Appendix G

Potable and Recycled Water Demand and Supply Calculations

Appendix G.1

CAWD/PBCSD Production Water Years 1995 to 2003

Appendix G.1

Recycled Water Project Production Water Years 1995 – 2003 and Supporting Data

The proposed project will create demand for both potable and recycled water. Potable water would be used for project development uses. Recycled water is proposed for use in irrigating turf at the Proposed Golf Course, the Spanish Bay driving range, and the new equestrian center. In order to evaluate whether sufficient recycled water is available for the Proposed Project, the existing production capacity of the CAWD/PBCSD Recycled Water Project must be understood and quantified.

Spreadsheets in this appendix present pertinent data related to CAWD/PBCSD Recycled Water Project production. "Water Year" denotes the 12-month period starting in October through September. For example, Water Year 1995 is the period inclusive of October 1994 through September 1995.

Table G.1-1 presents Recycled Water Project Annual Production Averages, rainfall, and dry season (April-October) rainfall data for Water Years 1995 to 2003.

Table G.1-2A presents Recycled Water Project Inflows and Water Availability from 1986 to 2003.

Table G.1-2B presents Recycled Water Project Monthly Inflows from 1986 to 2004.

Table G.1-3 presents Rainfall Averages for the Monterey Peninsula near the DMF/PDP Project Area from 1979 to 2003 as well as >50 year average rainfall data from 1951 to 2003.

Table G.1-4A presents Recycled Water Project Annual Production Averages by Month for Water Years 1995 to 2003

Table G.1-4B presents Recycled Water Project Annual Production Averages by Month for Water Years 1995 to 2002, without the 1995 and 1998 Water Year

Table G.1-4C presents Recycled Water Project Annual Production Averages by Month for Water Years 1995 and 1998.

Table G.1-5A presents Recycled Water Project Annual Average Monthly Use by Del Monte Forest Golf Courses for Water Years 1995 to 2003.

Table G.1-5B presents Recycled Water Project Annual Average Use by Del Monte Forest Golf Courses for Water Years 1995 to 2003.

Table G.1-5C presents Recycled Water Project Annual Average Use by Del Monte Forest Golf Courses for Water Years 1995 to 2003, without Water Years 1995 and 1998.

Table G.1-5D presents Recycled Water Project Annual Average Use by Del Monte Forest Golf Courses for Water Years 1995 and 1998.

Table G.1-5E presents Annual Average Use by Del Monte Forest Golf Courses for Years 1979 to 2003.

Table G.1-5F presents Del Monte Forest Golf Course Water Usage 1979 to 2003 on an Acre-Feet per Irrigated Acre Basis.

Table G.1-5G presents Annual Use by Del Monte Forest Golf Courses of Potable and Recycled Water, 1979 to 2003.

Table G.1-6A presents Recycled Water Project Production by Month for Water Year 2003.

Table G.1-6B presents Recycled Water Project Monthly Usage by Golf Course for Water Year 2003.

Table G.1-7A presents Recycled Water Project Monthly Average Production for Water Year 2002.

Table G.1-7B presents Recycled Water Project Monthly Usage by Golf Course for Water Year 2002.

Table G.1-8A presents Recycled Water Project Monthly Average Production for Water Year 2001.

Table G.1-8B presents Recycled Water Project Monthly Usage by Golf Course for Water Year 2001.

Table G.1-9A presents Recycled Water Project Monthly Average Production for Water Year 2000.

Table G.1-9B presents Recycled Water Project Monthly Usage by Golf Course for Water Year 2000.

Table G.1-10A presents Recycled Water Project Monthly Average Production for Water Year 1999.

Table G.1-10B presents Recycled Water Project Monthly Usage by Golf Course for Water Year 1999.

Table G.1-11A presents Recycled Water Project Monthly Average Production for Water Year 1998.

Table G.1-11B presents Recycled Water Project Monthly Usage by Golf Course for Water Year 1998.

Table G.1-12A presents Recycled Water Project Monthly Average Production for Water Year 1997.

Table G.1-12B presents Recycled Water Project Monthly Usage by Golf Course for Water Year 1997.

Table G.1-13A presents Recycled Water Project Monthly Average Production for Water Year 1996.

Table G.1-13B presents Recycled Water Project Monthly Usage by Golf Course for Water Year 1996.

Table G.1-14A presents Recycled Water Project Monthly Average Production for Water Year 1995.

Table G.1-14B presents Recycled Water Project Monthly Usage by Golf Course for Water Year 1995.

Table G.1-1
CAWD/PBCSD Recycled Water Project
Water Production Annual Average, Water Years 1995 - 2003

Water Year	Recycled	Potable	Total	%Recycled	Rainfall	Rainfall (Apr - Oct.)
1995	614.7	177.5	792.2	77.6%	28.4	4.3
1996	551.7	384.0	935.7	59.0%	21.0	3.5
1997	781.8	326.9	1108.7	70.5%	21.7	1.5
1998	590.2	110.7	700.9	84.2%	47.4	7.5
1999	666.9	234.7	901.6	74.0%	20.1	2.9
2000	769.2	298.6	1067.8	72.0%	21.0	6.6
2001	599.2	372.5	971.8	61.7%	19.2	2.7
2002	733.9	303.2	1037.1	70.8%	15.6	1.7
2003	721.3	308.2	1029.6	70.1%	18.4	4.1
Avg. 1995 - 2003	669.9	279.6	949.5	71.2%	23.6	3.9
Avg. w/o 98	679.8	300.7	980.6	69.4%	20.7	3.4
Avg/ w/o 95 and 98	689.1	318.3	1007.5	69.7%	19.6	3.3
1951 - 2003 Avg					19.6	3.6

Source: CAWD/PBCSD Production Report, July 15, 2002; http://www.pbcsd.org/reports.html
CAWD/PBCSD Wastewater Reclamation Project 2002-2003 Water Year Usage
Rainfall data from sources in Table G.1-3

Table G.1-2A
CAWD Wastewater Treatment Plant
Inflow and Water Potentially Available for Recovery Water Years 1986 - 2003

Year	Rainfall, April-October (in.)	Rainfall, Water Year (in.)	Inflow (Water Year, mgd)	Inflow, April - October (mgd)	Available for Recovery, Apr - Oct (Low)	Available for Recovery Apr - Oct (High)	Inflow, Nov - Mar (mgd)	Available for Recovery, Nov - Mar (Low)	Available for Recovery, Nov Mar (High)
1986	2.09	21.22	2.29	2.14	1.86	1.96	2.48	2.15	2.28
1987	1.88	12.06	2.09	2.14	1.87	1.97	2.05	1.79	1.89
1988	3.11	12.13	2.26	2.20	1.91	2.02	2.30	2.00	2.12
1989	4.00	15.34	1.86	1.57	1.36	1.44	2.14	1.87	1.97
1990	3.06	14.14	1.59	1.52	1.32	1.40	1.67	1.45	1.54
1991	2.36	13.88	1.59	1.63	1.42	1.50	1.57	1.37	1.45
1992	1.08	17.84	1.79	1.67	1.45	1.53	1.97	1.71	1.81
1993	2.83	30.09	1.97	1.61	1.40	1.48	2.44	2.12	2.24
1994	2.70	13.96	1.55	1.53	1.33	1.41	1.57	1.37	1.45
1995	4.30	28.36	1.94	1.90	1.65	1.75	2.03	1.76	1.86
1996	3.47	21.01	1.66	1.70	1.48	1.56	1.66	1.44	1.52
1997	1.48	21.74	2.04	1.79	1.56	1.65	2.35	2.05	2.16
1998	7.50	47.35	2.40	1.98	1.72	1.82	3.01	2.62	2.77
1999	2.93	20.06	2.11	2.19	1.90	2.01	2.04	1.77	1.87
2000	6.60	21.02	2.14	1.91	1.66	1.75	2.44	2.12	2.24
2001	2.70	19.21	1.87	1.78	1.55	1.64	1.99	1.73	1.83
2002	1.70	15.60	1.87	1.80	1.57	1.66	1.96	1.71	1.81
2003	4.10	18.41	1.90	1.82	1.58	1.67	2.04	1.77	1.87
Total Avg	**3.22**	**20.19**	**1.94**	**1.83**	**1.59**	**1.68**	**2.10**	**1.82**	**1.93**
Availability					87%	92%		87%	92%

Source: Inflows = CAWD 4/15/04; Rainfall from sources in Table G.1-3

Table G.1-2B
CAWD Wastewater Treatment Plant
Monthly Influent Flows
Water Years 1985 - 2004

Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Water Year Flow	Avg. Daily Inflow by Year	Average Daily Inflow Apr - Oct	Average Daily Inflow Nov - Mar
1985				63.83	61.80	72.08	64.36	66.34	64.11	69.72	69.32	66.81				
1986	70.37	70.68	69.97	69.72	77.62	85.90	54.48	65.66	66.21	69.47	70.28	67.08	**837.43**	**2.29**	**2.14**	**2.48**
1987	63.83	62.28	65.07	63.95	57.06	61.63	54.60	61.19	62.43	67.36	73.35	68.55	**761.31**	**2.09**	**2.14**	**2.05**
1988	71.39	67.89	71.55	73.97	64.41	69.81	67.80	68.98	65.64	70.03	70.43	63.39	**825.28**	**2.26**	**2.20**	**2.30**
1989	64.57	66.33	68.94	65.47	60.09	63.05	54.54	49.10	42.36	46.66	50.44	45.60	**677.16**	**1.86**	**1.57**	**2.14**
1990	47.06	47.13	46.47	50.31	52.28	56.08	53.91	52.14	42.87	44.58	46.00	40.71	**579.54**	**1.59**	**1.52**	**1.67**
1991	45.26	44.07	45.42	44.58	40.04	63.67	54.12	52.27	45.84	48.86	50.59	47.28	**581.99**	**1.59**	**1.63**	**1.57**
1992	49.63	47.97	52.27	56.73	67.76	72.23	55.20	51.77	39.00	53.63	56.42	49.20	**651.81**	**1.79**	**1.67**	**1.97**
1993	51.46	52.20	56.42	99.60	84.06	75.61	59.64	51.65	47.16	49.23	49.45	43.92	**720.39**	**1.97**	**1.61**	**2.44**
1994	43.52	43.32	43.87	47.37	52.02	50.84	48.93	49.85	46.53	46.84	48.05	44.10	**565.24**	**1.55**	**1.53**	**1.57**
1995	43.12	41.43	43.59	81.47	57.68	81.75	58.59	60.58	59.78	65.94	61.91	53.07	**708.90**	**1.94**	**1.90**	**2.03**
1996	47.20	41.29	43.74	47.18	57.12	60.73	51.09	51.20	46.39	52.38	54.97	51.89	**605.18**	**1.66**	**1.70**	**1.66**
1997	55.13	53.93	72.32	103.36	63.42	62.10	58.48	57.01	52.23	55.94	57.05	51.84	**742.79**	**2.04**	**1.79**	**2.35**
1998	50.86	58.98	73.95	99.92	146.15	76.06	81.34	64.66	57.81	57.81	57.27	52.06	**876.87**	**2.40**	**1.98**	**3.01**
1999	52.69	53.81	52.60	50.87	66.33	83.99	78.64	68.48	63.82	67.83	67.99	61.33	**768.37**	**2.11**	**2.19**	**2.04**
2000	60.02	59.07	57.33	70.17	95.34	86.13	60.66	58.40	57.81	60.54	60.40	54.52	**780.38**	**2.14**	**1.91**	**2.44**
2001	55.54	50.96	50.19	61.99	65.75	71.73	59.41	54.37	50.50	55.19	56.66	51.85	**684.13**	**1.87**	**1.78**	**1.99**
2002	53.17	55.90	66.81	62.07	54.13	57.66	54.40	54.51	53.09	58.58	59.32	53.72	**683.36**	**1.87**	**1.80**	**1.96**
2003	52.48	53.40	74.12	69.61	55.34	55.25	54.51	54.91	52.67	59.05	57.81	52.74	**691.88**	**1.90**	**1.82**	**2.04**
2004	57.64	59.65	62.85	74.31	69.74	62.93										
Avg.	**54.29**	**53.92**	**58.59**	**67.69**	**67.59**	**68.57**	**58.91**	**57.04**	**52.90**	**57.22**	**58.24**	**52.94**		**1.94**	**1.83**	**2.10**

Source: CAWD 4/15/04

Table G.1-3
Monterey Peninsula Rainfall Near DMF/PDP Project Area 1979 - 2003 (inches)

Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total	Apr - Oct
1979													18.8	3.2
1980													24.3	3.3
1981													16.0	3.5
1982													29.9	7.7
1983													40.3	6.6
1984													14.5	3.3
1985													16.9	3.2
1986													21.2	2.1
1987													12.1	1.9
1988													12.1	3.1
1989													15.3	4.0
1990													14.1	3.1
1991													13.9	2.4
1992													17.8	1.1
1993													30.1	2.8
1994													14.0	2.7
1995	0.3	2.8	2.4	10.6	0.7	7.3	2.2	0.6	1.4	0.0	0.0	0.0	28.4	4.3
1996	0.0	0.2	2.3	5.0	8.1	2.9	0.9	1.3	0.0	0.1	0.0	0.0	21.0	3.5
1997	1.1	2.6	8.0	8.8	0.2	0.2	0.4	0.1	0.1	0.0	0.2	0.0	21.7	1.5
1998	0.6	7.5	3.6	10.4	14.3	4.2	3.4	2.7	0.3	0.3	0.0	0.2	47.4	7.5
1999	0.6	3.0	1.7	3.6	4.1	4.4	2.0	0.1	0.3	0.0	0.1	0.2	20.1	2.9
2000	0.2	1.6	0.2	6.6	8.0	2.2	0.9	0.8	0.1	0.0	0.0	0.4	21.0	6.6
2001	4.4	0.6	0.3	5.1	4.0	2.4	2.2	0.0	0.1	0.0	0.1	0.1	19.2	2.7
2002	0.2	3.0	6.3	1.5	1.6	1.4	0.4	1.1	0.1	0.0	0.1	0.0	15.6	1.7
2003	0.0	2.4	7.2	1.5	2.3	1.1	2.7	1.0	0.1	0.0	0.1	0.0	18.4	4.1
Avg. 79 - 03													21.0	3.5
Avg. 95 - 03	0.8	2.6	3.6	5.9	4.8	2.9	1.7	0.8	0.3	0.0	0.1	0.1	23.6	3.9
95 - 03 Avg. w/o 98	0.8	2.0	3.6	5.3	3.6	2.7	1.5	0.6	0.3	0.0	0.1	0.1	20.7	3.4
95 - 03 Avg. w/o 95 & 98	0.9	1.9	3.7	4.6	4.0	2.1	1.4	0.6	0.1	0.0	0.1	0.1	19.6	3.3
Avg. 51-03	0.8	2.3	3.1	4.2	3.2	3.1	1.6	0.5	0.2	0.1	0.1	0.3	19.6	3.6
Avg. 51-03, Oct - May	0.8	2.3	3.1	4.2	3.2	3.1	1.6	0.5					18.9	

Note: Precipitation 1979 - Sept. 1994 from Hopkins Marine Station, Monterey Weather Station #5795; accessed via Web at http://www-marine.stanford.edu/HMSweb/climate.html; Precip Oct. 94- Dec. 2003 and avg. 51-03 from National Weather Service Climatological Station, Monterey, California 93940 (elevation 385'), accessed via web at: www.weather.nps.navy.mil/renard_wx.

Table G.1-4A
CAWD/PBCSD Recycled Water Project
Water Production Annual Average by Month, Water Years 1995 - 2003

Month	Percent	Recycled	Potable	Total Use	%Recycled	Rainfall avg. (1995-2003)	Rainfall avg. (1951-2003)
		acre-feet	acre-feet	acre-feet	percent	inches	inches
October	9.1%	71.3	15.0	86.3	82.7%	0.8	0.8
November	2.2%	11.4	9.5	20.9	54.7%	2.6	2.3
December	1.2%	6.9	4.3	11.2	61.4%	3.6	3.1
January	0.8%	4.6	2.6	7.2	64.1%	5.9	4.2
February	0.6%	4.4	0.9	5.3	83.4%	4.8	3.2
March	3.3%	28.4	3.2	31.6	89.8%	2.9	3.1
April	8.2%	56.0	21.8	77.8	71.9%	1.7	1.6
May	14.3%	84.9	50.5	135.4	62.7%	0.8	0.5
June	16.4%	97.7	57.8	155.5	62.9%	0.3	0.2
July	16.0%	111.7	40.3	152.0	73.5%	0.0	0.1
August	15.1%	102.0	41.1	143.1	71.3%	0.1	0.1
September	13.0%	90.5	32.6	123.1	73.5%	0.1	0.3
Total	100.0%	669.9	279.6	949.5	70.6%	23.6	19.6

Rainfall Data from: National Weather Service Climatological Station
Monterey, California 93940 (elevation 385'), accessed via web at: www.weather.nps.navy.mil/renard_wx.

Source: CAWD/PBCSD Production Reports (http://www.pbcsd.org/reports.html)
Notes: Production in Acre-Feet (1 AF = ~326,000 gallons); rainfall in inches

Table G.1-4B
CAWD/PBCSD Recycled Water Project
Water Production Annual Average, Water Years 1996 - 2003, without 1995 and 1998

Month	Percent	Recycled	Potable	Total Use	%Recycled	Rainfall avg. (1996 - 1997, 1999 - 2003)	Rainfall avg. (1951-2003)
		acre-feet	acre-feet	acre-feet	percent	inches	inches
October	8.4%	75.6	9.1	84.6	89.3%	0.9	0.8
November	2.2%	10.4	11.8	22.2	47.0%	1.9	2.4
December	1.4%	8.4	5.5	13.8	60.5%	3.7	2.9
January	0.9%	5.6	3.3	8.9	62.6%	4.6	4.3
February	0.6%	5.2	1.0	6.2	84.5%	4.0	3.3
March	3.9%	36.0	3.5	39.5	91.2%	2.1	3.2
April	8.7%	64.2	23.6	87.8	73.2%	1.4	1.5
May	15.3%	93.5	60.5	154.0	60.7%	0.6	0.5
June	16.4%	97.9	67.7	165.6	59.1%	0.1	0.2
July	15.3%	107.3	46.4	153.7	69.8%	0.0	0.1
August	14.3%	96.8	47.6	144.4	67.0%	0.1	0.1
September	12.6%	88.3	38.4	126.7	69.7%	0.1	0.3
Total	100.0%	689.1	318.3	1007.5	68.4%	19.6	19.6

Rainfall Data from: National Weather Service Climatological Station
Monterey, California 93940 (elevation 385'), accessed via web at: www.weather.nps.navy.mil/renard_wx.

Source: CAWD/PBCSD Production Reports (http://www.pbcsd.org/reports.html)
Notes: Production in Acre-Feet (1 AF = ~326,000 gallons); rainfall in inches

Table G.1-4C
CAWD/PBCSD Recycled Water Project
Water Production Annual Average, Water Years 1995 and 1998

Month	Percent	Recycled	Potable	Total Use	%Recycled	Rainfall avg. (1995, 1998)	Rainfall avg. (1951-2003)
		acre-feet	acre-feet	acre-feet	percent	inches	inches
October	12.3%	56.6	35.5	92.1	61.5%	0.4	0.8
November	2.2%	15.0	1.5	16.5	90.9%	5.1	2.4
December	0.3%	1.7	0.4	2.1	82.6%	3.0	2.9
January	0.2%	1.3	0.0	1.3	99.2%	10.5	4.3
February	0.3%	1.7	0.6	2.3	73.3%	7.5	3.3
March	0.5%	1.6	2.3	3.9	41.6%	5.7	3.2
April	5.7%	27.1	15.8	42.9	63.1%	2.8	1.5
May	9.4%	54.7	15.4	70.1	78.0%	1.6	0.5
June	16.1%	97.2	23.0	120.2	80.9%	0.9	0.2
July	19.5%	127.1	18.7	145.8	87.1%	0.1	0.1
August	18.6%	120.2	18.5	138.8	86.7%	0.0	0.1
September	14.8%	98.3	12.4	110.7	88.8%	0.1	0.3
Total	100.0%	602.4	144.1	746.6	80.7%	37.9	19.6

Rainfall Data from: National Weather Service Climatological Station
Monterey, California 93940 (elevation 385'), accessed via web at: www.weather.nps.navy.mil/renard_wx.

