

Waters of the U.S. Table for the PG&E Line 407 Project

Culverts

Label	Type	Ave_Width	Length
C01	Culvert	4	43.55714083
C02	Culvert	3	27.96971331
C03	Culvert	3	43.7735575
C04	Culvert	3	19.29824207
C05	Culvert	3	41.28180653
C06	Culvert	3	31.76020589
C07	Culvert	3	29.89248232
C08	Culvert	4	58.74545046
C09	Culvert	1.5	188.4849409
C10	Culvert	1.5	128.4966634
C100	Culvert	1	64.93691126
C101	Culvert	1.5	20.63925988
C102	Culvert	1	28.72091881
C103	Culvert	2	82.3796401
C104	Culvert		34.7853939
C105	Culvert	1.5	25.11351706
C106	Culvert	2	25.10914645
C107	Culvert	2	15.45166964
C108	Culvert	1.5	21.2642169
C109	Culvert	1	48.38539252
C11	Culvert	1.5	35.9990054
C110	Culvert	1.5	34.39183174
C111	Culvert	1	45.54257026
C112	Culvert	1	26.21529486
C113	Culvert	0.5	56.26297974
C114	Culvert	0.5	180.8314387
C115	Culvert	0.5	42.38477335
C117	Culvert	1	49.35898964
C118	Culvert	1	23.56133578
C119	Culvert	1	41.44520997
C12	Culvert	1.5	41.98158139
C120	Culvert	1	49.52627531
C121	Culvert	1	113.1249674
C122	Culvert	1	23.23425197
C123	Culvert	1	19.27633125
C124	Culvert	1	15.41207349
C125	Culvert	2	28.0511811
C126	Culvert	2	48.53444882
C127	Culvert	2	58.76861968
C128	Culvert	2	19.60208744
C129	Culvert	2	78.73203241
C13	Culvert	1.5	46.94409509
C130	Culvert	2	15.42456437
C131	Culvert	2	68.34198978

Label	Type	Ave_Width	Length
C132	Culvert	2	68.34198978
C133	Culvert	1	52.74540682
C134	Culvert	2	59.5698472
C135	Culvert	1.5	26.5711894
C136	Culvert	2	90.19986877
C137	Culvert	3	84.31580734
C138	Culvert	1	16.18919038
C139	Culvert	3	77.35190177
C14	Culvert	1	29.61398606
C140	Culvert	1.5	42.36118872
C141	Culvert	1	32.66701453
C142	Culvert	1.5	290.4943097
C143	Culvert	1	42.41283619
C144	Culvert	2	18.39346746
C145	Culvert	2	18.68605294
C146	Culvert	2	19.87005654
C147	Culvert	2	36.71519275
C148	Culvert	2	56.91785662
C149	Culvert	1	64.67054955
C15	Culvert	2	84.3466052
C150	Culvert	2	29.12233949
C151	Culvert	1	202.9808173
C152	Culvert	1	31.77427821
C154	Culvert		33.35988581
C155	Culvert	2	23.99138123
C156	Culvert	2	22.56721038
C157	Culvert	2	18.25080304
C158	Culvert	2	26.76748567
C159	Culvert	2	30.59179247
C16	Culvert	2	87.36625394
C160	Culvert	2	31.36318897
C161	Culvert	2	18.07480315
C162	Culvert	2	33.95352898
C163	Culvert	2	104.8365872
C164	Culvert	2	27.14400435
C165	Culvert	2	28.35579415
C166	Culvert	1	28.67113183
C167	Culvert	4	56.45405933
C168	Culvert	1.5	33.58543032
C169	Culvert	1.5	56.42949175
C17	Culvert	8	53.01509683
C170	Culvert	1.5	60.90002185
C171	Culvert	2	37.17036838
C172	Culvert	1.5	28.68858677
C173	Culvert	2	66.31764177
C174	Culvert	2.5	56.94667309

Label	Type	Ave_Width	Length
C175	Culvert	2	38.37925075
C176	Culvert	1.5	26.03569345
C177	Culvert	2	60.82608847
C178	Culvert	1	27.02032803
C179	Culvert	1.5	33.08401312
C18	Culvert	3	64.55791143
C180	Culvert	1	49.78946923
C181	Culvert	1.5	63.5471369
C182	Culvert	1.5	50.74772826
C183	Culvert	1	62.44813259
C184	Culvert	1	69.11529195
C185	Culvert	1	22.18382759
C186	Culvert	1	48.33837452
C187	Culvert	0.5	19.39267659
C188	Culvert	0.5	23.07880156
C189	Culvert	0.5	13.44636682
C19	Culvert	3	76.83000822
C190	Culvert	0.5	29.54977951
C191	Culvert	0.5	22.14292185
C192	Culvert	0.5	12.48685965
C193	Culvert	0.5	45.68071329
C194	Culvert	0.5	12.56038618
C195	Culvert	0.5	15.50639476
C196	Culvert	0.5	21.35368837
C197	Culvert	0.5	40.51155799
C198	Culvert	1.5	70.43879573
C199	Culvert	1	87.05727081
C20	Culvert	1.5	18.56995915
C200	Culvert		45.05822023
C201	Culvert	1	38.74245407
C202	Culvert	2	38.63783436
C203	Culvert	1.5	44.35912394
C21	Culvert	1	13.53961132
C22	Culvert	2	22.92576655
C23	Culvert	2	37.4174464
C24	Culvert	3	67.53557415
C25	Culvert	2	21.62813893
C26	Culvert	3.5	12.05110441
C27	Culvert	4	38.98995083
C28	Culvert	1	15.71244838
C29	Culvert	3	30.80379485
C30	Culvert	2.5	36.26413239
C31	Culvert	1.5	15.08918743
C32	Culvert	1.5	14.39679914
C33	Culvert	2	61.96123122
C34	Culvert	1	47.93505745
C35	Culvert	1	20.77817696

Label	Type	Ave_Width	Length
C36	Culvert	1.5	14.39679915
C37	Culvert	2	20.53379265
C38	Culvert	2	54.06547941
C39	Culvert	1.5	37.02174215
C40	Culvert	1.5	16.03758567
C41	Culvert	2.5	40.75181037
C42	Culvert	3.5	64.98457432
C43	Culvert	3	37.14604922
C44	Culvert	3	140.2731895
C45	Culvert	1.5	11.6855482
C46	Culvert	1.5	8.69560169
C47	Culvert	10.5	38.0698819
C48	Culvert	2	57.39437318
C49	Culvert	2	56.43087015
C50	Culvert	2	40.21334094
C51	Culvert	2	15.62411949
C52	Culvert	4	31.96650405
C53	Culvert	4	20.69795509
C53	Culvert	1	34.53740157
C55	Culvert	0.5	25.80797335
C56	Culvert	1	70.56916994
C57	Culvert	3	143.2008234
C58	Culvert	3	69.58571213
C59	Culvert	1	19.85137795
C60	Culvert	1	33.66305775
C61	Culvert	2	58.67653597
C62	Culvert	2	52.51915454
C63	Culvert	1	37.32644358
C64	Culvert	1.5	27.79295442
C65	Culvert	1	30.39462693
C66	Culvert	2	24.30544619
C67	Culvert	2.5	108.3587647
C68	Culvert	2	95.637803
C69	Culvert	3	23.53095343
C70	Culvert	1	27.87860893
C71	Culvert	3	86.94247131
C72	Culvert	3	181.3386874
C73	Culvert	2	21.29447014
C74	Culvert	2	42.58861288
C75	Culvert	2	26.76935268
C76	Culvert	2	27.45382751
C77	Culvert	2	31.53248033
C78	Culvert	2	45.94858041
C79	Culvert	2	24.00189448
C80	Culvert	2	23.30643045
C81	Culvert	2	45.28912131
C82	Culvert	2	27.41961944

Label	Type	Ave_Width	Length
C83	Culvert	2	30.87753855
C84	Culvert	1.5	78.71352359
C85	Culvert	2	101.2004036
C86	Culvert	2	34.1551739
C87	Culvert	2	34.24994567
C88	Culvert	8	58.97301925
C89	Culvert	2	51.43944863
C90	Culvert	4	30.30185639
C91	Culvert	2	47.39924272
C93	Culvert	2	25.45733263
C94	Culvert	2	28.66321653
C95	Culvert	2	64.02671737
C96	Culvert	1	23.67563337
C97	Culvert	2.5	101.5646773
C98	Culvert	2	43.30010881
C99	Culvert	2	18.21553989

Other Waters of the U.S.

Label	Designation	Type	Ave_Width	Length	Area	Acres
OW125	NRPW	Ephemeral	6	268.927	1519.138	0.035
OW126	NRPW	Roadside Ditch	5	297.733	1488.667	0.034
OW135	NRPW	Ephemeral	5.5	220.862	1214.738	0.028
OW142	NRPW	Roadside Ditch	2	128.023	256.045	0.006
OW143	NRPW	Roadside Ditch	1.5	178.732	268.099	0.006
OW144	NRPW	Roadside Ditch	1.5	702.260	1053.389	0.024
OW146	NRPW	Roadside Ditch	2	1321.432	2642.863	0.061
OW147	NRPW	Roadside Ditch	2	854.957	1709.915	0.039
OW148	NRPW	Roadside Ditch	1.5	669.606	1004.409	0.023
OW149	NRPW	Roadside Ditch	1.5	689.692	1034.538	0.024
OW153	NRPW	Roadside Ditch	1.5	1426.310	2139.465	0.049
OW155	NRPW	Roadside Ditch	1	117.217	117.217	0.003
OW156	NRPW	Roadside Ditch	1	1232.608	1232.608	0.028
OW161	NRPW	Roadside Ditch	1	1394.172	1394.172	0.032
OW162	NRPW	Roadside Ditch	1	180.259	180.259	0.004
OW165	NRPW	Roadside Ditch	2	429.308	858.616	0.020
OW166	NRPW	Roadside Ditch	2	338.495	676.991	0.016
OW167	NRPW	Roadside Ditch	2	135.959	271.918	0.006
OW168	NRPW	Roadside Ditch	2	345.654	691.308	0.016
OW169	NRPW	Irrigation Ditch	2	1427.029	2854.057	0.066
OW170	NRPW	Roadside Ditch	1	117.217	117.217	0.003
OW171	NRPW	Roadside Ditch	1	666.522	666.522	0.015
OW172	NRPW	Roadside Ditch	2	372.894	745.788	0.017
OW173	NRPW	Roadside Ditch	2	262.352	524.705	0.012
OW174	NRPW	Roadside Ditch	2	116.451	232.901	0.005
OW175	NRPW	Roadside Ditch	2	1949.123	3898.246	0.089
OW177	NRPW	Roadside Ditch	1	51.327	51.327	0.001
OW178	NRPW	Roadside Ditch	1	486.738	486.738	0.011

