	No No No	Is the Sampled within a Wetlan	
EGETATION – Use scientific names of	plants.	A STATE OF THE STA	
Tree Stratum (Plot size:)  1  2  3	Absolute % Cover		Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  (A)
4	<i>h.</i> .	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)
Sapling/Shrub Stratum (Plot size:	<b>)</b>	X 1	Prevalence Index worksheet:
2.			Total % Cover of: Multiply by:
3.			OBL species x 1 = FACW species x 2 =
			FAC species x 3 =
5.			FACU species x 4 =
1.02		= Total Cover	UPL species x 5 =
Herb Stratum (Plot size:	2 50	V FAC	Column Totals: (A) (B
Anthoxanthumederate		Y EACU	Prevalence Index = B/A =
Festuca acundinacea	12	AC	Hydrophytic Vegetation Indicators:
Hypochaeriscadicata	Ч	1	1 - Rapid Test for Hydrophytic Vegetation
Lotus corniculations	2		2 - Dominance Test is >50%
Daucus carota	3_		3 - Prevalence Index is ≤3.01
Photogo isocedata	3		4 - Morphological Adaptations1 (Provide supporting
3			data in Remarks or on a separate sheet)
9			5 - Wetland Non-Vascular Plants
10.			Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
11,			be present, unless disturbed or problematic.
	44_	_= Total Cover	Ψ.
Woody Vine Stratum (Plot size:			Hydrophytic
1.	÷	* ************************************	Vegetation
2		= Total Cover	Present? Yes V No

SOIL				MBSV	leeha 9/17/21 Sampling Point: WIT
Profile Des	scription: (Describe	to the dep	th needed to document the	e indicator or cont	firm the absence of indicators.)
F 1	IVIALIX		Redox Feature	ree	irm the absence of indicators.)
(inches)	Color (moist)	%	Color (moist) %	Type! Loc2	Texture Remarks
0-6	104R3/Z	100	***		Remarks
6-14	1048313	100			-Silt Loan
-					Silloan
***					
		A			
	. It is	- <u> </u>			
	4	,			
1922					A CONTRACTOR OF THE CONTRACTOR
					A
Type: C=C	Concentration, D=Dep	letion, RM=	Reduced Matrix, CS=Covere	-d Ocated Sand	- 4
•	water of (Abbuce	able to all I	LRRs, unless otherwise not	ed or Coated Sand (	
mistoso	OI (A1)		Sandy Redox (S5)	tea.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histic E	Epipedon (A2)	<del>-</del>	Stripped Matrix (S6)		2 cm Muck (A10)
Black H	Histic (A3)		Loamy Mucky Mineral (F	141 /avanat MI DA	Red Parent Material (TF2)
Hydrog	gen Sulfide (A4)		Loamy Gleyed Matrix (F2	)) (except withway	- January Dank Canace (17-12)
Deplete	ed Below Dark Surface	e (A11)	Depleted Matrix (F3)	د)	Other (Explain in Remarks)
Thick D	Dark Surface (A12)		Redox Dark Surface (F6)	A	Bladians of the death, the control of
Sandy r	Mucky Mineral (S1)	•	Depleted Dark Surface (F	F7)	Indicators of hydrophytic vegetation and
Sanoy c	Gleyed Matrix (S4)		Redox Depressions (F8)	e de la companya de l	wetland hydrology must be present, unless disturbed or problematic.
	Layer (if present):	Y	The state of the s	***************************************	unless disturbed or problematic.
Type:					
Depth (in	iches):	-	Trial Indiana		
Remarks:					Hydric Soil Present? Yes No
					The second of th
VDBOI C					<u> </u>
YDROLO Wetland Hyd	OGY drology Indicators:	No.			
		dendi		5 .	
Curtare	cators (minimum of on	e requirea;			Secondary Indicators (2 or more required)
	Water (A1)		Water-Stained Leave	es (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2
	ater Table (A2)		MLRA 1, 2, 4A, ar	ind 4B)	4A, and 4B)
Saturatio			Salt Crust (B11)		
	farks (B1)		Aquatic Invertebrates	s (B13)	Drainage Patterns (B10)
	nt Deposits (B2)		Hydrogen Sulfide Odd		Dry-Season Water Table (C2)
	posits (B3)		Oxidized Rhizosphere		Saturation Visible on Aerial Imagery (C
	at or Crust (B4)		Presence of Reduced	d Iron (C4)	ots (C3) Geomorphic Position (D2)
	posits (B5)		Recent Iron Reduction		Shallow Aquitard (D3)
	Soil Cracks (B6)		Stunted or Stressed P	Plants (D1) (LRR A	restraintest (D5)
Inundatio	on Visible on Aerial Ima	agery (B7)	Other (Explain in Rem	marka)	(LRR A)
Sparsely	Vegetated Concave S	Surface (B8)	A	nains)	Frost-Heave Hummocks (D7)
ield Observ	/ations:	-			
Surface Water	_	s No	V Donth (inches)		
Vater Table P					
Saturation Pre		S No			
ncludes capil	illary fringe)			Wetla	and Hydrology Present? Yes No X
escribe Recr	orded Data (stream gr	auge. monit	toring well, aerial photos, prev	1-1-1-1-1-1	No X
		10g0,	offing well, aeriai priotos, prev	vious inspections), i	if available:
emarks:	-	***************************************	The state of the s	75	

WETLAND DETERMINATION DATA FORM – Western Moun	tains, Yalleys, and Coast Region
Project/Site: Hechn City/County: Mellinles	Alla / Hambold Sampling Date: 9122/21
Applicant/Owner GAD for Mary Keehn Revel.	State: (A Sampling Point: WITHU
Investigator(s): K. McDonald, M. Schwzz Section, Township, Range	ge: SS, T6N, R1E
Landform (hillslope, terrace, etc.) hillslope Local relief (concave, co	
Subregion (LRR): 46, 93306245	Long: -124.099124 Datum: WKS 841
Soil Map Unit Name: Arezta 3 (2rdyont, 2990 Slopes	NWI classification: _ / we
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 "N	
	ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present?  Yes No Is the Sampled a within a Wetland	• • • • • • • • • • • • • • • • • • • •
vveiland Hydrology Present? Yes V No No	The state of the s
Remarks:	
VEGETATION – Use scientific names of plants.	
Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	Number of Dominant Species That Are OBL, FACW, or FAC:  (A)
2	
3	Total Number of Dominant Species Across All Strata:  (B)
4	Percent of Dominant Species
= Total Cover	That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)	Prevalence Index worksheet:
1	Total % Cover of: Multiply by:
3	OBL species x 1 =
4	FACW species x 2 = FAC species x 3 =
5	FACU species x 4 =
= Total Cover	UPL species x 5 =
Herb Stratum (Plot size: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Column Totals: (A) (B)
1 Holcus lanation SS / FAC 2 Agrostis stolonifers 45 y EAC	Prevalence Index = B/A =
3 Anthoxanthumodoratum 10 CACU	Hydrophytic Vegetation Indicators:
4 Letus corniculatus 4 EAC	
5 Festuca acundinaced 3 FAC	2 - Dominance Test is >50%
6.	3 - Prevalence Index is ≤3.0 <sup>1</sup>
7	<ul> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
8	5 - Wetland Non-Vascular Plants <sup>1</sup>
9.	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
11 = Total Cover	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	74
1,	Hydrophytic Vegetation
2. = Total Cover	Present? Yes No
% Bare Ground in Herb Stratum = Total Cover	
Remarks:	A STATE OF THE STA

		MBS	Vrehn	9/22/2	2.1	Sampling Point: W17
Profile Description: (Descri	ibe to the dept	h needed to docum	nent the indicate	or or confirm	n the absence of	indicators)
Depth Matri (inches) Color (moist)	X	Redox	x Features			
0-7 10482/2	-	Color (moist)		Loc <sup>2</sup>	<u>Texture</u>	Remarks
7 10	2 100		William Marin	-	Loam	
7-13 10918 E/z	70	7.5189/4	<u>30 c</u>	m	Loan	9.5
	-	*				
				1 4		
				-		AND THE PROPERTY OF THE PROPER
				***************************************		Average of the second s
			***************************************	-		
		The state of the s				· · · · · · · · · · · · · · · · · · ·
Type: C=Concentration, D=E	Penletion PM=0	Paduoad Matrix, CC.				
lydric Soil Indicators: (App	olicable to all L	RRs, unless other	eCovered or Coa	ted Sand Gra		on: PL=Pore Lining, M=Matrix.
_ Histosol (A1)		Sandy Redox (S				for Problematic Hydric Soils <sup>3</sup> :
Histic Epipedon (A2)		Stripped Matrix (	,			uck (A10) rent Material (TF2)
Black Histic (A3)		Loamy Mucky Mi	ineral (F1) (exce	pt MLRA 1)		allow Dark Surface (TF12)
<ul><li>Hydrogen Sulfide (A4)</li><li>Depleted Below Dark Surf</li></ul>	(A44)	Loamy Gleyed M				Explain in Remarks)
Thick Dark Surface (A12)	lace (ATT)	Depleted Matrix ( Redox Dark Surfa				7,4
_ Sandy Mucky Mineral (S1		_ Depleted Dark St			"Indicators o	f hydrophytic vegetation and
_ Sandy Gleyed Matrix (S4)		Redox Depressio				ydrology must be present, sturbed or problematic.
estrictive Layer (if present)	4					The state of the s
Type:						
Depth (inches):					Hydric Soil Pre	sent? Yes K No
/DROLOGY			×.			
'DROLOGY 'etland Hydrology Indicator	S:		8.			
		check all that apply)	5.		Secondary	Indicators (2 or more required)
etland Hydrology Indicator			ed Leaves (B9) (e	xcept		Indicators (2 or more required) Stained Leaves (B9) (MLRA 1.2
etland Hydrology Indicator		Water-Staine	ed Leaves (B9) (e 2, 4 <b>A</b> , and 4 <b>B</b> )	except	Water	
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3)		Water-Staine MLRA 1, Salt Crust (B	<b>2, 4A, and 4B)</b> 11)	except	Water	-Stained Leaves (B9) (MLRA 1, 2
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)		Water-Staine MLRA 1, Salt Crust (B Aquatic Inver	2, 4A, and 4B) 11) rtebrates (B13)	xcept	Water  4A,  Draina  Dry-Se	Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) eason Water Table (C2)
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		Water-Staine MLRA 1, Salt Crust (B Aquatic Inver	2, 4A, and 4B) 11) rtebrates (B13) alfide Odor (C1)		Water  4A  Draina  Dry-Se  Satura	Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) eason Water Table (C2) tion Visible on Aerial Imagery (C
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz	2, 4A, and 4B) 11) tebrates (B13) difide Odor (C1) zospheres along	Living Roots	Water 4A, Draina Dry-Se Satura (C3) K Geome	Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) eason Water Table (C2) tion Visible on Aerial Imagery (Copphic Position (D2)
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz	2, 4A, and 4B) 11) rtebrates (B13) lifide Odor (C1) zospheres along Reduced Iron (C4)	Living Roots	Water 4A Draina Dry-Se Satura (C3)  Geome Shallon	Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) eason Water Table (C2) tion Visible on Aerial Imagery (Corphic Position (D2) Low Sow w Aquitard (D3)
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)		Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F	2, 4A, and 4B) 11) rtebrates (B13) ilfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tille	Living Roots I) d Soils (C6)	Water	Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) eason Water Table (C2) tion Visible on Aerial Imagery (Corphic Position (D2) Low Sow w Aquitard (D3) eutral Test (D5)
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	fone required; c	Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F	2, 4A, and 4B) 11) rtebrates (B13) ilfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tiller ressed Plants (D	Living Roots I) d Soils (C6)	Water  4A,  Draina  Dry-Se  Satura  (C3)  Geome  Shallon  FAC-N  Raised	Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) eason Water Table (C2) tion Visible on Aerial Imagery (Copphic Position (D2) Low Sow w Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A)
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	f one required; o	Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or Sti	2, 4A, and 4B) 11) rtebrates (B13) ilfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tille	Living Roots I) d Soils (C6)	Water  4A,  Draina  Dry-Se  Satura  (C3)  Geome  Shallon  FAC-N  Raised	Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) eason Water Table (C2) tion Visible on Aerial Imagery (Copphic Position (D2) Low Sow Aquitard (D3) eutral Test (D5)
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial	f one required; o	Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or Sti	2, 4A, and 4B) 11) rtebrates (B13) ilfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tiller ressed Plants (D	Living Roots I) d Soils (C6)	Water  4A,  Draina  Dry-Se  Satura  (C3)  Geome  Shallon  FAC-N  Raised	Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) eason Water Table (C2) tion Visible on Aerial Imagery (C5 orphic Position (D2) Low Swaw Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A)
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concaveld Observations:	f one required; o	Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or Sta	2, 4A, and 4B) 11) rtebrates (B13) ilfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tillet ressed Plants (D n in Remarks)	Living Roots I) d Soils (C6)	Water  4A,  Draina  Dry-Se  Satura  (C3)  Geome  Shallon  FAC-N  Raised	Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) eason Water Table (C2) tion Visible on Aerial Imagery (C5 orphic Position (D2) Low Swaw Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A)
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concaveld Observations:	f one required; of I Imagery (B7) ve Surface (B8)	Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or St Other (Explain	2, 4A, and 4B) 11) rtebrates (B13) ilfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tillet ressed Plants (D n in Remarks)	Living Roots I) d Soils (C6)	Water  4A,  Draina  Dry-Se  Satura  (C3)  Geome  Shallon  FAC-N  Raised	Stained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) eason Water Table (C2) tion Visible on Aerial Imagery (C5 orphic Position (D2) Low Swaw Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A)
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concavold Observations: rface Water Present?	I Imagery (B7) ve Surface (B8)	Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or St Other (Explain	2, 4A, and 4B) 11) rtebrates (B13) ilfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tiller ressed Plants (D n in Remarks)	Living Roots  i) d Soils (C6) 1) (LRR A)	Water  4A,  Draina  Dry-Se  Satura  (C3)  Geome  Shallon  FAC-N  Raised	eStained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) eason Water Table (C2) tion Visible on Aerial Imagery (Cs orphic Position (D2) Low Soon w Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A) deave Hummocks (D7)
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concavel (B4) Indicator Visible on Aerial Table Present?	I Imagery (B7) ve Surface (B8) Yes No Yes No	Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or St Other (Explain	2, 4A, and 4B) 11) rtebrates (B13) slifide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tiller ressed Plants (D n in Remarks)	Living Roots  I)  I Soils (C6)  I) (LRR A)  Wetland	Water 4A, Draina Dry-Se Satura (C3) K Geome Shallon FAC-N Raised Frost-F	eStained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) eason Water Table (C2) tion Visible on Aerial Imagery (City or Position (D2) Low Sont Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A) deave Hummocks (D7)
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concavold Observations: rface Water Present?	I Imagery (B7) ve Surface (B8) Yes No Yes No	Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or St Other (Explain	2, 4A, and 4B) 11) rtebrates (B13) slifide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tiller ressed Plants (D n in Remarks)	Living Roots  I)  I Soils (C6)  I) (LRR A)  Wetland	Water 4A, Draina Dry-Se Satura (C3) K Geome Shallon FAC-N Raised Frost-F	eStained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) eason Water Table (C2) tion Visible on Aerial Imagery (Cs orphic Position (D2) Law Sax w Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A) deave Hummocks (D7)
retland Hydrology Indicator rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concavel (B4) Indicator Visible on Aerial Table Present?	I Imagery (B7) ve Surface (B8) Yes No Yes No	Water-Staine MLRA 1, Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron F Stunted or St Other (Explain	2, 4A, and 4B) 11) rtebrates (B13) slifide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tiller ressed Plants (D n in Remarks)	Living Roots  I)  I Soils (C6)  I) (LRR A)  Wetland	Water 4A, Draina Dry-Se Satura (C3) K Geome Shallon FAC-N Raised Frost-F	eStained Leaves (B9) (MLRA 1, 2 and 4B) ge Patterns (B10) eason Water Table (C2) tion Visible on Aerial Imagery (Cs orphic Position (D2) Low Soon w Aquitard (D3) eutral Test (D5) Ant Mounds (D6) (LRR A) deave Hummocks (D7)

		ntains, Valleys, and Coast Region
Project/Site: herw	City/County: McKinle	Suile Humboldt Sampling Date: 9/22/2
Applicant/Owner: GHO for Mary	Keeps	State: A Sampling Point: L.1T4-U
Investigator(s): M. Schwarz, h. M.D.	Section Township Ran	08 SS TON RIE
		onvex, none): 1000 Slope (%): 10
Subracian (LRR):	101 40 973 01 245	Long: -124, 0994124 Datum: 64594
Soil Map Unit Name: Arck+z and Cand	( to 30823	LONG. 107, 077 Datum. 100
	, , , ,	•
Are climatic / hydrologic conditions on the site typical for	-	•
		Normal Circumstances" present? YesNo
Are Vegetation, Soil, or Hydrology		eded, explain any answers in Remarks.)
		ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes		Area
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	. INO	. <i>I</i>
Remarks:	- 140	
The second second second		
		MAN AND AND AND AND AND AND AND AND AND A
VEGETATION – Use scientific names of p		Daniel Tankanala kask
Tree Stratum (Plot size:)	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet:  Number of Dominant Species
1.		That Are OBL, FACW, or FAC: (A)
2.		Total Number of Dominant
3. 4.		Species Across All Strata: (B)
	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B)
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1,		Total % Cover of: Multiply by:
2		OBL species x 1 =
4.		FACW species x 2 =
5.		FAC species x 3 =
	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:	ul V CAC	UPL species x 5 = Column Totals: (A) (B)
1. Harostis stdanifers	-12-150	Column rotals (A)
3 Aotta xanthum about	un 13 Y FACU	Prevalence Index = B/A =
3 Anthoxanthum atcatt	3 (A(I)	Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation
5 Leotados saratilis	2 CACU	2 - Dominance Test is >50%
6 Particular colate	FACU	3 - Prevalence Index is ≤3.01
7 Totas raniculatus	3 FAC	4 - Morphological Adaptations¹ (Provide supporting
8. Davous carola	_ 2FA(U	data in Remarks or on a separate sheet)
9. Rumex acetosella		5 - Wetland Non-Vascular Plants1
10.		Problematic Hydrophytic Vegetation¹ (Explain)
11.	<u> </u>	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	= Total Cover	
1		Hydrophytic
2.	Control Contro	Vegetation
1	= Total Cover	Present? Yes No
% Bare Ground in Herb Stratum	Ports	
Remarks:		

SOIL		45	MI			122/21	Sampling Point: W/	, ,
		to the dep	th needed to docum		ator or confirm	n the absence o	f indicators.)	
Depth (inches)	Color (moist)	%	Color (moist)	Features Tu	pe' Loc²	Taytura	Remarks	
0-9	104R3/2	-	Color (moist)	<u>% Ty</u>	pe' Loc'	Texture	Remarks	
9	101 2012	100	1 - 10011.			Loam	- 11 1	
9-14	10913	80	7.5489/4	20 (	_ m	Loam)	Silf Loam	ils.
		-						
							·	***************************************
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	_							
				***************************************		- Annual Control of the Control of t		
					***************************************		140000000000000000000000000000000000000	***************************************
¹Type: C=Co	ncentration. D=Der	oletion. RM=	Reduced Matrix, CS=	Covered or C	oated Sand Gr	rains. <sup>2</sup> Locat	tion: PL=Pore Lining, M=Matrix	(_
			RRs, unless otherw				for Problematic Hydric Soils	
Histosol (	A1)		Sandy Redox (St	5)		2 cm l	fluck (A10)	
	pedon (A2)		Stripped Matrix (	•			arent Material (TF2)	
Black His			Loamy Mucky Mi		cept MLRA 1)		Shallow Dark Surface (TF12)	
	Sulfide (A4)		Loamy Gleyed M	, ,		Other	(Explain in Remarks)	
	Below Dark Surfac k Surface (A12)	e (A11)	Depleted Matrix ( Redox Dark Surfa			3 <sub>lodinators</sub>	of hydronhydio yezatatlan a - 1	
	ucky Mineral (S1)		Depleted Dark Sun	. ,			of hydrophytic vegetation and hydrology must be present,	
	eyed Matrix (S4)	•	Redox Depressio	. ,			disturbed or problematic.	
	yer (if present):		7.8	`a.		1		
Type:			<u>. 18 </u>					
Depth (inch	nes):					Hydric Soil Pr	esent? Yes No	C
Remarks:		***************************************				1		
				and the				
YDROLOG	iΥ							
Netland Hydr	ology Indicators:						The state of the s	
Primary Indicat	tors (minimum of o	ne required;	check all that apply)	other		Seconda	ry Indicators (2 or more require	<u>ed)</u>
Surface W	. ,		Water-Staine	d Leaves (B9	) (except	Wat	er-Stained Leaves (B9) (MLRA	1, 2,
High Wate	r Table (A2)		MLRA 1,	2, 4A, and 4E	3)	. 4	A, and 4B)	
Saturation	(A3)		Salt Crust (B	11)		Drai	nage Patterns (B10)	
Water Mar	ks (B1)		Aquatic Inver	tebrates (B13	3)	Dry-	Season Water Table (C2)	
Sediment I	Deposits (B2)		Hydrogen Su	lfide Odor (C1	1)	Satu	ration Visible on Aerial Imagery	y (C9)
Drift Depos	sits (B3)		Oxidized Rhi	zospheres alo	ong Living Root	s (C3) Geo	morphic Position (D2)	
Algal Mat o	or Crust (B4)		Presence of	Reduced Iron	(C4)	Shal	low Aquitard (D3)	
Iron Depos	its (B5)				illed Soils (C6)	FAC	-Neutral Test (D5)	
Surface So	il Cracks (B6)		Stunted or St	ressed Plants	(D1) (LRR A)	Rais	ed Ant Mounds (D6) (LRR A)	
Inundation	Visible on Aerial In	magery (B7)	Other (Explai	n in Remarks	)	Fros	t-Heave Hummocks (D7)	
0	egetated Concave	Surface (B8	9)	· · · · · · · · · · · · · · · · · · ·				
Sparsely V	land	Harris and the control of the contro		1400000 1100 1100 1100 1100 1100 1100 1				
	ions:		X Donah Graha	e).		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		
ield Observat		s No	Depth (inche	,3,,				
ield Observat urface Water I	Present? Ye	s No		,	·			
ield Observat aurface Water f Vater Table Pre	Present? Ye	s No	Depth (inche	es):	Wetla	nd Hydrology P	resent? Ves No	Č
ield Observat Surface Water f Vater Table Pre Saturation Pres	Present? Ye esent? Ye ent? Ye	-	Depth (inche	es):	Wetla	nd Hydrology P	resent? Yes No	<u>c</u>
Field Observat Surface Water F Vater Table Pres Saturation Pres ncludes capilla	Present? Ye esent? Ye ent? Ye enty ry fringe)	s No	Depth (inche	es):			resent? Yes No	<u> </u>
Field Observat Surface Water F Vater Table Pres Saturation Pres ncludes capilla	Present? Ye esent? Ye ent? Ye enty ry fringe)	s No	Depth (inche	es):			resent? Yes No	<u> </u>
Field Observat Surface Water F Vater Table Pres Saturation Pres ncludes capilla	Present? Ye esent? Ye ent? Ye enty ry fringe)	s No	Depth (inche	es):			resent? Yes No	
Field Observat Surface Water f Vater Table Pre Saturation Pres ncludes capilla Jescribe Record	Present? Ye esent? Ye ent? Ye enty ry fringe)	s No	Depth (inche	es):			resent? Yes No	
ield Observat iurface Water f Vater Table Pre aturation Pres ncludes capilla escribe Record	Present? Ye esent? Ye ent? Ye enty ry fringe)	s No	Depth (inche	es):			resent? Yes No	
Field Observat Surface Water f Vater Table Pres aturation Pres ncludes capilla lescribe Record	Present? Ye esent? Ye ent? Ye enty ry fringe)	s No	Depth (inche	es):			resent? Yes No	