Source: CAWD/PBCSD Production Reports (http://www.pbcsd.org/reports.html)
Notes: Production in Acre-Feet (1 AF = ~326,000 gallons); rainfall in inches

Table G.1-5A
CAWD/PBCSD Recycled Water Project
Water Usage by Golf Courses
Average Monthly Usage (acre-feet), 1995 - 2003

Month	Spyglass	Dunes	Shore	Cypress	Pebble	Spanish Bay	Poppy Hills	Others	Total	% of Total	GC Avg.	% (GC Only)
October	11.5	9.1	10.1	8.8	18.9	12.6	11.3	3.9	86.3	9%	11.8	9%
November	2.6	2.1	1.8	2.1	5.0	3.3	3.2	0.9	20.9	2%	2.9	2%
December	1.2	1.0	1.3	0.8	3.2	2.3	0.9	0.5	11.2	1%	1.5	1%
January	1.1	1.3	0.7	0.4	1.7	0.8	0.9	0.2	7.2	1%	1.0	1%
February	0.8	0.8	0.3	0.3	1.3	1.1	0.5	0.2	5.3	1%	0.7	1%
March	4.4	3.8	2.3	2.4	8.1	6.0	3.5	1.1	31.6	3%	4.4	3%
April	10.6	8.9	9.3	6.5	16.7	14.0	9.6	2.3	77.8	8%	10.8	8%
May	19.1	14.9	16.4	14.2	27.0	21.9	17.9	4.0	135.4	14%	18.8	14%
June	22.0	17.0	19.3	15.8	30.2	24.9	21.1	5.3	155.5	16%	21.5	16%
July	21.2	16.5	19.1	15.7	30.5	23.0	20.3	5.6	152.0	16%	20.9	16%
August	18.6	15.3	17.8	15.5	29.8	21.8	20.1	4.2	143.1	15%	19.8	15%
September	15.0	14.2	15.1	12.8	27.0	18.3	16.1	4.6	123.1	13%	16.9	13%
Total	**128.1**	**104.8**	**113.5**	**95.2**	**199.5**	**150.1**	**125.5**	**32.7**	**949.5**		**131.0**	916.76
% of Total	13%	11%	12%	10%	21%	16%	13%	3%				

Source: PBCSD 04/28/04

Table G.1-5B
CAWD/PBCSD Recycled Water Project
Water Usage by Course
Use by Water Year (Acre-Feet), 1995 - 2003

Year	Spyglass	Dunes	Shore	Cypress	Pebble	Spanish Bay	Poppy Hills	Others	Total	GC Avg.	GC High	GC Low
1995	109.3	86.9	105.1	87.1	150.2	131.1	101.7	20.7	792.2	110.2	150.2	86.9
1996	117.1	89.9	116.8	107.0	202.4	146.3	130.6	25.7	935.7	130.0	202.4	89.9
1997	129.2	109.2	137.8	116.8	232.6	177.0	168.0	38.0	1108.7	152.9	232.6	109.2
1998	102.7	53.5	89.7	69.8	150.5	111.5	97.6	25.5	700.9	96.5	150.5	53.5
1999	119.4	118.2	110.5	83.2	188.6	130.9	120.2	30.7	901.6	124.4	188.6	83.2
2000	136.0	121.0	133.3	105.7	222.9	175.1	138.1	35.8	1067.8	147.4	222.9	105.7
2001	139.7	111.1	108.3	89.5	209.4	158.2	118.3	37.3	971.8	133.5	209.4	89.5
2002	151.0	117.5	114.7	95.0	232.6	154.4	131.3	40.5	1037.1	142.4	232.6	95.0
2003	148.9	136.3	105.7	102.4	206.1	166.4	123.6	40.2	1029.6	141.3	206.1	102.4
Average	**128.1**	**104.8**	**113.5**	**95.2**	**199.5**	**150.1**	**125.5**	**32.7**	**949.5**	**131.0**	**199.5**	**90.6**

Source: PBCSD 04/28/04

Table G.1-5C
CAWD/PBCSD Recycled Water Project
Water Usage by Golf Courses
Use by Water Year (Acre-Feet), 1995 - 2003, w/o 1995/98

Year	Spyglass	Dunes	Shore	Cypress	Pebble	Spanish Bay	Poppy Hills	Others	Total	GC Avg.	GC High	GC Low
1996	117.1	89.9	116.8	107.0	202.4	146.3	130.6	25.7	935.7	130.0	202.4	89.9
1997	129.2	109.2	137.8	116.8	232.6	177.0	168.0	38.0	1,108.7	152.9	232.6	109.2
1999	119.4	118.2	110.5	83.2	188.6	130.9	120.2	30.7	901.6	124.4	188.6	83.2
2000	136.0	121.0	133.3	105.7	222.9	175.1	138.1	35.8	1,067.8	147.4	222.9	105.7
2001	139.7	111.1	108.3	89.5	209.4	158.2	118.3	37.3	971.8	133.5	209.4	89.5
2002	151.0	117.5	114.7	95.0	232.6	154.4	131.3	40.5	1037.1	142.4	232.6	95.0
2003	148.9	136.3	105.7	102.4	206.1	166.4	123.6	40.2	1029.6	141.3	206.1	102.4
Average	**134.5**	**114.7**	**118.2**	**99.9**	**213.5**	**158.3**	**132.9**	**35.5**	**1,007.5**	**138.9**	**213.5**	**96.4**

Source: PBCSD 04/28/04

Table G.1-5D
CAWD/PBCSD Recycled Water Project
Water Usage by Golf Courses
Use by Water Year (Acre-Feet), 1995 & 1998

Year	Spyglass	Dunes	Shore	Cypress	Pebble	Spanish Bay	Poppy Hills	Others	Total	GC Avg.	GC High	GC Low
1995	109.3	86.9	105.1	87.1	150.2	131.1	101.7	20.7	792.2	110.2	150.2	86.9
1998	102.7	53.5	89.7	69.8	150.5	111.5	97.6	25.5	700.9	96.5	150.5	53.5
Average	**106.0**	**70.2**	**97.4**	**78.5**	**150.4**	**121.3**	**99.7**	**23.1**	**746.6**	**103.4**	**150.4**	**70.2**

Source: PBCSD 04/28/04

Table G.1-5E
DMF Water Usage by Golf Courses
Use by Year (Acre-Feet), 1979 - 2003

Year	Spyglass	Dunes	Shore	Cypress	Pebble	Spanish Bay	Poppy Hills	Others	Total	GC Avg.	GC High	GC Low	Rainfall
1979	120.2	88.7	69.4	101.8	120.0					100.0	120.2	69.4	18.8
1980	116.1	67.5	69.9	107.2	135.0					99.1	135.0	67.5	24.3
1981	109.0	101.0	117.9	91.7	165.0					116.9	165.0	91.7	16.0
1982	91.0	75.8	93.2	78.4	140.0					95.7	140.0	75.8	29.9
1983	96.6	65.5	86.8	82.2	135.0					93.2	135.0	65.5	40.3
1984	134.5	104.2	127.7	106.4	179.0					130.4	179.0	104.2	14.5
1985	140.0	64.6	101.4	99.0	163.0					113.6	163.0	64.6	16.9
1986	130.0	96.7	102.9	95.8	163.0					117.7	163.0	95.8	21.2
1987	142.0	93.6	108.9	109.0	173.0					125.3	173.0	93.6	12.1
Avg.1979 - 1987	*119.9*	*84.2*	*97.6*	*96.8*	*152.6*					*110.2*	*152.6*	*80.9*	*21.5*
1988	146.8			110.4	187.8	196.5	141.9	219.4	1,002.8	143.3	196.5	110.4	
1991	117.9			96.3	233.6	122.8	105.1	182.6	858.3	122.6	233.6	105.1	
1992	132.8			104.9	226.5	133.4	126.2	213.0	936.8	133.8	226.5	104.9	
1993													
1994													
1995	109.3	86.9	105.1	87.1	150.2	131.1	101.7	20.7	792.2	110.2	150.2	86.9	28.4
1996	117.1	89.9	116.8	107.0	202.4	146.3	130.6	25.7	935.7	130.0	202.4	89.9	21.0
1997	129.2	109.2	137.8	116.8	232.6	177.0	168.0	38.0	1,108.7	152.9	232.6	109.2	21.7
1998	102.7	53.5	89.7	69.8	150.5	111.5	97.6	25.5	700.9	96.5	150.5	53.5	47.4
1999	119.4	118.2	110.5	83.2	188.6	130.9	120.2	30.7	901.6	124.4	188.6	83.2	20.1
2000	136.0	121.0	133.3	105.7	222.9	175.1	138.1	35.8	1,067.8	147.4	222.9	105.7	21.0
2001	139.7	111.1	108.3	89.5	209.4	158.2	118.3	37.3	971.8	133.5	209.4	89.5	19.2
2002	151.0	117.5	114.7	95.0	232.6	154.4	131.3	40.5	1,037.1	142.4	232.6	95.0	15.6
2003	148.9	136.3	105.7	102.4	206.1	166.4	123.6	40.2	1,029.6	141.3	206.1	102.4	18.4
Avg.1995 - 2003	*128.1*	*104.8*	*113.5*	*95.2*	*199.5*	*150.1*	*125.5*	*32.7*	*949.5*	*131.0*	*199.5*	*90.6*	*23.6*
Highest Use	151.0	136.3	137.8	116.8	233.6	196.5	168.0	40.5	*1,180.7*	*1,140.1*			
120% of 1997	155.0	131.1	165.3	140.2	279.1	212.4	201.6	45.7	*1,330.4*	*1,284.7*			

Notes: 1979 - 1987 from Frank Dryden, August 1988 as cited in draft EIR for Reclamation Plant. 1979 - 1984 water year Nov - Oct; 1985 - 1987 = calendar year; 1988, 1991, 1992 from MPWMD files; 1995 - 2003 from sources noted above; Rainfall from Table G.1-3.

Table G.1-5F
DMF Water Usage by Golf Courses
Acre-Feet/Irrigated Acre, 1979 - 2003

Year	Spyglass	Pebble	Spanish Bay	Poppy Hills
1979	1.41	1.25		
1980	1.37	1.41		
1981	1.28	1.72		
1982	1.07	1.46		
1983	1.14	1.41		
1984	1.58	1.87		
1985	1.65	1.70		
1986	1.53	1.70		
1987	1.67	1.80		
Avg.1979 - 1987	**1.41**	**1.59**		
1995	1.29	1.57	2.04	1.16
1996	1.38	2.11	2.28	1.48
1997	1.52	2.42	2.76	1.91
1998	1.21	1.57	1.74	1.11
1999	1.41	1.97	2.04	1.37
2000	1.60	2.32	2.73	1.57
2001	1.64	2.18	2.47	1.34
2002	1.78	2.42	2.41	1.49
2003	1.75	2.15	2.60	1.40
Avg.1995 - 2003	**1.51**	**2.08**	**2.34**	**1.43**
Avg. 95-03 w/o 95/98	**1.58**	**2.23**	**2.47**	**1.51**
Avg. 95/98	**1.25**	**1.57**	**1.89**	**1.13**
Notes: 1979 - 1987 from Frank Dryden, August 1988 as cited in draft EIR for Reclamation Plant. 1979 - 1984 water year Nov - Oct; 1985 - 1987 = calendar year; 1995 - 2003 from sources noted above				
Irrigated Turf Acres	84.96	95.94	64.12	88.00

Table G.1-5G
DMF Water Usage by Golf Courses
Acre-Feet, 1979 - 2003

Year	Total	Potable	Recycled	Avg. Potable	Notes
1979	500	500		100	5 courses
1980	496	496		99	5 courses
1981	585	585		117	5 courses
1982	478	478		96	5 courses
1983	466	466		93	5 courses
1984	652	652		130	5 courses
1985	568	568		114	5 courses
1986	588	588		118	5 courses
1987	627	627		125	5 courses
1988	1003	1003		143	7 courses
1991	858	858		123	7 courses
1992	937	937		134	7 courses
1995	772	173	599	25	7 courses
1996	910	373	537	53	7 courses
1997	1071	316	755	45	7 courses
1998	675	107	569	15	7 courses
1999	871	227	644	32	7 courses
2000	1032	289	743	41	7 courses
2001	934	358	576	51	7 courses
2002	997	291	705	42	7 courses
2003	989	296	693	42	7 courses

Table G.1-6A
CAWD/PBCSD Wastewater Reclamation Project
Water Production, 2002/3

Month	Percent	Recycled	Potable	Total Use	%Recycled	Rainfall
		acre-feet	acre-feet	acre-feet	percent	inches
October	9.8%	77.7	23.5	101.2	76.8%	0.01
November	3.1%	20.6	11.6	32.1	64.0%	2.36
December	0.8%	8.4	0.0	8.4	100.0%	7.22
January	0.4%	3.5	0.4	3.9	89.7%	1.54
February	1.4%	12.8	1.2	13.9	91.8%	2.32
March	4.6%	46.1	0.9	47.0	98.1%	1.14
April	2.9%	22.2	7.6	29.9	74.4%	2.74
May	12.0%	82.2	41.5	123.6	66.5%	0.95
June	16.7%	112.2	59.4	171.6	65.4%	0.05
July	16.2%	114.1	52.6	166.8	68.4%	0.00
August	17.7%	118.7	63.8	182.5	65.0%	0.08
September	14.4%	102.8	45.8	148.6	69.2%	0.00
Total	100.0%	721.3	308.2	1029.6	70.1%	18.4

Rainfall Data from: National Weather Service Climatological Station
Monterey, California 93940 (elevation 385'), accessed via web at: www.weather.nps.navy.mil/renard_wx.

Source: PBCSD 2002-2003 Production Report accessed via web at http://www.pbcsd.org/reports/2002-03ReclamationWaterUsageReport.htm
Notes: Production in Acre-Feet (1 AF = ~326,000 gallons); rainfall in inches

Table G1.6-B
CAWD/PBCSD Wastewater Reclamation Project
Water Production Annual Average, 2002/3
Water Usage by Course (,000 gallons)

Month	Spyglass	Dunes	Shore	Cypress	Pebble	Spanish Bay	Poppy Hills	Others	Total	Total (AF)
October	4,685	4,055	3,450	3,410	6,590	4,945	3,925	1,915	32,975	101.2
November	1,485	955	915	710	2,125	2,115	1,560	613	10,478	32.1
December	260	410	220	95	1,152	160	295	151	2,743	8.4
January	820	185	25	45	63	135	0	11	1,284	3.9
February	785	1,115	275	330	850	730	370	91	4,546	13.9
March	2,150	2,395	255	1,200	4,085	2,890	1,570	765	15,310	47.0
April	1,080	1,645	895	275	1,850	2,620	880	489	9,734	29.9
May	5,975	5,260	4,085	4,035	8,245	6,640	4,995	1,064	40,299	123.6
June	8,345	7,935	5,435	5,735	10,480	9,280	6,910	1,814	55,934	171.6
July	7,710	7,320	5,310	5,455	10,762	8,310	7,210	2,294	54,371	166.8
August	8,365	7,315	7,460	6,610	11,804	9,140	7,100	1,711	59,505	182.5
September	6,870	5,860	6,120	5,495	9,171	7,290	5,470	2,179	48,455	148.6
Total	48,530	44,450	34,445	33,395	67,177	54,255	40,285	13,097	335,634	1,029.6

Source: PBCSD 04/28/04

Table G.1-7A
CAWD/PBCSD Recycled Water Project
Water Production, 2002 Water Year

Month	Percent	Recycled	Potable	Total Use	%Recycled	Rainfall
		acre-feet	acre-feet	acre-feet	percent	inches
October	8.2%	72.1	12.6	84.7	85.1%	0.20
November	2.1%	2.1	19.2	21.3	9.8%	2.95
December	0.4%	3.6	0.0	3.7	99.7%	6.27
January	0.3%	2.7	0.0	2.7	100.0%	1.48
February	0.8%	8.4	0.0	8.4	99.5%	1.58
March	4.3%	44.5	0.0	44.5	100.0%	1.43
April	11.2%	79.6	36.2	115.8	68.7%	0.42
May	13.9%	96.3	47.9	144.2	66.8%	1.10
June	15.9%	103.4	61.7	165.1	62.6%	0.10
July	16.6%	116.9	55.6	172.5	67.7%	0.02
August	13.4%	102.2	37.1	139.3	73.4%	0.05
September	13.0%	102.0	32.8	134.7	75.7%	0.00
Total	100.0%	733.9	303.2	1037.1	70.8%	15.60

Rainfall Data from: National Weather Service Climatological Station
Monterey, California 93940 (elevation 385'), accessed via web at: www.weather.nps.navy.mil/renard_wx.

Source: CAWD/PBCSD Production Report, July 15, 2002; PBCSD January 6, 2003
Notes: Production in Acre-Feet (1 AF = ~326,000 gallons); rainfall in inches

Table G.1-7B
CAWD/PBCSD Wastewater Reclamation Project
Water Production Annual Average, 2001/2
Water Usage by Course (,000 gallons)

Month	Spyglass	Dunes	Shore	Cypress	Pebble	Spanish Bay	Poppy Hills	Others	Total	Total (AF)
October	4,169	2,774	2,535	2,288	6,717	4,091	3,110	1,933	27,617	84.7
November	1,006	656	567	653	1,655	804	1,400	217	6,958	21.3
December	257	87	85	5	422	327	0	9	1,192	3.7
January	331	229	90	30	67	16	126	4	893	2.7
February	281	325	116	41	1,402	343	1	239	2,748	8.4
March	1,614	1,487	1,129	558	4,666	2,491	1,757	821	14,523	44.5
April	5,020	4,425	4,600	3,510	8,330	5,680	4,825	1,349	37,739	115.8
May	7,705	5,485	5,190	4,720	9,520	7,280	5,415	1,681	46,996	144.2
June	7,625	5,715	6,020	5,045	12,960	7,875	6,570	2,023	53,833	165.1
July	8,505	7,055	7,295	5,415	10,815	8,020	7,420	1,720	56,245	172.5
August	6,555	4,965	4,820	4,225	9,605	7,250	6,470	1,533	45,423	139.3
September	6,170	5,105	4,935	4,495	9,670	6,160	5,700	1,686	43,921	134.7
Total	49,238	38,308	37,382	30,985	75,829	50,337	42,794	13,215	338,088	1,037.1

Source: PBCSD 04/28/04

Table G.1-8A
CAWD/PBCSD Recycled Water Project
Water Production, 2001 Water Year

Total	Percent	Recycled	Potable	Total Use	%Recycled	Rainfall
		acre-feet	acre-feet	acre-feet	percent	inches
October	4.5%	32.7	11.4	44.2	74.1%	4.37
November	1.0%	0.0	10.2	10.2	-0.1%	0.55
December	3.4%	16.2	16.8	33.0	49.1%	0.30
January	1.8%	17.2	0.0	17.2	100.0%	5.10
February	0.2%	2.2	0.0	2.2	100.0%	3.95
March	3.7%	33.3	2.9	36.2	92.0%	2.44
April	6.3%	29.4	32.0	61.4	47.9%	2.20
May	17.8%	111.2	61.4	172.6	64.4%	0.00
June	20.5%	127.7	71.2	198.9	64.2%	0.05
July	14.6%	75.8	65.8	141.6	53.5%	0.02
August	14.4%	68.7	71.6	140.3	49.0%	0.10
September	11.7%	84.7	29.2	113.9	74.4%	0.13
Total	100.0%	599.2	372.5	971.8	61.7%	19.21

Rainfall Data from: National Weather Service Climatological Station
Monterey, California 93940 (elevation 385'), accessed via web at: www.weather.nps.navy.mil/renard_wx.