Label	Designation	Type	Ave_Width	Length	Area	Acres
OW179	NRPW	Roadside Ditch	1	181.043	181.043	0.004
OW181	NRPW	Roadside Ditch	1	467.044	467.044	0.011
OW23	NRPW	Irrigation Ditch	1.5	2224.098	3336.148	0.077
OW24	NRPW	Irrigation Ditch	1.5	2394.665	3591.997	0.082
OW25	NRPW	Irrigation Ditch	1.5	2247.889	3371.833	0.077
OW26	NRPW	Irrigation Ditch	1.5	1687.659	2531.488	0.058
OW27	NRPW	Irrigation Ditch	1.5	983.621	1475.431	0.034
OW32	NRPW	Roadside Ditch	1.5	993.080	1489.621	0.034
OW33	NRPW	Roadside Ditch	1.5	3170.089	4755.133	0.109
OW34	NRPW	Roadside Ditch	3	513.413	1540.238	0.035
OW35	NRPW	Roadside Ditch	2	2019.447	4038.893	0.093
OW36	NRPW	Roadside Ditch	3	1653.594	4960.781	0.114
OW40	NRPW	Roadside Ditch	3	1814.670	5444.010	0.125
OW47	NRPW	Roadside Ditch	1	1185.896	1185.896	0.027
OW48	NRPW	Roadside Ditch	1	167.705	167.705	0.004
OW49	NRPW	Roadside Ditch	1	2789.938	2789.938	0.064
OW50	NRPW	Roadside Ditch	1	4336.660	4336.660	0.100
OW53	NRPW	Roadside Ditch	1.5	1553.888	2330.832	0.054
OW56	NRPW	Roadside Ditch	1	164.212	164.212	0.004
OW57	NRPW	Roadside Ditch	1	147.270	147.270	0.003
OW58	NRPW	Roadside Ditch	1	219.260	219.260	0.005
OW63	NRPW	Roadside Ditch	1	1069.186	1069.186	0.025
OW85	NRPW	Roadside Ditch	1	670.664	670.664	0.015
OW86	NRPW	Roadside Ditch	1	116.404	116.404	0.003
OW89	NRPW	Roadside Ditch	5	3336.108	16680.542	0.383
OW158	Pond	Pond	n/a	n/a	483.844	0.011
OW159	Pond	Pond	n/a	n/a	958.728	0.022
OW160	Pond	Pond	n/a	n/a	1343.858	0.031
OW164	Pond	Pond	n/a	n/a	1841.036	0.042
OW01	RPW	Irrigation Canal	25	565.483	14418.651	0.331
OW02	RPW	Irrigation Canal	20	989.532	20219.892	0.464
OW03	RPW	Irrigation Canal	30	3425.669	101557.095	2.331
OW04	RPW	Irrigation Canal	35	2066.632	72309.101	1.660
OW05	RPW	Perennial Stream	117	815.520	95208.943	2.186
OW06	RPW	Perennial Stream	113	1001.129	113135.017	2.597
OW07	RPW	Perennial Stream	106	1231.639	130191.972	2.989
OW08	RPW	Perennial Stream	99	1214.657	120807.566	2.773
OW100	RPW	Irrigation Canal	10	558.826	5622.902	0.129
OW101	RPW	Irrigation Canal	11	669.110	7126.393	0.164
OW102	RPW	Irrigation Canal	11	1376.133	15156.305	0.348
OW103	RPW	Irrigation Canal	13	419.238	5550.071	0.127
OW104	RPW	Irrigation Canal	12	432.090	5081.682	0.117
OW105	RPW	Irrigation Canal	9	620.676	5277.962	0.121
OW106	RPW	Irrigation Canal	15	231.965	3503.525	0.080

Label	Designation	Type	Ave_Width	Length	Area	Acres
OW107	RPW	Irrigation Canal	9	1838.691	16766.505	0.385
OW108	RPW	Irrigation Canal	10	323.919	3148.473	0.072
OW109	RPW	Irrigation Canal	11	948.980	10716.252	0.246
OW11	RPW	Irrigation Canal	33	4099.088	135409.736	3.109
OW110	RPW	Irrigation Canal	20	456.802	9104.835	0.209
OW111	RPW	Irrigation Canal	10	1368.159	14120.092	0.324
OW112	RPW	Irrigation Canal	16	1342.788	20835.050	0.478
OW113	RPW	Irrigation Canal	18	124.938	2211.954	0.051
OW114	RPW	Irrigation Canal	14	572.944	8142.255	0.187
OW115	RPW	Irrigation Canal	17	135.255	2356.584	0.054
OW116	RPW	Irrigation Canal	11	1727.566	19818.921	0.455
OW117	RPW	Irrigation Canal	18	419.680	7390.445	0.170
OW118	RPW	Irrigation Canal	14	1486.216	20787.093	0.477
OW120	RPW	Irrigation Canal	10	586.041	5675.215	0.130
OW121	RPW	Irrigation Canal	9	959.124	8724.159	0.200
OW122	RPW	Irrigation Canal	7	2524.123	17966.638	0.412
OW123	RPW	Irrigation Canal	13	490.265	6445.100	0.148
OW124	RPW	Irrigation Canal	5	159.537	821.914	0.019
OW127	RPW	Irrigation Canal	17	498.838	8672.126	0.199
OW128	RPW	Irrigation Canal	11	3330.897	36997.801	0.849
OW129	RPW	Irrigation Canal	23	1064.708	24580.697	0.564
OW13	RPW	Irrigation Canal	12	896.816	10829.301	0.249
OW131	RPW	Irrigation Canal	33	1040.396	34338.401	0.788
OW133	RPW	Irrigation Canal	14	90.131	1244.862	0.029
OW134	RPW	Irrigation Canal	10	413.495	3975.804	0.091
OW138	RPW	Irrigation Canal	10	665.746	6710.813	0.154
OW14	RPW	Irrigation Canal	22	911.159	20044.983	0.460
OW15	RPW	Irrigation Canal	24	428.708	10372.481	0.238
OW154	RPW	Irrigation Canal	11	449.698	4872.701	0.112
OW163	RPW	Intermittent	1.5	1098.898	1648.347	0.038
OW176	RPW	Intermittent	21	1040.157	22320.459	0.512
OW18	RPW	Irrigation Canal	38	4082.947	154241.597	3.541
OW180	RPW	Intermittent	20	1026.984	21029.012	0.483
OW19	RPW	Irrigation Canal	59	391.683	23068.673	0.530
OW29	RPW	Irrigation Canal	28	502.486	13964.104	0.321
OW30	RPW	Irrigation Canal	24	5350.767	127229.233	2.921
OW31	RPW	Irrigation Canal	24	414.813	9820.037	0.225
OW37	RPW	Irrigation Canal	20	494.010	9839.744	0.226
OW38	RPW	Irrigation Canal	15	1874.860	27972.660	0.642
OW41	RPW	Irrigation Canal	8	321.189	2540.169	0.058
OW42	RPW	Irrigation Canal	28	508.310	14038.661	0.322
OW43	RPW	Irrigation Canal	49	542.511	26642.802	0.612
OW44	RPW	Irrigation Canal	45	545.045	24535.409	0.563
OW46	RPW	Irrigation Canal	8	460.915	3815.986	0.088
OW54	RPW	Intermittent	8	1358.639	10541.255	0.242
OW55	RPW	Intermittent	9	1891.267	17537.733	0.403
OW64	RPW	Irrigation Canal	11	265.983	2916.862	0.067

Label	Designation	Type	Ave_Width	Length	Area	Acres
OW87	RPW	Irrigation Canal	12	405.815	4994.721	0.115
OW88	RPW	Irrigation Canal	11	2030.535	22430.530	0.515
OW90	RPW	Irrigation Canal	7	1530.056	11256.621	0.258
OW91	RPW	Irrigation Canal	9	927.413	8594.903	0.197
OW92	RPW	Irrigation Canal	11	436.538	4992.365	0.115
OW93	RPW	Irrigation Canal	14	1899.072	26163.231	0.601
OW94	RPW	Irrigation Canal	13	87.095	1116.843	0.026
OW95	RPW	Irrigation Canal	18	473.305	8671.071	0.199
OW96	RPW	Irrigation Canal	10	1065.270	10188.931	0.234
OW97	RPW	Irrigation Canal	13	733.348	9814.647	0.225
OW98	RPW	Irrigation Canal	11	495.752	5563.931	0.128
OW99	RPW	Irrigation Canal	11	1581.524	16732.799	0.384
OW22	TNW	TNW	472	1134.538	535358.639	12.290

Other Waters of the U.S.

Designation	Length	Area (ft.2)	Acres
Pond Total =	n/a	4627.466	0.106
NRPW Total =	52489.359	96394.086	2.213
RPW Total =	78810.192	1832471.606	42.068
TNW Total =	1134.538	535358.639	12.290

Other Waters of the US Total =	132434.089	2468851.797	56.677
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Wetland Features

Label	Type	Area	Acres
WF063e	Fresh Emergent Wetland	7051.71622	0.161885129
WF018e	Fresh Emergent Wetland	119915.7128	2.752885969
WF112e	Fresh Emergent Wetland	14761.41846	0.338875539
WF112e	Fresh Emergent Wetland	17128.75624	0.393222136
WF054e	Riparian	7576.328013	0.173928559
WF111e	Riparian	1885.865947	0.043293525
WF01w	Riparian	61348.53322	1.408368531
WF02w	Riparian	32497.1789	0.746032573
WF03w	Riparian	46777.9206	1.073873292
WF04w	Riparian	32365.323	0.743005578
WF05w	Riparian	89500.92142	2.054658435
WF06w	Riparian	47804.00327	1.097428909
WF07w	Riparian	20635.66784	0.473729748
WF08w	Riparian	127869.2443	2.935473928
WF121w	Riparian	68205.87951	1.565791541
WF169w	Riparian	65013.99006	1.492515842
WF170w	Riparian	68990.7866	1.583810528
WF002e	Seasonal Swale	6226.544422	0.142941791
WF081e	Seasonal Swale	1829.800514	0.04200644
WF087e	Seasonal Swale	8261.508459	0.189658137

Label	Type	Area	Acres
WF064e	Seasonal Swale	18899.78431	0.433879346
WF050e	Seasonal Swale	8688.504797	0.199460624
WF023e	Seasonal Swale	5649.692845	0.129699101
WF033e	Seasonal Swale	4325.135328	0.099291445
WF030e	Seasonal Swale	4324.829668	0.099284428
WF025e	Seasonal Swale	9157.075594	0.21021753
WF113e	Seasonal Swale	15124.90842	0.34722012
WF114e	Seasonal Swale	6937.801958	0.159270017
WF022e	Seasonal Swale	13090.38864	0.300513972
WF127e	Seasonal Swale	1789.15885	0.041073436
WF138e	Seasonal Swale	11036.45558	0.253362157
WF141e	Seasonal Swale	222.508013	0.005108081
WF140e	Seasonal Swale	6831.641905	0.156832918
WF174e	Seasonal Swale	16753.15363	0.384599486
WF173e	Seasonal Swale	34413.02654	0.790014383
WF068e	Seasonal Wetland	2750.279332	0.063137726
WF079e	Seasonal Wetland	2444.127463	0.056109446
WF080e	Seasonal Wetland	5974.891319	0.137164631
WF107e	Seasonal Wetland	193.2021157	0.00443531
WF108e	Seasonal Wetland	381.0436896	0.008747559
WF109e	Seasonal Wetland	193.0177375	0.004431078
WF088e	Seasonal Wetland	4917.411094	0.112888225
WF156e	Seasonal Wetland	30492.89229	0.700020484
WF157e	Seasonal Wetland	57914.22841	1.329527741
WF158e	Seasonal Wetland	43504.42612	0.998724199
WF159e	Seasonal Wetland	19330.85	0.443775252
WF160e	Seasonal Wetland	84709.45754	1.94466156
WF048e	Seasonal Wetland	58161.83457	1.335211996
WF049e	Seasonal Wetland	55883.75002	1.282914371
WF056e	Seasonal Wetland	7088.545702	0.162730618
WF161e	Seasonal Wetland	102832.983	2.360720456
WF162e	Seasonal Wetland	106408.3369	2.442799286
WF163e	Seasonal Wetland	46843.23361	1.075372672
WF164e	Seasonal Wetland	96079.77032	2.205688024
WF165e	Seasonal Wetland	23085.54179	0.529971116
WF144e	Seasonal Wetland	1740.051869	0.039946094
WF029e	Seasonal Wetland	706.8815253	0.016227767
WF026e	Seasonal Wetland	3856.908441	0.088542434
WF062e	Seasonal Wetland	2082.430193	0.047806019
WF059e	Seasonal Wetland	3844.809348	0.088264677
WF007e	Seasonal Wetland	46738.85877	1.072976556
WF001e	Seasonal Wetland	2153.707204	0.049442314
WF024e	Seasonal Wetland	4438.687603	0.101898246
WF046e	Seasonal Wetland	39320.03927	0.902663895
WF052e	Seasonal Wetland	11090.85253	0.25461094
WF053e	Seasonal Wetland	7501.48232	0.172210338
WF057e	Seasonal Wetland	1676.958962	0.03849768

