

**LAS VIRGENES - TRIUNFO
JOINT POWERS AUTHORITY
AGENDA**

CLOSING TIME FOR AGENDA IS 8:30 A.M. ON THE TUESDAY PRECEDING THE MEETING.
GOVERNMENT CODE SECTION 54954.2 PROHIBITS TAKING ACTION ON ITEMS NOT ON POSTED
AGENDA UNLESS AN EMERGENCY, AS DEFINED IN GOVERNMENT CODE SECTION 54956.5
EXISTS OR UNLESS OTHER REQUIREMENTS OF GOVERNMENT CODE SECTION 54954.2(B) ARE
MET.

5:00 PM

February 6, 2012

PLEDGE OF ALLEGIANCE

1. CALL TO ORDER AND ROLL CALL

- A** The meeting was called to order at _____ p.m. by _____ in the Las Virgenes Municipal Water District office and the Deputy Clerk of the Board called the roll.

<u>Triunfo Sanitation District</u>	<u>Present</u>	<u>Left</u>	<u>Absent</u>
Steven Iceland	_____	_____	_____
Michael McReynolds	_____	_____	_____
Janna Orkney	_____	_____	_____
Michael Paule	_____	_____	_____
James Wall	_____	_____	_____
<u>Las Virgenes Municipal Water District</u>			
Joseph Bowman	_____	_____	_____
Charles Caspary	_____	_____	_____
Glen Peterson	_____	_____	_____
Lee Renger	_____	_____	_____
Barry Steinhardt	_____	_____	_____

2. CHAIR/VICE CHAIR

- A Appointment of JPA Chair and Vice Chair**

Las Virgenes Municipal Water District Director, Lee Renger as Chair, and Triunfo Sanitation District Director, Janna Orkney as Vice Chair of the Las Virgenes - Triunfo Joint Powers Authority for calendar year 2012.

3. APPROVAL OF AGENDA

- A** Moved by _____, seconded by _____, and _____, that the agenda for the February 6, 2012 meeting be approved as presented/amended.

4. PUBLIC COMMENTS

Members of the public may now address the Board of Directors **ON MATTERS NOT APPEARING ON THE AGENDA**, but within the jurisdiction of the Board. No action shall be taken on any matter not appearing on the agenda unless authorized by Subdivision (b) of Government Code Section 54954.2

5. ILLUSTRATIVE AND/OR VERBAL PRESENTATION AGENDA ITEMS

A Watershed Wide Plan Update and Triennial Review

6. ACTION ITEMS

A Joint Powers Authority Quarterly Financial Report at December 31, 2011

Receive and file.

B Tapia WRF Process Air Evaluation Report: Receive and File

Receive and file the Tapia WRF Process Air Evaluation Study (LVMWD Report No. 2490) prepared by Carollo Engineers, Inc.

C Adopt Negative Declaration and Accept Initial Study for the Tapia Alternative Disinfection Project

Receive and file report #2488.00 Tapia Water Reclamation Facility Disinfection Project Initial Study/Negative Declaration; approve and adopt the Negative Declaration for the Tapia Alternative Disinfection Project; and direct staff to file the Notice of Determination with the Recorder for the County of Los Angeles.

D Farm Sprayfield Operation and Maintenance Contract Renewal

Authorize the General Manager to enter into a one-year contract with W. Litten Land Preparation in an amount not to exceed \$250,000.

7. BOARD COMMENTS

8. FUTURE AGENDA ITEMS

9. INFORMATION ITEMS

10. CLOSED SESSION

11. ADJOURNMENT

February 6, 2012 JPA Board Meeting

TO: JPA Board of Directors

FROM: General Manager

Subject: Appointment of JPA Chair and Vice Chair

SUMMARY:

The Joint Powers Authority, Joint Exercise of Powers Agreement, Section 4, states "The Chairs of the two (2) parties' governing boards will alternate annually as Chair and Vice Chair, respectively, of the meetings." Based on this provision the Chair of the JPA for calendar year 2012 shall be the Chair of the Las Virgenes Municipal Water District, and the Vice Chair of the JPA shall be the Chair of the Triunfo Sanitation District Board.

No action by the JPA Board is necessary other than the respective Chairs of the parties shall assume their role on the JPA Board at this meeting.

RECOMMENDATION(S):

Las Virgenes Municipal Water District Director, Lee Renger as Chair, and Triunfo Sanitation District Director, Janna Orkney as Vice Chair of the Las Virgenes - Triunfo Joint Powers Authority for calendar year 2012.

FINANCIAL IMPACT:

None.

Prepared By: Kimmey Conklin, Executive Assistant/Clerk of the Board

February 6, 2012 JPA Board Meeting

TO: JPA Board of Directors

FROM: Finance & Administration

Subject: Joint Powers Authority Quarterly Financial Report at December 31, 2011

SUMMARY:

A midyear review of the JPA operations show that revenue is higher than the prior year, as expected due to the wholesale recycled water rate now including a component for depreciation. However, because volume sales were not as large as anticipated, revenue is less than anticipated in the budget by 5.7%.

The lag in operating revenue is more than offset by the lower than anticipated expenses. Overall operating expenses in this period are lower by \$439,699 and under budget by \$1.2 million. However, the second half of the year includes the refurbishing of the compost facilities, which involves the additional cost of sludge removal, so it would be difficult to speculate on what the expenses will ultimately be, except that it appears likely that the JPA will not be over budget.

Capital project expenses to date of \$461,161 are 28% of what was originally budgeted. Tables showing expenses for each project are attached to this report.

RECOMMENDATION(S):

Receive and file.

Prepared By: Sandra Schmidt and Violet Liou

ATTACHMENTS:

[JPA Second Quarter Financial Review](#)



Joint Powers Authority Second Quarter Financial Review

FY11-12 Year to Date at December 31

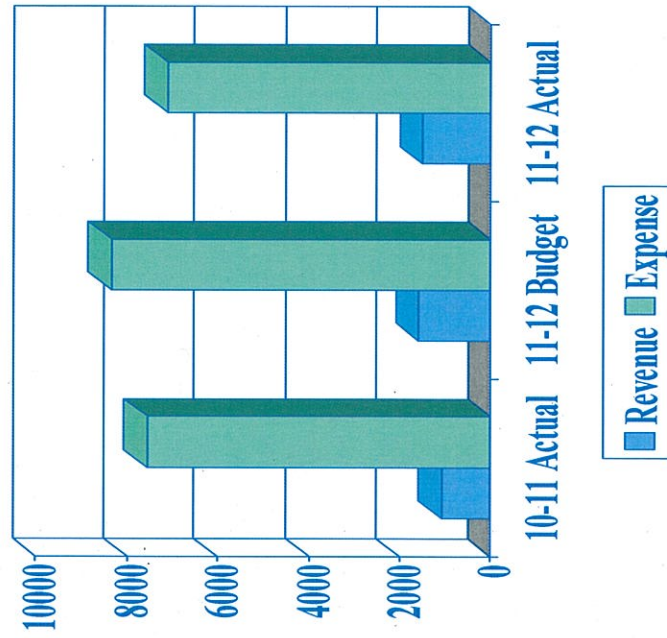
	FY10-11 Actual YTD	FY11-12 Budget YTD	FY11-12 Actual YTD
Net Uses of Fund	\$8,319,920	\$8,354,964	\$6,070,686
LV Share	\$5,731,684	\$5,781,200	\$4,152,854
TSD Share	\$2,588,236	\$2,573,764	\$1,917,832

Joint Powers Authority Operations

Second Quarter

	FY 10-11 Actual		FY 11-12 Budget		FY 11-12 Actual	
	YTD		YTD		YTD	
Total Operating Revenues	\$ 1,088,472	\$	1,595,606	\$	1,503,968	
RW Pump Station	798,856		912,947		769,397	
RW Tanks & Reservoirs	34,209		61,870		27,199	
RW System Operations	14,115		25,542		18,365	
RW Distribution	96,019		59,556		29,806	
Sewer	124,593		167,940		90,569	
Waste Water Treatment	3,617,107		4,082,040		3,628,822	
Composting	2,250,424		2,444,917		1,953,155	
Farm Operation	124,168		117,225		170,360	
Administration	502,965		470,142		435,084	
Total Operating Expenses	7,562,456		8,342,179		7,122,757	
Net Operating (Expenses)	\$ (6,473,984)	\$	(6,746,573)	\$	(5,618,789)	