Source: CAWD/PBCSD Production Report, July 15, 2002
Notes: Production in Acre-Feet (1 AF = ~326,000 gallons); rainfall in inches

Table G.1-8B
CAWD/PBCSD Recycled Water Project
Water Production, 2001 Water Year
Water Usage by Course (in thousands of gallons)

Month	Spyglass	Dunes	Shore	Cypress	Pebble	Spanish Bay	Poppy Hills	Others	Total	Total (AF)
October	2,024	1,548	1,254	1,256	3,723	2,338	1,345	918	14,406	44.2
November	111	329	108	242	1,523	684	158	168	3,323	10.2
December	1,700	808	948	455	2,949	2,861	711	330	10,762	33.0
January	857	1,035	443	250	1,546	654	620	208	5,613	17.2
February	251	28	17	41	232	101	0	48	718	2.2
March	2,018	1,403	502	583	3,361	2,579	825	515	11,786	36.2
April	3,635	2,242	2,207	1,214	3,602	4,317	2,319	484	20,020	61.4
May	8,490	6,205	5,917	5,867	11,152	9,072	7,452	2,109	56,264	172.6
June	9,216	7,996	8,000	6,194	12,175	9,847	8,837	2,584	64,849	198.9
July	6,024	5,426	5,687	4,597	9,886	7,054	5,437	2,059	46,170	141.6
August	6,258	4,811	5,842	4,623	9,493	6,832	6,269	1,606	45,734	140.3
September	4,957	4,380	4,391	3,841	8,607	5,247	4,590	1,133	37,146	113.9
Total	45,541	36,211	35,316	29,163	68,249	51,586	38,563	12,162	316,791	971.8

Source: PBCSD 10/1/01

Table G.1-9A
CAWD/PBCSD Recycled Water Project
Water Production, 2000 Water Year

Month	Percent	Recycled	Potable	Total Use	%Recycled	Rainfall
		acre-feet	acre-feet	acre-feet	percent	inches
October	9.1%	95.0	1.7	96.7	98.2%	0.19
November	2.5%	0.0	26.5	26.5	0.0%	1.64
December	3.8%	20.7	19.8	40.5	51.1%	0.16
January	1.3%	14.4	0.0	14.4	100.0%	6.62
February	0.1%	0.0	1.0	1.0	-1.9%	7.97
March	4.0%	42.7	0.5	43.2	98.8%	2.21
April	10.7%	105.1	9.3	114.4	91.9%	0.93
May	14.2%	94.0	57.8	151.8	61.9%	0.80
June	15.6%	98.7	67.9	166.6	59.2%	0.07
July	13.1%	100.7	39.0	139.7	72.1%	0.01
August	14.3%	105.0	47.7	152.7	68.8%	0.01
September	11.3%	93.0	27.4	120.4	77.2%	0.41
Total	100.0%	769.2	298.6	1067.8	72.0%	21.02

Rainfall Data from: National Weather Service Climatological Station
Monterey, California 93940 (elevation 385'), accessed via web at: www.weather.nps.navy.mil/renard_wx.

Source: CAWD/PBCSD Production Report, July 15, 2002
Notes: Production in Acre-Feet (1 AF = ~326,000 gallons); rainfall in inches

Table G.1-9B
CAWD/PBCSD Recycled Water Project
Water Production, 2000 Water Year
Water Usage by Course (in 1,000s of gallons)

Month	Spyglass	Dunes	Shore	Cypress	Pebble	Spanish Bay	Poppy Hills	Others	Total	Total (AF)
October	3,763	3,221	4,040	3,077	7,307	5,232	3,009	1,875	31,524	96.7
November	672	485	342	660	2,458	1,725	1,972	326	8,640	26.5
December	765	921	1,988	1,366	3,514	2,689	1,363	600	13,206	40.5
January	592	850	767	345	810	675	332	327	4,698	14.4
February	112	70	93	2	21	17	0	5	320	1.0
March	1,765	1,740	1,672	1,241	3,841	1,970	1,620	221	14,070	43.2
April	4,772	4,682	5,159	3,309	7,808	6,568	4,239	744	37,281	114.4
May	7,366	5,728	6,045	5,347	9,139	8,107	6,501	1,249	49,482	151.8
June	8,419	6,529	7,041	5,337	8,656	8,796	8,235	1,299	54,312	166.6
July	6,411	5,576	5,977	4,894	8,774	6,647	6,027	1,230	45,536	139.7
August	6,023	5,131	5,817	5,071	10,939	7,950	6,949	1,896	49,776	152.7
September	3,661	4,498	4,529	3,818	9,394	6,698	4,760	1,905	39,263	120.4
Total	44,321	39,431	43,470	34,467	72,661	57,074	45,007	11,677	348,108	1,067.8

Source: PBCSD 10/1/01

Table G.1-10A
CAWD/PBCSD Recycled Water Project
Water Production, 1999 Water Year

Month	Percent	Recycled	Potable	Total Use	%Recycled	Rainfall
		acre-feet	acre-feet	acre-feet	percent	inches
October	10.1%	83.3	7.7	91.0	91.5%	0.60
November	1.2%	8.4	2.6	11.0	76.3%	2.97
December	0.2%	0.0	1.7	1.7	2.3%	1.71
January	2.0%	0.0	17.9	17.9	-0.2%	3.57
February	0.1%	0.0	0.8	0.8	-6.0%	4.06
March	0.4%	0.8	2.5	3.3	24.9%	4.41
April	8.0%	66.3	5.8	72.1	92.0%	2.04
May	18.0%	94.5	67.4	161.9	58.4%	0.06
June	14.9%	103.9	30.2	134.1	77.5%	0.32
July	19.4%	123.1	52.0	175.1	70.3%	0.04
August	14.9%	110.6	24.1	134.7	82.1%	0.08
September	10.9%	76.0	22.0	98.0	77.5%	0.20
Total	100.0%	666.9	234.7	901.6	74.0%	20.06

Rainfall Data from: National Weather Service Climatological Station
Monterey, California 93940 (elevation 385'), accessed via web at: www.weather.nps.navy.mil/renard_wx.

Source: CAWD/PBCSD Production Report, July 15, 2002
Notes: Production in Acre-Feet (1 AF = ~326,000 gallons); rainfall in inches

Table G.1-10B
CAWD/PBCSD Recycled Water Project
Water Production, 1999 Water Year
Water Usage by Course (in thousands of gallons)

Month	Spyglass	Dunes	Shore	Cypress	Pebble	Spanish Bay	Poppy Hills	Others	Total	Total (AF)
October	4,307	4,463	3,462	2,875	6,264	3,759	3,627	917	29,674	91.0
November	468	753	249	420	541	339	652	148	3,570	11.0
December	15	212	115	36	100	83	0	6	567	1.7
January	394	885	368	184	1,908	802	1,233	51	5,825	17.9
February	20	45	15	2	78	28	0	58	246	0.8
March	20	825	57	5	133	43	0	2	1,085	3.3
April	3,481	4,205	1,624	1,250	5,280	3,990	2,994	693	23,517	72.1
May	6,911	6,629	6,809	4,653	11,898	7,637	6,457	1,797	52,791	161.9
June	5,792	4,951	5,700	4,468	8,735	6,761	5,476	1,843	43,726	134.1
July	8,700	6,685	7,409	5,166	11,960	7,820	7,291	2,048	57,079	175.1
August	5,203	5,455	6,004	4,879	7,788	6,233	7,171	1,179	43,912	134.7
September	3,607	3,421	4,211	3,174	6,802	5,180	4,269	1,270	31,934	98.0
Total	38,918	38,529	36,023	27,112	61,487	42,675	39,170	10,012	293,926	901.6

Source: PBCSD 10/1/01

Table G.1-11A
CAWD/PBCSD Recycled Water Project
Water Production, 1998 Water Year

Month	Percent	Recycled	Potable	Total Use	%Recycled	Rainfall
		acre-feet	acre-feet	acre-feet	percent	inches
October	13.3%	67.7	25.5	93.2	72.6%	0.58
November	3.5%	21.7	3.0	24.7	87.9%	7.48
December	0.4%	2.4	0.7	3.1	77.6%	3.56
January	0.0%	0.0	0.0	0.0	0.0%	10.37
February	0.3%	1.3	0.7	2.0	65.5%	14.26
March	0.6%	0.0	4.5	4.5	-0.1%	4.20
April	4.0%	26.1	2.0	28.1	92.9%	3.39
May	11.8%	67.8	14.6	82.4	82.3%	2.67
June	17.3%	114.1	7.1	121.2	94.1%	0.34
July	16.3%	108.4	6.0	114.4	94.8%	0.25
August	17.6%	96.9	26.6	123.5	78.5%	0.02
September	14.8%	83.8	20.0	103.8	80.7%	0.23
Total	100.0%	590.2	110.7	700.9	84.2%	47.35

Rainfall Data from: National Weather Service Climatological Station
Monterey, California 93940 (elevation 385'), accessed via web at: www.weather.nps.navy.mil/renard_wx.

Source: CAWD/PBCSD Production Report, July 15, 2002
Notes: Production in Acre-Feet (1 AF = ~326,000 gallons); rainfall in inches

Table G.1-11B
CAWD/PBCSD Recycled Water Project
Water Production, 1998 Water Year
Water Usage by Course (in thousands of gallons)

Month	Spyglass	Dunes	Shore	Cypress	Pebble	Spanish Bay	Poppy Hills	Others	Total	Total (AF)
October	3,453	2,997	3,959	3,379	6,775	3,869	4,635	1,314	30,381	93.2
November	1,083	993	906	711	1,707	1,066	1,069	528	8,063	24.7
December	277	145	133	78	231	79	0	78	1,021	3.1
January	0	0	0	0	0	0	0	0	0	0.0
February	94	496	8	0	17	25	0	21	661	2.0
March	450	258	42	128	127	258	175	28	1,466	4.5
April	2,356	766	964	577	1,364	1,882	990	258	9,157	28.1
May	4,018	2,354	3,121	2,828	4,843	5,258	3,714	723	26,859	82.4
June	7,168	1,395	5,040	3,824	8,560	6,720	5,186	1,627	39,520	121.2
July	6,268	733	5,246	3,966	8,296	6,328	5,074	1,375	37,286	114.4
August	5,612	2,501	5,432	3,948	9,155	5,768	6,549	1,285	40,250	123.5
September	2,687	4,818	4,406	3,317	7,989	5,111	4,428	1,067	33,823	103.8
Total	33,466	17,456	29,257	22,756	49,064	36,364	31,820	8,304	228,487	700.9

Source: PBCSD 10/1/01

Table G.1-12A
CAWD/PBCSD Recycled Water Project
Water Production, 1997 Water Year

Month	Percent	Recycled	Potable	Total Use	%Recycled	Rainfall
		acre-feet	acre-feet	acre-feet	percent	inches
October	6.8%	68.2	6.7	74.9	91.1%	1.06
November	1.2%	0.6	12.3	12.9	4.9%	2.63
December	0.1%	0.8	0.0	0.8	100.0%	8.01
January	0.1%	1.0	0.0	1.0	100.0%	8.75
February	1.5%	12.6	3.7	16.3	77.2%	0.21
March	7.8%	74.7	12.2	86.9	86.0%	0.18
April	11.6%	94.6	33.6	128.2	73.8%	0.40
May	16.3%	102.9	77.7	180.6	57.0%	0.12
June	15.8%	102.5	72.4	174.9	58.6%	0.08
July	12.3%	110.6	26.1	136.7	80.9%	0.03
August	12.4%	80.7	57.1	137.8	58.6%	0.23
September	14.2%	132.5	25.1	157.6	84.1%	0.04
Total	100.0%	781.8	326.9	1108.7	70.5%	21.74

Rainfall Data from: National Weather Service Climatological Station
Monterey, California 93940 (elevation 385'), accessed via web at: www.weather.nps.navy.mil/renard_wx.

Source: CAWD/PBCSD Production Report, July 15, 2002
Notes: Production in Acre-Feet (1 AF = ~326,000 gallons); rainfall in inches

Table G.1-12B
CAWD/PBCSD Recycled Water Project
Water Production, 1997 Water Year
Water Usage by Course (in thousands of gallons)

Month	Spyglass	Dunes	Shore	Cypress	Pebble	Spanish Bay	Poppy Hills	Others	Total	Total (AF)
October	3,104	1,835	2,380	2,230	5,552	3,890	4,445	991	24,427	74.9
November	727	397	358	703	805	691	467	70	4,218	12.9
December	102	49	90	15	13	0	0	2	271	0.8
January	109	20	194	1	5	0	0	1	330	1.0
February	462	156	170	346	1,159	1,656	1,205	147	5,301	16.3
March	4,075	2,300	2,693	2,584	6,042	5,926	3,852	846	28,318	86.9
April	3,850	3,642	5,558	3,905	9,748	7,401	5,888	1,809	41,801	128.2
May	6,400	5,577	7,676	6,071	11,996	9,701	9,471	1,983	58,875	180.6
June	6,316	6,208	7,679	6,506	10,938	8,478	8,593	2,299	57,017	174.9
July	4,385	5,102	5,897	5,161	9,506	6,328	6,398	1,790	44,567	136.7
August	5,352	4,794	5,978	5,320	8,948	6,713	6,708	1,115	44,928	137.8
September	7,230	5,523	6,245	5,244	11,100	6,929	7,749	1,349	51,369	157.6
Total	42,112	35,603	44,918	38,086	75,812	57,713	54,776	12,402	361,422	1,108.7

Source: PBCSD 10/1/01

Table G.1-13A
CAWD/PBCSD Recycled Water Project
Water Production, 1996 Water Year

Month	Percent	Recycled	Potable	Total Use	%Recycled	Rainfall
		acre-feet	acre-feet	acre-feet	percent	inches
October	10.7%	99.8	0.0	99.8	100.0%	0.03
November	4.4%	41.3	0.0	41.3	100.0%	0.22
December	0.9%	8.8	0.0	8.8	100.0%	2.34
January	0.6%	0.2	5.0	5.2	2.9%	5.02
February	0.1%	0.6	0.0	0.6	100.0%	8.08
March	1.7%	10.1	5.5	15.6	64.9%	2.91
April	9.9%	52.4	40.4	92.8	56.4%	0.92
May	15.3%	73.7	69.8	143.5	51.4%	1.33
June	15.8%	36.7	111.1	147.8	24.8%	0.04
July	15.4%	109.8	33.9	143.7	76.4%	0.05
August	13.2%	91.6	31.7	123.3	74.3%	0.03
September	12.1%	26.8	86.6	113.4	23.6%	0.04
Total	100.0%	551.7	384.0	935.7	59.0%	21.01

Rainfall Data from: National Weather Service Climatological Station
Monterey, California 93940 (elevation 385'), accessed via web at: www.weather.nps.navy.mil/renard_wx.

Source: CAWD/PBCSD Production Report, July 15, 2002
Notes: Production in Acre-Feet (1 AF = ~326,000 gallons); rainfall in inches

Table G.1-13B
CAWD/PBCSD Recycled Water Project
Water Production Annual Average, 1996 Water Year
Water Usage by Course (in thousands of gallons)

Month	Spyglass	Dunes	Shore	Cypress	Pebble	Spanish Bay	Poppy Hills	Others	Total	Total (AF)
October	4,668	2,969	4,461	3,505	6,711	4,793	4,519	897	32,523	99.8
November	1,767	1,180	1,442	1,778	3,325	1,638	1,887	457	13,474	41.3
December	263	215	226	240	1,006	441	334	134	2,859	8.8
January	177	275	159	211	670	43	100	44	1,679	5.2
February	13	44	43	16	61	4	0	5	186	0.6
March	527	472	273	611	1,127	1,414	582	95	5,101	15.6
April	4,603	2,242	3,469	2,965	7,431	4,926	4,021	580	30,237	92.8
May	6,302	4,745	6,648	5,830	8,653	7,521	6,382	703	46,784	143.5
June	5,914	4,638	6,637	5,259	9,564	8,121	6,822	1,233	48,188	147.8
July	5,341	4,770	5,634	5,665	9,567	6,899	7,245	1,734	46,855	143.7
August	4,762	4,044	4,517	4,742	9,391	6,110	5,468	1,167	40,201	123.3
September	3,827	3,710	4,559	4,051	8,490	5,776	5,231	1,316	36,960	113.4
Total	38,164	29,304	38,068	34,873	65,996	47,686	42,591	8,365	305,047	935.7

Source: PBCSD 10/1/01

Table G.1-14A
CAWD/PBCSD Recycled Water Project
Water Production, 1995 Water Year

Month	Percent	Recycled	Potable	Total Use	%Recycled	Rainfall
		acre-feet	acre-feet	acre-feet	percent	inches
October	11.5%	45.6	45.4	91.0	50.1%	0.28
November	1.0%	8.3	0.0	8.3	100.0%	2.78
December	0.1%	1.0	0.0	1.0	97.9%	2.43
January	0.3%	2.5	0.0	2.6	99.2%	10.61
February	0.3%	2.0	0.5	2.5	79.6%	0.73
March	0.4%	3.2	0.0	3.2	100.0%	7.26
April	7.3%	28.1	29.6	57.7	48.7%	2.24
May	7.3%	41.6	16.3	57.9	71.9%	0.58
June	15.0%	80.2	38.9	119.1	67.4%	1.40
July	22.4%	145.8	31.5	177.3	82.2%	0.02
August	19.4%	143.6	10.4	154.1	93.2%	0.03
September	14.8%	112.8	4.8	117.6	95.9%	0.00
Total	100.0%	614.7	177.5	792.2	77.6%	28.36

Rainfall Data from: National Weather Service Climatological Station
Monterey, California 93940 (elevation 385'), accessed via web at: www.weather.nps.navy.mil/renard_wx.

Source: CAWD/PBCSD Production Report, July 15, 2002
Notes: Production in Acre-Feet (1 AF = ~326,000 gallons); rainfall in inches

Table G.1-14B
CAWD/PBCSD Recycled Water Project
Water Production, 1995 Water Year
Water Usage by Course (in thousands of gallons)

Month	Spyglass	Dunes	Shore	Cypress	Pebble	Spanish Bay	Poppy Hills	Others	Total	Total AF
October	3,520	2,915	4,139	3,740	5,855	4,195	4,526	781	29,671	91.0
November	362	290	292	321	450	609	310	63	2,697	8.3
December	21	80	46	36	81	17	33	14	328	1.0
January	50	359	144	38	31	17	194	0	833	2.6
February	183	126	58	47	124	266	0	15	819	2.5
March	295	130	150	83	308	71	0	11	1,048	3.2
April	2,225	2,185	2,730	1,922	3,661	3,836	2,030	224	18,813	57.7
May	3,017	1,880	2,514	2,439	3,661	2,984	2,035	346	18,876	57.9
June	5,768	4,415	5,102	3,897	6,478	7,246	5,197	722	38,825	119.1
July	8,776	5,790	7,653	5,881	9,918	10,045	7,548	2,173	57,784	177.3
August	6,454	5,911	6,408	5,951	10,325	8,036	6,188	956	50,229	154.1
September	4,973	4,253	5,013	4,046	8,088	5,412	5,106	1,458	38,349	117.6
Total	35,644	28,334	34,249	28,401	48,980	42,734	33,167	6,763	258,272	792.2

Source: PBCSD 10/1/01

Appendix G.2

Project and Cumulative Estimates of Potable and Recycled Water Demand

Appendix G.2

Potable and Recycled Water Demand Estimates

Introduction

The Proposed Project will create demand for both potable and recycled water. Potable water would be used for project development uses. Recycled water is proposed for use in irrigating turf at the Proposed golf course, the Spanish Bay driving range, and the New Equestrian Center.

Spreadsheets in this appendix present the estimated potable and recycled water demand used for the impact analysis in Chapter P1, "Water Supply and Demand."

Analysis Results

The results of the analysis of potable and recycled water demand are presented in the following summary tables and are based on the subsequent tables discussed and presented below.

Table G.2-1A summarizes project increases in potable and recycled water use in the scenarios studied (wet, average, dry, and very dry).

Table G.2-1B summarizes cumulative with project increases in potable and recycled water use in the scenarios studied (wet, average, dry, and very dry).

Table G.2-1C summarizes project increases in potable and recycled water use in the scenarios studied (wet, average, dry, and very dry) with implementation of the Phase II Improvements to the CAWD/PBCSD Recycled Water Project (RWP). This analysis includes up to 175 AF of demand of potential Phase II investors in an average year.

Table G.2-1D summarizes project increases in withdrawals from the Carmel River and Seaside Basin Coastal Subarea basins in the scenarios studied (wet, average, dry, and very dry) resultant from project demand (before mitigation), cumulative demand (before mitigation), and project demand (with implementation of Mitigation Measure PSU-D1 – Phase II RWP). Existing withdrawals are based on data presented in Appendix G.4.

Table G.2-1E summarizes project demand in the very dry scenario with implementation of RWP Phase II and prohibition of potable water use for irrigation by the Proposed Project as required by Mitigation Measure PSU-D2.

Direct Potable Water Demand Estimates

Potable water demand estimates are based in part on the water demand estimated by the applicant's consultant (WWD 2001), but has been modified in several ways and supplemented. First, the factor for the additional units at the Inn and Lodge was revised to be 0.21 AFY/unit (instead of 0.10 AFY/unit) because these units are assumed to meet the luxury hotel definition used by MPWMD. Second, the applicant's estimate used an average of 0.80 AFY/residence for residential water use, based on Del Monte Forest average residential uses for non-rationing use years. The analysis used the 1.0 AFY/residence factor from the prior 1997 uncertified FEIR for residential lots greater than 1.0 acres. Third, the applicant's estimate used 35 lots; whereas only 33 are included in the Proposed Project. Also, an estimate has been provided for increased irrigation demand along Highway 1/68, because this area is not near the existing recycled water lines. The area of increased irrigation outside the existing right of way has not been identified by the applicant, it has been presumed to be 2 acres.