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region City/County: McKinlesville/Homboldt Sampling Date: 9122/21 Project/Site: Leewh Applicant/Owner: 6HD for Many Keek Revel. State: C1 Sampling Point: W1 T5-6 Investigator(s): K. McDonald M. Schnerz Section, Township, Range: 55, TON, RIE Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): 100 Slope (%): Lat: 40.93351877 Long: -124, 0994632 Datum: WAS 84 Subregion (LRR): Soil Map Unit Name: Areatz 3 Candymat 2-9 90 Slapes NWI classification: 1 and 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 \_\_\_\_\_ 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? Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks To Swaf wan VEGETATION – Use scientific names of plants. Dominance Test worksheet: Absolute Dominant Indicator Tree Stratum (Plot size: \_\_\_\_) % Cover Species? Status 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: Sapling/Shrub Stratum (Plot size: \_\_\_\_\_) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species \_\_\_\_\_ x 1 = \_\_\_\_ x 2 = \_\_\_\_ FACW species \_\_\_ FAC species x 3 = FACU species x 4 = = Total Cover UPL species \_\_\_\_\_ x 5 = \_\_\_\_ Herb Stratum (Plot size: 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 \_ 4 - Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants1 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. = Total Cover Woody Vine Stratum (Plot size: \_\_\_\_\_) Hydrophytic Vegetation Present? 98 = Total Cover % Bare Ground in Herb Stratum \_ Remarks:

MBS Uceh 9/22/21

Sampling Point: WITS-W

	: Color (moiet)	0/	Color (maint)	x Features		1 - 2	-		_	_	
(inches)	Color (moist)	100	Color (moist)	%	Type'	_Loc <sup>2</sup>	Textur		<u>F</u>	Remarks	
/ ^	107 23/2	100		-	450		10a				****
2-15_	109K5/2	80	754R4/6	02		<u></u>	Loa	M			
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										- Anna Carlon	J
ype: C=Co	ncentration, D=Dep	letion, RM=	Reduced Matrix, CS	=Covered	or Coate	d Sand Gr				Lining, M≖I	
		able to all l	RRs, unless other		ed.)		Indi	cators for	Problema	atic Hydric	Soils <sup>3</sup> :
_ Histosol		-	Sandy Redox (S					2 cm Muck			
	ipedon (A2)		Stripped Matrix (					Red Paren		, ,	
_ Black His	n Sulfide (A4)		Loamy Mucky M Loamy Gleyed N			MLRA 1)				urface (TF1	2)
_ , -	Below Dark Surface	e (Δ11)	Depleted Matrix					Other (Exp	iain in Re	marks)	
	rk Surface (A12)	· ( ' ' ' ' '	Redox Dark Surf				3 <sup>1</sup> Indi	cators of h	/drophytic	vegetation	and
_	ucky Mineral (S1)	. 7	Depleted Dark S		7)					st be prese	
- ,	eyed Matrix (S4)	-	Redox Depressi					nless distu			
	ayer (if present):				-		I			- IIII	and the second second design in the second second
Type:		rro-sus-William Blancher, conse									
Depth (inc	hes);		Name of the second				Hydric S	Soil Prese	nt? Yes	. X .	No
. Y	* · · · · · · · · · · · · · · · · · · ·										
DROLOG	SY rology Indicators:								1		
DROLOG	rology Indicators:	ne required;	check all that apply)				Se	econdary In	dicators (	2 or more re	equired)
DROLOG	rology Indicators: tors (minimum of or	ne required;	check all that apply) Water-Stain		s (B9) (ex	cept	Se			2 or more reves (B9) (M	
DROLOG etland Hydi mary Indica Surface V	rology Indicators: tors (minimum of or	ne required;	Water-Stain			cept	Se	Water-St			
DROLOG etland Hydi mary Indica Surface V	rology Indicators: tors (minimum of or /ater (A1) er Table (A2)	ne required;	Water-Stain	ed Leaves , 2, 4A, an		cept	Se	_ Water-St 4A, aı	ained Lea	ves (B9) (M	
DROLOG etland Hydi mary Indica Surface V High Wate Saturation Water Ma	rology Indicators: tors (minimum of or /ater (A1) er Table (A2) (A3) rks (B1)	ne required;	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve	ed Leaves , <b>2, 4A, an</b> B11) ertebrates	(B13)	cept	Se	Water-St  4A, ai  Drainage  Dry-Seas	ained Lea nd 4B) Patterns on Water	ves (B9) ( <b>M</b> (B10) Table (C2)	LRA 1, 2
DROLOG etland Hydrog mary Indica Surface V High Wate Saturation Water Ma Sediment	rology Indicators: tors (minimum of or /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2)	ne required;	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen Si	ed Leaves , <b>2, 4A, an</b> 311) ertebrates ulfide Odo	(B13) or (C1)		2 <u>2</u>	Water-St 4A, ai Drainage Dry-Seas Saturatio	ained Leand 4B) Patterns on Water No Visible	ves (B9) (M (B10) Table (C2) on Aerial Im	LRA 1, 2
DROLOG etland Hydi mary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo	rology Indicators: tors (minimum of or /ater (A1) er Table (A2) i (A3) rks (B1) Deposits (B2) sits (B3)	ne required;	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh	ed Leaves , <b>2, 4A, an</b> 311) ertebrates ulfide Odo izosphere	nd 4B) (B13) or (C1) es along L	iving Roots	2 <u>2</u>	Water-St  4A, ai  Drainage  Dry-Seas  Saturatio  Geomorp	ained Lea nd 4B) Patterns on Water n Visible o hic Positi	(B10) Table (C2) on Aerial Imon (D2)	LRA 1, 2
DROLOG etland Hydi mary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Algal Mat	rology Indicators: tors (minimum of or Vater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4)	ne required;	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh	ed Leaves , <b>2, 4A, an</b> B11) ertebrates ulfide Odo izosphere Reduced	(B13) or (C1) es along L Iron (C4)	iving Roots	2 <u>2</u>	Water-St 4A, at Drainage Dry-Seas Saturatio Geomorp	ained Lea nd 4B) Patterns on Water n Visible o hic Position	(B10) Table (C2) on Aerial Imon (D2)	LRA 1, 2
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DROLOG  etland Hydinary Indica  Surface V  High Water  Saturation  Water Ma  Sediment  Drift Depo  Algal Mat  Iron Depois  Surface Si  Inundation  Sparsely V	rology Indicators: tors (minimum of or later (A1) er Table (A2) er(A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) Visible on Aerial Im	nagery (B7)	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves , 2, 4A, an 311) ertebrates ulfide Odo izosphere Reduced Reduction tressed Pi	(B13) or (C1) es along L Iron (C4) in in Tilled	iving Roots Soils (C6)	2 <u>2</u>	Water-St 4A, an Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu Raised A	ained Lea nd 4B) Patterns on Water n Visible o hic Position Aquitard (I tral Test ( nt Mound	(B10) (B10) Table (C2) on Aerial Imon (D2) (C2) (D3) (D5) s (D6) (LRR	agery (C
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DROLOG  etland Hydi mary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo: Surface Sel Inundation Sparsely V Id Observat face Water	rology Indicators: tors (minimum of or later (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) bil Cracks (B6) Visible on Aerial In regetated Concave tions: Present?	nagery (B7) Surface (B8	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves , 2, 4A, an 311) ertebrates ulfide Odo aizosphere Reduced Reduction atressed Plain in Rem es):es):es):	(B13) or (C1) es along L Iron (C4) in in Tilled lants (D1) earks)	Soils (C6) (LRR A)	s (C3) <u>X</u>	Water-St 4A, ar Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu Raised A Frost-Hea	ained Lea nd 4B) Patterns on Water n Visible o hic Positi Aquitard (I tral Test ( nt Mound	(B10) (B10) Table (C2) on Aerial Imon (D2) (C2) (D3) (D5) s (D6) (LRR	agery (CS
DROLOG  etland Hydi imary Indica  Surface V  High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depoi Surface Si Inundation Sparsely V  Id Observa face Water ter Table Pr uration Pres	rology Indicators: tors (minimum of or later (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) Visible on Aerial Im regetated Concave tions: Present? Yesent? Yesent? Yesent?	nagery (B7) Surface (B8	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain)  Depth (inches	ed Leaves , 2, 4A, an 311) ertebrates ulfide Odo aizosphere Reduced Reduction atressed Plain in Rem es):es):es):	(B13) or (C1) es along L Iron (C4) in in Tilled lants (D1) earks)	Soils (C6) (LRR A)	s (C3) <u>X</u>	Water-St 4A, an Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu Raised A	ained Lea nd 4B) Patterns on Water n Visible o hic Positi Aquitard (I tral Test ( nt Mound	(B10) Table (C2) on Aerial Im on (D2) D5) s (D6) (LRR nocks (D7)	agery (CS
mary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo: Surface So Inundation Sparsely V Id Observa rface Water ter Table Presidues capill	rology Indicators: tors (minimum of or later (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) Visible on Aerial In legetated Concave tions: Present? esent? yes esent? yes ery fringe)	nagery (B7) Surface (B8 s No s No	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves , 2, 4A, an 311) ertebrates ulfide Odo izosphere Reduced Reduction stressed Plain in Rem es):es):es):es):es):	(B13) or (C1) es along L Iron (C4) in Tilled lants (D1) earks)	Soils (C6) (LRR A)  Wetlar	s (C3) X	Water-St 4A, ar Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu Raised A Frost-Hea	ained Lea nd 4B) Patterns on Water n Visible o hic Positi Aquitard (I tral Test ( nt Mound	(B10) Table (C2) on Aerial Im on (D2) D5) s (D6) (LRR nocks (D7)	agery (C
DROLOC etland Hydrimary Indica Surface V High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo: Surface Si Inundation Sparsely V Id Observa face Water ter Table Pr uration Presidues capill	rology Indicators: tors (minimum of or later (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) Visible on Aerial In legetated Concave tions: Present? esent? yes esent? yes ery fringe)	nagery (B7) Surface (B8 s No s No	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves , 2, 4A, an 311) ertebrates ulfide Odo izosphere Reduced Reduction stressed Plain in Rem es):es):es):es):es):	(B13) or (C1) es along L Iron (C4) in Tilled lants (D1) earks)	Soils (C6) (LRR A)  Wetlar	s (C3) X	Water-St 4A, ar Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu Raised A Frost-Hea	ained Lea nd 4B) Patterns on Water n Visible o hic Positi Aquitard (I tral Test ( nt Mound	(B10) Table (C2) on Aerial Im on (D2) D5) s (D6) (LRR nocks (D7)	agery (C
DROLOC etland Hydrimary Indica Surface V High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depoi Surface Si Inundation Sparsely V Id Observa face Water ter Table Pr uration Presidudes capill	rology Indicators: tors (minimum of or later (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) Visible on Aerial In legetated Concave tions: Present? esent? yes esent? yes ery fringe) ded Data (stream g	nagery (B7) Surface (B8 s No s No s No auge, monit	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla  Depth (inched) Depth (inched) Oring well, aerial pho	ed Leaves , 2, 4A, an 311) ertebrates ulfide Odo iizosphere Reduced Reduction itressed Pl iin in Rem es): es): es):	(B13) or (C1) es along L Iron (C4) in Tilled lants (D1) arks)	Soils (C6) (LRR A)  Wetlar	s (C3) X	Water-St 4A, ar Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu Raised A Frost-Hea	ained Lea nd 4B) Patterns on Water n Visible o hic Positi Aquitard (I tral Test ( nt Mound	(B10) Table (C2) on Aerial Im on (D2) D5) s (D6) (LRR nocks (D7)	agery (C
DROLOG  etland Hydi mary Indica Surface V High Water Saturation Water Ma Sediment Drift Depor Algal Mat Iron Depor Surface Si Inundation Sparsely V Id Observater Table Preservation Preservation Preservation Preservation Recommendation Recommendation Recommendation Recommendation Recommendation Preservation Preservation Preservation Preservation Recommendation Reco	rology Indicators: tors (minimum of or later (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) Visible on Aerial In legetated Concave tions: Present? esent? yes esent? yes ery fringe) ded Data (stream g	nagery (B7) Surface (B8 s No s No s No auge, monit	Water-Stain MLRA 1, Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	ed Leaves , 2, 4A, an 311) ertebrates ulfide Odo iizosphere Reduced Reduction itressed Pl iin in Rem es): es): es):	(B13) or (C1) es along L Iron (C4) in Tilled lants (D1) arks)	Soils (C6) (LRR A)  Wetlar	s (C3) X	Water-St 4A, ar Drainage Dry-Seas Saturatio Geomorp Shallow A FAC-Neu Raised A Frost-Hea	ained Lea nd 4B) Patterns on Water n Visible o hic Positi Aquitard (I tral Test ( nt Mound	(B10) Table (C2) on Aerial Im on (D2) D5) s (D6) (LRR nocks (D7)	agery (C

WEILAND DETER	MINATION DA	ATA FORM	<ul> <li>Western Mour</li> </ul>	ntains, Valleys,	and Coast Rec	ion
Project/Site: \he-e\h		_	MV	1. 11/11	1.11+	alm hi
Applicant/Owner GAP for	Mary Ke	16. 20	y/County: McKh	and other land	Sampling Date	172
Investigator(s): K. McDanuld	. M. Sch	W/3/2 c	orton Taurahia Dan	State: 0	Sampling Poir	1:4010-
Landform (hillslope, terrace, etc.): \( \subseteq \tau \)	slone	56	cuon, rownship, Rar	ige: <u> </u>	N, K. J. E.	04
Subregion (LRR):	13.7	Lat. Up	93351877	convex, none): _C_C	all 22	Slope (%): 55
Soil Map Unit Name: Arcata 20	1 C2 1.	Lat: <u>40.</u>	1-91/	Long: <u>-129.09</u>	97632 D	atum: <u>W5585</u>
	7	MONATA	n 2-91/0	Y Opers NWI cla	ssification:	
Are climatic / hydrologic conditions on the	s site typical for th	is time of year	Yes No	(If no, explain	in Remarks.)	V
Are Vegetation, Soil, or H Are Vegetation, Soil, or H	lydrology	significantly dis				
			•		nswers in Remarks.)	
SUMMARY OF FINDINGS – At			ampling point lo	ocations, trans	ects, important	features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes I		Is the Sampled	A	ell i North	/
Wetland Hydrology Present?	Yes		within a Wetlan		No _\/	/
Remarks:	103	140				прине монительного
VEGETATION - Use scientific	names of pla	nts.				
Tree Steets and (Diet sine)			Dominant Indicator	Dominance Test	worksheet:	empergraphic for direct constants & terminal debt & desirency population and section and section and section a
Tree Stratum (Plot size:			Species? Status	Number of Domina That Are OBL, FA		<b>a</b>
1,					,	(A)
3.				Total Number of D Species Across Al		2 (B)
4						(5)
			Total Cover	Percent of Domina That Are OBL, FA		(A/B)
Sapling/Shrub Stratum (Plot size:				Prevalence Index	worksheet:	itti dalla delega d
2.				Total % Cove	r of: Mul	tiply by:
3.						
4.				FACW species _	90 x2 = _	270
5.		- AMULTI DIMOTHO INTERNATION IN		FAC species FACU species		32
1.2		- AVIIVA	Total Cover	UPL species	×5=	
Herb Stratum (Plot size: 1 1 Cotus Corniculatu	5 .	25	Y FAC	Column Totals: _	$\sim 0$	360 (B)
2 Agrostis Stoloni	fera	75	YEAC	Prevalence	Index = B/A =	
3 Halcus lanatus		15	FAC		etation Indicators:	- Division review
4 Eestura perrent	113	10	-EA'C	, , ,	at for Hydrophytic Ve	getation
5. Punex acotosell	1	_&	EACU	2 - Dominano	e Test is >50%	
6. Trifolium reper	<u> </u>		FAC		e Index is ≤3.01	
7.	<u> </u>	-			gical Adaptations <sup>1</sup> (P emarks or on a separ	
8.		and a minute of		1	Non-Vascular Plants	ate silect)
9			All Marie Company		Hydrophytic Vegetati	on¹ (Explain)
10.			460	<sup>1</sup> Indicators of hyd	ric soil and wetland I	nydrology must
11.	-	98	Total Cover	be present, unles	s disturbed or proble	matic.
Woody Vine Stratum (Plot size:						
1.	. 3-		-	Hydrophytic Vegetation		
2			Total Course	Present?	Yes No	
% Bare Ground in Herb Stratum	3		Total Cover		Å .	
			***************************************			- 4011-
Remarks: All facultations drained soil	ive blan	ts on	convex	Steels 210	spe will	~~···
drained soil	1. Don	ot app	ear tobe	Scowing	/ashydro	puntes.

Profile Description: (Describe to the depth needed to document the Indicator of confinches)  Profile Description: (Describe to the depth needed to document the Indicator of confinches)  Color (moist) % Color (moist) % Type Loc Color (moist) % Type Color (moist) % Type Loc Color (moist) % Type Lo	Texture Remarks  Loam   Sandy Loam  Gravelly Sand Loam (fill)  Gravelly Sand Loam (fill)  Brains 2Location: PL=Pore Lining, M=Matrix.  Indicators for Problematic Hydric Soils3:  2 cm Muck (A10)
Color (moist)	Texture Remarks  Loam   Sandy Loam  Gravelly Sand Loam (fil)  Gravelly Sand Loam (fil)  Gravelly Sand Loam (fil)  Gravelly Sand Loam (fil)  Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Color (moist)	Gravelly Sand Loam (fil)  Gravelly Sand Loam (fil)  Gravelly Sand Loam (fil)  Gravelly Sand Loam (fil)  Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand of Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histor Epipedon (A2)	Gravelly Sand Loam (fil)  Gravelly Sand Loam (fil)  Gravelly Sand Loam (fil)  Gravelly Sand Loam (fil)  Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand of Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5)  Black Histic (A3) Stripped Matrix (S6)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11) Depleted Matrix (F2)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)  Redox Dark Surface (F7)  Redox Depressions (F8)  Restrictive Layer (if present):  Type: Depth (inches):  Itemarks:     DROLOGY	Gravelly Sand Coam (fill Sand Coam)  Grains.   Location: PL=Pore Lining, M=Matrix.  Indicators for Problematic Hydric Soils³:  2 cm Muck (A10)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand of Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5)  Histic Epipedon (A2) Stripped Matrix (S6)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A11) Depleted Matrix (F2)  Depleted Below Dark Surface (A12) Redox Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)  Sandy Gleyed Matrix (S4) Redox Depressions (F8)  Restrictive Layer (if present):  Type: Depth (inches):  Depth (inches):  Demarks:   Demarks:  D	Gravelle Sand Loam (+1)  Grains   Location: PL=Pore Lining, M=Matrix.  Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10)  Red Parent Material (TF2)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Histosol (A1) Sandy Redox (S5)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)  Sandy Gleyed Matrix (S4) Redox Dark Surface (F7)  Sandy Gleyed Matrix (S4) Redox Dark Surface (F7)  Sandy Gleyed Matrix (S4) Redox Depressions (F8)  Depleted Dark Surface (F7)  Redox Depressions (F8)  Depteted Dark Surface (F6)  Depteted Dark Surface (F6)  Depteted Dark Surface (F6)  Redox Depressions (F8)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Histosol (A1) Sandy Redox (S5)  Histic Epipedon (A2) Stripped Matrix (S6)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1 Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)  Sandy Gleyed Matrix (S4) Redox Depressions (F8)  estrictive Layer (if present):  Type:  Depth (inches):  Depth (inches):  Emarks:  DROLOGY  etland Hydrology Indicators:  imary Indicators (minimum of one required: check all that apply)  Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Saturation (A3) Salt Crust (B11)  Water Marks (B1) Aquatic Invertebrates (B13)  Sediment Deposits (B2) Hydrogen Sulfide Odor (C1)  Drift Deposits (B3) Oxidized Rhizospheres along Living Roc Algal Mat or Crust (B4) Presence of Reduced Iron (C4)	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Histosol (A1) Sandy Redox (S5)  Histic Epipedon (A2) Stripped Matrix (S6)  Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1 Loamy Gleyed Matrix (F2)  Depleted Below Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) Redox Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)  Sandy Gleyed Matrix (S4) Redox Depressions (F8)  estrictive Layer (if present):  Type:  Depth (inches):  Depth (inches):  Emarks:  DROLOGY  etland Hydrology Indicators:  imary Indicators (minimum of one required: check all that apply)  Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Saturation (A3) Salt Crust (B11)  Water Marks (B1) Aquatic Invertebrates (B13)  Sediment Deposits (B2) Hydrogen Sulfide Odor (C1)  Drift Deposits (B3) Oxidized Rhizospheres along Living Roc Algal Mat or Crust (B4) Presence of Reduced Iron (C4)	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Redox Depressions (F8)  Restrictive Layer (if present):  Type:  Depth (inches):  Depth (inches):  Demarks:  Property Matrix (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Diff Deposits (B3)  Algal Mat or Crust (B4)  Sating Redox (S5)  Stripped Matrix (S6)  Loamy Mucky Mineral (F1) (except MLRA 1  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Dark Surface (F6)  Redox Depressions (F8)  Redox Depressions (F8)  Variace (F7)  Redox Depressions (F8)  Water Surface (F6)  Depleted Matrix (F2)  Redox Depressions (F8)  Water Surface (F6)  Redox Depressions (F8)  Water Surface (F7)  Redox Depressions (F8)  Water Surface (F6)  Nedox Depressions (F8)  Water Surface (F1)  Nedox Depressions (F8)  Stripped Matrix (F2)  Depleted Matrix (F2)  Redox Depressions (F8)  Water Surface (F6)  Redox Depressions (F8)  Water Surface (F1)  Water	2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Black Histic (A3)	Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Jindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydrogen Sulfide (A4)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (F2)  Depleted Dark Surface (F6)  Depleted Dark Surface (F7)  Redox Depressions (F8)  Restrictive Layer (if present):  Type:  Depth (inches):  Remarks:  POROLOGY  Vetland Hydrology Indicators:  rimary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)	Very Shallow Dark Surface (TF12)     Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Depleted Below Dark Surface (A11)	Other (Explain in Remarks)  Jindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)  Redox Depressions (F8)  Restrictive Layer (if present):  Type: Depth (inches):  Remarks:  Proper Matrix (A1) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)  Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Dark Surface (F5) Redox Dark S	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8)  Restrictive Layer (if present):  Type: Depth (inches):  Remarks:  Proper Metland Hydrology Indicators: rimary Indicators (minimum of one required; check all that apply)  Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Saturation (A3) Salt Crust (B11)  Water Marks (B1) Aquatic Invertebrates (B13)  Sediment Deposits (B2) Hydrogen Sulfide Odor (C1)  Drift Deposits (B3) Oxidized Rhizospheres along Living Roc Algal Mat or Crust (B4) Presence of Reduced Iron (C4)	wetland hydrology must be present, unless disturbed or problematic.
Sandy Gleyed Matrix (S4) Redox Depressions (F8)  Restrictive Layer (if present):  Type Depth (inches):  Gemarks:  Proposition of the present of the presence of Reduced Iron (C4)  Redox Depressions (F8)  Water All apply)  Surface Water (A1) Water-Stained Leaves (B9) (except of the presence of Reduced Iron (C4)  Surface Water (A1) Water-Stained Leaves (B9) (except of Reduced Iron (C4)  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roce of Reduced Iron (C4)	wetland hydrology must be present, unless disturbed or problematic.
Restrictive Layer (if present):  Type: Depth (inches):  Remarks:  Proposition (A)  Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Presence of Reduced Iron (C4)  Presence of Reduced Iron (C4)	unless disturbed or problematic
Type:	
Depth (inches):    Depth (inches):   Demarks:   Demarks	Hydric Soil Present? Yes No
PROLOGY  Vetland Hydrology Indicators:  Inimary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	Hydric Soil Present? Yes No _X
Presence of Reduced Iron (C4)  Petland Hydrology Indicators:  Imary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	No A
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)  Surface Water (A1) Water Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roce Presence of Reduced Iron (C4)	4.
Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Rock Presence of Reduced Iron (C4)	
Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Water Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Rock Presence of Reduced Iron (C4)	_
High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roc  Presence of Reduced Iron (C4)	Secondary Indicators (2 or more required)
Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roc	Water-Stained Leaves (B9) (MLRA 1, 2
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)  Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roc Presence of Reduced Iron (C4)	4A, and 4B)
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roc  Presence of Reduced Iron (C4)	Drainage Patterns (B10)
Drift Deposits (B3)  Algal Mat or Crust (B4)  Oxidized Rhizospheres along Living Roc Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)	Saturation Visible on April Imperior
	ts (C3) Geomorphic Position (D2)
_ iioti Deposits (D3)	Shallow Aquitard (D3)
Conference of the Conference o	FAC-Neutral Test (D5)
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A	Raised Ant Mounds (D6) (LRR A)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
Sparsely Vegetated Concave Surface (B8)	- The state of the
old Observations;	
rface Water Present? Yes No Depth (inches):	
ter Table Present? Yes No Depth (inches):	
turation Present? Yes No/ Depth (inches): Wetla	nd Hydrology Present? Yes No
scribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections),	available:
marks:	we s
and the second s	