(in Thousands)



Joint Powers Authority Operations

Quarterly Update - Comparison to Budget & Prior Year at December 31, 2011

FY11-12 Year to Date

	<u>FY 10-11 Actual YTD</u>	<u>FY 11-12 Budget YTD</u>	<u>FY 11-12 Actual YTD</u>
<u>Total Revenues</u>			
Operating Revenues	\$ 1,088,472	\$ 1,595,606	1,503,968
Other Revenues	964,230	18,000	9,264
Total Revenues	<u>2,052,702</u>	<u>1,613,606</u>	<u>1,513,232</u>
<u>Total Expenses</u>			
Operating Expenses	\$ 7,562,456	\$ 8,342,179	7,122,757
Capital Project Expenses	2,810,166	1,626,391	461,161
Total Expenses	<u>10,372,622</u>	<u>9,968,570</u>	<u>7,583,918</u>
Net (Uses) of Funds	<u>\$ (8,319,920)</u>	<u>\$ (8,354,964)</u>	<u>(6,070,686)</u>
Las Virgenes Share	<u>(5,731,684)</u>	<u>(5,781,200)</u>	<u>(4,152,854)</u>
Triunfo Share	<u>(2,588,236)</u>	<u>(2,573,764)</u>	<u>(1,917,832)</u>

ITEM 6A

Joint Powers Authority Operations
Quarterly Update - Comparison to Budget & Prior Year at December 31, 2011
FY11-12 Year to Date

	<u>FY 10-11 Actual YTD</u>	<u>FY 11-12 Budget YTD</u>	<u>FY 11-12 Actual YTD</u>
<u>Las Virgenes Share:</u>			
<u>Total Revenues</u>			
Operating Revenues	\$ 781,990	\$ 1,126,498	\$ 1,061,801
Other Revenues	680,122	12,708	8,068
Total Revenues	<u>1,462,112</u>	<u>1,139,206</u>	<u>1,069,869</u>
<u>Total Expenses</u>			
Operating Expenses	\$ 5,209,819	\$ 5,772,174	\$ 4,897,143
Capital Project Expenses	1,983,977	1,148,232	325,580
Total Expenses	<u>7,193,796</u>	<u>6,920,406</u>	<u>5,222,723</u>
Net (Uses) of Funds - LV	<u>\$ (5,731,684)</u>	<u>\$ (5,781,200)</u>	<u>\$ (4,152,854)</u>
<u>Triunfo Share:</u>			
<u>Total Revenues</u>			
Operating Revenues	\$ 306,482	\$ 469,108	\$ 442,167
Other Revenues	284,108	5,292	1,196
Total Revenues	<u>590,590</u>	<u>474,400</u>	<u>443,363</u>
<u>Total Expenses</u>			
Operating Expenses	\$ 2,352,637	\$ 2,570,005	\$ 2,225,614
Capital Project Expenses	826,189	478,159	135,581
Total Expenses	<u>3,178,826</u>	<u>3,048,164</u>	<u>2,361,195</u>
Net (Uses) of Funds - TSD	<u>\$ (2,588,236)</u>	<u>\$ (2,573,764)</u>	<u>\$ (1,917,832)</u>
Total JPA Net (Uses) of Funds	<u>\$ (8,319,920)</u>	<u>\$ (8,354,964)</u>	<u>\$ (6,070,686)</u>

Joint Powers Authority Operations
Quarterly Update - Comparison to Budget & Prior Year at December 31, 2011
FY11-12 Year to Date

	<u>FY 10-11 Actual YTD</u>	<u>FY 11-12 Budget YTD</u>	<u>FY 11-12 Actual YTD</u>
Total Operating Revenues	\$ 1,088,472	\$ 1,595,606	\$ 1,503,968
RW Pump Station	798,856	912,947	769,397
RW Tanks & Reservoirs	34,209	61,870	27,199
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Farm Operation	124,168	117,225	170,360
Administration	502,965	470,142	435,084
Total Operating Expenses	<u>7,562,456</u>	<u>8,342,179</u>	<u>7,122,757</u>
Net Operating (Expenses)	<u>\$ (6,473,984)</u>	<u>\$ (6,746,573)</u>	<u>\$ (5,618,789)</u>

Las Virgenes - Triunfo Joint Powers Authority
Capital Improvement Project Status
December 31, 2011

Job # - Description	LY % TSD %	Prior Year Unexpended Appropriations	Current Year Working Capital Requirement	Current Year Expenditures	Contractual Commitments	Project Balance	LY Balance	TSD Balance
Completed Projects								
10392 - RLV:Replace Centrate Line	70.6%	\$550,221	\$550,220	\$6,466	\$0	\$543,754	\$383,890	\$159,864
10448 - Rancho Polymer Feed System Re	70.6%	\$114,064	\$0	\$0	\$0	\$0	\$0	\$0
10459 - Tapia CP1000,CP100,Scrm Roof	70.6%	\$91,000	\$91,000	\$90,895	\$0	\$105	\$74	\$31
10465 - Rancho:Flare Contrl Safety Upg	70.6%	\$17,028	\$17,028	\$14,906	\$109	\$2,013	\$1,421	\$592
10469 - Rancho Misc Equipmt-FY 10-11	70.6%	(\$13,753)	(\$13,753)	\$9,982	\$669	(\$24,404)	(\$17,229)	(\$7,175)
10470 - Tapia Misc Equipmt-FY 10-11	70.6%	\$27,176	\$27,176	\$25,262	\$0	\$1,914	\$1,351	\$563
10473 - BNR Ph III-Centrate SampleLine	70.6%	(\$22,645)	(\$22,645)	\$0	\$4,209	(\$26,854)	(\$18,959)	(\$7,895)
10498 - Tapia Misc Equipment- FY 11-12	70.6%	\$0	\$12,500	\$0	\$20,340	(\$7,840)	(\$5,535)	(\$2,305)
10500 - Tapia Rpl Primy Tnk SludgeValv	70.6%	\$0	\$30,000	\$40,124	\$2,876	(\$13,000)	(\$9,178)	(\$3,822)
Completed Projects		\$763,091	\$691,526	\$187,635	\$28,203	\$475,688	\$335,836	\$139,852
Projects to complete by June 30, 2012								
10257 - Combined Heat & Power (CHP)	70.6%	\$84,577	\$84,577	\$0	\$12,077	\$72,500	\$51,185	\$21,315
10391 - RLV:Compost Reactor Bldg Ceilg	70.6%	\$267,697	\$500,871	\$50,578	\$0	\$450,293	\$317,907	\$132,386
10451 - Tapia Gate & Drive Replacement	70.6%	\$216,878	\$216,878	\$41,168	\$245,800	(\$70,090)	(\$49,484)	(\$20,606)
10452 - Tapia Process Air Evaluation	70.6%	\$101,433	\$601,433	\$24,714	\$3,846	\$572,873	\$404,448	\$168,425
10457 - Tapia Altrntv Disinfectn Study	70.6%	\$5,116	\$205,116	\$82,255	\$127,017	(\$4,156)	(\$2,934)	(\$1,222)
10499 - Tapia Grit Cyclone ConveyorSys	70.6%	\$0	\$75,000	\$0	\$0	\$75,000	\$52,950	\$22,050
10501 - Pump & Motor Repair - FY 11-12	70.6%	\$0	\$40,000	\$0	\$23,716	\$16,284	\$11,497	\$4,787
10502 - Rancho Misc Equipment- FY11-12	70.6%	\$0	\$35,000	\$0	\$0	\$35,000	\$24,710	\$10,290
Projects to complete by June 30, 2012		\$675,701	\$1,758,875	\$198,715	\$412,456	\$1,147,704	\$810,279	\$337,425