Table G.2-2A summarizes potable water use of the Proposed Project.

Table G.2-2B summarizes cumulative with project potable water use.

Table G.2-2C summarizes Phase II Investor potable water use.

Table G.2-2D provides the detailed assumptions used to estimate potable demand of the Proposed Project.

Table G.2-2E provides the assumptions used for the cumulative potable demand estimate.

Summary of Estimated Irrigation Water Demands for Recycled and Potable Water

Based on the project irrigation water demands, the demands of other users of recycled water in the Del Monte Forest, the capacity of the existing RWP and the RWP with Phase II improvements, the estimated irrigation water demands for recycled and potable water under wet, average, dry, and very conditions was developed.

Table G.2-3A summarizes the irrigation water demand estimate for the Proposed Project for the scenarios evaluated (wet, average, dry, and very dry conditions).

Table G.2-3B presents the cumulative estimate of irrigation water demand for the Proposed Project with the existing RWP and with the Phase II RWP Improvements for the scenarios evaluated (wet, average, dry, and very dry conditions).

Estimated Project Irrigation Demand

The irrigation water demand estimates are based on the identified areas of irrigated turf at the Proposed Golf Course (92.9 acres), the Spanish Bay driving range (8 acres) and the New Equestrian Center (9.8 acres). Additional recycled water use was estimated for landscaping and for dust control at the New Equestrian Center. Irrigation for landscaping identified in the application at the Proposed Golf Course location (1.8 acres), the New Equestrian Center (1.8 acres), and the Spanish Bay driving range (0.5 acre) has been assumed to be provided by drip irrigation using recycled water. The net reduction of landscaping at the Lodge (0.2 acre) and the minor increase in landscaping at the Inn at Spanish Bay (0.1 acre) were also included

Table G.2-4A summarizes the irrigation demand for the Proposed Project for wet, average, dry, and very dry conditions.

Table G.2-4B presents the irrigation demand for the Proposed Project for a wet year. The factor used for irrigation of turf at the Proposed Golf Course and the Spanish Bay driving range was based on the average water use (1.25 AFY/acre) for turf irrigation at the Spyglass Hill Golf Course (SHGC) for the water years 1995 and 1998. The factor used for irrigation of turf at the New Equestrian Center was based on the average water use (1.13 AFY/acre) for turf irrigation at the Poppy Hills Golf Course (PHGC) for the water years 1995 and 1998. These two years had the most rainfall (28 and 47 inches) in the last ten years (rainfall data is presented in Appendix G.1). SHGC is in a similar setting as the Proposed Golf Course and the Spanish Bay driving range. PHGC is in a similar setting as the New Equestrian Center. The estimate of drip irrigation used was 0.9 AFY/acre, based on MPWMD factors. The estimate for dust control at the New Equestrian Center used was 4.5 AFY/acre (WWD 2001). Monthly use was apportioned based on patterns of irrigation use in water years 1995 and 1998.

Table G.2-4C presents the irrigation demand for the Proposed Project for an average year. The factor used for irrigation of turf at the Proposed Golf Course and the Spanish Bay driving range was based on the average water use (1.58 AFY/acre) for turf irrigation at SHGC for the water years 1995 to 2003, excluding 1995 and 1998. The factor used for irrigation of turf at the New Equestrian Center was based on the average water use (1.51 AFY/acre) for turf irrigation at PHGC for the water years 1995 to 2003, excluding 1995 and 1998. The average annual rainfall for water years 1995 to 2003, excluding 1995 and 1998, is 19.6 inches, which is the same as the 50-year average for the local area. The estimate of drip irrigation used was 0.9 AFY/acre, based on MPWMD factors. The estimate for dust control at the New Equestrian Center used was 4.5

AFY/acre (WWD 2001). Monthly use was apportioned based on patterns of irrigation use in water years 1995 to 2003, excluding 1995 and 1998.

Table G.2-4D presents the irrigation demand for the Proposed Project for a dry year. The factor used for irrigation of turf at the Proposed Golf Course and the Spanish Bay driving range was based on the average water use (1.78 AFY/acre) for turf irrigation at SHGC for the water year 1997. The factor used for irrigation of turf at the New Equestrian Center was based on the average water use (1.91 AFY/acre) for turf irrigation at the PHGC for the water year 1997. While annual rainfall in water year 1997 (21.7 inches) was above the 50-year average (19.6 inches), rainfall during heavy irrigation months between April and October was the lowest (1.5 inches) in the last ten years, and the second lowest since 1979. Further, existing Del Monte Forest golf course use was the highest in the last ten years during water year 1997. The estimate of drip irrigation used was 0.9 AFY/acre, based on MPWMD factors. The estimate for dust control at the New Equestrian Center used was 4.5 AFY/acre (WWD 2001). Monthly use was apportioned based on patterns of irrigation use in water year 1997.

Table G.2-4E presents the irrigation demand for the Proposed Project for a dry year. The factor used for irrigation of turf at the Proposed Golf Course and the Spanish Bay driving range was based on the upper end use factor (2.50 AFY/acre) used for turf irrigation by San Luis Obispo County in its 2001 Master Plan. This factor was used because it is more conservative than the turf irrigation use factor (2.1 AFY/acre) commonly used by MPWMD and higher than the high end use factor provided the applicant's consultant (2.2 AFY/acre, Questa 2003). This factor was also selected because the resultant demand of the Proposed golf course (233.8 AFY) was equivalent to the highest use recorded for a single Del Monte Golf Course in review of available data from 1979 to 2003. The factor used for irrigation of turf at the New Equestrian Center was based on the average water use (1.91 AFY/acre) for turf irrigation at the PHGC for the water year 1997. The estimate of drip irrigation used was 0.9 AFY/acre, based on MPWMD factors. The estimate for dust control at the New Equestrian Center used was 4.5 AFY/acre (WWD 2001). Monthly use was apportioned based on patterns of irrigation use in water year 1997.

Scenarios Evaluated for Indirect Potable Water Demand for Irrigation

As described in Chapter P1, "Water Supply and Demand", the project could create an indirect demand for potable water in the event that the project's demand would exceed the capacity of the Recycled Water Project to provide recycled water in sufficient quantity or of sufficient quality for turf irrigation. In the event that the capacity was exceeded, then potable water would be demanded for irrigation. The demands of other users of recycled water are considered in the analysis of recycled water demand, because of the intention of the applicant to use recycled water for irrigation at the Proposed Golf Course, the New Equestrian Center, and the Spanish Bay Driving Range. Existing use of recycled

water was based on CAWD/PBCSD records; this data is summarized in Appendix G.1. The impact analysis looked at with-project and without-project conditions to identify both the direct demand for recycled water and the indirect (derived) demand for potable water.

A total of 13 scenarios were evaluated to examine this indirect demand for potable water and the effectiveness of proposed mitigation under a variety of conditions.

Existing RWP Scenarios

- **Scenario 1A. Wet Year, Existing RWP.** This scenario was designed to be representative of a wet year in which rainfall and irrigation demand are less than that in an average year. Project irrigation demand was estimated by applying irrigation use data from representative locations within the Del Monte Forest for Water Years 1995 and 1998 to the irrigation areas within the Proposed Project. Water Years 1995 and 1998 were the relatively wettest years in the last ten years and the years of lowest irrigation use of Del Monte Forest golf courses. Existing RWP use was estimated using actual use data for these years. Available CAWD plant inflows were based on an assumed 90% average availability and inflow averages for the CAWD plant from November to March and from April to October for the years 1986 to 2003 (with availability capped at plant capacity of 1.8 mgd). When total demand is estimated to be below the available water amount, the recycled amount assumed was assumed to be 80%, based on plant averages for 1995 and 1998. When total demand is estimated to be above capacity, the recycled amount assumed was 73% of capacity with the remainder assumed to be all potable, based on the average recycled use for 1995 to 2003, when total use exceeded capacity.

- **Scenario 1B. Average Year, Existing RWP.** This scenario was designed to be representative of an average year for rainfall and irrigation demand. Project irrigation demand was estimated by applying irrigation use data from representative locations within the Del Monte Forest for Water Years 1995 to 2003, excluding 1995 and 1998 (which were relatively wet years) to the irrigation areas within the Proposed Project. When excluding these two years, the rainfall average of this period (19.6 inches) is equal to the 50-year average for the Monterey Peninsula (Renard 2004). Available CAWD inflows were based on an assumed 90% average availability and inflow averages for the CAWD plant from November to March and from April to October for the years 1986 to 2003 (with availability capped at plant capacity of 1.8 mgd). When total demand is estimated to be below the available water amount, the recycled amount assumed was assumed to be 69%, based on plant averages for 1995-03, without 1995 and 1998). When total demand is estimated to be above capacity, the recycled amount assumed was 73% of capacity with the remainder assumed to be all potable, based on the average recycled use for 1995 to 2003, when total use exceeded capacity.

- **Scenario 2. Dry Year, Existing RWP.** This scenario was designed to be representative of a dry year in which rainfall is relatively less and irrigation use is greater than that in an average year. Project irrigation demand was estimated by applying irrigation use data from representative locations within the Del Monte Forest for Water Years 1997 to the irrigation areas within the Proposed Project. Water Year 1997 was the year of highest use of irrigation water by the Del Monte Forest golf courses in the last 10 years. Although Water Year 1997 was not the driest year in the last ten years, it was the driest in the period between April and October (1.5 inches precipitation), when irrigation demands are highest. Existing RWP use was estimated using actual use data for Water Year 1997. Available inflows were based on an assumed 90% average availability and inflow averages for the CAWD plant from Nov ember to March and from April to October for the 1994 (which was the year of lowest inflows in recent data). When total demand is estimated to be below the available water amount, the recycled amount assumed was assumed to be 71%, based on plant average for 1997. When total demand is estimated to be above capacity, the recycled amount assumed was 81% of capacity with the remainder assumed to be all potable, based on the average recycled use for 1997, when total use exceeded capacity.

- **Scenario 5. Very Dry Year, Existing RWP.** This scenario was designed to be representative of a very dry year in which rainfall is substantially less and irrigation use is substantially greater than in an average year. Since there has not been a very dry year (< 14 inches) in the last ten years when accurate data on Del Monte Forest irrigation use is available, project irrigation demand was estimated by using a high use factor of 2.5 AFY/acre for turf irrigation at the Proposed Golf Course and the Spanish Bay Driving Range. The resultant estimated irrigation demand for the Proposed Golf Course is 234 AF. This amount is considered reasonably representative of the worst-case demand as it is equal to the highest single year golf course use in the Del Monte Forest identified in a review of available water use data for the last 25 years. Existing RWP use was estimated multiplying actual use data for Water Year 1997 by 120%. For all golf courses but one, the resultant estimate of very dry year demand is higher than the highest use recorded for each golf course in the available data reviewed for the last 25 years. Available CAWD plant inflows were based on an assumed 90% average availability and inflow averages for the CAWD plant from November to March and from April to October for the 1994 (which was the year of lowest inflows in recent data). The recycled amount was assumed to be 69% based on plant average (1995 to 2003 without 1995 and 1998) up to available amount.

RWP Phase II Scenarios

- **Scenario 3A. Wet Year, RWP Phase II Without Project.** Scenario 3A is the same as the Scenario 1A described above, except that the Phase II improvements are assumed to be operational and the Proposed Project is excluded. With Phase II, it was presumed there would be no use of potable water for irrigation unless storage at Forest Lake reservoir was exhausted.

RWP Phase II recycled water production capacity was assumed as 1.5 mgd (CAWD 2004). Inflow availability assumed to be same as Scenario 1 which are greater 1.5 mgd. Forest Lake Reservoir storage capacity assumed as 420 AF.

- **Scenario 3B. Average Year, RWP Phase II Without Project.** Scenario 3B is the same as the Scenario 1B described above, except that the Phase II improvements are assumed to be operational. Assumptions for Phase II operations are the same as Scenario 3A.
- **Scenario 3C. Wet Year, RWP Phase II With Project.** Scenario 3C is the same as Scenario 3A except that project demand has been added.
- **Scenario 3D. Average Year, RWP Phase II With Project.** Scenario 3D is the same as Scenario 3B except that project demand has been added.
- **Scenario 4A. Dry Year, RWP Phase II Without.** Scenario 4A scenario is the same as Scenario 2 described above, except that the Phase II improvements are assumed to be operational. With Phase II, it was presumed there would be no use of potable water for irrigation unless storage at Forest Lake reservoir was exhausted. RWP Phase II recycled water production capacity was assumed as 1.5 mgd (CAWD 2004). Available inflows were based on an assumed 90% average availability and inflow averages for the CAWD plant from Nov ember to March and from April to October for the 1994 (which was the year of lowest inflows in recent data). Inflow availability is less than 1.5 mgd Phase II capacity and is thus a limiting factor for production in this scenario. Forest Lake Reservoir storage capacity assumed as 420 AF.
- **Scenario 4B. Dry Year, RWP Phase II With Project.** Scenario 4B is the same as Scenario 4A except that project demand has been added.
- **Scenario 6A. Very Dry Year, RWP Phase II.** Scenario 6A is the same as Scenario 5 described above, except that the Phase II improvements are assumed to be operational and the Proposed Project is excluded. With Phase II, presumed no use of potable water for irrigation unless storage at Forest Lake reservoir exhausted. Available inflows were based on an assumed 90% average availability and inflow averages for the CAWD plant from Nov ember to March and from April to October for the 1994 (which was the year of lowest inflows in recent data). Inflow availability is less than 1.5 mgd Phase II capacity and is thus a limiting factor for production in this scenario. Forest Lake Reservoir storage capacity assumed as 420 AF.
- **Scenario 6B. Very Dry Year, RWP Phase II.** Scenario 6B is the same as Scenario 6A except that project demand has been added.
- **Scenario 6C. Very Dry Year, RWP Phase II with Prohibition of Use of Potable Water for Project Irrigation.** Scenario 6C is the same as Scenario 6B except that it has been assumed that no potable water would be allowed to meet project irrigation demand. This scenario evaluates the effect of Mitigation Measure PSU-D2.

The tables below show the results of the analysis and identify, the amount of recycled water that the Proposed Project could expect to be available for irrigation use and the amount of project irrigation demand that would need to be met by potable water.

Table G.2-5A presents the analysis of Scenario 1A for the with-project demand for irrigation water from the existing Recycled Water Project during a wet year.

Table G.2-5B presents the analysis of Scenario 1B for the with-project demand for irrigation water from the existing Recycled Water Project during an average year.

Table G.2-5C presents the analysis of Scenario 2 for the with-project demand for irrigation water from the existing Recycled Water Project during a dry year.

Table G.2-5D presents the analysis of Scenario 3A for the demand for irrigation water from the Phase II Recycled Water Project during a wet year without the project.

Table G.2-5E presents the analysis of Scenario 3B for the demand for irrigation water from the Phase II Recycled Water Project during an average year without the project.

Table G.2-5F1 presents the analysis of Scenario 3C for the with-project demand for irrigation water from the Phase II Recycled Water Project during a wet year.

Table G.2-5F2 presents the analysis, using Scenario 3C for the monthly existing and with-project total potable demand with Phase II Recycled Water Project during a wet year in order to identify the net increases in summer withdrawals from the Carmel River and Seaside Aquifer.

Table G.2-5G presents the analysis of Scenario 3D for the with-project demand for irrigation water from the Phase II Recycled Water Project during an average year.

Table G.2-5H presents the analysis of Scenarios 4A for the demand for irrigation water from the Phase II Recycled Water Project during a dry year without the project.

Table G.2-5I presents the analysis of Scenarios 4B for the with-project demand for irrigation water from the Phase II Recycled Water Project during a dry year.

Table G.2-5J presents the analysis of Scenario 5 for the with-project demand for irrigation water from the existing Recycled Water Project during a very dry year.

Table G.2-5K presents the analysis of Scenario 6A for the demand for irrigation water from the Phase II Recycled Water Project during a very dry year without the project.

Table G.2-5L presents the analysis of Scenario 6B for the with-project demand for irrigation water from the Phase II Recycled Water Project during a very dry year.

Table G.2-5M presents the analysis of Scenario 6C for the with-project demand for irrigation water from the Phase II Recycled Water Project during a very dry year with a prohibition on use of potable water to meet project irrigation demand.

Pebble Beach Company's Water Entitlement

Table G.2-6 summarizes PBC's original water entitlement by property.

Table G.2-1A
With Project Increases in Water Use(in Acre-Feet)
(Existing Recycled Project with DMF/PDP)

	Total Water Use	Recycled Use	Potable Use
Low Use (Wet Year)			
Existing Irrigation Use	747	602	144
Project Direct Potable Use	86	0	86
Existing Plus Project Irrigation Use	892	670	222
Total Use With Project	978	670	308
Change Compared to Existing	232	68	**164**
Average Use (Average Rainfall Year)			
Existing Irrigation Use	1007	689	318
Project Direct Potable Use	91	0	91
Existing Plus Project Irrigation Use	1190	771	419
Total Use With Project	1281	771	510
Change Compared to Existing	273	82	**191**
High Use (Dry Year)			
Existing Irrigation Use	1109	782	327
Project Direct Potable Use	96	0	96
Existing Plus Project Irrigation Use	1315	796	519
Total Use With Project	1411	796	614
Change Compared to Existing	302	15	**287**
Very High Use (Very Dry Year)			
Existing Irrigation Use	1330	933	398
Project Direct Potable Use	100	0	100
Existing Plus Project Irrigation Use	1609	966	643
Total Use With Project	1709	966	743
Change Compared to Existing	379	34	**346**

Table G.2-1B
Cumulative With Project Increases in Water Use (in Acre-Feet)

	Total Water Use	Recycled Use	Potable Use
Low Use (Wet Year)			
Existing Irrigation Use	747	602	144
Project Direct Potable Use	86	0	86
Other Cumulative Direct Potable Use	169	0	169
Existing Plus Project Irrigation Use	892	670	222
Total Use	1147	670	477
Cumulative Change Compared to Existing	400	68	**333**
Average Use (Average Rainfall Year)			
Existing Irrigation Use	1007	689	318
Project Direct Potable Use	91	0	91
Other Cumulative Direct Potable Use	178	0	178
Existing Plus Project Irrigation Use	1190	771	419
Total Use	1458	771	687
Cumulative Change Compared to Existing	451	82	**369**
High Use (Dry Year)			
Existing Irrigation Use	1109	782	327
Project Direct Potable Use	96	0	96
Other Cumulative Direct Potable Use	186	0	186
Existing Plus Project Irrigation Use	1315	796	519
Total Use	1597	796	801
Cumulative Change Compared to Existing Use	488	15	**474**
Very High Use (Very Dry Year)			
Existing Irrigation Use	1330	933	398
Project Direct Potable Use	100	0	100
Other Cumulative Direct Potable Use	195	0	195
Existing Plus Project Irrigation Use	1609	966	643
Total Use	1905	966	939
Cumulative Change Compared to Existing Use	574	34	**541**

Table G.2-1C
Project Increases in Water Use with RWP Phase II (Mitigation Measure PSU-D1)
(in Acre-Feet)

	Total Water Use	Recycled Use	Potable Use
Low Use (Wet Year)			
Existing Irrigation Use	747	602	144
Project Direct Potable Use	86	0	86
Phase II Investor Potable Use	166	0	166
Existing Plus Project Irrigation Use	892	892	0
Total Use	1144	892	253
Change Compared to Existing	398	289	**109**
Average Use (Average Rainfall Year)			
Existing Irrigation Use	1007	689	318
Project Direct Potable Use	91	0	91
Phase II Investor Potable Use	175	0	175
Existing Plus Project Irrigation Use	1190	1190	0
Total Use	1456	1190	266
Change Compared to Existing	448	501	**-52**
High Use (Dry Year)			
Existing Irrigation Use	1109	782	327
Project Direct Potable Use	96	0	96
Phase II Investor Potable Use	184	0	184
Existing Plus Project Irrigation Use	1315	1315	0
Total Use	1594	1315	279
Change Compared to Existing Use	486	533	**-48**
Very High Use (Very Dry Year)			
Existing Irrigation Use	1330	933	398
Project Direct Potable Use	100	0	100
Phase II Investor Potable Use	193	0	193
Existing Plus Project Irrigation Use	1609	1473	136
Total Use	1902	1473	429
Change Compared to Existing Use	572	540	**31**

