





TODAY'S ACTION

Receive the New Source Water Report for the
Castroville Seawater Intrusion Project



Prior BOD/BOS Action

- Produce Wash Water Utilization Agreement
 - MCWRA BOD June 30, 2014
 - MCWRA BOS July 1, 2014
- MOU Regarding New Source Waters and Water Recycling
 - MCWRA BOD/BOS Oct. 8, 2014
- Amended and Restated Water Recycling Agreement with Monterey One Water (M1W)
 - MCWRA BOD November 2, 2015
 - MCWRA BOS November 3, 2015
- New Source Waters Report Agreement with Raftelis Financial Consultants
 - MCWRA BOD May 18, 2017
 - MCWRA BOS June 20, 2017



Financial Impact

- Report budgeted in FY17-18 and FY 18-19, Fund 131 (CSIP), totaling \$117,123
- Half of Report costs reimbursed by M1W (\$58,561.50)



Background

- CSIP Water use during drought
 - No SRDF after multiple dry years (3-6000AFY)
 - Increased pumping of groundwater
- Opportunities for new source waters
 - Ag. wash water use, test period in 2014
 - Water rights on Reclamation Ditch and Blanco Drain applied for in 2014 and permitted March 2017
 - Construction of diversion facilities at Rec Ditch and Blanco Drain currently underway

Discussion

- Amended and Restated Water Recycling Agreement with Monterey One Water (M1W) set the parameters for the new source waters:
 - Facilities financing, design, construction, operation, maintenance, and replacement
 - Approximate water allocations:
 - 4,320 AFY for M1W/GWR
 - 4,381 AFY for MCWRA/CSIP
 - Capital Costs split 45.1/54.9%
 - O&M costs based on actual water use

Discussion

- New Source Waters Study:
 - Cost analysis for Facilities Capital and O&M
 - Narrowed focus to select new sources
 - Blanco Drain
 - Reclamation Ditch
 - Industrial Wastewater (IWW)
 - Determine possible rates and charges
 - Existing rate \$73.65 per AF
 - Expected new rate \$94.16 per AF
 - Increase of \$20.51

Source Water	Supply (AF)	Funding Source	Comments	Fiscal Impact
Existing				
Treated WW (Recycled) <i>* Includes 1,423 AF IWW</i>	13,186	Assessments	Constant	N/A
SRDF	Varies (Wet, Avg, Dry)	Utility Charge (\$67.82)	High Quality; preferred water source by growers	Reduces need for wells and associated cost
Supplemental Wells	Varies	Assessments Cover (1,858 AF)	High cost	Covers remaining demand
New Source Water				
Blanco Drain	Varies	N/A	Part of Analysis	Case Study
Reclamation Ditch	Varies	N/A	Part of Analysis	Case Study
Ag Wash Water (IWW)	Varies	N/A	Part of Analysis	Case Study

Cost Sharing Summary

Water Supply	Primary/ Secondary	Tertiary	Capital Cost
Domestic WW	Member Agencies	WRA	Built
SRDF	-	-	Built
Wells	-	-	Built
Blanco Drain	WRA/M1W*	WRA	WRA – 45.1% M1W – 54.9%
Rec Ditch	WRA/M1W*	WRA	WRA – 45.1% M1W – 54.9%
Ag Wash (IWW)	Salinas	WRA	Built

*Primary/Secondary costs are apportioned based on use

O&M and Treatment Cost Summary (\$/AF)

Water Supply	Wells	SRDF	Treated RW	Blanco Drain	Rec. Ditch	IWW
Primary / Secondary				\$73.94	\$74.12	
Tertiary			\$65.74	\$65.74	\$65.74	\$65.74
O&M	\$102.42	\$50.00		\$41.28	\$11.69	
Total O&M (\$/AF)	\$102.42	\$50.00	\$65.74	\$180.96	\$151.55	\$65.74

Capital Cost Summary

Source Water	Capital (WRA/M1W)	Plant Mod (\$1.49M)	Grant Funding	Capital (Net of Grants)	Annual Debt Payment	Debt Payment (WRA Share)	Debt Payment (M1W Share)
Modification to Plant		\$1,493,000	-	\$1,493,000	\$91,307	\$26,091	\$31,760
Blanco Drain	\$8,852,000	-	\$600,000	\$8,252,000	\$504,665	\$144,207	\$175,542
Reclamation Ditch	\$2,695,861	-	\$1,700,000	\$995,861	\$60,904	\$17,403	\$21,185

- WRA share is 45.1% of capital / M1W share is 54.9% of capital
- Capital costs are net of grants
- Capital cost per acre foot varies by scenario



Cost Comparison Cases for CSIP Operation

Base Case (10-year average)

	Wells	SRDF	Recycled Water (includes 1,423 AF IWW)
Supply Use	5,814	1,866	13,186
O&M Variable Rate	\$102.42	\$50.00	\$65.74
Variable Total Cost	\$595,470	\$93,300	\$866,848
Subtotal	\$595,470	\$93,300	\$866,848
Total Grower Demand	20,866 AF	20,866 AF	20,866 AF
\$ / AF (rounded \$)	\$28.54	\$4.47	\$41.54

