

**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.

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5:00 PM

June 2, 2014

**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 Headquarters and the Clerk of the Board called the roll.

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

**2. APPROVAL OF AGENDA**

**A** Moved by \_\_\_\_\_, seconded by \_\_\_\_\_, that the agenda for the Regular Meeting of June 2, 2014, be approved as presented/amended.

**3. 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

**4. CONSENT CALENDAR**

- A Minutes: Regular Meeting of April 7, 2014 and Regular Meeting of May 5, 2014**  
Approve

**5. ILLUSTRATIVE AND/OR VERBAL PRESENTATION AGENDA ITEMS**

- A Proposed Joint Powers Authority Budget for Fiscal Year 2014-15**

Adopt the proposed Joint Powers Authority budget for Fiscal Year 2014-15.

**6. ACTION ITEMS**

- A Recycled Water, Sanitation, and Integrated Master Plan Updates 2014: Receive and File**

Receive and file the Recycled Water Master Plan Update 2014 (JPA Report No. 2561.00), Sanitation Master Plan Update 2014 (JPA Report No. 2560.00), and Integrated Master Plan Update 2014 (JPA Report No. 2563.00); and approve a budget and appropriation increase of \$15,162, consisting of \$7,936 to CIP Job No. 10515 for the Sanitation Master Plan Update and \$7,226 to CIP Job No. 10516 for the Recycled Water Master Plan Update.

- B Tapia Water Reclamation Facility NPDES Effluent Limit Exceedences: Consideration of Settlement Offer No. R4-2011-0157-M, Expedited Payment Program**

Determine whether or not to accept Settlement Offer R4-2011-0157-M from the Los Angeles Regional Water Quality Control Board, involving participation in the Expedited Payment Program and payment of \$72,000 in penalties, for settlement of alleged violations of the NPDES Permit for the Tapia Water Reclamation Facility.

- C Recycled Water Seasonal Storage Project: Revised Guiding Principles**

Approve the revised Guiding Principles for the Recycled Water Seasonal Storage Project.

**7. BOARD COMMENTS**

**8. ADMINISTERING AGENT/GENERAL MANAGER REPORT**

**9. FUTURE AGENDA ITEMS**

**10. INFORMATION ITEMS**

- A Construction of Impressed Current Cathodic Protection System for Centrate Treatment and Storage Tanks: Postponement of Construction Work**

- B Board Meeting Follow-up Items**

**11. 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

**12. CLOSED SESSION**

- A Conference with District Counsel – Existing Litigation (Government Code Section 54956.9(a)):**

1. Las Virgenes Municipal Water District vs. Onsite Power Systems, Inc.
2. Las Virgenes - Triunfo Joint Powers Authority v. United States Environmental Protection Agency
3. Heal the Bay, Inc. v. Lisa P. Jackson

**13. ADJOURNMENT**

**JPA MINUTES**  
**CORRECTED**  
**MEETING OF APRIL 7, 2014**

**PLEDGE OF ALLEGIANCE**

The Pledge of Allegiance to the flag was led by President Caspary.

**1. CALL TO ORDER AND ROLL CALL**

**A. Call to order and roll call**

The meeting was called to order at 5:01 p.m. by President Caspary at the Las Virgenes Municipal Water District Headquarters and Secretary Joanne Bodenhamer conducted the roll call.

*Present: Director(s) Polan, Renger, Steinhardt, Caspary, Iceland, McReynolds, Orkney, Paule, and Wall.*

*Absent: Director(s) Peterson.*

**2. APPROVAL OF AGENDA**

**A. Approval of Agenda**

*Director Steve Iceland moved to approve the agenda of April 7, 2014 as presented. Motion seconded by Director Michael Paule and carried by the following roll call vote:*

*Ayes: Director(s) Polan, Renger, Steinhardt, Caspary, Iceland, McReynolds, Orkney, Paule, and Wall*

*Absent: Director(s) Peterson*

**3. PUBLIC COMMENTS**

None

**4. CONSENT CALENDAR**

**A. Minutes: Regular Meeting of March 3, 2014. Approve**

Director Polan commented that he objects to the phrase of "discussion took place" in the minutes and that it is too vague. District Counsel Lemieux stated that the



elements that are required for purposes of the minutes are: attendance; the motions; the seconds and the results of the motions.

Director Orkney commented that there is no audio or video to look at; Director Steinhardt wants to see the minutes be more comprehensive in the future with Mr. Lemieux asking if this is what they want to see on a future agenda.

Director Paule commented that the essence is captured, but where do you draw the line on detail; recording the meetings will be a problem for Triunfo; Director Caspary requested to have a future agenda item to review if the JPA meetings should be video-taped.

*Director Jana Orkney moved to approve the minutes for March 3, 2014 as presented. Motion seconded by Director Michael Paule and carried by the following roll call vote:*

*Ayes: Director(s) Renger, Steinhardt, Caspary, Iceland, McReynolds, Orkney, Paule, and Wall*

*Abstain: Director(s) Polan*

*Absent: Director(s) Peterson*

## **5. ACTION ITEMS**

### **A. Recycled Water Seasonal Storage Project: Guiding Principles and Request for Proposals**

Approve the Guiding Principles for the Recycled Water Seasonal Storage Project and authorize the Administering Agent/General Manager to issue a Request for Proposals for the development of a "road map" and schedule for the next steps to advance the project.

Administering Agent/General Manager Pedersen gave a brief overview of the project stating that we are currently producing 10k AF of recycled water per year; 4k AF is discharged; TSD and LV have expressed commitment to the project and guiding principles have been prepared. He further stated that the second part is to approve the RFP; assisting and planning project; reviewed the draft guiding principles in the agenda package; maximize beneficial reuse; seek cost effective solutions; seek partnerships beyond the JPA; govern with a partnership and be forward thinking by considering the possibilities.

There was discussion relative to the pricing and how the revenues work; the impact of potable water given the 20 by 2020 requirements; negotiating from the strongest

position. Mr. Pedersen provided answers to these issues to the satisfaction of the Board members.

Director Orkney asked that the Brine line be discussed in the future as the work progresses.

**B. JPA Infrastructure Investment Plan: Fiscal Year 2014-15 through 2017-18**

Receive and file the JPA Infrastructure Investment Plan for Fiscal Years 2014-15 through 2017-18 (JPA Report No. 2559.00)

Administering Agent/General Manager gave an overview of the item followed by a brief discussion inclusive of questions and answers .

Director Steinhardt requested that the minutes reflect that this is a “receive and file” item and that the lack of objection to any item or items contained in the document does not preclude an objection at a future date.

*Director Michael Paule moved to receive and file the JPA Infrastructure Investment Plan as presented. Motion seconded by Director Len Polan and carried by the following roll call vote:*

*Ayes: Director(s) Caspary, Iceland, McReynolds, Orkney, Paule, Polan, Renger, Steinhardt, Wall*

*Absent: Director(s) Peterson*

**6. BOARD COMMENTS**

Director Paule commented that the Water Summit was interesting and that they had good topics. He further stated that the Chair of the California State Water Quality Control Board and Senator Fran Pavley attended as well and he shared an article from the ABC News.

Director Iceland stated that he cannot attend the Heal the Bay event and that instead Director McReynolds will attend in his place. He reported that the Street Fair went well and that he is in favor of the Bay Delta.

Director Polan reported that he picked up an ENR Publication and that ENR had an article that stated real issues and ways to make the community aware and respond to the needs of the drought.

Director Orkney reported that the Westlake Street Fair was a great experience and that it was great to have a separate booth; there was a lot of outreach and compost pick-ups.

## **7. ADMINISTERING AGENT/GENERAL MANAGER REPORT**

Administering Agent/General Manager Pedersen reported on the microbead concerns, AB1699 and AB 2417 (letter to support CEQA exemption).

## **8. FUTURE AGENDA ITEMS**

Director Polan requested a future agenda item to review the possibility of using audio/video recording at future JPA meetings and the level of detail provided in the minutes.

## **9. INFORMATION ITEMS**

### **A. Methodology for Depreciation of JPA Fixed and Capital Assets**

Non-action item with a brief discussion.

### **B. Board Meeting Follow-up Items**

Non-action item with a brief discussion.

## **10. PUBLIC COMMENTS**

None.

Legal Counsel Lemieux reported that there were no significant items to report during closed session, so there was no need for the closed session.

## **11. CLOSED SESSION**

## **12. ADJOURNMENT**

The meeting was adjourned at 6:45 p.m.

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Charles Caspary, Chair

ATTEST:

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Steven Iceland, Vice Chair

**LAS VIRGENES – TRIUNFO  
JOINT POWERS AUTHORITY  
MINUTES**

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5:00 PM

May 5, 2014

**PLEDGE OF ALLEGIANCE**

The Pledge of Allegiance to the Flag was led by Board President, Charles Caspary.

**1. CALL TO ORDER AND ROLL CALL****A Call to order and roll call**

The meeting was called to order at **5:00 p.m.** by Board President Caspary in the Oak Park Library. Daryl Betancur, Clerk of the Board conducted the roll call.

Present: Directors, Polan, Renger, Steinhardt, Peterson, Caspary, Iceland, McReynolds, Orkney, Paule, and Wall

Absent: None

**2. APPROVAL OF AGENDA****A Approval of agenda**

General Manager Pedersen indicated that there were no changes to the agenda.

On a motion by Director Polan, seconded by Director Iceland, the Board voted 10-0 to approve the agenda as presented. Motion carried unanimously.

**3. PUBLIC COMMENTS**

There were no speaker cards.

**4. CONSENT CALENDAR****A Minutes: Regular Meeting of April 7, 2014. Approve**

Director Iceland indicated that on item 1 (A) the correct spelling for Bodenhamer needed to be corrected. Director Polan commented that on item 5 (A) paragraph No. 2, we need to remove the wording "TMDL is adopted by EPA"; and that on 5 (B) he was requesting clarification with regard to "receive and file" as opposed to "approve and adopt".

General Manager Pedersen and Clerk of the Board Betancur indicated that the minutes could be tabled and brought back after these corrections and clarifications were made so that they could be approved.

**5. ILLUSTRATIVE AND/OR VERBAL PRESENTATION AGENDA ITEMS**

ITEM AA

## **A Preliminary JPA Budget for Fiscal Year 2014-15**

General Manager Pedersen made introductory comments and turned over the presentation of the JPA Budget to Mr. Joseph Lillio; Finance Manager who answered questions relative to revenues and expenditures and provided further detail on the contents of the staff report.

There were some questions relative to the higher than budgeted expenditures in estimated actual for the current Fiscal Year on "Public Education Program" (\$68,114 v. \$34,686) and increase in proposed FY 2014-2015 budget for lab services (sum of "Other Lab Services", "Tapia Lab Sampling", and "Allocated Lab Expense"); otherwise budget ready for adoption.

Director Orkey asked a question relative to the 90% rationale for estimating recycled water sales; and Director Paule inquired about recycled water costs.

Upon a brief discussion, the Board concurred to have this item come back to the Board for approval at the next meeting.

## **6. ACTION ITEMS**

### **A Recycled Water Seasonal Storage Project: Revised Guiding Principles**

Approve the revised guiding principles for the Recycled Water Seasonal Storage Project.

Director McReynolds requested that staff simplify the preamble, making it "more straight-forward" using layman's terms. On item 4.3 of the guiding principles, Director Iceland asked that staff revise it to read, "Establishing public safety as a top priority" instead of "prioritizing public safety."

Director Polan commented on the issue of the seasonal storage project.

### **B Recycled Water and Sanitation Master Plans Updates: Receive and File**

Receive and file the Recycled Water Master Plan Update 2014 (LVMWD Report No. 2561.00) and Sanitation Master Plan Update 2014 (LVMWD Report No. 2560.00).

Director Paule requested electronic copies of the Master Plans for the Board and to be given to them ahead of time for proper review. There were a number of comments made relative to these plans as follows:

#### 1) Recycled Water Plan-Comments

- Add Lake Sherwood Executive (Paragraph 3) Golf Course to Table 7-1 (if feasible);
- Revise language on bottom of page 53/ top of page 54 accordingly; (if added); and
- Provide Opinion of Probable Cost in Appendix C
- Add page numbers to appendices

#### 2) Sanitation Master Plan Update-Comments

- Page 1-2, last two sentences of Section 1.3, check source of document/reference on "1,200 acres around Oak Park" and revise, if necessary;
- Add page numbers to appendices;
- Appendix A- remove extra copy of cover sheet and enlarge Figure 4 (on page 6 of 8)
- Page 2-5, Section 2.2.2, second paragraph, clarify sentence that reads, "customer types" (i.e. maybe just spell them out) and clarify reference to Appendix A (i.e. is it referencing both Appendix A and A-1; if so, maybe just say that and explain what each one covers);
- Page 3-3, paragraph beginning with "Some mineral-based constituents..."; clarify per Director Polan's request;
- Figure 4-1- Director Polan found it hard to read; also, add legend with index for

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abbreviations (i.e. TO, COD, etc.)

- Director Caspary asked that we confirm that there is some mention to the limited "plant footprint" for Tapia

Upon a substantive discussion on these plans, the Board concurred to have these plans come back to the Board at the next meeting.

### **C Financial Review: Third Quarter of Fiscal Year 2013-2014**

Receive and File

General Manager Pedersen presented the staff report and stated that revenues are higher than expected; spoke about capital projects of \$4.3 million, which reflects a modest increase over last year.

There were few questions relative to the financials included in the report, to which Mr. Patterson responded thereby providing more detail.

Director Polan moved to receive and file the Financial Review: Third Quarter of Fiscal Year 2013-2014 as presented. Motion seconded by Director Paule and carried by the following vote:

AYES: Director(s): McReynolds, Orkney, Paule, Wall, Polan, Renger, Steinhardt, Peterson and Caspary  
 NOES: Director(s): None  
 ABSTAIN: Director(s): Iceland

### **D JPA Board Meetings: Discussion of Audio/Video Recordings and Level-of-Detail for Meeting Minutes.**

Consider options for audio/video recordings of JPA Board Meetings and the level-of-detail to be provided for the meeting minutes, and direct staff accordingly.

Stephen Bigilen addressed the Board relative to the subject of video-recording of JPA meetings.

There was a brief discussion on the video-recording of JPA meetings with Director Steinhardt indicating that this is done by a lot of other Boards. A discussion also ensued relative to the level of detail to be provided in the minutes, with Clerk of the Board Betancur stating that minutes are the permanent record and for the benefit of the Board they should be summary minutes, which could be further supplemented by the video-recordings.

There was also a brief discussion on the budget allocation for the video-recording of the meetings with Board members articulating that we need to determine the percentage split between LVMWD/TSD per JPA Agreement with this split potentially being a 70%-30-%. It was noted that it will cost about \$6,500 per year for 12 meetings.

Upon a motion by Director Steinhardt seconded by Director Orkney, the Board approved video-recording of future JPA meetings and associated budget; as well as to prepare summary-style minutes referencing the video recording. Director McReynolds requested that minutes include full sentences. Motion carried unanimously.

### **7. BOARD COMMENTS**

There were no Board comments.

### **8. ADMINISTERING AGENT/GENERAL MANAGER REPORT**

Administering Agent/General Manager Pedersen informed the Board of the upcoming Waterford tour

ITEM 11A

scheduled for Saturday, May 31 and asked if any Board member is interested in attending <sup>12</sup> to let him know.

**9. FUTURE AGENDA ITEMS**

The Board requested that a determination be made relative to the record retention period for video recordings.

**10. INFORMATION ITEMS**

**A Tapia Water Reclamation Facility Primary Clarifier No. 1 Rehabilitation Project: Award of Construction Contract**

A brief report was presented for information purposes only.

**B Board Meeting Follow-up Items**

There was no report on follow-up items.

**11. PUBLIC COMMENTS**

None.

**12. CLOSED SESSION**

The Board adjourned to closed session at 7:07 p.m. and reconvened at 7:22 p.m.

**A. Conference with District Counsel- Existing Litigation pursuant to Government Code Section 54956.9 (a).**

1. Las Virgenes Municipal Water District v. Onsite Power Systems, Inc.
2. Las Virgenes – Triunfo Joint Powers Authority v. United States Environmental Protection Agency.
3. Heal the Bay, Inc. v. Lisa P. Jackson

District Counsel stated that there was nothing to report out of closed session.

**13. ADJOURNMENT**

No actions were taken during closed session. Seeing no further business to come before the Board, the meeting was duly adjourned at 7:24 p.m.



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Charles Caspary, Chair

ATTEST:

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Steven Iceland, Vice Chair

**June 2, 2014 JPA Board Meeting**

TO: JPA Board of Directors

FROM: Finance &amp; Administration

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**Subject: Proposed Joint Powers Authority Budget for Fiscal Year 2014-15**

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**SUMMARY:**

The proposed Joint Powers Authority budget for Fiscal Year (FY) 2014-15 will be presented at the meeting for adoption. Staff previously reviewed the preliminary budget with the Board on March 3, 2014 and again on May 5, 2014. There are no material changes to the budget since the May 5th presentation.

The proposed operating budget for FY 2014-15 is \$15.28 million, which is \$0.18 million higher than the adopted budget for FY 2013-14. The net operating expense (i.e. operating budget less operating revenues) is \$12.79 million, which is slightly more than the FY 2013-14 net operating expense of \$12.41 million.

The proposed capital projects budget for FY 2014-15 is \$7.36 million, consisting of \$2.21 million for previously appropriated projects (carry-over appropriations) and \$5.15 million for new appropriations for continuing or new projects in FY 2014-15.

**Wholesale Recycled Water Rate:**

The proposed budget includes establishing the FY 2014-15 wholesale recycled water rate in accordance with criteria previously approved by the JPA Board. Instead of using the historic three-year average for projecting sales, the JPA Board gave direction on the March 3rd that was reaffirmed on May 5th to use 90% of the current year's estimated actual sales as a budget projection for FY 2014-15. This results in a reduction in the rate from \$407.27 to \$373.72 per acre foot. The reduction is driven in part by an increase in estimated sales over last year's budgeted amount, from 6,014 acre feet in to 6,260 acre feet, and cost-savings associated with the planned operation of the solar generation project for the fiscal year.

**RECOMMENDATION(S):**

Adopt the proposed Joint Powers Authority budget for Fiscal Year 2014-15.

**DISCUSSION:**

Based upon action taken at the May 5th JPA Board meeting, an additional \$6,500 item as added to the budget for video recording of the monthly JPA Board meetings.

Staff will provide a presentation on the proposed budget and will be available for questions.

Prepared By: Donald Patterson, Director of Finance & Administration and Joseph Lillio, Finance Manager

**ATTACHMENTS:**

[Proposed FY 2014-15 JPA Budget](#)



# Las Virgenes – Triunfo Joint Powers Authority

Proposed Budget  
FY 2014-15

June 2, 2014

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# **Las Virgenes – Triunfo Joint Powers Authority**

Fiscal Year 2014-15

## **Triunfo Sanitation District**

Steven Iceland – Vice Chair

Michael McReynolds

Janna Orkney

Michael Paule

James Wall

Mark Norris – District Manager

## **Las Virgenes Municipal Water District**

Charles Caspary – Chair

Glen Peterson

Leonard Polan

Lee Renger

Barry Steinhardt

David Pedersen – General Manager

Administering Agency:  
Las Virgenes Municipal Water District  
4232 Las Virgenes Road  
Calabasas, CA 91302-1994  
818.251.2100  
[www.lvmwd.com](http://www.lvmwd.com)



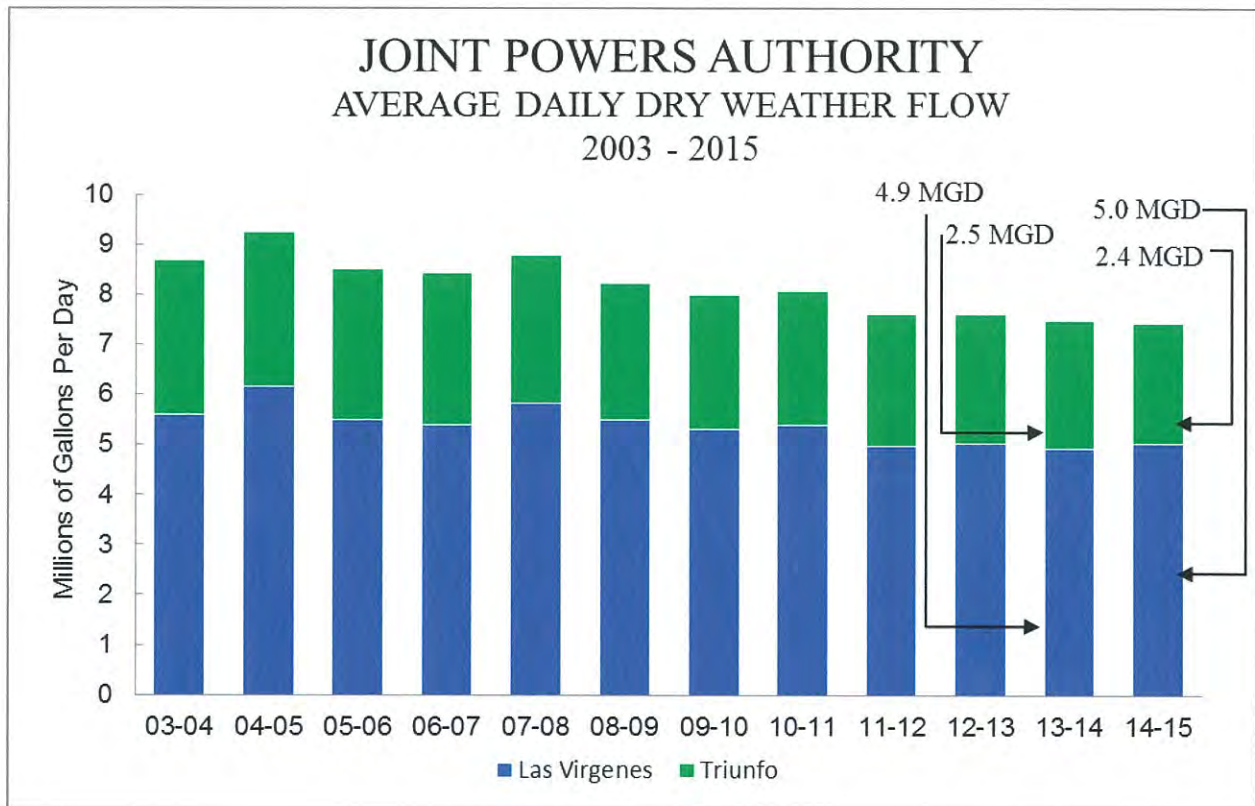


DATE: June 2, 2014

TO: Board of Directors, Las Virgenes -Triunfo Joint Powers Authority

Presented for your consideration is the Joint Powers Authority operating and capital budget for fiscal year (FY) 2014/15. The budget represents the concerted efforts of staff over the past several months and was created within the terms of the Joint Powers Authority agreement.

