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April 5, 2010

The A.04-09-019 Settlement Agreement and Water Purchase Agreement (WPA) would result in a regional desalination project (Regional Project) with unreasonably high costs and risks to Cal Am ratepayers. It eliminates Commission oversight without replacing it with any meaningful local control.

DRA supports a regional desalination plant that is reasonably priced and fair, with appropriate cost controls and oversight.

Water Purchase Agreement Issues

- **DRA estimates Regional Project request will result in a \$70 million revenue requirement increase, or a 163% increase in Cal Am rates.** Current Cal Am Monterey District revenue requirement is \$43 million. The Regional Project request nearly triples rates, and does not include the impact of the upcoming San Clemente Dam costs or the increase Cal Am will be requesting in its General Rate Case (GRC) to be filed July 2010. The public should have a comprehensive view of the total picture.
- **The cost of desalinated water is exceptionally expensive for a desalination facility of this size given current technology.** DRA estimates the cost to Cal Am for Regional Project desalinated water at \$6400 per acre-foot with another \$1500 per acre-foot for conveyance. The Department of Water Resources (DWR) estimates the cost of seawater desalination at \$1000 to \$2500 per acre-foot in the recently released 2009 Water Plan Update.
- **The WPA sets a cost cap of \$297 million but total debt will be closer to \$350 million.** The cost cap excludes interest during construction and any debt coverage requirements. DRA preliminary estimates indicate another \$40 to \$50 million in bonds will be necessary to cover interest during construction.
- **When the Cal Am pipelines and other necessary infrastructure is added, total capital costs approach \$450 million.** Cal Am requests a cost cap of \$107 million for necessary conveyance pipelines, aquifer storage and recovery facilities, and other infrastructure.
- **The Settlement and Water Purchase Agreement cost estimates do not include any cost impacts resulting from the debt equivalence issue, which could be significant.**
- **The Agreement lacks any cost controls on the price of desalinated water, and provides no recourse in the event costs skyrocket.** Neither Regional Project costs nor the price of water under the Agreement are subject to Commission jurisdiction. By approving the Agreement, the Commission shall be deemed to have agreed that all regional desalination expenses incurred by MCWRA and MCWD are reasonable and prudent. This includes the overhead expenses of MCWRA and MCWD, as well as all legal costs of MCWD, MCWRA and Cal Am arising from any lawsuits challenging the legality or validity of the WPA or its performance. For example, the WPA reimburses MCWD for the historical cost of developing its own desalination plant. Cal Am ratepayers are already paying for preconstruction costs Cal Am has incurred to develop the Coastal Water Project and alternatives.
- **Cal Am customers must pay extra for water they don't receive.** Under the Agreement, Cal Am would pay at least 95% of the cost of water provided to MCWD for