Label	Type	Area	Acres
WF060e	Seasonal Wetland	1999.442219	0.045900877
WF061e	Seasonal Wetland	2188.811561	0.050248199
WF166e	Seasonal Wetland	25985.90368	0.596554263
WF094e	Seasonal Wetland	914.3431207	0.02099043
WF168e	Seasonal Wetland	45012.58362	1.033346731
WF122e	Seasonal Wetland	3889.048412	0.089280267
WF124e	Seasonal Wetland	1540.247626	0.03535922
WF125e	Seasonal Wetland	1114.402485	0.025583161
WF126e	Seasonal Wetland	63244.31408	1.451889671
WF128e	Seasonal Wetland	2613.834484	0.060005383
WF129e	Seasonal Wetland	613.1763486	0.014076592
WF131e	Seasonal Wetland	938.5483994	0.021546107
WF133e	Seasonal Wetland	188.1756115	0.004319918
WF134e	Seasonal Wetland	386.9930945	0.008884139
WF135e	Seasonal Wetland	594.0757452	0.013638103
WF136e	Seasonal Wetland	221.0345822	0.005074256
WF137e	Seasonal Wetland	525.0483078	0.012053451
WF139e	Seasonal Wetland	351.546272	0.008070392
WF145e	Seasonal Wetland	1941.199767	0.044563815
WF142e	Seasonal Wetland	209.108027	0.00480046
WF153e	Seasonal Wetland	6961.956339	0.159824526
WF154e	Seasonal Wetland	638.4915842	0.01465775
WF155e	Seasonal Wetland	974.0692096	0.022361552
WF172w	Seasonal Wetland	5863.638832	0.134610625
WF176e	Seasonal Wetland	8815.066644	0.202366085
WF175e	Seasonal Wetland	46.19624539	0.00106052
WF005e	Vernal Pool	219.9701462	0.00504982
WF016e	Vernal Pool	6940.56938	0.159333549
WF014e	Vernal Pool	2576.502153	0.059148351
WF008e	Vernal Pool	4122.914558	0.094649095
WF032e	Vernal Pool	2674.89898	0.061407231
WF047e	Vernal Pool	6516.355947	0.149594948
WF013e	Vernal Pool	1490.674937	0.034221188
WF012e	Vernal Pool	9619.427398	0.220831667
WF058e	Vernal Pool	937.8022545	0.021528977
WF066e	Vernal Pool	198.9350775	0.004566921
WF072e	Vernal Pool	2543.298578	0.058386101
WF073e	Vernal Pool	257.7814864	0.005917849
WF075e	Vernal Pool	980.550227	0.022510336
WF069e	Vernal Pool	6772.748573	0.155480913
WF070e	Vernal Pool	1204.902207	0.027660749
WF071e	Vernal Pool	243.0803515	0.005580357
WF074e	Vernal Pool	2076.846565	0.047677837
WF077e	Vernal Pool	1125.022372	0.02582696
WF078e	Vernal Pool	2987.914579	0.06859308
WF082e	Vernal Pool	2356.538981	0.054098691
WF083e	Vernal Pool	27337.83432	0.62759032

Label	Type	Area	Acres
WF089e	Vernal Pool	2736.224626	0.062815074
WF084e	Vernal Pool	1193.466559	0.027398222
WF085e	Vernal Pool	281.7249063	0.006467514
WF086e	Vernal Pool	733.8688998	0.016847312
WF010e	Vernal Pool	1027.041162	0.023577621
WF011e	Vernal Pool	2651.878482	0.060878753
WF009e	Vernal Pool	1693.310386	0.038873058
WF143e	Vernal Pool	1126.739404	0.025866378
WF031e	Vernal Pool	5125.524188	0.117665845
WF040e	Vernal Pool	2957.804393	0.067901846
WF003e	Vernal Pool	7029.734644	0.161380501
WF004e	Vernal Pool	1212.32934	0.027831252
WF020e	Vernal Pool	6721.209246	0.154297733
WF116e	Vernal Pool	2331.935389	0.05353387
WF117e	Vernal Pool	412.3512951	0.009466283
WF035e	Vernal Pool	3540.925691	0.081288469
WF036e	Vernal Pool	1706.004702	0.039164479
WF037e	Vernal Pool	4367.671692	0.100267945
WF038e	Vernal Pool	6502.399487	0.149274552
WF039e	Vernal Pool	2594.266176	0.059556156
WF043e	Vernal Pool	19811.00773	0.454798157
WF044e	Vernal Pool	14887.71177	0.341774834
WF045e	Vernal Pool	2388.876351	0.054841055
WF041e	Vernal Pool	5047.669752	0.115878553
WF042e	Vernal Pool	278.1320386	0.006385033
WF119e	Vernal Pool	1159.353188	0.026615087
WF091e	Vernal Pool	1221.704105	0.028046467
WF092e	Vernal Pool	1429.139778	0.032808535
WF090e	Vernal Pool	840.2607411	0.019289732
WF123e	Vernal Pool	929.5383295	0.021339264
WF167e	Vernal Pool	2471.481589	0.05673741
WF130e	Vernal Pool	3598.644042	0.0826135
WF132e	Vernal Pool	364.2152659	0.008361232
WF146e	Vernal Pool	69741.0383	1.601033937
WF147e	Vernal Pool	10417.77441	0.239159192
WF148e	Vernal Pool	6253.619339	0.143563346
WF149e	Vernal Pool	3279.721863	0.075292054
WF150e	Vernal Pool	2777.650562	0.063766083
WF151e	Vernal Pool	2121.016253	0.048691833
WF152e	Vernal Pool	1176.653647	0.027012251
WF067e	Vernal Swale	11683.73839	0.268221726
WF106e	Vernal Swale	1403.168461	0.032212315
WF006e	Vernal Swale	4796.942652	0.11012265
WF017e	Vernal Swale	5586.255405	0.128242778
WF028e	Vernal Swale	16533.63953	0.379560136
WF027e	Vernal Swale	6979.149091	0.160219217
WF034e	Vernal Swale	4657.635849	0.106924606

Label	Type	Area	Acres
WF115e	Vernal Swale	9011.699206	0.206880147
WF118e	Vernal Swale	490.313496	0.011256049
WF120e	Vernal Swale	160.110572	0.003675633
WF09w	Willow Riparian	82877.48046	1.902605153

Wetland Features

<u>Designation</u>	<u>Length</u>	<u>Area (ft.2)</u>	<u>Acres</u>
Fresh Emergent Wetland Total =	n/a	158857.604	3.647
Riparian Total =	n/a	670471.643	15.392
Seasonal Swale Total =	n/a	173561.919	3.984
Seasonal Wetland Total =	n/a	1052112.747	24.153
Vernal Pool Total =	n/a	289326.189	6.642
Vernal Swale Total =	n/a	61302.653	1.407
Willow Riparian Total =	n/a	82877.480	1.903
Wetland Features Total =	n/a	2488510.235	57.128
OWOTUS and WF Total =	132434.089	4957362.032	113.805

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 018de
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Fresh Emergent Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2. _____				Total Number of Dominant Species Across All Strata:	1 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0 % (A/B)
4. _____					
Total Cover: _____ %					
Sapling/Shrub Stratum				Prevalence Index worksheet:	
1. _____				Total % Cover of:	Multiply by:
2. _____				OBL species	75 x 1 = 75
3. _____				FACW species	5 x 2 = 10
4. _____				FAC species	x 3 = 0
5. _____				FACU species	x 4 = 0
				UPL species	x 5 = 0
Total Cover: _____ %				Column Totals:	80 (A) 85 (B)
				Prevalence Index = B/A = 1.06	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <i>Typha latifolia</i>	75	Yes	OBL	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. <i>Rumex crispus</i>	5		FACW	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
3. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____					
6. _____					
7. _____					
8. _____					
Total Cover: 80 %					
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.	
1. _____					
2. _____					
Total Cover: _____ %					
% Bare Ground in Herb Stratum <u>20 %</u>		% Cover of Biotic Crust _____ %		Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	

Remarks:

SOIL

Sampling Point: W 018de

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					silty loam	
5	7.5YR 3/4	95	7.5YR 5/9	5	C		silty clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Remarks: _____

Hydric Soil Present? Yes No

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Aerial from CaSIL, April 2004

Remarks: _____

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W58, 150-152e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec,Town,Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Cometa-Fiddymnt Complex, 1-5% slopes NWI classification: Vernal Pool

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: _____	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)
2. _____				Total Number of Dominant Species Across All Strata:	3 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0 % (A/B)
4. _____				Prevalence Index worksheet:	
				Total % Cover of:	Multiply by:
				OBL species	50 x 1 = 50
				FACW species	35 x 2 = 70
				FAC species	10 x 3 = 30
				FACU species	x 4 = 0
				UPL species	5 x 5 = 25
				Column Totals:	100 (A) 175 (B)
				Prevalence Index = B/A =	1.75
				Hydrophytic Vegetation Indicators:	
				<input checked="" type="checkbox"/> Dominance Test is >50%	
				<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
				¹ Indicators of hydric soil and wetland hydrology must be present.	
				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	

Remarks: _____

SOIL

Sampling Point: W58, 151

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/4	75	7.5 YR 6/8	25			clay loam	
2-6	7.5YR 3/3	100						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: <u>Hardpan</u> Depth (inches): <u>6</u>	Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:	Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	
Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 122e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 2
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Seasonal Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)
2. _____				Total Number of Dominant Species Across All Strata:	3 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0 % (A/B)
4. _____					
<u>Sapling/Shrub Stratum</u>				Prevalence Index worksheet:	
1. _____				Total % Cover of: Multiply by:	
2. _____				OBL species	55 x 1 = 55
3. _____				FACW species	20 x 2 = 40
4. _____				FAC species	15 x 3 = 45
5. _____				FACU species	x 4 = 0
				UPL species	x 5 = 0
Total Cover: _____ %				Column Totals:	90 (A) 140 (B)
<u>Herb Stratum</u>				Prevalence Index = B/A = 1.56	
1. <i>Lolium multiflorum</i>	50	Yes	OBL	Hydrophytic Vegetation Indicators:	
2. <i>Rumex crispus</i>	20	Yes	FACW	<input checked="" type="checkbox"/> Dominance Test is >50%	
3. <i>Hordeum marinum ssp. gussoneanum</i>	15	Yes	FAC	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
4. <i>Plagiobothrys stipitatus</i>	5		OBL	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
6. _____				¹ Indicators of hydric soil and wetland hydrology must be present.	
7. _____					
8. _____					
Total Cover: 90 %				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	
<u>Woody Vine Stratum</u>					
1. _____					
2. _____					
Total Cover: _____ %					
% Bare Ground in Herb Stratum <u>10 %</u>		% Cover of Biotic Crust _____ %			
Remarks:					

SOIL

Sampling Point: W 122e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					silty clayloam	
5	7.5YR 3/4	95	7.5YR 5/9	5	C		clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Remarks: Flood plain

Hydric Soil Present? Yes No

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 123e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 4
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Vernal Pool

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)
2. _____				Total Number of Dominant Species Across All Strata:	3 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0 % (A/B)
4. _____				Prevalence Index worksheet:	
				Total % Cover of:	Multiply by:
				OBL species	40 x 1 = 40
				FACW species	30 x 2 = 60
				FAC species	25 x 3 = 75
				FACU species	x 4 = 0
				UPL species	x 5 = 0
				Column Totals:	95 (A) 175 (B)
				Prevalence Index = B/A =	1.84
				Hydrophytic Vegetation Indicators:	
				<input checked="" type="checkbox"/> Dominance Test is >50%	
				<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
				¹ Indicators of hydric soil and wetland hydrology must be present.	
				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	

Remarks:

SOIL

Sampling Point: W 123e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					clay loam	
5	7.5YR 3/4	95	7.5YR 5/9	5	C		clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input checked="" type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils:⁴ <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)	Depth (inches): _____ Depth (inches): _____ Depth (inches): _____

Field Observations:
 Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 124-125e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 2
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Seasonal Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)
2. _____				Total Number of Dominant Species Across All Strata:	3 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0 % (A/B)
4. _____				Prevalence Index worksheet:	
Total Cover: _____ %				Total % Cover of:	Multiply by:
<u>Sapling/Shrub Stratum</u>				OBL species	50 x 1 = 50
1. _____				FACW species	30 x 2 = 60
2. _____				FAC species	15 x 3 = 45
3. _____				FACU species	x 4 = 0
4. _____				UPL species	x 5 = 0
5. _____				Column Totals:	95 (A) 155 (B)
Total Cover: _____ %				Prevalence Index = B/A = 1.63	
<u>Herb Stratum</u>				Hydrophytic Vegetation Indicators:	
1. <i>Lolium multiflorum</i>	50	Yes	OBL	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. <i>Rumex crispus</i>	20	Yes	FACW	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
3. <i>Hordeum marinum ssp. gussoneanum</i>	15	Yes	FAC	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <i>Juncus buffonius</i>	10		FACW	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____				¹ Indicators of hydric soil and wetland hydrology must be present.	
6. _____					
7. _____					
8. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Total Cover: 95 %					
<u>Woody Vine Stratum</u>					
1. _____					
2. _____					
Total Cover: _____ %					
% Bare Ground in Herb Stratum <u>5 %</u>		% Cover of Biotic Crust _____ %			