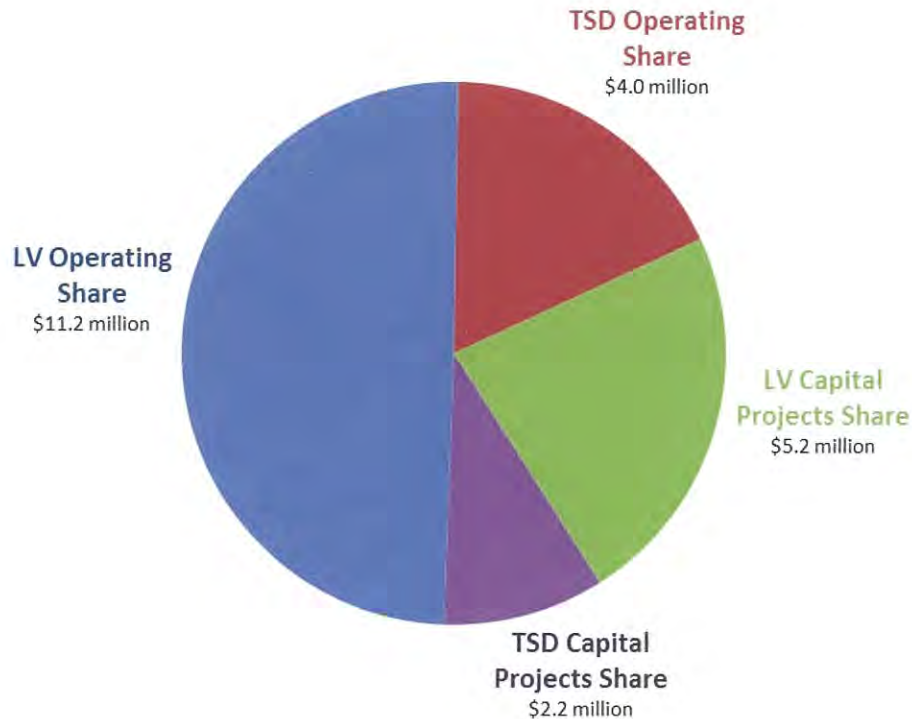
The following graph shows the participant's sewage flows since FY03/04. The reduction in flows reflects low growth policies of cities within the watershed, diversion of some sewage to the City of Los Angeles and water allocations to customers within the respective sewer service areas of the Joint Powers Authority partners for the last four years.



**Use of Joint Powers Authority Funds**

For operations and capital improvement projects, the use of funds in the proposed budget for FY14/15 is \$22.6 million, as shown below.

**JOINT POWERS AUTHORITY  
FY 2014-15 USES OF FUNDS  
\$22.6 million**



The proposed operating expense for FY14/15 is higher than the adopted budget for FY13/14. The proposed capital improvement project (CIP) budget for FY14/15 is lower than the budget for FY13/14 because some of the major projects were completed in the prior year and there are fewer new projects with current appropriations. Overall the total budget is 6.6% lower than the FY13/14 approved budget due to the decreases in capital project budgets.

The following table shows uses of funds.

LAS VIRGENES - TRIUNFO JOINT POWERS AUTHORITY  
WORKING CAPITAL ANALYSIS - USES OF FUNDS

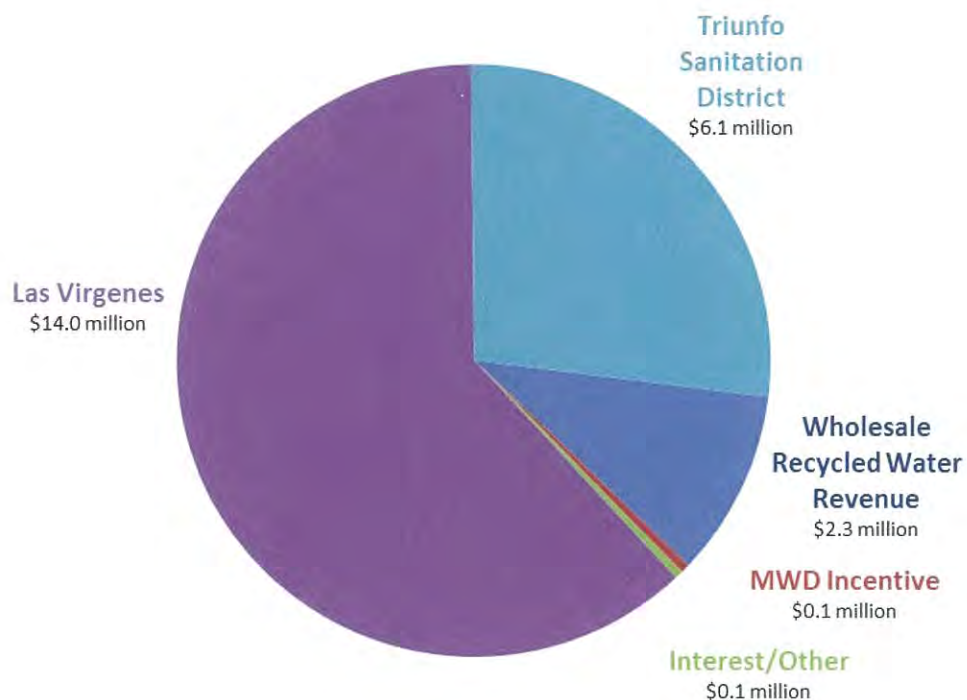
	FY2010-11 ACTUAL	FY2011-12 ACTUAL	FY2012-13 ACTUAL	FY2013-14 BUDGET	FY2013-14 EST. ACTUAL	FY2014-15 BUDGET
<b>Operating Expenses</b>						
Las Virgenes Municipal Water District	10,379,286	9,793,440	10,463,895	11,006,639	10,692,489	11,245,026
Triunfo Sanitation District	4,795,109	4,629,889	4,843,149	4,091,631	3,564,163	4,033,542
<b>Total Operating Expenses</b>	<b>15,174,395</b>	<b>14,423,329</b>	<b>15,307,044</b>	<b>15,098,270</b>	<b>14,256,652</b>	<b>15,278,568</b>
<b>Capital Projects</b>						
Las Virgenes Municipal Water District	3,058,497	1,450,805	2,776,203	6,400,702	4,482,967	5,190,028
Triunfo Sanitation District	1,273,652	604,160	1,156,096	2,738,395	1,866,845	2,167,766
<b>Total Capital Projects</b>	<b>4,332,149</b>	<b>2,054,965</b>	<b>3,932,299</b>	<b>9,139,097</b>	<b>6,349,812</b>	<b>7,357,794</b>
<b>Total Uses of Funds</b>	<b>19,506,544</b>	<b>16,478,294</b>	<b>19,239,343</b>	<b>24,237,367</b>	<b>20,606,464</b>	<b>22,636,362</b>



### Source of Joint Powers Authority Funds

The Joint Powers Authority (JPA) receives revenue from sales of recycled water, compost sales and from interest revenue, but the JPA partners contribute most of the funds for the JPA, as shown below.

## JOINT POWERS AUTHORITY FY 2014-15 SOURCES OF FUNDS \$22.6 million



The operating expenses of the JPA are allocated to the participants in four ways, depending upon the type of expenses. The basis of allocation is:

- Participants' reserve capacity rights in the trunk sewer,
- Participants' reserve capacity rights in the treatment plant and recycled water system,
- Participants' flow into the treatment plant, or
- Equal shares by participants for audit and meter station expense.

Because allocation of expense varies by type of expense, the overall percentage allocated to each participant changes from year to year. The total anticipated contribution from partners is estimated to be \$0.3 million more than budgeted in FY13/14 for operations and \$1.78 million less in capital projects.



LAS VIRGENES - TRIUNFO JOINT POWERS AUTHORITY  
WORKING CAPITAL ANALYSIS - SOURCES OF FUNDS

	FY2010-11 ACTUAL	FY2011-12 ACTUAL	FY2012-13 ACTUAL	FY2013-14 BUDGET	FY2013-14 EST. ACTUAL	FY2014-15 BUDGET
<b>Operating Revenue</b>						
Recycled Water Revenue						
Las Virgenes Municipal Water District	1,213,215	1,911,981	2,218,255	1,806,999	2,023,081	1,669,422
Triunfo Sanitation District	387,888	686,030	789,907	612,127	768,111	634,352
Total Recycled Water Revenue	<u>1,601,103</u>	<u>2,598,011</u>	<u>3,008,162</u>	<u>2,419,126</u>	<u>2,791,192</u>	<u>2,303,774</u>
MWD Incentive - Local Projects	107,800	-	194,055	107,800	107,800	107,800
Other	80,414	70,797	75,634	97,500	97,820	80,000
Total Operating Revenue	<u>1,789,317</u>	<u>2,668,808</u>	<u>3,277,851</u>	<u>2,624,426</u>	<u>2,996,812</u>	<u>2,491,574</u>
<b>Interest &amp; Other Revenue</b>	<u>1,063,817</u>	<u>14,101</u>	<u>25,143</u>	<u>20,000</u>	<u>20,000</u>	<u>20,000</u>
<b>Participant's Contribution</b>						
Las Virgenes Municipal Water District						
Operations	9,145,329	7,974,215	8,131,007	8,486,194	7,720,556	8,794,591
Capital Projects	2,366,534	1,450,805	2,776,203	6,400,702	4,482,967	5,190,028
Total Las Virgenes	<u>11,511,863</u>	<u>9,425,020</u>	<u>10,907,210</u>	<u>14,886,896</u>	<u>12,203,523</u>	<u>13,984,619</u>
Triunfo Sanitation District						
Operations	4,156,049	3,766,206	3,873,043	3,967,650	3,519,284	3,972,403
Capital Projects	985,498	604,159	1,156,096	2,738,395	1,866,845	2,167,766
Total Triunfo	<u>5,141,547</u>	<u>4,370,365</u>	<u>5,029,139</u>	<u>6,706,045</u>	<u>5,386,129</u>	<u>6,140,169</u>
<b>Total Sources of Funds</b>	<u>19,506,544</u>	<u>16,478,294</u>	<u>19,239,343</u>	<u>24,237,367</u>	<u>20,606,464</u>	<u>22,636,362</u>

At the JPA meeting on June 6, 2011, the joint board approved a new formula for determining the wholesale price of recycled water, that is, the price that the JPA charges to its two customers—Las Virgenes Municipal Water District and Triunfo Sanitation District. Previously, the wholesale rate for recycled water was based upon the operating costs for recycled water reservoirs, system operations and pump stations (only for areas in which pumping is necessary). This represents the operating costs of recycled water. The new formula, effective July 1, 2011, used the operating costs and added the administrative overhead for recycled water operations and a depreciation expense for recycled water capital assets. The July 1, 2014 wholesale rate for recycled water with pumping is \$373.72 per acre foot, which is lower than the previous rate of \$407.27 per acre foot. For wholesale recycled water delivered to the Las Virgenes Valley, which does not require additional pumping, the rate changes to \$242.21 per acre foot from \$269.32 per acre foot.

### Allocation of General and Administrative Costs

The general and administrative costs of Las Virgenes Municipal Water District are distributed among its three enterprises (potable water, recycled water and sanitation), its capital improvement projects, and the operations of the JPA. In accordance with the original Joint Powers Authority agreement, the general and administrative costs are distributed to the JPA based upon direct labor hours.

The FY14/15 Las Virgenes Municipal Water District budget for general and administrative expenses (otherwise known as Internal Services) is \$15.3 million. Of this total, \$5.97 million is allocated to the JPA based upon projected labor hours.

### Capital Improvement Projects

The Capital improvement projects are shown by enterprise (Recycled Water and Sanitation) and by project number. This corresponds to the classification of the funding by LVMWD and agrees with the JPA capital budget.

Respectfully submitted,



David W. Pedersen  
General Manager

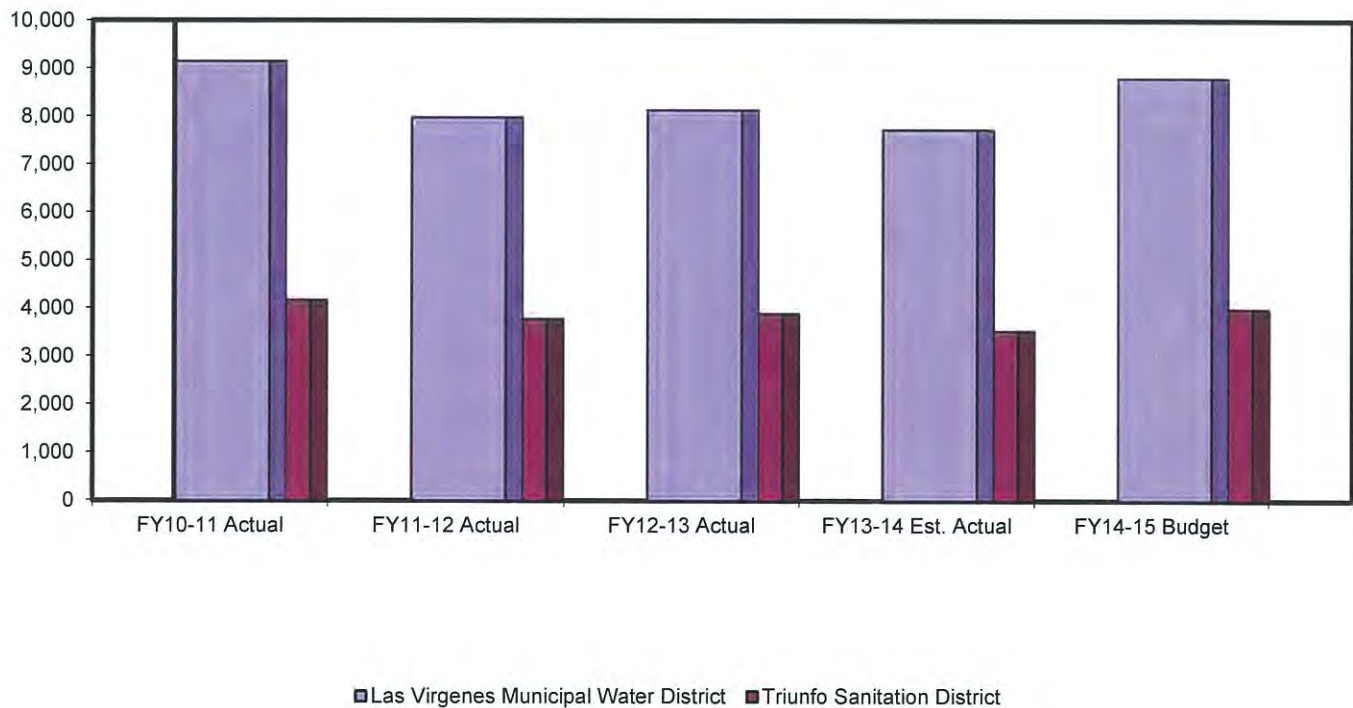


Donald Patterson  
Director of Finance and Administration

ITEM 5A

**Las Virgenes - Triunfo  
Joint Powers Authority  
Allocated Net Expense Summary  
(Dollars in Thousands)**

	FY10-11 Actual	FY11-12 Actual	FY12-13 Actual	FY13-14 Est. Actual	FY14-15 Budget
<b>JPA Revenues</b>	1,789	2,669	3,278	2,997	2,491
<b>JPA Expenses</b>	15,174	14,423	15,307	14,257	15,278
<b>Net Operating Expense</b>	13,385	11,754	12,029	11,260	12,787
<b>Non-Operating Revenue</b>	84	14	25	20	20
<b>Net Expenses</b>	13,301	11,740	12,004	11,240	12,767
<b>Las Virgenes Municipal Water District</b>	9,145	7,974	8,131	7,721	8,795
<b>Triunfo Sanitation District</b>	4,156	3,766	3,873	3,519	3,972
<b>Total Allocated Expenses</b>	13,301	11,740	12,004	11,240	12,767



JOINT POWERS AUTHORITY  
PARTICIPANT SEWAGE FLOWS and EXPENSE ALLOCATION  
FY 2014-15

PARTICIPANT	PROJECTED SEWAGE FLOWS			ALLOCATION OF TOTAL EXPENSES TO PARTICIPANTS			PROJECTED ERUs	
	MILLION GALLONS PER DAY (MGD)	MILLION GALLONS PER YEAR (MG)	PERCENT BASED ON FLOWS	TOTAL EXP	\$ PER MG	%	PROJECTED NUMBER OF ERUs	GPD PER ERU
	(A)	(B)	(C)	(D)	(D) / (B)		(E)	(A)/(E)
U-1 SANITATION DISTRICT	2.74	999	36.7%	6,395,091	6,401	47.9%	18,690	146
U-2 SANITATION DISTRICT	2.31	842	30.9%	2,996,381	3,559	22.4%	6,740	342
LVMWD	5.04	1,841	67.6%	9,391,472	5,101	70.3%	25,430	198
TRIUNFO SANITATION DISTRICT	2.42	884	32.4%	3,972,403	4,494	29.7%	12,255	198
TOTAL ALL PARTICIPANTS	7.47	2,725	100.0%	13,363,875 *	4,904	100.0%	37,685	198
RETURN FLOWS	0.90	329						
WESTLAKE WELLS	0.24	88						
	8.61	3,142						

\* Total expenses allocated is net of non-operating interest income.

JOINT POWERS AUTHORITY  
PARTICIPANT SEWAGE FLOWS and EXPENSE ALLOCATION  
ESTIMATED ACTUAL FY 2013-14

PARTICIPANT	PROJECTED SEWAGE FLOWS			ALLOCATION OF TOTAL EXPENSES TO PARTICIPANTS			ESTIMATED ERUs	
	MILLION GALLONS PER DAY (MGD)	MILLION GALLONS PER YEAR (MG)	PERCENT BASED ON FLOWS	TOTAL EXP	\$ PER MG	%	ESTIMATED NUMBER OF ERUs	GPD PER ERU
	(A)	(B)	(C)	(D)	(D) / (B)		(E)	(A)/(E)
U-1 SANITATION DISTRICT	2.79	1,019	37.5%	5,754,494	5,647	48.2%	18,559	150
U-2 SANITATION DISTRICT	2.22	812	29.9%	2,673,123	3,292	22.4%	6,740	330
LVMWD	5.02	1,831	67.4%	8,427,617	4,603	70.6%	25,299	198
TRIUNFO SANITATION DISTRICT	2.42	885	32.6%	3,519,284	3,977	29.4%	12,255	198
TOTAL ALL PARTICIPANTS	7.44	2,716	100.0%	11,946,901 *	4,399	100.0%	37,554	198
RETURN FLOWS	0.91	331						
WESTLAKE WELLS	0.24	87						
	8.59	3,134						

\* Total expenses allocated is net of non-operating interest income.

ITEMSA

**FISCAL YEAR 2014-15 OPERATING BUDGET  
ALLOCATION OF JOINT POWERS EXPENSES TO PARTICIPANTS**

EXPENSES (REVENUES)	JPA EXPENSES BY ALLOCATION GROUPS					
SEWER EXPENSE	230,800	0	0	0	0	230,800
TREATMENT RECLAMATION	0	4,800,892	2,861,196	0	0	7,662,088
TREATMENT COMPOSTING	0	2,811,644	1,788,622	0	0	4,600,266
TREATMENT INJECTION	0	236,421	152,742	0	0	389,163
PUMP STATIONS	0	1,189,191	0	0	0	1,189,191
TANKS/RESERVOIR WELLS	0	69,140	0	0	0	69,140
SYSTEM OPERATION	0	30,730	0	0	0	30,730
WATER SYSTEM	0	77,165	0	0	0	77,165
ADMINISTRATIVE EXPENSES	0	1,021,625	0	5,300	0	1,026,925
TAPIA WAREHOUSE	0	3,100	0	0	0	3,100
REVENUES	0	(2,491,574)	0	0	(20,000)	(2,511,574)
<b>TOTAL EXPENSES</b>	<b>230,800</b>	<b>7,748,334</b>	<b>4,802,560</b>	<b>5,300</b>	<b>(20,000)</b>	<b>12,766,994</b>
	A	B	C	D	E	TOTAL

PARTICIPANTS SHARE	ALLOCATION OF EACH GROUP TO PARTICIPANTS											
	%	\$	%	\$	%	\$	%	\$	%	\$		
U-1 SANITATION DISTRICT	36.3%	83,780	53.1%	4,563,294	36.7%	1,762,540	25.0%	1,325	79.2%	(15,848)	50.1%	6,395,091
U-2 SANITATION DISTRICT	3.1%	7,155	17.5%	1,503,910	30.9%	1,483,991	25.0%	1,325	0.0%	0	23.5%	2,996,381
RECYCLED WATER FUND			(596,881)									(596,881)
<b>TOTAL LVMWD</b>	<b>39.4%</b>	<b>90,935</b>	<b>70.6%</b>	<b>5,470,323</b>	<b>67.6%</b>	<b>3,246,531</b>	<b>50.0%</b>	<b>2,650</b>	<b>79.2%</b>	<b>(15,848)</b>	<b>73.6%</b>	<b>8,794,591</b>
TRIUNFO SANITATION DISTRICT	60.6%	139,865	29.4%	2,278,011	32.4%	1,556,029	50.0%	2,650	20.8%	(4,152)	26.4%	3,972,403
<b>TOTAL ALLOCATION</b>	<b>100.0%</b>	<b>230,800</b>	<b>100.0%</b>	<b>7,748,334</b>	<b>100.0%</b>	<b>4,802,560</b>	<b>100.0%</b>	<b>5,300</b>	<b>100.0%</b>	<b>(20,000)</b>	<b>100.0%</b>	<b>12,766,994</b>
	A		B		C		D		E		TOTAL	

**GROUP**

- A** Basis of allocation to each participant is participant's reserve capacity rights in the trunk sewer.
- B** Basis of allocation to each participant is participant's reserve capacity rights in the treatment plant and reclaimed water system.
- C** Basis of allocation to each participant is participant's flow into the treatment plant.
- D** Each participant is allocated an equal share.
- E** Basis of allocation is each participant's average monthly cash balance.

