TABLE 4.1-1

WATER RIGHT APPLICATION NO.30166
SUMMARY OF BASELINE ASSUMPTIONS AND PROPOSED CHANGES (1985-2004) AS EVALUATED IN THIS DEIR

Diversion Type	Baseline[1] 1985-2004	Proposed Project[2] 19 years plus next year	Net Change Evaluated in the DEIR
Maximum annual usage	1,136 AF (2004)	1,615 AF	+479 AF
Maximum calculated usage	1,441 AF (1997)	1,615 AF	+174 AF
20-year annual rolling average	857 AF	1,200 AF	+343 AF
30-day average rate (5.34 cfs)	234 AF (Aug/Sept 1997)	318 AF	+84 AF
Maximum monthly rate	5.84 cfs	5.84 cfs	+0 cfs
Maximum monthly diversion (July 1 – Oct 31)	269 AF (Sept 1997)	230 AF	- 39 AF
Maximum seasonal diversion (July – Oct 31)	701 AF (1997)	735 AF	+34 AF

Notes:
1. See Table 2-1, this DEIR (1985-2004 historic average with two wells in operation).
2. El Sur Ranch Application No. 30166, revised October 17, 2006
Source: El Sur Ranch Application No. 30166, revised October 17, 2006; ESR Technical reports (SGI 2005, 2006).

TABLE 4.2-2

STATISTICAL ANALYSIS OF EL SUR RANCH BASELINE (1985-2004) IRRIGATION

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly Average Pumping Volume (AF)												
Minimum	0	0	0	0	0	20	60	71	32	0	0	0
25th percentile	0	0	0	0	37	114	105	103	120	34	0	0
Median	0	0	0	0	96	176	148	130	152	93	0	0
75th percentile	0	0	0	0.1	152	218	194	179	190	121	6	0
Maximum	17	0	0.6	239	267	339	264	218	269	215	76	57
Mean	0.8	0	0	25	104	172	152	143	155	90	12	3
Standard Deviation	4	0	0.1	60.4	84	83	57	46	54	62	24	13
Monthly Average Pumping Rate (cfs)												
Minimum	0	0	0	0	0	0.34	0.98	1.15	0.54	0	0	0
25th percentile	0	0	0	0	0.60	1.92	1.71	1.68	2.01	0.55	0	0
Median	0	0	0	0	1.56	2.96	2.41	2.12	2.56	1.52	0	0
75th percentile	0	0	0	0	2.47	3.67	3.15	2.91	3.20	1.97	0.10	0
Maximum	0.27	0	0.01	4.01	4.35	5.70	4.29	3.55	4.52	3.50	1.27	0.93
Mean	0.01	0	0	0.42	1.69	2.89	2.48	2.32	2.60	1.47	0.20	0.05
Standard Deviation	0.10	0	0	1.02	1.36	1.40	0.93	0.75	0.91	1.01	0.41	0.21

Notes:
Pumping rates are based on relationships developed between electrical usage and pump flow measurements at the well head.
Source: PBS&J 2008 and SGI 2008.

TABLE 4.2-6

BASELINE AND PROPOSED PROJECT DIVERSIONS

Period	Baseline Mean (1985-2004) acre-feet	Baseline Mean (1985-2004) cfs	Project 20-Year Average[a] acre-feet	Project 20-Year Average[a] cfs	Project Maximum[a] acre-feet	Project Maximum[a] cfs
November through April	7	0.02	185	0.52 (0.50)	244	0.68 (0.66)
May	104	1.69	318	***5.34*** (3.65)	318	***5.34*** (3.65)
June	172	2.89	318	***5.34*** (2.45)	318	***5.34*** (2.45)
July	152	2.48	184	3.09 (0.62)	184	3.09 (0.62)
August	143	2.32	184	3.09 (0.76)	184	3.09 (0.76)
September	155	2.60	184	3.09 (0.49)	184	3.09 (0.49)
October	90	1.47	184	3.09 (1.63)	184	3.09 (1.63)
Seasonal (July through October)	540	2.21	***735***	3.01[b] (1.80)	***735***	3.01[b] (1.80)
Seasonal Maximum Monthly Avg.	269	4.52	***230***	3.87 (-0.65)	***230***	3.87 (-0.65)

Notes:
[a] Values in parenthesis are the difference between the proposed project and baseline. Bold italics are proposed project application constraints. Other values are calculated based on application constraints. The Project 20-Year Average has a 20-year average annual diversion of 1,200 acre feet; the Project Maximum has a maximum annual diversion rate of 1,615 acre-feet.
[b] The difference between this value and monthly values is based on rounding errors.
Source: PBS&J 2008.