Remarks:

SOIL

Sampling Point: W 124-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					silty clayloam	
5	7.5YR 3/4	95	7.5YR 5/9	5	C		clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Remarks: Flood plain

Hydric Soil Present? Yes No

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 126e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 2
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Seasonal Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)
4. _____				
Total Cover: _____ %				
Sapling/Shrub Stratum				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by:
2. _____				OBL species <u>55</u> x 1 = <u>55</u>
3. _____				FACW species <u>25</u> x 2 = <u>50</u>
4. _____				FAC species _____ x 3 = <u>0</u>
5. _____				FACU species _____ x 4 = <u>0</u>
				UPL species _____ x 5 = <u>0</u>
Total Cover: _____ %				Column Totals: <u>80</u> (A) <u>105</u> (B)
Prevalence Index = B/A = <u>1.31</u>				
Herb Stratum				Hydrophytic Vegetation Indicators:
1. <i>Lolium multiflorum</i>	50	Yes	OBL	<input checked="" type="checkbox"/> Dominance Test is >50%
2. <i>Rumex crispus</i>	20	Yes	FACW	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. <i>Phalaris ssp.</i>	5		FACW	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <i>Plagiobothrys stipitatus</i>	5		OBL	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>80 %</u>				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: _____ %				
% Bare Ground in Herb Stratum <u>20 %</u>		% Cover of Biotic Crust _____ %		Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>

Remarks:

SOIL

Sampling Point: W 126e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					silty loam	
5	7.5YR 3/4	95	7.5YR 5/9	5	C		silty clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Remarks: Flood plain

Hydric Soil Present? Yes No

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 127e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Seasonal Swale

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. _____				Total Number of Dominant Species Across All Strata:	2 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0 % (A/B)
4. _____					
Sapling/Shrub Stratum				Prevalence Index worksheet:	
1. _____				Total % Cover of: _____ Multiply by:	
2. _____				OBL species	x 1 = 0
3. _____				FACW species	20 x 2 = 40
4. _____				FAC species	70 x 3 = 210
5. _____				FACU species	x 4 = 0
				UPL species	x 5 = 0
Total Cover: _____ %				Column Totals:	90 (A) 250 (B)
Herb Stratum				Prevalence Index = B/A = 2.78	
1. <i>Rumex crispus</i>	10		FACW	Hydrophytic Vegetation Indicators:	
2. <i>Hordeum marinum ssp. gussoneanum</i>	30	Yes	FAC	<input checked="" type="checkbox"/> Dominance Test is >50%	
3. <i>Lolium multiflorum</i>	40	Yes	FAC	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
4. <i>Polypogon monspeliensis</i>	5		FACW	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. <i>Juncus buffonius</i>	5		FACW	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
6. _____				¹ Indicators of hydric soil and wetland hydrology must be present.	
7. _____					
8. _____					
Total Cover: 90 %				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Woody Vine Stratum					
1. _____					
2. _____					
Total Cover: _____ %					
% Bare Ground in Herb Stratum 10 %		% Cover of Biotic Crust _____ %			
Remarks:					

SOIL

Sampling Point: W 127e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					Clay loam	
5	7.5YR 3/4	97	7.5YR 5/9	3	C	M	Clay pan	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: Clay pan
 Depth (inches): 5

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 128-129e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Seasonal Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
Total Cover: _____ %				
Sapling/Shrub Stratum				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: _____ %				
Herb Stratum				
1. <i>Rumex crispus</i>	20	Yes	FACW	
2. <i>Hordeum marinum ssp. gussoneanum</i>	25	Yes	FAC	
3. <i>Lolium multiflorum</i>	30	Yes	FAC	
4. <i>Polypogon monspeliensis</i>	5		FACW	
5. <i>Juncus ssp.</i>	10		FACW	
6. _____				
7. _____				
8. _____				
Total Cover: 90 %				
Woody Vine Stratum				
1. _____				
2. _____				
Total Cover: _____ %				
% Bare Ground in Herb Stratum <u>10 %</u>		% Cover of Biotic Crust _____ %		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3 (A)**

Total Number of Dominant Species Across All Strata: **3 (B)**

Percent of Dominant Species That Are OBL, FACW, or FAC: **100.0 % (A/B)**

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	0	
FACW species	35	x 2 =	70	
FAC species	55	x 3 =	165	
FACU species	_____	x 4 =	0	
UPL species	_____	x 5 =	0	
Column Totals:	90	(A)	235	(B)

Prevalence Index = B/A = **2.61**

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks:

SOIL

Sampling Point: W 128-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					Clay loam	
5	7.5YR 3/4	97	7.5YR 5/9	3	C	M	Clay pan	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils:⁴

<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks)

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: Clay pan
 Depth (inches): 5

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>		<u>Secondary Indicators (2 or more required)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)	
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches):	
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches):	

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 130e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Vernal Pool

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																									
1. _____				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																								
2. _____																																												
3. _____																																												
4. _____																																												
Total Cover: <u> </u> %				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 10%;">Multiply by:</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td><u>75</u></td> <td>x 1 =</td> <td><u>75</u></td> <td></td> </tr> <tr> <td>FACW species</td> <td><u>20</u></td> <td>x 2 =</td> <td><u>40</u></td> <td></td> </tr> <tr> <td>FAC species</td> <td><u> </u></td> <td>x 3 =</td> <td><u>0</u></td> <td></td> </tr> <tr> <td>FACU species</td> <td><u> </u></td> <td>x 4 =</td> <td><u>0</u></td> <td></td> </tr> <tr> <td>UPL species</td> <td><u>5</u></td> <td>x 5 =</td> <td><u>25</u></td> <td></td> </tr> <tr> <td>Column Totals:</td> <td><u>100</u></td> <td>(A)</td> <td><u>140</u></td> <td>(B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td><u>1.40</u></td> </tr> </tbody> </table>	Total % Cover of:		Multiply by:			OBL species	<u>75</u>	x 1 =	<u>75</u>		FACW species	<u>20</u>	x 2 =	<u>40</u>		FAC species	<u> </u>	x 3 =	<u>0</u>		FACU species	<u> </u>	x 4 =	<u>0</u>		UPL species	<u>5</u>	x 5 =	<u>25</u>		Column Totals:	<u>100</u>	(A)	<u>140</u>	(B)	Prevalence Index = B/A =				<u>1.40</u>
Total % Cover of:		Multiply by:																																										
OBL species	<u>75</u>	x 1 =	<u>75</u>																																									
FACW species	<u>20</u>	x 2 =	<u>40</u>																																									
FAC species	<u> </u>	x 3 =	<u>0</u>																																									
FACU species	<u> </u>	x 4 =	<u>0</u>																																									
UPL species	<u>5</u>	x 5 =	<u>25</u>																																									
Column Totals:	<u>100</u>	(A)	<u>140</u>	(B)																																								
Prevalence Index = B/A =				<u>1.40</u>																																								
Total Cover: <u> </u> %				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.																																								
Total Cover: <u> </u> %																																												
Total Cover: <u>100%</u>																																												
Total Cover: <u> </u> %																																												
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Total Cover: <u> </u> %																																												
Total Cover: <u> </u> %																																												
Total Cover: <u> </u> %				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>																																								

Remarks:

SOIL

Sampling Point: W 130e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	7.5YR 3/2	85	7.5YR 5/8	15	C	M	Clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:	Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	
Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Aerial from CaSIL, April 2004

Remarks:

SOIL

Sampling Point: W 131,1:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					Clay loam	
5	7.5YR 3/4	95	7.5YR 5/9	5	C		Clay pan	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input checked="" type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	<p>Indicators for Problematic Hydric Soils:⁴</p> <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

<p>Restrictive Layer (if present): Type: <u>Clay pan</u> Depth (inches): <u>5</u></p>	<p>Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/></p>
<p>Remarks:</p>	

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input checked="" type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<p>Secondary Indicators (2 or more required)</p> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____</p> <p>Saturation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____</p>	<p>Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 132e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: San Joaquin- Cometa, 1-5% slopes NWI classification: Vernal Pool

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																									
1. _____				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																								
2. _____																																												
3. _____																																												
4. _____																																												
<u>Sapling/Shrub Stratum</u>	Total Cover: <u> </u> %			Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%;"></td> <td style="width:10%; text-align: center;">Total % Cover of:</td> <td style="width:10%;"></td> <td style="width:10%; text-align: center;">Multiply by:</td> <td style="width:30%;"></td> </tr> <tr> <td>OBL species</td> <td align="center"><u>60</u></td> <td></td> <td align="center">x 1 =</td> <td align="center"><u>60</u></td> </tr> <tr> <td>FACW species</td> <td align="center"><u> </u></td> <td></td> <td align="center">x 2 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td align="center"><u>40</u></td> <td></td> <td align="center">x 3 =</td> <td align="center"><u>120</u></td> </tr> <tr> <td>FACU species</td> <td align="center"><u> </u></td> <td></td> <td align="center">x 4 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td align="center"><u> </u></td> <td></td> <td align="center">x 5 =</td> <td align="center"><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td align="center"><u>100</u></td> <td align="center">(A)</td> <td></td> <td align="center"><u>180</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td align="center"><u>1.80</u></td> </tr> </table>		Total % Cover of:		Multiply by:		OBL species	<u>60</u>		x 1 =	<u>60</u>	FACW species	<u> </u>		x 2 =	<u>0</u>	FAC species	<u>40</u>		x 3 =	<u>120</u>	FACU species	<u> </u>		x 4 =	<u>0</u>	UPL species	<u> </u>		x 5 =	<u>0</u>	Column Totals:	<u>100</u>	(A)		<u>180</u> (B)	Prevalence Index = B/A =				<u>1.80</u>
	Total % Cover of:		Multiply by:																																									
OBL species	<u>60</u>		x 1 =		<u>60</u>																																							
FACW species	<u> </u>		x 2 =		<u>0</u>																																							
FAC species	<u>40</u>		x 3 =		<u>120</u>																																							
FACU species	<u> </u>		x 4 =	<u>0</u>																																								
UPL species	<u> </u>		x 5 =	<u>0</u>																																								
Column Totals:	<u>100</u>	(A)		<u>180</u> (B)																																								
Prevalence Index = B/A =				<u>1.80</u>																																								
1. _____																																												
2. _____																																												
3. _____																																												
4. _____																																												
5. _____																																												
<u>Herb Stratum</u>	Total Cover: <u>100</u> %			Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.																																								
1. <i>Eryngium castrense</i>	20	Yes	OBL																																									
2. <i>Hordeum marinum ssp. gussoneanum</i>	25	Yes	FAC																																									
3. <i>Lasthinia fremontii</i>	20	Yes	OBL																																									
4. <i>Lolium multiflorum</i>	15		FAC																																									
5. <i>Plagiobothrys stipitatus</i>	15		OBL																																									
6. <i>Psilocarphus brevissimus</i>	5		OBL																																									
7. _____																																												
8. _____																																												
<u>Woody Vine Stratum</u>	Total Cover: <u> </u> %			Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>																																								
1. _____																																												
2. _____																																												
% Bare Ground in Herb Stratum <u> </u> % % Cover of Biotic Crust <u> </u> %																																												
Remarks:																																												

SOIL

Sampling Point: W 132e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	7.5YR 3/4	90	7.5YR 5/8	10	C	M	Clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input checked="" type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils:⁴ <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input checked="" type="checkbox"/> Other (Explain in Remarks)
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⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: Listed on the National Hydric Soils list.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)	Field Observations: Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Saturation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial from CaSIL, April 2004			
Remarks:			