Table G.2-1D Project Increases in Withdrawals from the Carmel River and Seaside Basin			
	Total Water Use	Carmel River	Seaside Basin
Low Use (Wet Year)			
Baseline	*13810*	*10095*	*3715*
Project Demand	164	123	41
Cumulative with Project	333	250	83
Project with Phase II	109	81	27
Average Use (Average Rainfall Year)			
Baseline	*16068*	*11378*	*4690*
Project Demand	191	143	48
Cumulative with Project	369	277	92
Project with Phase II	-52	-39	-13
High Use (Dry Year)			
Baseline	*18335*	*12847*	*5488*
Project Demand	287	216	72
Cumulative with Project	474	355	118
Project with Phase II	-48	-36	-12
Very High Use (Very Dry Year)			
Baseline	*18335*	*12847*	*5488*
Project Demand	346	259	86
Cumulative with Project	541	406	135
Project with Phase II	31	23	8
Assumed %		75%	25%

Table G.2-1E
Project Demand in a Very Dry Year with RWP Phase II and Mitigation PSU-D2

	Total Water Use	Recycled Use	Potable Use
Baseline Use			
Existing Use (no Phase II)	1330	933	398
Prohibit Potable Use for Project Irrigation Use			
Project plus Existing Irrigation Demand	1473	1473	0
Project Direct Demand	100	0	100
Phase II Potable Demand	195	0	195
Total Demand	1768	1473	295
Change with Existing	*438*	*540*	*-102*

Table G.2-2A
Summary of Potable Water Use of Proposed Project
(In Acre-Feet/Year)
(Exclusive of Potable Use Related to Recycled Water Project)

Proposed Development	Use
New Golf Course	11
New Equestrian Center	5
Spanish Bay Inn	27
Spanish Bay Driving Range	0
Spanish Bay Employee Housing	2
Lodge at Pebble Beach	14
Residential Areas (5)	33
Corporation Yard Housing	9
Highway 1/68 Landscaping	1
Subtotal	*103*
Removed Uses	-12
Project Total - Average Year	**91**
Project Total - Wet Year	**86**
Project Total - Dry Year	**96**
Project Total - Very Dry Year	**100**

Table G.2-2B
Summary of Cumulative Water Use (in Acre-Feet/Year)
(Exclusive of Potable Use Related to Recycled Water Project)

Cumulative Development	Demand
Existing Lots	115
Area F-1 and J	28
Area X and Y	34
Cumulative Total - Average Year	**178**
Cumulative Total - Wet Year	**169**
Cumulative Total - Dry Year	**186**
Cumulative Total - Very Dry Year	**195**

Table G.2-2C
Summary of Phase II Investor Water Use (in Acre-Feet/Year)

Cumulative Development	Demand
Existing Vacant Lots and Rebuilds - Average	**175**
Existing Vacant Lots and Rebuilds - Wet	**166**
Existing Vacant Lots and Rebuilds - Dry	**184**
Existing Vacant Lots and Rebuilds - Very Dry	**193**

Table G.2-2D
Potable Water Use of Proposed Project, Average Year
(Exclusive of Use of Water from Reclamation Project)

	Units	Number of Units	Use factor (AFY/unit)	Demand (AFY)	MPWMD Factor (AFY/unit)	Type	WWD Factor (AFY/unit)	Notes
New Golf Course								
Restaurant	seats	135	0.02	2.70	0.02	Restaurant	0.02	Same
Office and Locker Rooms	SF	8000	0.00007	0.56	0.00007	Gym	0.00007	Same
Storage, Golf Carts, Office	SF	14598	0.00007	1.02	0.00007	Storage	0.00007	Same
Landscape drip irrigation	Acres	0.10	0.9	0.09	0.9	Drip irrigation	0.9	
Golf Maintenance Facility	SF	15375	0.00007	1.08	0.00007	Auto uses	0.00007	Same
Restrooms	restroom	4	0.058	0.23	0.058	Public restroom toilet	0.12	per restroom
Driving Range Building	toilet	1	0.058	0.06	0.058	Public restroom toilet	0.058	Same
Golf Cottages	rooms	24	0.21	5.04	0.21	Lux hotel	0.1	Motel room
Subtotal	AFY			**10.78**				
New Equestrian Center								
Office	SF	3475	0.00007	0.24	0.00007	Office	0.00007	Same
Tie stall barn/front office	SF	350	0.00007	0.02	0.00007	Office	0.00007	Same
Stall Barn	horses	64	0.0112	0.72			0.0112	10 GPD/horse (shaw archicture)
Corral Barn	horses	22	0.0112	0.25			0.0112	10 GPD/horse (shaw archicture)
Horse Shelters	horses	64	0.0112	0.72			0.0112	10 GPD/horse (shaw archicture)
Riding Ring Stalls	horses	24	0.0112	0.27			0.0112	10 GPD/horse (shaw archicture)
Horse Camp	hotel units	6	0.1	0.60	0.1	Motel Room	0.1	Same
Dining hall/kitchen	seats	30	0.02	0.60	0.02	Restaurant	0.02	Same
Manager's residence	FU	23.1	0.01	0.23	0.01	FU	0.01	WWD 2001
Asst. Manager's residence	FU	20.1	0.01	0.20	0.01	FU	0.01	WWD 2001
Staff housing	FU	52.4	0.01	0.52	0.01	FU	0.01	WWD 2001
Wash Racks	racks	3	0.112	0.34			100	GPD/horse (shaw archicture)
Vehicle Storage	SF	2250	0.00007	0.16	0.00007	Storage	0.00007	Same
Hay Barn	SF	2520	0.00007	0.18	0.00007	Storage	0.00007	Same
Subtotal	AFY			**5.04**				
Spanish Bay Inn								
Swimming pool	SF	800	0.0002	0.16	0.0002	Pool	0.0002	Same
Meeting room space	SF	14040	0.00053	7.44	0.00053	Meeting Hall	0.00053	Same
Meeting room support	SF	4260	0.00007	0.30	0.00007	Office	0.00007	Same
New hotel rooms	rooms	91	0.21	19.11	0.21	Lux hotel	0.1	Motel room
Locker room addition	SF	1512	0.00007	0.11	0.00007	Gym	0.00007	Same
Tennis court reconstruction	SF	0	0	0.00		NA		
Subtotal	AFY			**27.12**				
Spanish Bay Driving Range								
Teaching facility	restroom	4	0.058	0.23	0.058	Public Restroom toilet	0.12	per restroom
Subtotal	AFY			**0.23**				
Spanish Bay Employee Housing								
Employee housing	AFY			2.44	0.01	FU	2.442	WWD 3/4/03> 2001 original of 2.29, includes landscaping
Subtotal	AFY			**2.44**				
Lodge at Pebble Beach								
Fairway One golf cart barn exp.	SF	600	0.00007	0.04	0.00007	Storage	0.00007	Same
Fairway One guestrooms	rooms	38	0.21	7.98	0.21	Lux hotel	0.1	Motel room
Colton House guestrooms	rooms	20	0.21	4.20	0.21	Lux hotel	0.1	Motel room
Meeting facility expansion	SF	3750	0.00053	1.99	0.00053	Meeting Hall	0.00053	Same
Subtotal	AFY			**14.21**				
Residential Areas								
F-2 (1.7 acres/lot)	lots	10	1	10.00	1	> 1.0 acre (EIR 1997)	0.8	DMF Avg.
F-3 (1.8 acres/lot)	lots	4	1	4.00	1	> 1.0 acre (EIR 1997)	0.8	DMF Avg.
I-2 (1.4 acres/lot)	lots	11	1	11.00	1	> 1.0 acre (EIR 1997)	0.8	DMF Avg.
K (2.95 acre/lot)	lots	1	1	1.00	1	> 1.0 acre (EIR 1997)	0.8	DMF Avg.
PQR (1.8 acres/lot)	lots	7	1	7.00	1	> 1.0 acre (EIR 1997)	0.8	DMF Avg.
Subtotal	AFY	33		**33.00**				
Corp Yard. Housing								
Corp. Yard Housing	FU	940.8	0.01	9.41	0.01	FU	9.408	WWD 3/4/03 > 2001 original of 8.69, includes landscaping at 50%
Subtotal	AFY			**9.41**				
Highway 1/68 Landscaping								
Landscape drip irrigation	Acres	2	0.35	0.70	0.35	Caltrans		
Subtotal	AFY			**0.70**				
Removed Uses								
Removal of EQ center	AFY		10.81	-10.81		NA	10.81	Existing Use
Removal of Collins Home/Cottages	AFY		0.57	-0.57		NA	0.57	Existing Use
Conversion of office space at Spanish Bay	SF	-8093	0.00007	-0.57	0.00007	Office	0.00007	Same
Subtotal	AFY			**-11.95**				
TOTAL - Avg.	AFY			**90.98**				
Wet Year				86.43				95% of Avg.
Dry Year				95.53				105% of Avg.
Very Dry Year				100.08				110% of Avg.

Table G.2-2E
Potable Demand of Cumulative Projects
(Exclusive of Use of Water from Recycled Water Project)

	Number of Units	Use factor (AFY/unit)	Demand (AFY)	Factor (AFY/unit)	Notes
Existing Vacant Lots					
Future SFD Development	144	0.8	115.2	0.8	DMF Average
Area F-1 and J					
Future SFD Development	35	0.8	28.0	0.8	DMF Average
Area X and Y					
Future SFD Development	43	0.8	34.4	0.8	DMF Average
Investors in Phase II					
DMF Existing Lots				0	Included in above (175 AF max.)
TOTAL	222		**177.6**		

G.2-3A
Summary of Irrigation Water Demand with Project (in Acre-Feet/Year)

	Existing RWP (Scenarios 1, 2, and 5)		
	Total Water Use	Recycled Use	Potable Use
Low Use (Wet Year)			
Irrigation Demand - Existing Uses	747	602	144
Irrigation Demand with Project	892	670	222
Change with Project	145	68	**78**
Average Use (Average Rainfall Year)			
Irrigation Demand - Existing Uses	1007	689	318
Irrigation Demand with Project	1190	771	419
Change with Project	182	82	**100**
High Use (Dry Year)			
Irrigation Demand - Existing Uses	1109	782	327
Irrigation Demand with Project	1315	796	519
Change with Project	206	15	**192**
Very High Use (Very Dry Year)			
Irrigation Demand - Existing Uses	1330	933	398
Irrigation Demand with Project	1609	966	643
Change with Project	279	34	**245**

Table G.2-3B
Summary of Cumulative Irrigation Water Demand with Project (in Acre-Feet/Year)

	Existing RWP (Scenarios 1, 2, and 5)			With Phase II (Scenarios 3, 4, and 6)		
	Total Use	Recycled Use	Potable Use	Total Use	Recycled Use	Potable Use
Low Use (Wet Year)						
Irrigation Demand - Existing Uses	747	602	144	747	747	0
Irrigation Demand with Project	892	670	222	892	892	0
Change with Project	145	68	**78**	145	145	**0**
Average Use (Average Rainfall Year)						
Irrigation Demand - Existing Uses	1007	689	318	1007	1007	0
Irrigation Demand with Project	1190	771	419	1190	1190	0
Change with Project	182	82	**100**	182	182	**0**
High Use (Dry Year)						
Irrigation Demand - Existing Uses	1109	782	327	1109	1109	0
Irrigation Demand with Project	1315	796	519	1315	1315	0
Change with Project	206	15	**192**	206	206	**0**
Very High Use (Very Dry Year)						
Irrigation Demand - Existing Uses	1330	933	398	1330	1330	0
Irrigation Demand with Project	1609	966	643	1609	1473	136
Change with Project	279	34	**245**	279	143	**136**

Table G.2-4A
Irrigation Water Demand of Proposed Project
(Acre-Feet/Year)

Location	Wet	Average	Dry	Very Dry
New Golf Course	118	148	167	234
New Equestrian Center	17	21	25	25
Spanish Bay Driving Range	10	13	15	20
Other Landscaping	0	0	0	0
Total Irrigation Water Demand	**145**	**182**	**206**	**279**

Table G.2-4B
Irrigation Water Demand of Proposed Project (Acre-Feet)
(Wet Year)

Month	New Golf Course	New Equestrian Center	Spanish Bay Driving Range	Other Landscaping	Total Irrigation Demand	DMF GC Average 1995/1998 (AF)	DMF GC Average 1995/1998 (%)
October	14.5	2.1	1.3	-0.01	17.8	12.7	12.3%
November	2.5	0.4	0.2	0.00	3.1	2.2	2.2%
December	0.3	0.0	0.0	0.00	0.4	0.3	0.3%
January	0.2	0.0	0.0	0.00	0.3	0.2	0.2%
February	0.4	0.1	0.0	0.00	0.4	0.3	0.3%
March	0.6	0.1	0.1	0.00	0.8	0.5	0.5%
April	6.9	1.0	0.6	0.00	8.5	6.0	5.8%
May	11.1	1.6	1.0	-0.01	13.8	9.8	9.5%
June	19.0	2.8	1.7	-0.01	23.4	16.7	16.1%
July	22.8	3.3	2.0	-0.02	28.2	20.1	19.4%
August	22.0	3.2	1.9	-0.02	27.2	19.3	18.7%
September	17.4	2.5	1.5	-0.01	21.4	15.3	14.8%
TOTAL	117.7	17.2	10.4	-0.1	**145.2**	103.4	100.0%
Irrigated Turf (acres)	92.9	9.8	8.0				
Irrigated Landscaping (Drip, acres)	1.8	1.8	0.5	-0.1			

Bolded items were used for estimate

Turf/Drip Irrigation	**AF/Acre**
New Golf Course = SHGC 95/98 (PBCSD 2004)	**1.25**
SB Driving Range = SHGC 95/98 (PBCSD 2004)	**1.25**
New EQ Center Turf = PHGC 95/98 (PBCSD 2004)	**1.13**
MPWMD - Drip irrigation	**0.9**
Equestrian Center Dust Control	**AF**
EQ Dust Control (WWD 2001)	**4.5**
Other Landscaping	**Acres**
Lodge	-0.2
SB Inn	0.1
Total Other Landscaping	**-0.1**

Other Factors, not used for estimate	**AF/Acre**
SBGL 95/98 (PBCSD 2004)	1.89
PBGL 95/98 (PBCSD 2004)	1.57
RDEIR 1995 - low (EIP 1995)	1.23
MPWMD - General turf irrigation	2.10
Questa - Low (Questa 2003)	1.07

Table G.2-4C
Irrigation Water Demand of Proposed Project (Acre-Feet)
(Average Year)

Month	New Golf Course	New Equestrian Center	Spanish Bay Driving Range	Other Landscaping	Total Irrigation Demand	DMF GC Avg. 1995 - 2003/ w/o 95 & 98 (AF)	DMF GC Avg. 1995 - 2003/ w/o 95 & 98 (%)
October	12.3	1.7	1.1	0.0	15.1	11.5	8.3%
November	3.3	0.5	0.3	0.0	4.0	3.0	2.2%
December	2.0	0.3	0.2	0.0	2.5	1.9	1.4%
January	1.3	0.2	0.1	0.0	1.6	1.2	0.9%
February	0.9	0.1	0.1	0.0	1.1	0.8	0.6%
March	5.8	0.8	0.5	0.0	7.1	5.4	3.9%
April	13.0	1.8	1.1	0.0	16.0	12.2	8.8%
May	22.8	3.2	2.0	0.0	28.0	21.3	15.4%
June	24.4	3.4	2.1	0.0	30.0	22.8	16.4%
July	22.6	3.2	2.0	0.0	27.8	21.2	15.2%
August	21.4	3.0	1.9	0.0	26.2	20.0	14.4%
September	18.6	2.6	1.6	0.0	22.9	17.4	12.5%
TOTAL	148.4	20.9	13.1	-0.1	**182.2**	138.9	100.0%
Irrigated Turf (acres)	92.9	9.8	8.0				
Irrigated Landscaping (drip, acres)	1.8	1.8	0.5	-0.1			

Bolded items were used for estimate for normal rainfall year

Turf/Drip Irrigation	**AF/Acre**
New Golf Course = SHGC Avg. 95-03 w/o 95 & 98 (PBCSD 2004)	**1.58**
SB Driving Range = SHGC Avg. 95-03 w/o 95 & 98 (PBCSD 2004)	**1.58**
New EQ Center Turf = PHGC Avg. 95-03 w/o 95 & 98 (PBCSD 2004)	**1.51**
MPWMD - Drip irrigation	**0.9**
Equestrian Center Dust Control	**AF**
EQ Dust Control (WWD 2001)	**4.5**
Other Landscaping	**Acres**
Lodge	-0.2
SB Inn	0.1
Total Other Landscaping	**-0.1**

Other Factors, not used for estimate	**AF/Acre**
SBGL Avg. 95-03 w/o 95 & 98 (PBCSD 2004)	2.47
PBGL Avg. 95-03 w/o 95& 98 (PBCSD 2004)	2.23
Questa - Low (Questa 2003)	1.07
RDEIR 1995 - low (EIP 1995)	1.23
MPWMD - General turf irrigation	2.10

Table G.2-4D
Irrigation Water Demand of Proposed Project (Acre-Feet)
(Dry Year)

Month	New Golf Course	New Equestrian Center	Spanish Bay Driving Range	Other Landscaping	Total Irrigation Demand	DMF GC Avg. 1997 (AF)	DMF GC Avg. 1997 (%)
October	11.2	1.7	1.0	-0.01	13.9	10.3	6.7%
November	2.0	0.3	0.2	0.00	2.5	1.8	1.2%
December	0.1	0.0	0.0	0.00	0.2	0.1	0.1%
January	0.2	0.0	0.0	0.00	0.2	0.1	0.1%
February	2.5	0.4	0.2	0.00	3.0	2.3	1.5%
March	13.1	2.0	1.2	-0.01	16.2	12.0	7.9%
April	19.1	2.8	1.7	-0.01	23.6	17.5	11.5%
May	27.2	4.0	2.4	-0.01	33.6	24.9	16.3%
June	26.2	3.9	2.3	-0.01	32.3	24.0	15.7%
July	20.5	3.0	1.8	-0.01	25.3	18.7	12.3%
August	21.0	3.1	1.8	-0.01	25.9	19.2	12.6%
September	23.9	3.6	2.1	-0.01	29.6	21.9	14.3%
TOTAL	166.9	24.8	14.7	-0.1	**206.3**	152.9	100.0%
Irrigated Turf (acres)	92.9	9.8	8.0				
Irrigated Landscaping (Drip, acres)	1.8	1.8	0.5	-0.1			

Bolded items were used for estimate

Turf/Drip Irrigation	**AF/Acre**
New Golf Course = SHGC 02 (PBCSD 2004)	**1.78**
SB Driving Range = SHGC 02 (PBCSD 2004)	**1.78**
New EQ Center Turf = PHGC 97 (PBCSD 2004)	**1.91**
MPWMD - Drip irrigation	**0.9**
Equestrian Center Dust Control	**AF**
EQ Dust Control (WWD 2001)	**4.5**
Other Landscaping	**Acres**
Lodge	-0.2
SB Inn	0.1
Total Other Landscaping	**-0.1**

Other Factors, not used for estimate	**AF/Acre**
SBGL 97 (PBCSD 2004)	2.76
PBGL 97 (PBCSD 2004)	2.42
SHGC 97 (PBCSD 2004)	1.52
RDEIR 1995 - high (EIP 1995)	1.50
MPWMD - General turf irrigation	2.10
Questa - High (Questa 2003)	2.20
SLO - High (Master Water Plan Update 2001) for golf	2.50

Table G.2-4E
Irrigation Water Demand of Proposed Project (Acre-Feet)
(Very Dry Year)