**FISCAL YEAR 2013-14 ESTIMATED ACTUAL  
ALLOCATION OF JOINT POWERS EXPENSES TO PARTICIPANTS**

EXPENSES (REVENUES)	JPA EXPENSES BY ALLOCATION GROUPS					
SEWER EXPENSE	217,532	0	0	0	0	217,532
TREATMENT RECLAMATION	0	4,453,903	2,690,049	0	0	7,143,952
TREATMENT COMPOSTING	0	2,446,043	1,652,610	0	0	4,098,653
TREATMENT INJECTION	0	231,153	159,882	0	0	391,035
PUMP STATIONS	0	1,197,642	0	0	0	1,197,642
TANKS/RESERVOIR WELLS	0	40,919	0	0	0	40,919
SYSTEM OPERATION	0	29,603	0	0	0	29,603
WATER SYSTEM	0	100,767	0	0	0	100,767
ADMINISTRATIVE EXPENSES	0	1,028,249	0	5,300	0	1,033,549
TAPIA WAREHOUSE	0	3,000	0	0	0	3,000
REVENUES	0	(2,996,812)	0	0	(20,000)	(3,016,812)
<b>TOTAL EXPENSES</b>	<b>217,532</b>	<b>6,534,467</b>	<b>4,502,541</b>	<b>5,300</b>	<b>(20,000)</b>	<b>11,239,840</b>
	A	B	C	D	E	TOTAL

PARTICIPANTS SHARE	ALLOCATION OF EACH GROUP TO PARTICIPANTS											
	%	\$	%	\$	%	\$	%	\$	%	\$		
U-1 SANITATION DISTRICT	36.3%	78,964	53.1%	4,001,600	37.5%	1,688,453	25.0%	1,325	79.2%	(15,848)	51.2%	5,754,494
U-2 SANITATION DISTRICT	3.1%	6,743	17.5%	1,318,795	29.9%	1,346,260	25.0%	1,325	0.0%	0	23.8%	2,673,123
RECYCLED WATER FUND			(707,061)									(707,061)
<b>TOTAL LVMWD</b>	<b>39.4%</b>	<b>85,707</b>	<b>70.6%</b>	<b>4,613,334</b>	<b>67.4%</b>	<b>3,034,713</b>	<b>50.0%</b>	<b>2,650</b>	<b>79.2%</b>	<b>(15,848)</b>	<b>75.0%</b>	<b>7,720,556</b>
TRIUNFO SANITATION DISTRICT	60.6%	131,825	29.4%	1,921,133	32.6%	1,467,828	50.0%	2,650	20.8%	(4,152)	25.0%	3,519,284
<b>TOTAL ALLOCATION</b>	<b>100.0%</b>	<b>217,532</b>	<b>100.0%</b>	<b>6,534,467</b>	<b>100.0%</b>	<b>4,502,541</b>	<b>100.0%</b>	<b>5,300</b>	<b>100.0%</b>	<b>(20,000)</b>	<b>100.0%</b>	<b>11,239,840</b>
	A		B		C		D		E		TOTAL	

TOTAL  
ITEM SA

**Las Virgenes - Triunfo  
Joint Powers Authority  
Operations Summary**

	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Budget	FY 13-14 Est. Actual	FY 14-15 Budget
<b>OPERATING REVENUES</b>						
4235 RW Sales - LVMWD	\$1,213,215	\$1,911,981	\$2,218,255	\$1,806,999	\$2,023,081	\$1,669,422
4240 RW Sales - TSD	387,888	686,030	789,907	612,127	768,111	634,352
4245 MWD Incentive - Local Projects	107,800	0	194,055	107,800	107,800	107,800
4505 Other Income from Operations	59,270	60,371	61,853	60,000	62,820	65,000
4510 Compost Sales	21,144	10,426	13,781	37,500	35,000	15,000
<b>TOTAL OPERATING REVENUES</b>	<b>\$1,789,317</b>	<b>\$2,668,808</b>	<b>\$3,277,851</b>	<b>\$2,624,426</b>	<b>\$2,996,812</b>	<b>\$2,491,574</b>
<b>SOURCE OF SUPPLY</b>						
5115 Purchased Water - Potable Suppl	0	0	0	0	0	0
<b>OPERATIONS DIVISION EXPENSE</b>						
5400 Labor	1,965,416	1,930,622	1,906,514	1,852,968	1,894,204	1,858,657
5405.1 Electricity	2,402,134	1,989,189	2,202,452	2,249,345	2,478,810	2,429,329
5405.2 Telephone	27,901	19,599	16,355	14,295	19,458	20,384
5405.3 Natural Gas	12,434	11,512	13,168	10,950	9,586	11,447
5405.4 Water	12,858	10,976	11,956	12,968	12,055	11,952
5410 Supplies/Material	132,174	91,987	87,208	86,966	74,900	64,100
5410.1 Fuel	11,919	18,587	16,617	16,371	15,418	17,100
5410.5 Ferric Chloride	113,952	86,187	90,209	84,480	72,040	84,675
5410.6 Defoamer/Deodorant	0	22,600	9,895	6,373	6,000	6,375
5410.7 Polymer	123,660	122,423	195,755	126,898	126,000	126,898
5410.8 Amendment	257,854	111,041	206,434	208,980	225,000	203,000
5410.9 Alum	40,282	19,557	31,739	24,830	25,200	25,200
5410.10 Sodium Hypochlorite	304,441	294,835	272,820	335,685	275,000	335,685
5410.11 Sodium Bisulfite	215,421	173,106	158,802	171,660	196,309	183,104
5410.13 Aqua Ammonia	0	0	19,732	60,939	15,000	15,000
5415 Outside Services	27,493	250,089	49,041	44,151	47,550	62,519
5417 Odor Control	108,753	87,651	67,805	136,000	98,933	112,000
5420 Permits and Fee	140,400	155,009	158,164	160,771	177,010	184,890
5425 Consulting Services	37,883	2,335	21,090	5,000	0	0
5430 Capital Outlay	62,541	43,723	51,267	43,000	0	27,710
Sub-total	\$5,997,516	\$5,441,028	\$5,587,023	\$5,652,630	\$5,768,473	\$5,780,025
<b>MAINTENANCE DIVISION EXPENSE</b>						
5500 Labor	1,293,113	1,141,118	1,348,996	1,334,777	1,093,546	1,208,293
5510 Supplies/Material	369,696	328,874	515,952	347,215	368,486	405,152
5515 Outside Services	210,377	302,636	532,242	269,182	178,968	279,491
5518 Building Maintenance	127,599	98,982	124,365	126,427	111,824	116,936
5520 Permits and Fee	800	280	280	700	310	450
5525 Consulting Services	18,760	0	5,100	0	0	0
5530 Capital Outlay	38,431	20,142	0	81,500	48,500	31,000
Sub-total	\$2,058,776	\$1,892,032	\$2,526,935	\$2,159,801	\$1,801,634	\$2,041,322
<b>INVENTORY EXPENSES</b>						
5536 Inventory Adjustment	2,807	2,393	9,463	3,100	3,000	3,100
<b>PUBLIC INFORMATION</b>						
6602 School Education Program	8,308	4,066	2,511	6,006	7,706	9,488
6604 Public Education Program	33,483	20,011	43,641	34,686	68,114	36,847
6606 Community Group Outreach	1,647	187	4,859	10,001	7,373	7,786
6608 Intergovernmental Coordination	15,922	8,973	5,486	16,018	4,807	11,990
Sub-total	\$59,360	\$33,237	\$56,497	\$66,711	\$88,000	\$66,111
<b>RESOURCE CONSERVATION</b>						
6788 District Sprayfield	277,619	264,468	296,358	284,997	278,696	286,496
6789 005 Discharge	60,039	51,768	20,163	10,360	350	360
6785 Watershed Programs	77,846	59,600	87,932	88,475	84,918	90,840
Sub-total	\$415,504	\$375,836	\$404,453	\$383,832	\$363,964	\$377,696

ITEMSA

**Las Virgenes - Triunfo  
Joint Powers Authority  
Operations Summary**

	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Budget	FY 13-14 Est. Actual	FY 14-15 Budget
<b>SPECIALTY EXPENSES</b>						
5700 SCADA Services	64,484	103,920	77,970	94,173	70,496	100,381
5710.2 Technical Services	1,644	17,495	15,625	11,539	0	3,787
5712 Compost Sales/Use Tax	6,839	2,973	3,747	4,000	3,540	4,000
5715.2 Other Lab Services	180,721	151,858	162,451	118,000	161,800	167,391
5715.3 Tapia Lab Sampling	111,815	134,990	128,283	132,491	112,326	123,435
7202 Allocated Lab Expense	397,618	402,459	382,094	398,517	361,536	402,158
Sub-total	\$763,121	\$813,695	\$770,170	\$758,720	\$709,698	\$801,152
<b>ADMINISTRATIVE EXPENSES</b>						
6872 Litigation/Outside Services	0	605	89,933	50,000	48,148	50,000
6516 Other Professional Services	16,326	0	15,069	50,000	38,980	56,540
6517 Audit Fees	8,545	6,275	5,300	5,300	5,300	5,300
7110 Travel/Misc Staff Expense	0	0	619	0	26	0
7135 General Insurance	0	0	0	0	0	0
7135.1 Property Insurance	71,307	75,323	59,731	56,825	49,682	50,675
7135.4 Earthquake Insurance	89,903	91,743	92,878	93,700	92,662	94,515
7153 TSD Staff Services	0	0	0	5,000	0	5,000
6260 Rental Charge - Facility Repl	354,020	331,945	355,476	355,823	389,108	380,715
7203 Allocated Building Maint	87,384	96,673	105,823	85,318	65,264	73,420
7225 Allocated Support Services	3,783,538	3,692,475	3,719,446	3,783,258	3,322,996	3,813,534
7226 Allocated Operations Services	1,466,291	1,570,069	1,508,229	1,588,252	1,509,717	1,679,463
Sub-total	\$5,877,314	\$5,865,108	\$5,952,504	\$6,073,476	\$5,521,883	\$6,209,162
<b>TOTAL EXPENSES</b>	<b>\$15,174,398</b>	<b>\$14,423,329</b>	<b>\$15,307,045</b>	<b>\$15,098,270</b>	<b>\$14,256,652</b>	<b>\$15,278,568</b>
<b>NET OPERATING EXPENSE</b>	<b>\$13,385,081</b>	<b>\$11,754,521</b>	<b>\$12,029,194</b>	<b>\$12,473,844</b>	<b>\$11,259,840</b>	<b>\$12,786,994</b>

## RW WHOLESALE RATE COMPUTATIONS

FY 2014-15 Budgeted Costs	Total Cost	Base Cost	Add'l Pumping	East-West Cost
Pump Stations	1,189,191	401,731	787,460.25	
Reservoirs	69,140	69,140		
System Operations	30,730	30,730		
Distribution	77,165	77,165		
Administration	92,106	92,106		
subtotal: Operations & Admin	<u>1,458,332</u>	<u>670,872</u>		
Depreciation FY12-13	845,440	845,440	-	
<b>Total Cost</b>	<b><u>\$ 2,303,772</u></b>	<b><u>\$ 1,516,312</u></b>	<b><u>\$ 787,460</u></b>	
<b>Costs per Acre Foot</b>		<b><u>\$ 242.21</u></b>	<b><u>\$ 131.51</u></b>	<b><u>\$ 373.72</u></b>

## FY 2014-15 Estimated Deliveries (90% current year)

	Acre Feet	Rate	
LV Valley	273	\$ 242.21 /AF	\$ 66,050.67
LVMWD East	1,839	\$ 373.72 /AF	\$ 687,158.96
LVMWD West	<u>2,452</u>	\$ 373.72 /AF	<u>\$ 916,211.95</u>
Total LVMWD	<u>4,563</u>		<u>\$ 1,669,421.58</u>
TSD	<u>1,697</u>	\$ 373.72 /AF	<u>\$ 634,352.33</u>
	<u>6,260</u>		<u>\$ 2,303,773.91</u>

## RW WHOLESALE COMPUTATIONS

FY 2013-14 Estimated Actual Costs	Total Cost	Base Cost	Add'l Pumping	East-West Cost
Pump Stations	1,197,642	373,742	823,900	
Reservoirs	40,919	40,919		
System Operations	29,603	29,603		
Distribution	100,767	100,767		
Administration	99,242	99,242		
subtotal: Operations & Admin	<u>1,468,173</u>	<u>644,273</u>		
Depreciation FY11-12	845,000	845,000	-	
Total Cost	<u>\$ 2,313,173</u>	<u>\$ 1,489,273</u>		
Costs per Acre Foot		<u>\$ 214.10</u>	<u>\$ 123.84</u>	<u>\$ 337.94</u>

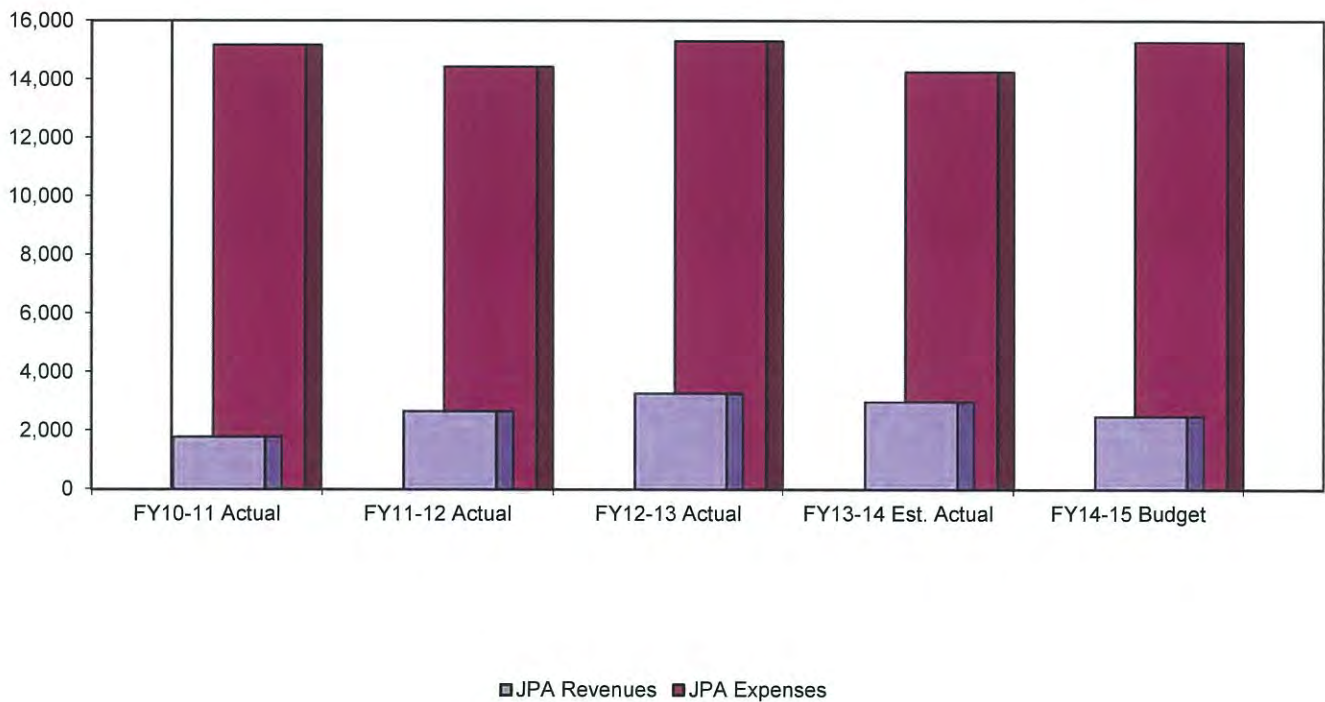
## FY 2013-14 Estimated Deliveries

	Acre Feet	Rate	
LV Valley	303	\$ 269.39 /AF	\$ 81,625.17
LVMWD East	2,043	\$ 407.27 /AF	\$ 832,052.61
LVMWD West	<u>2,724</u>	\$ 407.27 /AF	<u>\$ 1,109,403.48</u>
Total LVMWD	<u>5,070</u>		<u>\$ 2,023,081.26</u>
TSD	<u>1,886</u>	\$ 407.27 /AF	\$ 768,111.22
	<u>6,956</u>		<u>\$ 2,791,192.48</u>



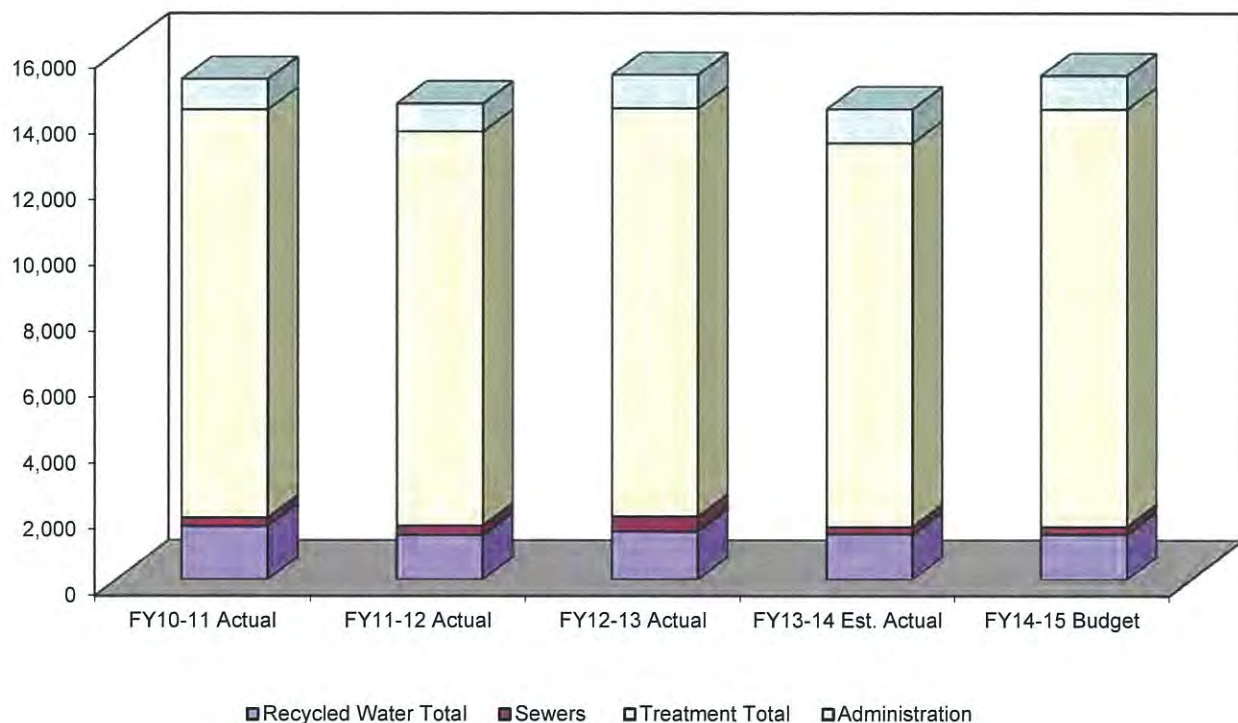
**Las Virgenes - Triunfo  
Joint Powers Authority  
Operations Summary  
(Dollars in Thousands)**

	FY10-11 Actual	FY11-12 Actual	FY12-13 Actual	FY13-14 Est. Actual	FY14-15 Budget
<b>JPA Revenues</b>	1,789	2,669	3,278	2,997	2,491
<b>JPA Expenses</b>	15,174	14,423	15,307	14,257	15,278
<b>Net Operating Expense</b>	13,385	11,754	12,029	11,260	12,787



**Las Virgenes - Triunfo  
Joint Powers Authority  
Operating Expense Summary**  
(Dollars in Thousands)

	FY10-11 Actual	FY11-12 Actual	FY12-13 Actual	FY13-14 Est. Actual	FY14-15 Budget
<b>Pump Stations</b>	1,329	1,185	1,211	1,198	1,189
<b>Tank, Res, Wells</b>	107	74	96	41	69
<b>System Ops</b>	39	34	43	30	31
<b>Distribution</b>	132	47	100	101	77
<b>Recycled Water Total</b>	1,607	1,340	1,450	1,370	1,366
<b>Sewers</b>	253	288	447	217	231
<b>Reclamation</b>	7,582	7,207	7,329	7,144	7,662
<b>Composting</b>	4,573	4,453	4,633	4,099	4,600
<b>Injection &amp; Centrate Treatment</b>	230	284	425	391	389
<b>Treatment Total</b>	12,385	11,944	12,387	11,634	12,651
<b>Administration</b>	929	851	1,023	1,036	1,030
<b>Total JPA Operations</b>	15,174	14,423	15,307	14,257	15,278



# JOINT POWERS AUTHORITY

## Operating Revenues – 751000

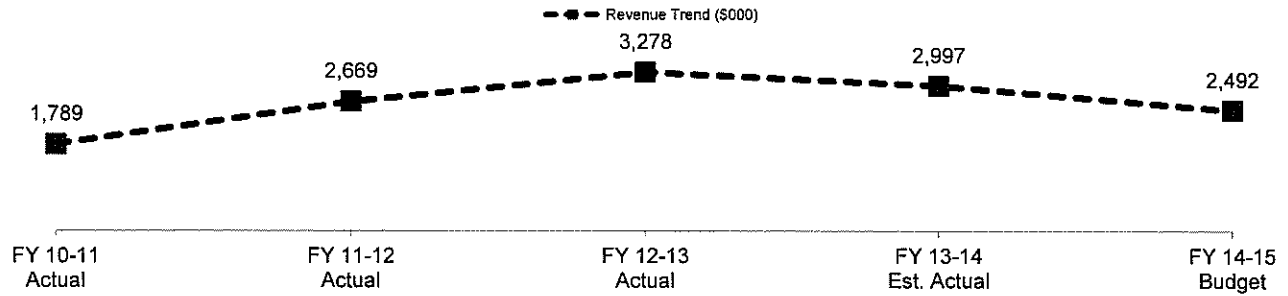
### LINE ITEM EXPLANATIONS

- 4235 Recycled Water Sales - LVMWD – Wholesale recycled water sales to Las Virgenes Municipal Water District (4,496 af). Wholesale rates are set to recover the costs of operating and administering the Recycled Water backbone distribution system. Beginning in Fiscal Year 2011-12, an additional amount, equal to the value of annual depreciation expense on the recycled water distribution system, is included in the wholesale recycled water rate. Annual sales to each JPA partner is normally projected using the prior 3 years average purchases by each JPA partner and adjusted as necessary for weather and outage conditions. For FY 2014-15, sales are projected at FY 2013-14 levels, less 10% reduction, estimated for water conservation/drought restrictions.
- 4240 Recycled Water Sales - TSD – Wholesale recycled water sales to Triunfo Sanitation District (1,697 af). Wholesale rates are set in the same manner as described above.
- 4245 MWD Incentive Local Projects – Funding from Metropolitan Water District to encourage reduction of potable water demand up to 700 af per year at \$154/af. The twenty five (25) year agreement between the MWD and the JPA expires in November, 2014. It is anticipated that the fiscal year 2014-2015 maximum eligible reimbursement will be achieved during the first four periods of the fiscal year.
- 4505 Other Income from Operations – Primarily rental of tank sites to cellular telephone providers.
- 4510 Compost Sales – Commercial sales of compost produced at the Rancho Las Virgenes Composting Facility.