SOIL

Sampling Point: W 135-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					Clay loam	
5	7.5YR 3/4	95	7.5YR 5/9	5	C		Clay pan	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: Clay pan
 Depth (inches): 5

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches):	
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches):	

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 138e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Alamo-Fiddymment, 0-5% slopes NWI classification: Seasonal Swale

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
Total Cover: <u> </u> %				
Sapling/Shrub Stratum				
1.				
2.				
3.				
4.				
5.				
Total Cover: <u> </u> %				
Herb Stratum				
1. <i>Rumex crispus</i>	35	Yes	FACW	
2. <i>Eremocarpus setigerus</i>	15	Yes	UPL	
3. <i>Polypogon monspeliensis</i>	15	Yes	FACW	
4. <i>Lolium multiflorum</i>	25	Yes	FAC	
5. <i>Cynodon dactylon</i>	10		FAC	
6.				
7.				
8.				
Total Cover: <u>100</u> %				
Woody Vine Stratum				
1.				
2.				
Total Cover: <u> </u> %				
% Bare Ground in Herb Stratum <u> </u> %		% Cover of Biotic Crust <u> </u> %		

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
 Total Number of Dominant Species Across All Strata: 4 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0 % (A/B)

Prevalence Index worksheet:
 Total % Cover of: Multiply by:
 OBL species x 1 = 0
 FACW species 50 x 2 = 100
 FAC species 35 x 3 = 105
 FACU species x 4 = 0
 UPL species 15 x 5 = 75
 Column Totals: 100 (A) 280 (B)
 Prevalence Index = B/A = 2.80

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks: Eremocarpus and Lolium tend to colonize wetlands late in the season (summer-fall).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 139e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Alamo-Fiddymnt, 0-5% slopes & San Joaquin-Cometa NWI classification: Seasonal Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: _____	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)														
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)														
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)														
4. _____																		
Sapling/Shrub Stratum				Prevalence Index worksheet:														
1. _____				<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Total % Cover of:</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>50</u></td> <td>x 2 = <u>100</u></td> </tr> <tr> <td>FAC species <u>35</u></td> <td>x 3 = <u>105</u></td> </tr> <tr> <td>FACU species</td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals: <u>95</u> (A)</td> <td><u>255</u> (B)</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species	x 1 = <u>0</u>	FACW species <u>50</u>	x 2 = <u>100</u>	FAC species <u>35</u>	x 3 = <u>105</u>	FACU species	x 4 = <u>0</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals: <u>95</u> (A)	<u>255</u> (B)
Total % Cover of:	Multiply by:																	
OBL species	x 1 = <u>0</u>																	
FACW species <u>50</u>	x 2 = <u>100</u>																	
FAC species <u>35</u>	x 3 = <u>105</u>																	
FACU species	x 4 = <u>0</u>																	
UPL species <u>10</u>	x 5 = <u>50</u>																	
Column Totals: <u>95</u> (A)	<u>255</u> (B)																	
2. _____				Prevalence Index = B/A = <u>2.68</u>														
3. _____																		
4. _____																		
5. _____																		
Herb Stratum				Hydrophytic Vegetation Indicators:														
1. <i>Rumex crispus</i>	25	Yes	FACW	<input checked="" type="checkbox"/> Dominance Test is >50%														
2. <i>Lolium multiflorum</i>	35	Yes	FAC	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹														
3. <i>Polypogon monspeliensis</i>	20	Yes	FACW	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)														
4. <i>Eremocarpus setigerus</i>	10		UPL	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
5. <i>unknown grass</i>	5																	
6. <i>Lythrum hyssopifolia</i>	5		FACW															
7. _____																		
8. _____																		
Total Cover: <u>100%</u>				¹ Indicators of hydric soil and wetland hydrology must be present.														
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>														
1. _____																		
2. _____																		
Total Cover: _____ %																		
% Bare Ground in Herb Stratum _____ %		% Cover of Biotic Crust _____ %																

Remarks: *Eremocarpus* and *Lolium* tend to colonize wetlands late in the season (summer-fall).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 142e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Alamo-Fiddymment, 0-5% slopes NWI classification: Seasonal Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. _____				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																
2. _____																																				
3. _____																																				
4. _____																																				
<u>Sapling/Shrub Stratum</u>	_____ %			Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Total % Cover of:</td> <td style="text-align: center;">Multiply by:</td> <td></td> <td></td> </tr> <tr> <td>OBL species</td> <td style="text-align: center;"><u>90</u></td> <td>x 1 =</td> <td style="text-align: center;"><u>90</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">_____</td> <td>x 2 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>5</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>15</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">_____</td> <td>x 4 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>5</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>25</u></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;"><u>100</u></td> <td>(A)</td> <td style="text-align: center;"><u>130</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Prevalence Index = B/A = <u>1.30</u></td> </tr> </table>	Total % Cover of:	Multiply by:			OBL species	<u>90</u>	x 1 =	<u>90</u>	FACW species	_____	x 2 =	<u>0</u>	FAC species	<u>5</u>	x 3 =	<u>15</u>	FACU species	_____	x 4 =	<u>0</u>	UPL species	<u>5</u>	x 5 =	<u>25</u>	Column Totals:	<u>100</u>	(A)	<u>130</u> (B)	Prevalence Index = B/A = <u>1.30</u>			
Total % Cover of:	Multiply by:																																			
OBL species	<u>90</u>	x 1 =	<u>90</u>																																	
FACW species	_____	x 2 =	<u>0</u>																																	
FAC species	<u>5</u>	x 3 =	<u>15</u>																																	
FACU species	_____	x 4 =	<u>0</u>																																	
UPL species	<u>5</u>	x 5 =	<u>25</u>																																	
Column Totals:	<u>100</u>	(A)	<u>130</u> (B)																																	
Prevalence Index = B/A = <u>1.30</u>																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
<u>Herb Stratum</u>	Total Cover: _____ %			Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.																																
1. <i>Juncus xiphioides</i>	90	Yes	OBL																																	
2. <i>Lolium multiflorum</i>	5		FAC																																	
3. <i>Bromus hordeaceus</i>	5		UPL																																	
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
	Total Cover: <u>100%</u>																																			
<u>Woody Vine Stratum</u>																																				
1. _____																																				
2. _____																																				
	Total Cover: _____ %																																			
% Bare Ground in Herb Stratum _____ %	% Cover of Biotic Crust _____ %																																			

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 143e
 Investigator(s): Erin Hess, E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Alamo-Fiddymnt, 0-5% slopes & San Joaquin-Cometa NWI classification: Vernal Pool

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
Total Cover: _____ %				
Sapling/Shrub Stratum				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____ %				
Herb Stratum				
1. <i>Plagiobothrys stipitatus</i>	30	Yes	FAC	
2. <i>Lasthinia fremontii</i>	25	Yes	OBL	
3. <i>Layia fremontii</i>	20	Yes	FACW	
4. <i>Leontodon taraxacoides</i>	10		UPL	
5. <i>Downingia bicornuta</i>	10		OBL	
6. <i>Eryngium castrense</i>	5		OBL	
7.				
8.				
Total Cover: 100%				
Woody Vine Stratum				
1.				
2.				
Total Cover: _____ %				
% Bare Ground in Herb Stratum _____ %		% Cover of Biotic Crust _____ %		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100.0 %** (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	40	x 1 = 40
FACW species	20	x 2 = 40
FAC species	30	x 3 = 90
FACU species	_____	x 4 = 0
UPL species	10	x 5 = 50
Column Totals:	100 (A)	220 (B)

Prevalence Index = B/A = **2.20**

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 144e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Alamo-Fiddymont, 0-5% slopes & San Joaquin-Cometa NWI classification: Seasonal Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)
4. _____				
<u>Sapling/Shrub Stratum</u>				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
Total Cover: <u> </u> %				
<u>Herb Stratum</u>				
1. <i>Rumex crispus</i>	30	Yes	FACW	
2. <i>Lolium multiflorum</i>	20	Yes	FAC	
3. <i>Polypogon monspeliensis</i>	25	Yes	FACW	
4. <i>Cyperus esculentus</i>	15		FACW	
5. <i>Polygon arenastrum</i>	5		UPL	
6. <i>Xanthium strumarium</i>	5		FAC	
7. _____				
8. _____				
Total Cover: <u>100%</u>				
<u>Woody Vine Stratum</u>				
1. _____				
2. _____				
Total Cover: <u> </u> %				
% Bare Ground in Herb Stratum <u> </u> %		% Cover of Biotic Crust <u> </u> %		

Prevalence Index worksheet:			
Total % Cover of:		Multiply by:	
OBL species	<u> </u>	x 1 =	<u>0</u>
FACW species	<u>70</u>	x 2 =	<u>140</u>
FAC species	<u>25</u>	x 3 =	<u>75</u>
FACU species	<u> </u>	x 4 =	<u>0</u>
UPL species	<u>5</u>	x 5 =	<u>25</u>
Column Totals:	<u>100</u>	(A)	<u>240</u> (B)
Prevalence Index = B/A =			<u>2.40</u>

Hydrophytic Vegetation Indicators:	
<input checked="" type="checkbox"/>	Dominance Test is >50%
<input checked="" type="checkbox"/>	Prevalence Index is ≤3.0 ¹
<input type="checkbox"/>	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 145e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Alamo-Fiddymont, 0-5% slopes & San Joaquin-Cometa NWI classification: Seasonal Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	4 (A)
2. _____				Total Number of Dominant Species Across All Strata:	4 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0 % (A/B)
4. _____				Prevalence Index worksheet:	
				Total % Cover of:	Multiply by:
				OBL species	30 x 1 = 30
				FACW species	30 x 2 = 60
				FAC species	30 x 3 = 90
				FACU species	x 4 = 0
				UPL species	x 5 = 0
				Column Totals:	90 (A) 180 (B)
Total Cover: _____ %				Prevalence Index = B/A = 2.00	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <i>Glyceria declinata</i>	30	Yes	OBL	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. <i>Lolium multiflorum</i>	20	Yes	FAC	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
3. <i>Juncus ssp.</i>	15	Yes	FACW	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <i>Rumex crispus</i>	15	Yes	FACW	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. <i>Hordeum marinum ssp. gussoneanum</i>	10		FAC	¹ Indicators of hydric soil and wetland hydrology must be present.	
6. _____					
7. _____					
8. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Total Cover: 90 %					
Woody Vine Stratum					
1. _____					
2. _____					
Total Cover: _____ %					
% Bare Ground in Herb Stratum <u>10 %</u>		% Cover of Biotic Crust _____ %			

Remarks: algal matting was present on the soil surface.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 146-147e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Alamo-Fiddymnt, 0-5% slopes & San Joaquin-Cometa NWI classification: Vernal Pool

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: _____	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																									
1. _____				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																								
2. _____																												
3. _____																												
4. _____																												
Total Cover: _____ %				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Total % Cover of:</th> <th colspan="2" style="width: 60%;">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>75</u></td> <td>x 1 =</td> <td><u>75</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 =</td> <td><u>10</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 =</td> <td><u>60</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u></td> <td>(A)</td> <td><u>145</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: center;">Prevalence Index = B/A = <u>1.45</u></td> </tr> </tbody> </table>	Total % Cover of:	Multiply by:		OBL species <u>75</u>	x 1 =	<u>75</u>	FACW species <u>5</u>	x 2 =	<u>10</u>	FAC species <u>20</u>	x 3 =	<u>60</u>	FACU species _____	x 4 =	<u>0</u>	UPL species _____	x 5 =	<u>0</u>	Column Totals: <u>100</u>	(A)	<u>145</u> (B)	Prevalence Index = B/A = <u>1.45</u>		
Total % Cover of:	Multiply by:																											
OBL species <u>75</u>	x 1 =	<u>75</u>																										
FACW species <u>5</u>	x 2 =	<u>10</u>																										
FAC species <u>20</u>	x 3 =	<u>60</u>																										
FACU species _____	x 4 =	<u>0</u>																										
UPL species _____	x 5 =	<u>0</u>																										
Column Totals: <u>100</u>	(A)	<u>145</u> (B)																										
Prevalence Index = B/A = <u>1.45</u>																												
Total Cover: _____ %																												
Sapling/Shrub Stratum																												
1. _____																												
2. _____																												
3. _____																												
4. _____																												
5. _____																												
Total Cover: _____ %																												
Herb Stratum																												
1. <i>Plagiobothrys stipitatus</i>	30	Yes	OBL																									
2. <i>Lolium multiflorum</i>	20	Yes	FAC																									
3. <i>Eleocharis macrostachya</i>	15	Yes	OBL																									
4. <i>Lasthinia fremontii</i>	15	Yes	OBL																									
5. <i>Downingia bicornuta</i>	5		OBL																									
6. <i>Juncus buffonius</i>	5		FACW																									
7. <i>Psilocarphus brevissimus</i>	10		OBL																									
8. _____																												
Total Cover: <u>100%</u>																												
Woody Vine Stratum																												
1. _____																												
2. _____																												
Total Cover: _____ %																												
% Bare Ground in Herb Stratum _____ %		% Cover of Biotic Crust _____ %																										

