

Table I.2-1. USACE Verified Wetland Delineations used to Estimate Density of Vernal Pools and Other Seasonal Wetlands in Grassland Land Cover Types

Site No.	Delineation Site Name Grassland Cover Type	Total Project Acreage	Total Wetlands Acres	Acres by Cover Type	Wetland Acres by Cover Type	Wetland Percentage by Cover Type	Wetland Calculation Method	Percent Vernal Pool	Acres Vernal Pool	Comments
1	<b>Schmidbauer Far East</b>	103.8	11.3							Grassland features are Little Chico Creek and associated features as well as some seasonal wetlands and marsh. Wetlands were not itemized so acreage was based on an estimate of breakdown.
	Grassland <sup>1</sup>			33.90	9.60	28.32	Estimate	0.00	0.00	
	Grassland with Vernal Swale Complex			67.90	1.70	2.50	Estimate	40.00	0.68	
2	<b>Schmidbauer West</b>	97.7	3.1							Half of grassland wetlands are stream/swale associated; some vernal pools and seasonal wetlands. Grassland with vernal swale complex has all types.
	Grassland <sup>1</sup>			29.00	0.78	2.69	Estimate	10	0.08	
	Grassland with Vernal Swale Complex			59.80	2.30	3.85	Estimate	40.00	0.92	
3	<b>Chico Airport</b>	1562.4	38.5							Airport associated areas account for missing 10% of acreage. Most of grassland wetlands are from Mud creek. Both grassland and GVS include all types.
	Grassland <sup>1</sup>			1317.40	7.70	0.58	Estimate	5.00	0.39	
	Grassland with Vernal Swale Complex			1598.70	26.95	1.69	Estimate	30.00	8.09	
4	<b>Schmidbauer East</b>	164.4	4.7							Majority of grassland wetlands are in swales/stream corridors. Some vernal pools in grassland, but nearly entire delineation is grassland with vernal swale complex.
	Grassland <sup>1</sup>			13.00	0.85	6.54	GIS	5.00	0.04	
	Grassland with Vernal Swale Complex			151.40	10.45	6.90	GIS	20.00	2.09	
5	<b>Oro Bay</b>	420	5.2							Grassland includes creek (no blueline) and pond. Site is evenly split between grassland and grassland with vernal swale complex. Wetlands are nearly evenly split between the two land cover types as well. More vernal pools in grasslands.
	Grassland <sup>1</sup>			204.70	2.60	1.27	GIS	25.00	0.65	
	Grassland with Vernal Swale Complex			211.50	2.60	1.23	GIS	10.00	0.26	
6	<b>Bidwell Ranch</b>	748.2	62.7							Grassland features are mostly "ephemeral creeks." A few other wetlands associated with grassland but bulk of wetlands are in grassland with vernal swale complex.
	Grassland <sup>1</sup>			651.40	9.40	1.44	Estimate	0.00	0.00	
	Grassland with Vernal Swale Complex			871.00	53.30	6.12	Estimate	5.00	2.67	
7	<b>Camelot Equestrian Park</b>	47	1							Small site. All wetlands in grasslands.
	Grassland <sup>1</sup>			27.76	1.00	3.60	GIS	97.00	0.97	
9	<b>Gateway at Butte Creek</b>	207	0.8							Site is grassland and cottonwood willow riparian. Nearly all wetlands in cottonwood willow riparian areas.
	Cottonwood Willow Riparian Forest			115.48	0.01	0.01	GIS	0.00	0.00	
	Grassland <sup>1</sup>			92.10	0.00	0.00	GIS	0.00	0.00	
10	<b>Hicks Lane</b>	11.4	0.9							Site is all grassland with vernal swale complex.
	Grassland with Vernal Swale Complex			11.44	0.93	8.13	GIS	5.00	0.05	
11	<b>Highway 32 Widening</b>	66.2	1.4							Wetlands are all from another delineation. Individual values for features are not available and there is no total value. Calculations were made by digitizing many of the features by hand.
	Grassland			40.20	1.25	3.10	GIS			
	Grassland with Vernal Swale Complex			19.26	0.39	2.05	GIS			
12	<b>Myers</b>	7.2	0.9							All grassland features are "seasonal wetlands"/channel feature. All vernal pools and remnant vernal swales are in grassland with vernal swale complex.
	Grassland <sup>1</sup>			4.61	0.87	18.87	Estimate	0.00	0.00	
	Grassland with Vernal Swale Complex			2.56	0.03	1.17	Estimate	60.00	0.02	
13	<b>Oak Valley</b>	335.6	6.1							All grassland features "ephemeral drainage."
	Grassland <sup>1</sup>			94.13	1.62	1.72	GIS	0.00	0.00	
	Grassland with Vernal Swale Complex			35.84	1.17	3.26	GIS	3.00	0.04	
14	<b>Oro Airport business park</b>	188.8	3.8							Unaccounted for acreage is in "urban" vegetation type.
	Grassland			27.16	0.39	1.42	GIS	50.00	0.19	

**Table I.2-1. USACE Verified Wetland Delineations used to Estimate Density of Vernal Pools and Other Seasonal Wetlands in Grassland Land Cover Types (continued)**