ITEM SA

**Las Virgenes - Triunfo  
Joint Powers Authority  
Operating Revenues**

	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Budget	FY 13-14 Est. Actual	FY 14-15 Budget
<b>OPERATING REVENUES</b>						
4235 RW Sales - LVMWD	\$1,213,215	\$1,911,981	\$2,218,255	\$1,806,999	\$2,023,081	\$1,669,422
4240 RW Sales - TSD	387,888	686,030	789,907	612,127	768,111	634,352
4245 MWD Incentive - Local Projects	107,800	0	194,055	107,800	107,800	107,800
4505 Other Income from Operations	59,270	60,371	61,853	60,000	62,820	65,000
4510 Compost Sales	21,144	10,426	13,781	37,500	35,000	15,000
<b>TOTAL OPERATING REVENUES</b>	<b>\$1,789,317</b>	<b>\$2,668,808</b>	<b>\$3,277,851</b>	<b>\$2,624,426</b>	<b>\$2,996,812</b>	<b>\$2,491,574</b>



# JOINT POWERS AUTHORITY

## RW Pump Stations – 751100

### FUNCTION

To provide appropriate training, operating, preventive maintenance and maintenance and repair programs to preserve Joint Powers Authority (JPA) assets and to ensure the Effluent, East and West recycled water pump stations are operated and maintained safely, efficiently and cost-effectively to supply adequate water throughout the recycled water distribution system.

### SIGNIFICANT CHANGES

No significant changes are anticipated for FY14-15.

### OPERATING EXPENSE LINE ITEM EXPLANATIONS

5400 Labor – Primarily labor hours worked by Water Treatment and Production and Water Reclamation personnel to operate and provide preventive maintenance to equipment and facilities at the various Joint Powers Authority pump stations.

5405.1 Energy – Energy costs for recycled water pump stations.

5410 Supplies/Materials – Funds to purchase supplies and materials used during annual preventive maintenance on JPA RW pump control valves.

### MAINTENANCE EXPENSE LINE ITEM EXPLANATIONS

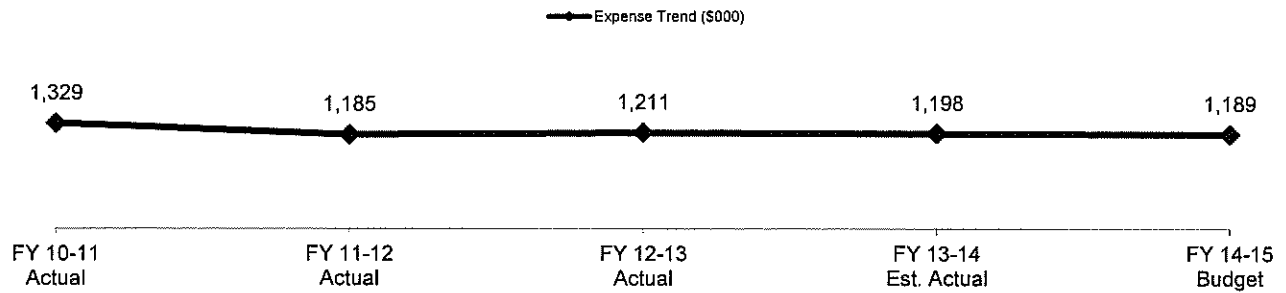
5500 Labor – Primarily labor hours worked by Maintenance Section personnel to perform major maintenance and repair tasks to pumps, motors, and other equipment at Joint Powers Authority (JPA) recycled water pump stations.

5510 Supplies/Materials – Funds to purchase supplies and materials used by staff for maintenance of JPA recycled water pump stations.

5515 Outside Services – Funds to hire any maintenance providers required to assist in maintaining the JPA recycled water pump stations. Expense is primarily related to pest control activities at JPA RW pump stations.

**Las Virgenes - Triunfo  
Joint Powers Authority  
RW Pump Stations - 751100**

	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Budget	FY 13-14 Est. Actual	FY 14-15 Budget
<b>OPERATIONS DIVISION EXPENSE</b>						
5400 Labor	\$38,540	\$27,792	\$21,944	\$28,298	\$31,944	\$26,787
5405.1 Electricity	1,091,773	971,031	1,087,035	1,065,386	1,100,000	1,049,947
5410 Supplies/Material	12,948	17,270	7,418	13,362	2,200	12,187
5415 Outside Services	0	0	660	0	0	0
Sub-total	<u>\$1,143,261</u>	<u>\$1,016,093</u>	<u>\$1,117,057</u>	<u>\$1,107,046</u>	<u>\$1,134,144</u>	<u>\$1,088,921</u>
<b>MAINTENANCE DIVISION EXPENSE</b>						
5500 Labor	48,968	43,726	24,328	44,292	2,067	19,286
5510 Supplies/Material	5,664	10,376	5,738	7,312	10,500	7,500
5515 Outside Services	10,369	899	968	3,996	720	720
Sub-total	<u>\$65,001</u>	<u>\$55,001</u>	<u>\$31,034</u>	<u>\$55,600</u>	<u>\$13,287</u>	<u>\$27,506</u>
<b>ADMINISTRATIVE EXPENSES</b>						
7225 Allocated Support Services	87,107	80,148	44,455	75,583	34,524	50,517
7226 Allocated Operations Services	33,759	34,080	18,028	31,730	15,687	22,247
Sub-total	<u>\$120,866</u>	<u>\$114,228</u>	<u>\$62,483</u>	<u>\$107,313</u>	<u>\$50,211</u>	<u>\$72,764</u>
<b>TOTAL EXPENSES</b>	<u><b>\$1,329,128</b></u>	<u><b>\$1,185,322</b></u>	<u><b>\$1,210,574</b></u>	<u><b>\$1,269,959</b></u>	<u><b>\$1,197,642</b></u>	<u><b>\$1,189,191</b></u>



# JOINT POWERS AUTHORITY

## RW Tanks, Reservoirs and Wells – 751200

### FUNCTION

To provide appropriate training, operating, preventive maintenance and maintenance and repair programs on a timely basis to preserve Joint Powers Authority (JPA) assets and to ensure Joint Powers Authority tanks, reservoirs, and wells are operated safely, efficiently and cost-effectively to provide adequate storage for daily and emergency uses of recycled water.

### SIGNIFICANT CHANGES

No significant changes are anticipated for FY14-15.

### SOURCE OF SUPPLY

5115 Purchased Water – Potable water supplement required in the Joint Powers Authority distribution system for maintenance needs.

### OPERATING EXPENSE LINE ITEM EXPLANATIONS

5400 Labor – Funds for labor hours worked by Water Treatment and Production employees and Water Reclamation staff to operate and provide preventive maintenance at recycled water storage tanks and reservoirs and at well sites used to supplement inflow to Tapia WRF.

5405.1 Electricity – Funds for electrical energy used to power equipment at Cordillera Tank and to operate Westlake Wells 1 and 2.

5405.2 Telephone – Funds for a SCADA communications used at Cordillera Tank site.

5410 Supplies and Material – Funds miscellaneous supplies and materials for system operation including erosion/runoff control and maintenance supplies.

5415 Outside Services – Funds to hire appropriate outside service providers to assist with the annual cleaning of Cordillera, Indian Hills and Reservoir 3 to maintain the quality of the water within the recycled water distribution system. Includes expenditures related to weed abatement, landscape maintenance, and septic service.

### MAINTENANCE EXPENSE LINE ITEM EXPLANATIONS

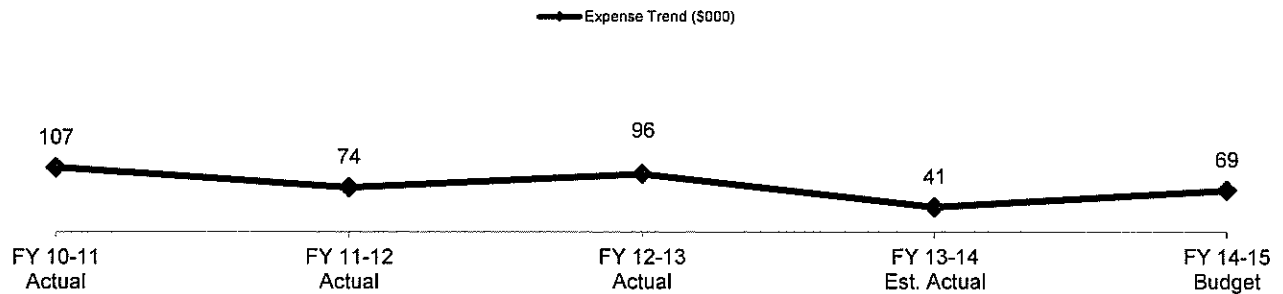
5500 Labor – Primarily labor hours worked by Maintenance Section personnel to provide maintenance.

5510 Supplies/Materials – Items required by staff to maintain the tanks, reservoirs and wells in the recycled water system.

5515 Outside Services – Funds to hire any maintenance providers required to assist in maintaining the sites, such as fence repair and pest control. FY12-13 expenditure was for Westlake Well #2 pump and motor repair.

**Las Virgenes - Triunfo  
Joint Powers Authority  
RW Tanks, Reservoirs and Wells - 751200**

	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Budget	FY 13-14 Est. Actual	FY 14-15 Budget
<b>SOURCE OF SUPPLY</b>						
5115 Purchased Water - Potable Suppl	\$0	\$0	\$0	\$0	0	\$0
<b>OPERATIONS DIVISION EXPENSE</b>						
5400 Labor	27,141	19,309	20,582	23,414	6,246	14,983
5405.1 Electricity	20,133	10,559	12,444	16,746	14,500	14,150
5405.2 Telephone	362	400	487	456	560	564
5410 Supplies/Material	1,483	2,902	4,686	1,800	1,500	3,000
5415 Outside Services	16,992	6,682	7,995	8,500	8,000	8,500
5420 Permits and Fee	100	100	295	100	100	100
5425 Consulting Services	0	0	0	0	0	0
Sub-total	\$66,211	\$39,952	\$46,489	\$51,016	\$30,906	\$41,297
<b>MAINTENANCE DIVISION EXPENSE</b>						
5500 Labor	1,016	288	2,649	1,191	0	950
5510 Supplies/Material	0	0	(17)	500	400	0
5515 Outside Services	323	353	14,386	348	348	348
Sub-total	\$1,339	\$641	\$17,018	\$2,039	\$748	\$1,298
<b>SPECIALTY EXPENSES</b>						
5710.2 Technical Services	0	0	0	0	0	0
Sub-total	\$0	\$0	\$0	\$0	\$0	\$0
<b>ADMINISTRATIVE EXPENSES</b>						
7225 Allocated Support Services	28,543	23,229	23,192	28,057	6,369	18,430
7226 Allocated Operations Services	11,060	9,876	9,405	11,778	2,896	8,115
Sub-total	\$39,603	\$33,105	\$32,597	\$39,835	\$9,265	\$26,545
<b>TOTAL EXPENSES</b>	<b>\$107,153</b>	<b>\$73,698</b>	<b>\$96,104</b>	<b>\$92,890</b>	<b>\$40,919</b>	<b>\$69,140</b>



ITEMSA



# JOINT POWERS AUTHORITY

## RW System Operation – 751300

### FUNCTION

To provide appropriate training, operating, preventive maintenance, and maintenance and repair programs to ensure preservation of district assets and proper operation of the recycled water distribution system, including water quality review, operation of Supervisory Control and Data Acquisition (SCADA) systems, water usage data collection and storage and other necessary programs.

### SIGNIFICANT CHANGES

No significant changes are anticipated for FY14-15.

### OPERATING EXPENSE LINE ITEM EXPLANATIONS

5400 Labor – Primarily labor hours worked by Water Treatment and Production personnel to operate the distribution system, provide system reporting, and operate the SCADA system as these tasks relate to recycled water.

5420 Permits/Fees – Funds to pay annual fees billed by CA Department of Public Health and LA County Department of Health Services. This line item also includes bridge rental fees from the County of Los Angeles.

### MAINTENANCE EXPENSE LINE ITEM EXPLANATIONS

5500 Labor – Primarily labor hours worked by Maintenance Section personnel to provide maintenance and electronic services.

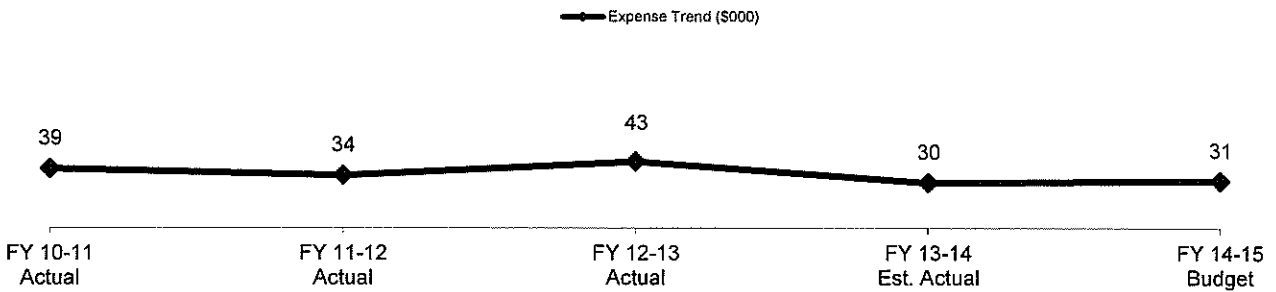
### SPECIALTY EXPENSE LINE ITEM EXPLANATIONS

5700 SCADA Services – Labor and materials costs for services provided by Information Systems to maintain the SCADA system.

5710.2 Technical Services – The costs for any labor hours by Technical Services personnel for general assistance would be accumulated in this account.

**Las Virgenes - Triunfo  
Joint Powers Authority  
RW System Operations - 751300**

	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Budget	FY 13-14 Est. Actual	FY 14-15 Budget
<b>OPERATIONS DIVISION EXPENSE</b>						
5400 Labor	\$11,796	\$7,821	\$12,527	\$7,189	\$10,526	\$7,754
5420 Permits and Fee	88	88	88	88	88	88
Sub-total	\$11,884	\$7,909	\$12,615	\$7,277	\$10,614	\$7,842
<b>MAINTENANCE DIVISION EXPENSE</b>						
5500 Labor	3,648	1,861	3,282	3,120	509	1,902
5510 Supplies/Material	0	0	0	0	36	0
5515 Outside Services	0	8,327	0	0	0	0
Sub-total	\$3,648	\$10,188	\$3,282	\$3,120	\$545	\$1,902
<b>SPECIALTY EXPENSES</b>						
5700 SCADA Services	0	0	1,995	2,271	709	2,565
Sub-total	\$0	\$0	\$1,995	\$2,271	\$709	\$2,565
<b>ADMINISTRATIVE EXPENSES</b>						
7225 Allocated Support Services	16,796	11,461	18,155	13,033	12,195	12,789
7226 Allocated Operations Services	6,509	4,873	7,362	5,471	5,540	5,632
Sub-total	\$23,305	\$16,334	\$25,517	\$18,504	\$17,735	\$18,421
<b>TOTAL EXPENSES</b>	<b>\$38,837</b>	<b>\$34,431</b>	<b>\$43,409</b>	<b>\$31,172</b>	<b>\$29,603</b>	<b>\$30,730</b>



# JOINT POWERS AUTHORITY

## RW Distribution System – 751700

### FUNCTION

To provide appropriate training, operating, preventive maintenance, and maintenance and repair programs to preserve Joint Powers Authority assets and to ensure the safe and reliable delivery of recycled water to the two Joint Powers Authority customers, Las Virgenes and Triunfo.

### SIGNIFICANT CHANGES

No significant changes are anticipated for FY14-15.

### OPERATING EXPENSE LINE ITEM EXPLANATIONS

- 5400 Labor – Labor hours performed by Water Treatment and Production employees to perform preventive maintenance work associated with the recycled water distribution system. Preventive maintenance includes operating, testing, and overhauling recycled water main line valves, blow-offs, and air-vacuum valves.
- 5410 Supplies/Materials – Funds to purchase items needed during minor preventive maintenance tasks within the distribution system.
- 5415 Outside Services – Funds for raising valve boxes, manhole covers, and maintaining appurtenances.

### MAINTENANCE EXPENSE LINE ITEM EXPLANATIONS

- 5500 Labor – Primarily labor hours worked by Construction Section personnel to provide maintenance and pipeline location in the recycled water distribution pipeline system.
- 5510 Supplies/Materials – Items required by staff to maintain the recycled water distribution system, such as valves, pipe, slurry backfill, etc. and to purchase materials for emergency repairs.
- 5515 Outside Services – Funds to hire any maintenance providers required to assist in maintaining the recycled water distribution system and to provide for emergency repairs as required. FY12 expenditures included approximately \$10K in post construction services (Rincon) and FY13 expenditures included approximately \$9,400 to repair leak at farm recycled water pump station and approximately \$6K in arborist support services.
- 5520 Permits/Fees – Funds to pay for various public works encroachment permits for repairs and inspections required by the cities and other regulatory agencies.

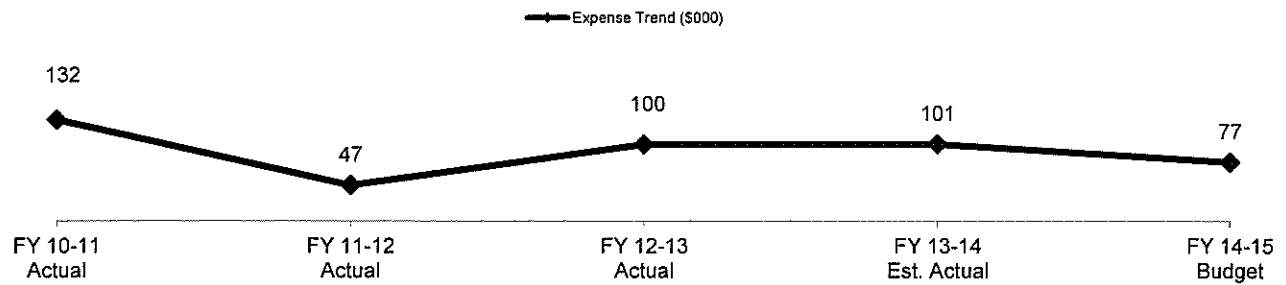
### SPECIALTY EXPENSE LINE ITEM EXPLANATIONS

- 5710.2 Technical Services – The costs for labor hours by Technical Services personnel.

ITEM 5A

**Las Virgenes - Triunfo  
Joint Powers Authority  
RW Distribution System - 751700**

	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Budget	FY 13-14 Est. Actual	FY 14-15 Budget
<b>OPERATIONS DIVISION EXPENSE</b>						
5400 Labor	\$1,892	\$2,266	\$4,324	\$2,135	\$3,936	\$3,418
5410 Supplies/Material	603	1,398	582	796	700	861
5415 Outside Services	0	0	0	0	0	0
Sub-total	\$2,495	\$3,664	\$4,906	\$2,931	\$4,636	\$4,279
<b>MAINTENANCE DIVISION EXPENSE</b>						
5500 Labor	48,033	9,599	25,630	27,180	35,427	23,792
5510 Supplies/Material	5,511	2,078	2,065	3,337	3,300	3,200
5515 Outside Services	975	12,725	24,801	3,000	3,000	3,000
5520 Permits and Fee	800	280	280	700	310	450
Sub-total	\$55,319	\$24,682	\$52,776	\$34,217	\$42,037	\$30,442
<b>SPECIALTY EXPENSES</b>						
5710.2 Technical Services	0	0	0	0	0	0
Sub-total	\$0	\$0	\$0	\$0	\$0	\$0
<b>ADMINISTRATIVE EXPENSES</b>						
7225 Allocated Support Services	53,740	12,922	30,156	30,965	37,196	29,466
7226 Allocated Operations Services	20,826	5,495	12,229	13,002	16,898	12,978
Sub-total	\$74,566	\$18,417	\$42,385	\$43,967	\$54,094	\$42,444
<b>TOTAL EXPENSES</b>	<b>\$132,380</b>	<b>\$46,763</b>	<b>\$100,067</b>	<b>\$81,115</b>	<b>\$100,767</b>	<b>\$77,165</b>



# JOINT POWERS AUTHORITY

## Sewers – 751800

### FUNCTION

To provide sewer maintenance service in those portions of the trunk sewer system which are shared by Las Virgenes Municipal Water District and Triunfo Sanitation District.

### SIGNIFICANT CHANGES

No significant changes are anticipated for FY14-15.

### OPERATING EXPENSE LINE ITEM EXPLANATIONS

- 5400 Labor – Account used to accrue labor hours worked by Reclamation Treatment personnel for oversight of sewer system located within the Joint Powers Authority (U-1 Sanitation District) area.
- 5405 Utilities – These sub-accounts provide funds for the utilities used at the metering stations.
- 5420 Permits – Anticipated fees include County of Los Angeles pipeline rental fee (\$500) and state water board permit fees (\$1,250). FY14 expense of \$8,844 was for SWRCB WDR fees.

### MAINTENANCE EXPENSE LINE ITEM EXPLANATIONS

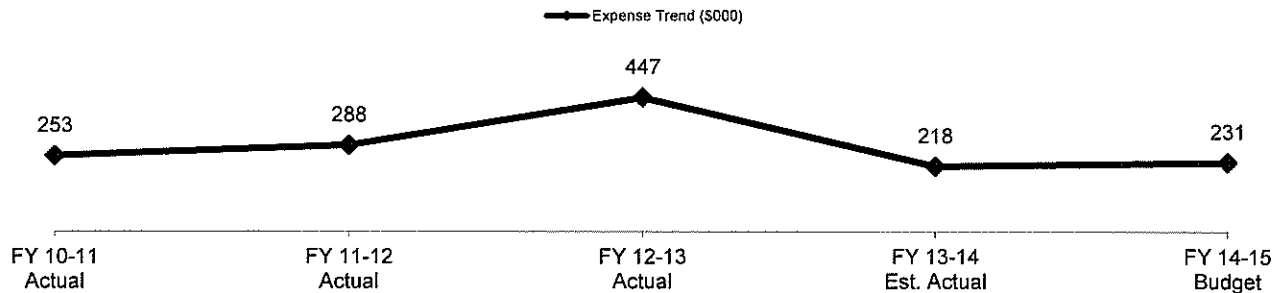
- 5500 Labor – Primarily labor hours worked by maintenance personnel in the Joint Powers Authority sewers located within the Joint Powers Authority (U-1 Sanitation District) area.
- 5510 Supplies/Materials – Items required by staff in maintaining the trunk sewer system. Increased funding is to replace manhole rings and covers.
- 5515 Outside Services – Funds to hire maintenance providers for emergency clean up and repairs. FY12-13 funding (approximately \$200,000) included the completion of the sewer bridge project that was initiated in FY11-12 (painting and repair of 11 sewer bridges; total project amount was approximately \$245,000). Included in this account for FY14-15 are sewer flow monitoring costs (\$24K), JPA sewer line cleaning, manhole raising and video inspection services (\$3.5K).