ITM 6
 MultiYear Projects

Job # - Description	LV %	TSD %	Prior Year Unexpended Appropriations	Current Year Working Capital Requirement	Current Year Expenditures	Contractual Commitments	Project Balance	LV Balance	TSD Balance
10387 - Rancho Material Handling Imprv	70.6%	29.4%	\$100,000	\$116,000	\$5,100	\$0	\$110,900	\$78,295	\$32,605
10418 - Rehab 18" RW Pipe (Tapia/Min)	70.6%	29.4%	\$150,000	\$155,000	\$0	\$0	\$155,000	\$109,430	\$45,570
10446 - Buffer Land at Rancho	70.6%	29.4%	\$250,000	\$250,000	\$0	\$0	\$250,000	\$176,500	\$73,500
10495 - Tapia Gate & Drive Replacement	70.6%	29.4%	\$0	\$160,000	\$0	\$0	\$160,000	\$112,960	\$47,040
10453 - Tapia/Rancho Vulnerability Ass	70.6%	29.4%	\$50,000	\$50,000	\$0	\$0	\$50,000	\$35,300	\$14,700
10462 - Tapia: 20/24" Inflnt FrctMainUp	70.6%	29.4%	\$336,166	\$336,166	\$59,609	\$9,733	\$266,824	\$188,378	\$78,446
10487 - Construct 3rd Digester @Rancho	70.6%	29.4%	\$0	\$465,000	\$10,102	\$461,551	(\$6,653)	(\$4,697)	(\$1,956)
10489 - Rancho Digester Heating SysEvl	70.6%	29.4%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10492 - Groundwater Suplmtnt Study-RW	70.6%	29.4%	\$0	\$25,000	\$0	\$0	\$25,000	\$17,650	\$7,350
10493 - Tapia: Sludge Screening	70.6%	29.4%	\$0	\$385,000	\$0	\$0	\$385,000	\$271,810	\$113,190
Multi-Year Projects			\$886,166	\$1,942,166	\$74,811	\$471,284	\$1,396,071	\$885,626	\$410,445
Totals			\$2,324,958	\$4,392,567	\$461,161	\$911,943	\$3,019,463	\$2,131,741	\$887,722
Totals: Las Virgenes MWD			\$1,641,420	\$3,101,152	\$325,580	\$643,832	\$2,131,741		
Totals: Triunfo Sanitation District			\$683,538	\$1,291,415	\$135,581	\$268,111	\$887,722		

*Las Virgenes - Triunfo Joint Powers Authority
Capital Improvement Projects Working Capital*

Fiscal Year 2011-12 - through December 31, 2011

Job # - Description	LV %	TSD %	Working Capital Requirement			Expenditures			
			per Budget	Current Est	LV Share	TSD Share	Total	LV Exp	TSD Exp
10257 - Combined Heat & Power (CHP)	70.60%	29.40%	\$0	\$84,577	\$59,711	\$24,866	\$0	\$0	\$0
10387 - Rancho Material Handling Imprv	70.60%	29.40%	\$100,000	\$116,000	\$81,896	\$34,104	\$5,100	\$3,601	\$1,499
10391 - RLV:Compost Reactor Bldg Ceilg	70.60%	29.40%	\$291,826	\$500,871	\$353,615	\$147,256	\$50,578	\$35,708	\$14,870
10392 - RLV:Replace Centrate Line	70.60%	29.40%	\$0	\$550,220	\$388,455	\$161,765	\$6,466	\$4,565	\$1,901
10418 - Rehab 18" RW Pipe (Tapia/Mfhd)	70.60%	29.40%	\$150,000	\$155,000	\$109,430	\$45,570	\$0	\$0	\$0
10446 - Buffer Land at Rancho	70.60%	29.40%	\$250,000	\$250,000	\$176,500	\$73,500	\$0	\$0	\$0
10448 - Rancho Polymer Feed System Reh	70.60%	29.40%	\$115,000	\$0	\$0	\$0	\$0	\$0	\$0
10451 - Tapia Gate & Drive Replacement	70.60%	29.40%	\$0	\$376,878	\$266,076	\$110,802	\$41,168	\$29,065	\$12,103
10452 - Tapia Process Air Evaluation	70.60%	29.40%	\$0	\$601,433	\$424,612	\$176,821	\$24,714	\$17,448	\$7,266
10453 - Tapia/Rancho Vulnerability Ass	70.60%	29.40%	\$0	\$50,000	\$35,300	\$14,700	\$0	\$0	\$0
10457 - Tapia Altrmtv Disinfectn Study	70.60%	29.40%	\$1,282	\$205,116	\$144,812	\$60,304	\$82,255	\$58,072	\$24,183
10459 - Tapia CP1000,CP100,Scrn Roof	70.60%	29.40%	\$0	\$91,000	\$64,246	\$26,754	\$90,895	\$64,172	\$26,723
10462 - Tapia: 20/24" Infint FrcMainUp	70.60%	29.40%	\$363,000	\$336,166	\$237,333	\$96,833	\$59,609	\$42,084	\$17,525
10465 - Rancho:Flare Contrl Safety Upg	70.60%	29.40%	\$0	\$17,028	\$12,022	\$5,006	\$14,906	\$10,524	\$4,382
10469 - Rancho Misc Equipmt-FY 10-11	70.60%	29.40%	\$0	(\$13,753)	(\$9,710)	(\$4,043)	\$9,982	\$7,047	\$2,935
10470 - Tapia Misc Equipmt-FY 10-11	70.60%	29.40%	\$0	\$27,176	\$19,186	\$7,990	\$25,262	\$17,835	\$7,427
10473 - BNR Ph III-Centrate SampleLine	70.60%	29.40%	\$0	(\$22,645)	(\$15,987)	(\$6,658)	\$0	\$0	\$0
10487 - Construct 3rd Digester @Rancho	70.60%	29.40%	\$0	\$465,000	\$328,290	\$136,710	\$10,102	\$7,132	\$2,970
10489 - Rancho Digester Heating SysEvl	70.60%	29.40%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10492 - Groundwater Suplmtnt Study-RW	70.60%	29.40%	\$0	\$25,000	\$17,650	\$7,350	\$0	\$0	\$0
10493 - Tapia: Sludge Screening	70.60%	29.40%	\$0	\$385,000	\$271,810	\$113,190	\$0	\$0	\$0

Job # - Description	LV %	TSD %	Working Capital Requirement			Expenditures			
			per Budget	Current Est	LV Share	TSD Share	Total	LV Exp	TSD Exp
10498 - Tapia Misc Equipment- FY 11-12	70.60%	29.40%	\$0	\$12,500	\$8,825	\$3,675	\$0	\$0	\$0
10499 - Tapia Grit Cyclone ConveyorSys	70.60%	29.40%	\$0	\$75,000	\$52,950	\$22,050	\$0	\$0	\$0
10500 - Tapia Rpl Primy Tnk SludgeValv	70.60%	29.40%	\$0	\$30,000	\$21,180	\$8,820	\$40,124	\$28,328	\$11,796
10501 - Pump & Motor Repair - FY 11-12	70.60%	29.40%	\$0	\$40,000	\$28,240	\$11,760	\$0	\$0	\$0
10502 - Rancho Misc Equipment- FY11-12	70.60%	29.40%	\$0	\$35,000	\$24,710	\$10,290	\$0	\$0	\$0
Totals			<u>\$1,271,108</u>	<u>\$4,392,567</u>	<u>\$3,101,152</u>	<u>\$1,291,415</u>	<u>\$461,161</u>	<u>\$325,580</u>	<u>\$135,581</u>

Footnotes

- 1 Appropriate additional \$50,000, approved by Board of Directors, 9/6/2011, Item 5D.
- 2 Administrative project to track expenditures
- 3 Unanticipated costs related administration and installation of assets
- 4 Combine WO10451 & WO10495 to administer project
- 5 Appropriate additional \$25,000, approved by JPA Board of Directors, 10/3/2011, Item 7C.
- 6 Appropriate additional \$150,000, approved by JPA Board of Directors, 11/7/2011, Item 6B.
- 7 Combine WO10487 & WO10489 to administer project

February 6, 2012 JPA Board Meeting

TO: JPA Board of Directors

FROM: Facilities & Operations

Subject: Tapia WRF Process Air Evaluation Report: Receive and File

SUMMARY:

At their February 7, 2011, meeting, the JPA approved a proposal from Carollo Engineers, Inc. to perform the Tapia WRF Process Air Evaluation Study. The generation of process air accounts for roughly one-third of the energy consumed at the Tapia WRF (approximately \$345,000/ year). It is used to support the biological treatment processes, provide mixing in basins and channels, and provide scouring air for filter backwashing.