- Cost per AF – \$74.55 / AF
- Existing utility charges - \$73.65 / AF

Scenario 1 – Normal Year

	Wells	SRDF	Recycled Water	Blanco Drain	Rec Ditch	IWW
Supply Use (AF)	2,147	4,295	12,495	686	272	971
O&M Variable Rate (\$/AF)	\$102.42	\$50.00	\$65.74	\$180.96	\$151.55	\$65.74
Variable Total Cost (\$)	\$219,896	\$214,750	\$821,421	\$124,139	\$41,222	\$63,834
Capital Cost (\$)			\$26,091	\$144,207	\$17,403	
O&M Fixed Cost (\$)	-	-	-	\$17,600	\$14,900	-
New Source Replacement Costs (\$)	-	-	-	\$136,375	\$56,539	-
Subtotal (\$)	\$219,896	\$214,750	\$847,512	\$422,321	\$130,064	\$63,834
Total Grower Demand (AF)	20,866 AF	20,866 AF	20,866 AF	20,866 AF	20,866 AF	20,866 AF
\$ / AF	\$10.54	\$10.29	\$40.62	\$20.24	\$6.23	\$3.06

- Cost per AF – \$90.98 / AF
- Increase of **\$17.33 / AF** while reducing dependence on Wells

**Reduced well
demand by:
3,667 AF**



Scenario 2 – Dry Year (No SRDF)

	Wells	SRDF	Recycled Water	Blanco Drain	Rec Ditch	IWW
Supply Use (AF)	6,029	-	12,495	542	430	1,370
O&M Variable Rate (\$/AF)	\$102.42	\$50.00	\$65.74	\$180.96	\$151.55	\$65.74
Variable Total Cost (\$)	\$617,490	-	\$821,421	\$98,080	\$65,167	\$90,064
Capital Cost (\$)			\$26,091	\$144,207	\$17,403	
O&M Fixed Cost (\$)	-	-	-	\$17,600	\$14,900	-
New Source Replacement Costs (\$)	-	-	-	\$136,375	\$56,539	-
Subtotal (\$)	\$617,490	-	\$847,512	\$396,262	\$154,009	\$90,064
Total Grower Demand (AF)	20,866 AF	20,866 AF	20,866 AF	20,866 AF	20,866 AF	20,866 AF
\$ / AF	\$29.59	-	\$40.62	\$18.99	\$7.38	\$4.32

- Cost per AF – \$100.90 / AF
- Increase of **\$27.25 / AF** with increasing dependence

Well demand
Increased by 215 AF

Without any New
Source Water,
well demand would
increase 1,187 AF



Scenario 3 – Wet Year (Max SRDF)

	Wells	SRDF	Recycled Water	Blanco Drain	Rec Ditch	IWW
Supply Use (AF)	854	6,084	12,495	581	230	622
O&M Variable Rate (\$/AF)	\$102.42	\$50.00	\$65.74	\$180.96	\$151.55	\$65.74
Variable Total Cost (\$)	\$87,467	\$304,200	\$821,421	\$105,138	\$34,857	\$40,890
Capital Cost (\$)			\$26,091	\$144,207	\$17,403	
O&M Fixed Cost (\$)	-	-	-	\$17,600	\$14,900	\$0
New Source Replacement Costs (\$)	-	-	-	\$136,375	\$56,539	\$0
Subtotal (\$)	\$87,467	\$304,200	\$847,512	\$403,320	\$123,699	\$40,890
Total Grower Demand (AF)	20,866 AF	20,866 AF	20,866 AF	20,866 AF	20,866 AF	20,866 AF
\$ / AF	\$4.19	\$14.58	\$40.62	\$19.33	\$5.93	\$1.96

- Cost per AF – \$86.60 / AF
- Increase - **\$12.95 / AF** while minimizing use of Wells
- Frees up \$103k in assessments for additional capital R&R

**Reduced well
demand by:
4,960 AF**



Scenario 4 – Dry Year (Sep. Rights)

	Wells	SRDF	Recycled Water	Blanco Drain	Rec Ditch	IWW
Supply Use (AF)	6,634	-	12,495	-	-	1,737
O&M Variable Rate (\$/AF)	\$102.42	\$50.00	\$65.74	\$180.96	\$151.55	\$65.74
Variable Total Cost (\$)	\$679,454	-	\$821,421	-	-	\$114,190
Capital Cost (\$)			\$26,091	-	-	
O&M Fixed Cost (\$)	-	-	-	-	-	-
New Source Replacement Costs (\$)	-	-	-	-	-	-
Subtotal (\$)	\$679,454	-	\$847,512	\$0	\$0	\$114,190
Total Grower Demand (AF)	20,866 AF	20,866 AF	20,866 AF	20,866 AF	20,866 AF	20,866 AF
\$ / AF	\$32.56	-	\$40.62	-	-	\$5.47

- Cost per AF – \$78.65 / AF
- Increase - **\$5.00 / AF** while maximizing Wells

**Increase well
demand by:
820 AF**



Wrap Up Slide

- What's the average increase in cost of water?
 - Weighted probabilistic estimate for most expected rate outcome
 - Scenario probabilities developed by MCWRA
 - Current Total Recycled Utility Rate = \$73.65

Scenario	Probability (%)	Cost (\$/AF)	Weighted Cost (\$/AF)
Scenario 1 - Normal	50%	\$90.98	\$45.49
Scenario 2 – Dry	37.5%	\$100.90	\$37.84
Scenario 3 – Wet	12.5%	\$86.60	\$10.83
Weighted Estimate (\$/AF)			\$94.16



Where Do We Go From Here

- Obtain Feedback / Input
- Determine if New Source Water Improvements will move forward
- Funding Options
 - Grants already applied within Scenarios – (\$2.3M in Savings)
 - Assessments or Utility Rates
 - Separate proceedings would need to be initiated



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