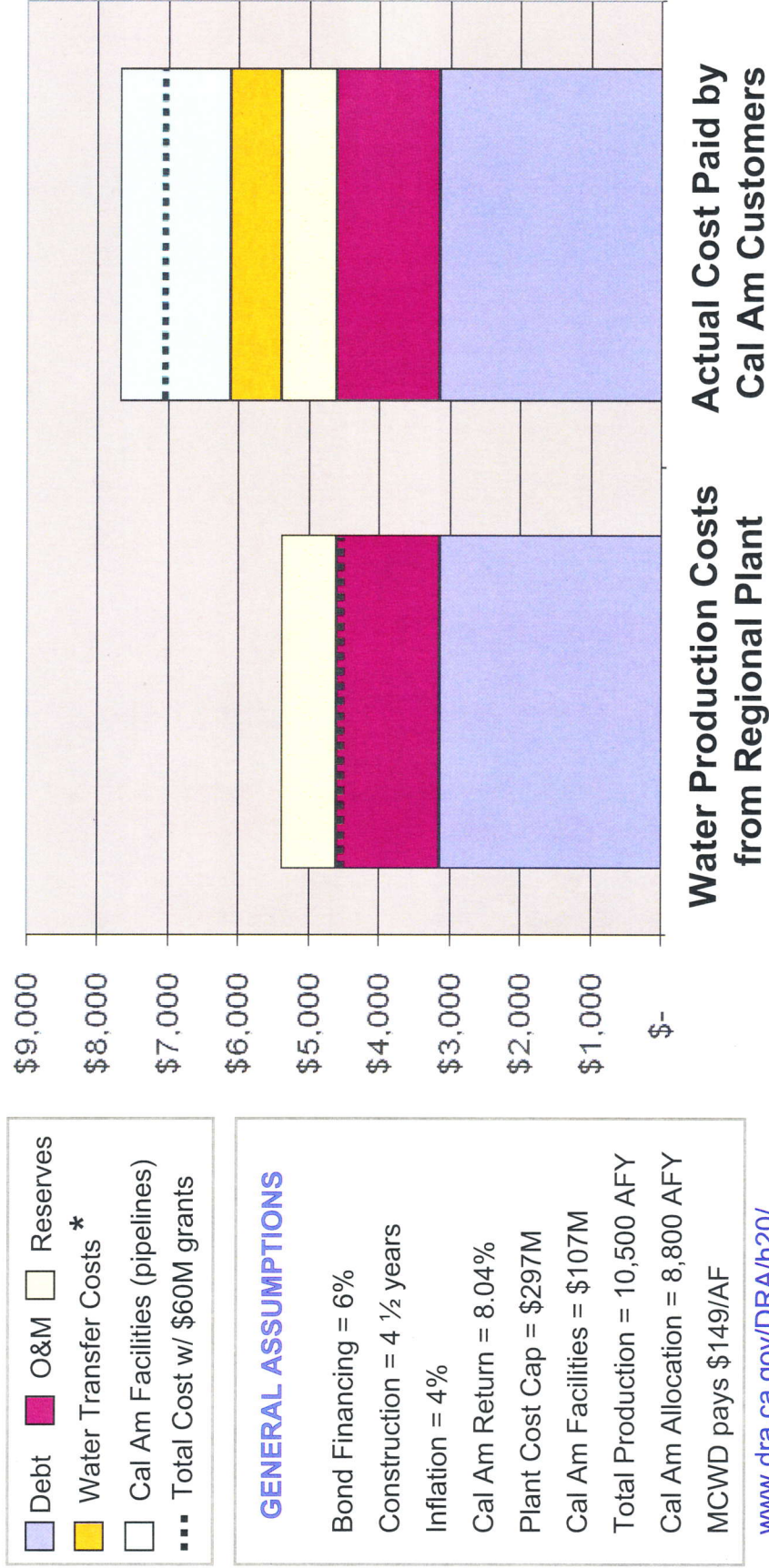
perhaps decades. MCWD pays only \$149 per acre-foot for desalinated water until it exercises its right to a permanent water allocation, while Cal Am will pay in the range of \$5000 to \$6000 or more per acre-foot for the same water. The MCWD payment of \$149 per acre foot would cover only a fraction of the variable O&M costs necessary to desalinate the water they receive.

- **Groundwater uncertainty adds considerable risk to the Regional project.** Groundwater modeling did not consider density-driven forces which drive seawater intrusion. Consequently, the model predictions leave considerable uncertainty as to the impact of Regional Project pumping on seawater intrusion in the Salinas Groundwater Basin, as well as the percentage of groundwater in the source water mixture. This uncertainty results in future litigation risk and the possibility that Cal Am may not be able to produce its full 8800 acre-feet per year allocation.
- **The Monterey Peninsula ratepayers have only limited representation, yet bear all the risk and responsibility for the Regional Project.** MPWMD has a seat on the Advisory Committee, but does not have a vote on decisions regarding the operation and management of the desalination facility. Plant owners would not be accountable to Cal Am ratepayers who pay for the plant.
- **There has been insufficient opportunity for public review of the Regional Project costs, terms and conditions.** What is proposed in the Water Purchase Agreement was developed behind closed doors in confidential ADR settlement negotiations. Instead of economies of scale, lowered financing costs and green energy savings, the WPA presents instead a project that is more expensive and higher risk than what was initially proposed. Further, Cal Am ratepayers who will pay for the Regional Project have only advisory input and no decision-making role over the costs, operation or expansion of the desalination plant.

The public saw this proposal for the first time on March 30th. If approved, this contract will be in place for a minimum of 34 years and up to 94 years. The proposals presented in the settlement and WPA will have serious economic impacts on residents and business of the Peninsula. Project proponents have not yet released supporting cost worksheets, expected financing costs or operations and maintenance costs.

- **The impact of Regional Project rates on customer demand has not been adequately considered.** DRA estimates that the summer bill for a typical two person household using 4 Ccfs per month would increase from \$21 to \$44; for 7 Ccfs it would increase from \$37 to \$88 per month; for 12 Ccfs it would increase from \$85 to \$220, and for 16 Ccfs it would increase from \$149 to \$397 per month. (These bill amounts exclude bill surcharges.) Such large increases could cause customers to reduce their consumption, which could further increase rates.