				ntains, Valleys, and Co	
roject/Site: heehn		City/	county Ackinle	ville / Humboldt san	pling Date: 11/9/21
pplicant/Owner: 61+0 for	Man Keeh	~ Denel		State: Sam	pling Point: 101TG
nvestigator(s): K. Mc Donald andform (hillslope, terrace, etc.): Li	M Schink	A Soci	ion Township Par	100 CS T	. ,
ivestigator(s).	000	360	on, rownsinp, Kar	J. stightly	Slone (%): \5
andform (hillslope, terrace, etc.): $ u$	MUCAC	Loca	al relief (concave, o	convex, none): ranvex	3.4 Dis 1.165.04
ubregion (LRR):		Lat: 70,0	13421444	Long: 129,09807	32 Datum: 2013 2
oil Map Unit Name: Arcatz 3	· Candymat,	2-990	5/00-15	NWI classification	rose
re climatic / hydrologic conditions on	the site typical for this	time of year?	Yes No_	(If no, explain in Remar	ks.)
re Vegetation, Soil,	r Hydrologysi	gnificantly distu	irbed? Are "	Normal Circumstances" preser	nt? Yes No
re Vegetation, Soil, c				eded, explain any answers in I	
				eatione transacte im	nortant features, etc
UMMARY OF FINDINGS -			Thing point it	cations, transects, im	portant reatures, etc
Hydrophytic Vegetation Present?		,	Is the Sampled	Area	
Hydric Soil Present?			within a Wetlan		No
Wetland Hydrology Present?	Yes V No		1		The state of the s
Remarks: Seep					
\		1.			
/EGETATION – Use scientif	ic names of plant	·e	малания мар уур (д 4 ferrormens этом АЛД 448 ft 8 ft 8 ft and 4 ft at (200 ft 8 A ft and 4 ft at (200 ft 8 A ft and 4 ft at (200 ft 8 A ft and 4 ft at (200 ft 8 A ft and 4 ft at (200 ft 8 A ft and 4 ft at (200 ft 8 A ft and 4 ft at (200 ft 8 A ft and 4 ft at (200 ft 8 A ft at (200		The same of the sa
EGETATION - OSE SCIENCE	ic flames of plant		ominant Indicator	Dominance Test workshee	
Tree Stratum (Plot size:	) 5 2			Number of Dominant Specie	
1.				That Are OBL, FACW, or FA	
2				Total Number of Dominant	
3.				Species Across All Strata:	(B)
4.			***************************************	Percent of Dominant Species	8
	**	= T	otal Cover	That Are OBL, FACW, or FA	
Sapling/Shrub Stratum (Plot size:				Prevalence Index workshe	et:
1.				Total % Cover of:	Multiply by:
2.				OBL species	x1=
3.			MARKON MA	FACW species	x 2 =
4.	No. of the last of	A ALL CONTRACTOR OF THE PARTY O		FAC species	x 3 =
5.		= 7	Fotal Cover	FACU species	x 4 =
Herb Stratum (Plot size: 1m2			otal Cover	UPL species	x 5 =
1. SCICOUS MICE	CACOUS	50_	Y COL	Column Totals:	(A)(B)
1 SCIPUS MICE		5	EAC	Prevalence Index = B/	A =
3 Festuca and	Linzald	30_	Y ENC	Hydrophytic Vegetation In	
4 JUNCUS hespe	2(16)	15	FACW		
5.				2 - Dominance Test is >	
6.				3 - Prevalence Index is	
7.		:		4 - Morphological Adapt	ations1 (Provide supporting
8.				data in Remarks or o	n a separate sheet)
9.		M. International Company of the Company	PARTITION SHAWNING TO BE	5 - Wetland Non-Vascul	
10,			MANAGEMENT CONTROL OF THE PARTY	Problematic Hydrophyti	
11.		pt. statement between the statement between		Indicators of hydric soil and be present, unless disturbed	
		100 = T	otal Cover	be present, unless disturbed	гогрионетанс.
Woody Vine Stratum (Plot size:				s	
1.	:	-		Hydrophytic Vegetation	/
2.		and photosterior the state of	Catal Cause	Present? Yes_1	No
% Bare Ground in Herb Stratum	0	-	Total Cover		The state of the s
Remarks:	100000000000000000000000000000000000000	Activities and the second			the figure and the state of the

SOIL						Ke	cha 11/19	1/2   Sampling Point: <u>U</u>	<u> 1176</u>
Profile Desc	cription: (Describe	to the dept	h needed to docum	ent the in	dicator	or confirm	the absence o		
Depth	Matrix			Features					
(inches)	Color (moist)	%	Color (moist)	<u>%</u> -	Type'	_Loc²		Remarks	
0-6	10483/2	90	75484/4	NAME OF THE OWNER O		m	Loam	Wayne and the same	
6-14	10410/2	80	7.5484/6	20		<u>^</u>		Contract Con	
	<u> </u>		7			P			
					- LO-LVILLETTE BOOK				
		Militario de la compansión de la compans				. :	450,		·····
1			DATE OF THE PROPERTY OF THE PR	A334511					PARTITION OF THE PARTIT
			The state of the s			***************************************	**************************************	DESCRIPTION OF THE PROPERTY OF	
-	<del></del>							Who there was a second of the	
	oncentration, D=Dep					d Sand Gra		on: PL=Pore Lining, M=Mat	
1	Indicators: (Applica	able to all i			.)	g T		for Problematic Hydric Soi	ils":
Histosol	, -		Sandy Redox (St				(ORDERS OF THE PARTY OF THE PAR	luck (A10) arent Material (TF2)	
	oipedon (A2) stic (A3)		Stripped Matrix ( Loamy Mucky Mi	,	avcent	MI DA 1		hallow Dark Surface (TF12)	
	en Sulfide (A4)		Loamy Gleyed M		except	MENA I		Explain in Remarks)	
	d Below Dark Surface	(A11)	Depleted Matrix (						
· — ·	ark Surface (A12)		Redox Dark Surf				3Indicators	of hydrophytic vegetation and	d
Sandy M	lucky Mineral (S1)	,	Depleted Dark St	urface (F7)			wetland	hydrology must be present,	
	Bleyed Matrix (S4)	NAME OF THE PARTY	Redox Depression	ns (F8)		nimen manana ana ani kao any any ao ao amin'ny faritr'i Aire ao	unless d	isturbed or problematic.	
Restrictive L	_ayer (if present):								
Type:			MANAGEMENT .					esent? Yes No	
Depth (inc	ches):	***************************************					Hydric Soil Pro	esent? Yes / No	
Remarks:									
		marana ana ang kana di kana kana kana kana kana kana kana kan						refrance/books or selection of the contraction of t	
HYDROLO	GY								
Wetland Hyd	Irology Indicators:		- Kilonia - Lincolnia - Lincol						
Primary Indic	ators (minimum of on	e required;	check all that apply)				Secondar	y Indicators (2 or more requi	ired)
	Vater (A1)		Water-Staine	ed Leaves	(B9) (ex	cept	Wate	r-Stained Leaves (B9) (MLR	A 1, 2,
X High Wat	ter Table (A2)		MLRA 1,	2, 4A, and	4B)		4/	A, and 4B)	
X Saturation			Salt Crust (B	111)			Drain	age Patterns (B10)	
Water Ma	•		Aquatic Inve	rtebrates (E	313)		Dry-S	Season Water Table (C2)	
Sediment	Deposits (B2)		Hydrogen Su	ılfide Odor	(C1)		Satur	ation Visible on Aerial Image	ery (C9)
Drift Depo	osits (B3)		Oxidized Rhi	zospheres	along Li	iving Roots	(C3) Geon	norphic Position (D2)	er"
Algal Mat	or Crust (B4)		Presence of	Reduced Ir	on (C4)		10	ow Aquitard (D3)	
Iron Depo	osits (B5)		Recent Iron F	Reduction i	n Tilled	Soils (C6)	,	Neutral Test (D5)	
Surface S	Soil Cracks (B6)		Stunted or St	tressed Pla	nts (D1)	(LRR A)	Raise	d Ant Mounds (D6) (LRR A)	
	n Visible on Aerial Im		Other (Explai	in in Rema	rks)		Frost	Heave Hummocks (D7)	
Sparsely	Vegetated Concave S	Surface (B8	)	***************************************					
Field Observa	ations:		<b>V</b>			144			:
Surface Water	Present? Yes	No	Depth (inche	es):		-   -			
Water Table P	resent? Yes	X No	Depth (inche	es): 1 2		-			
Saturation Pre		X No	Depth (inche	es):		Wetland	d Hydrology Pr	esent? Yes 🔀 No	
(includes capil	lary fringe) orded Data (stream g	auge, monit	toring well, aerial pho	otos, previo	us inspe	ections) if a	ıvailable		
Describe Neco	nded Data (stream g	auge, mom	, o, i, ig 11011, Danie, p. 110	rad, provid		, , , , , , ,			-
				MARKET NEW YORK WITH THE TAX			MANAGEMENT CONTRACTOR	NAMES AND ASSOCIATION OF THE STATE OF THE ST	
Damarka									
Remarks									: <b>.</b>
Remarks									
Remarks									

WEILAND DETERMINATION	DATA FORM - \	Nestern Mou	ntains, Valleys, and Coast Region
Project/Site: Heen	City/C	ounty McKinl	guille / Numboldt Sampling Date: 1/19/2
Applicant/Owner GAD for Mary K	eehn Devel	OP.	State: CA Sampling Point!
Investigator(s): K. M. Donald, M. S			
Landform (hillslope, terrace, etc.): Willslope			
Subregion (LRR):	Lat: 40.93	421499	Long: 124.0980432 Datum: WhS 84
Soil Map Unit Name: Aresta and Cz	dy Mountain	2-90% 5%	OPES NWI classification: none
Are climatic / hydrologic conditions on the site typical fo	,		
Are Vegetation, Soil, or Hydrology			
Are Vegetation, Soil, or Hydrology			eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site m	ap showing san	npling point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	_ No/		
Hydric Soil Present? Yes	No V	is the Sampled	
Wetland Hydrology Present? Yes	_ No	within a Wetlar	nd? Yes No
Remarks: Top of slope			
VECETATION Has accordifications of			
VEGETATION – Use scientific names of p			
Tree Stratum (Plot size:)	Absolute Dor % Cover Spe	ninant Indicator cies? Status	Dominance Test worksheet:
1.			Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2.			Total Number of Dominant
3.			Species Across All Strata (B)
4			Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:	= Tc	otal Cover	That Are OBL, FACW, or FAC: (A/B)
1.			Prevalence Index worksheet:
2			Total % Cover of:Multiply by:
3.			OBL species x 1 =
4-			FACW species $\begin{array}{c} x 2 = \\ \hline FAC \text{ species} \\ \end{array}$
5.	CONTRACTOR		FACU species x4 =
Herb Stratum (Plot size: \m^2)	= To	otal Cover	UPL species x5 = 5
1. Agrostis Stolonifere	_52	Y FAC	Column Totals: 100 (A) 302 (B)
2 Hoters lanates	30	YEAC	Prevalence Index = B/A = 3,02
3 Trifolim repens	15	EAC	Hydrophytic Vegetation Indicators:
4 Latus corniculat W	2	-CAC	1 - Rapid Test for Hydrophytic Vegetation
5 Levanthemun Vulgare		UPL	2 - Dominance Test is >50%
6,			1 3 - Prevalence Index is ≤3.0
7.			4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
8			5 - Wetland Non-Vascular Plants¹
910			Problematic Hydrophytic Vegetation¹ (Explain)
11.			Indicators of hydric soil and wetland hydrology must
	100 = To	tal Cover	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)			
1.			Hydrophytic
2			Vegetation Present? Yes No
% Bare Ground in Herb Stratum	= To	tal Cover	
Remarks:	AMILITARI PROPERTY OF THE PROP		

SOIL Profile Day of the Co		N t	eehn 11/19	121	Sampling Point: W 17
Profile Description: (Des	cribe to the de	pth needed to document the	indicator or confirm	m the absence of i	ndicators.)
Depth Ma (inches) Color (moi	trix	Redox Feature			
0-8 104R3	$\frac{\text{st)}}{14} \frac{\%}{100}$	Color (moist) %	Type' Loc²		Remarks
0-11 1010	/			Coam	was recommended to the second
8-14 109 KS	14 100			Sandy Los	im
The second secon	Will be a second		B T TELEVISION		
÷					. The second sec
IT					
Type: C=Concentration, D:	=Depletion, RM	Reduced Matrix, CS=Covered	or Coated Sand Gra		PL=Pore Lining, M=Matrix.
Histosol (A1)	pplicable to all	LRRs, unless otherwise note	ed.)		r Problematic Hydric Soils <sup>3</sup> :
Histosof (A1) Histic Epipedon (A2)		Sandy Redox (S5)	4	2 cm Muc	
Black Histic (A3)		Stripped Matrix (S6) Loamy Mucky Mineral (F1	\ (except MI PA 1)		nt Material (TF2)
Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)			llow Dark Surface (TF12) plain in Remarks)
Depleted Below Dark St	urface (A11)	Depleted Matrix (F3)	,	Other (EX	piani in Remarks)
Thick Dark Surface (A12		Redox Dark Surface (F6)		3Indicators of I	hydrophytic vegetation and
Sandy Mucky Mineral (S		Depleted Dark Surface (F)	7)		drology must be present,
Sandy Gleyed Matrix (S-		Redox Depressions (F8)			urbed or problematic.
lestrictive Layer (if presen	it):				
Туре:					1.0
Depth (inches):				Hydric Soil Prese	ent? Yes No <u>Y</u>
Remarks:				Hydric Soil Prese	ent? Yes No
Pemarks:	rs:			Hydric Soil Prese	ent? Yes No
		check all that apply)			
Pemarks:  'DROLOGY  'etland Hydrology Indicato		check all that apply) Water-Stained Leaves		Secondary I	ndicators (2 or more required)
Pemarks:  PDROLOGY  Petland Hydrology Indicator  Petland Indicators (minimum of the content of t			s (B9) (except	Secondary II	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2
Pemarks:  PDROLOGY  Petland Hydrology Indicator  Timary Indicators (minimum of minimum o		Water-Stained Leaves	s (B9) (except	Secondary II Water-S	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2 and 4B)
POROLOGY  Setland Hydrology Indicator Simary Indicators (minimum of the control o		Water-Stained Leaves MLRA 1, 2, 4A, an	s (B9) (except d 4B)	Secondary II  Water-S  4A, a	ndicators (2 or more required) tained Leaves (89) (MLRA 1, 2 and 4B) e Patterns (B10)
POROLOGY  Setland Hydrology Indicator  Surface Water (A1)  High Water Table (A2)  Saturation (A3)		Water-Stained Leaves MLRA 1, 2, 4A, an Salt Crust (B11)	(B9) (except d 4B) (B13)	Secondary II  Water-S  4A, a  Drainage  Dry-Sea	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2 ind 4B) e Patterns (B10) son Water Table (C2)
Processing Comments of the Com		Water-Stained Leaves MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates (	(B9) (except d 4B) (B13) r (C1)	Secondary II  Water-S  4A, a  Drainage  Dry-Sea  Saturation	ndicators (2 or more required) tained Leaves (89) (MLRA 1, 2 and 4B) e Patterns (B10)
Processing of the second of th		<ul> <li>Water-Stained Leaves</li> <li>MLRA 1, 2, 4A, an</li> <li>Salt Crust (B11)</li> <li>Aquatic Invertebrates (</li> <li>Hydrogen Sulfide Odoi</li> </ul>	(B9) (except d 4B) (B13) r (C1) s along Living Roots	Secondary III  Water-S  4A, a  Drainage  Dry-Sea  Saturation  (C3) Geomory	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (C9
Pemarks:  Populogy  Petland Hydrology Indicator imary Indicators (minimum of the second secon		Water-Stained Leaves MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odol Oxldized Rhizospheres	(B9) (except d 4B) (B13) r (C1) s along Living Roots Iron (C4)	Secondary II  Water-S  4A, a  Drainage  Dry-Sea  Saturatio  (C3) Geomory  Shallow	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (Cs) phic Position (D2)
Pemarks:  Populogy  Petland Hydrology Indicator imary Indicators (minimum of the surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)	of one required;	Water-Stained Leaves MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odoi Oxidized Rhizospheres Presence of Reduced	(B9) (except d 4B) (B13) r (C1) s along Living Roots Iron (C4) in Tilled Soils (C6)	Secondary II  Water-S  4A, a  Drainage Dry-Sea Saturation (C3) Geomore Shallow FAC-Nei	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (Cs phic Position (D2) Aquitard (D3)
POROLOGY  Setland Hydrology Indicator Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria	of one required; al Imagery (B7)	Water-Stained Leaves MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced ( Recent Iron Reduction Stunted or Stressed Plant	(B9) (except d 4B) (B13) r (C1) s along Living Roots Iron (C4) in Tilled Soils (C6) ants (D1) (LRR A)	Secondary II  Water-S  4A, a  Drainage Dry-Sea Saturatio (C3) Geomore Shallow FAC-Nee Raised A	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (C9 phic Position (D2) Aquitard (D3) utral Test (D5)
Property (Particular Semarks:  Property (Patland Hydrology Indicator Commany Indicators (minimum of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aeria  Sparsely Vegetated Conca	of one required; al Imagery (B7)	Water-Stained Leaves MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced ( Recent Iron Reduction Stunted or Stressed Plant	(B9) (except d 4B) (B13) r (C1) s along Living Roots Iron (C4) in Tilled Soils (C6) ants (D1) (LRR A)	Secondary II  Water-S  4A, a  Drainage Dry-Sea Saturatio (C3) Geomore Shallow FAC-Nee Raised A	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (CS phic Position (D2) Aquitard (D3) utral Test (D5) unt Mounds (D6) (LRR A)
Property of the property of th	of one required; al Imagery (B7) ave Surface (B8	Water-Stained Leaves     MLRA 1, 2, 4A, an     Salt Crust (B11)     Aquatic Invertebrates (     Hydrogen Sulfide Odoi     Oxidized Rhizospheres     Presence of Reduced (     Recent Iron Reduction     Stunted or Stressed Pl.     Other (Explain in Remail)	(B9) (except d 4B) (B13) r (C1) s along Living Roots fron (C4) in Tilled Soils (C6) ants (D1) (LRR A) arks)	Secondary II  Water-S  4A, a  Drainage Dry-Sea Saturatio (C3) Geomore Shallow FAC-Nee Raised A	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (CS phic Position (D2) Aquitard (D3) utral Test (D5) unt Mounds (D6) (LRR A)
Property (Particular Semarks:  Property (Patland Hydrology Indicator Commany Indicators (minimum of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aeria  Sparsely Vegetated Conca	of one required; al Imagery (B7) ave Surface (B8	Water-Stained Leaves     MLRA 1, 2, 4A, an     Salt Crust (B11)     Aquatic Invertebrates (     Hydrogen Sulfide Odoi     Oxidized Rhizospheres     Presence of Reduced (     Recent Iron Reduction     Stunted or Stressed Placetory (Explain in Remain)  Depth (inches):	(B9) (except d 4B)  (B13)  r (C1) s along Living Roots fron (C4) in Tilled Soils (C6) ants (D1) (LRR A) arks)	Secondary II  Water-S  4A, a  Drainage Dry-Sea Saturatio (C3) Geomore Shallow FAC-Nee Raised A	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (CS phic Position (D2) Aquitard (D3) utral Test (D5) unt Mounds (D6) (LRR A)
PROLOGY  Vetland Hydrology Indicator imary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concald Observations:	of one required; al Imagery (B7) ave Surface (B8	Water-Stained Leaves     MLRA 1, 2, 4A, an     Salt Crust (B11)     Aquatic Invertebrates (     Hydrogen Sulfide Odoi     Oxidized Rhizospheres     Presence of Reduced (     Recent Iron Reduction     Stunted or Stressed Placet (Explain in Remain)	(B9) (except d 4B)  (B13)  r (C1) s along Living Roots fron (C4) in Tilled Soils (C6) ants (D1) (LRR A) arks)	Secondary II  Water-S  4A, a  Drainage Dry-Sea Saturatio (C3) Geomore Shallow FAC-Nee Raised A	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (CS phic Position (D2) Aquitard (D3) utral Test (D5) unt Mounds (D6) (LRR A)
Process  Pro	al Imagery (B7) ave Surface (B8  Yes No Yes No	Water-Stained Leaves  MLRA 1, 2, 4A, an  Salt Crust (B11)  Aquatic Invertebrates ( Hydrogen Sulfide Odoi Oxidized Rhizospheres Presence of Reduced ( Recent Iron Reduction Stunted or Stressed Pl. Other (Explain in Remai)  Depth (inches): Depth (inches):	(B9) (except d 4B)  (B13) r (C1) s along Living Roots fron (C4) in Tilled Soils (C6) ants (D1) (LRR A) arks)  Wetland	Secondary III  Water-S  4A, a  Drainage Dry-Sea Saturation Shallow FAC-Nee Raised A Frost-He	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (Cs phic Position (D2) Aquitard (D3) utral Test (D5) and Mounds (D6) (LRR A) ave Hummocks (D7)
Process  Pro	al Imagery (B7) ave Surface (B8  Yes No Yes No	Water-Stained Leaves MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates ( Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced ( Recent Iron Reduction Stunted or Stressed Plance (Explain in Remain)  Depth (inches): Depth (inches):	(B9) (except d 4B)  (B13) r (C1) s along Living Roots fron (C4) in Tilled Soils (C6) ants (D1) (LRR A) arks)  Wetland	Secondary III  Water-S  4A, a  Drainage Dry-Sea Saturation Shallow FAC-Nee Raised A Frost-He	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (C9 phic Position (D2) Aquitard (D3) utral Test (D5) and Mounds (D6) (LRR A) ave Hummocks (D7)
Process  Pro	al Imagery (B7) ave Surface (B8  Yes No Yes No	Water-Stained Leaves  MLRA 1, 2, 4A, an  Salt Crust (B11)  Aquatic Invertebrates ( Hydrogen Sulfide Odoi Oxidized Rhizospheres Presence of Reduced ( Recent Iron Reduction Stunted or Stressed Pl. Other (Explain in Remai)  Depth (inches): Depth (inches):	(B9) (except d 4B)  (B13) r (C1) s along Living Roots fron (C4) in Tilled Soils (C6) ants (D1) (LRR A) arks)  Wetland	Secondary III  Water-S  4A, a  Drainage Dry-Sea Saturation Shallow FAC-Nee Raised A Frost-He	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (C9 phic Position (D2) Aquitard (D3) utral Test (D5) and Mounds (D6) (LRR A) ave Hummocks (D7)
Process  Pro	al Imagery (B7) ave Surface (B8  Yes No Yes No	Water-Stained Leaves  MLRA 1, 2, 4A, an  Salt Crust (B11)  Aquatic Invertebrates ( Hydrogen Sulfide Odoi Oxidized Rhizospheres Presence of Reduced ( Recent Iron Reduction Stunted or Stressed Pl. Other (Explain in Remai)  Depth (inches): Depth (inches):	(B9) (except d 4B)  (B13) r (C1) s along Living Roots fron (C4) in Tilled Soils (C6) ants (D1) (LRR A) arks)  Wetland	Secondary III  Water-S  4A, a  Drainage Dry-Sea Saturation Shallow FAC-Nee Raised A Frost-He	ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2 and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (C9 phic Position (D2) Aquitard (D3) utral Test (D5) and Mounds (D6) (LRR A) ave Hummocks (D7)