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks: _____

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 148-149e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Cometa-Fiddymment Complex 1-5% slopes NWI classification: Vernal Pool

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: _____	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. _____				Total Number of Dominant Species Across All Strata:	2 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0 % (A/B)
4. _____				Prevalence Index worksheet:	
				Total % Cover of:	Multiply by:
				OBL species	30 x 1 = 30
				FACW species	15 x 2 = 30
				FAC species	55 x 3 = 165
				FACU species	x 4 = 0
				UPL species	x 5 = 0
				Column Totals:	100 (A) 225 (B)
				Prevalence Index = B/A =	2.25
				Hydrophytic Vegetation Indicators:	
				<input checked="" type="checkbox"/> Dominance Test is >50%	
				<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
				¹ Indicators of hydric soil and wetland hydrology must be present.	
				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	

Remarks: _____

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 153e
 Investigator(s): Erin Hess, E. Alfieri Section, Township, Range: Please see Location Map for all Sec,Town,Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Cometa-Fiddymnt Complex 1-5% slopes NWI classification: Seasonal Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: This feature was unable to access, therefore, interpretation is based on roadside observations and aerial imagery. Field data is limited.	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
Total Cover: _____ %				
Sapling/Shrub Stratum				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____ %				
Herb Stratum				
1. <i>Lolium multiflorum</i>	75	Yes	FAC	
2. <i>Rumex crispus</i>	5		FACW	
3. <i>Hordeum marinum ssp. gussoneanum</i>	10		FAC	
4. <i>Leontodon taraxacoides</i>	10		UPL	
5.				
6.				
7.				
8.				
Total Cover: 100%				
Woody Vine Stratum				
1.				
2.				
Total Cover: _____ %				
% Bare Ground in Herb Stratum _____ %		% Cover of Biotic Crust _____ %		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x 1 =	0	
FACW species	5	x 2 =	10	
FAC species	85	x 3 =	255	
FACU species	0	x 4 =	0	
UPL species	10	x 5 =	50	
Column Totals:	100	(A)	315	(B)

Prevalence Index = B/A = 3.15

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks:

SOIL

Sampling Point: W 154e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/3	85	10YR 5/8	15	C	M	Sandy clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: hardpan
 Depth (inches): 6

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 155e
 Investigator(s): Erin Hess (USACE), Elena Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: San Joaquin Complex, 1-5% slopes NWI classification: Seasonal wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. _____				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																
2. _____																																				
3. _____																																				
4. _____																																				
<u>Sapling/Shrub Stratum</u>	_____ %			Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;"></td> <td style="width: 20%; text-align: center;">Total % Cover of:</td> <td style="width: 20%;"></td> <td style="width: 20%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td style="text-align: center;">_____</td> <td>x 1 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;"><u>10</u></td> <td>x 2 =</td> <td style="text-align: center;"><u>20</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;"><u>65</u></td> <td>x 3 =</td> <td style="text-align: center;"><u>195</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">_____</td> <td>x 4 =</td> <td style="text-align: center;"><u>0</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;"><u>15</u></td> <td>x 5 =</td> <td style="text-align: center;"><u>75</u></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;"><u>90</u></td> <td>(A)</td> <td style="text-align: center;"><u>290</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="text-align: center;"><u>3.22</u></td> </tr> </table>		Total % Cover of:		Multiply by:	OBL species	_____	x 1 =	<u>0</u>	FACW species	<u>10</u>	x 2 =	<u>20</u>	FAC species	<u>65</u>	x 3 =	<u>195</u>	FACU species	_____	x 4 =	<u>0</u>	UPL species	<u>15</u>	x 5 =	<u>75</u>	Column Totals:	<u>90</u>	(A)	<u>290</u> (B)	Prevalence Index = B/A =			<u>3.22</u>
	Total % Cover of:		Multiply by:																																	
OBL species	_____	x 1 =	<u>0</u>																																	
FACW species	<u>10</u>	x 2 =	<u>20</u>																																	
FAC species	<u>65</u>	x 3 =	<u>195</u>																																	
FACU species	_____	x 4 =	<u>0</u>																																	
UPL species	<u>15</u>	x 5 =	<u>75</u>																																	
Column Totals:	<u>90</u>	(A)	<u>290</u> (B)																																	
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1. _____																																				
2. _____																																				
3. _____																																				
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Total Cover: _____ %																																				
<u>Herb Stratum</u>																																				
1. <i>Lolium multiflorum</i>	40	Yes	FAC																																	
2. <i>Hordeum marinum ssp. gussoneanum</i>	25	Yes	FAC																																	
3. <i>Leontodon taraxacoides</i>	15		UPL																																	
4. <i>Rumex crispus</i>	10		FACW																																	
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>90</u> %																																				
<u>Woody Vine Stratum</u>																																				
1. _____																																				
2. _____																																				
Total Cover: _____ %																																				
% Bare Ground in Herb Stratum <u>10</u> %	% Cover of Biotic Crust _____ %																																			

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks:

SOIL

Sampling Point: W 155e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/3	90	2.5YR 4/8	10	C	M	silty clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input checked="" type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils:⁴ <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: <u>Hardpan</u> Depth (inches): <u>5</u>	Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Field Observations: Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Saturation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 167e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 4
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Vernal Pool

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	4 (A)
2. _____				Total Number of Dominant Species Across All Strata:	4 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0 % (A/B)
4. _____					
Total Cover: _____ %					
Sapling/Shrub Stratum				Prevalence Index worksheet:	
1. _____				Total % Cover of: _____ Multiply by:	
2. _____				OBL species	50 x 1 = 50
3. _____				FACW species	10 x 2 = 20
4. _____				FAC species	25 x 3 = 75
5. _____				FACU species	_____ x 4 = 0
				UPL species	_____ x 5 = 0
Total Cover: _____ %				Column Totals:	85 (A) 145 (B)
				Prevalence Index = B/A = 1.71	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <i>Plagiobothrys stipitatus</i>	40	Yes	OBL	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. <i>Juncus buffonius</i>	10	Yes	FACW	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
3. <i>Eleocharis macrostachya</i>	10	Yes	OBL	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <i>Lolium multiflorum</i>	25	Yes	FAC	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____				¹ Indicators of hydric soil and wetland hydrology must be present.	
6. _____					
7. _____					
8. _____					
Total Cover: 85 %					
Woody Vine Stratum				Hydrophytic Vegetation Present?	
1. _____				Yes <input checked="" type="radio"/> No <input type="radio"/>	
2. _____					
Total Cover: _____ %					
% Bare Ground in Herb Stratum <u>15 %</u>		% Cover of Biotic Crust _____ %			
Remarks:					

SOIL

Sampling Point: W 167e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					clay loam	
5	7.5YR 3/4	95	7.5YR 5/9	5	C		clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: _____	

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:	Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	
Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Aerial from CaSIL, April 2004

Remarks: _____

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 168e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 2
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Seasonal Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. _____				Total Number of Dominant Species Across All Strata:	2 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0 % (A/B)
4. _____					
Total Cover: _____ %					
Sapling/Shrub Stratum				Prevalence Index worksheet:	
1. _____				Total % Cover of: _____ Multiply by: _____	
2. _____				OBL species	60 x 1 = 60
3. _____				FACW species	25 x 2 = 50
4. _____				FAC species	x 3 = 0
5. _____				FACU species	x 4 = 0
				UPL species	x 5 = 0
Total Cover: _____ %				Column Totals:	85 (A) 110 (B)
				Prevalence Index = B/A = 1.29	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <i>Lolium multiflorum</i>	50	Yes	OBL	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. <i>Rumex crispus</i>	20	Yes	FACW	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
3. <i>Phalaris ssp.</i>	5		FACW	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <i>Plagiobothrys stipitatus</i>	10		OBL	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____					
6. _____					
7. _____					
8. _____					
Total Cover: 85 %					
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.	
1. _____					
2. _____					
Total Cover: _____ %					
% Bare Ground in Herb Stratum <u>15 %</u>		% Cover of Biotic Crust _____ %		Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Remarks:					

SOIL

Sampling Point: W 168e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					silty loam	
5	7.5YR 3/4	95	7.5YR 5/9	5	C		silty clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Remarks: Flood plain

Hydric Soil Present? Yes No

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Aerial from CaSIL, April 2004

Remarks:

SOIL

Sampling Point: W 172 e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:	<u>Secondary Indicators (2 or more required)</u>
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:	Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	
Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	
Saturation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	
(includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 173-174e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 4
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Seasonal Swale

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: _____	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. _____				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																
2. _____																																				
3. _____																																				
4. _____																																				
Total Cover: _____ %				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Total % Cover of:</th> <th style="width: 20%;"></th> <th style="width: 20%;">Multiply by:</th> <th style="width: 20%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td>_____</td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>10</u></td> <td>x 2 =</td> <td><u>20</u></td> </tr> <tr> <td>FAC species</td> <td><u>80</u></td> <td>x 3 =</td> <td><u>240</u></td> </tr> <tr> <td>FACU species</td> <td>_____</td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td>_____</td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>90</u></td> <td>(A)</td> <td><u>260</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td><u>2.89</u></td> </tr> </tbody> </table>	Total % Cover of:		Multiply by:		OBL species	_____	x 1 =	<u>0</u>	FACW species	<u>10</u>	x 2 =	<u>20</u>	FAC species	<u>80</u>	x 3 =	<u>240</u>	FACU species	_____	x 4 =	<u>0</u>	UPL species	_____	x 5 =	<u>0</u>	Column Totals:	<u>90</u>	(A)	<u>260</u> (B)	Prevalence Index = B/A =			<u>2.89</u>
Total % Cover of:		Multiply by:																																		
OBL species	_____	x 1 =	<u>0</u>																																	
FACW species	<u>10</u>	x 2 =	<u>20</u>																																	
FAC species	<u>80</u>	x 3 =	<u>240</u>																																	
FACU species	_____	x 4 =	<u>0</u>																																	
UPL species	_____	x 5 =	<u>0</u>																																	
Column Totals:	<u>90</u>	(A)	<u>260</u> (B)																																	
Prevalence Index = B/A =			<u>2.89</u>																																	
Total Cover: _____ %																																				
Sapling/Shrub Stratum																																				
1. _____																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
Total Cover: _____ %																																				
Herb Stratum																																				
1. <i>Lolium multiflorum</i>	70	Yes	FAC																																	
2. <i>Juncus buffonius</i>	10	Yes	FACW																																	
3. <i>Hordeum marinum ssp. gussoneanum</i>	10	Yes	FAC																																	
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
Total Cover: <u>90</u> %																																				
Woody Vine Stratum																																				
1. _____																																				
2. _____																																				
Total Cover: _____ %																																				
% Bare Ground in Herb Stratum <u>10 %</u>		% Cover of Biotic Crust _____ %																																		

Hydrophytic Vegetation Indicators:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks: _____

SOIL

Sampling Point: W 173-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					clay loam	
5	7.5YR 3/4	95	7.5YR 5/9	5	C		clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:	<u>Secondary Indicators (2 or more required)</u>
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Aerial from CaSIL, April 2004

Remarks: _____

SOIL

Sampling Point: W 175e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	<p>Indicators for Problematic Hydric Soils:⁴</p> <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input checked="" type="checkbox"/> Other (Explain in Remarks)
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⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Soils assumed due to inundation and dominance by OBL and FACW hydrophytes