Site No.	Delineation Site Name Grassland Cover Type	Total Project Acreage	Total Wetlands Acres	Acres by Cover Type	Wetland Acres by Cover Type	Wetland Percentage by Cover Type	Wetland Calculation Method	Percent Vernal Pool	Acres Vernal Pool	Comments
<b>15</b>	<b>Palermo 690</b>	669.1	52.8							Dredger tailings wetlands are associated with stream corridor.
	Dredger Tailings with Riparian Forest/Scrub			34.90	7.90	22.64	Estimate			
	Grassland <sup>1</sup>			233.80	2.64	1.13	Estimate	40.00	1.06	
	Grassland with Vernal Swale Complex			361.80	42.20	11.66	Estimate	45.00	18.99	
<b>16</b>	<b>Porter Ranch</b>	692.4	39.8							Irrigated cropland mostly one large fresh emergent wetland feature.
	Grassland <sup>1</sup>			403.00	5.97	1.48	Estimate	20.00	1.19	
	Grassland with Vernal Swale Complex			113.60	21.90	19.28	Estimate	15.00	3.29	
	Irrigated Cropland			114.00	9.95	8.73	Estimate			
	Irrigated Pasture			32.90	0.00	0.00	Estimate			
<b>17</b>	<b>Power House Aggregate Expansion</b>	490.7	8.5							
	Grassland <sup>1</sup>			170.47	0.87	0.51	GIS	0.00	0.00	
	Irrigated Cropland			21.56	0.01	0.04	GIS			
<b>18</b>	<b>Richter</b>	273.9	266.5							
	Rice			267.72	13.45	5.02	GIS			
<b>19</b>	<b>Eagle Creek</b>	7549.8	11.6							Only small portion of property delineated. Area of delineation looks good.
	Grassland <sup>1</sup>			241.39	1.90	0.79	GIS	0.00	0.00	
	Grassland with Vernal Swale Complex			317.10	9.69	3.06	GIS	50.00	4.85	
<b>20</b>	<b>Schuster (Honey Run)</b>	1441.6	10.7							Grasslands include ephemeral stream corridor.
	Grassland <sup>1</sup>			509.10	4.17	0.82	GIS	5.00	0.21	
	Grassland with Vernal Swale Complex			100.10	1.76	1.76	GIS	50.00	0.88	
<b>21</b>	<b>Foothill Park and Adjacent Lands</b>	347	16							Project is now mapped as "developed" so grassland and grassland with vernal swale complex percentages could not be calculated.
	<b>Grand Total</b>			8601.67	258.29	3.00				

<sup>1</sup> Includes both stream associated and non-stream associated grasslands. These two types were separated to calculate two different densities of associated seasonal wetlands. See methods described in Section 3.4.5.1 Vernal Pools and Other Seasonal Wetlands

Table I.2-2 Data and Statistics for Seasonal Wetlands in Different Land Cover Types

Grassland			
Delineation Site	Land Cover (acres)	Wetland (acres)	Percent Wetland
Camelot	27.76	1.00	<b>3.60</b>
Gateway	92.10	0.00	<b>0.00</b>
Oro Airport	27.16	0.39	<b>1.42</b>
Chico airport	1,317.40	7.70	<b>0.58</b>
Palermo	233.80	2.64	<b>1.13</b>
Porter Rancho	403.00	5.97	<b>1.48</b>
Power House	170.47	0.87	<b>0.51</b>
Highway 32 Widening	40.20	1.25	<b>3.10</b>
Eagle Creek	241.39	1.90	<b>0.79</b>
Oro Bay	204.70	2.60	<b>1.27</b>
<b>Total</b>	<b>2,757.98</b>	<b>24.31</b>	<b>0.88</b>
<i>Statistics</i>			
Mean	275.80	2.43	1.39
Median	187.59	1.57	1.20
Standard Deviation	384.82	2.51	1.14
Sample Variance	148,089.80	6.29	1.29
Count	10	10	10

Grassland with Vernal Swale Complex			
Delineation Site	Land Cover (acres)	Wetland (acres)	Percent Wetland
Schmid Far East	67.90	1.70	<b>2.50</b>
Schmid West	59.80	2.30	<b>3.85</b>
Chico Airport	1,598.70	26.95	<b>1.69</b>
Schmid East	151.40	10.45	<b>6.90</b>
Bidwell	871.00	53.30	<b>6.12</b>
Hicks	11.44	0.93	<b>8.13</b>
Myers	2.56	0.03	<b>1.17</b>
Oak Valley	35.84	1.17	<b>3.26</b>
Palermo	361.80	42.20	<b>11.66</b>
Porter Ranch	113.60	21.90	<b>19.28</b>
Highway 32 Widening	19.26	0.39	<b>2.05</b>
Eagle Creek	317.10	9.69	<b>3.06</b>
Oro Bay	211.50	2.60	<b>1.23</b>
<b>Total</b>	<b>3,821.89</b>	<b>173.62</b>	<b>4.54</b>
<i>Statistics</i>			
Mean	293.99	13.36	5.45
Median	113.60	2.60	3.26
Standard Deviation	457.61	17.63	5.19
Sample Variance	209,405.56	310.79	26.93
Count	13	13	13

Stream Corridor in Grasslands			
Delineation Site	Land Cover (acres)	Wetland (acres)	Percent Wetland
Mud Creek	15.80	5.00	31.65
Airport trib 1	19.08	2.65	13.89
Airport trib 2	16.06	11.56	71.98
Bidwell Trib 1	47.00	7.00	14.89
Dead Horse Slough	22.67	1.60	7.06
Schmid Trib 1	9.49	0.80	8.43
Schmid Trib 2	27.11	16.08	59.30
Comanche Creek	3.94	0.10	2.54
Eagle Trib 2	11.55	1.78	15.41
Eagle Trib 3	16.20	0.00	0.00
Palermo Trib	25.30	1.65	6.52
Porter Ranch Trib 1	22.80	8.50	37.28
Porter Ranch Trib 2	21.95	2.70	12.30
<b>Total</b>	<b>258.95</b>	<b>59.42</b>	<b>22.94</b>
<i>Statistics</i>			
Mean	19.92	4.57	21.63
Median	19.08	2.65	13.89
Standard Deviation	10.47	4.92	22.32
Sample Variance	109.55	24.18	498.11
Count	13	13	13