



August 23, 2010

Mr. Iain Fisher  
CEQA Project Manager  
Energy Division  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102-3296

**Re: Tule Wind Project - Response to Data Request No. 12**

Dear Mr. Fisher:

Pacific Wind Development, Inc., a wholly owned subsidiary of Iberdrola Renewables, Inc. (IBR) received your Data Request No. 12 regarding the Tule Wind Project. Enclosed is IBR's response.

If you have questions regarding this information, please contact me at 503-796-7781 or Patrick O'Neill at 858-712-8313.

Sincerely,

Jeffrey Durocher  
Wind Permitting Manager

cc (via e-mail): Greg Thomsen, BLM (GThomsen@blm.gov)  
Thomas Zale, BLM (Thomas\_Zale@blm.gov)  
Jeffery Childers, BLM (jchilders@blm.gov)  
Rica Nitka, Dudek (rmitka@dudek.com)  
Patrick O'Neill, HDR Engineering (Patrick.oneill@hdrinc.com)

### **Biological Resources**

1. Please provide biological impact acreages by jurisdiction (i.e., land ownership, for example: BLM, State, Tribal, Private) for permanent and temporary impacts to vegetation communities, jurisdictional resources, and species points.

**Response:** The biological impact acreages by jurisdiction for permanent and temporary impacts to land disturbances, vegetation communities, rare plant species points, and jurisdictional resources are listed in Tables 1 through 5.

**Table 1. Tule Wind Project Land Disturbance Acreages**

Project Component	Quantity	Area Disturbed per Feature	Disturbance Type	Proposed Project	Proposed Project with Deviant Substation	T-Line Alt. #1	T-Line Alt. # 1 with Deviant Substation	T-Line Alt #2 & Alternate O&M/ Substation	O&M Facility #1 (T-Line #2)	O&M Facility #2 (T-Line #2)	T-Line Alt. # 3
Turbine	134	400-foot diameter	Perm	386.57	386.57	386.57	386.57	386.57	386.57	386.57	386.57
Transmission Line	1	24-foot width	Temp	26.37	28.33	32.16	34.12	11.08	11.08	11.08	15.63
Transmission Line Poles	44	50 feet x 150	Temp	18.26	19.71	24.51	25.88	7.34	7.34	7.34	10.04
Transmission Line Poles	44	8-foot diameter	Perm	0.12	0.13	0.17	0.18	0.05	0.05	0.05	0.07
Overhead Collector Line	1	24-foot width	Temp	25.12	27.36	25.12	27.36	49.41	49.41	49.41	49.41
Collector Poles	452	2-foot diameter	Perm	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
Underground Collector Line	1	24-foot width	Temp	83.09	84.17	83.09	84.17	82.98	82.98	82.98	82.98
New Roads		36 feet (44 on County)	Temp	60.43	61.23	60.43	61.23	60.43	60.68	60.43	60.43
New Roads		20 feet (28 on County)	Perm	91.00	92.00	91.00	92.00	91.00	91.30	91.00	91.00
Improvements to Existing Roads		16-20 feet	Temp	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
Improvements to Existing Roads		20 feet (28 on County)	Perm	74.10	74.10	74.10	74.10	74.10	74.10	74.10	74.10
Substation	1	5 acres	Perm	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
O&M Facility	1	5 acres	Perm	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Parking Lot	1	10 acres	Temp	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Batch Plant	1	5 acres	Temp	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Staging Area (Laydown Areas)	19	2 acres	Temp	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00
Met Tower	2	700 sf	Temp	0.032 (1,400 sf)	0.032 (1,400 sf)	0.032 (1,400 sf)	0.032 (1,400 sf)	0.032 (1,400 sf)	0.032 (1,400 sf)	0.032 (1,400 sf)	0.032 (1,400 sf)
Met Tower	2	900 sf	Perm	0.041 (1,800 sf)	0.041 (1,800 sf)	0.041 (1,800 sf)	0.041 (1,800 sf)	0.041 (1,800 sf)	0.041 (1,800 sf)	0.041 (1,800 sf)	0.041 (1,800 sf)
SODAR	1	700 sf	Temp	0.016 (700 sf)	0.016 (700 sf)	0.016 (700 sf)	0.016 (700 sf)	0.016 (700 sf)	0.016 (700 sf)	0.016 (700 sf)	0.016 (700 sf)
SODAR	1	900 sf	Perm	0.021 (900 sf)	0.021 (900 sf)	0.021 (900 sf)	0.021 (900 sf)	0.021 (900 sf)	0.021 (900 sf)	0.021 (900 sf)	0.021 (900 sf)
<b>TOTALS</b>	<b>Acres Disturbed (Temporary)</b>			<b>223.6</b>	<b>229.9</b>	<b>238.6</b>	<b>244.7</b>	<b>233.3</b>	<b>233.5</b>	<b>233.3</b>	<b>238.7</b>
	<b>Acres Disturbed (Permanent)</b>			<b>541.7</b>	<b>542.7</b>	<b>541.8</b>	<b>542.8</b>	<b>541.3</b>	<b>541.7</b>	<b>541.4</b>	<b>541.3</b>
	<b>TOTAL DISTURBED AREA</b>			<b>765.3</b>	<b>772.7</b>	<b>780.3</b>	<b>787.4</b>	<b>774.6</b>	<b>775.2</b>	<b>774.7</b>	<b>780.0</b>
<b>Project Component Construction Footprint Impacts</b>		<b>BLM</b>	<b>Tribal</b>	<b>State</b>		<b>Private</b>		<b>Total</b>			
Temporary impacts		186.2	16.2	9.1		18.4		229.9			
Permanent impacts		364.2	73.7	30.1		74.9		542.9			
<b>Construction Footprint Totals</b>		<b>550.4</b>	<b>89.9</b>	<b>39.2</b>		<b>93.3</b>		<b>772.8</b>			