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<p>Secondary Indicators (2 or more required)</p> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations:

Surface Water Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 176e
 Investigator(s): Erin Hess, E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Alamo-Fiddymnt, 0-5% slopes & San Joaquin-Cometa NWI classification: Seasonal Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																									
1. _____				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																								
2. _____																																												
3. _____																																												
4. _____																																												
Total Cover: _____ %				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 10%;">Multiply by:</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td>_____</td> <td>x 1 =</td> <td><u>0</u></td> <td></td> </tr> <tr> <td>FACW species</td> <td><u>60</u></td> <td>x 2 =</td> <td><u>120</u></td> <td></td> </tr> <tr> <td>FAC species</td> <td><u>40</u></td> <td>x 3 =</td> <td><u>120</u></td> <td></td> </tr> <tr> <td>FACU species</td> <td>_____</td> <td>x 4 =</td> <td><u>0</u></td> <td></td> </tr> <tr> <td>UPL species</td> <td>_____</td> <td>x 5 =</td> <td><u>0</u></td> <td></td> </tr> <tr> <td>Column Totals:</td> <td><u>100</u></td> <td>(A)</td> <td><u>240</u></td> <td>(B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td><u>2.40</u></td> </tr> </tbody> </table>	Total % Cover of:		Multiply by:			OBL species	_____	x 1 =	<u>0</u>		FACW species	<u>60</u>	x 2 =	<u>120</u>		FAC species	<u>40</u>	x 3 =	<u>120</u>		FACU species	_____	x 4 =	<u>0</u>		UPL species	_____	x 5 =	<u>0</u>		Column Totals:	<u>100</u>	(A)	<u>240</u>	(B)	Prevalence Index = B/A =				<u>2.40</u>
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Prevalence Index = B/A =				<u>2.40</u>																																								
Total Cover: _____ %				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.																																								
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WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 177e
 Investigator(s): Erin Hess (USACE), Elena Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Cometa-Fiddymnt Complex, 1-5% slopes NWI classification: Seasonal Swale

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: <u>A portion of this feature extends onto land that was denied access</u>	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata:	<u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100.0 %</u> (A/B)
4. _____				Prevalence Index worksheet:	
				Total % Cover of:	Multiply by:
				OBL species	<u>0</u> x 1 = <u>0</u>
				FACW species	<u>50</u> x 2 = <u>100</u>
				FAC species	<u>45</u> x 3 = <u>135</u>
				FACU species	<u>0</u> x 4 = <u>0</u>
				UPL species	<u>5</u> x 5 = <u>25</u>
Total Cover: _____ %				Column Totals:	<u>100</u> (A) <u>260</u> (B)
				Prevalence Index = B/A = <u>2.60</u>	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <i>Rumex acetosella</i>	30	Yes	FAC	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. <i>Polypogon monspeliensis</i>	50	Yes	FACW	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
3. <i>Lolium multiflorum</i>	15		FAC	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <i>Leontodon taraxacoides</i>	5		UPL	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____				¹ Indicators of hydric soil and wetland hydrology must be present.	
6. _____					
7. _____					
8. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Total Cover: <u>100%</u>					
Woody Vine Stratum					
1. _____					
2. _____					
Total Cover: _____ %					
% Bare Ground in Herb Stratum _____ %		% Cover of Biotic Crust _____ %			

Remarks:

SOIL

Sampling Point: W 177e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/4	90	7.5 YR 6/8	10	C	RC	clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input checked="" type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils:⁴ <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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Restrictive Layer (if present): Type: <u>Hardpan</u> Depth (inches): <u>6</u>	Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Saturation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 178e
 Investigator(s): Erin Hess (USACE), Elena Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Cometa-Fiddymnt Complex, 1-5% slopes NWI classification: Seasonal Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. _____				Total Number of Dominant Species Across All Strata:	2 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0 % (A/B)
4. _____				Prevalence Index worksheet:	
				Total % Cover of:	Multiply by:
				OBL species	x 1 = 0
				FACW species	45 x 2 = 90
				FAC species	45 x 3 = 135
				FACU species	x 4 = 0
				UPL species	x 5 = 0
				Column Totals:	90 (A) 225 (B)
				Prevalence Index = B/A =	2.50
				Hydrophytic Vegetation Indicators:	
				<input checked="" type="checkbox"/> Dominance Test is >50%	
				<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
				¹ Indicators of hydric soil and wetland hydrology must be present.	
				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	

Remarks:

SOIL

Sampling Point: W 178e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/4	100					sandy clay loam	
2-6	7.5YR 3/3	100						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils:⁴

<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks)

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: Hardpan
 Depth (inches): 6

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Water-Stained Leaves (B9)	

Secondary Indicators (2 or more required)

<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 179e
 Investigator(s): Erin Hess, E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Cometa-Fiddymment Complex 1-5% slopes NWI classification: Seasonal Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2. _____				Total Number of Dominant Species Across All Strata:	1 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0 % (A/B)
4. _____				Prevalence Index worksheet:	
				Total % Cover of:	Multiply by:
				OBL species	x 1 = 0
				FACW species	10 x 2 = 20
				FAC species	85 x 3 = 255
				FACU species	x 4 = 0
				UPL species	5 x 5 = 25
				Column Totals:	100 (A) 300 (B)
				Prevalence Index = B/A =	3.00
				Hydrophytic Vegetation Indicators:	
				<input checked="" type="checkbox"/> Dominance Test is >50%	
				<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
				¹ Indicators of hydric soil and wetland hydrology must be present.	
				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 180e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Vernal Pool

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	4 (A)
2. _____				Total Number of Dominant Species Across All Strata:	4 (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0 % (A/B)
4. _____					
Total Cover: _____ %					
Sapling/Shrub Stratum				Prevalence Index worksheet:	
1. _____				Total % Cover of: _____ Multiply by:	
2. _____				OBL species	60 x 1 = 60
3. _____				FACW species	20 x 2 = 40
4. _____				FAC species	20 x 3 = 60
5. _____				FACU species	_____ x 4 = 0
				UPL species	_____ x 5 = 0
Total Cover: _____ %				Column Totals:	100 (A) 160 (B)
				Prevalence Index = B/A = 1.60	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <i>Downingia bicornuta</i>	20	Yes	OBL	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. <i>Lasthinia fremontii</i>	5		OBL	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹	
3. <i>Hordeum marinum ssp. gussoneanum</i>	20	Yes	FAC	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <i>Plagiobothrys stipitatus</i>	25	Yes	OBL	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. <i>Deschampsia danthonioides</i>	20	Yes	FACW		
6. <i>Psilocarphus brevissimus</i>	10		OBL		
7. _____					
8. _____					
Total Cover: 100%					
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.	
1. _____					
2. _____					
Total Cover: _____ %					
% Bare Ground in Herb Stratum _____ %		% Cover of Biotic Crust _____ %		Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	

Remarks:

SOIL

Sampling Point: W 180e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	7.5YR 3/2	85	7.5YR 5/8	15	C	M	Clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
<u>Primary Indicators (any one indicator is sufficient)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:	Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	
Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial from CaSIL, April 2004	
Remarks:	

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 181e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Seasonal Wetland

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2.				
3.				
4.				
Total Cover: _____ %				
Sapling/Shrub Stratum				
1.				
2.				
3.				
4.				
5.				
Total Cover: _____ %				
Herb Stratum				
1. <i>Rumex crispus</i>	10	Yes	FACW	
2. <i>Eleocharis macrostachya</i>	15	Yes	OBL	
3. <i>Lolium multiflorum</i>	25	Yes	FAC	
4. <i>Polypogon monspeliensis</i>	5		FACW	
5. <i>Juncus ssp.</i>	10	Yes	FACW	
6.				
7.				
8.				
Total Cover: 65 %				
Woody Vine Stratum				
1.				
2.				
Total Cover: _____ %				
% Bare Ground in Herb Stratum <u>35 %</u>		% Cover of Biotic Crust _____ %		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species <u>15</u>	x 1 =	<u>15</u>
FACW species <u>25</u>	x 2 =	<u>50</u>
FAC species <u>25</u>	x 3 =	<u>75</u>
FACU species _____	x 4 =	<u>0</u>
UPL species _____	x 5 =	<u>0</u>
Column Totals:	65 (A)	140 (B)

Prevalence Index = B/A = 2.15

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes No

Remarks:

SOIL

Sampling Point: W 181e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					Clay loam	
5	7.5YR 3/4	97	7.5YR 5/9	3	C	M	Clay pan	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

Indicators for Problematic Hydric Soils:⁴

<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Other (Explain in Remarks)

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: Clay pan
 Depth (inches): 5

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial from CaSIL, April 2004

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 182e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Vernal Pool

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																									
1. _____				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																								
2. _____																																												
3. _____																																												
4. _____																																												
Total Cover: _____ %				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 10%;">Multiply by:</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td><u>20</u></td> <td>x 1 =</td> <td><u>20</u></td> <td></td> </tr> <tr> <td>FACW species</td> <td><u>20</u></td> <td>x 2 =</td> <td><u>40</u></td> <td></td> </tr> <tr> <td>FAC species</td> <td><u>30</u></td> <td>x 3 =</td> <td><u>90</u></td> <td></td> </tr> <tr> <td>FACU species</td> <td>_____</td> <td>x 4 =</td> <td><u>0</u></td> <td></td> </tr> <tr> <td>UPL species</td> <td>_____</td> <td>x 5 =</td> <td><u>0</u></td> <td></td> </tr> <tr> <td>Column Totals:</td> <td><u>70</u></td> <td>(A)</td> <td><u>150</u></td> <td>(B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td><u>2.14</u></td> </tr> </tbody> </table>	Total % Cover of:		Multiply by:			OBL species	<u>20</u>	x 1 =	<u>20</u>		FACW species	<u>20</u>	x 2 =	<u>40</u>		FAC species	<u>30</u>	x 3 =	<u>90</u>		FACU species	_____	x 4 =	<u>0</u>		UPL species	_____	x 5 =	<u>0</u>		Column Totals:	<u>70</u>	(A)	<u>150</u>	(B)	Prevalence Index = B/A =				<u>2.14</u>
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SOIL

Sampling Point: W 182e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					Silty clay loam	
5-10	7.5YR 3/4	95	7.5YR 5/9	5	C		Clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

1 cm Muck (A9) (LRR C)
 2 cm Muck (A10) (LRR B)
 Reduced Vertic (F18)
 Red Parent Material (TF2)
 Other (Explain in Remarks)

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Aerial from CaSIL, April 2004

Remarks: _____

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: PG&E Line 407(East) City/County: Placer/Sutter/Sacramento Sampling Date: 5/5/08
 Applicant/Owner: Pacific Gas and Electric State: CA Sampling Point: W 183e
 Investigator(s): Erin Hess (USACE), E. Alfieri Section, Township, Range: Please see Location Map for all Sec, Town, Range
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 38 45'03.51"N Long: 121 30'05.56" W Datum: WGS84
 Soil Map Unit Name: Xerofluvents NWI classification: Vernal Pool

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 <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status																																									
1. _____				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0 %</u> (A/B)																																								
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Total Cover: <u> </u> %				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 10%;">Multiply by:</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td><u>30</u></td> <td>x 1 =</td> <td><u>30</u></td> <td></td> </tr> <tr> <td>FACW species</td> <td><u>5</u></td> <td>x 2 =</td> <td><u>10</u></td> <td></td> </tr> <tr> <td>FAC species</td> <td><u>65</u></td> <td>x 3 =</td> <td><u>195</u></td> <td></td> </tr> <tr> <td>FACU species</td> <td><u> </u></td> <td>x 4 =</td> <td><u>0</u></td> <td></td> </tr> <tr> <td>UPL species</td> <td><u> </u></td> <td>x 5 =</td> <td><u>0</u></td> <td></td> </tr> <tr> <td>Column Totals:</td> <td><u>100</u></td> <td>(A)</td> <td><u>235</u></td> <td>(B)</td> </tr> <tr> <td colspan="4" style="text-align: right;">Prevalence Index = B/A =</td> <td><u>2.35</u></td> </tr> </tbody> </table>	Total % Cover of:		Multiply by:			OBL species	<u>30</u>	x 1 =	<u>30</u>		FACW species	<u>5</u>	x 2 =	<u>10</u>		FAC species	<u>65</u>	x 3 =	<u>195</u>		FACU species	<u> </u>	x 4 =	<u>0</u>		UPL species	<u> </u>	x 5 =	<u>0</u>		Column Totals:	<u>100</u>	(A)	<u>235</u>	(B)	Prevalence Index = B/A =				<u>2.35</u>
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Prevalence Index = B/A =				<u>2.35</u>																																								
Total Cover: <u> </u> %				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																								
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SOIL

Sampling Point: W 183e

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	7.5YR 3/4	100					Clay loam	
5	7.5YR 3/4	95	7.5YR 5/9	5	C		Clay pan	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils:⁴
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Claypan at 5"

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	
Saturation Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	
(includes capillary fringe)			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Aerial from CaSIL, April 2004

Remarks:

**Addendum to the Delineation of Waters of the U.S.
PG&E Line 407 Natural Gas Transmission Pipeline Project
Sacramento, Placer, Yolo, and Sutter Counties, CA (August 2007)**

**Non-Jurisdictional Status of Rice Fields within the Project Survey Area
July 2008**

I. Introduction

The PG&E Line 407 Natural Gas Transmission Pipeline Project (Project) is located within portions of Yolo, Placer, Sutter and Sacramento Counties, CA. A number of cultivated rice fields exist within the central portion of the Project Area. This specific portion of the Project area occurs in Sutter and Sacramento counties, and is located east of the Sacramento River and west of Natomas Road.