The scope of work for the study included a review of existing air demand and uses; recommendations for improvements to reduce air usage; recommendations for blower modifications or the replacement of the existing blowers with more efficient blowers; a cost/benefit analysis for the each of the recommendations; and identifying potential funding/savings (such as SCE/CEC rebates) for the recommended improvements.

Carollo Engineers has completed the Process Air Study which recommends channel air improvements along with the replacement of the existing spiral-roll aeration diffuser system and two of the existing Roots blowers. The study indicates that these improvements will reduce annual energy costs by approximately \$184,000 in the first year. These energy savings are expected to increase over time due to higher future energy rates and higher future plant air demands.

The existing spiral-roll aeration diffuser system is recommended to be replaced with a new full-floor cover system. This improvement is expected to reduce aeration basin airflows by up to 69 percent. Preliminary planning-level capital costs for this improvement are estimated to be approximately \$1.38 million. Besides the energy savings, a new full floor aeration system would provide more oxygen transfer efficiency. Having more oxygen transfer efficiency becomes critical at future plant flows to assure proper treatment and permit compliance.

The replacement of two existing Roots blowers is required because they cannot provide the required turndown (flow range) and discharge pressures associated with the diffuser system improvements. Preliminary planning-level capital costs for this improvement are approximately \$1.32 million.

RECOMMENDATION(S):

Receive and file the Tapia WRF Process Air Evaluation Study (LVMWD Report No. 2490) prepared by Carollo Engineers, Inc.

FINANCIAL IMPACT:

The budget provided funding in the amount of \$156,000 for this study under CIP job no. 10452, Tapia Process Air Evaluation. Each JPA partner is allocated with a cost split of 70.6% for LVMWD and 29.4% for Triunfo. Budgets in future fiscal years will include funding to provide for the implementation of the recommended improvements.

DISCUSSION:

A copy of the letter report summarizing the technical memorandums of this study is attached.

Prepared By: Brett Dingman, Water Reclamation Manager

ATTACHMENTS:

[Tapia WRF draft letter](#)

January 6, 2012

Mr. Brett Dingman
Water Reclamation Manager
Las Virgenes - Triunfo Joint Powers Authority
4232 Las Virgenes Road
Calabasas, CA 91302

Subject: Tapia Water Reclamation Facility - Process Air Evaluation Letter Report

Dear Mr. Dingman:

We have submitted this letter report to summarize the findings and recommendations of the process air evaluation performed for the Tapia Water Reclamation Facility (WRF). Further details can be found within the following technical memoranda:

- *TM-1 Minimize Air Usage*
- *TM-2 Blower Evaluation*
- *TM-3 Funding Opportunities*

BACKGROUND

Since its original construction 45 years ago, the Tapia WRF has undergone several expansions that have increased its influent treatment capacity from 0.5 MGD to a current design capacity of approximately 12 MGD. During this same time period, the plant's process air system has been expanded to meet changing air demands. Process air at the Tapia WRF is necessary to:

- Supply oxygen to support critical biological processes
- Provide a reliable method of mixing within the aeration and RAS re-aeration basins and process flow channels
- Facilitate air scouring during regular filter backwashes

Production of process air accounts for roughly one-third of the overall energy use at the Tapia WRF and represents an annual operating cost of approximately \$345,000.

An evaluation of the process air system at the Tapia WRF was recently performed by our firm. The results of the evaluation indicate that several improvements to the process air system are expected to significantly reduce annual energy consumption and improve the ability of the plant to reliably produce high quality recycled water.

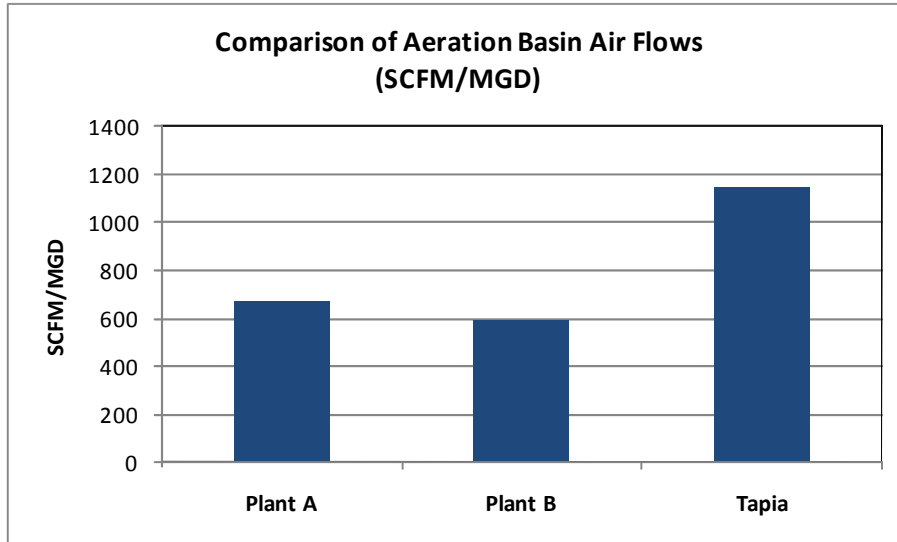
SUMMARY OF RECOMMENDED IMPROVEMENTS

The improvements to the process air system as recommended within technical memoranda TM-1 and TM-2 are summarized below.

Aeration Basin Diffuser System Replacement

Representing approximately 70 percent of the plant's total process air use, the aeration basins are the largest process air demand at the Tapia WRF. A sizeable reduction in air usage within the aeration basins will result in significant energy savings. Current air usage within the aeration basins was determined through a review of historical airflow data (available from the plant

SCADA database) and aeration basin off-gas testing performed by Dr. Michael Stenstrom of UCLA. The aeration basin airflows at the Tapia WRF were compared to those observed at two similar facilities treating to comparable effluent requirements. This comparison is presented graphically in the figure below.



The chart presented in the figure above indicates an opportunity for significant reductions to the air usage within the Tapia aeration basins. The Tapia aeration basins consume between 70 and 94 percent more air per unit of plant influent flow (SCFM/mgd) than plants A and B.

The high air usage within the Tapia aeration basins is a direct result of the low oxygen transfer efficiency (OTE) associated with the existing spiral-roll aeration diffuser system installed within these basins. The results of the off-gas testing performed by Dr. Stenstrom indicate the OTE within the Tapia aeration basins is significantly lower than that observed at comparable facilities. Replacing the existing spiral-roll aeration diffuser system with a new full-floor cover system is expected to reduce aeration basin airflows by up to 69 percent. Preliminary planning-level capital costs for this improvement are estimated to be approximately \$1.38 million. Annual energy costs savings provided by this improvement are expected to be approximately \$115,000 during the first year of operation.

In addition to providing substantial energy savings, the replacement of the diffuser system within the aeration basins will improve plant reliability. Due to the poor OTE provided by the existing diffuser system, it is possible that required dissolved oxygen levels within the aeration basins will be difficult or impossible to maintain at future plant influent flows and loadings.

