

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26

**BEFORE THE STATE WATER  
RESOURCES CONTROL BOARD**

In the Matter of the State Water Resources )  
Control Board (State Water Board) )  
Hearing to Determine whether to Adopt a )  
Draft Cease & Desist Order against )  
California American Water Regarding its )  
Diversion of Water from the Carmel River )  
in Monterey County under Order WR 95-10 )

Hearing Date: July 23 - 25, 2008  
  
Carmel River in Monterey County

**EXHIBIT MPWMD-HS12**  
**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT**

A		B		C		D		E		F	
1 DRAFT for 9/29 Board Pak		MPWMD Decision Matrix Comparing Long-Term Water Supply Options		Version 9; all edits						matrixaltsy9combo_092404.xls	
2 Subject to Revision		Sep 23, 2004		11:45 PM							
3											
4 DECISION ELEMENT		COASTAL WATER PROJECT		NORTH MONTEREY COUNTY		LONG-TERM WATER SUPPLY		AQUIFER STORAGE AND		REGIONAL URBAN RECYCLED	
5 PROPONENT/SPONSOR		California American Water		Pajaro/Sunny Mesa CSD		PROJECT (Sand City Desal)		RECOVERY (Seaside Basin)		WATER PROJECT	
PROJECT DESCRIPTION		Moss Landing desal plant assuming use of Duke Energy site and intake/outfalls. Includes energy recovery; 24 mi pipelines; 3 pump stations; 2 storage tanks; connect into five existing water systems. Includes ASR component to store CR and desal water in Seaside Basin.		Desal plant at National Refractoriles site; use existing intake/outfall and/or Duke's if available. Includes energy recovery; possible 30-ac solar service area; willing to expand to serve other areas. No ASR is planned, but could be combined with MPWMD ASR project.		MPWMD		MPWMD		MRWPCA and MCWMD	
6 Pilot Project		Planned for Duke site Jan 05 - Feb 06		Planned to operate 6-12 mos.; managed by KJ expert		None planned currently, but will be required by DHS		Successful pilot and full-scale test wells since 1998.		12 years successful use of reclaimed water. Pilot project on golf course.	
7 PROJECT YIELD		Actual yield based on commitments of purveyors		Actual yield based on commitments of purveyors		8,409 AFY yield goal; possibly 11,000 AFY (uncertain)		720-1,300 AFY depending on assumptions and modeling		300 AFY earmarked for Cal-Am system in Phase I	
8 Comply with Order 95-107 (10,730 AFY assumed)		Yes, 10,730 AFY assumed		Yes, 10,730 AFY assumed		Unlikely unless expanded or combined with another project		No, unless teamed with another large project		No, unless teamed with another large project	
9 Future Mont. Penin. Needs?		1,000 AFY for Seaside Basin; 3,572 AFY for Jurisdictions		Potentially yes, as requested		Current project goal is legalizing existing use		No, unless teamed with another large project		No, unless teamed with another large project	
10 Future Non-MP Needs		4,970 AFY for MCWMD, NorCo		3,500-4,500 AFY for NorCo; possibly up to 5,000 AFY		None		None		2,800 AFY (Phase II)	
11 TOTAL YIELD		20,272 AFY		20,000-30,000 AFY (20,000 AFY used for cost estimates)		8,400-11,000 AFY depending on assumptions		720-1,300 AFY depending on modeling assumptions		3,100 AFY (Phase II)	
12 Yield Phasing to Mont Penin		phasing based on demand; assume 10,730 AF min first		phasing based on demand; assume 10,730 AF min first		no phasing; build plant		no phasing; build plant		300 AFY in Phase I and II	
13											
14											
15 PROJECT COST		see CWP materials		see P/S/M text 2.2.4 and Table 1		varies with specific site		varies based on assumptions		see MRWPCA materials	
16 Capital - see lines 77-114		\$260,985,000		(\$176,831,000 for 18 MGD plant (20,000 AFY))		\$176,200,000		\$20,641,000 - \$21,661,000		\$33,500,000 total (\$19 + \$14.5 mil for Phases I & II)	
17 Amortized Cap. Cost (\$/yr)		\$21,035,000/yr		\$11,447,000/yr		\$14,202,000/yr		\$1,664,000 - \$1,746,000/yr		\$2,250,000/yr total	
18 O&M per year		\$10,484,000/yr		\$13,360,000/yr		\$8,790,000/yr		\$293,000 - \$296,000/yr		\$800,000/yr (I), \$1.1 mil/yr (I&II)	
19 Assumed energy cost (\$/kwh)		\$0.07/kwh		\$0.05-0.06/kwh (solar can help)		\$0.12/kwh		\$0.12/kwh		\$0.11/kwh	
20 Total Annual Cost		\$31,519,000/yr		\$24,807,000/yr		\$22,992,000/yr		\$1,957,000 - \$2,042,000/yr		\$2.08 mil/yr (I); \$3.43 mil/yr (I&II)	
21 Time frame for estimates		August 2004		2004		December 2002		Dec 2002 - Aug 2004		June 2003	