Comparison of Regional Project Water Production Cost (\$/AF) to Actual Cost Paid by Cal Am Customers



- Debt
- O&M
- Water Transfer Costs *
- Cal Am Facilities (pipelines)
- Total Cost w/ \$60M grants

GENERAL ASSUMPTIONS

Bond Financing = 6%

Construction = 4 1/2 years

Inflation = 4%

Cal Am Return = 8.04%

Plant Cost Cap = \$297M

Cal Am Facilities = \$107M

Total Production = 10,500 AFY

Cal Am Allocation = 8,800 AFY

MCWD pays \$149/AF

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* Water Transfer Costs are the additional costs Cal Am ratepayers will pay to offset the difference between the Water Production Costs from the Regional Plant and the price MCWD pays for water under the Water Purchase Agreement

Cal Am Monterey District Bill Comparison 2009, 2010 & Regional Project Rates*

Summer bill** for a sample customer with 2 people; 5/8 x 3/4 meter; 1/4-1/2 acre; and no large animals

Usage (Ccf)	2009	2010	Regional Project	Regional Project % increase over 2010	Regional Project % increase over 2009
4	\$19.13	\$20.96	\$43.84	109.11%	129.12%
7	\$33.21	\$36.99	\$87.99	137.87%	164.98%
12	\$63.54	\$85.08	\$220.47	159.12%	246.95%
16	\$96.06	\$149.20	\$397.09	166.15%	313.36%
20	\$156.08	\$261.40	\$706.19	170.16%	352.46%
40	\$456.16	\$822.42	\$2,251.69	173.79%	393.62%

Summer bill** for a sample customer with 2 people; 5/8 x 3/4 meter; 1/2-1 acre; and no large animals.

Usage (Ccf)	2009	2010	Regional Project	Regional Project % increase over 2010	Regional Project % increase over 2009
4	\$19.13	\$20.96	\$43.84	109.11%	129.12%
7	\$31.49	\$36.99	\$87.99	137.87%	179.44%
12	\$58.39	\$85.08	\$220.47	159.12%	277.59%
16	\$85.75	\$149.20	\$397.09	166.15%	363.08%
20	\$118.27	\$261.40	\$706.19	170.16%	497.10%
40	\$418.35	\$822.42	\$2,251.69	173.79%	438.23%

* Analysis done by DRA, April 5, 2010. Assumes \$297 million cost estimate for Regional Project, \$107 million for Cal Am facilities, a 2015 start date for project, 6% interest rate for bonds, and \$20 million in grant funding.

**Bill includes service and quantity charges; taxes, fees, and surcharges are not included.

Comparison of Current Monterey Rates (as of Feb 2010) and Regional Project Rates

Quantity Rates in dollars per hundred cubic feet (\$/Ccf)

Monterey	Block 1		Block 2		Block 3		Block 4		Block 5	
	2010	RP	2010	RP	2010	RP	2010	RP	2010	RP
Residential	\$2.75	\$2.75	\$4.01	\$11.04	\$8.01	\$22.08	\$16.03	\$44.16	\$28.05	\$77.28
Non-Residential	\$4.01	\$11.04	\$12.02	\$33.12	\$28.05	\$77.28				
Dedicated Irrigation	\$8.01	\$22.08	\$28.05	\$77.28						

Service Charges

	2010	Regional Project
5/8 x 3/4	\$8.70	\$24.54
3/4	\$13.05	\$36.81
1	\$21.75	\$61.35
1 1/2	\$43.50	\$122.70
2	\$69.60	\$196.32
3	\$130.50	\$368.10
4	\$217.50	\$613.50
6	\$435.00	\$1,227.00
8	\$696.00	\$1,963.20

Notes

- Current rates are those implemented in Advice Letter 826 and include the interim rate true-up.
- Current Revenue requirement is approximately \$43 million. DRA estimates that the Regional Project, as proposed, would add another \$70 million to this, for a total of approximately \$113 million.
 - 84.6% of the \$70 million, or \$59,234,000, is allocated to quantity rates in this analysis.
 - 15.4%, or \$10,766,000 is allocated to service charges.