Month	New Golf Course	New Equestrian Center	Spanish Bay Driving Range	Other Landscaping	Total Irrigation Demand	DMF GC Avg. 1997 (AF)	DMF GC Avg. 1997(%)
October	15.7	1.7	1.4	-0.01	18.7	10.3	6.7%
November	2.8	0.3	0.2	0.00	3.3	1.8	1.2%
December	0.2	0.0	0.0	0.00	0.2	0.1	0.1%
January	0.2	0.0	0.0	0.00	0.3	0.1	0.1%
February	3.5	0.4	0.3	0.00	4.1	2.3	1.5%
March	18.4	2.0	1.6	-0.01	22.0	12.0	7.9%
April	26.8	2.8	2.3	-0.01	32.0	17.5	11.5%
May	38.1	4.0	3.3	-0.01	45.5	24.9	16.3%
June	36.7	3.9	3.2	-0.01	43.7	24.0	15.7%
July	28.7	3.0	2.5	-0.01	34.2	18.7	12.3%
August	29.4	3.1	2.6	-0.01	35.0	19.2	12.6%
September	33.5	3.6	2.9	-0.01	40.0	21.9	14.3%
TOTAL	233.8	24.8	20.4	-0.1	**279.0**	152.9	100.0%
Irrigated Turf (acres)	92.9	9.8	8.0				
Irrigated Landscaping (Drip, acres	1.8	1.8	0.5	-0.1			

Bolded items were used for estimate

Turf/Drip Irrigation	**AF/Acre**
New Golf Course Turf = SLO - High (Master Water Plan 2001) for GCs	**2.50**
SB Driving Range Turf = SLO - High (Master Water Plan 2001) for GCs	**2.50**
New EQ Center Turf = PHGC 97 (PBCSD 2004)	**1.91**
Drip Irrigation - MPWMD - Drip irrigation factor	**0.9**
Equestrian Center Dust Control	**AF**
EQ Dust Control (WWD 2001)	**4.5**
Other Landscaping	**Acres**
Lodge	-0.2
SB Inn	0.1
Total Other Landscaping	**-0.1**

Other Factors, not used for estimate	**AF/Acre**
SHGC 02 (PBCSD 2004)	1.78
SBGL 97 (PBCSD 2004)	2.76
PBGL 97 (PBCSD 2004)	2.42
RDEIR 1995 - high (EIP 1995)	1.50
MPWMD - General turf irrigation	2.10
Questa - High (Questa 2003)	2.20

Table G.2-5A
CAWD/PBCSD Recycled Water Project Production (Demand in Acre-Feet)
Existing Plant - Wet Year with DMF/PDP
(Scenario 1A)

Month	Availability	Existing Recycled Use	Existing Potable Use	Existing Total Use	PBC New Use	Total Use w/Project	Recycled Use w/Project	Potable Use w/Project
October	156.6	56.6	35.5	92.1	17.8	109.9	88.0	22.0
November	165.6	15.0	1.5	16.5	3.1	19.6	15.7	3.9
December	171.2	1.7	0.4	2.1	0.4	2.5	2.0	0.5
January	171.2	1.3	0.0	1.3	0.3	1.5	1.2	0.3
February	154.6	1.7	0.6	2.3	0.4	2.7	2.2	0.5
March	171.2	1.6	2.3	3.9	0.8	4.6	3.7	0.9
April	151.6	27.1	15.8	42.9	8.5	51.4	41.1	10.3
May	156.6	54.7	15.4	70.1	13.8	83.9	67.1	16.8
June	151.6	97.2	23.0	120.2	23.4	143.6	114.8	28.7
July	156.6	127.1	18.7	145.8	28.2	174.0	114.3	59.7
August	156.6	120.2	18.5	138.8	27.2	165.9	114.3	51.6
September	151.6	98.3	12.4	110.7	21.4	132.1	105.7	26.4
TOTAL	1914.9	602.4	144.1	746.6	**145.2**	891.8	670.1	221.6
Percent		*80.7%*	*19.3%*	*100.0%*		*100.0%*	*75.1%*	*24.9%*
Delta							**67.7**	**77.5**
	mg/d available Nov - Mar	mg/d available Apr- Oct	AF/Day Nov- Mar	AF/Day Apr - Oct	Below capacity, Recycled amount assumed to be 80% of total use based on plant average (95 & 98). Above capacity, assumed 73% of capacity is Recycled and remainder potable (73% is average Recycled use/capacity 95-03, when total use> capacity). Mg/day based on presumed 90% average availability from CAWD plant for Nov. - Mar and April-October 86-03 (availability capped at 1.8 mgd).			
Existing Project	1.80	1.65	5.5	5.1				

Existing Recycled Use Based on Water Year 1995 and 1998 as wettest years between 1995 and 2003

Source: CAWD/PBCSD Production Report, July 15, 2002; http://www.pbcsd.org/reports.html

Table G.2-5B
CAWD/PBCSD Recycled Water Project Production (Demand in Acre-Feet)
Existing Plant - Average Year with DMF/PDP
(Scenario 1B)

Month	Availability	Existing Recycled Use	Existing Potable Use	Existing Total Use	PBC New Use	Total Use w/Project	Recycled Use w/Project	Potable Use w/Project
October	156.6	75.6	9.1	84.6	15.1	99.7	68.8	30.9
November	165.6	10.4	11.8	22.2	4.0	26.2	18.1	8.1
December	171.2	8.4	5.5	13.8	2.5	16.3	11.3	5.1
January	171.2	5.6	3.3	8.9	1.6	10.5	7.3	3.3
February	154.6	5.2	1.0	6.2	1.1	7.3	5.0	2.3
March	171.2	36.0	3.5	39.5	7.1	46.7	32.2	14.5
April	151.6	64.2	23.6	87.8	16.0	103.7	71.6	32.2
May	156.6	93.5	60.5	154.0	28.0	182.0	114.3	67.7
June	151.6	97.9	67.7	165.6	30.0	195.6	110.6	84.9
July	156.6	107.3	46.4	153.7	27.8	181.5	114.3	67.2
August	156.6	96.8	47.6	144.4	26.2	170.6	114.3	56.3
September	151.6	88.3	38.4	126.7	22.9	149.5	103.2	46.4
TOTAL	1914.9	689.1	318.3	1007.5	**182.2**	1189.7	771.0	418.7
Percent		*68.4%*	*31.6%*	*100.0%*		*100.0%*	*64.8%*	*35.2%*
Delta							**81.9**	**100.4**

	mg/d available Nov - Mar	mg/d available Apr- Oct	AF/Day Nov- Mar	AF/Day Apr - Oct	
Existing Project	1.80	1.65	5.5	5.1	Below capacity, Recycled amount assumed to be 69% of total use based on plant average (95-03, w/o 95 & 98). Above capacity, assumed 73% of capacity is Recycled and remainder potable (73% is average Recycled use/capacity 95-03, when total use> capacity). Mg/day based on presumed 90% average availability from CAWD plant for Nov. - Mar and April-October 86-03 (availability capped at

Existing Recycled Use Based on Water Year 1995 - 2003 averages, less 1995 and 1998 water years (removed due to 47 inches and 24 inches of rain respectively to create average use)

Source: CAWD/PBCSD Production Report, July 15, 2002; http://www.pbcsd.org/reports.html
CAWD/PBCSD Wastewater Reclamation Project 2002-2003 Water Year Usage

Table G.2-5C
CAWD/PBCSD Recycled Water Project Production (Demand in Acre-Feet)
Existing Plant - Dry Year with DMF/PDP
(Scenario 2)

Month	Availability	Existing Recycled Use	Existing Potable Use	Existing Total Use	PBC New Use	Total Use	Recycled Use	Potable Use
October	130.9	68.2	6.7	74.9	13.9	88.8	63.0	25.7
November	130.0	0.6	12.3	12.9	2.5	15.4	10.9	4.5
December	134.4	0.8	0.0	0.8	0.2	1.0	0.7	0.3
January	134.4	1.0	0.0	1.0	0.2	1.2	0.9	0.3
February	121.4	12.6	3.7	16.3	3.0	19.3	13.7	5.6
March	134.4	74.7	12.2	86.9	16.2	103.1	73.2	29.9
April	126.7	94.6	33.6	128.2	23.6	151.9	103.9	48.0
May	130.9	102.9	77.7	180.6	33.6	214.2	107.4	106.9
June	126.7	102.5	72.4	174.9	32.3	207.2	103.9	103.3
July	130.9	110.6	26.1	136.7	25.3	162.0	107.4	54.6
August	130.9	80.7	57.1	137.8	25.9	163.7	107.4	56.3
September	126.7	132.5	25.1	157.6	29.6	187.1	103.9	83.2
TOTAL	1558.4	781.8	326.9	1108.7	**206.3**	1315.0	796.3	518.7
Percent		*70.5%*	*29.5%*	*100.0%*		*100.0%*	*60.6%*	*39.4%*
Delta							**14.5**	**191.8**
	mg/d available Nov - Mar	mg/d available Apr- Oct	AF/Day Nov- Mar	AF/Day Apr - Oct	Below capacity, Recycled amount assumed to be 71% of total use based on plant average (97). Above capacity, assumed 81% of capacity is Recycled and remainder potable (81% is average Recycled use May - Sept, 97). Mg/day based on presumed 90% average availability from CAWD plant for Nov. - Mar and April-October lowest inflow year (1994).			
Existing Project	1.41	1.38	4.3	4.2				

Existing Water Use taken from 1997 water year = year with least rainfall between April and October between 1995 and 2003 and highest total water use

Source: CAWD/PBCSD Production Report, July 15, 2002; http://www.pbcsd.org/reports.html
CAWD/PBCSD Wastewater Reclamation Project 2002-2003 Water Year Usage

Table G.2-5D
CAWD/PBCSD Recycled Water Project Production (Demand in Acre-Feet)
Phase II Plant - Wet Year without DMF/PDP
(Scenario 3A)

Month	Scenario 3 Availability	Existing Recycled Use	Existing Potable Use	Existing Total Use	Recycled Use1	Excess Capacity	Potential Storage	Recycled Use2	Potable Use
October	142.6	56.6	35.5	92.1	92.1	50.5	50.5	92.1	0.0
November	138.0	15.0	1.5	16.5	16.5	121.5	172.1	16.5	0.0
December	142.6	1.7	0.4	2.1	2.1	140.6	312.6	2.1	0.0
January	142.6	1.3	0.0	1.3	1.3	141.4	420.0	1.3	0.0
February	128.8	1.7	0.6	2.3	2.3	126.6	420.0	2.3	0.0
March	142.6	1.6	2.3	3.9	3.9	138.8	420.0	3.9	0.0
April	138.0	27.1	15.8	42.9	42.9	95.1	420.0	42.9	0.0
May	142.6	54.7	15.4	70.1	70.1	72.5	420.0	70.1	0.0
June	138.0	97.2	23.0	120.2	120.2	17.9	420.0	120.2	0.0
July	142.6	127.1	18.7	145.8	142.6	-3.2	416.8	145.8	0.0
August	142.6	120.2	18.5	138.8	138.8	3.9	420.0	138.8	0.0
September	138.0	98.3	12.4	110.7	110.7	27.3	420.0	110.7	0.0
TOTAL	1679.4	602.4	144.1	746.6	743.4	936.1		746.6	0.0
Percent		*80.7%*	*19.3%*	*100.0%*				*100.0%*	*0.0*
Delta								**144.1**	**-144.1**
	mg/d available Nov - Mar	mg/d available Apr- Oct	AF/Day Nov- Mar	AF/Day Apr - Oct	With Phase II, presumed no use of potable water for irrigation unless storage at Forest Lake reservoir exhausted. Mg/d based on factor for Phase II capacity provided by Roy Von Dohren, CAWD, 04/15/04. Inflow availability assumed to be same as Scenario 1 which are > 1.5 mgd Phase II capacity. Storage capacity of 420 AF.				
Phase II	1.50	1.50	4.6	4.6					

Existing Recycled Use Based on 1995 and 1998 water years (wettest years between 1995 and 2003)

Source: CAWD/PBCSD Production Report, July 15, 2002; http://www.pbcsd.org/reports.html

Table G.2-5E
CAWD/PBCSD Recycled Water Project Production (Demand in Acre-Feet)
Phase II Plant - Average Year without DMF/PDP
(Scenario 3B)

Month	Availability	Existing Recycled Use	Existing Potable Use	Existing Total Use	Recycled Use1	Excess Capacity	Potential Storage	Recycled Use2	Potable Use
October	142.6	75.6	9.1	84.6	84.6	58.0	58.0	84.6	0.0
November	138.0	10.4	11.8	22.2	22.2	115.8	173.8	22.2	0.0
December	142.6	8.4	5.5	13.8	13.8	128.8	302.6	13.8	0.0
January	142.6	5.6	3.3	8.9	8.9	133.7	420.0	8.9	0.0
February	128.8	5.2	1.0	6.2	6.2	122.7	420.0	6.2	0.0
March	142.6	36.0	3.5	39.5	39.5	103.1	420.0	39.5	0.0
April	138.0	64.2	23.6	87.8	87.8	50.3	420.0	87.8	0.0
May	142.6	93.5	60.5	154.0	142.6	-11.4	408.6	154.0	0.0
June	138.0	97.9	67.7	165.6	138.0	-27.5	381.1	165.6	0.0
July	142.6	107.3	46.4	153.7	142.6	-11.1	370.0	153.7	0.0
August	142.6	96.8	47.6	144.4	142.6	-1.7	368.2	144.4	0.0
September	138.0	88.3	38.4	126.7	126.7	11.4	379.6	126.7	0.0
TOTAL	1679.4	689.1	318.3	1007.5	955.7	723.8		1007.5	0.0
Percent		*68.4%*	*31.6%*	*100.0%*				*100.0%*	*0.0*
Delta								**318.3**	**-318.3**

	mg/d available Nov - Mar	mg/d available Apr- Oct	AF/Day Nov- Mar	AF/Day Apr - Oct	
Phase II	1.50	1.50	4.6	4.6	With Phase II, presumed no use of potable water for irrigation unless storage at Forest Lake reservoir exhausted. Mg/d based on factor for Phase II capacity provided by Roy Von Dohren, CAWD, 04/15/04. Inflow availability assumed to be same as Scenario 1A/1B which are > 1.5 mgd Phase II capacity. Storage capacity of 420 AF.

Existing Recycled Use Based on Water Year 1995 - 2003 averages, less 1995 and 1998 water year (removed as anomalies due to 47 inches and 28 inches of rain respectively)

Source: CAWD/PBCSD Production Report, July 15, 2002; http://www.pbcsd.org/reports.html
CAWD/PBCSD Wastewater Reclamation Project 2002-2003 Water Year Usage

Table G.2-5F1
CAWD/PBCSD Recycled Water Project Production (Demand in Acre-Feet)
Phase II Plant - Wet Year with DMF/PDP
(Scenario 3C)

Month	Scenario 3 Availability	Existing Recycled Use	Existing Potable Use	Existing Total Use	PBC New Use	Total Use w/Project	Recycled Use 1	Excess Capacity	Potential Storage	Recycled Use 2	Potable Use
October	142.6	56.6	35.5	92.1	17.8	109.9	109.9	32.7	32.7	109.9	0.0
November	138.0	15.0	1.5	16.5	3.1	19.6	19.6	118.4	151.1	19.6	0.0
December	142.6	1.7	0.4	2.1	0.4	2.5	2.5	140.2	291.3	2.5	0.0
January	142.6	1.3	0.0	1.3	0.3	1.5	1.5	141.1	420.0	1.5	0.0
February	128.8	1.7	0.6	2.3	0.4	2.7	2.7	126.1	420.0	2.7	0.0
March	142.6	1.6	2.3	3.9	0.8	4.6	4.6	138.0	420.0	4.6	0.0
April	138.0	27.1	15.8	42.9	8.5	51.4	51.4	86.7	420.0	51.4	0.0
May	142.6	54.7	15.4	70.1	13.8	83.9	83.9	58.7	420.0	83.9	0.0
June	138.0	97.2	23.0	120.2	23.4	143.6	138.0	-5.5	414.5	143.6	0.0
July	142.6	127.1	18.7	145.8	28.2	174.0	142.6	-31.4	383.1	174.0	0.0
August	142.6	120.2	18.5	138.8	27.2	165.9	142.6	-23.3	359.8	165.9	0.0
September	138.0	98.3	12.4	110.7	21.4	132.1	132.1	5.9	365.7	132.1	0.0
TOTAL	1679.4	602.4	144.1	746.6	**145.2**	891.8	831.6			891.8	0.0
Percent		*80.7%*	*19.3%*	*100.0%*						*100.0%*	*0.0%*
Delta										**289.3**	**-144.1**
	mg/d available Nov - Mar	mg/d available Apr- Oct	AF/Day Nov- Mar	AF/Day Apr - Oct	With Phase II, presumed no use of potable water for irrigation unless storage at Forest Lake reservoir exhausted. Mg/d based on factor for Phase II capacity provided by Roy Von Dohren, CAWD, 04/15/04. Inflow availability assumed to be same as Scenario 1A/1B which are > 1.5 mgd Phase II capacity. Storage capacity of 420 AF.						
Phase II	1.50	1.50	4.6	4.6							

Existing Recycled Use Based on 1995 and 1998 water years (wettest years between 1995 and 2003)

Source: CAWD/PBCSD Production Report, July 15, 2002; http://www.pbcsd.org/reports.html

Table G.2-5F2
Monthly Demands Existing and With Project/Phase II, Wet Year
(Scenario 3C)

Month	Existing Potable Use	Existing Recycled Use	Existing Total Use	Project/Phase II Potable	Project Indirect Potable	Project Total Potable	Change	With Project Recycled	Change	Carmel River	Seaside
October	35.5	56.6	92.1	25.5	0.0	25.5	-9.9	109.9	53.3	-7.3	-2.7
November	1.5	15.0	16.5	14.2	0.0	14.2	12.7	19.6	4.6	9.3	3.4
December	0.4	1.7	2.1	12.1	0.0	12.1	11.7	2.5	0.7	8.5	3.2
January	0.0	1.3	1.3	11.9	0.0	11.9	11.9	1.5	0.3	8.7	3.2
February	0.6	1.7	2.3	12.1	0.0	12.1	11.5	2.7	1.1	8.4	3.1
March	2.3	1.6	3.9	12.3	0.0	12.3	10.1	4.6	3.0	7.4	2.7
April	15.8	27.1	42.9	18.2	0.0	18.2	2.4	51.4	24.3	1.7	0.6
May	15.4	54.7	70.1	22.2	0.0	22.2	6.8	83.9	29.2	5.0	1.8
June	23.0	97.2	120.2	29.7	0.0	29.7	6.7	143.6	46.4	4.9	1.8
July	18.7	127.1	145.8	33.6	0.0	33.6	14.8	174.0	46.9	10.8	4.0
August	18.5	120.2	138.8	32.5	0.0	32.5	14.0	165.9	45.7	10.2	3.8
September	12.4	98.3	110.7	28.3	0.0	28.3	15.9	132.1	33.9	11.6	4.3
TOTAL	144.1	602.4	746.6	252.7	0.0	252.7	108.6	891.8	289.3	79.3	29.3
Nov-May										49.0	18.1
Jun- Oct.										**30.3**	11.2
				Total	Assumed Irrig.	Irrig. Assumpt.	Base Use	Base Monthly			
Project				86.4	28.5	1/3 of total	57.9	4.8			
Phase II				166.3	83.1	1/2 of total	83.1	6.9			
Total				252.7	111.6		141.0	11.8			

Table G.2-5G
CAWD/PBCSD Recycled Water Project Production (Demand in Acre-Feet)
Phase II Plant - Average Year with DMF/PDP
(Scenario 3D)

Month	Availability	Existing Recycled Use	Existing Potable Use	Existing Total Use	PBC New Use	Total Use w/Project	Recycled Use 1	Excess Capacity	Potential Storage	Recycled Use 2	Potable Use
October	142.6	75.6	9.1	84.6	15.1	99.7	99.7	42.9	42.9	99.7	0.0
November	138.0	10.4	11.8	22.2	4.0	26.2	26.2	111.8	154.7	26.2	0.0
December	142.6	8.4	5.5	13.8	2.5	16.3	16.3	126.3	281.0	16.3	0.0
January	142.6	5.6	3.3	8.9	1.6	10.5	10.5	132.1	420.0	10.5	0.0
February	128.8	5.2	1.0	6.2	1.1	7.3	7.3	121.6	420.0	7.3	0.0
March	142.6	36.0	3.5	39.5	7.1	46.7	46.7	96.0	420.0	46.7	0.0
April	138.0	64.2	23.6	87.8	16.0	103.7	103.7	34.3	420.0	103.7	0.0
May	142.6	93.5	60.5	154.0	28.0	182.0	142.6	-39.4	380.6	182.0	0.0
June	138.0	97.9	67.7	165.6	30.0	195.6	138.0	-57.5	323.1	195.6	0.0
July	142.6	107.3	46.4	153.7	27.8	181.5	142.6	-38.9	284.2	181.5	0.0
August	142.6	96.8	47.6	144.4	26.2	170.6	142.6	-28.0	256.3	170.6	0.0
September	138.0	88.3	38.4	126.7	22.9	149.5	138.0	-11.5	244.8	149.5	0.0
TOTAL	1679.4	689.1	318.3	1007.5	**182.2**	1189.7	1014.5			1189.7	0.0
Percent		*68.4%*	*31.6%*	*100.0%*						*100.0%*	*0.0%*
Delta										**500.5**	**-318.3**

	available Nov - Mar	mg/d available Apr- Oct	AF/Day Nov- Mar	AF/Day Apr - Oct	
Phase II	1.50	1.50	4.6	4.6	With Phase II, presumed no use of potable water for irrigation unless storage at Forest Lake reservoir exhausted. Mg/d based on factor for Phase II capacity provided by Roy Von Dohren, CAWD, 04/15/04. Inflow availability assumed to be same as Scenario 1A/1B which are > 1.5 mgd Phase II capacity. Storage capacity of 420 AF.