A	B	C	D	E	F
4 DECISION ELEMENT	COASTAL WATER PROJECT	NORTH MONTEREY COUNTY	LONG-TERM WATER SUPPLY	AQUIFER STORAGE AND	REGIONAL URBAN RECYCLED
22 COST TO PENINSULA	see CWP handouts	DESALINATION PROJECT	PROJECT (Sand City Desal)	RECOVERY (Seaside Basin)	WATER PROJECT
Share of total project cost	75% of yield to MP; CAP COSTS are \$1,100/AF for MP, \$940/AF for MCWD, \$750/AF for NorCo, O&M COSTS are \$503/AF for MP, \$585/AF for others.	see text 2.2.5 Cost of water based on contract volume (capacity+annual usage charges); separate charge for pipelines and pumping facilities. \$1240/AF for water only.	Entire cost to be paid by Peninsula consumers. \$2,730/AF based on 7.5 MGD (8,409 AFY) project	Entire cost to be paid by Peninsula consumers. \$2,800/AF based on 700 AFY (CDM); \$1,570/AF based on 1,300 AFY (RBF).	Only recycled water users pay for their share at about \$1,100/AF.
23 How share determined	Prorata share of participation	see line 23	N/A	N/A	Prorata share
24 Cost sharing of existing vs. future Cal-Am ratepayers	no information provided	Future capacity cost based on construction and transmission	New users pay connection fee similar to current system	New users pay connection fee similar to current system	Only recycled water users pay for their share at about \$1,100/AF.
25 Cost of Water (\$/AF)	see line 23; ratepayer cost could be higher	see line 23; need to add transmission and other costs	see line 23; need to add distribution and other costs	see line 23 -- includes Cal-Am system improvements	No change in Cal-Am rates is anticipated.
26 Impact to Cal-Am Bill	\$2.40/mo in 2006; \$27.04/mo in 2011 over rates at that time	no information provided	no information provided	no information provided	no impacts anticipated
27 FINANCING ASSUMPTIONS	yet to be determined	revenue bonds or COPs	pursuant to District Law	pursuant to District Law	
28 Interest rate (%)	7%	current rate is 5%	7%	7%	3% (assume SRF loan)
29 Term (yrs)	30	30 years	30 years	30 years	20 years
30 Public vote required?	not currently contemplated; possible if public financing	Not required of P/SM unless Prop 118	Yes, if MPWMD project. No, if JPA.	Yes, if MPWMD project. No, if JPA.	No
31 Grants (describe)	May apply for EPA or Prop 50 grants	eligible; will submit applic to DWR and BurRec for planning, envtl and pilot project costs	none currently	none currently	No grants anticipated; assume SRF loan.
32					
33					
34					
35 TIMELINE	see CWP charts	see P/SM text Figure 3	Assume 11/1/04 Start Work	Assume 11/1/04 Start Work	see MRWPCA materials
Draft EIR (and/or EIS)	PEA to CPUC mid-05; no info on CPUC or other entity re: DEIR timing. NEPA reqts uncertain	CEQA compliance Oct 04-Sep 05; assume limited NEPA review and no EIS.	DEIR Apr 05 (5 mos, evaluate onshore HDD); assume NEPA tiers on EIR.	DEIR Spring 2005 (5 mos, including IS/NOP + 3 mo eval)	DEIR distributed Aug 04; assume NEPA tiers on EIR.
36 Certify FEIR (EIS ROD)	FEIR Feb 06; NEPA uncertain	Sep 05; NEPA tiers on EIR	Fall 05 FEIR; NEPA uncertain	Sum 05 FEIR; NEPA unclear	2005; no info on NEPA
37 Obtain key permits	Spring 2006 for DHS, MIBNMS and RWQCB; CCC in Dec 06	Jan-Sep 05 to obtain permits	Fall 2006 (assume 12-18 mos from DEIR)	Spring 2006 (assume 1 yr from DEIR)	2005
38 Secure financing	timeline not provided	no information provided	Spring 2007 (6 mo. for vote)	late 2006 (6 mo for vote)	2005
39 Secure ROW/property access	after environmental studies	no information provided	2007	2007	2005
40 Start construction	Jan-Mar 2007	mid-2006	2007	2007	2005
41 Commence water delivery	Fall 2008 (18-mo construct)	Jan 2008 (18 mo construct)	2009 (24 mo construction)	2007-2008 (6 mo construct)	Fall 2007 (Ph I); 2009 (Ph II)
42 Total time to water delivery	4.0 years from Oct 04	3.3 years from Oct 04	5 years from Oct 04	3+ years from Oct 04	3-5 yrs from Oct 04 (Ph I, II)