**Table 2. Impacts to Vegetation Communities by Jurisdiction**

<b>Alternative, Impact, Veg Type</b>	<b>BLM Lands</b>	<b>County of San Diego</b>	<b>Indian Reservation</b>	<b>State of California</b>	<b>Grand Total</b>
<b>ALT 1 PERMANENT IMPACTS</b>					
Big Sagebrush Scrub	0.34	1.97	0.05	0.10	2.46
Chamise Chaparral	16.24	0.68	1.82	3.86	22.61
Dense Coast Live Oak Woodland		0.00			0.00
Developed	0.02	3.88			3.89
Disturbed Habitat	28.09	14.75		1.61	44.44
Field Pasture/Agriculture		1.15			1.15
Landscaped		0.00			0.00
Montane Buckwheat Scrub	1.40	2.87	0.06	0.03	4.36
Non Native Grass	0.00	2.34			2.34
Northern Mixed Chaparral	44.34		31.68	17.41	93.42
Open Coast Live Oak Woodland	0.33	0.79			1.12
Redshank Chaparral	5.03	0.29			5.32
Scrub Oak Chaparral	44.61	10.22	10.31	0.53	65.67
Semi Desert Chaparral	144.16	14.86		0.09	159.11
Southern North Slope Chaparral	5.39	0.48			5.88
Southern Willow Scrub		0.00			0.00
Un-Vegetated Channel	0.44	0.03			0.47
Upper Sonoran Manzanita Chaparral	29.61		9.36	4.06	43.04
Upper Sonoran Subshrub Scrub	42.96	19.01		0.45	62.43
Not Surveyed	0.33	1.64	20.49	1.98	24.44
<b>Alt 1 Permanent Impact Totals</b>	<b>363.30</b>	<b>74.95</b>	<b>73.76</b>	<b>30.12</b>	<b>542.14</b>
<b>ALT 1 TEMPORARY IMPACTS</b>					
Big Sagebrush Scrub	4.40	2.65	1.19	0.00	8.24
Chamise Chaparral	12.53	1.14	0.33	0.78	14.78
Dense Coast Live Oak Woodland	0.39	1.09			1.48
Developed	0.01	2.04			2.05
Disturbed Habitat	6.97	2.43		0.13	9.54
Field Pasture/Agriculture		1.59			1.59
Landscaped		0.33			0.33
Montane Buckwheat Scrub	5.02	2.57	0.08	0.00	7.67
Non Native Grass	0.07	0.47			0.54
Northern Mixed Chaparral	10.41		5.65	4.92	20.98
Open Coast Live Oak Woodland	0.29	1.08			1.37
Redshank Chaparral	5.59	0.64			6.23
Scrub Oak Chaparral	20.61	3.11	6.20	0.33	30.26
Semi Desert Chaparral	77.35	4.34			81.69
Southern North Slope Chaparral	2.02	0.24			2.27
Southern Willow Scrub		0.18			0.18
Un-Vegetated Channel	0.09	0.01			0.10

<b>Alternative, Impact, Veg Type</b>	<b>BLM Lands</b>	<b>County of San Diego</b>	<b>Indian Reservation</b>	<b>State of California</b>	<b>Grand Total</b>
Upper Sonoran Manzanita Chaparral	5.95		2.71	1.61	10.28
Upper Sonoran Subshrub Scrub	32.86	3.70		0.24	36.80
Not Surveyed		2.27			2.27
<b>Alt 1 Temporary Impact Totals</b>	<b>184.58</b>	<b>29.88</b>	<b>16.17</b>	<b>8.02</b>	<b>238.65</b>
<b>Alt1 Temporary and Permanent Impact Totals</b>	<b>547.87</b>	<b>104.84</b>	<b>89.93</b>	<b>38.15</b>	<b>780.79</b>
<b>ALT 2 PERMANENT IMPACTS</b>					
Big Sagebrush Scrub	0.33	1.98	0.05	0.10	2.46
Chamise Chaparral	16.24	0.68	1.82	3.86	22.60
Dense Coast Live Oak Woodland	0.00				0.00
Developed	0.02	3.87			3.89
Disturbed Habitat	28.09	14.74		1.61	44.43
Field Pasture/Agriculture		1.14		0.00	1.15
Montane Buckwheat Scrub	1.40	12.12	0.06	0.03	13.60
Non Native Grass	0.00	2.34		0.00	2.35
Northern Mixed Chaparral	44.34		31.68	17.41	93.42
Open Coast Live Oak Woodland	0.33	0.79			1.12
Redshank Chaparral	5.02	0.29			5.31
Scrub Oak Chaparral	44.60	10.22	10.31	0.53	65.66
Semi Desert Chaparral	134.56	15.02		0.09	149.67
Southern North Slope Chaparral	5.39	0.48			5.88
Un-Vegetated Channel	0.02	0.03			0.05
Upper Sonoran Manzanita Chaparral	29.61		9.36	4.06	43.04
Upper Sonoran Subshrub Scrub	42.93	19.25		0.45	62.64
Not Surveyed	0.33	1.63	20.49	1.98	24.43
<b>Alt 2 Permanent Impact Totals</b>	<b>353.22</b>	<b>84.58</b>	<b>73.76</b>	<b>30.13</b>	<b>541.69</b>
<b>ALT 2 TEMPORARY IMPACTS</b>					
Big Sagebrush Scrub	4.37	1.77	1.19	0.00	7.33
Chamise Chaparral	12.29	0.11	0.33	0.78	13.51
Dense Coast Live Oak Woodland	0.53				0.53
Developed	0.04	0.51			0.55
Disturbed Habitat	7.09	0.83		0.18	8.09
Field Pasture/Agriculture	0.03	0.95		0.67	1.65
Montane Buckwheat Scrub	5.09	2.88	0.08	0.11	8.15
Non Native Grass	0.07	2.54		0.22	2.83
Northern Mixed Chaparral	10.41		5.65	4.92	20.98
Open Coast Live Oak Woodland	0.29	0.76			1.06
Redshank Chaparral	3.46	0.08			3.54
Scrub Oak Chaparral	18.73	3.21	6.20	0.33	28.47
Semi Desert Chaparral	80.70	3.81		0.07	84.59
Southern North Slope Chaparral	3.48	0.24			3.72