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region City/County: McKhlewille / Hamboldt Sampling Date: 11/19/21 Project/Site: Leel Applicant/Owner: 6HO for May Keehn Devel State: \_\_\_\_\_ Sampling Point: \\ \) \\ M. Schunt Section, Township, Range: SS, TGN, RIE Landform (hillslope, terrace, etc.): \(\lambda\_i\) Local relief (concave, convex, none): VOOR Slope (%): 15 Lat: 40.3372230 Long: -124.095751 Datum: W5584 Subregion (LRR): Soil Map Unit Name: ACL+2 (Andomnt , 2-9% slopes 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 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? / No is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Yes \_\_\_\_ No \_\_ VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: Tree Stratum (Plot size: ) % Cover Species? Status Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species = Total Cover That Are OBL. FACW, or FAC: Sapling/Shrub Stratum (Plot size: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FAC species \_\_\_\_ x3=\_\_ FACU species x 4 = = Total Cover UPL species x 5 = \_\_\_\_ Herb Stratum (Plot size: 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 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants<sup>1</sup> Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) 10 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. = Total Cover Woody Vine Stratum (Plot size: Hydrophytic Vegetation Present? \_= Total Cover % Bare Ground in Herb Stratum Remarks:

SOIL			Ke	chn	11/19/21	Sampling Point	WIT
Profile Description: (Des	scribe to the depth	needed to docume	int the indicator	or confirm	the absence of it	ndicators )	
DepthM	latrix	Redox I	Features	0, 00,,,,,,	, the absence of the	ndicators.)	
(inches) Color (mo		Color (moist)	% Type'	Loc <sup>2</sup>	Texture	Remarks	
0-4 10473	12 100	AMOUNT. Marie		automotics.	Coam		· · · · · · · · · · · · · · · · · · ·
4-14 10423	12 90	7.548 4/6	10 0	M/s	Liam	The state of the s	-
	<del></del>	731710			Com	TO THE RESIDENCE OF THE PERSON	
			***************************************	***************************************			
	-						
						Andrew Control of the section of the	
				-	·	W	The state of the s
						HAVE THE WAY TO SEE THE SECOND	
¹Type: C=Concentration (	DeDonistics DM-D						
<sup>1</sup> Type: C=Concentration, [ Hydric Soil Indicators: (A	Applicable to all I	Rs unless otherwi	Covered or Coate	d Sand Gra		: PL=Pore Lining, M	
Histosol (A1)	approach to an El		•			r Problematic Hydri	c Soils':
Histic Epipedon (A2)	-	_ Sandy Redox (S5) _ Stripped Matrix (S6		Vic. 3	2 cm Mu		
Black Histic (A3)		_ Loamy Mucky Mine		MI DA 4\		ent Material (TF2)	
Hydrogen Sulfide (A4)	eg e	_ Loamy Gleyed Mai	trix (F2)	MLRA 1)		llow Dark Surface (Ti	F12)
Depleted Below Dark S	Surface (A11)	_ Depleted Matrix (F:	3)		Other (E)	(plain in Remarks)	
Thick Dark Surface (A1		Redox Dark Surface			3Indicators of	hydrophytic vegetatio	n and
Sandy Mucky Mineral (		_ Depleted Dark Surf			wetland hy	drology must be pres	ent.
Sandy Gleyed Matrix (		_ Redox Depression:	s (F8)		unless dist	urbed or problematic	
Restrictive Layer (if prese	ent):						
Туре:	No.	-					
Depth (inches):	Mary 17 - 17 - 17 - 17 - 17 - 17 - 17 - 17	· ·			Hydric Soil Pres	ent? Yes 🗶	No
Remarks:					Ť.		
IYDROLOGY			the state of the s			AL	
Wetland Hydrology Indica	tors:		***				3 7
Primary Indicators (minimum		heck all that apply)			0		
Surface Water (A1)	or one regared, c					Indicators (2 or more	
High Water Table (A2)			Leaves (B9) (ex	cept		Stained Leaves (B9)	MLRA 1, 2,
Saturation (A3)		Salt Crust (B11	, 4A, and 4B)			and 4B)	
Water Marks (B1)						je Patterns (B10)	
Sediment Deposits (B2)		Aquatic Inverte	, ,			ason Water Table (C	
Drift Deposits (B3)		Hydrogen Sulfi				ion Visible on Aerial I	magery (C9)
Algal Mat or Crust (B4)			ospheres along Li educed Iron (C4)	ving Roots		rphic Position (D2)	
Iron Deposits (B5)			, ,	0-11- (00)		Aquitard (D3)	
Surface Soil Cracks (B6)	`		eduction in Tilled			eutral Test (D5)	
Inundation Visible on Ae	•		essed Plants (D1)	(LRR A)		Ant Mounds (D6) (LF	
Sparsely Vegetated Con		Other (Explain	in Remarks)		Frost-H	eave Hummocks (D7	)
ield Observations:	cave Surface (Bo)				4	1	- v ·
urface Water Present?	Voc. No.	Y 2					
	Yes No _	Depth (inches)	11	-			
Vater Table Present?	Yes _ No _	Depth (inches)	):				
aturation Present? ncludes capillary fringe)	Yes/_ No _	Depth (inches)	) <del>- 9</del>	į .	d Hydrology Pres	ent? Yes X	No
escribe Recorded Data (stre	eam gauge, monitor	ing well, aerial photo	s, previous inspe	ections), if a	available:		P
emarks		anna katalah gadi akan makalin yandalah manarangayan kanagyan mahangi garanasaka kalikah.	The state of the s	THE RESERVE TO THE RE	Addressed to the second of the		de la constantina de
Remarks			See	** ** ** ** ** ** ** ** ** ** ** ** **	halanan en egyptien e de et daal hisk kan en en egyptien egyptielisk kan de generalege generalege generalege g	And the state of t	processials

WETLAND DETERMINATION DATA FORM – Wester	
Project/Site: Keeky City/County:	McKnley ville / Humboldt Sampling Date: 1193
Applicant/owner CHD tor Min Keeks	State: Sampling Point (1)
Investigator(s): K. Mc Dunzld, M. Schwarz Section, Tow	mship, Range: 55 T6N ZTE
local relief (	concave, convex, none); Carvex Slope (%): 1
Subminor (LPP) A Lat: 40.33772	30 Long: -124, 09+5+51 Datum: 201550
Soil Map Unit Name: Arosta and Cardy mn+ , 2-90	Soils NWI classification: Nac
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 V	Sampled Area
Hydric Soil Present? Yes No within	sampled Area n a Wetland? Yes No
Welland Hydrology Fresenti	
Remarks: Tonque of upland along con	vex stope
3	A Company of the Comp
VEGETATION – Use scientific names of plants.	
Absolute Dominant   Tree Stratum (Plot size: ) % Cover Species?	Chatrin
Tree Stratum (Plot size:)	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2	Total Number of Dominant
3.	Species Across All Strata (B)
4 = Total Cove	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)	Prevalence Index worksheet:
1.	Total % Cover of Multiply by:
2	OBL species x1=
3.	FACW species x 2 =
4	FAC species x 3 =
5 = Total Cove	FACU species x 4 =
Herb Stratum (Plot size: 1 m2 )	UPL species X3 -
1 Accostis Scientifica of	Column Totals: (A) (B)
2 Hydochaeris radicate 110	Prevalence Index = B/A =
	Hydrophytic Vegetation Indicators:
4 Lotus torniculatus 2	1 - Rapid Test for Hydrophytic Vegetation
5 Rapinculus reports	2 - Dominance Test is >50%
6. Festuca annalmacoa 5	3 - Prevalence Index is ≤3 0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
7.	data in Remarks or on a separate sheet)
8.	5 - Wetland Non-Vascular Plants
9	Problematic Hydrophytic Vegetation¹ (Explain)
10	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
2C = Total Cove	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	e a Asia
1.	Hydrophytic
2.	Vegetation Present? YesNo
% Bare Ground in Herb Stratum 20= Total Cove	The second secon
Remarks:	

SOIL	$\mathcal{U}_{a}$	
Profile Description: (Describe to the	denth peoded to do	1//19/21 Sampling Point: W/T
Depth Matrix	depth needed to document the indicator or co	onfirm the absence of indicators.)
(inches) Color (moist) %	Redox Features Color (moist) % Type Lo	· ·
0-5 10483/3 10		oc² Texture Remarks
5 14 141/07/11		- Liam
3-14 109 K3/4 10	<u> </u>	- Loan
Type: C=Concentration D=Desiration		
Hydric Soil Indicators: (Applicable to	RM=Reduced Matrix, CS=Covered or Coated Sa	
Histosol (A1)		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histic Epipedon (A2)	Sandy Redox (S5) Stripped Matrix (S6)	2 cm Muck (A10)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLR	Red Parent Material (TF2)
Hydrogen Sulfide (A4)	Loamy Gleved Matrix (F2)	(RA 1) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	Other (Explain in Remarks)
Thick Dark Surface (A12)	Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4) Restrictive Layer (if present):	Redox Depressions (F8)	unless disturbed or problematic.
Type:		
	All the state of t	
Depth (inches):		Hydric Soil Present? Yes No
Depth (inches):Remarks:		Hydric Soil Present? Yes No
Depth (inches):Remarks:		Hydric Soil Present? Yes No
Depth (inches):	red; check all that apply)	
Depth (inches):		Secondary Indicators (2 or more required)
Depth (inches):  Remarks:  YDROLOGY  Vetland Hydrology Indicators:  rimary Indicators (minimum of one requi	Water-Stained Leaves (B9) (except	Secondary Indicators (2 or more required)  — Water-Stained Leaves (B9) (MLRA 1, 2,
Pepth (inches):  Pemarks:  YDROLOGY  Vetland Hydrology Indicators:  Irimary Indicators (minimum of one require)  Surface Water (A1)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Depth (inches):  Proposition of the proposition of	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)
Depth (inches):  Proposition of the proposition of	<ul> <li>Water-Stained Leaves (B9) (except</li> <li>MLRA 1, 2, 4A, and 4B)</li> <li>Salt Crust (B11)</li> <li>Aquatic Invertebrates (B13)</li> </ul>	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
Popth (inches):  Property	<ul> <li>Water-Stained Leaves (B9) (except</li> <li>MLRA 1, 2, 4A, and 4B)</li> <li>Salt Crust (B11)</li> <li>Aquatic Invertebrates (B13)</li> <li>Hydrogen Sulfide Odor (C1)</li> </ul>	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9
Pepth (inches):  YDROLOGY  Vetland Hydrology Indicators:  Inimary Indicators (minimum of one required in the second in the secon	<ul> <li>Water-Stained Leaves (B9) (except</li> <li>MLRA 1, 2, 4A, and 4B)</li> <li>Salt Crust (B11)</li> <li>Aquatic Invertebrates (B13)</li> </ul>	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) — Geomorphic Position (D2)
Pepth (inches):  YDROLOGY  Vetland Hydrology Indicators:  Irimary Indicators (minimum of one requi  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) — Geomorphic Position (D2)  Shallow Aquitard (D3)
Pepth (inches):  Permarks:  YDROLOGY  Vetland Hydrology Indicators:  Irimary Indicators (minimum of one required in the second i	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6)  FAC-Neutral Test (D5)
Popth (inches):  Proposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Proposits (B5)  Proposits (B5)  Proposits (B5)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LRI	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6) FAC-Neutral Test (D5)  R A) Raised Ant Mounds (D6) (LRR A)
Popth (inches):  Proposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRI	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6)  FAC-Neutral Test (D5)
Property (inches):  Property Vetland Hydrology Indicators:  Primary Indicators (minimum of one requingular of the property of	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRI	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6) FAC-Neutral Test (D5)  R A) Raised Ant Mounds (D6) (LRR A)
Popth (inches):  Primary Indicators (minimum of one required)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface  Seld Observations:	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRI B7)  Other (Explain in Remarks)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6) FAC-Neutral Test (D5)  R A) Raised Ant Mounds (D6) (LRR A)
Popth (inches):  Primary Indicators (minimum of one required):  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface (B1)  Interpretation (B1)  Sediment Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface (B1)  Surface Water Present?  Yes	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRI B7)  Other (Explain in Remarks)  No Depth (inches):	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6) FAC-Neutral Test (D5)  R A) Raised Ant Mounds (D6) (LRR A)
Primary Indicators (minimum of one required Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Water Present?  Ves_	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRI B7)  Other (Explain in Remarks)  No  Depth (inches):  Depth (inches):	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) — Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6) — FAC-Neutral Test (D5)  R A) — Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Permarks:  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one requi  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface (BId Observations:  urface Water Present?  Ves  vater Table Present?  Yes  caturation Present?	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LRI B7)  Other (Explain in Remarks)  No  Depth (inches):  Depth (inches):  Depth (inches):	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6) FAC-Neutral Test (D5)  R A) Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Permarks:  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one requi  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface (BId Observations:  urface Water Present?  Ves  vater Table Present?  Yes  caturation Present?	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils  Stunted or Stressed Plants (D1) (LRI B7)  Other (Explain in Remarks)  No  Depth (inches):  Depth (inches):	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6) FAC-Neutral Test (D5)  R A) Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Primary Indicators:  Primary Indicators (minimum of one required)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (Company of the Company	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LRI B7)  Other (Explain in Remarks)  No  Depth (inches):  Depth (inches):  Depth (inches):	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6) FAC-Neutral Test (D5)  R A) Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Permarks:  YDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one requi  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface (BId Observations:  urface Water Present?  Ves  vater Table Present?  Yes  caturation Present?	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LRI B7)  Other (Explain in Remarks)  No  Depth (inches):  Depth (inches):  Depth (inches):	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6) FAC-Neutral Test (D5)  R A) Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Primary Indicators:  Primary Indicators (minimum of one required)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (Company of the Company	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LRI B7)  Other (Explain in Remarks)  No  Depth (inches):  Depth (inches):  Depth (inches):	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6) FAC-Neutral Test (D5)  R A) Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)

WEILAND DEIE	RMINATION D	ATA FORM -	- Western Mou	intains, Valleys, and Coast Region
				State: CA Sampling Point: WITE-
Applicant/Owner: GHO for	Many Keel	in Renel	· ·	State CA Sampling Date: 17 17 17
Investigator(s): K. Mc Dunzld	M. Echur	ve sec	tion Township Pa	State: Sampling Point: William
Landform (hillslope, terrace, etc.): 01	2.00	Loc	cal relief (concave	convex, none): NOR Slope (%):
Sublegion (LRR):		Lat. 4D	9277847	1000 104 86711c2 - 1400
Soil Map Unit Name:	Arlynda	Canolix	0-74-1-10	NWI classification: 1000
Are climatic / hydrologic conditions on the	ne site typical for the	his time of year?	Yes / No	NVVI classification: ///
Are Vegetation, Soil, or	Hydrology	significantly diet		
Are Vegetation, Soil, or	Hydrology	naturally proble		"Normal Circumstances" present? Yes No
				eeded, explain any answers in Remarks.) ocations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes	No		
Hydric Soil Present?	Yes	No	Is the Sampled	
Wetland Hydrology Present?	Yes	No	within a Wetlar	nd? Yes No
remarks.				
VEGETATION – Use scientific	names of pla		**************************************	
Tree Stratum (Plot size:		% Cover Si	ominant Indicator pecies? Status	Dominance Test worksheet:
1			***************************************	Number of Dominant Species That Are OBL, FACW, or FAC:  (A)
2			:	Total Number of Dominant
3				Species Across All Strata: (B)
4		-		Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:			Total Cover	That Are OBL, FACW, or FAC: (A/B)
1.	-			Prevalence Index worksheet:
2,	2/00/			
4.	NAME OF THE PARTY			FACW species x 2 =
5.				FAC species x 3 =
			Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 1 M2		4	V	UPL species x 5 =
2. Agrostis stalonife	108	- 30 -	- CAC	Column Totals: (A) (B)
3. Lotus carnicula		<del>- 60 -</del>		Prevalence Index = B/A =
4. Plantage lanco	clata			Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
7.			NAME OF THE OWNER, THE	4 - Morphological Adaptations¹ (Provide supporting
8.				data in Remarks or on a separate sheet)
9			AAAmsey Vallande vall	5 - Wetland Non-Vascular Plants1
10		***************************************		Problematic Hydrophytic Vegetation¹ (Explain)
· ·	1.0	91 =7	Total Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:		-	otal Cover	Production,
1.				Hydrophytic
2.			MATTER THE PARTY OF THE PARTY O	Vegetation Present? Yes \ No.
% Bare Ground in Herb Stratum $\ensuremath{\mathcal{U}}$	· ·		Total Cover	Present? Yes No
Remarks;	A STATE OF THE PARTY OF THE PAR	The state of the s	*****	
\$1.				

_	_	_	
c	$\boldsymbol{n}$	1	
	.,		

Weehn 11/19/21

Sampling Point: WIT8 - W

	cription: (Describe	to the dept	h needed to docun	ent the i	ndicator	or confirm	n the absence of indicators.)
Depth (inches)	Matrix Color (moist)	%	Redox Color (moist)	Features			
0-6	104R3/2	100	Color (moist)	%	Type'	Loc²	Texture Remarks
7		-	7 -40 114			-	Silt loan
6-14	104 R3/2	70	7.548 4/4	10		~	Silt Loam
***************************************	X-716	-	WHILE THE PROPERTY OF THE PROP		-	***************************************	
	***************************************						
				-	-		
	William Control of the Control of th	• *************************************	The state of the s	With the same of t		***************************************	
***************************************		-		SNIES-		-	
			With the second	-		***************************************	
	TOTAL	-	The state of the s	***************************************			
'Type: C=C	oncentration, D≈Dep	letion, RM=I	Reduced Matrix, CS	=Covered	or Coate	d Sand Gra	
	Indicators: (Applic	able to all L	.RRs, unless other	wise note	d.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol	. ,		Sandy Redox (S				2 cm Muck (A10)
	pipedon (A2) istic (A3)	-	Stripped Matrix (		4		Red Parent Material (TF2)
	en Sulfide (A4)	***	Loamy Mucky M	ineral (F1)	(except	MLRA 1)	Very Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Loamy Gleyed Model   Depleted Matrix				Other (Explain in Remarks)
Thick Da	ark Surface (A12)	******* ***	Redox Dark Surf				<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)	7	Depleted Dark S		ר		welland hydrology must be present,
	Gleyed Matrix (S4)	-	Redox Depression		,		unless disturbed or problematic.
	Layer (if present):				-		
Type:			Manhhousey				
	ches):					*	Hydric Soil Present? Yes X No
Remarks:							
5							
<b>HYDROLO</b>	GY					Herri Lindywood	
Wetland Hyd	drology Indicators:						
1	cators (minimum of or	ne required:	check all that apply)				Cocondon to disable to
1	Water (A1)		Water-Stain		(B9) (av	cent	Secondary Indicators (2 or more required)
High Wa	iter Table (A2)			2, 4A, an		сері	Water-Stained Leaves (B9) (MLRA 1, 2,
Saturation	on (A3)		Salt Crust (E		u -12,		4A, and 4B)
Water M	arks (B1)		Aquatic Inve	,	(B13)		Drainage Patterns (B10) Dry-Season Water Table (C2)
	nt Deposits (B2)		Hydrogen S				Saturation Visible on Aerial Imagery (C9)
	osits (B3)		Oxidized Rh			iving Roots	s (C3) $\not\perp$ Geomorphic Position (D2) $\not\sim$ $\not\sim$ $ \downarrow$
	t or Crust (B4)		Presence of	Reduced	Iron (C4)		Shallow Aquitard (D3)
	osits (B5)		Recent Iron	Reduction	in Tilled	Soils (C6)	FAC-Neutral Test (D5)
	Soil Cracks (B6)		Stunted or S	tressed Pl	ants (D1)	(LRR A)	Raised Ant Mounds (D6) (LRR A)
inundatio	on Visible on Aerial In	nagery (B7)	Other (Expla	in in Rem	arks)		Frost-Heave Hummocks (D7)
Field Observ	Vegetated Concave	Surface (B8	3)				
Surface Wate			×		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	. A.		Depth (inch			-	
Water Table I		s No				-	A STATE OF THE STA
Saturation Pro (includes cap	esentr Ye illary fringe)	s No	Depth (inch	es):		Wetlan	nd Hydrology Present? Yes No
Describe Rec	orded Data (stream o	gauge, moni	toring well, aerial ph	otos, previ	ous insne		
					mope		a valiable.
Remarks:		,		4			
	Ba s	e m h	y dric Soi	1 4	600	nornh	hie position
			1			17"	* JAC
	Manager 1997 William on a pung tangkan and a poggap population and a poggap po	* ;					

		ntains, Valleys, and Coast Region
Project/Site: Keekn	City/County: M2 Kil	hlesville/Humbeld Eampling Date: 11/19/21
Applicant/Owner: 6HO for MARY Kee	h Denel	State: CA Sampling Point: W\ T8-1
Investigator(s): 16 Mc Donald, M. Sch.		
Landform (hillslope, terrace, etc.):		
Subregion (LRR):	Lat: 40,93274843	Long -124, 097355 Z Datum: W/5584
Soil Map Unit Name: Worsick - Arlynda	Complex 0-2% 51	lanes NWI classification: NUNE
Are climatic / hydrologic conditions on the site typical for th		
Are Vegetation, Soil, or Hydrology	•	
Are Vegetation, Soil, or Hydrology		
SUMMARY OF FINDINGS - Attach site map		
Hydrophytic Vegetation Present? Yes		
Hydric Soil Present? Yes N	No Is the Sampled	Area de la ves No
		ellan
Remarks: Small convex uplan	ia within I large	L MOLIAND
		A STATE OF THE STA
VEGETATION - Use scientific names of plan	nts.	
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:) 1		Number of Dominant Species That Are OBL, FACW, or FAC: (A)
3.		Total Number of Dominant Species Across All Strata: (B)
4		Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)	= Total Cover	That Are OBL, FACW, or FAC: 100 (A/B)
1.	MANAGEMENT AND MANAGEMENT AND	Prevalence Index worksheet:
2.	· · · · · · · · · · · · · · · · · · ·	
3.	I.d.	FACW species x 2 =
4.		FAC species 85 x3= 255
5		FACU species 10 x4= 40
Herb Stratum (Plot size: 1m2)	= Total Cover	UPL species x 5 =
1. Agrostis stolonifera	SO Y FAC	Column Totals: 95 (A) 295 (B)
2 Plantago lanceolata	10 PACU	Prevalence Index = B/A = 3, 11
3 Eastuce annimaces	SEAC	Hydrophytic Vegetation Indicators:
4. Lotes coniculates	2AL	1 - Rapid Test for Hydrophytic Vegetation
5	**************************************	2 - Dominance Test is >50%
6.		<b>№</b> 3 - Prevalence Index is ≤3.0 <sup>1</sup>
7.		4 - Morphological Adaptations (Provide supporting
8.	THE STATE OF THE S	data in Remarks or on a separate sheet)  5 - Wetland Non-Vascular Plants <sup>1</sup>
9		Problematic Hydrophytic Vegetation¹ (Explain)
10.		Indicators of hydro soil and wetland hydrology must
11,		be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	- The state of the	
1.		Hydrophytic
2.		Vegetation Present? Yes No
% Bare Ground in Herb Stratum	= Total Cover	
Pemarks: A	C <0.00	
Dominated by FA	C specus	