Channel Mixing System Renovations

Process air is currently used for mixing within the process channels at the Tapia WRF. The desired objective of mixing within the process channels is to maintain solids in suspension. During site visits to the Tapia WRF, the project team observed many over-aerated segments of channel and several segments that were not aerated at all. Contributing to the imbalance of air

supply within the channels is the condition of the aging channel aeration system. The project team observed many broken and capped drop legs, plugged diffusers, and broken valves. Several segments of the primary clarifier feed, mixed liquor, and common aeration basin feed channels were un-aerated due to the poor condition of the aeration system. The project team observed a four to six-inch layer of channel floor sediment at un-aerated segments of the primary clarifier and aeration basin feed channels.

We recommend that the Joint Powers Authority (JPA) replace the mixing systems within the Grit Chamber Effluent, Primary Clarifier Feed, Mixed Liquor, and Aeration Basin Feed channels. The new conventional spiral-roll system would be similar to the existing system and would replace the corroded carbon steel air mains within the channels with stainless steel piping. The new stainless steel piping would offer superior resistance to the corrosive gases present above the channel water surface.

The recommended channel mixing system improvements do not provide an annual energy savings but do represent a more efficient use of process air through improved mixing within the channels. Preliminary planning-level capital costs for this improvement are estimated to be approximately \$400,000.

Air Conveyance Piping Leak Repair

A field survey was performed using ultrasonic technology to determine the extent of air leakage from the process air conveyance system. In total, thirty-seven leaks were discovered in the aboveground air piping. Together, these leaks account for approximately 500 SCFM of air lost from the process air system. The annual energy cost associated with these leaks is approximately \$14,000. The leaks discovered would cost approximately \$2,000 to \$6,000 to repair and would represent a simple payback period of 0.15 to 0.43 years. Facility staff is currently repairing the majority of these leaks "in-house."

Blower Replacement

Air production at the Tapia WRF is currently facilitated by three 900-hp single-stage Roots blowers and three 250-hp multi-stage Hoffman blowers. Both types of blowers at the Tapia WRF have exceeded their expected useful lives. The single-stage Roots blowers have been in service since the early-to-mid 1980's, while the multi-stage Hoffman blowers have been operating since the early 1970's.

The replacement of the existing diffuser system within the aeration basins is expected to substantially reduce process airflows. An evaluation was performed to characterize the ability of the plant's existing blowers to accommodate the reduction in airflow, and small increase in blower discharge pressures associated with the proposed diffuser system replacement.

The blower evaluation considered several blower replacement technologies that would satisfy the flow and pressure requirements of the new aeration basin diffuser system, improve energy efficiency, and provide system reliability.

The results of the blower evaluation indicate that the existing 900 hp Roots blowers at the Tapia WRF cannot provide the required turndown and blower discharge pressures associated with the recommended aeration basin improvements. The existing 250 hp Hoffman blowers alone will not be able to satisfy peak plant air demands associated with the aeration basin improvements. The results of the blower evaluation indicate an annual energy costs savings of \$60,000 to \$70,000 could be realized by replacing the existing Roots blowers with new blowers sized for current and future plant air demands (assuming the existing aeration basin diffuser system is replaced).

We recommend the replacement of two existing Roots blowers at project year 0 (calendar year 2012) with two new 350 hp single-stage blowers. The Siemens model KA10 was the blower evaluated for this replacement alternative. This alternative provides the maximum annual energy savings and lowest 20-year lifecycle costs of ownership. The single-stage technology provided by this replacement alternative represents a sustained track record of reliability and predictable maintenance costs. Preliminary planning-level capital costs for this improvement are approximately \$1.32 million. Annual energy costs savings provided by this improvement are expected to be approximately \$69,300 during the first year of operation. These annual energy cost savings are expected to grow with increasing energy rates and future plant air demands.

In addition to the positive financial impact provided by the proposed improvements, the subsequent reductions to the overall carbon footprint at the Tapia WRF will help JPA satisfy the ever-increasing expectations of the public for environmental responsibility. The expected annual carbon footprint reductions provided by the aeration basin diffuser system and blower replacement projects are 682 and 410 tons of carbon dioxide, respectively.

SUMMARY OF ENERGY EFFICIENCY FUNDING OPPORTUNITIES

Several funding programs are available to help offset the costs associated with implementing the proposed process air system improvements. Based on the analysis presented within Technical Memorandum No. 3, we recommend that the JPA pursue the following energy efficiency incentives:

1. *Energy efficiency rebates offered through the SCE Customized Solutions program* - These rebates could reduce the total capital costs associated with the aeration basin diffuser and blower replacement projects by approximately \$220,000.
2. *Low interest (3 percent) loans offered through the California Energy Commission* - Should the JPA be granted CEC funding, these loans would finance up to 75 percent of the initial capital costs associated with the aeration basin diffuser and blower replacement projects. Should the capital costs associated with these projects be reduced through SCE energy efficiency rebates, the maximum expected CEC funding would finance approximately 82 percent of the remaining initial capital costs.

The application process for the recommended energy efficiency incentives should begin as soon as possible once the JPA has decided to pursue the proposed improvements. Supporting material required by each program's application has been provided in the appendices to TM-3. Carollo Engineers is available to provide additional supporting information as necessary.

Mr. Brett Dingman
 Water Reclamation Manager
 Las Virgenes - Triunfo Joint Powers Authority
 January 6, 2012
 Page 5

FINANCIAL SUMMARY

A financial summary of the recommended improvements is presented in the table below.

Parameter	Unit	Improvement			Total
		Aeration Basin Diffusers	Channel Mixing System	Blower Replacement	
Annual Energy Cost Savings ⁽¹⁾	(\$)	115,000	N/A	69,300	184,300
Est. Capital Cost					
w/o Incentives	(\$)	1,376,000	400,000	1,320,000	3,096,000
w/ Incentives	(\$)	1,238,000	400,000	1,232,000	2,870,000

Notes:
 (1) Annual energy cost savings are based on current energy rates.

Detailed capital cost breakdowns for each recommended improvement are provided in the appendices to TM-1 and TM-2. Estimated capital costs include a sales tax of 9.8 percent and a contingency of 10 to 20 percent, as well as 12 percent for contractor overhead and profit. Also included is 15 percent for engineering, legal, and administration fees as well as a 5 percent owner’s reserve for change orders.

PROJECT SCHEDULE

A preliminary project schedule (MS Project format) is provided in the attachments to this letter report. The project schedule assumes that the notice to proceed from the JPA is provided by April 2, 2012. It is anticipated that the design and bid phases of the project could be completed by November 1, 2012. The construction phase of the project would take approximately 13 months and be completed before December 2013.

The proposed sequence for implementing the recommended improvements should be noted. The blower replacement should occur first, followed by the replacement of the aeration basin diffusers. This sequence will assure that, as the diffuser system within each aeration basin is replaced, blowers capable of meeting the required flow turndown and discharge pressure requirements are available for service. The improvements to the channel mixing system may occur anytime during the spring and summer of 2013.

We are available to present these findings and recommendations to you at your convenience. In the mean time, please let us know if you have any questions.

Sincerely,
 CAROLLO ENGINEERS, INC.

Patrick White, P.E.
 Senior Vice President

February 6, 2012 JPA Board Meeting

TO: JPA Board of Directors

FROM: Facilities & Operations

Subject: Adopt Negative Declaration and Accept Initial Study for the Tapia Alternative Disinfection Project

SUMMARY:

On September 6, 2011, the Board accepted a proposal from Impact Sciences to provide environmental services as part of the Tapia Alternative Disinfection design. As part of their services, Impact Sciences has prepared an Initial Study/Negative Declaration in compliance with CEQA requirements. The Draft Initial Study/Negative Declaration and Notice of Intent to Adopt was released for a 30-day review and comment by the general public, state agencies, cities and other agencies in the vicinity of the work. The report by Impact Sciences concludes that all project impacts will be less than significant.

During the review period, comments were received from the Native American Heritage Commission. These comments and our responses are included in the final Initial Study/Negative Declaration. A public hearing was scheduled for January 24, 2012 for the LVMWD Board to receive any verbal comments or other information regarding the Negative Declaration and to adopt the Negative Declaration.