Additional Assumptions

- 5th tier cap is removed
- 1st tier cap is maintained
- Usage patterns remain as reported in Advice Letter 825

Recent Estimates of Cost of Desalination of Seawater by Reverse Osmosis¹

Plant	Year of Estimate	Capacity, MGD	Reported Cost		Escalated Cost ²	
			\$/AF	\$/kgal	\$/AF	\$/kgal
Arzew, Algeria	2005	22.7	\$1,110	\$3.41	\$1,643	\$5.05
Beni Saf, Algeria	2005	39.6	\$863	\$2.65	\$1,278	\$3.92
Cap Djinet, Algeria	2005	26.4	\$900	\$2.76	\$1,333	\$4.09
Douaouda, Algeria	2005	31.7	\$925	\$2.84	\$1,369	\$4.20
Fukuoka, Japan	2005	13.2	\$2,270	\$6.96	\$3,360	\$10.30
Hamma, Algeria	2005	52.8	\$1,011	\$3.10	\$1,497	\$4.59
Los Angeles, California (est)	2005	25	\$1,011	\$3.10	\$1,497	\$4.59
Palmachim, Israel	2005	29.1	\$962	\$2.95	\$1,424	\$4.37
Skikda, Algeria	2005	26.4	\$913	\$2.80	\$1,351	\$4.14
West Basin, California (est)	2005	10	\$789	\$2.42	\$1,169	\$3.58
Blue Hills, Bahamas	2006	7.2	\$1,604	\$4.92	\$2,282	\$7.00
Perth, Australia	2006	38	\$925	\$2.84	\$1,317	\$4.04
Shuqaiq, Saudi Arabia	2006	56.4	\$1,270	\$3.90	\$1,808	\$5.55
Tampa Bay, Florida (rehab)	2006	25.1	\$1,036	\$3.18	\$1,475	\$4.53
Carlsbad, California (est)	2007	50	\$950	\$2.91	\$1,300	\$3.98
Chennai, India	2007	26.4	\$1,357	\$4.16	\$1,857	\$5.69
Dhekelia, Cyprus (rehab)	2007	10.6	\$1,085	\$3.33	\$1,486	\$4.56
Gold Coast, Australia	2007	35.1	\$1,345	\$4.13	\$1,840	\$5.65
Hadera, Israel	2007	87.2	\$740	\$2.27	\$1,013	\$3.11
Malta (various, avg)	2007	5.3	\$888	\$2.73	\$1,215	\$3.74
Sur, Oman	2007	21.2	\$1,480	\$4.54	\$2,026	\$6.21
Tianjin, China	2007	39.6	\$1,172	\$3.60	\$1,604	\$4.93
Ad Dur, Bahrain	2008	57.6	\$1,147	\$3.52	\$1,510	\$4.63
Ashkelon, Israel (update)	2008	86.2	\$962	\$2.95	\$1,266	\$3.88
El Tarf, Algeria (bid)	2008	13.2	\$1,098	\$3.37	\$1,445	\$4.43
Hadera, Israel (update)	2008	87.2	\$1,061	\$3.26	\$1,396	\$4.29
Mactaa, Algeria (bid)	2008	132.1	\$691	\$2.12	\$909	\$2.79
Oued Sebt, Algeria	2008	26.4	\$839	\$2.57	\$1,104	\$3.38
Palmachim, Israel (update)	2008	22	\$1,061	\$3.26	\$1,396	\$4.29
Taunton, Massachusetts	2008	5	\$1,887	\$5.79	\$2,483	\$7.62
Tenes, Algeria	2008	52.8	\$728	\$2.23	\$958	\$2.93
Tuas, Singapore (update)	2008	36	\$703	\$2.16	\$925	\$2.84

Regional Project, DRA Estimate	Year of Estimate	Capacity, MGD	\$/AF	\$/kgal	\$/AF ³	\$/kgal ³
All Production (w/o grants)	2015	10			\$5,390	\$16.54
All Production (w/ grants)	2015	10			\$4,647	\$14.26
CAW Sales Cost (w/o grants)	2015	10			\$6,403	\$19.65
CAW Sales Cost (w/ grants)	2015	10			\$5,493	\$16.86

Notes:

1. Data from Water Desalination Report, 15 September 2008.
2. Escalated costs calculated by assuming 4% per year escalation rate from the year of estimate to 2015.
3. Costs assume a total water production of 10,500 AF/yr.

Relationship between Desalinated Water Cost and Plant Capacity
 (water cost adjusted to 2015 dollars assuming 4% per year escalation rate)