SOIL		Ucehn 11	//5/ 7/ Sampling Point: <u>(ル)                                   </u>
Profile Description: (Describe to	the depth needed to docu	ment the indicator or cor	nfirm the absence of indicators.)
Depth Matrix	Red	ox Features	,
(inches) Color (moist)	% Color (moist)	% Type' Loc	<sup>2</sup> Texture Remarks
0-9 10983/3	100		- Siltloam
9-13 1048313	90 7.5425/6	10 C M	Loam Siltleam
	No. of the last of		
		1	
	AND THE PARTY OF T		
<sup>1</sup> Type: C=Concentration, D=Depleti	ion PM-Paducad Matrix C	C-C	2.
Hydric Soil Indicators: (Applicab	le to all LRRs, unless othe	s=Covered or Coated Sand	d Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (	*	
Histic Epipedon (A2)	Stripped Matrix		2 cm Muck (A10) Red Parent Material (TF2)
Black Histic (A3)		Mineral (F1) (except MLRA	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleved		Other (Explain in Remarks)
Depleted Below Dark Surface (/			Ambana Am
Thick Dark Surface (A12)	Redox Dark Su		3Indicators of hydrophytic vegetation and
<ul><li>Sandy Mucky Mineral (S1)</li><li>Sandy Gleyed Matrix (S4)</li></ul>	Depleted Dark		wetland hydrology must be present,
Restrictive Layer (if present):	Redox Depress	sions (F8)	unless disturbed or problematic.
Type:			
	A CONTRACTOR OF THE CONTRACTOR		
Depth (inches):			Hydric Soil Present? Yes No
	Too hish/	Redox Tos E	)eep
IYDROLOGY	Too hish/	Redox Too E	)eep
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one r			
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one r  Surface Water (A1)	equired, check all that apply	0	Secondary Indicators (2 or more required)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one r  Surface Water (A1)  High Water Table (A2)	required, check all that apply	() ned Leaves (B9) (except	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one r  Surface Water (A1)	required, check all that apply	() ned Leaves (B9) (except 1, 2, 4A, and 4B)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one r  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)	required; check all that apply Water-Stai MLRA 1 Salt Crust (	() ned Leaves (B9) (except 1, 2, 4A, and 4B)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one r  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)	required, check all that apph Water-Stail MLRA 1 Salt Crust ( Aquatic Inv	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one r  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)	required, check all that apply  Water-Stai  MLRA  Salt Crust (  Aquatic Inv	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) ertebrates (B13) Sulfide Odor (C1)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagent (C9)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one research of the control of the con	required; check all that apply  Water-Stai  MLRA 1  Salt Crust (  Aquatic Inv  Hydrogen S	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) ertebrates (B13) Sulfide Odor (C1)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  coots (C3) — Geomorphic Position (D2)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one research of the surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)	required; check all that apply  Water-Stail  MLRA  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized R  Presence o  Recent Iror	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Living R of Reduced Iron (C4)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  C6)  FAC-Neutral Test (D5)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one research of the primary Indicators)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)	required, check all that apply  Water-Stail  MLRA  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized R  Presence of  Recent Iron  Stunted or	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Living R of Reduced Iron (C4)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3) — Geomorphic Position (D2)  Shallow Aquitard (D3)  C6) — FAC-Neutral Test (D5)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one research of the primary Indicators)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Image	required, check all that apph  Water-Stail  MLRA:  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized R  Presence o  Recent Iron  Stunted or s  ery (B7)  Water-Stail  Aquatic Invalor  Oxidized R  Company Stanted or sery (B7)	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Living R	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  C6) FAC-Neutral Test (D5)  A) Raised Ant Mounds (D6) (LRR A)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one r  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Image  Sparsely Vegetated Concave Sur	required, check all that apph  Water-Stail  MLRA:  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized R  Presence o  Recent Iron  Stunted or s  ery (B7)  Water-Stail  Aquatic Invalor  Oxidized R  Company Stanted or sery (B7)	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) Pertebrates (B13) Sulfide Odor (C1) hizospheres along Living R of Reduced Iron (C4) in Reduction in Tilled Soils (G	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3) — Geomorphic Position (D2)  Shallow Aquitard (D3)  C6) — FAC-Neutral Test (D5)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one reconstruction of the primary Indicators (minimum of one reconstruction (Maxwell of the primary Indicators (Maxwell of	required, check all that apph  Water-Stail  MLRA:  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized R  Presence o  Recent Iron  Stunted or s  ery (B7)  Water-Stail  Aquatic Invalor  Oxidized R  Company Stanted or sery (B7)	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) Pertebrates (B13) Sulfide Odor (C1) hizospheres along Living R of Reduced Iron (C4) in Reduction in Tilled Soils (G	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  C6) FAC-Neutral Test (D5)  A) Raised Ant Mounds (D6) (LRR A)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one research of the primary Indicators)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Image	required, check all that apply  Water-Stail  MLRA 1  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized R  Presence of  Recent Iron  Stunted or sery (B7)  face (B8)	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) rertebrates (B13) Sulfide Odor (C1) hizospheres along Living R of Reduced Iron (C4) n Reduction in Tilled Soils (Catherina (C4) Stressed Plants (D1) (LRR ain in Remarks)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  C6) FAC-Neutral Test (D5)  A) Raised Ant Mounds (D6) (LRR A)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one research of the primary Indicators)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Image Sparsely Vegetated Concave Surfield Observations:  Surface Water Present?  Ves_  Water Table Present?	required, check all that apply  Water-Stail  MLRA 1  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized R  Presence of  Recent Iron  Stunted or :  ery (B7)  Tace (B8)  Depth (incl	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) rertebrates (B13) Sulfide Odor (C1) hizospheres along Living R of Reduced Iron (C4) n Reduction in Tilled Soils (Catherina (C4) Stressed Plants (D1) (LRR ain in Remarks)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  C6) FAC-Neutral Test (D5)  A) Raised Ant Mounds (D6) (LRR A)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one research of the primary Indicators)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Image  Sparsely Vegetated Concave Surfield Observations:  Surface Water Present?  Ves  Water Table Present?  Yes  Saturation Present?	required, check all that apph  Water-Stain  MLRA:  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized R  Presence of  Recent Iron  Stunted or sery (B7)  face (B8)  Depth (incl	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) Pertebrates (B13) Sulfide Odor (C1) hizospheres along Living R of Reduced Iron (C4) In Reduction in Tilled Soils (CStressed Plants (D1) (LRR lain in Remarks)  hes):	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  A)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one research of the primary Indicators)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Image of the primary of the p	required, check all that apply  Water-Stai  MLRA  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized R  Presence o  Recent Iror  Stunted or s  ery (B7) Other (Expl  face (B8)  Depth (incl  No Depth (incl	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) rertebrates (B13) Sulfide Odor (C1) hizospheres along Living R of Reduced Iron (C4) in Reduction in Tilled Soils (C) Stressed Plants (D1) (LRR lain in Remarks) hes): hes): hes): hes):	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  C6) FAC-Neutral Test (D5)  A) Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one research of the primary Indicators)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Image of the primary of the p	required, check all that apply  Water-Stai  MLRA  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized R  Presence o  Recent Iror  Stunted or s  ery (B7) Other (Expl  face (B8)  Depth (incl  No Depth (incl	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) rertebrates (B13) Sulfide Odor (C1) hizospheres along Living R of Reduced Iron (C4) in Reduction in Tilled Soils (C) Stressed Plants (D1) (LRR lain in Remarks) hes): hes): hes): hes):	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  C6) FAC-Neutral Test (D5)  A) Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one research of the primary Indicators)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Image  Sparsely Vegetated Concave Surfield Observations:  Surface Water Present?  Ves  Water Table Present?  Yes  Saturation Present?	required, check all that apply  Water-Stai  MLRA  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized R  Presence o  Recent Iror  Stunted or s  ery (B7) Other (Expl  face (B8)  Depth (incl  No Depth (incl	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Living R of Reduced Iron (C4) n Reduction in Tilled Soils (California (Ca	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  C6) FAC-Neutral Test (D5)  A) Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one research of the primary Indicators)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Image Sparsely Vegetated Concave Surfield Observations: Surface Water Present? Yes	required, check all that apply  Water-Stai  MLRA  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized R  Presence o  Recent Iror  Stunted or s  ery (B7) Other (Expl  face (B8)  Depth (incl  No Depth (incl	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) rertebrates (B13) Sulfide Odor (C1) hizospheres along Living R of Reduced Iron (C4) in Reduction in Tilled Soils (C) Stressed Plants (D1) (LRR lain in Remarks) hes): hes): hes): hes):	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  C6) FAC-Neutral Test (D5)  A) Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one research of the primary Indicators)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Image Sparsely Vegetated Concave Surfield Observations: Surface Water Present? Yes	required, check all that apply  Water-Stai  MLRA  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized R  Presence o  Recent Iror  Stunted or s  ery (B7) Other (Expl  face (B8)  Depth (incl  No Depth (incl	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Living R of Reduced Iron (C4) n Reduction in Tilled Soils (California (Ca	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  C6) FAC-Neutral Test (D5)  A) Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one research of the primary Indicators)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Image Sparsely Vegetated Concave Surfield Observations: Surface Water Present? Yes	required, check all that apply  Water-Stai  MLRA  Salt Crust (  Aquatic Inv  Hydrogen S  Oxidized R  Presence o  Recent Iror  Stunted or s  ery (B7) Other (Expl  face (B8)  Depth (incl  No Depth (incl	ned Leaves (B9) (except 1, 2, 4A, and 4B) (B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along Living R of Reduced Iron (C4) n Reduction in Tilled Soils (California (Ca	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  C6) FAC-Neutral Test (D5)  A) Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)

WEILAND DETERMINATION DA	ATA FORM - 1	Western Mou	untains, Valleys, and Coast Region 📡 🖖
1/ 1 2			inleville, CA Sampling Date: 12/2/
Applicant/Owner: GHO for Mary Keeha			State: CA Sampling Point: (1)
Investigator(s): 4 Mc Dandy 1M Sc!	WWACT Section	on Township Pa	State: OF Sampling Point: Sampling Point:
Landform (hillslope, terrace, etc.): Lillslope	Loca	relief (concave	100000 10000 A COAS 100
Subregion (LRR):	121 40 9	3737 777	convex, none): CANCANE, Slope (%):
Soil Map Unit Name: Arx+ & Candy	And I	-a 9, 5 luc	_ Long: Datum: Datum:
Are climatic / hydrologic conditions on the site typical for th	is time of years. Y	-7 (6 3 10)	NVVI classification:
Are Vegetation, Soil, or Hydrology	significantly dist		
Are Vegetation, Soil, or Hydrology			"Normal Circumstances" present? Yes No
		,	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing sam	pling point I	ocations, transects, important features, etc.
	No	In the County	
	10	Is the Sampled within a Wetlan	,
Remarks:	10		
* **			
		740	
VEGETATION – Use scientific names of plan	nts.		
Tree Stratum (Plot size:)	Absolute Dom	inant Indicator	Dominance Test worksheet:
1	% Cover Spec		Number of Dominant Species
2.			That Are OBL, FACW, or FAC: (A)
3.			Total Number of Dominant Species Across All Strata: (B)
4.		NAME OF THE OWNER OWNER OF THE OWNER O	
	= Tot	al Cover	Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B)
Sapling/Shrub Stratum (Plot size:)  1			Prevalence Index worksheet:
2	***************************************	· (AMANUAL DE LA CAMANUAL DE LA CAMA	Total % Cover of: Multiply by:
3	The state of the s		OBL species x 1 =
4,			FACW species x 2 =
5.			FACULTURE X 3 =
Herb Stratum (Plot size:	= Tot	al Cover	FACU species x 4 = UPL species x 5 =
1. Loty conculates	1Ó		Column Totals: (A) (B)
2 Festura acondinaces	20 -	TEAC	
3. Acrostis stdenifers	55 Y	CAC	Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:
4 Plantago lancedata	10		1 - Rapid Test for Hydrophytic Vegetation
5		AMOUNTAIN MANAGEMENT .	2 - Dominance Test is >50%
6			3 - Prevalence Index is ≤3.01
7.			4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8.	P STERROUGH CONTRACTOR OF THE PARTY OF THE P		data in Remarks or on a separate sheet)  5 - Wetland Non-Vascular Plants'
9			Problematic Hydrophytic Vegetation¹ (Explain)
11	4.		Indicators of hydric soil and wetland hydrology must
	95 = Tota	l Cover	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)			
1.	W SEASON STREET		Hydrophytic
2,			Vegetation Present? Yes \ No
% Bare Ground in Herb Stratum	= Tota	l Cover	
Remarks:			

	,	
SOIL		
SOIL	Vlehn 12/2/21	Schwarz Sampling Point: W179
Profile Description: (Describe to th	e depth needed to document the indicator or confirm	n the absence of indicators.)
Depth Matrix	Redox Features	,
1	Color (moist) % Type Loc <sup>2</sup>	Texture Remarks
	100	Loan
6-14 1048 2/1 9	0 75/4/6 C M 10	Loam
178		
	<u>\</u>	
<sup>1</sup> Type: C=Concentration, D=Depletion	, RM=Reduced Matrix, CS=Covered or Coated Sand Gra	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable	to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A1		<b>9</b>
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucky Milleral (S1)	Depleted Dark Surface (F7) Redox Depressions (F8)	wetland hydrology must be present,
Restrictive Layer (if present):	Redux Depressions (Fo)	unless disturbed or problematic.
Type:		
Depth (inches):	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Hudela Sall Bassasia
Remarks:		Hydric Soil Present? Yes No No
Remarks:		
×		
HYDROLOGY		4
Wetland Hydrology Indicators:		<u> </u>
Primary Indicators (minimum of one reg	uired: check all that apply)	Secondary Indicators (2 or more assured)
Surface Water (A1)	Water-Stained Leaves (B9) (except	Secondary Indicators (2 or more required)
High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	Water-Stained Leaves (B9) (MLRA 1, 2,
Saturation (A3)	Salt Crust (B11)	4A, and 4B)
Water Marks (B1)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
	Oxidized Rhizospheres along Living Roots	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized Kriizospheres along Living Roots	(C3) X Geomorphic Position (D2) Low Ara

Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) \_\_\_ Other (Explain in Remarks) \_ Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Depth (inches): Depth (inches): Water Table Present? \_\_ No <u>\_\_</u>\_\_ Depth (inches): \_ Saturation Present? Wetland Hydrology Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available Busedon hydric Svill Topographic Position Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region City/County McKinley wille/ Humboldt Sampling Date: M. Schows Section, Township, Range: 55, TON RIE Investigator(s): K. McDonald \\\S\OPL \ Local relief (concave, convex, none): \ONL \ Slope (%) Landform (hillslope, terrace, etc.): Lat: 40.93337753 Long: -124.0982055 Datum: W1684 Subregion (LRR): Condy Monney 2-9% slopes Soil Map Unit Name: A 162+2 200 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes \_\_\_\_\_\_ Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? (If needed, explain any answers in Remarks.) Are Vegetation , Soil , or Hydrology \_\_\_\_\_ naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. No V Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? Yes No / within a Wetland? No. Wetland Hydrology Present? Remarks: VEGETATION - Use scientific names of plants. Absolute Dominant Indicator **Dominance Test worksheet:** Tree Stratum (Plot size: \_\_\_\_\_) % Cover Species? Status **Number of Dominant Species** That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species = Total Cover That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot size: \_\_\_\_\_) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species \_\_\_\_x1=\_ x 2 = FACW species x 3 = FAC species = Total Cover UPL species x 5 = \_\_\_\_ Herb Stratum (Plot size: IV Column Totals: \_\_\_ Prevalence Index = B/A = Hydrophytic Vegetation Indicators: \_ 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.05 4 - Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet) 8 5 - Wetland Non-Vascular Plants<sup>1</sup> Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. > = Total Cover Woody Vine Stratum (Plot size: Hydrophytic Vegetation Present? = Total Cover % Bare Ground in Herb Stratum Remarks:

SOIL	1/00/ 17/2/01	c l ultra
Profile Description: (Describe to the des	$\sqrt{e_{ehn}}$ $\sqrt{z/z/z}$ $\sqrt{z}$	Schwarz Sampling Point: WIT9.
Depth Matrix	Datas Fort	m the absence of indicators.)
(inches) Color (moist) %	Redox Features Color (moist) % Type Loc2	Tankan
0-7 104R312 100	1700 100	Loam Remarks
7-15 10483/2+ 100		
7 7 70		Loam
	7	
Trans Coccession Coccession		
Hydric Soil Indicators: (Applicable to all	=Reduced Matrix, CS=Covered or Coated Sand G	
Hydric Soil Indicators: (Applicable to all  Histosoi (A1)		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histic Epipedon (A2)	Sandy Redox (S5)	2 cm Muck (A10)
Black Histic (A3)	Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1)	Red Parent Material (TF2)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	Other (Explain in Remarks)
Thick Dark Surface (A12)	Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present.
Sandy Gleyed Matrix (S4)  Restrictive Layer (if present):	Redox Depressions (F8)	unless disturbed or problematic.
The state of the s		
Type:	MARKAGAMAN AND AND AND AND AND AND AND AND AND A	
Depth (inches):	Months and the second s	Hydric Soil Present? Yes No
Remarks:		
HYDROLOGY		
HYDROLOGY  Wetland Hydrology Indicators:		
		Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:	, check all that apply)	Secondary Indicators (2 or more required) Water-Stained Legues (RO) (MLRA 4.2)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required	, check all that apply) Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required  Surface Water (A1)	, check all that apply)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required  Surface Water (A1)  High Water Table (A2)	check all that apply)  Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required  Surface Water (A1)  High Water Table (A2)  Saturation (A3)	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)	Water-Stained Leaves (B9) (except  MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  S (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  s (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  S(C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) 8)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  S(C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (BField Observations:  Surface Water Present? Yes N		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  S(C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (BField Observations: Surface Water Present? Yes N		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  S(C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (BField Observations:  Surface Water Present? Yes N Water Table Present? Yes N		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  S(C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (BField Observations: Surface Water Present? Yes N Water Table Present? Yes N Saturation Present? Yes N Includes capillary fringe		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (BField Observations: Surface Water Present? Yes N Water Table Present? Yes N Saturation Present? Yes N Includes capillary fringe		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (BField Observations: Surface Water Present? Yes N Water Table Present? Yes N Saturation Present? Yes N Includes capillary fringe		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (BField Observations: Surface Water Present? Yes Nuter Table Present? Yes Not Nutration Present? Yes Nutration Present		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (BField Observations: Surface Water Present? Yes Nuter Table Present? Yes Not Nutration Present? Yes Nutration Present		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (BField Observations: Surface Water Present? Yes Nuter Table Present? Yes Not Nutration Present? Yes Nutration Present		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)

## WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: We Are Up		City/Cou	inty: Mdade	wile/Hmco Sampling Date: 9/15/22
Applicant/Owner: Many Kedn Developer	nant			State: A Sampling Point: UP -10
Investigator(s): M. Schwarz, Llund	ren	Section,	Township, Rar	nge: 55.TbN,R1E
Landform (hillslope, terrace, etc.):	).			,
Subregion (LRR): A				
Soil Map Unit Name: Arcala & Candina de Cand				
Are climatic / hydrologic conditions on the site typical for thi	,			
Are Vegetation, Soil, or Hydrology s				Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology				eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map		samp	ling point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? YesN	10	ls	s the Sampled	Area /
Hydric Soil Present? Yes N Wetland Hydrology Present? Yes N	10	- 1	vithin a Wetlan	/
Remarks:	10			
Nemaro.				
VEGETATION – Use scientific names of plan	nte			
VEGETATION - Ose scientific fiames of plan	Absolute	Domin	ant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			es? Status	Number of Deminent Coories
1				That Are OBL, FACW, or FAC: (A)
2	_			Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)		_ = Total	Cover	That Are OBL, FACW, or FAC:
1				Prevalence Index worksheet:
2.				Total % Cover of: Multiply by:
3.				OBL species x 1 =
4				FACW species x 2 =
5				FAC species x 3 =
		_ = Total	Cover	FACU species x 4 = UPL species x 5 =
Herb Stratum (Plot size:)	15	1	FAC	Column Totals: (A) (B)
1. Agrostis stolenifera		<del>-</del>	FACU	
2. Princila vulgaris	20		FACU	Prevalence Index = B/A =
3. Hypochaeris Ladicata	15 S			Hydrophytic Vegetation Indicators:
4. Lotus corniculatus 5. Plantago lanceolata	- 10	7	FACU	1 - Rapid Test for Hydrophytic Vegetation
6. Festival perenns	30	-	FAC	2 - Dominance Test is >50%
•		-+-		3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
7 8				data in Remarks or on a separate sheet)
9.				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	90	= Total	Cover 45	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)		•	18	
1	_			Hydrophytic
2				Vegetation   Present?   Yes No
0/ Base Consumed in Lloub Christians 1/10		_= Total	Cover	165 NO_~
% Bare Ground in Herb Stratum \\O				

OIL	9/15/22 We Are	Sampling Point: U - 10
Profile Description: (Describe to t	he depth needed to document the indicator or	r confirm the absence of indicators.)
Depth Matrix	% Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
(inches) Color (moist)		- Siltloam
	00	
6-13 104R 5/6	(00	- Sandy Loan
·		
Type: C=Concentration D=Depletion	on, RM=Reduced Matrix, CS=Covered or Coated	Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable	e to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except I	MLRA 1) Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A		31 diese et le desemble es estation and
Thick Dark Surface (A12)	Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless distarbed of problematio.
Restrictive Layer (if present):		
Type:		Hydric Soil Present? Yes No
Depth (inches):		Hydric Soil Present? Yes No _X
HYDROLOGY		
Wetland Hydrology Indicators:	in the selection of the complete	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one		O (DO) (BALDA 4.2)
Surface Water (A1)	Water-Stained Leaves (B9) (ex	4A, and 4B)
High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	Drainage Patterns (B10)
Saturation (A3)	Salt Crust (B11)	Dry-Season Water Table (C2)
Water Marks (B1)	Aquatic Invertebrates (B13)	Saturation Visible on Aerial Imagery (C
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	# 15 mm
Drift Deposits (B3)	Oxidized Rhizospheres along I	
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4	,
Iron Deposits (B5)	Recent Iron Reduction in Tilled	
Surface Soil Cracks (B6)	Stunted or Stressed Plants (Dr	Tot-Heave Hummocks (D7)
Inundation Visible on Aerial Im-		Prost-reave riumnosio (5.7)
Sparsely Vegetated Concave S	Surface (B8)	
Field Observations:		
Surface Water Present? Yes	s No Depth (inches):	_
	s NoX_ Depth (inches):	
	s No/_ Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)	gauge, monitoring well, aerial photos, previous ins	spections), if available:
Describe Recorded Data (stream g	auge, monitoring wen, achai photos, previous me	·F/, ·
Remarks:		
, c.nano.		

## WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: We Are Up	(	City/County: nckinde	State: CA Sampling Date: 9/15/22
Applicant/Owner: Many Keetha Develop	mend		State: CA Sampling Point: UP - 11
Investigator(s): M, schwarz k Lundon	e.	Section, Township, Rar	The state of the s
Landform (hillslone terrace etc.):		Local relief (concave, o	convex, none): Slope (%): 0 -3
Subregion (LRR):	Lat: Ho	93424	Long: 124. 0994 Datum:
• , ,			NWI classification:
		/	
Are climatic / hydrologic conditions on the site typical for			
Are Vegetation, Soil, or Hydrology			Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology			eded, explain any answers in Remarks.)
		sampling point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No	Is the Sampled	Area
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No V	within a Wetlan	
	NO		
Remarks:			
VEGETATION – Use scientific names of pla	ante		
VEGETATION – Use scientific flames of pie		Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species? Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC: 2 (A)
2.			Total Number of Dominant
3			Species Across All Strata: (B)
4			Percent of Dominant Species
		= Total Cover	That Are OBL, FACW, or FAC: $\frac{2}{5} = \frac{40}{6}$ (A/B)
Sapling/Shrub Stratum (Plot size:)			Prevalence Index worksheet:
1			Total % Cover of: Multiply by:
2			OBL species x 1 =
3			FACW species x 2 =
4			FAC species x 3 =
5		= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:)	Name of the Control o		UPL species x 5 =
1. Runex acotoscila	15	FAC	Column Totals: (A) (B)
2. Leucanthemm vilgage	25_	1 UPL	Prevalence Index = B/A =
3. Hypochaeric radicata		- FACU	Hydrophytic Vegetation Indicators:
4. Advostis stolen, fera	15	Y FAC	1 - Rapid Test for Hydrophytic Vegetation
5. Thisalium regens 6. Poa anna		Y FACU	2 - Dominance Test is >50%
6. Poa anna	30	Y FAC	3 - Prevalence Index is ≤3.0¹
7			4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
8			5 - Wetland Non-Vascular Plants <sup>1</sup>
9			5 - Welland Non-Vascular Flants Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10			¹Indicators of hydric soil and wetland hydrology must
11		<del></del>	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	97	= Total Cover 43.5	
1			Hydrophytic
2.			Vegetation
		= Total Cover	Present? Yes No
% Bare Ground in Herb Stratum		_	
Remarks:			

SOIL	9/15/22 We Are Un	MS Sampling Point: UP-1
Profile Description: (Describe to th	e depth needed to document the indicator or conf	firm the absence of indicators.)
Depth Matrix	Redox Features	_
	% Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	
0-6 104R313 (0	0	- Siltloam
6-14 1048313 1	00	Sil+ Coam
-		
¹Type: C=Concentration D=Depletion	n, RM=Reduced Matrix, CS=Covered or Coated Sand	I Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
	to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A1	I1) Depleted Matrix (F3) Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Redox Dark Surface (F6) Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):	Nodex Bepressions (1.5)	
Type:		4
Depth (inches):		Hydric Soil Present? Yes No
Remarks:		
remarke.		
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one re	equired: check all that annly)	Secondary Indicators (2 or more required)
	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
Surface Water (A1) High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	4A, and 4B)
Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Roots (C3) Geomorphic Position (D2)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils	(C6) FAC-Neutral Test (D5)
Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LRF	R A) Raised Ant Mounds (D6) (LRR A)
Inundation Visible on Aerial Imag	ery (B7) Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
Sparsely Vegetated Concave Sur	face (B8)	
Field Observations:	1.0	
Surface Water Present? Yes _	No Depth (inches):	
Water Table Present? Yes _	No Depth (inches):	,
Saturation Present? Yes _		Vetland Hydrology Present? Yes No
(includes capillary fringe)		· ·
Describe Recorded Data (stream gau	ge, monitoring well, aerial photos, previous inspection	is), ii available.
Remarks:		

## Appendix C Site Photographs



Photo 1. Looking north from the southern edge of the PSB.



Photo 2. The northeastern edge of the PSB, showing the Coastal Willow Alliance backed by the Sitka Spruce Alliance behind it.



Photo 3. Viewing the southern edge of the PSB near Mill Creek.



Photo 4. Facing west in the center of the PSB.



Photo 5. Viewing a swale in the center of the PSB facing North.



Photo 6. Viewing more hydrophytic vegetation within Wetland 1, present on the upper slope.



Photo 7. Viewing a swale at the base of the slope within Wetland 1.



Photo 8. Dormant Coastal Willow Alliance SNC within the riparian corridor of Mill Creek.



Photo 9. SNCs Coastal Willow Alliance backed by Sitka Spruce Alliance within the riparian corridor of Mill Creek.



Photo 10. Mill Creek in late January, 2022.

# Appendix D

**Rapid Assessment Datasheets** 

# Combined Vegetation Rapid Assessment and Relevé Field Form (Revised March 27, 2018)

S. March

Association	
I. LOCATIONAL/ENVIRONMENTAL DESCRIPTION circle: Relevé or (RA)	
Database #: Date: Name of recorder: helsey Manala	
WEIRCON Other surveyors:	
UID: Location Name: Wellup / Keehn Development	
GPS name: Account of Long / Short s	side
UTME UTMN Zone: 11 NAD83 GPS error: ft./ m./ PDOP	_
Decimal degrees: LAT LONG	
GPS within stand? Yes / No If No, cite from GPS to stand: distance (m) bearing o inclination o	
and record: Base point ID Projected UTMs: UTME UTMN	
and record: Base point ID Projected UTMs: UTME UTMN UTMN Other photos:	
Stand Size (acres); <1, 15 >5   Plot Area (m2): 100 /   Plot Dimensions x m	n
Exposure, Actual °: NE NW SE SW Flat Variable   Steepness, Actual °: 0° (1-5°) >5-25° >25	
Topography: Macro: top upper (mid lower bottom   Micro: convex flat concave undulating	
Geology code: Soil Texture code:   Upland or Wetland/Riparian (circle one)	
% Surface cover: (Incl. outcrops) (>60cm diam) (25-60cm) (7.5-25cm) (2mm-7.5cm) (Incl sand, mud)  H <sub>2</sub> 0:   BA Stems: 25 Litter: 35 Bedrock: Boulder: Stone: Cobble: 5 Gravel: 5 Fines: 35 = 100	)%
% Current year bioturbation Past bioturbation present? Yes / No   % Hoof punch	
Fire evidence: Yes / No (circle one) If yes, describe in Site history section, including date of fire, if known.	
site history, stand age, comments: Characterizing forested area on outer ed of property. Separated out areas of strong coastal whom deminance without taller spruce/alder canopy.	8
site history, standage, comments: Characterizing torested area on outer ea of property. Separated out areas of strong coastal whom dominance without taller spruce/alder canopy. Similar tree species composition along Mill Creek. PA point at NE corner.	
of according Separated out from the strong coastal	
of property. Separated out greas of strong coastal willow dominance without taller spruce/alder canopy. Similar tree species composition along Will Creek. PA point at NE corner.	
of property. Separated out greas of strong coastal willow deminance without taller spruce/alder canopy. Similar tree species composition along Will Creek. A point at NE corner.  Disturbance code/Intensity (L,M,H):	
of property. Separated out greas of strong coastal willow deminance without taller spruce/alder canopy. Similar tree species composition along Will Creek. A point at NE corner.  Disturbance code/Intensity (L,M,H):////	
of property. Separated out greas of strong coastal willow devilinance without taller spruce/alder canopy. Similar tree species composition along Will Creek.  PA point at NE corner.  Disturbance code/Intensity (L,M,H):	
of property. Separated out greas of strong coastal willow deminance without taller spruce/alder canopy. Similar tree species composition along Will Creek. A point at NE corner.  Disturbance code/Intensity (L,M,H):////	
Disturbance code / Intensity (L,M,H):	
Disturbance code/Intensity (L,M,H):	
of property. Separated out Greas of strong coastal willow deminance without taller spruce/alder canopy. Similar tree species composition along Will Creek.  Physical Point at NE corner.  Disturbance code/Intensity (L,M,H):	
Disturbance code / Intensity (L,M,H):  Disturbance code / Intensity (L,M,H):  II. HABITAT DESCRIPTION  Tree DBH: T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% co Shrub: S1 seedling (<3 yr. old), S2 young (<1% deadl, S3 mature (1-25% dead), S4 decadent (>25% dead)  Herbaceous; H1 (<12" plant hy), H2 (>12" ht.)  Desert Riparian Tree/Shrub: 1 (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)  Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.)  III. INTERPRETATION OF STAND  Field-assessed vegetation Alliance name:  STK 2 Spruce forest Alliance	
of property. Separated out Greas of strong coastal willow deminance without taller spruce/alder canopy. Similar tree species composition along Will Creek. Similar tree species composition along Will Creek.  Ph point at NE corner.  Disturbance code / Intensity (L.M.H):	O pyer)
Disturbance code / Intensity (L.M.H):  Disturbance code / Intensity (L.M.H):  LA point at NE corner.  Disturbance code / Intensity (L.M.H):  II. HABITAT DESCRIPTION  Tree DBH: T1 (<1" dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% co Shrub: S1 seedling (<3 yr. old), S2 young (<1% dead) S3 matrire (1-25% dead).  Herbaceous: H1 (<12" plant ht/h. H2 /12" ht.)  Desert Riparian Tree/Shrub: T (<2ft. stem ht.), 2 (2-10ft. ht.), 3 (10-20ft. ht.), 4 (>20ft. ht.)  Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.)  III. INTERPRETATION OF STAND  Field-assessed vegetation Alliance name:  SHL 3 Spruce forest Alliance  Field-assessed Association name (optional):  Pica sytche As Alvus rubers  Agrories stalmifer a St	O pyer)
Disturbance code / Intensity (L.M.H):  Disturbance code / Intensity (L.M.H):  II. HABITAT DESCRIPTION  Tree DBH: T1 (<   "dbh), T2 (1-6" dbh), T3 (6-11" dbh), T4 (11-24" dbh), T5 (>24" dbh), T6 multi-layered (T3 or T4 layer under T5, >60% co Shrub: S1 seedling (<  yr. old), S2 young (<1% deadle, S3 mature (1-25% deadl), S4 decadent (>25% deadl)  Herbaceous; H1 (<12" plant hy. H2 (>12" th)  Desert Riparian Tree/Shrub: T (<2ft. stem ht), 2 (2-10ft. ht), 3 (10-20ft. ht), 4 (>20ft. ht)  Desert Palm/Joshua Tree: 1 (<1.5" base diameter), 2 (1.5-6" diam.), 3 (>6" diam.)  III. INTERPRETATION OF STAND  Field-assessed Association name (optional):  Field-assessed Association name (optional):  Picea 5-1-che 74s - Almus rubera  Adjacent Alliances/direction:  All Creek.  "Other"  "Other"	O pyer)
of property. Separated out Greas of strong coastal willow dominance without taller spruce/alder canopy. Similar tree species composition along Mill Creek.  Find point at NE corner.  Disturbance code/Intensity (L,M,H):	O pyer)

# Combined Vegetation Rapid Assessment and Relevé Field Form (Revised March 27, 2018) SPECIES SHEET

Database #: LDEIROCT

IV. VEGETATION DESCRIPTION		A Color	The state of the s
		%	NonVasc cover: Total % Vasc Veg cover: \( \( \scale \)
% Cover - Conifer tree / Hardwood tree: ( ) / 니	Rege	nera	ting Tree: 1 Shrub: 5 Herbaceous: 5
Height Class - Conifer tree / Hardwood tree: 6 /			
Height classes: 1=<1/2m, 2=1/2-1m, 3=1-2m, 4=2-5	m, 5=5-10	m, 6	i=10-15m, 7=15-20m, 8=20-35m, 9=35-50m, 10=>50m
Stratum categories: T=Tree, A = SAp	ling, E = S	Eedli	ing, S = Shrub, H= Herb, N= Non-vascular
Stratum Species	1%, 1-3		>5-15%, >15-25%, >25-50%, >50-75%, >75%   Final species determination
		H	
T Pices sitchensis	40	-	
- I huja plicata	22	-	
TIE CHOS CUBIA	3	-	
T/S Frangula purshiana	13	-	
T Eucalizatus aldoulus	15	+	
5 Bulous armenialus 5 Rubus ursinus 5 Rubus ursinus	+5-	┼	
5 Kulous armeniacus	6	-	
5 Rubisusinus	13	<u> </u>	
S Erica luscitagia			
5 Marella californica	(	<u></u>	
5 Cotonessies	.5		
H Equisetum telmateis	1.1		
H Carex obrupta	.5		
H Hacus lanatus	1		
H Agrostis stolonifera	1		
H Lotus considulator	.5		
A Rannellus repens	.5		
It Anthoxanthun doratus	1.7		
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Unusual species:		····	

# Combined Vegetation Rapid Assessment and Relevé Field Form (Revised March 27, 2018)

For Office Use:	Final database #:	Final vegetation type:	Alliance		
L LOCATIONAL	 ENVIRONMENTAL		Association	circle: Relevé or RA	
Database #:	Date:	Name of recorde	r: Kelsen Mc	Donald	
	9/14/2				
WEIROCO	UID:	Location Name:	Wellup		
GPS name: Acro				s at ID point of Long / Short side	
				NAD83 GPS error: ft./ m./ PDOP	
		1N			
		Adequationation designations recognisionally designation of the second s			
GPS within stand	l? (Yes) / No If No	o, cite from GPS to stand: dis	tance (m) bearing	inclination -	
and record: Base	point ID	Projected UTMs:	UTME	UTMN	1
Camera Name:	Cardinal	photos at ID point: K	560 (250	THE RESIDENCE OF THE PROPERTY	
, •	(1) 15 >5   P	lot Area (m²): 100 /	Plot Dimensions	x m RA Radius m	
Stand Size (acres):	. NE NW	SE SW Flat Variable	Steepness, Actual °:		
1					_
Topography: Ma	cro: top upper Soil Tex	mid lower bottom		flat concave undulating and/Riparjan (circle one)	
% Surface cover:		ncl. outcrops) (>60cm diam)	(25-60cm) (7.5-25cm	n) (2mm-7.5cm) (Incl sand, mud)	
H20: O BA Sten	ns:50 Litter:30	Bedrock: Boulder:	Stone: Cobble	: Gravel: Fines: 20 = 100%	
% Current year bi	oturbation	Past bioturbation present?	Yes / No   % H	loof punch	
Fire evidence: Ye	s / No (circle one) If	yes, describe in Site history	section, including date of	f fire, if known.	
Site history, stand	age, comments:	varacterizio	la Coastal	willow thickets d mowed non-native	
m edge	of sitka	some do	minance an	d mowed non-native	
pastre	rasses.	all all appropriate and the control of the control	AND CONTRACTOR OF THE PROPERTY		
Paster Park	0			The state of the s	
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and the second s				And the second s	
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Arm sup. South company of the control of the contro					
Disturbance code /	Intensity (L,M,H): _			_/"Other"/	
II. HABITAT DES	CRIPTION				1
Tree DRH : T1 (<1)	" dbh). <b>T2</b> (1-6" dbh),	Γ3 (6-11" dbh), Τ4 (11-24" db	oh), <u>T5</u> (>24" dbh), <u>T6</u> mu	ulti-layered (T3 or T4 layer under T5, >60% cover)	
Shrub: SI seedling	(<3 yr. old). S2 young	g (<1% dead), <u>S3</u> mature (1-	25% dead), S4 decadent	(>25% dead)	
i	12" plant ht (. <u>H2</u> (>12"				
Desert Pinerian Tr	ree/Shruh: 1 (<)ft ste	em ht.), <b>2</b> (2-10ft. ht.), <b>3</b> (10-	-20ft. ht.), 4 (>20ft. ht.)		
Desert Riparian 11	a Tree: 1 (<15" hase	diameter), 2 (1.5-6" diam.), 3	3 (>6" diam.)		
III. INTERPRETA					
III. INTERFRETA	TION OF STAILS	^ .	^^		
!	tation Alliance name		villan Thic	Ket Aliance	
	ciation name (option		) ( ( A	1 = 4   1 = ( = + + + + + + + + + + + + + + + + +	
Adjacent Alliances	direction: Proe	Sitchensis	NED. 179	ostis stadonitera (L)	
Confidence in Allia	nce identification: I	M H Explain:	Patches of	n edge of Sitka sprice for	42/
Phenology (E,P,L):	Herb Shrub	Tree Other identi	fication or mapping inf	ormation:	
	Annual Control of the	er stjede etneme værete moderfinsemme skriver me. Frime stjereste etningeme mer i	e de la faitainn ag lafadeach daithir aigil i la thainn is Morthiologiae	Demonstrate instance minus 4 - 64 to 56 to 46 to	-
. At a supposed that will				· · · · · · · · · · · · · · · · · · ·	

# Combined Vegetation Rapid Assessment and Relevé Field Form (Revised March 27, 2018) SPECIES SHEET

Databas	se #: <u>WEIRO</u> OZ	(Revised N SPECII		
IV. VEC	GETATION DESCRIPTION			
	Class - Conifer tree / Hardwood tree:/	Rege	nera nera	NonVasc cover: Total % Vasc Veg cover: ting Tree: Shrub: Herbaceous: ting Tree: Shrub: Herbaceous: Herbaceous: ting Tree: Shrub: Herbaceous: Herbaceous: ting Tree: Shrub: Herbaceous: ting Tree: Shrub: Herbaceous: ting Tree: Shrub: Herbaceous: ting Tree: Shrub: Herbaceous: ting Tree: ting Tree: Shrub: Herbaceous: ting Tree: Shrub: ting Tree:
	Stratum categories: T=Tree, A = SApl	ing, E = SI	Eedli	ng, S = Shrub, H= Herb, N= Non-vascular >5-15%, >15-25%, >25-50%, >50-75%, >75%
Stratum				Final species determination
. e e e e e e e e e e e e e e e e e e e	Alnus rubrz	12	<u> </u>	/
5	Salix hockeriana	85		
5	Rubus ursinus	10		
3	Rubus armeniacus	5		
H	Ranunculus repens			
H	Holcus lanatus	<u>l</u>		
#	Juneus hesperius	<u> </u>		
H	Lotus conjulatus	.5		
H	Agrostis Stolonifera	-5	<u> </u>	Sh.
#	Anthoxantium coordium	.5	<u> </u>	
1	Carex obnupts	.5	<del> </del>	The state of the s
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# Appendix E

**NRCS Custom Soil Resources Report** 

# **Map Unit Description**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named, soils that are similar to the named components, and some minor components that differ in use and management from the major soils.

Most of the soils similar to the major components have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Some minor components, however, have properties and behavior characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

# Report—Map Unit Description

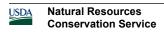
# **Humboldt County, Central Part, California**

171—Worswick-Arlynda complex 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2ll1w

Elevation: 0 to 810 feet



Mean annual precipitation: 60 to 75 inches Mean annual air temperature: 50 to 55 degrees F

Frost-free period: 275 to 330 days

Farmland classification: Prime farmland if irrigated and drained

#### **Map Unit Composition**

Worswick and similar soils: 55 percent Arlynda and similar soils: 35 percent Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of

the mapunit.

#### **Description of Worswick**

#### Setting

Landform: River valleys

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Mountainbase

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Alluvium derived from mixed sources

#### Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material

A1 - 1 to 2 inches: silt loam
A2 - 2 to 4 inches: silt loam
Bwg - 4 to 9 inches: silt loam
Cg1 - 9 to 15 inches: loamy sand
Cg2 - 15 to 30 inches: gravelly loam
Cg3 - 30 to 36 inches: silt loam
Cg4 - 36 to 60 inches: silt loam

#### **Properties and qualities**

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: About 0 to 4 inches Frequency of flooding: NoneOccasional Frequency of ponding: Occasional

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0

mmhos/cm)

Available water supply, 0 to 60 inches: High (about 9.7 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: B/D

Ecological site: F004BX111CA - Redwood/western swordfern-

redwood sorrel, floodplains and terraces, loam Other vegetative classification: Forest Type IV, coastal

(RNPF004CA)

Hydric soil rating: Yes

#### **Description of Arlynda**

#### Setting

Landform: River valleys

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Mountainbase

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Alluvium derived from mixed sources

#### **Typical profile**

Oi - 0 to 1 inches: slightly decomposed plant material

A - 1 to 2 inches: silt loam
Bwg - 2 to 15 inches: loam
Cg - 15 to 35 inches: loam
2CAgb - 35 to 60 inches: loam

#### **Properties and qualities**

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)

Depth to water table: About 2 to 20 inches Frequency of flooding: NoneOccasional Frequency of ponding: Frequent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0

mmhos/cm)

Available water supply, 0 to 60 inches: High (about 11.0 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: B/D

Ecological site: F004BX111CA - Redwood/western swordfern-

redwood sorrel, floodplains and terraces, loam Other vegetative classification: Forest Type IV, coastal

(RNPF004CA)

Hydric soil rating: Yes

#### **Minor Components**

#### **Bigtree**

Percent of map unit: 5 percent

Landform: Alluvial fans, terraces, fan remnants

Landform position (two-dimensional): Backslope, toeslope Landform position (three-dimensional): Mountainbase

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: F004BX111CA - Redwood/western swordfern-

redwood sorrel, floodplains and terraces, loam

Other vegetative classification: Forest Type IV, coastal

(RNPF004CA)

Hydric soil rating: No

#### Fluventic dystrudepts, loamy-skeletal

Percent of map unit: 5 percent

Landform: Alluvial fans

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Mountainbase

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: F004BX111CA - Redwood/western swordfern-

redwood sorrel, floodplains and terraces, loam Other vegetative classification: Forest Type IV, coastal

(RNPF004CA)

Hydric soil rating: No

#### 225—Arcata and Candymountain soils, 0 to 2 percent slopes

#### **Map Unit Setting**

National map unit symbol: 2lmt0

Elevation: 10 to 290 feet

Mean annual precipitation: 35 to 90 inches Mean annual air temperature: 52 to 55 degrees F

Frost-free period: 275 to 325 days

Farmland classification: Prime farmland if irrigated

#### **Map Unit Composition**

Arcata and similar soils: 50 percent

Candymountain and similar soils: 35 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of

the mapunit.