<b>Alternative, Impact, Veg Type</b>	<b>BLM Lands</b>	<b>County of San Diego</b>	<b>Indian Reservation</b>	<b>State of California</b>	<b>Grand Total</b>
Southern Willow Scrub		0.07			0.07
Un-Vegetated Channel	0.13				0.13
Upper Sonoran Manzanita Chaparral	5.95		2.71	1.61	10.28
Upper Sonoran Subshrub Scrub	34.75	2.88		0.24	37.87
<b>Alt 2 Temporary Impact Totals</b>	<b>187.41</b>	<b>20.64</b>	<b>16.17</b>	<b>9.14</b>	<b>233.35</b>
<b>Alt2a Permanent and Temporary Impact Totals</b>	<b>540.63</b>	<b>105.22</b>	<b>89.93</b>	<b>39.27</b>	<b>775.04</b>
<b>ALT 2B PERMANENT IMPACTS</b>					
Big Sagebrush Scrub	0.33	5.03	0.05	0.10	5.51
Chamise Chaparral	16.24	0.68	1.82	3.86	22.60
Dense Coast Live Oak Woodland	0.00				0.00
Developed	0.02	3.87			3.89
Disturbed Habitat	28.09	16.61		1.61	46.30
Field Pasture/Agriculture		1.14		0.00	1.15
Montane Buckwheat Scrub	1.40	7.52	0.06	0.03	9.00
Non Native Grass	0.00	2.55		0.00	2.55
Northern Mixed Chaparral	44.34		31.68	17.41	93.42
Open Coast Live Oak Woodland	0.33	0.79			1.12
Redshank Chaparral	5.21	0.29			5.50
Scrub Oak Chaparral	44.60	10.22	10.31	0.53	65.66
Semi Desert Chaparral	134.56	14.86		0.09	149.51
Southern North Slope Chaparral	5.39	0.48			5.88
Un-Vegetated Channel	0.02	0.06			0.08
Upper Sonoran Manzanita Chaparral	29.61		9.36	4.06	43.04
Upper Sonoran Subshrub Scrub	42.93	19.01		0.45	62.40
Not Surveyed	0.33	1.63	20.49	1.98	24.43
<b>Permanent Impacts Totals</b>	<b>353.41</b>	<b>84.73</b>	<b>73.76</b>	<b>30.13</b>	<b>542.04</b>
<b>ALT 2B TEMPORARY IMPACTS</b>					
Big Sagebrush Scrub	4.37	1.85	1.19	0.00	7.41
Chamise Chaparral	12.29	0.11	0.33	0.78	13.51
Dense Coast Live Oak Woodland	0.53				0.53
Developed	0.04	0.51			0.55
Disturbed Habitat	7.08	0.83		0.18	8.09
Field Pasture/Agriculture	0.03	0.95		0.67	1.65
Montane Buckwheat Scrub	5.09	2.88	0.08	0.11	8.15
Non Native Grass	0.07	2.54		0.22	2.83
Northern Mixed Chaparral	10.41		5.65	4.92	20.98
Open Coast Live Oak Woodland	0.29	0.76			1.06
Redshank Chaparral	3.61	0.08			3.69
Scrub Oak Chaparral	18.73	3.21	6.20	0.33	28.47
Semi Desert Chaparral	80.70	3.81		0.07	84.59