### SPECIALTY EXPENSE LINE ITEM EXPLANATIONS

- 5710.2 Technical Services – The costs for labor hours by Technical Services personnel.
- 5715.2 Other Laboratory Services – Labor and materials to manage the Industrial Pre-treatment Program.

**Las Virgenes - Triunfo  
Joint Powers Authority  
Sewers - 751800**

	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Budget	FY 13-14 Est. Actual	FY 14-15 Budget
<b>OPERATIONS DIVISION EXPENSE</b>						
5400 Labor	\$0	\$0	\$0	\$0	\$0	\$0
5405.1 Electricity	265	268	283	300	310	336
5405.4 Water	233	242	204	246	240	246
5420 Permits and Fee	6,063	472	1,695	1,725	8,844	1,750
Sub-total	\$6,561	\$982	\$2,182	\$2,271	\$9,394	\$2,332
<b>MAINTENANCE DIVISION EXPENSE</b>						
5500 Labor	83,930	69,030	71,849	82,000	75,275	72,946
5510 Supplies/Material	6,191	1,298	502	2,586	750	2,664
5515 Outside Services	28,849	73,259	234,534	39,506	28,900	30,428
Sub-total	\$118,970	\$143,587	\$306,885	\$124,092	\$104,925	\$106,038
<b>SPECIALTY EXPENSES</b>						
5710.2 Technical Services	270	17,495	15,625	10,651	0	3,787
Sub-total	\$270	\$17,495	\$15,625	\$10,651	\$0	\$3,787
<b>ADMINISTRATIVE EXPENSES</b>						
7225 Allocated Support Services	91,671	88,225	87,211	96,430	70,970	82,369
7226 Allocated Operations Services	35,526	37,513	35,365	40,484	32,243	36,274
Sub-total	\$127,197	\$125,738	\$122,576	\$136,914	\$103,213	\$118,643
<b>TOTAL EXPENSES</b>	<b>\$252,998</b>	<b>\$287,802</b>	<b>\$447,268</b>	<b>\$273,928</b>	<b>\$217,532</b>	<b>\$230,800</b>



# JOINT POWERS AUTHORITY

## Treatment/Reclamation – 751810

### FUNCTION

To properly operate and maintain the wastewater treatment process in order to meet regulatory requirements and protect public health.

### SIGNIFICANT CHANGES

No significant changes are anticipated for FY14-15.

### OPERATING EXPENSE LINE ITEM EXPLANATIONS

- 5400 Labor – Primarily labor hours worked by treatment personnel to operate and maintain the plant.
- 5410 Line item formerly included instrumentation replacement which is now budgeted in the IIP.
- 5410.10Sodium Hypochlorite – Usage expected to be at same levels.
- 5410.11Sodium Bisulfite – Usage contingent upon discharge flows to Malibu Creek.
- 5410.13Aqua Ammonia – Bulk deliveries to District facilities result in cost savings.
- 5415 Outside Services – Funds for maintenance and specialty services for safety equipment, instruments, grit and rags disposal, service contracts for analyzers, etc.
- 5417 Odor Control – Carbon replacement
- 5420 Permits/Fees – Funds NPDES and Non-NPDES permits from Regional Water Quality Control Board and SCAQMD permits for general plant operation, generators and air pollution control devices. Includes miscellaneous permits from other agencies.
- 5425 Consulting Services – Funds for consultant's assistance during permit process.
- 5430 Capital Outlay – FY14-15 proposal includes diffuser replacement (\$15K) and other small instruments and equipment (\$8,500).

### MAINTENANCE EXPENSE LINE ITEM EXPLANATIONS

- 5500 Labor – Primarily labor hours worked by Maintenance Section personnel to provide maintenance services.
- 5510 Supplies/Materials – Items required for staff for maintenance of plant facilities and equipment.
- 5515 Outside Services – Funding for repair and maintenance of mechanical equipment including generators, blowers. FY14-15 request also includes partial discharge testing (\$20K), roof repairs (\$15,000), control building painting (\$10K), annual switchgear maintenance (\$20K), and gas monitoring (\$5K).
- 5518 Bldg. Maintenance – Costs related to maintaining the basic buildings and site and which are not process related.
- 5525 Consulting Services – Funds for assistance in maintaining PLCs.

### EFFLUENT DISPOSAL LINE ITEM EXPLANATIONS

- 6788 District Sprayfields – Contractor, equipment, supply, and staff costs associated with maintaining farm fields, catch basins, roads, fences and equipment, disposing of effluent as needed due to permit requirements or distribution system upsets, and harvesting vegetation to remove nitrogen applied via irrigation on the Rancho Farm fields.
- 6789 005 Discharge – Pumping, energy and lab costs associated with disposal of effluent through 005. In FY13-14 due to the high turbidity of water available from RW Reservoir #2, the District did not discharge through 005. Beginning in FY13-14, energy produced from the Rancho Solar Project is to offset pumping costs, eliminating that expense in future years.

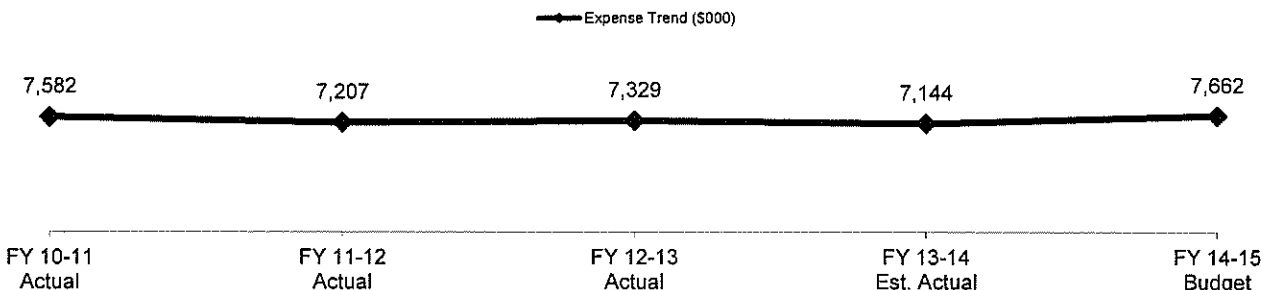
### SPECIALTY EXPENSE LINE ITEM EXPLANATIONS

- 5700 SCADA Services – Labor and materials costs for services provided by Information Systems to maintain the SCADA system.
- 5715.2 Other Laboratory Services – Reflects outside laboratory testing. Increase due to annual bioassessment for Malibu Creek and Los Angeles River as required by the NPDES permit.
- 5715.3 Tapia Lab Sampling – Tapia laboratory staff costs for obtaining samples from the reclamation process.
- 7202 Allocated Lab Expense – Tapia laboratory costs for testing samples. Costs are based on total number of in-house tests performed for treatment divided by total number of tests performed in-house.

ITEM SA

**Las Virgenes - Triunfo  
Joint Powers Authority  
Treatment/Reclamation - 751810**

	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Budget	FY 13-14 Est. Actual	FY 14-15 Budget
<b>OPERATIONS DIVISION EXPENSE</b>						
5400 Labor	\$1,117,865	\$1,098,137	\$1,099,049	\$1,039,468	\$1,119,358	\$1,079,645
5405.1 Electricity	882,958	675,638	710,594	827,627	908,000	943,143
5405.2 Telephone	16,962	12,594	10,860	9,396	12,000	12,420
5405.3 Natural Gas	11,691	10,772	9,717	9,950	8,900	10,727
5405.4 Water	3,327	3,432	3,779	4,440	3,900	3,515
5410 Supplies/Material	77,065	31,264	29,526	32,000	31,500	7,000
5410.1 Fuel	2,554	7,623	4,440	4,000	4,596	5,000
5410.5 Ferric Chloride	113,952	86,187	90,209	84,480	72,040	84,675
5410.6 Defoamer/Deodorant	0	22,600	9,895	6,373	6,000	6,375
5410.9 Alum	40,282	19,557	31,739	24,830	25,200	25,200
5410.10 Sodium Hypochlorite	304,441	294,835	272,820	335,685	275,000	335,685
5410.11 Sodium Bisulfite	215,421	173,106	158,802	171,660	196,309	183,104
5410.13 Aqua Ammonia	0	0	19,732	60,939	15,000	15,000
5415 Outside Services	7,181	13,331	24,778	14,000	19,050	31,900
5417 Odor Control	31,601	30,864	43,334	62,000	45,933	46,000
5420 Permits and Fee	81,805	91,020	84,414	90,558	90,250	96,161
5425 Consulting Services	34,585	2,335	0	5,000	0	0
5430 Capital Outlay	62,541	35,099	51,267	43,000	0	23,500
Sub-total	\$3,004,231	\$2,608,394	\$2,654,955	\$2,825,406	\$2,833,036	\$2,909,050
<b>MAINTENANCE DIVISION EXPENSE</b>						
5500 Labor	536,677	470,622	530,156	557,940	474,075	496,251
5510 Supplies/Material	168,770	161,482	292,844	165,000	175,000	207,779
5515 Outside Services	95,457	121,216	123,528	149,093	71,000	113,400
5518 Building Maintenance	55,306	40,936	45,392	49,916	49,000	47,166
5525 Consulting Services	0	0	0	0	0	0
5530 Capital Outlay	38,431	20,142	0	22,500	18,500	0
Sub-total	\$894,641	\$814,398	\$991,920	\$944,449	\$787,575	\$864,596
<b>EFFLUENT DISPOSAL</b>						
6788 District Sprayfield	277,619	264,468	296,358	284,997	278,696	286,496
6789 005 Discharge	60,039	51,768	20,163	10,360	350	360
Sub-total	\$337,658	\$316,236	\$316,521	\$295,357	\$279,046	\$286,856
<b>SPECIALTY EXPENSES</b>						
5700 SCADA Services	43,842	78,151	65,173	66,773	65,016	67,927
5710.2 Technical Services	1,374	0	0	888	0	0
5715.2 Other Lab Services	171,108	137,338	149,051	105,000	150,000	152,499
5715.3 Tapia Lab Sampling	99,869	126,530	118,981	123,537	106,721	115,672
7202 Allocated Lab Expense	362,011	366,418	347,876	362,829	329,160	366,144
Sub-total	\$678,204	\$708,437	\$681,081	\$659,027	\$650,897	\$702,242
<b>ADMINISTRATIVE EXPENSES</b>						
7225 Allocated Support Services	1,922,595	1,936,570	1,909,929	1,946,549	1,783,235	2,012,877
7226 Allocated Operations Services	745,091	823,446	774,471	817,176	810,163	886,467
Sub-total	\$2,667,686	\$2,760,016	\$2,684,400	\$2,763,725	\$2,593,398	\$2,899,344
<b>TOTAL EXPENSES</b>	<b>\$7,582,420</b>	<b>\$7,207,481</b>	<b>\$7,328,877</b>	<b>\$7,487,964</b>	<b>\$7,143,952</b>	<b>\$7,662,088</b>



ITEM SA



# JOINT POWERS AUTHORITY

## Treatment/Composting – 751820

### FUNCTION

To provide for the operation and maintenance of facilities for the conversion of biosolids to a reusable compost product while meeting all state and federal regulatory requirements and the goal of conserving resources.

### SIGNIFICANT CHANGES

No significant changes are anticipated for FY14-15.

### OPERATING EXPENSE LINE ITEM EXPLANATIONS

- 5400 Labor – Primarily labor hours worked at the Composting Facility by Composting Facility personnel to operate and provide preventive maintenance.
- 5405 Utilities – These sub-accounts provide funds for electric and natural gas, telephone and water.
- 5410 Supplies/Material – Funds for miscellaneous chemicals and supplies required to operate the Composting Facility. Significant increase in citric acid cost as well as additional dewatering due to an increase in solids.
- 5410.7 Polymer used in the dewatering process.
- 5410.8 Amendment – Amendment usage increased due to extended dewatering and centrifuge run time. Amendment cost based on purchase of materials from new vendor.
- 5415 Outside Services – FY14-15 expenses include biennial bio filter emission testing (\$12.5K), boiler, water treatment services (\$4K) and weed abatement services (\$5K). FY11-12 expense included biosolids hauling during facility shutdown.
- 5417 Odor Control – Biofilter media changes out annually.
- 5420 Permits/Fees – SCAQMD permit fees for general plant operation and LA County Department of Public Health solid waste fees.
- 5430 Capital Outlay – Purchase of small tools, instruments and sump pumps.

### MAINTENANCE EXPENSE LINE ITEM EXPLANATIONS

- 5500 Labor – Primarily labor hours worked by Maintenance Section personnel to provide maintenance services. Includes hours for RCPO staff to manage landscape contract.
- 5510 Supplies/Materials – Items required for staff to maintain plant facilities and equipment. FY14-15 budget includes funding to maintain facilities at current levels.
- 5515 Outside Services – Funds to hire any maintenance providers to assist in maintaining plant facilities including annual gas monitoring and facility maintenance. Additional activities for FY14-15 include instrumentation wiring between cure building and dewatering system and fiber optic and control for distributed control system.
- 5518 Bldg. Maintenance – Costs related to maintaining the basic buildings and site and which are not process related.
- 5530 FY13-14 request included actuators replacement (\$29K) and agitator spare parts (\$30K). For FY14-15, the actuators replacement is continued, and a new drill press (\$2K) is added.

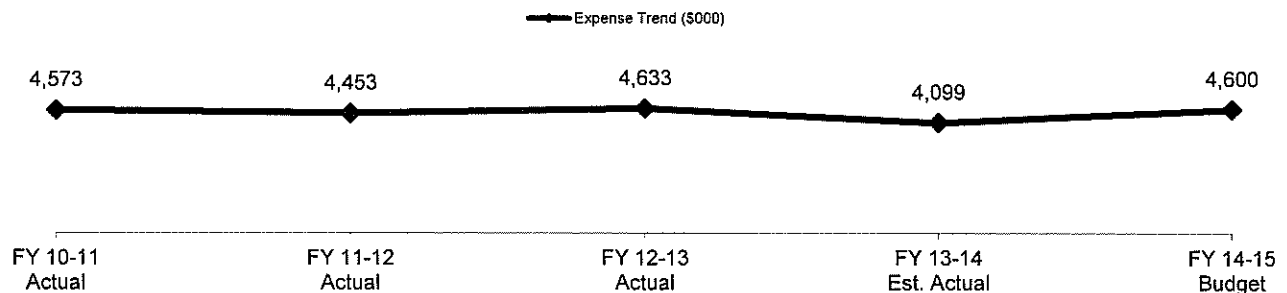
### SPECIALTY EXPENSE LINE ITEM EXPLANATIONS

- 5700 SCADA Services – Labor and materials costs for services provided by Information Systems to maintain the DCS system.
- 5710.2 Technical Services – The costs for any labor hours by Technical Services personnel.
- 5712 Sales/Use Tax Expense – Required tax remittance on imputed value of RLV Community Compost supplied.
- 5715.2 Other Laboratory Services – Reflects outside laboratory testing associated with marketing compost.
- 5715.3 Tapia Lab Sampling – Tapia laboratory staff costs for obtaining samples from the composting process are direct charged to this account.
- 7202 Allocated Lab Expense – Tapia laboratory costs for testing samples. Costs are based on total number of in-house tests performed for composting divided by total number of tests performed in-house.

ITEMSA

**Las Virgenes - Triunfo  
Joint Powers Authority  
Treatment/Composting - 751820**

	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Budget	FY 13-14 Est. Actual	FY 14-15 Budget
<b>OPERATIONS DIVISION EXPENSE</b>						
5400 Labor	\$749,670	\$720,814	\$720,809	\$721,955	\$692,397	\$683,390
5405.1 Electricity	328,815	263,023	333,244	269,875	386,000	352,222
5405.2 Telephone	10,577	6,605	5,008	4,443	6,898	7,400
5405.3 Natural Gas	743	740	3,451	1,000	686	720
5405.4 Water	7,868	7,145	7,142	7,527	7,200	7,385
5410 Supplies/Material	40,075	39,153	43,927	39,008	39,000	41,052
5410.1 Fuel	5,522	10,246	9,916	9,744	8,455	9,600
5410.7 Polymer	123,660	122,423	195,755	126,898	126,000	126,898
5410.8 Amendment	257,854	111,041	206,434	208,980	225,000	203,000
5415 Outside Services	3,320	230,076	15,608	21,651	20,500	22,119
5417 Odor Control	77,152	56,787	24,471	74,000	53,000	66,000
5420 Permits and Fee	8,809	9,986	19,390	14,941	12,728	18,616
5430 Capital Outlay	0	8,624	0	0	0	4,210
Sub-total	\$1,614,065	\$1,586,663	\$1,585,155	\$1,500,022	\$1,577,864	\$1,542,612
<b>MAINTENANCE DIVISION EXPENSE</b>						
5500 Labor	567,265	533,369	642,792	603,626	460,507	556,139
5510 Supplies/Material	183,297	149,573	185,258	163,380	160,000	172,709
5515 Outside Services	48,387	82,462	111,847	60,799	63,000	114,398
5518 Building Maintenance	72,293	58,046	78,973	76,511	62,824	69,770
5525 Consulting Services	18,760	0	5,100	0	0	0
5530 Capital Outlay	0	0	0	59,000	30,000	31,000
Sub-total	\$890,002	\$823,450	\$1,023,970	\$963,316	\$776,331	\$944,016
<b>SPECIALTY EXPENSES</b>						
5700 SCADA Services	20,642	25,769	10,802	25,129	4,771	29,889
5712 Compost Sales/Use Tax	6,839	2,973	3,747	4,000	3,540	4,000
5715.2 Other Lab Services	2,464	8,814	7,605	6,100	6,500	7,992
5715.3 Tapia Lab Sampling	6,984	564	358	1,529	291	282
7202 Allocated Lab Expense	11,869	12,014	11,406	11,896	10,792	12,005
Sub-total	\$48,798	\$50,134	\$33,918	\$48,654	\$25,894	\$54,168
<b>ADMINISTRATIVE EXPENSES</b>						
7225 Allocated Support Services	1,455,732	1,398,551	1,415,917	1,452,212	1,181,693	1,429,796
7226 Allocated Operations Services	564,165	594,674	574,150	609,655	536,871	629,674
Sub-total	\$2,019,897	\$1,993,225	\$1,990,067	\$2,061,867	\$1,718,564	\$2,059,470
<b>TOTAL EXPENSES</b>	<b>\$4,572,762</b>	<b>\$4,453,472</b>	<b>\$4,633,110</b>	<b>\$4,573,859</b>	<b>\$4,098,653</b>	<b>\$4,600,266</b>



ITEM 5A

# JOINT POWERS AUTHORITY

## Centrate Treatment – 751830

### FUNCTION

To operate the centrate treatment facilities to allow Tapia WRF to meet its effluent nutrient requirements in the NPDES permit. The farm remains available for biosolids injection in emergency conditions.

### SIGNIFICANT CHANGES

No significant changes are anticipated for FY14-15.

### OPERATING EXPENSE LINE ITEM EXPLANATIONS

5400 Labor – Labor hours for farm operations including centrate treatment and potential biosolids injection.

5410.1 Fuel – Diesel fuel for use on site.

5417 Odor Control – No funds required in FY14-15

5420 Permits and Fees – RWQCB permit fees for biosolids injection and SCAQMD permits for the generator, carbon scrubber, and biofilter. FY14-15 budget proposal includes SWRQCB fees of approximately \$65K.

5425 FY12-13 expenditure for cathodic protection investigation by for centrate tank (HDR Consultants).

### MAINTENANCE EXPENSE LINE ITEM EXPLANATIONS

5500 Labor – Primarily labor hours worked by Maintenance Section personnel to provide maintenance services.

5510 Supplies/Materials – Items required for maintenance of equipment associated with centrate treatment. Unanticipated purchase in FY12-13 was for Sulzer impeller.

5515 Outside Services – Funds to hire any maintenance providers required to assist in building maintenance such as janitor, alarms, trash collection, etc. Increased funding due to maintenance of equipment associated with centrate treatment. Significant expenses include National Plant Services for tank cleaning (\$8K). Other services include compressor maintenance, refuse disposal, pest control and security services.

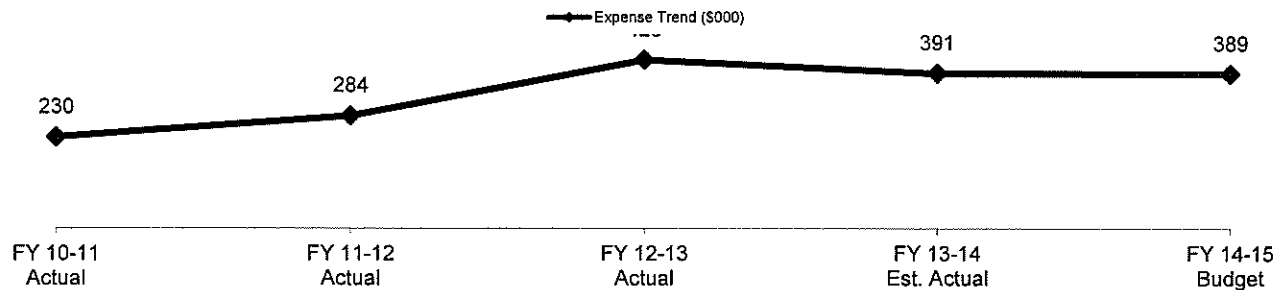
### SPECIALTY EXPENSE LINE ITEM EXPLANATIONS

5710.2 Technical Services – The costs for any labor hours by Technical Services personnel for assistance would be accumulated in this account.