#### **Description of Arcata**

#### Setting

Landform: Marine terraces

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Marine deposits derived from mixed

#### **Typical profile**

A - 0 to 23 inches: fine sandy loam

AB - 23 to 37 inches: very fine sandy loam Bw - 37 to 51 inches: fine sandy loam C - 51 to 67 inches: fine sandy loam

#### Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0

mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 8.9

inches)

#### Interpretive groups

Land capability classification (irrigated): 1 Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: B

*Ecological site:* F004BX121CA - Redwood-Sitka spruce/salal-California huckleberry/western swordfern, marine terraces,

marine deposits, sandy loam and loam

Hydric soil rating: No

#### **Description of Candymountain**

#### Setting

Landform: Marine terraces

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Marine deposits derived from mixed

#### Typical profile

A1 - 0 to 11 inches: fine sandy loam
A2 - 11 to 19 inches: fine sandy loam
Bt1 - 19 to 38 inches: fine sandy loam
Bt2 - 38 to 48 inches: fine sandy loam
BCt - 48 to 55 inches: sandy loam
C - 55 to 63 inches: loamy fine sand

#### **Properties and qualities**

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0

mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 8.9

inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: B

*Ecological site:* F004BX121CA - Redwood-Sitka spruce/salal-California huckleberry/western swordfern, marine terraces,

marine deposits, sandy loam and loam

Hydric soil rating: No

#### **Minor Components**

#### Urban land, residential

Percent of map unit: 4 percent Landform: Marine terraces Hydric soil rating: No

#### **Timmons**

Percent of map unit: 3 percent Landform: Marine terraces

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: F004BX121CA - Redwood-Sitka spruce/salal-California huckleberry/western swordfern, marine terraces,

marine deposits, sandy loam and loam

Hydric soil rating: No

#### Halfbluff

Percent of map unit: 3 percent Landform: Marine terraces

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: F004BX118CA - Sitka spruce-redwood/salal/ western brackenfern, marine terraces, marine deposits, fine

sandy loam

Hydric soil rating: No

#### Megwil,

Percent of map unit: 3 percent Landform: Marine terraces

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

*Ecological site:* F004BX120CA - Redwood-Sitka spruce/California huckleberry-salmonberry/western swordfern-deer fern, marine

terraces, loam *Hydric soil rating:* No

#### **Talawa**

Percent of map unit: 2 percent Landform: Marine terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Tread

Down-slope shape: Concave Across-slope shape: Concave

Hydric soil rating: Yes

## 226—Arcata and Candymountain soils, 2 to 9 percent slopes

#### **Map Unit Setting**

National map unit symbol: 2lmt1

Elevation: 10 to 310 feet

Mean annual precipitation: 35 to 90 inches Mean annual air temperature: 52 to 55 degrees F

Frost-free period: 275 to 325 days

Farmland classification: Farmland of statewide importance

#### **Map Unit Composition**

Arcata and similar soils: 50 percent

Candymountain and similar soils: 35 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of

the mapunit.

#### **Description of Arcata**

#### Setting

Landform: Marine terraces

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Marine deposits derived from sedimentary rock

#### Typical profile

A - 0 to 27 inches: loam

AB - 27 to 36 inches: loam

Bw - 36 to 63 inches: sandy loam

#### **Properties and qualities**

Slope: 2 to 9 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0

mmhos/cm)

Available water supply, 0 to 60 inches: High (about 9.6 inches)

#### Interpretive groups

Land capability classification (irrigated): 2e Land capability classification (nonirrigated): 2e Hydrologic Soil Group: B

*Ecological site:* F004BX121CA - Redwood-Sitka spruce/salal-California huckleberry/western swordfern, marine terraces,

marine deposits, sandy loam and loam

Hydric soil rating: No

#### **Description of Candymountain**

#### Setting

Landform: Marine terraces

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Marine deposits derived from sedimentary rock

#### **Typical profile**

A - 0 to 17 inches: fine sandy loam

Bw - 17 to 55 inches: fine sandy loam

C - 55 to 79 inches: loamy very fine sand

#### **Properties and qualities**

Slope: 2 to 9 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0

mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 8.6

inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Ecological site: F004BX121CA - Redwood-Sitka spruce/salal-California huckleberry/western swordfern, marine terraces,

marine deposits, sandy loam and loam

Hydric soil rating: No

### **Minor Components**

#### Urban land, residential

Percent of map unit: 4 percent Landform: Marine terraces Hydric soil rating: No

#### Halfbluff

Percent of map unit: 4 percent Landform: Marine terraces

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: F004BX118CA - Sitka spruce-redwood/salal/ western brackenfern, marine terraces, marine deposits, fine

sandy loam

Other vegetative classification: Forest Type IV, coastal

(RNPF004CA)

Hydric soil rating: No

#### Megwil,

Percent of map unit: 3 percent Landform: Marine terraces

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

*Ecological site:* F004BX120CA - Redwood-Sitka spruce/California huckleberry-salmonberry/western swordfern-deer fern, marine

terraces, loam *Hydric soil rating:* No

#### **Timmons**

Percent of map unit: 2 percent Landform: Marine terraces

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: F004BX121CA - Redwood-Sitka spruce/salal-California huckleberry/western swordfern, marine terraces,

marine deposits, sandy loam and loam

Hydric soil rating: No

#### **Talawa**

Percent of map unit: 2 percent Landform: Marine terraces

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Tread

Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

#### **Data Source Information**

Soil Survey Area: Humboldt County, Central Part, California

Survey Area Data: Version 7, Sep 6, 2021

# Appendix F

Record of Climatological Observations and WETS Table

WETS Station: ARCATA EUREKA AP, CA													
Requested years: 1971 - 2022													
Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall					
Jan	56.0	40.2	48.1	6.93	4.49	8.34	12	-					
Feb	55.7	39.8	47.7	6.75	4.00	8.20	11	-					
Mar	56.2	40.6	48.4	6.58	4.58	7.82	12	-					
Apr	57.3	42.4	49.8	3.92	2.47	4.73	9	-					
May	59.5	45.7	52.6	1.94	0.88	2.36	5	-					
Jun	62.3	48.2	55.3	0.92	0.31	1.06	2	-					
Jul	63.2	51.2	57.2	0.16	0.04	0.16	0	-					
Aug	64.1	51.1	57.6	0.19	0.05	0.22	0	-					
Sep	64.7	48.3	56.5	0.94	0.29	1.07	2	-					
Oct	63.0	44.9	53.9	3.09	1.14	3.73	5	-					
Nov	58.5	41.9	50.2	5.87	3.90	7.04	10	-					
Dec	55.5	39.5	47.5	8.76	5.29	10.62	13	-					
Annual:					39.22	50.47							
Average	59.7	44.5	52.1	-	-	-	-	-					
Total	-	-	-	46.05			81	-					
GROWING SEASON DATES													
Years with missing data:	24 deg = 22	28 deg = 24	32 deg = 24										
Years with no occurrence:	24 deg = 29	28 deg = 10	32 deg = 0										
Data years used:	24 deg = 30	28 deg = 28	32 deg = 28										
Probability	24 F or higher	28 F or higher	32 F or higher										
50 percent *	No occurrence	1/3 to 1/14: 376 days	3/27 to 11/26: 244 days										
70 percent *	No occurrence	No occurrence	3/18 to 12/6: 263 days										
* Percent chance of the growing season occurring between the Beginning and Ending dates.			,										
STATS TABLE - total precipitation (inches)													
Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl
1945					M4.07	MT	0.01	M0.00	M0. 37	4. 60	13. 01	12. 89	34. 95
1946	5.01	6.44	5.31	M0.50									17. 26
1947													
1948													
1949													
1950													
1951													
1952													
1953													
1954													
1955													
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	996													
	997													
	998		14.12	8.13	2.33	4.51	0.24	0.06	0.02	0.	4.	16.		50.
•	330		1 1.12	0.10	2.00	1.01	0.21	0.00	0.02	28	65	57		91
1	999	5.80	12.28	9.94	2.42	2.31	0.06	0.01	0.25	0.	1.	8.	3.	46.
		10.00	0.67		0.70	0.77				01	53	32	66	59
2	2000	12.80	8.67	3.09	3.78	2.77	1.08	0.02	0.02	0. 44	3. 37	4. 26	2. 76	43. 06
2	2001	3.92	4.53	2.21	3.07	0.99	1.00	0.17	0.23	0.	1.	9.	11.	39.
										41	78	54	41	26
2	2002	7.56	6.95	4.75	3.06	0.70	0.83	0.07	0.04	0.	0.	2.	22.	49.
•	2003	7 01	2.70	E 60	10.00	1 <i>4E</i>	0.11	0.04	0.50	19	06	36	96	53
2	2003	7.81	3.78	5.63	12.92	1.45	0.11	0.04	0.58	0. 55	0. 56	6. 08	12. 97	52. 48
2	2004	6.71	9.07	2.59	2.07	1.14	0.07	0.11	0.70	0.	4.	1.	9.	38.
										63	98	71	11	89
2	2005	5.54	2.16	6.13	6.55	4.86	4.10	0.10	0.14	0. 17	3. 42	9. 38	13. 99	56. 54
2	2006	11.94	5.97	10.63	4.50	1.48	0.56	0.08	0.10	0.	0.	9.	9.	55.
2	-000	11.54	0.51	10.00	<del>-1</del> .JU	1.70	0.00	0.00	0.10	0. 17	70	9. 50	9. 68	31
2	2007	2.63	13.11	3.66	3.71	0.95	0.67	0.86	0.12	1.	5.	3.	7.	43.
										03	73	23	78	48

2008	10.26	3.65	4.79	2.40	0.10	0.40	0.09	0.82	0. 18	1. 13	5. 08	10. 01	38. 91
2009	2.06	6.78	6.78	1.38	3.86	0.31	0.19	0.14	0. 63	2. 45	4. 34	5. 08	34. 00
2010	10.49	5.38	6.76	8.36	3.58	3.46	0.10	0.21	2. 00	5. 29	6. 35	12. 38	64. 36
2011	2.69	4.66	12.57	5.07	1.72	1.31	0.25	M0.05	M0. 37	5. 16	4. 64	3. 31	41. 80
2012	9.11	M2.12	12.65	5.66	1.08	2.41	0.76	0.08	0. 10	3. 55	6. 93	11. 06	55. 51
2013	2.94	2.00	3.47	2.24	1.88	0.78	0.00	0.10	4. 37	0. 05	1. 70	0. 98	20. 51
2014	2.16	7.90	8.85	1.84	1.05	0.73	Т	0.00	3. 23	5. 74	5. 11	9. 96	46. 57
2015	2.07	5.59	3.78	2.39	0.10	0.07	0.13	0.51	0. 59	1. 10	5. 30	18. 77	40. 40
2016	12.30	2.93	10.48	3.27	0.64	0.11	0.59	0.02	Т	12. 03	7. 20	8. 22	57. 79
2017	11.03	14.24	10.09	5.32	1.26	0.72	0.01	0.01	0. 73	1. 81	8. 55	2. 31	56. 08
2018	9.19	2.97	8.35	5.34	0.97	0.48	0.02	0.02	0. 32	0. 89	5. 68	5. 40	39. 63
2019	8.39	16.09	5.39	3.64	3.11	Т	0.02	0.46	3. 21	2. 08	2. 05	7. 88	52. 32
2020	9.26	1.01	2.80	2.11	5.66	0.53	MT	0.02	0. 77	0. 60	3. 27	5. 14	31. 17
2021	6.81	6.15	4.29	0.67	0.33	1.93	0.11	0.01	1. 68	5. 40	3. 79	6. 73	37. 90
2022	2.92	M0.00											2.92
Notes: Data missing in any month have an "M" flag. A													

Notes: Data missing in any month have an "M" flag. A "T" indicates a trace of precipitation.

Data missing for all days in a month or year is blank.

Creation date: 2022-02-08



## Precipitation Data for Groundwater Monitoring

Precipitation data and rainfall measurements for the project site were taken from the National Oceanic Atmospheric Administration (NOAA) rain gage at the Eureka Weather Forecast Office (WFO) on Woodley Island. The Eureka NOAA rain gauge is the station nearest to the project site with sufficient historical data (at least 20 years) required to create an NRCS WETS table.

**Table 1** presents NRCS WETS table data applicable to the project site for the 2023 water year. The NRCS WETS data includes the mean monthly below normal, normal, and above normal precipitation values for the period of 1972 to 2022 (AgACIS 2023).

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Table 1	<b>∟ureka</b> .	California	WEIS	table	(1972-2022)

	Precipitation	on (inches)	
Month	Below Normal	Normal	Above Normal
January	3.59	5.98	7.25
February	3.21	5.35	6.49
March	3.74	5.53	6.61
April	1.94	3.2	3.88
May	0.73	1.57	1.91
June	0.25	0.66	0.79
July	0.05	0.17	0.18
August	0.06	0.28	0.27
September	0.19	0.8	0.88
October	0.96	2.45	2.96
November	3.25	5.26	6.36
December	4.02	7.22	8.8

Rainfall data (as of February 24, 2023) for Eureka for the 2023 water year (October 1, 2022, to September 30, 2023) is shown in **Figure 1**. Below normal, normal, and above normal rainfall data from the WETS Table for Eureka are shown for comparison.

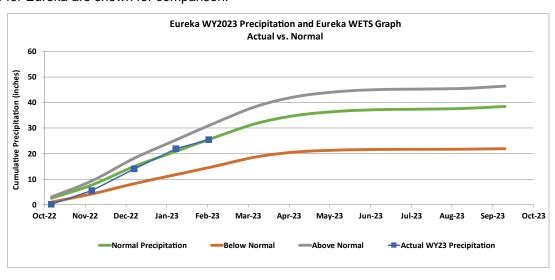


Figure 1 Eureka, California WY 2023 Precipitation and WETS graph



→ The Power of Commitment

# Appendix D

**Botanical Memorandum Rev1** 



# **Technical Memorandum**

#### October 10, 2022

То	Mary Keehn	Contact No.							
Copy to	Misha Schwarz, GHD Project Director	Email	marykeehncg@gmail.com						
From	Jane Cipra, GHD Botanist Project No. 12560473								
Project Name	We Are Up Proposed Development								
Subject	Rare Plant and Sensitive Natural Communities Assessment								

### 1. Introduction

This Technical Memorandum reports the results of complete protocol-level botanical surveys, site reconnaissance, vegetation classification, and habitat assessment, on behalf of We Are Up (Client), in support of the proposed We Are Up Proposed Development (Project) within the community of McKinleyville, California (Attachment A Figure 1). The surveys were conducted within the Project Study Boundary (PSB) as shown in Attachment A, Figure 2. GHD conducted seasonally appropriate floristic surveys on April 12 and June 2, 2022 for potentially occurring special status plants within the PSB (Table 1). A site visit was made on September 15, 2022 to assess habitat quality of a small area added in the northwest corner of the PSB resulting from a lot line adjustment after the initial floristic surveys were completed. The area encompassed by the expanded PSB is approximately 0.36 acres, most of which is comprised of regularly mowed field, and the remainder is gravel and paved surfaces. This technical memorandum summarizes all botanical and habitat studies conducted during the three site visits. No special status plants were detected onsite, and a complete plant list is included in Attachment B. Site photos can be found in Attachment C. Vegetation communities were identified and mapped in the Aquatic Resources Delineation completed March 1, 2022. Sensitive Natural Communities (SNC) on site include a 0.75-acre Sitka spruce (Picea sitchensis) stand which is considered a (S2), as well as 0.85-acres of coastal willow (Salix hookeriana) which has an SNC ranking of S3. Please see the Aquatic Resources Delineation Report for details, maps, and datasheets on these communities.

#### 1.1 Location

The PSB consists of partially developed, and grassy and vegetated open space, just west of Grocery Outlet in McKinleyville, California (**Attachment A, Figure 1**). The PSB is bordered by residential areas to the North and West, and by Mill Creek to the South, and a forested lot to the East. The property is a generally flat to mildly sloped grassland field, with several small clumps of trees within, and bordered by trees to the South and West of the property.

# 2. Regulatory Setting

# 2.1 Federally Listed Species

Special status plant species under Federal jurisdiction include those listed as endangered, threatened, or as candidate species by the United States Fish and Wildlife Service (USFWS) under the Federal Endangered Species Act (FESA).

# 2.2 State Listed Species

Special status plant species under California Department of Fish and Wildlife (CDFW) jurisdiction include the following:

- Endangered, Threatened, or Candidate plant species listed under the California Endangered Species Act (CESA)
- Plants listed as Rare under California Native Plant Protection Act (Fish & G. Code, § 1900 et seq.)
- California Rare Plant Ranking (CRPR) rare plants on the California Native Plant Society's (CNPS)
   Lists 1 and 2.

Plant species on CNPS Lists 1 and 2 are considered eligible for state listing as Endangered or Threatened pursuant to the California Fish and Game Code, and CDFW has oversite of these special status plant species as a trustee agency. Such species are considered during the CEQA process because they meet the definition of Threatened or Endangered under Sections 2062 and 2067 of the California Fish and Game Code. Plants on CNPS Lists 3 and 4 do not have formal protection under CEQA, but may merit consideration in certain circumstances. Additionally, locally significant plants (CEQA Guidelines, (§ 15125, subd. (c)), or as designated in local or regional plans, policies, or ordinances) are considered special status plant species (CDFW 2018).

#### 2.3 Sensitive Natural Communities

Natural vegetation communities listed as Sensitive in the California Natural Diversity Database (CNDDB) and on the California Sensitive Natural Communities List are to be addressed within the CEQA review process (CDFW 2022a). Sensitive Natural Communities (SNCs) are classified at the Alliance level according to A Manual of California Vegetation (Sawyer et al. 2009). CDFW considers alliances with a NatureServe State Rank of S1 to S3 to be Sensitive Natural Communities, and therefore these alliances are considered during the CEQA process (CDFW 2022a).

## 3. Methods

# 3.1 Pre-Survey Investigations

A scoping list of CRPR plant species and habitats with recorded occurrences in the project vicinity was compiled prior to surveys on April 12, 2022 by consulting the CNDDB (CDFW 2022b), the CNPS Inventory of Rare and Endangered Vascular Plants (CNPS 2022), and U.S. Fish and Wildlife Service IPaC (USFWS 2022) (Table 1). The CNDDB RareFind database was also consulted for rare plant occurrences documented in the project vicinity.

The scoping list includes special-status plants with documented occurrences on the Arcata North USGS quadrangle and adjacent seven quadrangles (Crannell, Panther, Creek, Blue Lake, Korbel, Arcata South, Eureka, and Tyee City). The query yielded 22 special status plant species with CRPR rank of 1 or 2, including two state and federally endangered plants. All species were reviewed prior to the field survey and evaluated for their potential to occur at the site. Of the species identified during scoping, two have a high probability and one has a moderate probability of occurring within the study area, 28 have a low probability of occurring within the study area, and 15 have no potential to occur onsite because they are restricted to coastal dunes, bluffs, or saltmarshes. Plants with a high to moderate potential to occur onsite include Howell's montia (*Montia howellii*, CRPR 2B.2), Siskiyou checkerbloom (*Sidalcea malviflora* ssp. *patula*, CRPR 1B.2) and coast checkerbloom (*Sidalcea oregana* ssp. *eximia*, CRPR 1B.2), which have been documented in similar disturbed fields and roadside edge habitats in suburban areas nearby.

CNDDB documented one Sensitive Habitat (classified according to Holland, 1986) within the 8-quad area: Northern Coastal Salt Marsh. This habitat type is not present in the PSB.

Table 1 Potential for Special Status Plants to Occur in the PSB

Scientific Name	Common Name	FESA	CESA	Global Rank <sup>2</sup>	State Rank <sup>2</sup>	CRPR <sup>2</sup>	Habitat Requirements <sup>1</sup>	Potential to Occur in the PSB
Angelica lucida	sea-watch	None	None	G5	S3	4.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Marshes and swamps	No potential. No suitable habitat is present in the PSB.
Astragalus rattanii var. rattanii	Rattan's milk-vetch	None	None	G4T4	S4	4.3	Chaparral, Cismontane woodland, Lower montane coniferous forest	No potential. No suitable habitat is present in the PSB.
Calamagrostis bolanderi	Bolander's reed grass	None	None	G4	S4	4.2	Bogs and fens, Broadleafed upland forest, Closed-cone coniferous forest, Coastal scrub, Marshes and swamps, Meadows and seeps, North Coast coniferous forest	Low potential. Marginally suitable habitat is present in the PSB. There are no known occurrences in the Project vicinity.
Cardamine angulata	seaside bittercress	None	None	G4G5	S3	2B.2	Lower montane coniferous forest, North Coast coniferous forest	No potential. No suitable habitat is present in the PSB.
Carex leptalea	bristle-stalked sedge	None	None	G5	S1	2B.2	Bogs and fens, Marshes and swamps, Meadows and seeps	Low potential. The nearest non-historic occurrence (from 2011) is 10 miles north of the PSB.
Carex praticola	northern meadow sedge	None	None	G5	S2	2B.2	Meadows and seeps	Low potential. This species has not been observed in the Humboldt Bay Area since 1915.
Castilleja litoralis	Oregon coast paintbrush	None	None	G3	S3	2B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub	No potential. No suitable habitat is present in the PSB.
Chrysosplenium glechomifolium	Pacific golden saxifrage	None	None	G5?	S3	4.3	North Coast coniferous forest, Riparian forest	No potential. No suitable habitat is present in the PSB.
Coptis laciniata	Oregon goldthread	None	None	G4?	S3?	4.2	Meadows and seeps, North Coast coniferous forest	Low potential. Marginally suitable habitat is present in the PSB. There are no known occurrences in the Project vicinity.

Scientific Name	Common Name	FESA	CESA	Global Rank <sup>2</sup>	State Rank <sup>2</sup>	CRPR <sup>2</sup>	Habitat Requirements <sup>1</sup>	Potential to Occur in the PSB
Eleocharis parvula	small spikerush	None	None	G5	S3	4.3	Marshes and swamps	Low potential. Marginally suitable habitat is present in the PSB. There are no known occurrences in the Project vicinity.
Erythronium revolutum	coast fawn lily	None	None	G4G5	S3	2B.2	Bogs and fens, Broadleafed upland forest, North Coast coniferous forest	No potential. No suitable habitat is present in the PSB.
Fissidens pauperculus	minute pocket moss	None	None	G3?	S2	1B.2	North Coast coniferous forest	No potential. No suitable habitat is present in the PSB.
Gilia capitata ssp. pacifica	Pacific gilia	None	None	G5T3	S2	1B.2	Chaparral, Coastal bluff scrub, Coastal prairie, Valley and foothill grassland	Low potential. This species has not been observed in the Humboldt Bay Area since 1905.
Hesperevax sparsiflora var. brevifolia	short-leaved evax	None	None	G4T3	S3	1B.2	Coastal bluff scrub, Coastal dunes, Coastal prairie	No potential. No suitable habitat is present in the PSB.
Hosackia gracilis	harlequin lotus	None	None	G3G4	S3	4.2	Broadleafed upland forest, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, Meadows and seeps, North Coast coniferous forest, Valley and foothill grassland	Low potential. Marginally suitable habitat is present in the PSB. There are no known occurrences in the Project vicinity.
Lasthenia californica ssp. macrantha	perennial goldfields	None	None	G3T2	S2	1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub	No potential. No suitable habitat is present in the PSB.
Lathyrus palustris	marsh pea	None	None	G5	S2	2B.2	Bogs and fens, Coastal prairie, Coastal scrub, Lower montane coniferous	Low potential. The only known occurrence of this species in the Humboldt Bay Area is

Scientific Name	Common Name	FESA	CESA	Global Rank <sup>2</sup>	State Rank <sup>2</sup>	CRPR <sup>2</sup>	Habitat Requirements <sup>1</sup>	Potential to Occur in the PSB
							forest, Marshes and swamps, North Coast coniferous forest	an observation (from 2003) 12 miles south of the PSB.
Layia carnosa	beach layia	FE	CE	G2	S2	1B.1	Coastal dunes, Coastal scrub	No potential. No suitable habitat is present in the PSB.
Lilium kelloggii	Kellogg's lily	None	None	G3	S3	4.3	Lower montane coniferous forest, North Coast coniferous forest	No potential. No suitable habitat is present in the PSB.
Lilium occidentale	western lily	FE	CE	G1	S1	1B.1	Bogs and fens, Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, North Coast coniferous forest	Low potential. Suitable habitat is present but this six-foot tall red lily is threatened by collection and known from few locations in the Humboldt bay area.
Listera cordata	heart-leaved twayblade	None	None	G5	S4	4.2	Bogs and fens, Lower montane coniferous forest, North Coast coniferous forest	Low potential. Marginally suitable habitat is present.
Lycopodium clavatum	running pine	None	None	G5	S3	4.1	Lower montane coniferous forest (mesic) Marshes and swamps North Coast coniferous forest (mesic)	No potential. The PSB is outside of the elevational range for this species (150 – 4,020 feet).
Mitellastra caulescens	leafy-stemmed mitrewort	None	None	G5	S4	4.2	Broadleafed upland forest, Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest	Low potential. Marginally suitable habitat is present.
Monotropa uniflora	ghost-pipe	None	None	G5	S2	2B.2	Broadleafed upland forest, North Coast coniferous forest	No potential. No suitable habitat is present in the PSB.