<b>Alternative, Impact, Veg Type</b>	<b>BLM Lands</b>	<b>County of San Diego</b>	<b>Indian Reservation</b>	<b>State of California</b>	<b>Grand Total</b>
Southern North Slope Chaparral	3.48	0.24			3.72
Southern Willow Scrub		0.07			0.07
Un-Vegetated Channel	0.13	0.01			0.14
Upper Sonoran Manzanita Chaparral	5.95		2.71	1.61	10.28
Upper Sonoran Subshrub Scrub	34.75	2.88		0.24	37.87
<b>Temporary Impact Totals</b>	<b>187.56</b>	<b>20.73</b>	<b>16.17</b>	<b>9.14</b>	<b>233.59</b>
<b>Alt2b Permanent and Temporary Impacts</b>	<b>540.96</b>	<b>105.46</b>	<b>89.93</b>	<b>39.27</b>	<b>775.62</b>
<b>ALT 2C PERMANENT IMPACTS</b>					
Big Sagebrush Scrub	0.33	1.98	0.05	0.21	2.57
Chamise Chaparral	16.24	0.68	1.82	3.86	22.60
Dense Coast Live Oak Woodland	0.00				0.00
Developed	0.02	3.88			3.90
Disturbed Habitat	28.09	15.11		1.61	44.81
Field Pasture/Agriculture		1.14		0.00	1.15
Montane Buckwheat Scrub	1.40	11.44	0.06	0.00	12.90
Non Native Grass	0.00	2.35		0.03	2.39
Northern Mixed Chaparral	44.34		31.68	17.41	93.42
Open Coast Live Oak Woodland	0.33	0.79			1.12
Redshank Chaparral	5.02	0.29			5.31
Scrub Oak Chaparral	44.60	10.22	10.31	0.53	65.66
Semi Desert Chaparral	134.56	15.59		0.18	150.33
Southern North Slope Chaparral	5.39	0.48			5.88
Un-Vegetated Channel	0.02	0.03			0.05
Upper Sonoran Manzanita Chaparral	29.61		9.36	4.06	43.04
Upper Sonoran Subshrub Scrub	42.93	19.01		0.45	62.40
Not Surveyed	0.33	1.62	20.49	1.80	24.25
<b>Alt 2c Permanent Impact Totals</b>	<b>353.22</b>	<b>84.61</b>	<b>73.76</b>	<b>30.16</b>	<b>541.76</b>
<b>ALT 2C TEMPORARY IMPACTS</b>					
Big Sagebrush Scrub	4.37	1.77	1.19	0.00	7.33
Chamise Chaparral	12.29	0.11	0.33	0.78	13.51
Dense Coast Live Oak Woodland	0.53				0.53
Developed	0.04	0.50			0.54
Disturbed Habitat	7.09	0.83		0.18	8.10
Field Pasture/Agriculture	0.03	0.95		0.67	1.65
Montane Buckwheat Scrub	5.09	2.88	0.08	0.11	8.15
Non Native Grass	0.07	2.54		0.22	2.83
Northern Mixed Chaparral	10.41		5.65	4.92	20.98
Open Coast Live Oak Woodland	0.29	0.76			1.06
Redshank Chaparral	3.46	0.08			3.54
Scrub Oak Chaparral	18.73	3.21	6.20	0.33	28.47

<b>Alternative, Impact, Veg Type</b>	<b>BLM Lands</b>	<b>County of San Diego</b>	<b>Indian Reservation</b>	<b>State of California</b>	<b>Grand Total</b>
Semi Desert Chaparral	80.70	3.81		0.07	84.59
Southern North Slope Chaparral	3.48	0.24			3.72
Southern Willow Scrub		0.07			0.07
Un-Vegetated Channel	0.13				0.13
Upper Sonoran Manzanita Chaparral	5.95		2.71	1.61	10.28
Upper Sonoran Subshrub Scrub	34.75	2.88		0.24	37.87
<b>Alt 2c Temporary Impacts Totals</b>	<b>187.41</b>	<b>20.63</b>	<b>16.17</b>	<b>9.14</b>	<b>233.34</b>
<b>Alt2c Permanent and Temporary Impacts</b>	<b>540.63</b>	<b>105.24</b>	<b>89.93</b>	<b>39.30</b>	<b>775.10</b>
<b>ALT 3 PERMANENT IMPACTS</b>					
Big Sagebrush Scrub	0.33	1.99	0.05	0.10	2.47
Chamise Chaparral	16.24	0.68	1.82	3.86	22.61
Dense Coast Live Oak Woodland	0.00	0.00			0.00
Developed	0.02	3.88			3.89
Disturbed Habitat	28.09	14.75		1.61	44.44
Field Pasture/Agriculture		1.15			1.15
Landscaped		0.00			0.00
Montane Buckwheat Scrub	1.40	12.12	0.06	0.03	13.61
Non Native Grass	0.00	2.34			2.34
Northern Mixed Chaparral	44.34		31.68	17.41	93.42
Open Coast Live Oak Woodland	0.33	0.79			1.12
Redshank Chaparral	5.02	0.29			5.31
Scrub Oak Chaparral	44.60	10.22	10.31	0.53	65.66
Semi Desert Chaparral	134.55	15.02		0.09	149.66
Southern North Slope Chaparral	5.39	0.48			5.88
Southern Willow Scrub		0.00			0.00
Un-Vegetated Channel	0.02	0.03			0.05
Upper Sonoran Manzanita Chaparral	29.61		9.36	4.06	43.04
Upper Sonoran Subshrub Scrub	42.94	19.25		0.45	62.64
Not Surveyed	0.33	1.64	20.49	1.98	24.44
<b>Alt 3 Permanent Impact Totals</b>	<b>353.21</b>	<b>84.62</b>	<b>73.76</b>	<b>30.12</b>	<b>541.71</b>
<b>ALT 3 TEMPORARY IMPACTS</b>					
Big Sagebrush Scrub	4.37	2.93	1.19	0.00	8.49
Chamise Chaparral	12.17	1.14	0.33	0.78	14.42
Dense Coast Live Oak Woodland	0.53	1.09			1.62
Developed	0.01	2.04			2.05
Disturbed Habitat	7.06	2.43		0.13	9.63
Field Pasture/Agriculture	0.03	1.86			1.89
Landscaped		0.33			0.33
Montane Buckwheat Scrub	4.84	2.99	0.08	0.00	7.92
Non Native Grass	0.07	0.47			0.54
Northern Mixed Chaparral	10.41		5.65	4.92	20.98