RECOMMENDATION(S):

Receive and file report #2488.00 Tapia Water Reclamation Facility Disinfection Project Initial Study/Negative Declaration; approve and adopt the Negative Declaration for the Tapia Alternative Disinfection Project; and direct staff to file the Notice of Determination with the Recorder for the County of Los Angeles.

FINANCIAL IMPACT:

The project will be funded through CIP Account 10457 with a FY2011-12 budget of \$151,282.

Prepared By: James Spicer II, Associate Engineer

February 6, 2012 JPA Board Meeting

TO: JPA Board of Directors

FROM: Resource Conservation & Public Outreach

Subject: Farm Sprayfield Operation and Maintenance Contract Renewal

SUMMARY:

Last year, the Board authorized the General Manager to enter into a one-year contract with W. Litten Land Preparation (Litten) in an amount not to exceed \$250,000. Litten provides services related to effluent disposal as required by the NPDES permit, planting and harvesting of crops for nutrient removal as required by the Part 503 biosolids regulations, maintenance of catch basins to prevent offsite runoff, and general upkeep of the 75-acre Farm.

Early last year, staff had discussions with a firm who had expressed an interest in providing Farm services, including supply of amendment for the composting process. However, those discussions were unproductive. Due to Litten's familiarity with the Farm operation and continued compliance with permit requirements, staff recommends a contract renewal for the next year. The Agreement is attached. In the meantime, staff continues to explore options and opportunities for Farm operation. As background, previous attempts to develop a partnership with a different contractor, agency or institution have not been successful. Staff will be prepared to provide more detailed information of these efforts at the JPA meeting.

RECOMMENDATION(S):

Authorize the General Manager to enter into a one-year contract with W. Litten Land Preparation in an amount not to exceed \$250,000.

FINANCIAL IMPACT:

Litten proposes the same units costs as last year. Litten's work last year was \$236,964 which was below the approved amount of \$250,000. See Attachment A. The work is funded under Treatment/Reclamation account no. 751810.6788.

Prepared By: Carlos Reyes

ATTACHMENTS:

[Litten Agreement](#)

[Cost Summary](#)

AGREEMENT

As of February 6, 2012, **LAS VIRGENES MUNICIPAL WATER DISTRICT**, herein "DISTRICT," and **W. LITTEN LAND PREPARATION**, herein "CONTRACTOR," agree as follows:

1. Scope of Work:

- (a) This agreement sets forth the terms for the contractor to furnish **Sprayfield Operations and Maintenance Services**. The services are described on Exhibit "A".
- (b) The services required under this agreement are variable and dependent on recycled water customer demand, weather, field conditions, crop conditions, competing demands for the land, and other factors. DISTRICT is not responsible for changes in work load resulting from these variations.
- (c) CONTRACTOR assumes full responsibility for having familiarized itself with the nature and extent of the work and CONTRACTOR has visited the areas and correlated observations with the requirements of the agreement.

2. Term:

This agreement is for one year, beginning February 6, 2012. This agreement may be extended by mutual agreement.

3. Consideration:

- (a) DISTRICT will make monthly payments to CONTRACTOR as set forth on Exhibit "B".
- (b) DISTRICT shall pay CONTRACTOR upon receipt of a monthly invoice for types of work performed and hours worked. The payment will be for actual time worked as directed by DISTRICT to accomplish needed tasks. The Contractor shall present a demand for payment no later than the 25th day of the month following the month for which payment is sought. The District's check for payment shall be mailed.
- (c) DISTRICT may retain sums sufficient to cover unpaid claims. DISTRICT shall deduct from billings and shall not pay the following:
 - i. Charges attributable to work that have, in the opinion of the DISTRICT, not been performed or have been improperly performed by CONTRACTOR.
 - ii. Claims for extra work unless the work was approved in writing in advance by the DISTRICT.

4. Laws and Regulations:

CONTRACTOR shall give notices required by law and comply with laws pertaining to the conduct of the work. CONTRACTOR shall exercise necessary precautions for safety and environmental protection and be in compliance with statutory and regulatory. CONTRACTOR shall comply with District policies. CONTRACTOR shall be liable for all violations of the law in connection with the work.

5. Insurance:

CONTRACTOR shall not commence work without Worker's Compensation, Employer's Liability, and Liability Insurance. Insurers must be authorized to do business and have an agent for service of process in California. Excepting only the State Compensation Insurance Fund in reference to Workers' Compensation Insurance, insurers must have an "A" policyholder's rating and a financial rating of at least Class VI in accordance with the most current Best's rating.

CONTRACTOR shall furnish proof of Crime Insurance, including Employee Dishonesty/Fidelity Coverage, to protect the District against loss by theft or mysterious disappearance of property by any of the CONTRACTOR'S employees while DISTRICT property is in the care, custody or control of the CONTRACTOR. Coverage amounts shall be not less than \$25,000 per employee, or \$100,000 aggregate.

Limits:

General Liability: Bodily injury coverage shall be for not less than \$250,000 each occurrence and not less than \$500,000 aggregate.

Property damage coverage shall be for not less than \$100,000 each occurrence and \$500,000 aggregate.

Personal injury coverage shall be for not less than \$1,000,000 aggregate.

Bodily injury, personal injury, and property damage coverage shall be in a combined single limit of not less than \$1,000,000.

Automobile Liability: Bodily injury coverage shall be for not less than \$500,000 each person and not less than \$1,000,000 for each accident, per each occurrence.

Property damage coverage shall be for not less than \$500,000 each occurrence

or

Bodily injury and property damage coverage shall be in a

combined single limit of not less than \$1,000,000 for each occurrence.

Employer's Liability: Bodily injury coverage by accident shall be for not less than \$1,000,000 for each employee and \$1,000,000 for each accident.

Bodily injury coverage by disease shall be for not less than \$1,000,000 for each employee and \$1,000,000 for each disease.

Workers' Compensation: In accordance with the provisions of Section 3700 of the Labor Code, CONTRACTOR shall secure the payment of compensation to all employees. CONTRACTOR shall sign and file with the DISTRICT the following certificate prior to performing the work of this contract: "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with such provisions before commencing the performance of the work of this contract".

As evidence of specific insurance coverage, CONTRACTOR shall provide industry-standard ACCORD forms naming the DISTRICT as additionally insured. Said coverage shall not be amended or cancelled without giving at least 30 days advance written notice to DISTRICT. A waiver of subrogation is to be included.

6. Contractor Representative:

CONTRACTOR shall maintain a local representative who can be reached during normal working hours who is authorized to discuss matters pertaining to the agreement. An answering service in conjunction with a pager for the designated company representative would fulfill this requirement, provided calls are returned within one-hour. A mobile telephone or an answering machine shall not fulfill the requirement for a local office.

CONTRACTOR shall also provide a twenty-four (24) hour per day, seven (7) days per week emergency service phone number. Within two (2) hours after a call is made requesting CONTRACTOR perform emergency services, outside of normal business hours, CONTRACTOR shall commence the required service. DISTRICT shall not be charged any additional amount for emergency services unless the services to be provided would be billed as additional work if done in the regular course of CONTRACTOR'S performance.

7. Contractor's Responsibility for Work:

CONTRACTOR shall rebuild, repair, restore, and make good all injuries, losses or damages to any portion of the work, facilities or the materials occasioned by any cause before its completion and acceptance and shall bear the expense thereof. Where necessary to protect the work, facilities or materials from damage, CONTRACTOR shall at his expense provide suitable drainage and erect such temporary structures as are necessary to protect the work, facilities or materials from damage. The suspension of the work or the granting of an extension of time from any cause whatever shall not relieve CONTRACTOR of his responsibility for the work and materials as herein specified. In an emergency affecting the safety of life or property, including adjoining property, CONTRACTOR, without special instructions or authorizations, shall act at his discretion to prevent such threatened loss or injury.

8. Safety:

CONTRACTOR shall be solely and completely responsible for conditions of the jobsite, including safety of persons and property during performance of the work. The right of the DISTRICT'S representative to conduct review or observation of the CONTRACTOR'S performance will not include review or observation of the adequacy of the CONTRACTOR'S safety measures in, on, or near the site.