Scientific Name	Common Name	FESA	CESA	Global Rank <sup>2</sup>	State Rank <sup>2</sup>	CRPR <sup>2</sup>	Habitat Requirements <sup>1</sup>	Potential to Occur in the PSB
Montia howellii	Howell's montia	None	None	G3G4	S2	2B.2	Meadows and seeps, North Coast coniferous forest, Vernal pools	Moderate potential. Suitable habitat is present.
Oenothera wolfii	Wolf's evening- primrose	None	None	G2	S1	1B.1	Coastal bluff scrub, Coastal dunes, Coastal prairie, Lower montane coniferous forest	Low potential. Marginally suitable habitat is present.
Packera bolanderi var. bolanderi	seacoast ragwort	None	None	G4T4	S2S3	2B.2	Coastal scrub, North Coast coniferous forest	No potential. No suitable habitat is present in the PSB.
Piperia candida	white-flowered rein orchid	None	None	G3	S3	1B.2	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest	No potential. No suitable habitat is present in the PSB.
Pityopus californicus	California pinefoot	None	None	G4G5	S4	4.2	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest, Upper montane coniferous forest	No potential. No suitable habitat is present in the PSB.
Pleuropogon refractus	nodding semaphore grass	None	None	G4	S4	4.2	Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest, Riparian forest	Low potential. Suitable habitat is present in the PSB. There are no known occurrences of this species in the Project vicinity.
Ribes laxiflorum	trailing black currant	None	None	G5?	S3	4.3	North Coast coniferous forest	No potential. No suitable habitat is present in the PSB.
Sidalcea malachroides	maple-leaved checkerbloom	None	None	G3	S3	4.2	Broadleafed upland forest, Coastal prairie, Coastal scrub, North Coast coniferous forest, Riparian woodland	Low potential. Suitable habitat is present in the PSB; however, this species has not been observed in the McKinleyville Area since 1933.

Scientific Name	Common Name	FESA	CESA	Global Rank <sup>2</sup>	State Rank <sup>2</sup>	CRPR <sup>2</sup>	Habitat Requirements <sup>1</sup>	Potential to Occur in the PSB
Sidalcea malviflora ssp. patula	Siskiyou checkerbloom	None	None	G5T2	S2	1B.2	Coastal bluff scrub, Coastal prairie, North Coast coniferous forest	<b>High potential</b> . Suitable habitat is present and there is a CNDDB occurrence (from 2005) approximately 1.4 miles north of the PSB.
Sidalcea oregana ssp. eximia	coast checkerbloom	None	None	G5T1	S1	1B.2	Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest	<b>High potential</b> . Suitable habitat is present and there is a CNDDB occurrence (from 2001) approximately 2.1 miles north of the PSB.
Silene scouleri ssp. scouleri	Scouler's catchfly	None	None	G5T4T5	S2S3	2B.2	Coastal bluff scrub, Coastal prairie, Valley and foothill grassland	Low potential. Marginally suitable habitat is present in the PSB.
Sulcaria spiralifera	twisted horsehair lichen	None	None	G3G4	S2	1B.2	Coastal dunes, North Coast coniferous forest	No potential. No suitable habitat is present in the PSB.
Viola palustris	alpine marsh violet	None	None	G5	S1S2	2B.2	Bogs and fens, Coastal scrub	Low potential. This species has not been observed in the Humboldt Bay Area since 1923.

#### Footnotes:

- 1 General habitat, and microhabitat column information, reprinted from CNDDB (October 2021).
- 2 Rankings from CNDDB (October 2021).

#### Column Header Categories and Abbreviations:

FESA Listing status under the federal Endangered Species Act (ESA)

FE Federal Endangered; FT = Federal Threatened; FC = Federal Candidate; FD = Federally Delisted

CESA Listing status under the California state Endangered Species Act (CESA)

SE State Endangered; SD = State Delisted; ST = State Threatened.

GRank: Global Rank from NatureServe's Heritage Methodology (NatureServe 2021) (ranking according to degree of global imperilment - G1 = Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors; G2 = Imperiled—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors; G3 = Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors; G4 = Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors; G5 = Secure—Common; widespread and abundant. Subspecies/variety level: "Subspecies/varieties receive a T-rank attached to the G-rank. With the subspecies/varieties, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety" (CDFW 2021b); ? = "Denotes inexact numeric rank" (NatureServe 2021); Q = "Questionable taxonomy that may reduce conservation priority" (NatureServe 2021)

SRank: State Rank from NatureServe's Heritage Methodology (NatureServe 2021) (ranking according to degree of imperilment in the state (California) - S1 = Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state; S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state; S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state; S4 = Apparently Secure—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors; S5 = Secure—Common, widespread, and abundant in the state; SNR = State Not Ranked.

CRPR: CNPS rankings for rare plants (CNPS 2021) - 1A = Plants presumed extinct in California; 1B = Plants rare, threatened or endangered in California and elsewhere; 2 = Plants rare, threatened, or endangered in California, but more common elsewhere; 3 = Plants about which more information is needed (a review list); 4 = Plants of limited distribution (a watch list); n/a = not applicable; Threat Code extensions and their meanings: ".1 - Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat); .2 – Moderately threatened in California (20-80% of occurrences threatened / moderate degree and immediacy of threat); .3 – Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)" (CDFW 2021b).

#### Potential to Occur:

No potential: Habitat in and adjacent to the PSB is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

Low potential: Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found in the PSB.

Moderate potential: Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found in the PSB.

High potential: All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on in the PSB

Present: Detected or documented on-site.

# 3.2 Floristic Surveys

GHD botanists Christian Hernandez and Jane Cipra conducted floristic surveys in April and June 2022 to cover the blooming period for all potentially occurring special status plants onsite. The special status plant survey followed Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2018) and General Rare Plant Survey Guidelines by the Endangered Species Recovery Program (USFWS 2002). The special status plant survey was conducted by walking the site and identifying all plant species encountered to the lowest taxonomic level necessary for rare plant identification. Nomenclature follows The Jepson Manual (Baldwin et al 2012). GHD Botanist Christian Hernandez conducted the initial survey on April 12, 2022 and Jane Cipra conducted the second survey on June 2, 2022. The site assessment of the expanded PSB was conducted by GHD botanist Kolby Lundgren on September 15, 2022.

GHD Botanist Jane Cipra has an M.A. in Biology from Humboldt State University, with over fifteen years of experience conducting special status plant surveys. GHD Botanist Christian Hernandez has a degree in Environmental Science from Humboldt State University and two years of experience conducting biological and botanical surveys. GHD Botanist Kolby Lundgren has a degree in Botany from Humboldt State University and seven years of experience conducting biological and botanical surveys.

A list of species observed within the project area is provided (Attachment C).

## 4. Results

# 4.1 Special Status Plants

No special status plant species were observed onsite. The April 12 survey was timed to observe early-spring blooming potentially occurring special status species. The following survey on June 2 was timed to observe later-blooming species. Seasonally appropriate floristic surveys were completed by qualified botanists according to protocol (CDFW 2018). The site conditions in the expanded PSB do not support quality habitat for those species listed with potential to occur in the Project footprint. Species in the expanded footprint were identifiable during the September 15, 2022 survey by a combination of vegetation, flowers, and fruit. No evidence of late blooming species with moderate to high potential to occur in the Project footprint (*Sidalcea* sp.) was detected. A pre-construction survey is recommended for the expanded PSB only, to confirm the presence or absence of early blooming species with moderate to high potential to occur in the Project footprint (*Montia howellii*), and no additional surveys for special status plant species are recommended for the remainder of the Project area.

## 5. Conclusion

Protocol-level floristic surveys for potentially occurring special status plants and investigations for sensitive habitats and potential wetlands onsite were completed on April 12 and June 2, 2022. An additional site assessment was made on September 15, 2022 for a small area of frequently disturbed habitat added to the PSB as apart of a lot line adjustment. No special status plants were detected onsite. The parcel contains pasture dominated by non-native grasses with Coastal Willow Thickets and Sitka Spruce stands around the northeastern and southeastern edge of the PSB. Highly invasive species including Scotch broom, English ivy, English holly, cape ivy, cotoneaster, and Himalayan blackberry.

# 5.1 Scope and limitations

This technical memorandum has been prepared by GHD for Mary Keehn. It is not prepared as, and is not represented to be, a deliverable suitable for reliance by any person for any purpose. It is not intended for circulation or incorporation into other documents. The matters discussed in this memorandum are limited to those specifically detailed in the memorandum and are subject to any limitations or assumptions specially set out.

# 5.2 Accessibility of documents

If this Technical Memorandum is required to be accessible in any other format this can be provided by GHD upon request and at an additional cost if necessary.

The opinions, conclusions and any recommendations in this memorandum are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the site may be different from the site conditions found at the specific sample points.

Investigations undertaken in respect of this memorandum are constrained by the particular site conditions, such as the location of buildings, services and vegetation. As a result, not all relevant site features and conditions may have been identified in this memorandum.

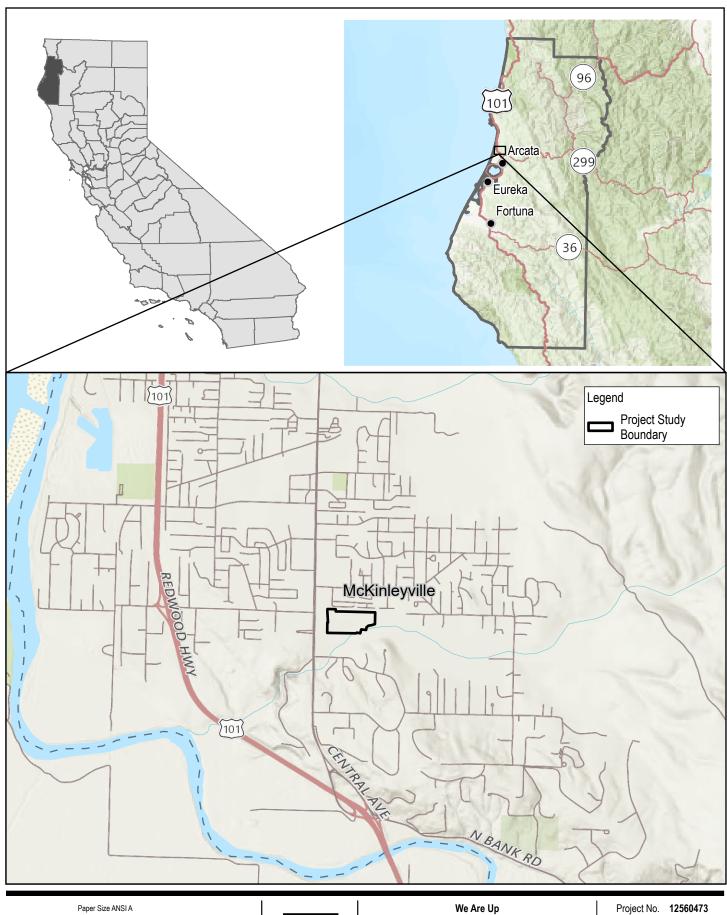
### 6. References

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## **Attachments**

## Attachment A

**Figures** 





Map Projection: Lambert Conformal Conic Horizontal Datum: North American 1983 Grid: NAD 1983 StatePlane California II FIPS 0402 Feet

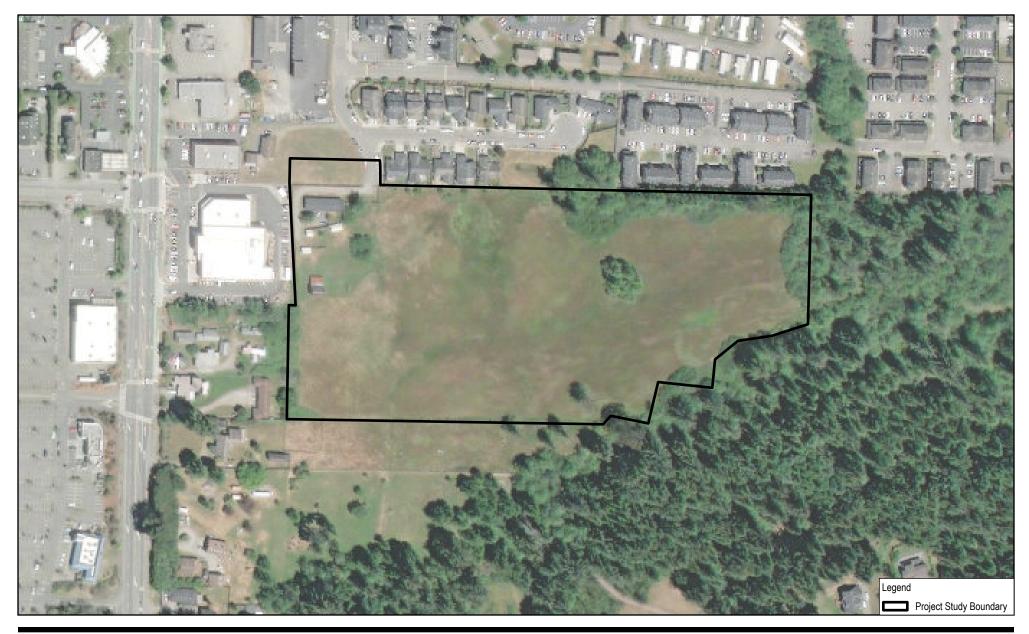


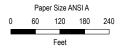
Project No. 12560473 Revision No. -

on No. -Date **9/26/2022** 

**Vicinity Map** 

FIGURE 1





Map Projection: Lambert Conformal Conic Horizontal Datum: North American 1983 Grid: NAD 1983 StatePlane California I FIPS 0401 Feet





We Are Up

Project No. **12560473** Revision No. -

Date 9/26/2022

Project Study Boundary FIGURE 2

## Attachment B

**Plant Species Observed** 

Attachment B. Plant species observed in the PSB 2022.

Scientific Name	Common Name	Family	Status
Carpobrotus edulis	iceplant	Aizoaceae	invasive non-native
Allium triquetrum	white flowered onion	Aliaceae	non-native
Amarillis belladona	naked ladies	Amaryllidaceae	non-native
Narcissus spp.	narcissus	Amaryllidaceae	non-native
Daucus carota	carrot	Apiaceae	non-native
Oenanthe sarmentosa	water parsley	Apiaceae	non-native
llex aquifolium	holly	Aquifoliaceae	invasive non-native
Zantedeschia aethiopica	calla lily	Aracaea	invasive non-native
Delairea odorata	Cape ivy	Araliaceae	invasive non-native
Hedera helix	English ivy	Araliaceae	invasive non-native
Achillea millefolium	yarrow	Asteraceae	native
Baccharis pilularis	coyote brush	Asteraceae	non-native
Chamomilla swaveolus	chamomile	Asteraceae	non-native
Cirsium vulgare	bullthistle	Asteraceae	invasive non-native
Erechtites sp.	fireweed	Asteraceae	non-native
Helminthotheca echioides	bristly oxtongue	Asteraceae	non-native
Hypochaeris radicata	hairy cats ear	Asteraceae	invasive non-native
Leontodon saxatilis	hawkbit	Asteraceae	non-native
Leucanthemum vulgare	ox eye daisy	Asteraceae	invasive non-native
Senecio vulgaris	common groundsel	Asteraceae	non-native
Sonchus asper	prickly sow thistle	Asteraceae	non-native
Symphyotrichum chilense	Pacific aster	Asteraceae	native
Taraxacum erythrospermum	red-seeded dandelion	Asteraceae	non-native
Tragopogon porrifolius	salsify	Asteraceae	non-native
Athyrium filix-femina	common ladyfern	Athyriaceae	native
Alnus rubra	red alder	Betulaceae	native
Brassica rapa	common mustard	Brassicaceae	invasive non-native
Raphanus raphinastrum	wild radish	Brassicaceae	non-native
Lonicera involucrata	coast twinberry	Caprifoliaceae	native
Cerastrium glomeratum	sticky chickweed	Caryophyllaceae	non-native
Crassula connata	pygmy stonecrop	Crassulaceae	non-native
Hesperocyparis macrocarpa	Monterey cypress	Cupressaceae	non-native
Sequoia sempervirens	coast redwood	Cupressaceae	native
Thuja plicata	western red cedar	Cupressaceae	native
Carex microptera	smallwing sedge	Cyperaceae	native
Carex obnupta	slough sedge	Cyperaceae	native

Scientific Name	Common Name	Family	Status
Eleocharis acicularis var. gracilescens	needle spikerush	Cyperaceae	native
Isolepis cernua	low bulrush	Cyperaceae	native
Scirpus microcarpus	small fruited bulrush	Cyperaceae	native
Pteridium aquilinum	brackenfern	Dennstaedtiaceae	native
Polystichum munitum	western sword fern	Dryopteridaceae	native
Equisetum telmateia	giant horsetail	Equisetaceae	native
Erica lusitanica	Spanish heather	Ericaceae	invasive non-native
Vaccinium ovatum	evergreen huckleberry	Ericaceae	native
Euphorbia lathyrus	caper spurge	Euphorbiaceae	non-native
Cytisus scoparius	Scotch broom	Fabaceae	invasive non-native
Lotus corniculatus	bird's foot trefoil	Fabaceae	non-native
Lotus peduncularis	big trefoil	Fabaceae	non-native
Medicago arabica	spotted medick	Fabaceae	non-native
Medicago polymorpha	burr clover	Fabaceae	non-native
Medicago sativa	alfalfa	Fabaceae	non-native
Trifolium dubium	lesser trefoil	Fabaceae	non-native
Trifolium repens	white clover	Fabaceae	non-native
Vicia sativa	spring vetch	Fabaceae	non-native
Erodium moschatum	whitestem filaree	Geraniaceae	non-native
Geranium dissectum	cutleaf geranium	Geraniaceae	non-native
Geranium molle	dove's foot geranium	Geraniaceae	non-native
Iris germanica	yellow bearded iris	Iridaceae	non-native
Sisyrinchium californicum	golden blue-eyed grass	Iridaceae	native
Juncus balticus	Baltic rush	Juncaceae	native
Juncus effusus	common bog rush	Juncaceae	native
Juncus effusus var. pacifica	Pacific rush	Juncaceae	native
Juncus hesperius	coast or bog rush	Juncaceae	native
Mentha pulegium	pennyroyal	Lamiaceae	invasive non-native
Mentha suaveolens	apple mint	Lamiaceae	non-native
Prunella vulgaris	self heal	Lamiaceae	native
Stachys chamissonis	hedge nettle	Lamiaceae	native
Veronica persica	wall speedwell	Lamiaceae	non-native
Linum bienne	flax	Linaceae	non-native
Modiola caroliniana	Carolina bristle mallow	Malvaceae	non-native
Morella californica	California wax myrtle	Myracaceae	native
Eucalyptus globulus	blue gum	Myrtaceae	invasive non-native
Epilobium ciliatum	northern willow herb	Onagraceae	non-native

Scientific Name	Common Name	Family	Status
Parentucellia viscosa	yellow glandweed	Orobanchaceae	non-native
Oxalis stricta	wood sorrel	Oxalidaceae	non-native
Abies grandis	grand fir	Pinaceae	native
Picea glauca	white spruce	Pinaceae	non-native
Picea sitchensis	Sitka spruce	Pinaceae	native
Digitalis purpurea	foxglove	Plantaginaceae	non-native
Plantago lanceolata	ribwort	Plantaginaceae	invasive non-native
Plantago major	broadleaf plantain	Plantaginaceae	non-native
Veronica scutellata	marsh speedwell	Plantaginaceae	non-native
Agrostis stolonifera	redtop	Poaceae	invasive non-native
Alopecurus aequalis	shortawn foxtail	Poaceae	native
Anthoxanthum odoratum	wweet vernal grass	Poaceae	invasive non-native
Avena sativa	common oat	Poaceae	non-native
Briza maxima	rattlesnake grass	Poaceae	non-native
Bromus catharticus	rescue grass	Poaceae	non-native
Bromus hordeaceus	soft chess	Poaceae	invasive non-native
Cynodon dactylon	Bermuda grass	Poaceae	invasive non-native
Dactylus glomeratus	orchard grass	Poaceae	non-native
Danthonia californica	California oatgrass	Poaceae	non-native
Danthonia decumbens	heath grass	Poaceae	non-native
Festuca arundinacea	Reed fescue	Poaceae	invasive non-native
Festuca bromoides	fescue	Poaceae	non-native
Festuca perennis	Italian rye grass	Poaceae	invasive non-native
Glyceria declinata	manna grass	Poaceae	non-native
Holcus lanatus	common velvetgrass	Poaceae	invasive non-native
Poa annua	annual blue grass	Poaceae	non-native
Poa pratensis	Kentucky bluegrass	Poaceae	non-native
Rumex acetosella	sheep sorrel	Polygonaceae	invasive non-native
Rumex obtusifolius	broadleaf dock	Polygonaceae	non-native
Ranunculus repens	crowfoot, creeping buttercup	Ranunculaceae	invasive non-native
Frangula purshiana	cascara sagrada	Rhamnaceae	native
Cotoneaster spp.	cotoneaster	Rosaceae	non-native
Fragaria vesca	wild strawberry	Rosaceae	native
Malus domestica	apple tree	Rosaceae	non-native
Malus fusca	western crabapple	Rosaceae	non-native
Physocarpus capitatus	ninebark	Rosaceae	non-native
Potentilla anserina	wilver weed cinquefoil	Rosaceae	native

Scientific Name	Common Name	Family	Status
Rosa californica	California wild rose	Rosaceae	native
Rubus armeniacus	Himalayan blackberry	Rosaceae	invasive non-native
Rubus ursinus	California blackberry	Rosaceae	native
Galium trifidum	three-petal bedstraw	Rubiaceae	non-native
Gallium aparine	cleavers	Rubiaceae	non-native
Maianthemum dilatatum	false lily of the valley	Ruscaceae	native
Salix hookeriana	coastal willow	Salicaceae	native
Salix lasiolepis	arroyo willow	Salicaceae	native
Scrophularia californica	California figwort	Scrophulariaceae	native
Viola adunca	western dog violet	Violaceae	native

## Attachment C

**Site Photographs** 

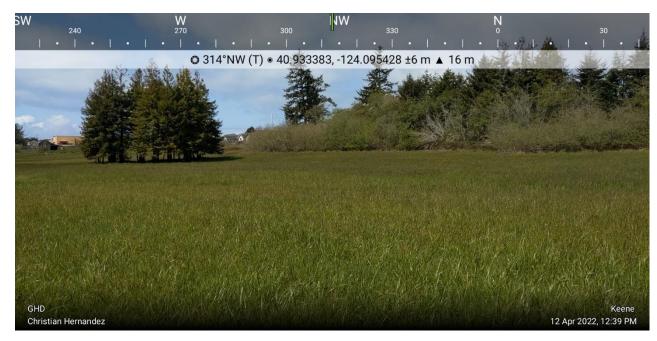


Photo 1. View northwest from the eastern end of the PSB showing the stand of redwood in the middle of the parcel.



Photo 2. View north of the barn and residence from the southern extent of the PSB.



Photo 3. View of arroyo willow at eastern edge of the PSB.



Photo 4. Cape ivy at the barn.



Photo 5. Understory of the redwoods in the center of the PSB.