5715 Laboratory Services – Tapia Laboratory service and outside laboratory service costs are charged to these accounts.

**Las Virgenes - Triunfo  
Joint Powers Authority  
Treatment/Centrate Treatment - 751830**

	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Budget	FY 13-14 Est. Actual	FY 14-15 Budget
<b>OPERATIONS DIVISION EXPENSE</b>						
5400 Labor	\$8,027	\$27,629	\$27,279	\$16,550	\$29,797	\$27,652
5405.1 Electricity	78,190	68,670	58,852	69,411	70,000	69,531
5405.4 Water	1,430	157	831	755	715	806
5410 Supplies/Material	0	0	1,069	0	0	0
5410.1 Fuel	3,843	718	2,261	2,627	2,367	2,500
5415 Outside Services	0	0	0	0	0	0
5417 Odor Control	0	0	0	0	0	0
5420 Permits and Fee	43,535	53,343	52,282	53,359	65,000	68,175
5425 Consulting Services	3,298	0	21,090	0	0	0
Sub-total	\$138,323	\$150,517	\$163,664	\$142,702	\$167,879	\$168,664
<b>MAINTENANCE DIVISION EXPENSE</b>						
5500 Labor	3,576	12,623	48,310	15,428	45,686	37,027
5510 Supplies/Material	263	4,067	29,562	5,100	18,500	11,300
5515 Outside Services	26,017	3,395	22,178	12,440	12,000	17,197
Sub-total	\$29,856	\$20,085	\$100,050	\$32,968	\$76,186	\$65,524
<b>SPECIALTY EXPENSES</b>						
5715.2 Other Lab Services	7,149	5,706	5,795	6,900	5,300	6,900
5715.3 Tapia Lab Sampling	4,962	7,896	8,944	7,425	5,314	7,481
7202 Allocated Lab Expense	23,738	24,027	22,812	23,792	21,584	24,009
Sub-total	\$35,849	\$37,629	\$37,551	\$38,117	\$32,198	\$38,390
<b>ADMINISTRATIVE EXPENSES</b>						
7225 Allocated Support Services	18,737	52,915	87,954	42,236	78,918	80,940
7226 Allocated Operations Services	7,260	22,502	35,665	17,733	35,854	35,645
Sub-total	\$25,997	\$75,417	\$123,619	\$59,969	\$114,772	\$116,585
<b>TOTAL EXPENSES</b>	<b>\$230,025</b>	<b>\$283,648</b>	<b>\$424,884</b>	<b>\$273,756</b>	<b>\$391,035</b>	<b>\$389,163</b>



# JOINT POWERS AUTHORITY

## Administration – 751840

### FUNCTION

To fund general and administrative expenses specific to Joint Powers Authority operations.

### SIGNIFICANT CHANGES

No significant changes are anticipated for FY13-14.

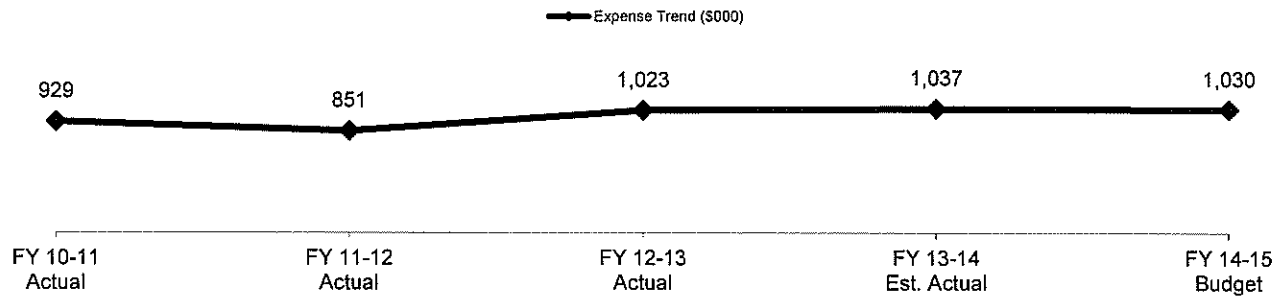
### LINE ITEM EXPLANATIONS

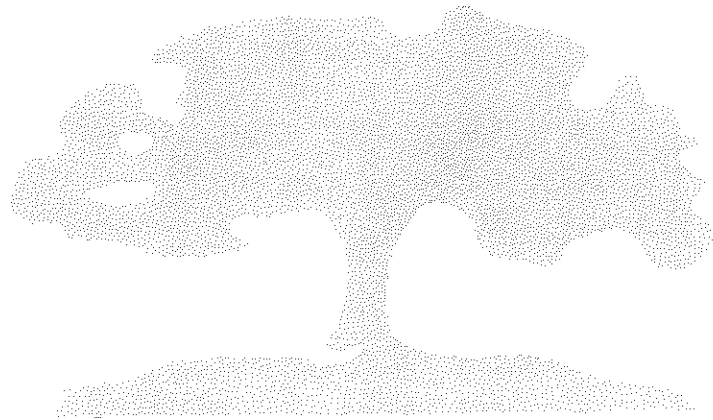
- 5400 Labor – The costs for any labor hours worked on administrative function.
- 6602 School Education Program – Wastewater education initiatives, programs and tours (\$5,000). Also includes programs designed to accommodate home-school students. See page AP-2
- 6604 Public Education Program – Quarterly tours of Rancho/Tapia (\$4,000); Malibu Creek Watershed and regulatory issue outreach (\$3,500); JPA activities and display advertising related to watershed, compost promotion, pharmaceutical disposal education, etc. (\$10,000). See page AP-3
- 6606 Community Group Outreach – JPA related publications and community group outreach related to watershed stewardship and NPDES permit (\$6,000), and speaker's bureau expenses (\$1,000). See page AP-4
- 6608 Intergovernmental Coordination – Programmed funds include support for intergovernmental activities such as legislative monitoring and activities with the state legislature, county, cities, school districts, federal agencies and regulatory bodies. See page AP-5
- 6785 Watershed Programs – Watershed Management: Staff participation and technical assistance managing water resources (primarily surface water quality) in the Malibu Creek and upper Los Angeles River watersheds. See page AP-8
- 6872 Litigation – Outside Services – All litigation, settlements, attorney fees, court costs and legal costs for general litigation that are solely for the Joint Powers Authority. FY 12-13 and FY 13-14 costs are estimated to cover legal services related to the Malibu Creek TMDL issue.
- 6874 Litigation – District Costs – Costs for employee depositions, trial appearance, etc. for Joint Powers Authority lawsuit cases.
- 6516 Other Professional Services – Federal and State Regulatory Advocacy for securing funding and providing input on regulatory issues. FY 13-14 Budget is requested to fund Collaborative Research projects related to the Malibu Creek TMDL issue.
- 6517 Audit Fees – Joint Powers Authority's share of costs related to financial statement audit.
- 7110 Travel/Misc. Staff Expense – Travel and other expenses directly incurred in support of JPA issues.
- 7135 General Insurance – Property insurance costs.
- 6260 Rental Charge – Facilities Replacement – Internal charge to set aside funds for future facilities replacement.

ITEM 5A

**Las Virgenes - Triunfo  
Joint Powers Authority  
Administration - 751840**

	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Budget	FY 13-14 Est. Actual	FY 14-15 Budget
<b>OPERATIONS DIVISION EXPENSE</b>						
5400 Labor	\$10,485	\$26,854	\$0	\$13,959	\$0	\$15,028
5430 Capital Outlay	0	0	0	0	0	0
Sub-total	\$10,485	\$26,854	\$0	\$13,959	\$0	\$15,028
<b>INVENTORY EXPENSES</b>						
5536 Inventory Adjustment	2,807	2,393	9,463	3,100	3,000	3,100
Sub-total	\$2,807	\$2,393	\$9,463	\$3,100	\$3,000	\$3,100
<b>PUBLIC INFORMATION</b>						
6602 School Education Program	8,308	4,066	2,511	6,006	7,706	9,488
6604 Public Education Program	33,483	20,011	43,641	34,686	68,114	36,847
6606 Community Group Outreach	1,647	187	4,859	10,001	7,373	7,786
6608 Intergovernmental Coordination	15,922	8,973	5,486	16,018	4,807	11,990
Sub-total	\$59,360	\$33,237	\$56,497	\$66,711	\$88,000	\$66,111
<b>RESOURCE CONSERVATION</b>						
6785 Watershed Programs	77,846	59,600	87,932	88,475	84,918	90,840
Sub-total	\$77,846	\$59,600	\$87,932	\$88,475	\$84,918	\$90,840
<b>ADMINISTRATIVE EXPENSES</b>						
6872 Litigation/Outside Services	0	605	89,933	50,000	48,148	50,000
6516 Other Professional Services	16,326	0	15,069	50,000	38,980	56,540
6517 Audit Fees	8,545	6,275	5,300	5,300	5,300	5,300
7110 Travel/Misc Staff Expense	0	0	619	0	26	0
7135 General Insurance	0	0	0	0	0	0
7135.1 Property Insurance	71,307	75,323	59,731	56,825	49,682	50,675
7135.4 Earthquake Insurance	89,903	91,743	92,878	93,700	92,662	94,515
7153 TSD Staff Services	0	0	0	5,000	0	5,000
6260 Rental Charge - Facility Repl	354,020	331,945	355,476	355,823	389,108	380,715
7203 Allocated Building Maint	87,384	96,673	105,823	85,318	65,264	73,420
7225 Allocated Support Services	108,617	88,454	102,477	98,193	117,896	96,350
7226 Allocated Operations Services	42,095	37,610	41,554	41,223	53,565	42,431
Sub-total	\$778,197	\$728,628	\$868,860	\$841,382	\$860,631	\$854,946
<b>TOTAL EXPENSES</b>	<b>\$928,695</b>	<b>\$850,712</b>	<b>\$1,022,752</b>	<b>\$1,013,627</b>	<b>\$1,036,549</b>	<b>\$1,030,025</b>





## INTERNAL SERVICES

The Internal Service fund is used to account for all costs related to the General Administration of the District. In addition, all personnel related costs, including salaries, benefits, training, etcetera, are administered through the Internal Service fund. Personnel working in the various enterprises account for their workload distribution through the timekeeping system. Labor costs are charged to each enterprise as determined and credits are posted to the Internal Service fund. All net accumulated costs are allocated to the various enterprise and capital project funds as described below.

The Joint Powers Authority (JPA) agreement between Las Virgenes Municipal Water District (LV) and Triunfo Sanitation District (TSD) calls for allocation of General and Administrative costs based on the actual cost of labor. General and administrative costs are defined as accounting, personnel and general management expenses. As such, Internal Service costs which are not related to the function of the JPA are excluded from the allocation process. These excluded costs include all costs for the LV Board of Directors, some of the General Manager's office costs, administration and operation of Customer Service activities, including a portion of Information Services costs, water meter maintenance, water conservation activities and new customer planning and coordination.

All remaining costs are allocated between LV enterprises (potable water, recycled water, and non-JPA sanitation), Capital Improvement Projects, and the JPA operations. The allocation is based on the labor charged through the timekeeping system to each of these operations or projects. The allocation of costs is performed monthly with a final reconciliation at year-end. Each agency's share of the allocated costs for JPA operations is billed monthly as provided in the JPA agreement.

The allocated costs are shown in the budget reports as Allocated Support Services and Allocated Operations Services. Allocated Support Services are costs which originate from cost centers that provide general central service. These cost centers include general management, departmental administration, accounting, payroll, human resources, information systems, and public information administration. Allocated Operations Services are costs which originate in operations related cost centers. These cost centers include water administration, water treatment, facilities maintenance, electrical maintenance, construction services, laboratory services, wastewater treatment, composting, and technical services.



## DISTRICT STAFFING PLAN FY 2014-15

Business Unit	DIVISION Dept/Section	2010-11 Auth Positions	2011-12 Auth Positions	2012-13 Auth Positions	2013-14 Auth Positions	Filled as 4/15/2014	Proposed Changes 2014-15	2014-15 Proposed Positions
	<b>BOARD &amp; GENERAL MANAGER</b>							
701121	Administration	2.0	2.0	2.0	2.0	2.0	-	2.0
<b>TOTAL GENERAL MANAGER</b>		2.0	2.0	2.0	2.0	2.0	-	2.0

Business Unit	DIVISION Dept/Section	2010-11 Auth Positions	2011-12 Auth Positions	2012-13 Auth Positions	2013-14 Auth Positions	Filled as 4/15/2014	Proposed Changes 2014-15	2014-15 Proposed Positions
	<b>RESOURCE CONSERVATION &amp; PUBLIC OUTREACH</b>							
701210	Administration	2.0	2.0	2.0	2.0	2.0	-	2.0
701220	Customer Service-Administration	1.0	1.0	1.0	1.0	1.0	-	1.0
701221	Customer Service Operations	15.0	15.0	15.0	15.0	15.0	-	15.0
701226	Customer Service Programs	2.0	3.0	3.0	3.0	3.0	-	3.0
701223	Resource/Watershed Conservation	3.0	3.0	3.0	3.0	3.0	-	3.0
701230	Public Information	3.0	3.0	3.0	3.0	3.0	-	3.0
701240	GIS and New Customer Service	5.0	-	-	-	-	-	-
<b>TOTAL RESOURCE CONSERVATION &amp; PUBLIC OUTREACH</b>		31.0	27.0	27.0	27.0	27.0	-	27.0

Business Unit	DIVISION Dept/Section	2010-11 Auth Positions	2011-12 Auth Positions	2012-13 Auth Positions	2013-14 Auth Positions	Filled as 4/15/2014	Proposed Changes 2014-15	2014-15 Proposed Positions
	<b>FACILITIES &amp; OPERATIONS</b>							
701310	Administration	3.0	2.0	2.0	2.0	2.0	-	2.0
701320	Facilities Maintenance-Admin	1.2	1.2	1.2	1.2	1.2	-	1.2
701326	Electrical/Instrumentation-Maint	8.0	8.0	6.0	6.0	6.0	-	6.0
701321	Facilities Maintenance-Maint	7.0	7.0	8.0	8.0	8.0	-	8.0
701325	Facilities Maintenance-Fleet	1.0	1.0	1.0	1.0	1.0	-	1.0
701330	Water Division-Admin	0.8	0.8	0.8	0.8	0.8	-	0.8
701331	Water Treatment & Production	12.0	11.0	11.0	11.0	11.0	-	11.0
701322	Construction	8.0	7.0	7.0	7.0	6.0	-	7.0
701340	Reclamation Division-Admin	3.0	3.0	3.0	3.0	3.0	-	3.0
701341	Reclamation Division-Lab	6.0	6.0	6.0	6.0	6.0	-	6.0
701342	Reclamation Division-Treatment	9.0	9.0	9.0	9.0	9.0	-	9.0
701343	Reclamation Division-Composting	7.0	6.0	6.0	6.0	6.0	-	6.0
701350	Technical Services Division	9.0	9.0	8.0	8.0	8.0	-	8.0
<b>TOTAL FACILITIES &amp; OPERATIONS</b>		75.0	71.0	69.0	69.0	68.0	-	69.0

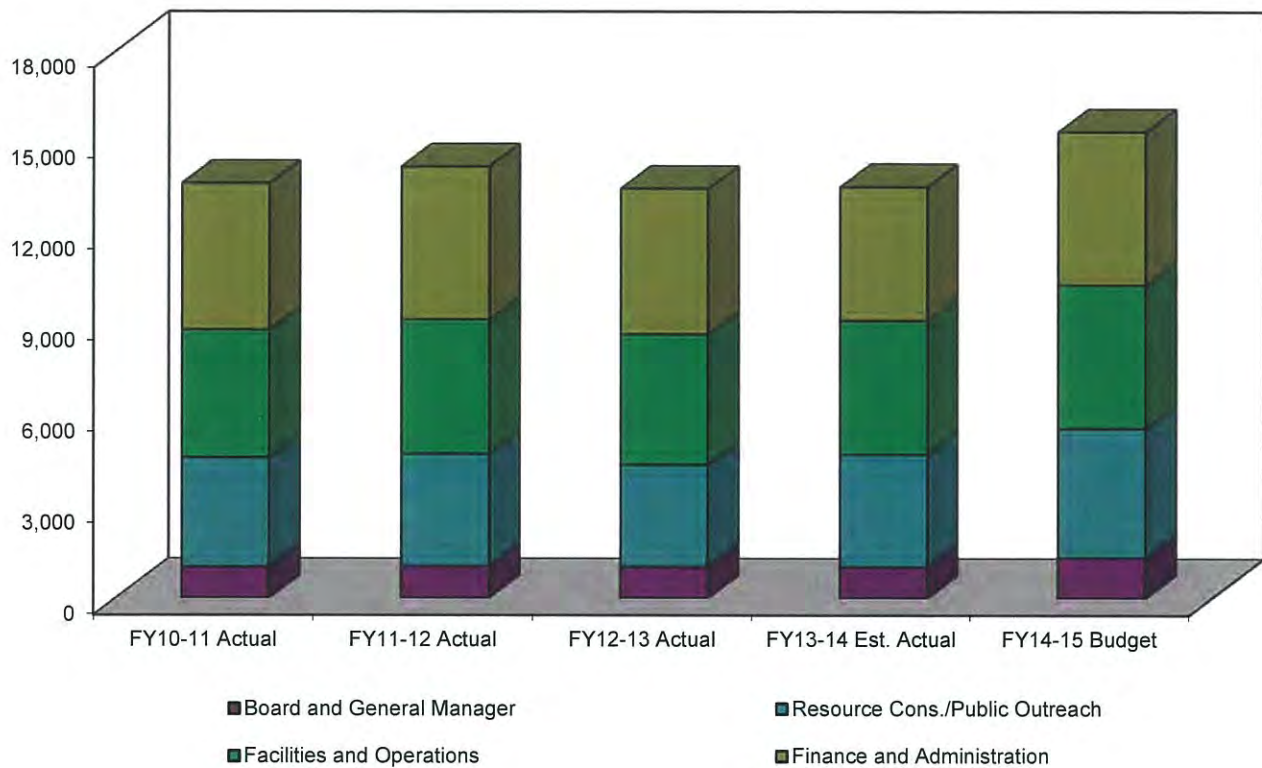
Business Unit	DIVISION Dept/Section	2010-11 Auth Positions	2011-12 Auth Positions	2012-13 Auth Positions	2013-14 Auth Positions	Filled as 4/15/2014	Proposed Changes 2014-15	2014-15 Proposed Positions
	<b>FINANCE &amp; ADMINISTRATION</b>							
701410	Administration	2.0	2.0	2.0	2.0	2.0	-	2.0
701420	Information Systems	5.0	6.0	6.0	6.0	5.0	-	6.0
701430	Human Resources/Risk Mgmt	2.0	2.0	2.0	2.0	2.0	-	2.0
701440	Accounting	10.0	9.0	9.0	9.0	8.0	-	9.0
<b>TOTAL FINANCE &amp; ADMINISTRATION</b>		19.0	19.0	19.0	19.0	17.0	-	19.0

<b>TOTAL AGENCY STAFF POSITIONS</b>		127.0	119.0	117.0	117.0	114.0		117.0
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ITEM 5A

### Las Virgenes Municipal Water District Internal Service Summary (Dollars in Thousands)

	FY10-11 Actual	FY11-12 Actual	FY12-13 Actual	FY13-14 Est. Actual	FY14-15 Budget
<b>Board and General Manager</b>	1,036	1,051	1,046	1,032	1,327
<b>Resource Cons./Public Outreach</b>	3,571	3,680	3,330	3,692	4,248
<b>Facilities and Operations</b>	4,215	4,430	4,294	4,407	4,745
<b>Finance and Administration</b>	4,830	5,040	4,807	4,409	5,025
	<b>13,652</b>	<b>14,201</b>	<b>13,477</b>	<b>13,540</b>	<b>15,345</b>





**Las Virgenes Municipal Water District  
Internal Service Summary**

	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Budget	FY 13-14 Est. Actual	FY 14-15 Budget
<b>BOARD EXPENSES</b>						
6000 Directors' Fees	\$75,800	\$84,107	\$88,775	\$90,000	\$80,400	\$90,000
6005 Directors' Benefits	61,748	63,753	68,794	71,638	74,142	71,638
6010 Directors' Conference Expenses	26,999	34,357	31,716	25,000	20,580	25,000
6015 Directors' Miscellaneous	722	504	1,160	600	464	600
6020 Election Expense	16,911	0	20,888	0	0	60,000
Sub-total	\$182,180	\$182,721	\$211,333	\$187,238	\$175,586	\$247,238
<b>PAYROLL EXPENSES</b>						
6100 Staff Salaries	10,078,123	9,663,351	9,708,415	10,012,045	9,703,206	10,271,868
6102 Staff Overtime	290,962	294,027	302,449	234,922	379,112	237,096
6105 Staff Benefits	4,884,349	5,132,943	4,943,637	4,987,644	4,562,592	4,904,273
6110 Staff Taxes	1,050,342	989,894	949,597	1,014,777	932,854	967,209
Sub-total	\$16,303,776	\$16,080,215	\$15,904,098	\$16,249,388	\$15,577,764	\$16,380,446
6115 Staff Costs Recovered	(7,380,585)	(7,211,066)	(7,584,859)	(7,383,701)	(7,336,598)	(7,372,713)
Net Payroll Expenses	\$8,923,191	\$8,869,149	\$8,319,239	\$8,865,687	\$8,241,166	\$9,007,733
<b>OFFICE EQUIPMENT &amp; POSTAGE</b>						
6200 Forms, Supplies & Postage	135,506	95,813	145,504	153,250	128,950	159,700
6205 Equipment Rental	9,679	9,284	7,729	8,200	7,700	9,300
6210 Equipment Repairs	97	522	2,617	1,500	638	1,500
6215 Equipment Maintenance	289,389	331,519	324,355	306,000	292,490	292,500
6220 Outside Services	103,977	114,842	150,901	102,800	133,862	257,800
6225 Radio Maintenance Expense	24,791	25,402	17,728	22,000	19,600	22,646
6230 Safety Equipment	13,415	20,541	26,513	19,850	9,915	18,743
6235 Records Management	50,412	52,917	50,991	51,000	56,394	51,000
6250 Equipment Interest Expense	10,488	8,191	6,748	6,630	3,600	4,000
Sub-total	\$637,754	\$659,031	\$733,086	\$671,230	\$653,149	\$817,189
<b>PROFESSIONAL SERVICES</b>						
6500 Legal Services	182,169	107,462	92,670	87,000	102,036	99,000
6505 Legal Advertising	10,380	8,981	6,914	9,000	22,934	9,000
6516 Other Professional Services	6,833	86,159	57,250	67,500	47,590	235,000
6517 Audit Fees	32,125	34,530	27,000	33,400	33,400	33,400
6522 Management Consultant Fees	53,951	113,107	62,979	177,500	11,515	177,500
Sub-total	\$285,458	\$350,239	\$246,813	\$374,400	\$217,475	\$553,900
<b>RES CONSER/PUBLIC OUTREACH</b>						
6602 School Education Program	7,554	9,123	8,519	19,976	5,691	8,725
6604 Public Education Program	97,344	152,054	182,162	174,293	214,987	173,617
6606 Community Group Outreach	6,659	23,425	5,240	25,025	16,919	22,512
6608 Intergovernmental Coordination	3,126	8,021	9,180	10,225	11,756	5,504
Sub-total	\$114,683	\$192,623	\$205,101	\$229,519	\$249,353	\$210,358
<b>HUMAN RESOURCES</b>						
6800 Safety	21,798	18,010	24,180	38,000	20,000	38,000
6810 Recruitment Expenses	9,510	7,653	35,580	10,000	10,000	10,000
6812 Retired Employee Benefits	572,378	693,717	787,861	870,572	870,000	915,000
6815 Employee Recognition Function	7,423	3,015	7,401	10,000	5,006	10,000
6817 Employee Survey Outreach	0	204	0	0	0	0
6820 Employee Assistance Program	866	0	0	2,000	0	2,000
6825 Employee Wellness Program	13,970	11,070	4,817	10,000	600	10,000
6830 Training & Prof. Development	76,063	68,109	77,349	155,675	73,974	166,465
6840 DOT Testing	1,050	1,050	1,050	1,050	1,050	1,050
6850 Unemployment Ins. Benefit	17,585	4,740	3,600	15,000	35	10,000
6855 Donated Sick Leave	(6,492)	4,241	3,558	0	0	0
6872 Litigation - Outside Services	102,732	71,141	75,390	100,000	57,800	100,000
Sub-total	\$816,883	\$882,950	\$1,020,786	\$1,212,297	\$1,038,465	\$1,262,515