Existing Recycled Use Based on Water Year 1995 - 2003 averages, less 1995 and 1998 water year (removed as anomalies due to 47 inches and 28 inches of rain respectively)

Source: CAWD/PBCSD Production Report, July 15, 2002; http://www.pbcsd.org/reports.html
CAWD/PBCSD Wastewater Reclamation Project 2002-2003 Water Year Usage

Table G.2-5H
CAWD/PBCSD Recycled Water Project Production (Demand in Acre-Feet)
Phase II Plant - Dry Year without DMF/PDP
Scenario 4A

Month	Scenario 4 Available	Existing Recycled Use	Existing Potable Use	Existing Total Use	Recycled Use1	Excess Capacity	Potential Storage	Recycled Use2	Potable Use
October	130.9	68.2	6.7	74.9	74.9	56.0	56.0	74.9	0.0
November	126.7	0.6	12.3	12.9	12.9	113.8	169.8	12.9	0.0
December	130.9	0.8	0.0	0.8	0.8	130.1	299.9	0.8	0.0
January	130.9	1.0	0.0	1.0	1.0	129.9	420.0	1.0	0.0
February	118.3	12.6	3.7	16.3	16.3	102.0	420.0	16.3	0.0
March	130.9	74.7	12.2	86.9	86.9	44.1	420.0	86.9	0.0
April	126.7	94.6	33.6	128.2	128.2	-1.5	418.5	128.2	0.0
May	130.9	102.9	77.7	180.6	130.9	-49.7	368.8	180.6	0.0
June	126.7	102.5	72.4	174.9	126.7	-48.2	320.7	174.9	0.0
July	130.9	110.6	26.1	136.7	136.7	-5.8	314.9	136.7	0.0
August	130.9	80.7	57.1	137.8	137.8	-6.9	308.0	137.8	0.0
September	126.7	132.5	25.1	157.6	126.7	-30.9	277.2	157.6	0.0
TOTAL	1541.7	781.8	326.9	1108.7	980.0	433.1		1108.7	0.0
Percent		*80%*	*33%*	*100%*				*113.1%*	*0.0%*
Delta								**326.9**	**-326.9**

	mg/d available Nov - Mar	mg/d available Apr- Oct	AF/Day Nov- Mar	AF/Day Apr - Oct	With Phase II, presumed no use of potable water for irrigation unless storage at Forest Lake reservoir exhausted. Mg/day based on presumed 90% average availability from CAWD plant for Nov. - Mar and April-October lowest inflow year (1994)..Inflow availability is less than 1.5 mgd Phase II capacity factor provided by Roy Von Dohren, CAWD, 04/15/04.Storage capacity of 420 AF.
Phase II	1.41	1.38	4.3	4.2	

Existing Water Use taken from 1997 water year = year with least rainfall between April and October between 1995 and 2003 and highest total water use

Source: CAWD/PBCSD Production Report, July 15, 2002; http://www.pbcsd.org/reports.html
CAWD/PBCSD Wastewater Reclamation Project 2002-2003 Water Year Usage

Table G.2-5I
CAWD/PBCSD Recycled Water Project Production (Demand in Acre-Feet)
Phase II Plant - Dry Year with DMF/PDP
(Scenario 4B)

Month	Scenario 3 Availability	Existing Recycled Use	Existing Potable Use	Existing Total Use	PBC New Use	Total Use w/Project	Recycled Use 1	Excess Capacity	Potential Storage	Recycled Use 2	Potable Use
October	130.9	68.2	6.7	74.9	13.9	88.8	88.8	42.2	42.2	88.8	0.0
November	130.0	0.6	12.3	12.9	2.5	15.4	15.4	114.6	156.8	15.4	0.0
December	134.4	0.8	0.0	0.8	0.2	1.0	1.0	133.4	290.2	1.0	0.0
January	134.4	1.0	0.0	1.0	0.2	1.2	1.2	133.2	420.0	1.2	0.0
February	121.4	12.6	3.7	16.3	3.0	19.3	19.3	102.1	420.0	19.3	0.0
March	134.4	74.7	12.2	86.9	16.2	103.1	103.1	31.3	420.0	103.1	0.0
April	126.7	94.6	33.6	128.2	23.6	151.9	126.7	-25.1	420.0	151.9	0.0
May	130.9	102.9	77.7	180.6	33.6	214.2	130.9	-83.3	336.7	214.2	0.0
June	126.7	102.5	72.4	174.9	32.3	207.2	126.7	-80.5	256.2	207.2	0.0
July	130.9	110.6	26.1	136.7	25.3	162.0	130.9	-31.1	225.1	162.0	0.0
August	130.9	80.7	57.1	137.8	25.9	163.7	130.9	-32.8	192.4	163.7	0.0
September	126.7	132.5	25.1	157.6	29.6	187.1	126.7	-60.4	131.9	187.1	0.0
TOTAL	1558.4	781.8	326.9	1108.7	**206.3**	1315.0	1001.8	243.4		1315.0	0.0
Percent		*70.5%*	*29.5%*	*100.0%*						*100.0%*	*0.0%*
Delta										**533.2**	**-326.9**

	mg/d available Nov - Mar	mg/d available Apr- Oct	AF/Day Nov- Mar	AF/Day Apr - Oct	
Phase II	1.41	1.38	4.3	4.2	With Phase II, presumed no use of potable water for irrigation unless storage at Forest Lake reservoir exhausted. Mg/day based on presumed 90% average availability from CAWD plant for Nov. - Mar and April-October lowest inflow year (1994). Inflow availability is less than 1.5 mgd Phase II capacity factor provided by Roy Von Dohren, CAWD, 04/15/04.Storage capacity of 420 AF.

Existing Water Use taken from 1997 water year = year with least rainfall between April and October between 1995 and 2003 and highest total water use

Source: CAWD/PBCSD Production Report, July 15, 2002; http://www.pbcsd.org/reports.html
CAWD/PBCSD Wastewater Reclamation Project 2002-2003 Water Year Usage

Table G.2-5J
CAWD/PBCSD Recycled Water Project Production (Demand in Acre-Feet)
Existing Plant - Very Dry Year with DMF/PDP
(Scenario 5)

Month	Scenario 5 Availability	Projected Recycled	Projected Potable	Projected Existing Demand	PBC New Use	Total Use	Recycled Use	Potable Use
October	130.9	62.0	27.9	89.9	18.7	108.6	75.0	33.7
November	130.0	10.7	4.8	15.5	3.3	18.8	13.0	5.8
December	134.4	0.7	0.3	1.0	0.2	1.2	0.8	0.4
January	134.4	0.8	0.4	1.2	0.3	1.5	1.0	0.5
February	121.4	13.5	6.0	19.5	4.1	23.6	16.3	7.3
March	134.4	71.9	32.3	104.2	22.0	126.2	87.1	39.1
April	126.7	126.7	27.2	153.9	32.0	185.8	126.7	59.1
May	130.9	130.9	85.8	216.7	45.5	262.2	130.9	131.3
June	126.7	126.7	83.2	209.9	43.7	253.6	126.7	126.9
July	130.9	130.9	33.1	164.1	34.2	198.2	130.9	67.3
August	130.9	130.9	34.4	165.4	35.0	200.4	130.9	69.5
September	126.7	126.7	62.4	189.1	40.0	229.1	126.7	102.4
TOTAL	1558.4	932.6	397.7	1330.4	**279.0**	1609.4	966.2	643.2
Percent		*70.1%*	*29.9%*	*100.0%*		*100.0%*	*60.0%*	*40.0%*
Delta							**33.5**	**245.4**
November -March	1.41	4.3	Recycled amount assumed to be 69% based on plant average (w/o 95 and 98) up to available limit. Mg/day based on presumed 90% average availability from CAWD plant for Nov. - Mar and April-October lowest inflow year (1994).					
April - October	1.38	4.2						

Existing Water Use estimated as 120% of 1997 Water Year Use.

Source: CAWD/PBCSD Production Report, July 15, 2002; http://www.pbcsd.org/reports.htm
CAWD/PBCSD Wastewater Reclamation Project 2002-2003 Water Year Usage

Table G.2-5K
CAWD/PBCSD Recycled Water Project Production (Demand in Acre-Feet)
Phase II Plant - Very Dry Year without DMF/PDP
Scenario 6A

Month	Scenario 6 Availability	Projected Recycled	Projected Potable	Projected Existing Demand	Recycled Use1	Excess Capacity	Storage	Recycled Use2	Potable Use
October	130.9	64.6	25.4	89.9	89.9	41.0	41.0	89.9	0.0
November	130.0	9.8	5.7	15.5	15.5	114.5	155.5	15.5	0.0
December	134.4	0.6	0.4	1.0	1.0	133.4	288.9	1.0	0.0
January	134.4	0.8	0.4	1.2	1.2	133.2	422.0	1.2	0.0
February	121.4	12.4	7.1	19.5	19.5	101.8	420.0	19.5	0.0
March	134.4	66.1	38.2	104.2	104.2	30.1	420.0	104.2	0.0
April	126.7	110.5	43.4	153.9	126.7	-27.2	392.8	153.9	0.0
May	130.9	94.0	122.7	216.7	130.9	-85.8	307.1	216.7	0.0
June	126.7	91.0	118.9	209.9	126.7	-83.2	223.9	209.9	0.0
July	130.9	94.0	70.0	164.1	130.9	-33.1	190.8	164.1	0.0
August	130.9	94.0	71.4	165.4	130.9	-34.4	156.4	165.4	0.0
September	126.7	91.0	98.1	189.1	126.7	-62.4	94.0	189.1	0.0
TOTAL	1558.4	728.8	601.6	1330.4	1004.4	228.0		1330.4	0.0
Percents		*54.8%*	*45.2%*	*100.0%*				*100.0%*	*0.0%*
Delta								**601.6**	**-601.6**
November -March	1.41	4.3	With Phase II, presumed no use of potable water for irrigation unless storage at Forest Lake reservoir exhausted. Mg/day based on presumed 90% average availability from CAWD plant for Nov. - Mar and April-October lowest inflow year (1994). Inflow availability is less than 1.5 mgd Phase II capacity factor provided by Roy Von Dohren, CAWD, 04/15/04.Storage capacity of 420 AF.						
April - October	1.38	4.2							
Existing Water Use estimated as 120% of 1997 Water Year Use									
Source: CAWD/PBCSD Production Report, July 15, 2002; http://www.pbcsd.org/reports.html CAWD/PBCSD Wastewater Reclamation Project 2002-2003 Water Year Usage									

Table G.2-5L
CAWD/PBCSD Recycled Water Project Production (Demand in Acre-Feet)
Phase II Plant - Very Dry Year with DMF/PDP
(Scenario 6B)

Month	Scenario 6 Availability	Projected Recycled	Projected Potable	Projected Existing Demand	PBC New Use	Total Use w/Project	Recycled Use1	Excess Capacity	Storage	Recycled Use 2	Potable Use
October	130.9	64.6	25.4	89.9	18.7	108.6	108.6	22.3	22.3	108.6	0.0
November	130.0	9.8	5.7	15.5	3.3	18.8	18.8	111.2	133.5	18.8	0.0
December	134.4	0.6	0.4	1.0	0.2	1.2	1.2	133.2	266.6	1.2	0.0
January	134.4	0.8	0.4	1.2	0.3	1.5	1.5	132.9	399.5	1.5	0.0
February	121.4	12.4	7.1	19.5	4.1	23.6	23.6	97.7	420.0	23.6	0.0
March	134.4	66.1	38.2	104.2	22.0	126.2	126.2	8.2	420.0	126.2	0.0
April	126.7	110.5	43.4	153.9	32.0	185.8	126.7	-59.1	360.9	185.8	0.0
May	130.9	94.0	122.7	216.7	45.5	262.2	130.9	-131.3	229.6	262.2	0.0
June	126.7	91.0	118.9	209.9	43.7	253.6	126.7	-126.9	102.7	253.6	0.0
July	130.9	94.0	70.0	164.1	34.2	198.2	130.9	-67.3	35.4	198.2	0.0
August	130.9	94.0	71.4	165.4	35.0	200.4	130.9	-69.5	0.0	166.4	34.0
September	126.7	91.0	98.1	189.1	40.0	229.1	126.7	-102.4	0.0	126.7	102.4
TOTAL	1558.4	728.8	601.6	1330.4	**279.0**	1609.4	1053.0			1473.0	136.4
Percents		*54.8%*	*45.2%*	*100.0%*		*100.0%*				*91.5%*	*8.5%*
Delta										**744.2**	**-465.3**
November -March	1.41	4.3	With Phase II, presumed no use of potable water for irrigation unless storage at Forest Lake reservoir exhausted. Mg/day based on presumed 90% average availability from CAWD plant for Nov. - Mar and April-October lowest inflow year (1994). Inflow availability is less than 1.5 mgd Phase II capacity factor provided by Roy Von Dohren, CAWD, 04/15/04.Storage capacity of 420 AF.								
April - October	1.38	4.2									

Existing Water Use estimated as 120% of 1997 Water Year Use.

Source: CAWD/PBCSD Production Report, July 15, 2002; http://www.pbcsd.org/reports.html
CAWD/PBCSD Wastewater Reclamation Project 2002-2003 Water Year Usage

Table G.2-5M
CAWD/PBCSD Recycled Water Project Production (Demand in Acre-Feet)
Phase II Plant - Very Dry Year with DMF/PDP With Prohibition of Project Potable Water for Irrigation
(Scenario 6C)

Month	Availability	Projected Recycled	Projected Potable	Projected Existing Demand	PBC New Use	Total Use w/Project	Recycled Use1	Excess Capacity	Storage	Recycled Use2	Total Recycled Use	Shortfall
October	130.9	64.6	25.4	89.9	18.7	108.6	108.6	22.3	22.3	0.0	108.6	0.0
November	130.0	9.8	5.7	15.5	3.3	18.8	18.8	111.2	133.5	0.0	18.8	0.0
December	134.4	0.6	0.4	1.0	0.2	1.2	1.2	133.2	266.6	0.0	1.2	0.0
January	134.4	0.8	0.4	1.2	0.3	1.5	1.5	132.9	399.5	0.0	1.5	0.0
February	121.4	12.4	7.1	19.5	4.1	23.6	23.6	97.7	420.0	0.0	23.6	0.0
March	134.4	66.1	38.2	104.2	22.0	126.2	126.2	8.2	420.0	0.0	126.2	0.0
April	126.7	110.5	43.4	153.9	32.0	185.8	126.7	-59.1	360.9	59.1	185.8	0.0
May	130.9	94.0	122.7	216.7	45.5	262.2	130.9	-131.3	229.6	131.3	262.2	0.0
June	126.7	91.0	118.9	209.9	43.7	253.6	126.7	-126.9	102.7	126.9	253.6	0.0
July	130.9	94.0	70.0	164.1	34.2	198.2	130.9	-67.3	35.4	67.3	198.2	0.0
August	130.9	94.0	71.4	165.4	35.0	200.4	130.9	-69.5	0.0	35.4	166.4	34.0
September	126.7	91.0	98.1	189.1	40.0	229.1	126.7	-102.4	0.0	0.0	126.7	102.4
TOTAL	1558.4	728.8	601.6	1330.4	**279.0**	1609.4	1053.0			420.0	1473.0	136.4
Percents		*54.8%*	*45.2%*	*100.0%*		*100.0%*				*26.1%*	*91.5%*	*8.5%*
Delta										**-308.8**		
November -March	1.41	4.3	With Phase II, in this scenario presumed no use of potable water for irrigation. Mg/day based on presumed 90% average availability from CAWD plant for Nov. - Mar and April-October lowest inflow year (1994). Inflow availability is less than 1.5 mgd Phase II capacity factor provided by Roy Von Dohren, CAWD, 04/15/04.Storage capacity of 420 AF.									
April - October	1.38	4.2										

Existing Water Use estimated as 120% of 1997 Water Year Use.

Source: CAWD/PBCSD Production Report, July 15, 2002; http://www.pbcsd.org/reports.html
CAWD/PBCSD Wastewater Reclamation Project 2002-2003 Water Year Usage

Table G.2-6
Summary of Pebble Beach Company's Original Water Entitlement By Area

Area	Entitlement (AFY)
B	18.5
C	17.7
D	11.2
F	34.8
G	46.3
H	19.4
I	23.5
J	8.9
K	8.9
L	14.6
M	27.5
N	11.8
O	6.9
P	8.1
Q	18.2
R	30.4
U	5.7
V	21.1
Quarry (PBC Corp Yard)	21.8
17-Mile Drive	1.5
Lodge at Pebble Beach	1.5
PBC Equestrian Center	1.1
PBC Beach Club	1.0
PBC Tennis Club	1.0
Spyglass Hill Golf Course	1.7
Spanish Bay	1.0
Peter Hay Golf Course	1.0
TOTAL	*365.0*
Amount Remaining	*355.1*
Original Water Entitlement on Areas Not Owned by the Pebble Beach Company	
Area S (Lohr Property)	10.0
Area W (Griffin Property	5.0
TOTAL	*15.0*

Appendix G.4

Carmel River and Seaside Basin Withdrawals

Appendix G.4

Carmel River and Seaside Basin Withdrawals

Introduction

This appendix presents the following

- Historical data on withdrawals of water from the Carmel River and the Seaside Basin by the California-American Water company (Cal-Am) and its predecessors and recent data on withdrawals of water from the Seaside Basin Coastal Subareas aquifer.
- Projections of project demand for Carmel River and Seaside Basin withdrawals using recent historical data for withdrawals and the project-derived demands estimated in Appendix G.2.

Historical Withdrawals

Table G.4-1A presents a summary of withdrawals from the Carmel River (both surface and groundwater) and the Seaside Basin by Cal-Am and its predecessors from 1916 to 2003.

Table G.4-1B presents annual withdrawal data from the Carmel River (both surface and groundwater) and the Seaside Basin by Cal-Am and its predecessors from 1916 to 2003.

Table G.4-1C presents a summary of recent withdrawals from the Seaside Basin by Cal-Am and other users from 1995 to 2003.

Figure G.4-1 presents the annual withdrawal data from the Carmel River (both surface and groundwater) and the Seaside Basin by Cal-Am and its predecessors from 1916 to 2003 graphically.

Projections of Project Withdrawals

The estimates of project demand in Appendix G.2 were used to estimate what project withdrawals from the Carmel River and the Seaside Aquifer would be if added to actual withdrawals between 1995 and 2003. Similarly, the estimates of project demand with the Phase II Recycled Water Project (including Phase II investor residential use) in Appendix G.2 were used to estimate what project plus Phase II withdrawals from the Carmel River and the Seaside Aquifer would be if added to actual withdrawals between 1995 and 2003.

Table G.4-2A presents a summary of project demands with and without Phase II and apportions the demand to estimated withdrawals from the Carmel River and Seaside Basin.

Table G.4-2B adds the project demand to actual withdrawals from the Carmel River to show the effect of project withdrawals with and without RWP Phase II.

Table G.4-2C adds the project demand to actual withdrawals from the Seaside Basin to show the effect of project withdrawals with and without RWP Phase II.

Figure G.4-2A graphically shows actual, actual plus project, and actual plus project plus RWP Phase II estimated withdrawals from the Carmel River.

Figure G.4-2B graphically shows actual, actual plus project, and actual plus project plus RWP Phase II estimated withdrawals from the Seaside Basin.