9. Contractor's Personnel:

- (a) DISTRICT may require CONTRACTOR to remove from the work site(s) any employee(s) deemed, careless, incompetent, or who is an annoyance to the public.
- (b) CONTRACTOR shall publish and distribute to all employees, workers and subcontractors (hereinafter worker) a statement notifying worker that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited. Any worker under the effect or residual effect of such controlled substance is considered a hazard and shall be removed from the job site immediately. This notice shall state that the worker has an obligation to abide by the terms of the agreement and to notify the CONTRACTOR in writing of any violation of a criminal drug statute occurring in the workplace or at the job site. CONTRACTOR shall notify DISTRICT of such incident and take appropriate action within thirty (30) days. CONTRACTOR is responsible to see that this requirement is included in all Subcontractor contracts.
- (c) CONTRACTOR shall provide to its employees environmental, health and safety training to ensure compliance with all federal, state and local laws or regulations.

10. Assignment of Contract:

CONTRACTOR shall not assign this contract, or any right or interests hereunder, without the prior consent in writing of the DISTRICT.

IN WITNESS WHEREOF, this Agreement is executed by DISTRICT and CONTRACTOR as follows.

Las Virgenes Municipal Water District

By: _____
John R. Mundy, General Manager

Dated: _____, 20__

W. Litten Land Preparation

By: _____
Wallace A. Litten

Dated: _____, 20__

By: _____
W. Dean Litten

Dated: _____, 20__

Approved as to Form:

Wayne K. Lemieux, District Counsel

EXHIBIT "A" SCOPE OF WORK

1. WORK OBJECTIVES

The purpose of the Sprayfields Program is to maximize the volume of recycled water applied to District owned sprayfields, subject to the important requirement that there be *absolutely no runoff* beyond the property boundaries.

Water application to the sprayfields (irrigation) can be needed any time, but periods of heaviest application typically occur during cool weather between April 15th and June 15th (Spring / early Summer) and October 1st and November 15th (late Summer / Fall), depending on weather.

Historically, the District has applied as much as 87 million gallons (267 acre-feet) of surplus recycled water on approximately 75 acres of sprayfields during these periods each year without off site runoff. Comparable performance is expected from the successful bidder. The ability to operate the sprayfields with zero runoff is a critical element of the Sprayfields Program, as runoff can result in substantial sanctions and fines to the District.

2. FACILITIES DESCRIPTION

A. General

Rancho Las Virgenes Farm
3700 Las Virgenes Road
Calabasas, CA 91302

The Rancho Las Virgenes Farm comprises approximately 70 acres of generally flat fields, falling off slightly to the west for positive drainage during periods of heavy rainfall. This acreage is divided into 16 separately irrigated fields, 13 of which take water through booster pumps. The farm fields are utilized primarily for seasonal waste spray of surplus recycled water. Occasionally, one or more fields is taken out of production, prepped for injection of biosolids, and then replanted after the injection process is complete. A mixture of grasses and legumes--including oats, fescue, rye, orchard grass, clover and alfalfa--is grown as a means of nutrient and moisture uptake and erosion control. The fields are managed by a variety of methods, including green chopping, mowing, baling and discing under.

Additionally, approximately 2 acres of hillside has been developed into a field used solely for spray application of recycled water. This area is covered with native vegetation.

Soils vary from clay loam to sandy loam.

Irrigation water is non-potable water and should not be used for drinking, washing or other uses.

B. Additional Locations

The Contractor may be requested to perform similar or associated duties on other lands. The cost to complete these requested tasks shall be based upon the unit prices contained in the bid form.

C. HOURS OF WORK AND FACILITY ACCESS

As directed, the Contractor shall perform the required work primarily during the hours of 7:30 am to 5:00 p.m. Monday through Friday. Work outside of these hours may be directed by District staff, including work in the evening and over weekends and holidays. Labor and equipment requirements vary with the season. The Contractor shall be provided all necessary keys, access cards and codes required to complete the work.

3. DISTRICT/CONTRACTOR REPRESENTATIVES

The Contractor will work with one or more designated District representatives regarding the terms and conditions of the contract. The Contractor shall designate a single representative that has the authority to act for the Contractor. Directives can be either verbal or written, although all directives requiring extra work shall be in written form only. If the Contractor acts upon direction from anyone other than the representatives named by the District, they will not be entitled to additional compensation for any work that results.

4. SUBMITTALS

A. Soils Tests

Soils tests will be obtained and tested by the District. The Contractor will not receive payment for soils tests performed without District authorization.

B. Substitute Products

All equipment and products must be approved by the District prior to installation or use.

5. EQUIPMENT AND LABOR

The Contractor shall at all times furnish and maintain sufficient labor and equipment to perform the work of this contract.

“To perform the work of this contract” means that the facilities, fields and equipment will be continually maintained in the most desirable of conditions, and that water application will be maximized – when directed – with zero off-site runoff.

The Contractors equipment shall be subject to the inspection and approval of the District. There are limited areas available to the Contractor for the storage and/or maintenance of equipment and materials.

6. STANDARDS OF PERFORMANCE

Irrigation is accomplished via above ground, solid-set irrigation systems constructed of District-owned steel and aluminum irrigation pipe typically arranged in a 40' by 30' sprinkler head spacing.

Under no circumstances can the ground be disturbed or can irrigation water be allowed to fall within the drip-line of any Oak Tree.

All other portions of these specifications notwithstanding, it is agreed that the intent of this contract is to provide a level of management that will also present a pleasing and desirable appearance at all times.

The District representative:

1. Shall decide any and all questions that may arise as to claims and compensation;
2. Shall have authority to enforce and make effective such decisions and orders as the Contractor fails to promptly carry out;
3. Shall have the authority to implement alternative action either by District forces or request separate contract to accomplish the work and prevent loss or damage based upon the urgency of the conditions;
4. Shall decide any and all questions which may arise as to:
 - a. The quality or acceptability of the materials furnished and the work performed.
 - b. The manner of performance.
 - c. The rate of performance.
 - d. The interpretation of the work specifications.
 - e. The acceptable fulfillment of the contract on the part of the Contractor.
5. Shall direct the work and the administration of the work.

7. MATERIALS

All materials and equipment used shall conform to District specifications.

Contractor supplied:

Caterpillar D6 dozer or equivalent
Farm utility tractors
Pick-up trucks
Flail Mower
Ring Roller
Chainsaws
Weedeaters

District supplied:

- John Deere 6320-L tractor
- Backhoe
- Crop chopper
- Harvest wagon
- Rotary mower
- Disc
- Tool bar with chisel plow attachments
- PTO powered broadcast Seeder
- Pesticide spray equipment
- Portable pumps – all sizes

8. TASK DESCRIPTIONS

This provides an overview of possible tasks, however, these tasks may or may not need to be accomplished, depending upon the conditions present at that time. Conditions dictating the need to perform a certain task include District recycled water customer irrigation demand, weather, sprayfield conditions, crop conditions, and competing demands for use of the land.

July through August

- Dismantle irrigation pipe.
- Manage vegetation, as directed, by any or all of the following methods
 - Harvest and transport off fields
 - Cut and leave on field
 - Cut and disc into field
- Improve drainage of fields as needed
 - Rip soil to 24+ inches
 - Develop and maintain farm ditches, mechanically and by hand
- Prepare fields for planting as needed
 - May include discing, rock removal, ring rolling
- Seeding as needed
- Set up irrigation pipe
- Weed control on and off fields as directed

September through November

- Operate sprayfields
 - Turn water on and off, record meter readings, repair breaks, maintain equipment
- Monitor field conditions to prevent runoff
- Continue with vegetation and weed management

December through March

- Dismantle irrigation pipe.
- Pump catch basin water to fields
- Remove plugs from catch basin drain outlets

Manage vegetation, as directed, by any or all of the following methods

- Harvest and transport off fields

- Cut and leave on field

- Cut and disc into field

Improve drainage of fields as needed

- Rip soil to 24+ inches

- Develop and maintain farm ditches, mechanically and by hand

Prepare fields for planting as needed

- May include discing, rock removal, ring rolling

Seeding as needed

Set up irrigation pipe

Weed control on and off fields as directed

April through June

Plug catch basin outlets to storm drain system

Operate sprayfields

- Turn water on and off, record meter readings, repair breaks, maintain equipment

Monitor field conditions to prevent runoff

Continue with vegetation and weed management

Year round activities

Maintain and repair farm equipment

Maintain roads and fences as needed

Maintain irrigation equipment

- Valve repair, sprinkler head repair, portable pump maintenance, etc.