<b>Alternative, Impact, Veg Type</b>	<b>BLM Lands</b>	<b>County of San Diego</b>	<b>Indian Reservation</b>	<b>State of California</b>	<b>Grand Total</b>
Open Coast Live Oak Woodland	0.29	1.08			1.37
Redshank Chaparral	3.46	0.72			4.18
Scrub Oak Chaparral	18.69	3.11	6.20	0.33	28.34
Semi Desert Chaparral	76.90	4.45			81.35
Southern North Slope Chaparral	3.48	0.24			3.72
Southern Willow Scrub		0.18			0.18
Un-Vegetated Channel	0.13	0.01			0.14
Upper Sonoran Manzanita Chaparral	5.95		2.71	1.61	10.28
Upper Sonoran Subshrub Scrub	35.08	3.74		0.24	39.06
Not Surveyed		2.27			2.27
<b>Alt 3 Temporary Impact Totals</b>	<b>183.48</b>	<b>31.10</b>	<b>16.17</b>	<b>8.02</b>	<b>238.77</b>
<b>Alt3 Permanent and Temporary Impact Totals</b>	<b>536.69</b>	<b>115.71</b>	<b>89.93</b>	<b>38.15</b>	<b>780.48</b>
<b><i>DEVIANT A1 PERMANENT IMPACTS</i></b>					
Big Sagebrush Scrub	0.34	1.97	0.05	0.10	2.46
Chamise Chaparral	16.24	0.68	1.82	3.86	22.61
Dense Coast Live Oak Woodland		0.00			0.00
Developed	0.02	3.88			3.89
Disturbed Habitat	28.09	14.75		1.61	44.44
Field Pasture/Agriculture		1.15			1.15
Landscaped		0.00			0.00
Montane Buckwheat Scrub	1.40	2.87	0.06	0.03	4.36
Non Native Grass	0.00	2.34			2.34
Northern Mixed Chaparral	44.34		31.68	17.41	93.42
Open Coast Live Oak Woodland	0.33	0.79			1.12
Redshank Chaparral	5.04	0.29			5.32
Scrub Oak Chaparral	45.04	10.22	10.31	0.53	66.10
Semi Desert Chaparral	143.71	14.86		0.09	158.66
Southern North Slope Chaparral	5.39	0.48			5.88
Southern Willow Scrub		0.00			0.00
Un-Vegetated Channel	0.02	0.03			0.05
Upper Sonoran Manzanita Chaparral	30.80		9.36	4.06	44.22
Upper Sonoran Subshrub Scrub	43.23	19.01		0.45	62.69
Not Surveyed	0.33	1.64	20.49	1.98	24.44
<b>Deviant A1 Permanent Impact Totals</b>	<b>364.31</b>	<b>74.95</b>	<b>73.76</b>	<b>30.12</b>	<b>543.15</b>
<b><i>DEVIANT A1 TEMPORARY IMPACTS</i></b>					
Big Sagebrush Scrub	4.40	2.65	1.19	0.00	8.24
Chamise Chaparral	12.58	1.14	0.33	0.78	14.83
Dense Coast Live Oak Woodland	0.39	1.09			1.48
Developed	0.01	2.04			2.05
Disturbed Habitat	6.97	2.43		0.13	9.54
Field Pasture/Agriculture		1.59			1.59

<b>Alternative, Impact, Veg Type</b>	<b>BLM Lands</b>	<b>County of San Diego</b>	<b>Indian Reservation</b>	<b>State of California</b>	<b>Grand Total</b>
Landscaped		0.33			0.33
Montane Buckwheat Scrub	5.02	2.57	0.08	0.00	7.67
Non Native Grass	0.09	0.47			0.56
Northern Mixed Chaparral	10.41		5.65	4.92	20.98
Open Coast Live Oak Woodland	0.29	1.08			1.37
Redshank Chaparral	5.59	0.64			6.23
Scrub Oak Chaparral	20.65	3.11	6.20	0.33	30.30
Semi Desert Chaparral	82.70	4.34			87.05
Southern North Slope Chaparral	2.02	0.24			2.27
Southern Willow Scrub		0.18			0.18
Un-Vegetated Channel	0.07	0.01			0.08
Upper Sonoran Manzanita Chaparral	5.95		2.71	1.61	10.28
Upper Sonoran Subshrub Scrub	33.51	3.70		0.24	37.45
Not Surveyed	0.01	2.27			2.27
<b>Deviant A1 Temporary Impact Totals</b>	<b>190.67</b>	<b>29.88</b>	<b>16.17</b>	<b>8.02</b>	<b>244.74</b>
<b>Deviant A1 Permanent and Temporary Impacts Totals</b>	<b>554.98</b>	<b>104.84</b>	<b>89.93</b>	<b>38.15</b>	<b>787.89</b>
<b><i>PROPOSED DEVIANT PERMANENT IMPACTS</i></b>					
Big Sagebrush Scrub	0.34	1.97	0.05	0.10	2.45
Chamise Chaparral	16.24	0.68	1.82	3.86	22.60
Developed	0.02	3.87			3.89
Disturbed Habitat	28.09	14.74		1.61	44.43
Field Pasture/Agriculture		1.14		0.00	1.14
Montane Buckwheat Scrub	1.40	2.87	0.06	0.03	4.36
Non Native Grass	0.00	2.34		0.00	2.35
Northern Mixed Chaparral	44.34		31.68	17.41	93.42
Open Coast Live Oak Woodland	0.33	0.79			1.12
Redshank Chaparral	5.03	0.29			5.31
Scrub Oak Chaparral	45.03	10.22	10.31	0.53	66.10
Semi Desert Chaparral	143.73	14.86		0.09	158.68
Southern North Slope Chaparral	5.40	0.48			5.88
Un-Vegetated Channel	0.02	0.03			0.05
Upper Sonoran Manzanita Chaparral	30.80		9.36	4.06	44.22
Upper Sonoran Subshrub Scrub	43.22	19.01		0.45	62.69
Not Surveyed	0.33	1.63	20.49	1.98	24.43
<b>Proposed Deviant Permanent Impact Totals</b>	<b>364.30</b>	<b>74.92</b>	<b>73.76</b>	<b>30.13</b>	<b>543.11</b>
<b><i>PROPOSED DEVIANT TEMPORARY IMPACTS</i></b>					
Big Sagebrush Scrub	4.69	1.28	1.19	0.00	7.17
Chamise Chaparral	12.00	0.11	0.33	0.78	13.22
Dense Coast Live Oak Woodland	0.39				0.39
Developed	0.02	0.41			0.42