ITEM 5A

**Las Virgenes Municipal Water District  
Internal Service Summary**

	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Budget	FY 13-14 Est. Actual	FY 14-15 Budget
<b>OTHER G&amp;A EXPENSES</b>						
7100 Provision for Uncollectible Accts	82,027	150,207	49,694	175,000	78,510	95,000
7105 Dues/Subscriptions/Memberships	82,504	82,562	79,140	81,020	119,351	125,900
7110 Travel/Misc. Expenses	795	9,393	1,851	1,795	2,989	2,015
7135 General Insurance	0	(1)	0	0	0	0
7135.1 Property Insurance	26,675	26,839	32,658	32,350	33,121	33,784
7135.2 Liability Insurance	273,082	281,244	216,905	194,100	183,226	186,890
7135.3 Automobile Insurance	87,594	78,810	20,779	0	50,901	51,920
7135.4 Earthquake Insurance	53,288	54,379	55,052	55,625	54,962	56,061
7135.5 Excess Liability Insurance	360,036	355,384	248,609	216,200	203,462	207,531
7145 Claims Paid	0	0	0	0	3,500	0
7152 LAFCO Charges	12,292	15,144	13,198	15,000	13,405	15,000
7155 Other Expense	0	0	0	0	0	0
Sub-total	\$978,293	\$1,053,961	\$717,886	\$771,090	\$743,427	\$774,101
<b>OPERATING EXPENSE</b>						
5400 Labor	295,790	310,486	363,739	381,128	322,621	436,662
5405.1 Utilities - Energy	141,443	127,023	128,967	129,800	129,500	131,700
5405.2 Utilities - Telephone	122,483	144,741	153,936	143,158	160,211	174,827
5405.3 Utilities - Gas	22,412	21,251	19,868	23,400	18,108	21,500
5405.4 Utilities - Water	12,479	12,770	13,851	12,714	13,587	13,190
5410 Supplies/Materials	0	0	0	0	0	0
5415 Outside Services	0	0	0	4,000	0	0
5430 Capital Outlay	64,545	64,246	57,253	55,625	54,265	65,850
Sub-total	\$659,152	\$680,517	\$737,614	\$749,825	\$698,292	\$843,729
<b>MAINTENANCE EXPENSE</b>						
5500 Labor	293,159	245,239	361,015	332,720	383,892	370,934
5510 Supplies/Materials	159,396	519,910	192,148	563,120	451,657	596,950
5510.1 Fuel	120,767	104,484	119,749	135,658	128,000	126,900
5515 Outside Services	279,082	315,445	384,134	326,918	362,284	333,546
5520 Permits/Fee	7,879	9,704	9,727	9,529	13,031	12,611
5530 Capital Outlay	17,238	3,300	65,541	0	6,283	14,000
6255 Rental Charge - Vehicles	109,579	103,150	121,135	109,744	127,800	128,000
Sub-total	\$987,100	\$1,301,232	\$1,253,449	\$1,477,689	\$1,472,947	\$1,582,941
<b>INVENTORY EXPENSE</b>						
5536 Inventory Adjustment	13,353	8,594	6,139	13,000	7,500	9,500
<b>GEN'L SPECIALTY EXPENSE</b>						
5725 Supplies and Small Tools	53,565	20,560	24,536	46,970	42,750	34,811
Sub-total	\$53,565	\$20,560	\$24,536	\$46,970	\$42,750	\$34,811
<b>TOTAL EXPENSES</b>	<b>\$13,651,612</b>	<b>\$14,201,578</b>	<b>\$13,475,982</b>	<b>\$14,598,945</b>	<b>\$13,540,110</b>	<b>\$15,345,215</b>
<b>ALLOCATED EXPENSES</b>						
ALLOCATED TECHNICAL SERVICES	\$0	\$0	\$0	\$0	\$0	\$0
ALLOCATED CUSTOMER INFO SYSTEMS	\$0	\$0	\$0	\$0	\$0	\$0
ALLOCATED LABORATORY EXPENSES	(\$593,461)	(\$600,684)	(\$570,289)	(\$594,801)	(\$539,606)	(\$600,236)
ALLOCATED VEHICLE EXPENSES	\$0	\$0	\$2	\$0	\$0	\$0
ALLOCATED LEGAL EXPENSES	(\$102,732)	(\$71,141)	(\$75,390)	(\$100,000)	(\$57,800)	(\$100,000)
ALLOCATED OPS BLDG EXPENSES	(\$174,768)	(\$193,346)	(\$211,647)	(\$170,637)	(\$130,528)	(\$146,841)
ALLOCATED INTERNAL G&A	\$0	(\$7)	(\$8)	\$1	\$0	\$1
ALLOCATED SUPPORT SERVICES(G&A)	(\$5,907,107)	(\$5,953,608)	(\$5,841,942)	(\$5,914,861)	(\$5,474,022)	(\$6,225,251)
ALLOCATED OPERATIONS SERVICES(G&A)	(\$6,873,544)	(\$7,382,792)	(\$6,776,708)	(\$7,818,647)	(\$7,338,154)	(\$8,272,888)
<b>TOTAL ALLOCATED EXPENSES</b>	<b>(\$13,651,612)</b>	<b>(\$14,201,578)</b>	<b>(\$13,475,982)</b>	<b>(\$14,598,945)</b>	<b>(\$13,540,110)</b>	<b>(\$15,345,215)</b>

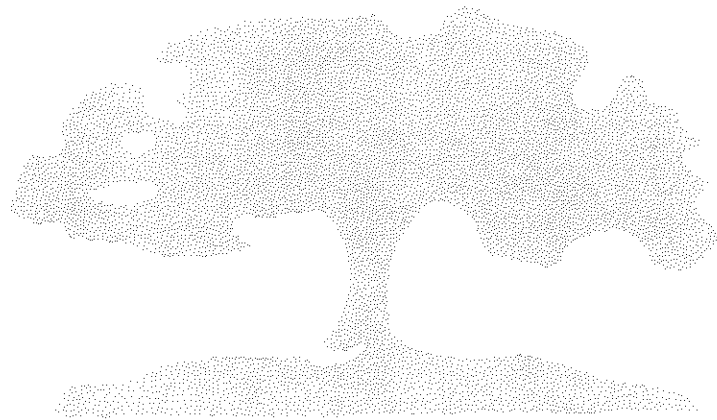
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**Las Virgenes Municipal Water District**  
**Summary of Allocated Internal Service Costs**  
**FY 2013-14 Estimated Actual**

	Total Costs	Direct Allocations	Allocated G&A Costs	Cost Recipient				
				JPA	Total LVMWD Operations	Capital Projects	Internal G&A Allocated/ (Received)	Total Allocations
Central Service Provider								
General Manager	644,147	5,934	650,081	341,559	176,804	7,681	124,037	650,081
General Manager-100% LVMWD	164,665	(57,800)	106,865	-	112,208	-	(5,343)	106,865
Board of Directors	223,315	-	223,315	-	229,546	-	(6,231)	223,315
Board of Directors & GM	1,032,127	(51,866)	980,261	341,559	518,558	7,681	112,463	980,261
RCPO Administration	366,798	-	366,798	192,722	31,822	-	142,254	366,798
Customer Service Admin	217,076	-	217,076	-	-	-	217,076	217,076
Customer Service Operations	1,161,650	431,941	1,593,591	-	1,905,194	8,242	(319,845)	1,593,591
Meter Service	924,786	-	924,786	-	1,057,763	-	(132,977)	924,786
Customer Service Programs	237,064	11,868	248,932	-	363,839	-	(114,907)	248,932
Resource/Watershed Conservation	319,810	5,934	325,744	-	415,798	26,826	(116,880)	325,744
Public Information	464,422	-	464,422	244,012	67,962	12,827	139,621	464,422
GIS & New Customer Svc	-	-	-	-	-	-	-	-
RCPO	3,691,606	449,743	4,141,349	436,734	3,842,378	47,895	(185,658)	4,141,349
Facilities & Operations Admin	453,363	5,934	459,297	241,321	275,070	51,957	(109,051)	459,297
Facilities Maint/Const Admin	199,795	4,160	203,955	107,160	126,073	23,814	(53,092)	203,955
Electrical	266,444	53,407	319,851	168,053	204,296	694	(53,192)	319,851
Maintenance	98,485	89,134	187,619	98,577	90,710	-	(1,668)	187,619
Building 8 Maintenance	373,264	-	373,264	196,116	-	-	177,148	373,264
Building 7 Maintenance	130,528	(130,528)	-	-	49,354	-	(49,354)	-
Construction	102,071	160,467	262,538	137,941	163,145	-	(38,548)	262,538
Fleet Maintenance	611,766	(611,766)	-	-	-	-	-	-
Water Administration	94,330	1,774	96,104	50,494	69,474	-	(23,864)	96,104
Water Treatment & Production	210,223	101,003	311,226	163,520	218,719	-	(71,013)	311,226
Reclamation Administration	477,142	5,934	483,076	253,813	-	-	229,263	483,076
Laboratory	527,738	(527,738)	-	-	378,158	-	(378,158)	-
Wastewater Treatment Facility	91,368	23,737	115,105	60,478	134,776	-	(80,149)	115,105
Composting Facility	95,331	23,737	119,068	62,559	141,105	-	(84,596)	119,068
Planning & Technical Services	675,243	(66,603)	608,640	318,166	33,744	566,600	(309,870)	608,640
Facilities & Operations	4,407,091	(867,348)	3,539,743	1,858,198	1,884,624	643,065	(846,144)	3,539,743
Finance & Administration Admin	994,096	-	994,096	522,309	236,663	-	235,124	994,096
Information Systems	1,031,172	(258,463)	772,709	421,324	123,375	23,285	204,725	772,709
Human Resources	1,287,067	-	1,287,067	676,239	161,435	30,468	418,925	1,287,067
Finance & Accounting	1,096,951	-	1,096,951	576,350	413,603	46,433	60,565	1,096,951
Finance & Administration	4,409,286	(258,463)	4,150,823	2,196,222	935,076	100,186	919,339	4,150,823
<b>Total Allocated G&amp;A Costs</b>	<b>13,540,110</b>	<b>(727,934)</b>	<b>12,812,176</b>	<b>4,832,713</b>	<b>7,180,636</b>	<b>798,827</b>	<b>-</b>	<b>12,812,176</b>
Direct Allocations								
Allocated Laboratory Expenses				361,536	178,070	-	-	539,606
Allocated Ops Bldg Expenses				65,264	65,264	-	-	130,528
Allocated Legal Expenses				-	57,800	-	-	57,800
<b>Total Direct Allocations</b>				<b>426,800</b>	<b>301,134</b>	<b>-</b>	<b>-</b>	<b>727,934</b>
<b>Total all Allocated Costs</b>				<b>5,259,513</b>	<b>7,481,770</b>	<b>798,827</b>	<b>ITEM 5A</b>	<b>140,110</b>

**Las Virgenes Municipal Water District**  
**Summary of Allocated Internal Service Costs**  
**FY 2014-15 Budget**

	Total Costs	Direct Allocations	Allocated G&A Costs	Cost Recipient				
				JPA	Total LVMWD Operations	Capital Projects	Internal G&A Allocated/ (Received)	Total Allocations
Central Service Provider								
General Manager	711,546	5,490	717,036	387,774	183,602	6,162	139,498	717,036
General Manager-100% LVMWD	319,700	(100,000)	219,700	-	226,155	-	(6,455)	219,700
Board of Directors	295,818	-	295,818	-	303,092	-	(7,274)	295,818
<b>Board of Directors &amp; GM</b>	<b>1,327,064</b>	<b>(94,510)</b>	<b>1,232,554</b>	<b>387,774</b>	<b>712,849</b>	<b>6,162</b>	<b>125,769</b>	<b>1,232,554</b>
RCPO Administration	390,577	-	390,577	211,224	33,291	-	146,062	390,577
Customer Service Admin	334,065	-	334,065	-	-	-	334,065	334,065
Customer Service Operations	1,284,108	438,603	1,722,711	-	2,186,140	7,818	(471,247)	1,722,711
Meter Service	1,180,701	-	1,180,701	-	1,347,047	-	(166,346)	1,180,701
Customer Service Programs	200,010	10,980	210,990	-	341,278	-	(130,288)	210,990
Resource/Watershed Conservation	366,324	5,490	371,814	-	478,047	30,842	(137,075)	371,814
Public Information	492,468	-	492,468	266,326	71,072	10,746	144,324	492,468
GIS & New Customer Svc	-	-	-	-	-	-	-	-
<b>RCPO</b>	<b>4,248,253</b>	<b>455,073</b>	<b>4,703,326</b>	<b>477,550</b>	<b>4,456,875</b>	<b>49,406</b>	<b>(280,505)</b>	<b>4,703,326</b>
Facilities & Operations Admin	472,029	5,490	477,519	258,240	295,370	44,712	(120,803)	477,519
Facilities Maint/Const Admin	210,991	3,849	214,840	116,186	137,123	20,757	(59,226)	214,840
Electrical	309,195	49,411	358,606	193,933	219,378	589	(55,294)	358,606
Maintenance	106,083	82,464	188,547	101,965	88,772	-	(2,190)	188,547
Building 8 Maintenance	411,435	-	411,435	222,501	-	-	188,934	411,435
Building 7 Maintenance	146,841	(146,841)	-	1	65,930	-	(65,931)	-
Construction	216,791	148,460	365,251	197,528	239,747	-	(72,024)	365,251
Fleet Maintenance	565,988	(565,988)	-	-	-	-	-	-
Water Administration	113,424	1,641	115,065	62,227	83,560	-	(30,722)	115,065
Water Treatment & Production	196,273	93,445	289,718	156,680	206,862	-	(73,824)	289,718
Reclamation Administration	482,235	5,490	487,725	263,762	-	-	223,963	487,725
Laboratory	589,256	(589,256)	-	-	426,750	-	(426,750)	-
Wastewater Treatment Facility	83,796	21,960	105,756	57,192	119,428	-	(70,864)	105,756
Composting Facility	107,153	21,960	129,113	69,823	147,766	-	(88,476)	129,113
Planning & Technical Services	733,678	(75,240)	658,438	353,851	103,457	500,014	(298,884)	658,438
<b>Facilities &amp; Operations</b>	<b>4,745,168</b>	<b>(943,155)</b>	<b>3,802,013</b>	<b>2,053,889</b>	<b>2,134,143</b>	<b>566,072</b>	<b>(952,091)</b>	<b>3,802,013</b>
Finance & Administration Admin	1,145,299	-	1,145,299	619,373	233,570	-	292,356	1,145,299
Information Systems	1,364,849	(264,485)	1,100,364	594,532	153,212	23,166	329,454	1,100,364
Human Resources	1,324,822	-	1,324,822	716,460	155,307	23,483	429,572	1,324,822
Finance & Accounting	1,189,760	-	1,189,760	643,419	445,500	45,397	55,444	1,189,760
<b>Finance &amp; Administration</b>	<b>5,024,730</b>	<b>(264,485)</b>	<b>4,760,245</b>	<b>2,573,784</b>	<b>987,589</b>	<b>92,046</b>	<b>1,106,826</b>	<b>4,760,245</b>
<b>Total Allocated G&amp;A Costs</b>	<b>15,345,215</b>	<b>(847,077)</b>	<b>14,498,138</b>	<b>5,492,997</b>	<b>8,291,456</b>	<b>713,686</b>	<b>(1)</b>	<b>14,498,138</b>
<b>Direct Allocations</b>								
Allocated Laboratory Expenses				402,158	198,078	-	-	600,236
Allocated Ops Bldg Expenses				73,420	73,421	-	-	146,841
Allocated Legal Expenses				-	100,000	-	-	100,000
<b>Total Direct Allocations</b>				<b>475,578</b>	<b>371,499</b>	<b>-</b>	<b>-</b>	<b>847,077</b>
<b>Total all Allocated Costs</b>				<b>5,968,575</b>	<b>8,662,955</b>	<b>713,686</b>	<b>(1)</b>	<b>15,345,215</b>





## CAPITAL IMPROVEMENT PROJECTS

Each year the District prepares a Five-Year Infrastructure Investment Plan as a planning document used to identify the future facility improvements or replacement projects required by the District to maintain and improve the level of service to customers, or to achieve regulatory compliance. Annual funding approval is requested based on funding availability, priority of need and overall justification. Many projects span multiple fiscal years from design through construction and to the acceptance and ultimate use of the facility. The District appropriates funds as needed on an annual basis for the length of a project. If unforeseen delays in work result in an appropriation remaining unspent on a continuing project at the end of the fiscal year, that unspent appropriation will continue to be available for that project until the project is completed or cancelled. The projected annual expenditures shown in the following pages represent the total working capital requirements needed to complete the projects as scheduled. The FY14-15 Appropriations amounts represent additional funds needed in the upcoming year.

Each project is assigned a priority in order to develop a vocabulary of time and need sensitivity of projects relative to each other. The higher priority projects reflect projects that typically are driven by external needs, events, or regulation, rather than district needs. It is not the intent to fund only Priority 1 or Priority 2 projects and defer the Priority 3 projects. Rather the intent is to achieve a blend of projects in all Priorities consistent with fund availability.

### Priority 1 – Essential Projects

- Required by law, regulation or court mandate to be accomplished immediately.
- Disaster recovery work needed to restore service.
- Emergency repairs to maintain/restore service reliability, or to resolve or correct a hazardous situation.

### Priority 2 – Necessary Projects

- High need for scheduled repair, replacement or upgrade to maintain or improve service reliability.
- Safety improvement to protect life or property.
- Improvement to protect facilities, equipment and structures.
- Cost related efficiency improvements.
- Conservation of resources.
- Water quality improvement – no regulatory requirement.
- Matching funding available (like grants).
- Current demand related improvements.

### Priority 3 – Desirable or Deferrable Projects

- Routine improvements or repairs to systems.
- No direct cost benefit.
- Cosmetic improvements.
- Future demand related improvements.

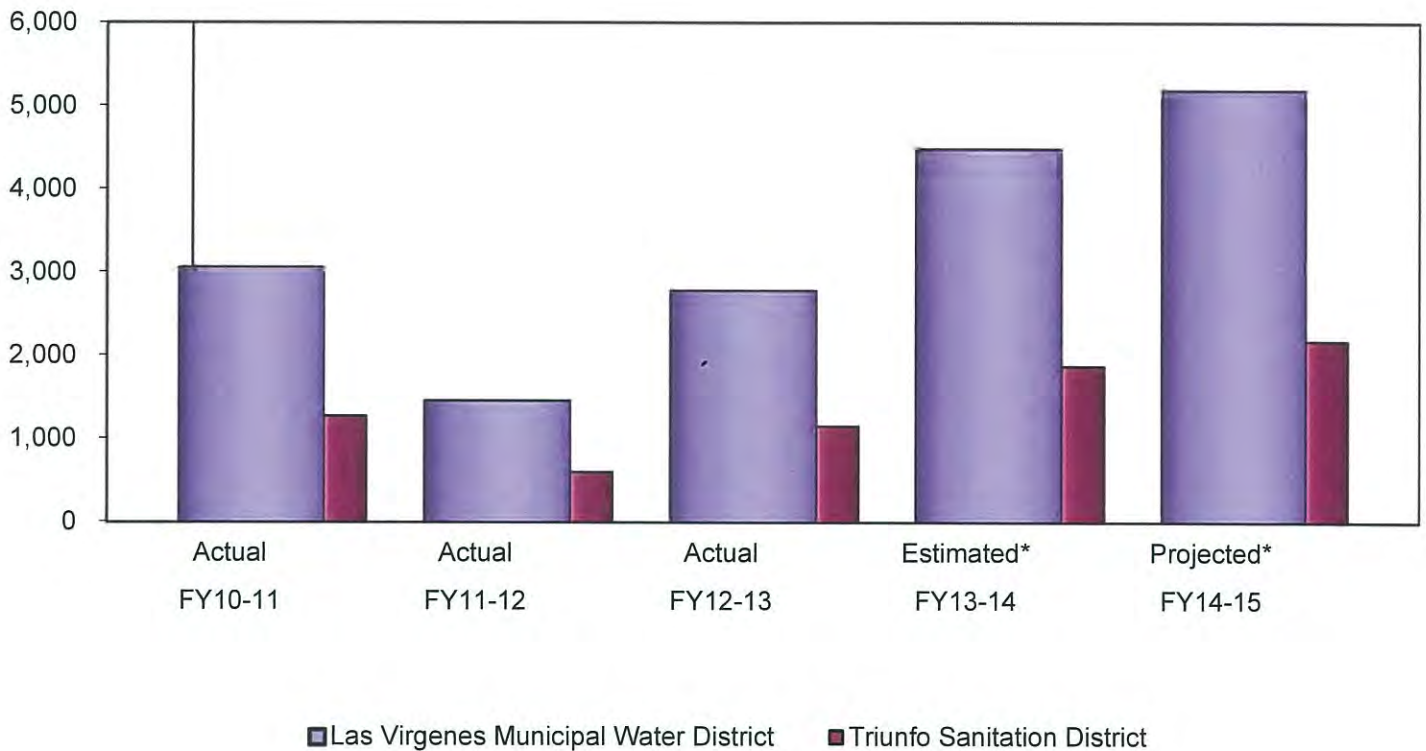
Projects identified in the Las Virgenes – Triunfo Joint Powers Authority Infrastructure Investment Plan have shared funding responsibility of the District and Triunfo Sanitation District consistent with the Joint Powers Authority Agreement. Allocation of costs between the two agencies for Joint Powers Authority construction or replacement costs is governed by the JPA agreement and is based on capacity rights, flow amounts and other defined criteria.