A	B	C	D	E	F
4	COASTAL WATER PROJECT	NORTH MONTEREY COUNTY DESALINATION PROJECT	LONG-TERM WATER SUPPLY PROJECT (Sand City Desal)	AQUIFER STORAGE AND RECOVERY (Seaside Basin)	REGIONAL URBAN RECYCLED WATER PROJECT
44	see CWP materials	see P/SM materials			
45	Federal Agencies	USACOE, USFWS, US Army BRAC; USBLM, USEPA, MBNMS, NOAA, Fish, USCG	Same as CWP except no CPUC or SWRCB permit needed for ASR; fewer stream crossings and avoidance lessen federal permits; P/SM serves as lead agency	US Army Ft. Ord; amend existing lease agreement for site	USACOE; USBR; other federal agencies possible as part of NEPA review
46	EIS needed?	NEPA review required by fed law; EIS possible based on pipeline alignment	NEPA review assumed; EIS is unlikely if demonstrate avoidance, reduced impact	NEPA review, but may tier off EIR and existing permit	NEPA review required but EIS not anticipated (tier off EIR)
47	Fed lead agency?	Army Corps likely	TBD (US Army?)	US Army	USBR assumed
48	Sanctuary permit?	Permit to construct; review NPDES application	Yes, related to NPDES/outfall; need to confirm outfall capacity	No	none expected to be required
49	State Agencies	CCC, CPUC (if Cal-Am); RWQCCB, CEC, CDFG, DHS, CalTrans, DPR, SLC, CDTS	Same as CWP, except no CPUC	SWRCB, CDFG, DHS	DHS, RWQCCB, CCC anticipated
50	CPUC approval?	Needed for Cal-Am rates; Cal-Am submitted application for CWP Sept 20, 2004.	Same as CWP, except no CPUC	SWRCB, CDFG, DHS	DHS, RWQCCB, CCC anticipated
51	EIR lead agency	TBD-- CPUC presently assumed	N/A	N/A	N/A
52	SWRCB/Water Rights	Needed for ASR or any other new Carmel River diversions	Pajaro/Sunny Mesa CSD	MPWMD	MRWPCA and/or MCWD
53	Regional Agencies	MBUAPCD	N/A, no ASR planned	No	N/A; loan from SWRCB
54	Monterey County	MCWRA, P&B, MCEH	Same as CWP	Same as CWP	MPWMD, MBUAPCD, FORA
55	Local Agencies	MPWMD, MLHD; FORA, all affected cities and jurisdictions for encroachment and construction permits	construction and use permits	MCEH, P&B (?)	Pub wks, P&B, MCEH, MCWRA
56	SITE CONTROL		Similar to CWP, jurisdictions may vary	Construction and use permits within affected jurisdictions	Marina, Seaside, Del Rey Oaks, Monterey
57	Confirmed site?		Yes, lease agreement with owner of Natl Refractory site. No info on possible use of Duke outfall (see line 6)		
58	Alternative sites?	3 sites identified off Dolan Rd	None needed	Yes, several (see BRDEIR).	N/A