<b>Alternative, Impact, Veg Type</b>	<b>BLM Lands</b>	<b>County of San Diego</b>	<b>Indian Reservation</b>	<b>State of California</b>	<b>Grand Total</b>
Disturbed Habitat	6.85	0.82		0.18	7.85
Field Pasture/Agriculture		0.14		0.67	0.82
Montane Buckwheat Scrub	5.14	2.03	0.08	0.11	7.36
Non Native Grass	0.09	2.54		0.22	2.85
Northern Mixed Chaparral	10.41		5.65	4.92	20.98
Open Coast Live Oak Woodland	0.37	0.56			0.93
Redshank Chaparral	3.84	0.01			3.85
Scrub Oak Chaparral	18.87	3.21	6.20	0.33	28.61
Semi Desert Chaparral	84.47	3.82		0.07	88.36
Southern North Slope Chaparral	2.43	0.24			2.67
Southern Willow Scrub		0.07			0.07
Un-Vegetated Channel	0.07				0.07
Upper Sonoran Manzanita Chaparral	5.95		2.71	1.61	10.28
Upper Sonoran Subshrub Scrub	30.70	3.17		0.24	34.11
Not Surveyed	0.01				0.01
<b>Proposed Deviant Temporary Impact Totals</b>	<b>186.32</b>	<b>18.41</b>	<b>16.17</b>	<b>9.14</b>	<b>230.03</b>
<b>Proposed Deviant Permanent and Temporary Impact Totals</b>	<b>550.62</b>	<b>93.33</b>	<b>89.93</b>	<b>32.97</b>	<b>773.14</b>
<b>PROPOSED PROJECT PERMANENT IMPACTS</b>					
Big Sagebrush Scrub	0.34	1.97	0.05	0.10	2.45
Chamise Chaparral	16.24	0.68	1.82	3.86	22.60
Developed	0.02	3.87			3.89
Disturbed Habitat	28.09	14.74		1.61	44.43
Field Pasture/Agriculture		1.14		0.00	1.14
Montane Buckwheat Scrub	1.40	2.87	0.06	0.03	4.36
Non Native Grass	0.00	2.34		0.00	2.35
Northern Mixed Chaparral	44.34		31.68	17.41	93.42
Open Coast Live Oak Woodland	0.33	0.79			1.12
Redshank Chaparral	5.02	0.29			5.31
Scrub Oak Chaparral	44.61	10.22	10.31	0.53	65.67
Semi Desert Chaparral	144.17	14.86		0.09	159.12
Southern North Slope Chaparral	5.40	0.48			5.88
Un-Vegetated Channel	0.44	0.03			0.47
Upper Sonoran Manzanita Chaparral	29.61		9.36	4.06	43.04
Upper Sonoran Subshrub Scrub	42.96	19.01		0.45	62.42
Not Surveyed	0.33	1.63	20.49	1.98	24.43
<b>Proposed Project Permanent Impact Totals</b>	<b>363.29</b>	<b>74.92</b>	<b>73.76</b>	<b>30.13</b>	<b>542.10</b>
<b>PROPOSED PROJECT TEMPORARY IMPACTS</b>					
Big Sagebrush Scrub	4.69	1.28	1.19	0.00	7.17
Chamise Chaparral	11.95	0.11	0.33	0.78	13.17

<b>Alternative, Impact, Veg Type</b>	<b>BLM Lands</b>	<b>County of San Diego</b>	<b>Indian Reservation</b>	<b>State of California</b>	<b>Grand Total</b>
Dense Coast Live Oak Woodland	0.39				0.39
Developed	0.02	0.41			0.42
Disturbed Habitat	6.85	0.82		0.18	7.85
Field Pasture/Agriculture		0.14		0.67	0.82
Montane Buckwheat Scrub	5.14	2.03	0.08	0.11	7.36
Non Native Grass	0.07	2.54		0.22	2.83
Northern Mixed Chaparral	10.41		5.65	4.92	20.98
Open Coast Live Oak Woodland	0.37	0.56			0.93
Redshank Chaparral	3.85	0.01			3.86
Scrub Oak Chaparral	18.83	3.21	6.20	0.33	28.57
Semi Desert Chaparral	78.83	3.82		0.07	82.72
Southern North Slope Chaparral	2.43	0.24			2.67
Southern Willow Scrub		0.07			0.07
Un-Vegetated Channel	0.09				0.09
Upper Sonoran Manzanita Chaparral	5.95		2.71	1.61	10.28
Upper Sonoran Subshrub Scrub	30.05	3.17		0.24	33.46
<b>Proposed Project Temporary Impact Totals</b>	<b>179.94</b>	<b>18.41</b>	<b>16.17</b>	<b>9.14</b>	<b>223.65</b>
<b><i>Proposed Project Permanent and Temporary Impact Totals</i></b>	<b>543.23</b>	<b>93.33</b>	<b>89.93</b>	<b>39.27</b>	<b>765.75</b>