Table G.4-1A
Summary of Production History for Cal-Am and its Predecessors, 1916 - 2002
(Acre-Feet)

Water Year	Seaside Coastal Basin	Carmel River Basin			Total
	Ground Water	Ground Water	Surface Water	Subtotal	
		Water Years 1916-2002			
Mean	1,373	2,695	5,345	8,041	9,414
Median	663	823	5,196	8,830	9,132
Minimum	0	0	98	507	507
Maximum	4,700	11,092	9,831	15,405	18,117
		Water Years 1916-1965			
Mean	135	216	5,056	5,272	5,407
Median	0	0	4,993	4,993	4,993
Minimum	0	0	507	507	507
Maximum	972	2,444	9,831	11,195	12,116
		Water Years 1966-1995			
Mean	2,859	5,178	6,737	11,915	14,774
Median	2,790	5,036	7,514	11,695	15,186
Minimum	1,221	931	2,118	5,835	8,528
Maximum	4,700	10,245	9,546	15,405	18,117
		Water Years 1996-2003			
Mean	3,808	9,955	1,300	11,255	15,063
Median	3,832	10,194	822	11,209	14,819
Minimum	3,444	8,174	98	10,154	14,064
Maximum	4,319	11,299	3,527	12,847	16,872

Note: Production values for post -WY 1998 are recorded values and do not include reductions for water produced from CRB for injection into SGB.

Sources:
(1) Seaside basin production values for the 1955-1978 period were taken from 1997 report prepared by Fugro West, Inc. entitled Hydrogeologic Assessment, Seaside Coastal Groundwater Subareas, Phase III Update, Monterey County, California.

(2) Seaside basin production values for the 1979-2002 period were compiled by the Monterey Peninsula Water Management District from monthly production reports submitted by the California-American Water Company (Cal-Am), Monterey Division.

(3) Carmel River basin production values for the 1916-1978 period were taken from Cal-Am's Exhibit 90 from the 1992 State Water Resources Control Board hearings regarding Cal-Am's diversions from the Carmel River system.

(4) Carmel River basin production values for the 1978-2002 period were compiled by the Monterey Peninsula Water Management District from monthly production reports submitted by the Cal-Am's Monterey Division.

(5) Water Year 2003 data from MPWMD Draft Annual Report, March 2004.

Table G.4-1B
Production History of Cal-Am and its Predecessors
(Acre-Feet)

Water	Seaside Coastal Basin	Carmel River Basin			Total
Year	Ground Water	Ground Water	Surface Water	Subtotal	
1916	0	0	507	507	507
1917	0	0	547	547	547
1918	0	0	627	627	627
1919	0	0	667	667	667
1920	0	0	756	756	756
1921	0	0	760	760	760
1922	0	0	745	745	745
1923	0	0	888	888	888
1924	0	0	1,007	1,007	1,007
1925	0	0	1,026	1,026	1,026
1926	0	0	4,094	4,094	4,094
1927	0	0	4,538	4,538	4,538
1928	0	0	4,467	4,467	4,467
1929	0	0	4,869	4,869	4,869
1930	0	0	4,431	4,431	4,431
1931	0	0	3,558	3,558	3,558
1932	0	0	4,269	4,269	4,269
1933	0	0	3,761	3,761	3,761
1934	0	0	4,377	4,377	4,377
1935	0	0	4,053	4,053	4,053
1936	0	0	4,072	4,072	4,072
1937	0	0	3,843	3,843	3,843
1938	0	0	4,144	4,144	4,144
1939	0	0	5,258	5,258	5,258
1940	0	15	4,632	4,647	4,647
1941	0	0	5,159	5,159	5,159
1942	0	0	4,529	4,529	4,529
1943	0	0	5,117	5,117	5,117
1944	0	0	5,245	5,245	5,245
1945	0	95	5,367	5,462	5,462
1946	0	424	5,443	5,867	5,867
1947	0	758	5,196	5,954	5,954
1948	0	980	5,329	6,310	6,310
1949	0	114	6,623	6,737	6,737
1950	0	57	6,875	6,931	6,931
1951	0	34	6,967	7,001	7,001
1952	0	0	6,967	6,967	6,967
1953	0	0	7,726	7,726	7,726
1954	0	0	7,953	7,953	7,953
1955	198	0	7,910	7,910	8,108
1956	207	0	8,523	8,523	8,730
1957	244	0	8,455	8,455	8,699
1958	302	0	8,830	8,830	9,132
1959	663	823	8,892	9,715	10,378
1960	743	1,012	8,432	9,443	10,186
1961	968	2,444	7,599	10,043	11,011
1962	797	990	9,053	10,043	10,840
1963	717	620	9,213	9,833	10,550
1964	972	1,090	9,649	10,739	11,711
1965	921	1,365	9,831	11,195	12,116
1966	2,700	2,845	9,082	11,927	14,627
1967	2,638	931	9,546	10,477	13,115
1968	3,482	3,221	7,731	10,952	14,434
1969	2,622	2,765	8,473	11,238	13,860
1970	3,809	3,127	8,552	11,679	15,488
1971	4,309	4,031	7,307	11,338	15,647
1972	4,700	4,519	6,982	11,501	16,201

Table G.4-1B
Production History of Cal-Am and its Predecessors
(Acre-Feet)

Water	Seaside Coastal Basin	Carmel River Basin			Total
Year	Ground Water	Ground Water	Surface Water	Subtotal	
1973	3,976	3,021	8,690	11,711	15,687
1974	3,591	2,656	8,821	11,477	15,068
1975	3,400	2,819	9,084	11,903	15,303
1976	4,229	5,632	6,185	11,817	16,046
1977	2,693	3,129	2,706	5,835	8,528
1978	1,719	3,210	7,018	10,228	11,947
1979	1,333	4,966	7,721	12,687	14,020
1980	2,187	3,558	8,953	12,511	14,698
1981	2,219	5,106	9,091	14,197	16,416
1982	1,221	5,156	9,226	14,382	15,603
1983	1,733	4,963	8,915	13,878	15,611
1984	1,594	6,019	9,103	15,122	16,716
1985	1,901	6,460	8,945	15,405	17,306
1986	3,254	7,395	7,008	14,403	17,657
1987	3,465	9,059	5,593	14,652	18,117
1988	3,083	9,445	4,526	13,971	17,054
1989	3,288	6,156	3,888	10,044	13,332
1990	3,336	6,026	2,862	8,888	12,224
1991	2,880	7,120	2,118	9,238	12,118
1992	2,032	8,581	3,013	11,594	13,626
1993	2,144	7,297	4,146	11,443	13,587
1994	2,434	10,245	2,662	12,907	15,341
1995	3,794	5,874	4,162	10,036	13,830
1996	4,319	8,174	3,527	11,701	16,020
1997	4,025	9,688	3,159	12,847	16,872
1998	3,910	8,597	1,557	10,154	14,064
1999	3,982	9,195	1,385	10,580	14,562
2000	3,754	11,092	258	11,350	15,104
2001	3,444	10,700	98	10,798	14,242
2002	3,521	10,893	175	11,068	14,589
2003	3,507	11,299	242	11,541	15,048

Note: Production values for post -WY 1998 are recorded values and do not include reductions for water produced from CRB for injection into SGB.

Sources:
(1) Seaside basin production values for the 1955-1978 period were taken from 1997 report prepared by Fugro West, Inc. entitled Hydrogeologic Assessment, Seaside Coastal Groundwater Subareas, Phase III Update, Monterey County, California.

(2) Seaside basin production values for the 1979-2002 period were compiled by the Monterey Peninsula Water Management District from monthly production reports submitted by the California-American Water Company (Cal-Am), Monterey Division.

(3) Carmel River basin production values for the 1916-1978 period were taken from Cal-Am's Exhibit 90 from the 1992 State Water Resources Control Board hearings regarding Cal-Am's diversions from the Carmel River system.

(4) Carmel River basin production values for the 1978-2002 period were compiled by the Monterey Peninsula Water Management District from monthly production reports submitted by the Cal-Am's Monterey Division.

(5) Water Year 2003 data from MPWMD Draft Annual Report, March 2004.

Table G.4-1C
Seaside Basin Coastal SubArea Water Production
(Acre-Feet)

Year	Cal-Am	Other	Total
RY1995	2800	479	3279
RY1996	4429	636	5065
RY1997	4651	797	5448
RY1998	3563	588	4151
RY1999	3578	659	4237
RY2000	4013	1011	5024
RY2001	3307	979	4286
WY 2002	3522	903	4425
WY 2003	3507	959	4466
Avg. 95 - 2003	3708	779	4487

Source: MPWMD 1/29/04 and 3/15/04)
RY = Reporting Year
WY = Water Year
Note: Averages may introduce inaccuracy due to RY vs WY discrepancies

Figure G.4-1
Cal-Am Water Production by Source: 1916-2003

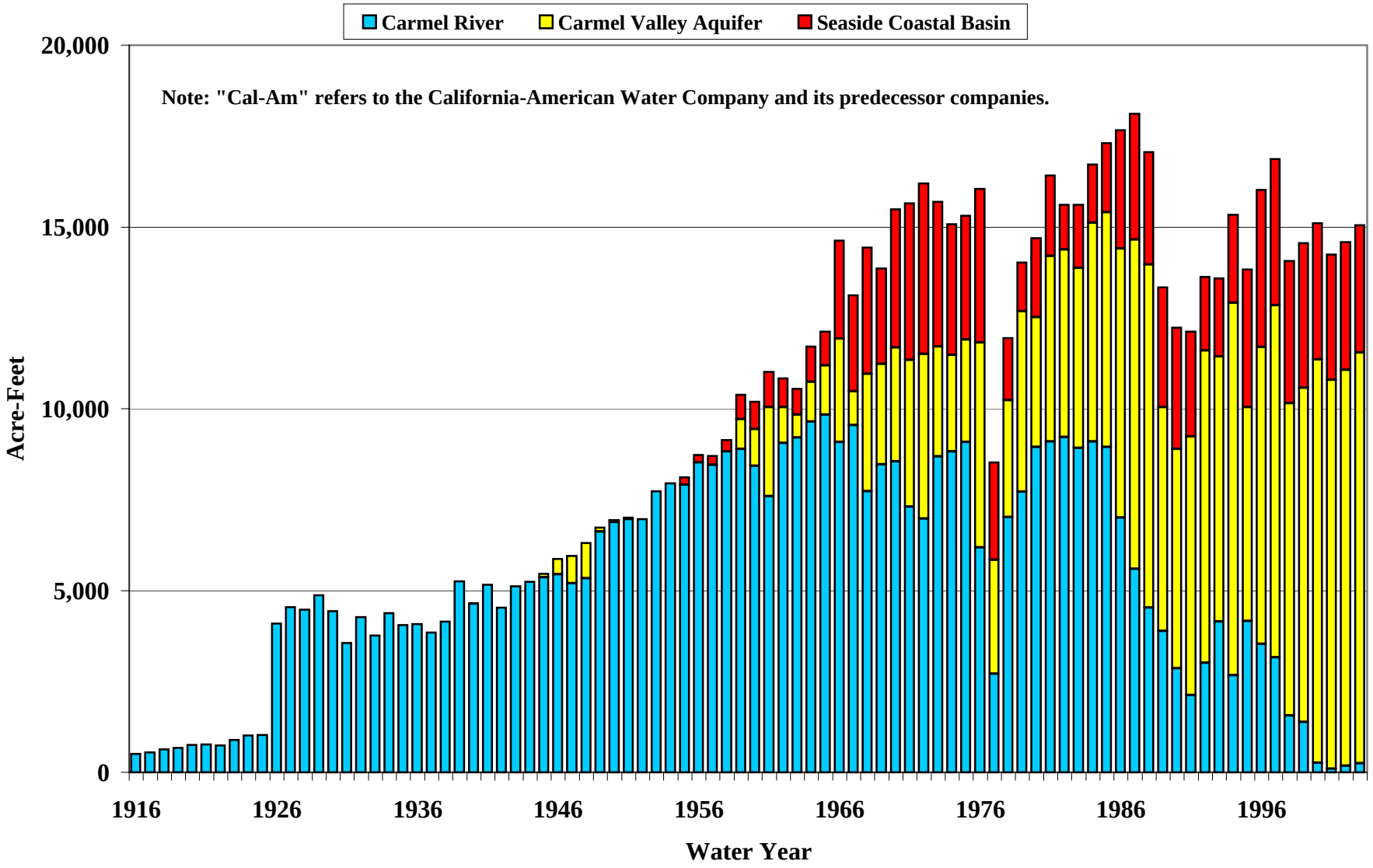

Table G.4-2A
Estimated Project Withdrawals (1995 - 2003)
(in Acre-Feet, unless otherwise noted)

Year	Type	Project Demand	% Carmel River	% Seaside Basin	Carmel River Withdrawal	Seaside Basin Withdrawal	Project Demand with Phase II	Carmel River Withdrawal	Seaside Basin Withdrawal
1995	Wet	164	73%	27%	119	45	109	79	30
1996	Avg	191	73%	27%	140	51	-52	-38	-14
1997	Dry	287	76%	24%	219	68	-48	-37	-11
1998	Wet	164	72%	28%	118	46	109	79	30
1999	Avg	191	73%	27%	139	52	-52	-38	-14
2000	Avg	191	75%	25%	144	47	-52	-39	-13
2001	Avg	191	76%	24%	145	46	-52	-39	-13
2002	Avg	191	76%	24%	145	46	-52	-39	-13
2003	Avg	191	77%	23%	146	45	-52	-40	-12
Average	All	196	74%	26%	146	50	-16	-12	-3

Project Demands from Appendix G.2.
% Carmel River vs. Seaside Basin from Cal-Am Production History for Years in Table G.4-1

Table G.4-2B
Projection of Potential Project Withdrawals from the Carmel River (1995 -2003)
(in Acre-Feet, unless otherwise noted)

Year	Cal-Am Carmel River	% Cal-am Carmel River	Project Demand	Project Withdrawal	Carmel River w/ Project Use	Project With RWP Phase II	Project w/ RWP Phase II Withdrawal	Carmel River w/ Project Use and RWP Phase II
1995	10,036	73%	164	119	10,155	109	79	10,115
1996	11,701	73%	191	140	11,841	-52	-38	11,663
1997	12,847	76%	287	219	13,066	-48	-37	12,810
1998	10,154	72%	164	118	10,272	109	79	10,233
1999	10,580	73%	191	139	10,719	-52	-38	10,542
2000	11,350	75%	191	144	11,494	-52	-39	11,311
2001	10,798	76%	191	145	10,943	-52	-39	10,759
2002	11,068	76%	191	145	11,213	-52	-39	11,029
2003	11,541	77%	191	146	11,687	-52	-40	11,501
Avg.	11,119	74%	196	146	11,265	-16	-12	11,107

NOTE: Projection Based on Dry Year Scenario for Water Years 1995 & 1998, Average Year Scenario for Water Years 1996, 1999-2003, and Dry Year Scenario for Water Year 1997; Very Dry Scenario not used due to no very dry year over period. Carmel River withdrawals based on Table G.4-1B.

Table G.4-2C
Projection of Potential Project Withdrawals from the Seaside Basin Coastal Subareas (1995 -2003)
(in Acre-Feet, unless otherwise noted)

Year	Cal-Am Seaside	% Cal-Am Seaside	Other Seaside withdrawals	Total Seaside Withdrawals	Project Demand	Project Withdrawal	Seaside Basin w/ Project Use	Project With RWP Phase II	Project w/ RWP Phase II Withdrawal	Seaside w/ Project Use and RWP Phase II
1995	2,800	27%	479	3,279	164	45	3,324	109	30	3,309
1996	4,429	27%	636	5,065	191	51	5,116	-52	-14	5,051
1997	4,651	24%	797	5,448	287	68	5,516	-48	-11	5,437
1998	3,563	28%	588	4,151	164	46	4,197	109	30	4,181
1999	3,578	27%	659	4,237	191	52	4,289	-52	-14	4,223
2000	4,013	25%	1,011	5,024	191	47	5,071	-52	-13	5,011
2001	3,307	24%	979	4,286	191	46	4,332	-52	-13	4,273
2002	3,522	24%	903	4,425	191	46	4,471	-52	-13	4,412
2003	3,507	23%	959	4,466	191	45	4,511	-52	-12	4,454
Avg.	3,708	26%	779	4,487	196	1	4,536	-16	3,692	4,483

NOTE: Projection Based on Dry Year Scenario for Years 1995 & 1998, Average Year Scenario for Years 1996, 1999-2003, and Dry Year Scenario for 1997; Very Dry Scenario not used due to no very dry yea over period; Existing withdrawal data based on Table G.4-1C. Splits for Cal-Am production based on Table G.4-1B. Note that Seaside aquifer data is partially based on reporting year data and partially on water year data; whereas scenarios developed in Appendix G.2 were based on water years only.

Figure G.4-2A
Cal-Am Carmel River Basin Withdrawals
Projections with Project Use
Water Years 1995 to 2003
(Wet Year Scenario 1995, 1998; Avg. Year Scenario 1996,1999-2003; Dry YearScenario 1997)

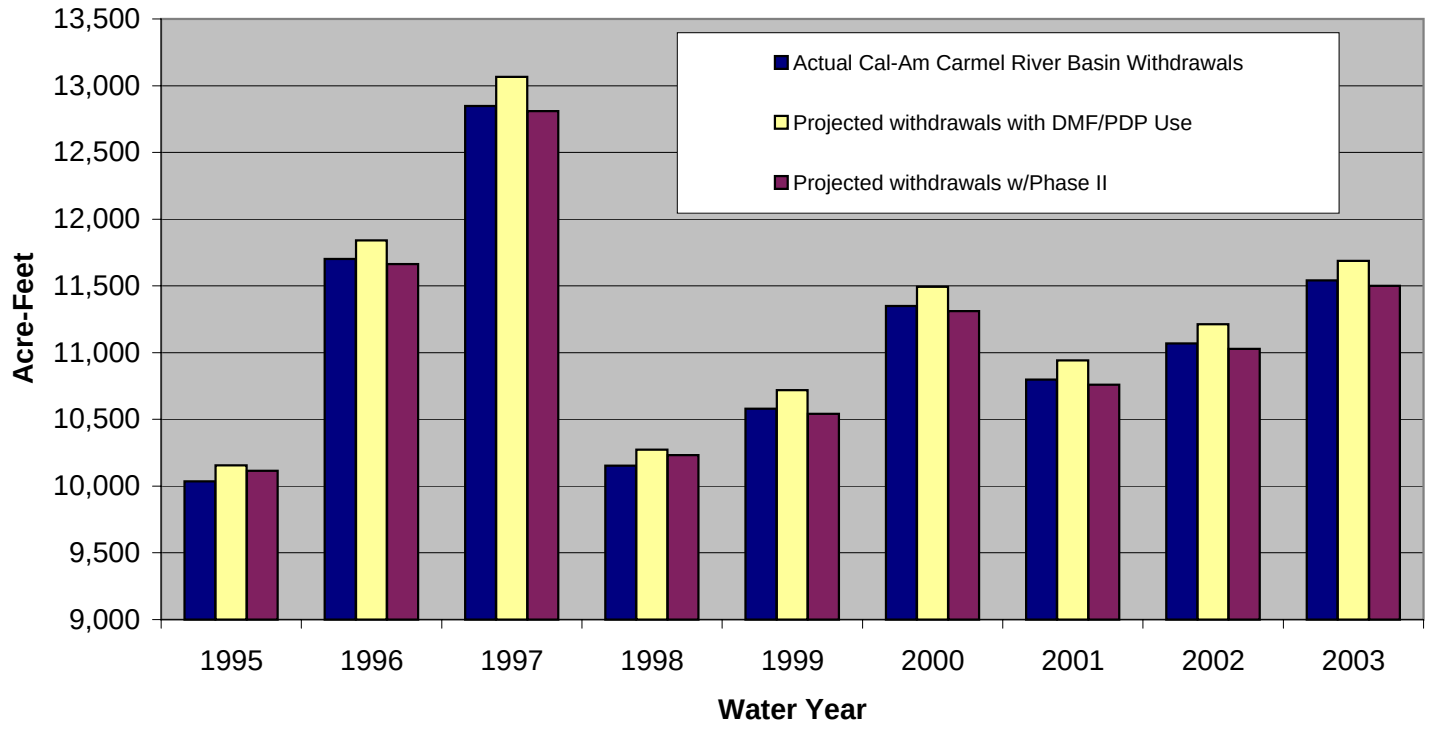

Figure G.4-2B
Seaside Coastal Subareas Withdrawals
Projections with Project Use
Water Years 1995 to 2003
(Wet Year Scenarios 1995, 1998; Avg. Year Scenario 1996,1999-2003; Dry Year Scenario 1997)