A formal wetland delineation was performed for the Project in 2006 and 2007 by Gallaway Consulting, Inc. and submitted to the U.S. Army Corps of Engineers (USACE) for verification in August 2007. Following site visits in April and May 2008 with USACE project manager Erin Hess, changes were made to the delineation per Ms. Hess's comments with the exception of the jurisdictional status of the rice fields within the Project area. Throughout the delineation process, actively farmed areas, including rice fields, were not identified as distinct features, wetland or otherwise. While it was suggested that all rice fields within the Project area be delineated as jurisdictional wetlands, based on our interpretation of USACE policy, the delineation has not been amended in regards to rice fields.

This addendum provides additional information to support the position that the identified rice fields are not under the jurisdiction of USACE as authorized by the Clean Water Act (CWA) Section 404. Using the approach outlined in the U.S. Army Corps' Regulatory Branch Memorandum on irrigated wetlands (2007-01, March 13, 2007), we have assessed the rice fields within the project area and believe that the data demonstrates that they are not jurisdictional wetlands. Our assessment is provided below and we look forward to further discussions with USACE staff to determine the jurisdiction of these areas.

II. Analysis of Rice Fields Using USACE Policy on Irrigated Wetlands

According to the USACE, Sacramento District Regulatory Branch Memorandum 2007-01 (USACE March 13, 2007), artificially irrigated lands are generally not jurisdictional if without irrigation they would revert to uplands. The best method to verify jurisdictional status would be to discontinue irrigation. However, the Corps' memorandum notes that it is impractical in many cases to do so and provides an alternative approach to verify non-jurisdiction, including aerial imagery, historical documentation, and historical and current data regarding the hydrology, soils and historical conditions of the site in question provided by federal, state, and local agencies, as well as, the landowner or neighbors (USACE March 13, 2007).

It is impractical in this case to halt irrigation on active rice fields and thus, we have evaluated the rice fields using the alternative approach provided in the memorandum.

1. Aerial Imagery and Land Use Information

Historically, the area immediately surrounding the Sacramento River would periodically flood during high flow events; however, due to the construction of an extensive levee system along the Sacramento River and its tributaries, the land within the Project area immediately surrounding the Sacramento River no longer floods naturally. Although a comprehensive flood control plan wasn't authorized by congress until 1917, construction of levees in the Sacramento area began in 1850 (Sacramento Area Flood Control Agency, 2008).

Based on topographic maps from 1905, no permanent water features occurred within the Project area (**Attachment A**). Water features which were present south of the Project area, such as Bush Lake, were described as "intermittent" (Tugel, 1993). These "lakes" were hydrologically supported by seasonal precipitation and slowly dried down during the summer months (Tugel, 1993). Numerous levees are depicted on the 1905 topographic map (**Attachment A**), verifying the extent of the Sacramento River levee system at that date.

Aerial images are one resource used to depict the non-static nature of agricultural fields, specifically those in rice production, and show the lack of naturally ponding features within the fields during the winter months, prior to the planting of rice and subsequent application of irrigation water (Terraserver.com). Additionally, fields exist within and adjacent to the Project area that are currently in hay, row crop, and tree crop production, which is further evidence of the area's upland status.

2. Hydrological Characteristics

The area in question has been in rice and other intensive agricultural production for more than 100 years, which has drastically altered and modified the soils, the micro-topography, and the water table. The long standing presence of levees controlling the natural flow of the Sacramento River has allowed for a patchwork of agricultural fields, managed under dry land and irrigated systems. Throughout the years of agricultural production the land has been continually manipulated and re-contoured, further changing the original hydrology of the region. Drainage systems have been utilized to lower water tables in the area to compensate for the fact that the elevation of the fields is lowered on a regular basis due to farming practices. "Many areas that were once at mean sea level are now 10 to 20 feet below sea level" and "the annual rate of [ground water] decline has ranged from an average of one foot in some areas to 3 feet in others" (Tugel, 1993).

Due to this intensive management, and the alteration of the natural surface flow regime of the site, as well as the lowering of the region's water-table level, wetland features which may have been present prior to the 1900's no longer exist. Additionally, since the hydrology of the rice fields is maintained by artificially placed irrigation water, the

“normal circumstances” (33CFR 328.3 (b)) of the site would be upland habitat if irrigation water were removed. The USACE has clarified the phrase “normal circumstances” as “...an evaluation of the extent and relative permanence of the physical alteration of wetlands hydrology and hydrophytic vegetation” (USACE Regulatory Guidance Letter 90-07). The extensive and permanent Sacramento River levee system has created a “normal circumstance” within and adjacent to the Project area, that includes the permanent removal of the historical hydrology of the area, resulting in highly productive dry land and irrigated agricultural fields. The productivity of the rice fields within the project area is dependent upon the application of water delivered via an intricate network of canals and irrigation ditches, supplied primarily through irrigation districts. Hence, the rice fields should not be considered jurisdictional since they have been created in and are artificially maintained in what are now uplands.

3. Soils Information

Hydric soils were determined to be present within the site, based on Natural Resources Conservation Services (NRCS) soil maps and GCI field assessment; however criteria utilized for the determination, such as presence of concretions, high organic streaking within the sandy soil layers, low-chroma color, and reducing conditions would all be present due to the annual flooding of the site for rice production for more than 100 years. Additionally, Tugel states that “where artificially drained, the soil retains [morphological] features even though the water table may be lowered or may be high for a shorter period.” This point is reiterated in the *SPK Regulatory Branch Memorandum 2003-04, Subject: Irrigated Wetlands*, which states “...Specifically, hydrophytic vegetation can be established and maintained solely by irrigation practices. Also, hydric soils usually develop over a long period of time, and can exhibit hydric soil indicators even if the hydrology has been removed by such activities as dams, diversions, ditches, and other modifications.” Although soils within the Project area were determined to contain hydric indicators, these conditions are the result of season long inundation of the fields through the application of irrigation water.

5. Water Delivery Information

Rice fields are actively managed through normal farming activities, including the bi-annual application of water, which mimics seasonal flooding. The fields are flooded shortly after planting in the early spring and remain flooded throughout most of the summer growing season. The elevation of the fields is above the ordinary high water mark (OHWM) of adjacent canals and irrigation ditches, so water must be pumped onto the fields or to a location from which it can be gravity fed onto the fields. Vegetation of the site is primarily dominated by *Oryza sativa*, *Epilobium sp.*, *Cyperus eragrostis*, *Polygonum hydropiper* and *Typha sp.*, as well as, various annual grasses and forbs. This vegetation is characteristic of rice fields, due to the irrigation regime, specifically the frequency and duration of these man-induced flooding events.

Most rice fields are additionally “flooded-up” in the late fall for overwintering waterfowl. However, this practice has only begun occurring more recently as a result of stricter air

quality standards and a collaborative effort between the State agencies, private landowners and waterfowl hunting enthusiasts. Aerial photos of the Project site and adjacent areas prior to this annual application of water in the winter show the fields as not maintaining surface hydrology (Terraserver.com).

Typically, rice fields in the Central Valley have been leveled with the use of lasers, to allow for fields to adequately drain when necessary to meet production cycles. This type of land preparation allows for the precise management of water levels, necessary for weed control and ideal rice growing conditions. From aerial photos of the site it is evident that the fields within the Project area have been “laser-leveled” rather than contour farmed, allowing for water to be placed on and be drained off the fields (Terraserver.com).

6. Weather Information

The project area is located within the Northern Central Valley of California. California’s Central Valley is characterized by a Mediterranean climate, with cool, rainy winters and hot, dry summers. Summers in California’s Central Valley can go from 2-5 months without any significant amount of rainfall. The average annual temperature for the project area ranges from 51-75°F, with the hottest temperatures occurring in July, reaching on average a maximum of 94°F (weather.com, 2008). The average yearly rainfall totals for the area is approximately 19.37 inches, with the maximum annual precipitation occurring in January (weather.com, 2008). Due to the consecutive months lacking rain during the summer, water features and wetlands in the Central Valley tend to dry down significantly or completely. The rice fields in the project area, however, are artificially flooded during the summer months, when under normal conditions, the area would be dry during the summer.

III. Prior Converted Wetlands

Rice fields within the Central Valley are a unique situation that fit under both irrigated wetland and prior converted (PC) cropland. The rice fields within the Project area meet the requirements to be considered PC cropland in that they have been previously modified to an extent which removed any natural hydrology that may have existed on-site. Prior converted croplands are defined by the NRCS, formerly Soil Conservation Service (SCS), as “wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values (Section 512.15 of the National Food Security Act Manual, SCS August 1988). Specifically, PC cropland is inundated for no more than 14 consecutive days during the growing season” (USACE, 1990). Though the rice fields in question are artificially flooded for more than 14 consecutive days, there is no natural hydrology to allow the land to return to its natural state. The NRCS has clarified this situation by stating that if it is “[concluded] that drainage was adequate to remove the wetland hydrology, the site can be considered PC” (NRCS, 2006). As stated above, the natural hydrology of the area has been permanently altered due to the extensive levee system and the continued

management of the agricultural land, including the current laser-leveling technology. Specifically, the rice fields are managed and designed to be drained and flooded on demand through a maze of irrigation ditches. These changes and management practices of the rice fields have clearly removed the natural wetland hydrology from the area. Although it is indeterminate as to the upland/wetland status of the fields within the Project area prior to 1850, they have been in continual agricultural production since the late 1800's, which is when the first levee was built in the Sacramento area. Subpart (8) of 33 CFR 328.3 (a), which provides the definition of "waters of the United States", indicates that "waters of the United States do not include prior converted cropland".

IV. Conclusions

In summary, it is our finding that the rice fields within the Project area, while demonstrating some indication of positive wetland parameters, are maintained by the application of irrigation water. Further, through analysis of historical data, past and present management activities, and current regional conditions the "normal circumstances" of the Project site and surrounding area, following the building of the Sacramento River levee system, is that of upland. According to item 7.c. of the above referenced "irrigated wetlands" memo, "If there are positive indicators for soils and vegetation, but the relative contribution of irrigation versus natural hydrology in maintaining these conditions cannot be precisely determined, then consideration must be given as to whether the current condition reflects the "normal circumstances" of the area.

Additionally, provided that the rice fields within the Project site contained historic wetlands prior to the installment of the levee system, they meet the criteria of PC cropland. Although this status is designated through NRCS, a defined set of criteria exists for the designation, and the rice fields in questions meet those criteria. As stated above, PC cropland is not included under those areas defined as waters of the U.S.

This addendum was provided to present additional information related to the jurisdictional status of rice fields within the Project area. While not an exhaustive discourse, it provides applicable evidence and justification as to the non-jurisdictional status of these fields based on our understanding of the available USACE policy.

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