**Table 3. Numbers of Rare Plant Impact Totals and Jurisdiction**

Ownership	Sci_Name	Impact Alt1	Impact Alt2a	Alt2b	Alt2c	Alt3	Deviant_A1	Deviant P	Proposed
BLM Lands	Astragalus douglasii var. perstrictus	341	349	329	329	329	366	335	334
	Caulanthus simulans	12238	7358	7953	7953	7953	12266	7470	7803
	Delphinium parishii ssp. subglobosum	1092	1163	1163	1163	1163	1134	1123	3249
	Geraea viscida	683	701	847	693	690	684	631	654
	Hulsea californica	1552	1552	1552	1552	1552	1552	1552	1722
	Linanthus bellus	51496	50877	50637	50592	50372	59949	58312	50290
	Lupinus excubitus var. medius	88	88	88	88	88	92	91	95
	Mimulus palmeri	429	251	245	245	245	429	246	248
	Streptanthus campestris								10
<b>BLM Lands Total</b>		<b>67918</b>	<b>62339</b>	<b>62814</b>	<b>62615</b>	<b>62392</b>	<b>76472</b>	<b>69760</b>	<b>64415</b>
COUNTY OF SAN DIEGO	Astragalus douglasii var. perstrictus	111	261	391	244	162	111	157	177
	Caulanthus simulans	1218	1218	1218	1218	1218	1218	1218	1565
	Delphinium parishii ssp. subglobosum	70	70	70	70	70	70	70	74
	Geraea viscida	25	15	41	15	25	25	42	54
	Linanthus bellus	2750	2750	2750	2750	2750	2750	2750	2940
	Lupinus excubitus var. medius								3
<b>COUNTY OF SAN DIEGO Total</b>		<b>4174</b>	<b>4313</b>	<b>4470</b>	<b>4297</b>	<b>4225</b>	<b>4174</b>	<b>4237</b>	<b>4813</b>
Indian Reservation	Caulanthus simulans	1171	1171	1171	1171	1171	1171	1171	1194
	Delphinium parishii ssp. subglobosum								3
	Geraea viscida	31	31	31	31	31	31	31	31
	Heuchera brevistaminea								401
	Hulsea californica	4028	4028	4028	4028	4028	4028	4028	4258
	Streptanthus campestris	162	162	162	162	162	162	162	200
<b>Indian Reservation Total</b>		<b>5392</b>	<b>5392</b>	<b>5392</b>	<b>5392</b>	<b>5392</b>	<b>5392</b>	<b>5392</b>	<b>6087</b>
State of California	Astragalus douglasii var. perstrictus		4	4	4			4	
	Caulanthus simulans	413	413	413	413	413	413	413	46
	Delphinium parishii ssp. subglobosum	58	58	58	58	58	58	58	417
	Hulsea californica	366	366	366	366	366	366	366	115
	Streptanthus campestris								368
<b>State of California Total</b>		<b>837</b>	<b>841</b>	<b>841</b>	<b>841</b>	<b>837</b>	<b>837</b>	<b>841</b>	<b>946</b>
<b>GRAND TOTAL</b>		<b>78321</b>	<b>72885</b>	<b>73517</b>	<b>73145</b>	<b>72846</b>	<b>86875</b>	<b>80230</b>	<b>76251</b>

Table 4. Rare Plants Impacted Acres and Jurisdiction

Ownership	Sci_Name	Acres Alt1	Acres Alt2a	Acres Alt2b	Acres Alt2c	Acres Alt3	Acres Deviant A1	Acres Deviant P	Acres Proposed
BLM Lands	Astragalus douglasii var. perstrictus	3.34	2.85	2.85	2.85	2.85	3.38	2.86	2.82
	Caulanthus simulans	10.28	9.90	9.90	9.90	9.90	10.27	9.61	9.62
	Delphinium parishii ssp. subglobosum	3.48	3.60	3.60	3.60	3.60	3.62	3.62	3.48
	Geraea viscida	2.16	2.08	2.20	2.08	2.08	2.16	1.85	1.85
	Hulsea californica	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94
	Linanthus bellus	40.99	40.31	40.50	40.31	40.15	51.83	51.68	40.84
	Lupinus excubitus var. medius	0.39	0.39	0.39	0.39	0.39	0.39	0.40	0.40
	Mimulus palmeri	0.22	0.11	0.11	0.11	0.11	0.22	0.11	0.11
<b>BLM Lands Total</b>		<b>67.80</b>	<b>66.19</b>	<b>66.49</b>	<b>66.19</b>	<b>66.02</b>	<b>78.81</b>	<b>77.07</b>	<b>66.07</b>
COUNTY OF SAN DIEGO	Astragalus douglasii var. perstrictus	1.31	3.59	7.25	3.46	1.83	1.31	2.49	2.49
	Caulanthus simulans	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
	Delphinium parishii ssp. subglobosum	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
	Geraea viscida	0.09	0.04	0.06	0.04	0.09	0.09	0.09	0.09
	Linanthus bellus	3.60	3.60	3.60	3.60	3.60	3.60	3.60	3.60
<b>COUNTY OF SAN DIEGO Total</b>		<b>5.94</b>	<b>8.17</b>	<b>11.85</b>	<b>8.04</b>	<b>6.45</b>	<b>5.94</b>	<b>7.11</b>	<b>7.11</b>
Indian Reservation	Caulanthus simulans	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17
	Geraea viscida	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	Hulsea californica	11.46	11.46	11.46	11.46	11.46	11.46	11.46	11.46
	Streptanthus campestris	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
<b>Indian Reservation Total</b>		<b>15.97</b>	<b>15.97</b>	<b>15.97</b>	<b>15.97</b>	<b>15.97</b>	<b>15.97</b>	<b>15.97</b>	<b>15.97</b>
State of California	Astragalus douglasii var. perstrictus		0.05	0.05	0.05			0.05	0.05
	Caulanthus simulans	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
	Delphinium parishii ssp. subglobosum	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
	Hulsea californica	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
<b>State of California Total</b>		<b>2.03</b>	<b>2.08</b>	<b>2.08</b>	<b>2.08</b>	<b>2.03</b>	<b>2.03</b>	<b>2.08</b>	<b>2.08</b>
<b>GRAND TOTAL</b>		<b>91.74</b>	<b>92.41</b>	<b>96.39</b>	<b>92.28</b>	<b>90.42</b>	<b>102.75</b>	<b>102.23</b>	<b>91.23</b>