Develop new sprayfields if land becomes available

- clearing, ripping, discing, seeding and irrigation system setup

9. FIELD CARE

The Contractor shall receive all fields, drainages, catch basins, roads and adjacent areas in good condition at the beginning of the contract. If the condition of any area found to be otherwise at the start of work, the District shall be notified in writing immediately. Necessary repairs shall not occur prior to District authorization.

At the close of the contract period, all fields, drainages, catch basins, roads and adjacent areas shall be checked by the District and shall be returned to the District in a satisfactory condition. Any area found to be in an unsatisfactory condition as a result of negligence on the part of the Contractor, as determined by the District, shall be repaired by the Contractor at no cost to the District.

10. FIELD MONITORING

The Contractor shall inspect the sprayfields daily for soil and crop condition and report any problems to the District.

11. FIELD MANAGEMENT

Fields will be managed to optimize the ability to accept irrigation water without runoff. Crops will be managed to eliminate weed populations and prevent weed invasion. Non-cultivated fields will be managed to eliminate weeds via well-timed fieldwork, as conditions permit, and to promote the growth and success of existing grasses.

The Contractor shall notify the District immediately upon discovery of damage to any fields. Costs to repair fields or replace crops damaged as a result of anything other than Contractor neglect will be borne by the District. Costs to repair fields or replace crops damaged as a result of Contractor's neglect shall be borne by the Contractor. The Contractor shall repair said damage immediately after authorization to repair has been received from the District.

12. MANAGEMENT OF ADJACENT BASINS, BERMS AND ROADS

A. BASINS

Basins will not be allowed to fill with sediments, but will always maintain an acceptable capacity below the standpipe gate to capture any excess irrigation water that might leave the field in an emergency situation.

B. BERMS

Berms will be kept clear of weeds, and managed to promote the growth of native grasses for erosion control.

C. ROADS

Roads will be kept clear of weeds and soil. Potholes and washouts will be repaired immediately.

13. EQUIPMENT AND IRRIGATION SYSTEMS CARE

The Contractor shall receive all equipment and irrigation systems in sound working order at the beginning of the contract. If the working order of any equipment or irrigation system component is found to be otherwise at the start of work, the District shall be notified in writing immediately. Necessary repairs shall not occur prior to District authorization.

Irrigation repairs and maintenance shall meet the requirements of DISTRICT and American Water Works Association standards and specifications pertaining to recycled water use. The District shall provide a copy of these standards for the Contractor to follow.

At the close of the contract period, all equipment and irrigation system components shall be checked by the District and shall be returned to the District in a satisfactory

condition. Any equipment or system component found to be faulty as a result of negligence on the part of the Contractor, as determined by the District, shall be repaired or replaced by the Contractor at no cost to the District.

14. SYSTEMS MONITORING

The Contractor shall inspect the irrigation systems continually for broken and clogged heads, malfunctioning or leaking valves, or any other conditions that hamper the correct operation of the system or reduce irrigation or result in runoff. The Contractor shall clean and adjust irrigation heads as needed for proper coverage. Authorization must be obtained from the District before proceeding with repair work.

15. EQUIPMENT AND IRRIGATION SYSTEM MAINTENANCE, REPAIR AND OPERATION

The Contractor shall notify the District immediately upon discovery of damage to equipment and/or irrigation system components. Costs to repair or replace equipment and/or irrigation system components deteriorating due to normal wear and tear or that have been damaged by vandalism will be borne by the District. Costs to replace equipment and/or irrigation system components which have deteriorated or been damaged as a result of Contractor's neglect shall be borne by the Contractor. The Contractor shall repair said damage as soon as possible after authorization to repair has been received from the District.

Any damages resulting from a failure of the Contractor to promptly report or repair equipment or irrigation system problems will require Contractor to make repairs at his own expense. All replacement of equipment parts and irrigation system components shall be original equipment types where known. All substitutions for replacement equipment and components shall be approved by the District prior to performing the work.

Irrigation shall be performed by the use of manually operated irrigation systems. The Contractor will ensure uniform coverage of the irrigated areas by the irrigation system.

All damages to public or private property, as well as any fines levied against the District as a result of excessive irrigation water or irrigation water run off shall be charged against the contract payment unless the Contractor makes immediate reparation to the satisfaction of the District.

EXHIBIT "B"
SPRAYFIELD PROGRAM SERVICES
UNIT COSTS

	Unit Cost ¹ per Hour
D-6 9U with operator	63.00
50 HP wheel tractor with operator	43.00
Pickup trucks	8.00
Disc	9.50
Ring Roller	3.00
Box Scraper	5.00
Flail Mower	16.00
Chainsaw	3.25
Weedeater	3.25
Labor – Unskilled	19.80
Labor – Skilled	24.20
Foreman	26.40
Operator only for district-supplied equipment	42.35
Supervisor	39.05
Labor – Unskilled: Overtime	7.50
Labor – Skilled: Overtime	11.00
Foreman: Overtime	12.00
Operator only for district-supplied equipment: Overtime	18.00
Supervisor: Overtime	17.50

¹Units include all overhead costs.

COST 2004 2005 2006 2007* 2008** 2009 2010 2011 2012 requested

Rancho Las Virgenes Farm

W. Litten	\$ 224,176	\$ 203,877	\$ 229,932	\$ 244,408	\$ 251,550	\$ 192,742	\$ 232,163	\$ 236,964	\$ 250,000
District	\$ 27,850	\$ 18,947	\$ 24,546	\$ 25,410	\$ 20,557	\$ 37,892	\$ 43,584	\$ 44,455	\$ 40,000
Subtotal	\$ 252,026	\$ 222,824	\$ 254,478	\$ 269,818	\$ 272,106	\$ 230,634	\$ 275,747	\$ 281,419	\$ 290,000

King Gillette Ranch

W. Litten	\$ 121,187	\$ 121,787	\$ 127,950	\$ 99,474	\$ 58,902	\$ -	\$ -	\$ -	\$ -
District	\$ 11,510	\$ 12,680	\$ 17,669	\$ 12,139	\$ 2,969	\$ -	\$ -	\$ -	\$ -
Lease	\$ -	\$ -	\$ 391,000	\$ 264,000	\$ 132,000	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 132,697	\$ 134,467	\$ 536,620	\$ 375,613	\$ 193,870	\$ -	\$ -	\$ -	\$ -

Summary

W. Litten	\$ 345,362	\$ 325,664	\$ 357,883	\$ 343,882	\$ 310,451	\$ 192,742	\$ 232,163	\$ 236,964	\$ 250,000
District	\$ 39,360	\$ 31,626	\$ 42,216	\$ 37,549	\$ 23,525	\$ 37,892	\$ 43,584	\$ 44,455	\$ 40,000
Lease	\$ -	\$ -	\$ 391,000	\$ 264,000	\$ 132,000	\$ -	\$ -	\$ -	\$ -
Total	\$ 384,722	\$ 357,291	\$ 791,098	\$ 645,431	\$ 465,976	\$ 230,634	\$ 275,747	\$ 281,419	\$ 290,000

*reduced King Gillette operation

**no King Gillette operation

EFFLUENT DISPOSAL (mg) 2004 2005 2006 2007* 2008** 2009 2010 2011 2012

Farm	64	49	68	90	37	53	97	75	
King Gillette	47	41	98	78	0	0	0	0	
005	22	39	67	33	41	210	175	181	