**Table 5. Waters Jurisdictional Areas**

<b>Impact</b>	<b>Ownership</b>	<b>CDFG</b>	<b>USACE</b>	<b>CDFG</b>	<b>USACE</b>	<b>CDFG</b>	<b>USACE</b>
<b>Alt1</b>	BLM Lands	0.249	0.140	0.409	0.164	0.658	0.305
	COUNTY OF SAN DIEGO	0.068	0.032	1.350	0.102	1.418	0.134
	Indian Reservation	0.040	0.013	0.053	0.013	0.094	0.025
	State of California	0.020	0.003	0.004	0.001	0.024	0.004
<b>Alt1 Total</b>		<b>0.378</b>	<b>0.188</b>	<b>1.816</b>	<b>0.280</b>	<b>2.194</b>	<b>0.468</b>
<b>Alt2a</b>	BLM Lands	0.250	0.140	0.540	0.260	0.790	0.401
	COUNTY OF SAN DIEGO	0.064	0.032	0.094	0.025	0.158	0.058
	Indian Reservation	0.040	0.013	0.053	0.013	0.094	0.025
	State of California	0.020	0.003	0.015	0.005	0.035	0.008
<b>Alt2a Total</b>		<b>0.374</b>	<b>0.188</b>	<b>0.703</b>	<b>0.304</b>	<b>1.077</b>	<b>0.492</b>
<b>Alt2b</b>	BLM Lands	0.253	0.141	0.542	0.261	0.795	0.402
	COUNTY OF SAN DIEGO	0.074	0.042	0.100	0.031	0.174	0.073
	Indian Reservation	0.040	0.013	0.053	0.013	0.094	0.025
	State of California	0.020	0.003	0.015	0.005	0.035	0.008
<b>Alt2b Total</b>		<b>0.387</b>	<b>0.199</b>	<b>0.711</b>	<b>0.310</b>	<b>1.097</b>	<b>0.508</b>
<b>Alt2c</b>	BLM Lands	0.250	0.140	0.540	0.260	0.790	0.401
	COUNTY OF SAN DIEGO	0.064	0.032	0.094	0.025	0.158	0.058
	Indian Reservation	0.040	0.013	0.053	0.013	0.094	0.025
	State of California	0.020	0.003	0.015	0.005	0.035	0.008
<b>Alt2c Total</b>		<b>0.374</b>	<b>0.188</b>	<b>0.703</b>	<b>0.304</b>	<b>1.077</b>	<b>0.492</b>
<b>Alt3</b>	BLM Lands	0.250	0.140	0.540	0.260	0.790	0.401
	COUNTY OF SAN DIEGO	0.068	0.032	1.350	0.102	1.418	0.134
	Indian Reservation	0.040	0.013	0.053	0.013	0.094	0.025
	State of California	0.020	0.003	0.004	0.001	0.024	0.004
<b>Alt3 Total</b>		<b>0.378</b>	<b>0.188</b>	<b>1.947</b>	<b>0.376</b>	<b>2.325</b>	<b>0.564</b>
<b>Deviant_A1</b>	BLM Lands	0.249	0.140	0.409	0.164	0.658	0.305
	COUNTY OF SAN DIEGO	0.068	0.032	1.350	0.102	1.418	0.134
	Indian Reservation	0.040	0.013	0.053	0.013	0.094	0.025
	State of California	0.020	0.003	0.004	0.001	0.024	0.004
<b>Deviant_A1 Total</b>		<b>0.378</b>	<b>0.188</b>	<b>1.816</b>	<b>0.280</b>	<b>2.194</b>	<b>0.468</b>
<b>Deviant_P</b>	BLM Lands	0.250	0.140	0.467	0.178	0.717	0.318
	COUNTY OF SAN DIEGO	0.064	0.032	0.077	0.024	0.141	0.056
	Indian Reservation	0.040	0.013	0.053	0.013	0.094	0.025
	State of California	0.020	0.003	0.015	0.005	0.035	0.008
<b>Deviant_P Total</b>		<b>0.374</b>	<b>0.188</b>	<b>0.613</b>	<b>0.219</b>	<b>0.987</b>	<b>0.408</b>
<b>Proposed</b>	BLM Lands	0.250	0.140	0.467	0.178	0.717	0.318
	COUNTY OF SAN DIEGO	0.064	0.032	0.077	0.024	0.141	0.056
	Indian Reservation	0.040	0.013	0.053	0.013	0.094	0.025
	State of California	0.020	0.003	0.015	0.005	0.035	0.008
<b>Proposed Total</b>		<b>0.374</b>	<b>0.188</b>	<b>0.613</b>	<b>0.219</b>	<b>0.987</b>	<b>0.408</b>