Each project is funded by one or more Capital Funds. A description of each of the LVMWD Capital Funds is:

- Recycled Water Conservation Fund – Provides for construction of new facilities or services to support new users, as well as conservation programs, such as low flow toilet rebates. Source of revenue for this Fund is a component of the Water Capacity Fee for the Water Conservation Fund.
- Recycled Water Replacement Fund – Provides for the repair, upgrade, and replacement of component facilities in the existing recycled water system. Source of revenue for this Fund is Recycled Water Rates.
- Sanitation Construction Fund – Provides for construction projects related to the Sanitation System to support new demands or requirements. Source of revenue for this Fund is the Sewer Capacity Fee.
- Sanitation Replacement Fund – Provides for projects to repair, upgrade and replace component facilities in the Sanitation System. Source of revenue for this Fund is Sewer Rates.

**Las Virgenes - Triunfo  
Joint Powers Authority  
Capital Improvement Projects  
Annual Expenditures  
(Dollars in Thousands)**

	FY10-11 Actual	FY11-12 Actual	FY12-13 Actual	FY13-14 Estimated*	FY14-15 Projected*
<b>Las Virgenes Municipal Water District</b>	3,058	1,451	2,776	4,483	5,190
<b>Triunfo Sanitation District</b>	1,274	604	1,156	1,867	2,168
	<b>4,332</b>	<b>2,055</b>	<b>3,932</b>	<b>6,350</b>	<b>7,358</b>



\*Estimated and Projected expenditures represent working capital requirements for each fiscal year.

# Las Virgenes - Triunfo Joint Powers Authority

## Working Capital Requirements

### Capital Improvement Projects

#### FY13-14 and FY14-15

Job #	Title	Approved Appropriations	Prior Expenditures	Estimated Expenditures FY13-14	Projected Carryover July 1, 2014	FY14-15 Appropriation	FY14-15 Working Capital Requirement
10418	Rehabilitation of 18" RW Pipe (Tapia/Mulholland Highway)	\$235,000	\$253,501	\$11,530	(\$30,031)	\$208,231	\$178,200
10446	Buffer Land at Rancho	\$250,000	\$0	\$0	\$250,000	\$0	\$250,000
10448	Rancho Polymer Feed System Rehabilitation	\$121,000	\$46,822	\$0	\$0	\$0	\$0
10453	Tapia and Rancho Vulnerability Assessment	\$50,000	\$0	\$0	\$0	\$0	\$0
10457	Tapia Alternative Disinfection Improvements	\$1,718,532	\$1,710,325	\$257,060	\$0	\$0	\$0
10487	Construct 3rd Digester at Rancho	\$6,841,790	\$1,394,366	\$5,447,424	\$0	\$0	\$0
10493	Tapia Sludge Screening	\$385,000	\$0	\$0	\$0	\$0	\$0
10499	Tapia Grit Cyclone Conveyor System	\$150,000	\$4,003	\$145,997	\$0	\$0	\$0
10512	Tapia: Primary Tank Rehabilitation	\$685,000	\$0	\$48,985	\$636,015	\$0	\$636,015
10513	Tapia Sluice Gate and Drive Replacement	\$342,000	\$0	\$0	\$342,000	\$0	\$342,000
10515	Sanitation Master Plan Update	\$62,500	\$13,805	\$48,695	\$0	\$0	\$0
10516	Recycled Water Master Plan	\$62,500	\$12,831	\$49,669	\$0	\$0	\$0
10519	Miscellaneous CIP (Bandsaw)	\$10,000	\$0	\$11,924	\$0	\$0	\$0
10520	SCADA System Communication Upgrades	\$93,100	\$6,239	\$0	\$86,861	\$0	\$86,861
10522	Reservoir #2 Improvements (Lining Cover)	\$50,000	\$36,683	\$13,317	\$0	\$1,557,010	\$1,557,010
10534	Rancho Solar Project	\$70,000	\$44,846	\$45,379	\$0	\$0	\$0
10536	Agoura Road Recycled Water Main - Ladyface to Cornell Road	\$100,000	\$12,765	\$90,836	(\$3,601)	\$323,103	\$319,502
10537	Raw Sludge Wet Well Mixing Improvements	\$100,000	\$0	\$0	\$100,000	\$0	\$100,000
10538	Tapia Channel Mixing Improvements	\$454,000	\$0	\$48,205	\$405,795	\$4,205	\$410,000
10540	Lost Hill Overpass Recycled Water Main Relocation	\$355,000	\$0	\$50,744	\$304,256	\$8,744	\$313,000
10544	Centrate Tank Cathodic Protection (CP) System Replacement	\$110,000	\$0	\$25,121	\$84,879	\$33,937	\$118,816

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# Las Virgenes - Triunfo Joint Powers Authority

## Working Capital Requirements

### Capital Improvement Projects

#### FY13-14 and FY14-15

Job #	Title	Approved Appropriations	Prior Expenditures	Estimated Expenditures FY13-14	Projected Carryover July 1, 2014	FY14-15 Appropriation	FY14-15 Working Capital Requirement
10548	Tapia Roof Replacement	\$25,000	\$0	\$23,895	\$0	\$0	\$0
10549	Rancho Las Virgenes Compost Facility Agitator Control Upgrade	\$14,000	\$0	\$13,564	\$436	\$13,564	\$14,000
10550	Rancho Reactor Room Door Replacement	\$20,000	\$0	\$17,467	\$0	\$0	\$0
10551	Centrate System - New Pump Impellers	\$35,000	\$0	\$0	\$35,000	\$0	\$35,000
80720	Manhole Rehabilitation, F2/F3 Line	\$0	\$0	\$0	\$0	\$15,000	\$15,000
80742	Rancho: Rehabilitate Existing Centrate Line	\$0	\$0	\$0	\$0	\$175,390	\$175,390
99901	NPDES Permit Renewal	\$0	\$0	\$0	\$0	\$25,000	\$25,000
99927	Tapia Structural Repairs	\$0	\$0	\$0	\$0	\$46,500	\$46,500
99929	Tapia Supplemental Carbon Study	\$0	\$0	\$0	\$0	\$85,000	\$85,000
99932	Centrate Equalization Tank	\$0	\$0	\$0	\$0	\$890,000	\$890,000
99934	Rancho Las Virgenes Digester Cleaning and Repair	\$0	\$0	\$0	\$0	\$287,500	\$287,500
99935	Tapia Alternative Disinfection Safety Improvements	\$0	\$0	\$0	\$0	\$85,750	\$85,750
99936	Programmable Logic Controller Upgrades	\$0	\$0	\$0	\$0	\$216,500	\$216,500
99942	Rancho Las Virgenes Composting Facility: Purchase of New Loader	\$0	\$0	\$0	\$0	\$180,000	\$180,000
99946	Sewer Grit Handling	\$0	\$0	\$0	\$0	\$50,000	\$50,000
99947	Rancho Facility Improvements	\$0	\$0	\$0	\$0	\$174,500	\$174,500
99953	Security Upgrades - JPA	\$0	\$0	\$0	\$0	\$5,000	\$5,000
99954	Tapia Equipment Replacement	\$0	\$0	\$0	\$0	\$70,750	\$70,750
99956	Tapia Balancing Pond Sealant Replacement	\$0	\$0	\$0	\$0	\$80,500	\$80,500
99961	Recycled Water Storage Study	\$0	\$0	\$0	\$0	\$300,000	\$300,000
99962	Woodland Hills Golf Course RW Pipeline Extension	\$0	\$0	\$0	\$0	\$310,000	\$310,000

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# Las Virgenes - Triunfo Joint Powers Authority

## Working Capital Requirements

### Capital Improvement Projects

#### FY13-14 and FY14-15

Job #	Title	Approved Appropriations	Prior Expenditures	Estimated Expenditures FY13-14	Projected Carryover July 1, 2014	FY14-15 Appropriation	FY14-15 Working Capital Requirement
	<b>Total CIP Budget</b>	\$12,339,422	\$3,536,186	\$6,349,812	\$2,211,610	\$5,146,184	\$7,357,794

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# JPA - Capital Improvement Project Detail, FY2014-15

Proj #	Project Name/Description	Project Manager	Priority/ Status	through June 30, 2014	FY14-15 Appropriations
10418	<b>Rehabilitation of 18" RW Pipe (Tapia/Mulholland Highway)</b>	Cao	3 Continuing	Appr. \$235,000 Exp. \$265,031	<b>\$208,231</b>
	Rehabilitation of 18" RW pipe between Tapia and Mulholland Highway due to excessive failure rate. Cost estimate is based on the installation of an active cathodic protection system. The project is divided in three phases: 1) FY12-13; 2) FY13-14; 3) FY14-15.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Recycled Water Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		
10446	<b>Buffer Land at Rancho</b>	Zhao	3 Continuing	Appr. \$250,000 Exp. \$0	<b>\$0</b>
	Potential land acquisition of additional buffer land around Rancho.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		
10448	<b>Rancho Polymer Feed System Rehabilitation</b>	Dingman	2 Deferred	Appr. \$121,000 Exp. \$46,822	<b>\$0</b>
	The polymer feed system at Rancho needs to be evaluated and updated. The addition of polymer aging tanks and new mixers and a potential heating system will allow for a lower polymer dosage and better efficiency.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		
10453	<b>Tapia and Rancho Vulnerability Assessment</b>	Dingman	1 Cancelled	Appr. \$50,000 Exp. \$0	<b>\$0</b>
	This project provides a vulnerability assessment of the sanitation facilities. The assessment may require construction of security enhancements and worker training.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		
10457	<b>Tapia Alternative Disinfection Improvements</b>	Dingman	1 Completed	Appr. \$1,718,532 Exp. \$1,967,385	<b>\$0</b>
	The installation of tanks and chemical feed pumps to convert from chlorination disinfection into chloramination disinfection.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		

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# JPA - Capital Improvement Project Detail, FY2014-15

Proj #	Project Name/Description	Project Manager	Priority/ Status	through June 30, 2014	FY14-15 Appropriations
10487	<b>Construct 3rd Digester at Rancho</b>	Zhao	2 Completed	Appr. \$6,841,790 Exp. \$6,841,790	\$0
	Construct a third anaerobic digester at the Rancho Composting Facility including heating, mixing and gas collection. Convert the two existing digesters from steam injection heating to hot water heat exchangers.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Construction	20.00%	70.60%	29.40%	
	Sanitation Replacement	80.00%			
	Estimated Impact on Annual Operating Expense		\$0		
10493	<b>Tapia Sludge Screening</b>	Dingman	3 Deferred	Appr. \$385,000 Exp. \$0	\$0
	Install a screener for primary and secondary sludge at Tapia. Includes design, piping modifications and odor control.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		
10499	<b>Tapia Grit Cyclone Conveyor System</b>	Miller	2 Completed	Appr. \$150,000 Exp. \$150,000	\$0
	Current Grit removal utilizes obsolete overhead crane. New proposal utilizes a small conveyor exiting the building into a dumpster outside the building.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		
10512	<b>Tapia: Primary Tank Rehabilitation</b>	Dingman	2 Continuing	Appr. \$685,000 Exp. \$48,985	\$0
	Concrete repair and the installation of a protective coating in the tanks. This project also includes the replacement of existing aluminum launders with fiberglass launders, new coatings for inlet diffusers and gate replacement. Design will be completed in FY13-14. The same design basis will be used for all tanks over the multiyear project.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		

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# JPA - Capital Improvement Project Detail, FY2014-15

Proj #	Project Name/Description	Project Manager	Priority/ Status	through June 30, 2014	FY14-15 Appropriations
10513	<b>Tapia Sluice Gate and Drive Replacement</b>	Schlageter	2 Continuing	Appr. \$342,000 Exp. \$0	<b>\$0</b>
	Replaces existing gates in the tanks and channels at Tapia as well as drive mechanisms for flights and chains.				
	Project Funding:			JPA Share - LV:	JPA Share - TSD:
	Sanitation Replacement	100.00%		70.60%	29.40%
	Estimated Impact on Annual Operating Expense			\$0	
10515	<b>Sanitation Master Plan Update</b>	Cao	2 Completed	Appr. \$62,500 Exp. \$62,500	<b>\$0</b>
	To provide an update to the 2008 Sanitation Master plan taking into account the numerous regulatory and operational changes and usage patterns since the last update. Approximately 40% of the project is expected to be complete in FY12-13 with the balance of the work to be performed in FY13-14. It is expected that 40% will be spent during FY12-13 and the balance will be spent in FY13-14.				
	Project Funding:			JPA Share - LV:	JPA Share - TSD:
	Sanitation Replacement	100.00%		70.60%	29.40%
	Estimated Impact on Annual Operating Expense			\$0	
10516	<b>Recycled Water Master Plan</b>	Cao	2 Completed	Appr. \$62,500 Exp. \$62,500	<b>\$0</b>
	To provide update to the 2007 Recycled Water Master Plan taking into account the changes in recycled water demand as well as regulatory changes impacting the future expansion of the recycled water system. It is expected that 40% will be spent during FY12-13 and the balance will be spent in FY13-14.				
	Project Funding:			JPA Share - LV:	JPA Share - TSD:
	Recycled Water Replacement	100.00%		70.60%	29.40%
	Estimated Impact on Annual Operating Expense			\$0	
10519	<b>Miscellaneous CIP (Bandsaw)</b>	Miller	3 Completed	Appr. \$10,000 Exp. \$11,924	<b>\$0</b>
	Purchase replacement bandsaw.				
	Project Funding:			JPA Share - LV:	JPA Share - TSD:
	Sanitation Replacement	100.00%		70.60%	29.40%
	Estimated Impact on Annual Operating Expense			\$0	

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# JPA - Capital Improvement Project Detail, FY2014-15

Proj #	Project Name/Description	Project Manager	Priority/ Status	through June 30, 2014	FY14-15 Appropriations
10520	<b>SCADA System Communication Upgrades</b>	McIntyre	2 Continuing	Appr. \$93,100 Exp. \$6,239	<b>\$0</b>
	Migration of the existing communication system from a serial radio network to an Ethernet based radio network. Provide redundant data paths for uninterrupted communication. Eliminate need to rely on telephone company equipment.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		
10522	<b>Reservoir #2 Improvements (Lining Cover)</b>	Dingman	1 Continuing	Appr. \$50,000 Exp. \$50,000	<b>\$1,557,010</b>
	A study was completed in 2013 to define the scope of work. The scope includes lining the earthen sides and covering the water surface of recycled water reservoir #2 with shade balls. The bottom of the reservoir is currently concrete.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Recycled Water Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		
10534	<b>Rancho Solar Project</b>	Zhao	2 Completed	Appr. \$70,000 Exp. \$90,225	<b>\$0</b>
	Staff time associated in obtaining a PPA agreement for solar electrical generation at Rancho to feed power consumption at RWPS and perform CEQA mitigation. Construction budget of \$50,000 provides funding for expenses related to mitigation measures required by CEQA.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Recycled Water Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		(\$120,000)		
10536	<b>Agoura Road Recycled Water Main - Ladyface to Cornell Road</b>	Schlageter	2 Continuing	Appr. \$100,000 Exp. \$103,601	<b>\$323,103</b>
	To construct 5,000 feet of 8" PVC recycled water main extension along Agoura Road to Ladyface Drive to Cornell Road.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Recycled Water Conservation	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		
10537	<b>Raw Sludge Wet Well Mixing Improvements</b>	Johnson	2 Continuing	Appr. \$100,000 Exp. \$0	<b>\$0</b>
	Replace the existing centrifugal mixing pump with a pump that is more appropriate for sludge mixing.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		

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# JPA - Capital Improvement Project Detail, FY2014-15

Proj #	Project Name/Description	Project Manager	Priority/ Status		through June 30, 2014	FY14-15 Appropriations
10538	<b>Tapia Channel Mixing Improvements</b>	Dingman	2 Continuing	Appr. Exp.	\$454,000 \$48,205	<b>\$4,205</b>
	Replace the air piping and drop legs in the channels at Tapia.					
	Project Funding:		JPA Share - LV:		JPA Share - TSD:	
	Sanitation Replacement	100.00%		70.60%		29.40%
	Estimated Impact on Annual Operating Expense		\$0			
10540	<b>Lost Hill Overpass Recycled Water Main Relocation</b>	Zhao	2 Continuing	Appr. Exp.	\$355,000 \$50,744	<b>\$8,744</b>
	Relocate the existing 10" recycled water pipeline in the Lost Hills overpass to the new overpass that will under construction beginning December 2014 (FY 2014-15).					
	Project Funding:		JPA Share - LV:		JPA Share - TSD:	
	Recycled Water Replacement	100.00%		70.60%		29.40%
	Estimated Impact on Annual Operating Expense		\$0			
10544	<b>Centrate Tank Cathodic Protection (CP) System Replacement</b>	Cao	2 Continuing	Appr. Exp.	\$110,000 \$25,121	<b>\$33,937</b>
	Construction of impressed current cathodic protection system for centrate treatment and storage tanks at the Rancho Las Virgenes Compost Facility.					
	Project Funding:		JPA Share - LV:		JPA Share - TSD:	
	Sanitation Replacement	100.00%		70.60%		29.40%
	Estimated Impact on Annual Operating Expense		\$0			
10548	<b>Tapia Roof Replacement</b>	Johnson	2 Completed	Appr. Exp.	\$25,000 \$23,895	<b>\$0</b>
	Replace leaking roof sections at the Tapia Water Reclamation Facility.					
	Project Funding:		JPA Share - LV:		JPA Share - TSD:	
	Sanitation Replacement	100.00%		70.60%		29.40%
	Estimated Impact on Annual Operating Expense		\$0			
10549	<b>Rancho Las Virgenes Compost Facility Agitator Control Upgrade</b>	Korkosz	2 Continuing	Appr. Exp.	\$14,000 \$13,564	<b>\$13,564</b>
	During the FY11-12 shutdown of the Rancho Compost Facility (Rancho) repairs were made to the agitator #1 control system. This project will implement a similar upgrade to to the agitator #2 control system.					
	Project Funding:		JPA Share - LV:		JPA Share - TSD:	
	Sanitation Replacement	100.00%		70.60%		29.40%
	Estimated Impact on Annual Operating Expense		\$0			

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# JPA - Capital Improvement Project Detail, FY2014-15

Proj #	Project Name/Description	Project Manager	Priority/ Status	through June 30, 2014	FY14-15 Appropriations
10550	<b>Rancho Reactor Room Door Replacement</b>	Johnson	2 Completed	Appr. \$20,000 Exp. \$17,467	<b>\$0</b>
	Replacement of two roll-up doors at the Rancho reactor room.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		
10551	<b>Centrate System - New Pump Impellers</b>	Johnson	2 Continuing	Appr. \$35,000 Exp. \$0	<b>\$0</b>
	Upgrade centrate system pump impellers to handle solids in the system.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		
80720	<b>Manhole Rehabilitation, F2/F3 Line</b>	Schlageter	2 New	Appr. \$0 Exp. \$0	<b>\$15,000</b>
	The F2/F3 Sewer Rehabilitation Study identified priority 1 and 2 manholes needing repair. Work on priority 1 manholes was completed. Priority 2 manholes will be addressed in FY15-16. Fiscal Year 2014-2015 Planning funds are for the inspection of manholes.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%	40.10%	59.90%	
	Estimated Impact on Annual Operating Expense		\$0		
80742	<b>Rancho: Rehabilitate Existing Centrate Line</b>	Schlageter	2 New	Appr. \$0 Exp. \$0	<b>\$175,390</b>
	Provide mechanical and/or chemical cleaning of minerals from the existing centrate line. No planning is needed due to the availability of existing documentation.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		
99901	<b>NPDES Permit Renewal</b>	Dingman	2 New	Appr. \$0 Exp. \$0	<b>\$25,000</b>
	This project provides funding for assistance from outside sources related to the National Pollution Discharge Elimination System (NPDES) Permit renewal for Tapia.				
	Project Funding:		JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%	70.60%	29.40%	
	Estimated Impact on Annual Operating Expense		\$0		

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# JPA - Capital Improvement Project Detail, FY2014-15

Proj #	Project Name/Description	Project Manager	Priority/ Status	through June 30, 2014	FY14-15 Appropriations	
99927	<b>Tapia Structural Repairs</b>	Dingman	1 New	Appr. Exp.	\$0 \$0	<b>\$46,500</b>
	Repair the foundation of the RAS pump station, including modifications to sub-grade to address settling. Flex coupling are also to be added to relieve pipe strain.					
	Project Funding:		JPA Share - LV:	JPA Share - TSD:		
	Sanitation Replacement	100.00%	70.60%	29.40%		
	Estimated Impact on Annual Operating Expense		\$0			
99929	<b>Tapia Supplemental Carbon Study</b>	Dingman	2 New	Appr. Exp.	\$0 \$0	<b>\$85,000</b>
	Study available supplemental carbon sources to improve biological performance at Tapia.					
	Project Funding:		JPA Share - LV:	JPA Share - TSD:		
	Sanitation Replacement	100.00%	70.60%	29.40%		
	Estimated Impact on Annual Operating Expense		\$0			
99932	<b>Centrate Equalization Tank</b>	Dingman	2 New	Appr. Exp.	\$0 \$0	<b>\$890,000</b>
	Construct a centrate equalization tank at the centrate treatment facility.					
	Project Funding:		JPA Share - LV:	JPA Share - TSD:		
	Sanitation Replacement	100.00%	70.60%	29.40%		
	Estimated Impact on Annual Operating Expense		\$0			
99934	<b>Rancho Las Virgenes Digester Cleaning and Repair</b>	Dingman	1 New	Appr. Exp.	\$0 \$0	<b>\$287,500</b>
	To clean out and evaluate the condition of existing digesters # 1 and #2. The full scope of repairs is unknown at this time but could include coatings ,concrete patching, pipe and valve repairs, removal of the steam lances, and repairs to hatches and seals.					
	Project Funding:		JPA Share - LV:	JPA Share - TSD:		
	Sanitation Replacement	100.00%	70.60%	29.40%		
	Estimated Impact on Annual Operating Expense		\$0			
99935	<b>Tapia Alternative Disinfection Safety Improvements</b>	Dingman	1 New	Appr. Exp.	\$0 \$0	<b>\$85,750</b>
	This project includes the installation of a canopy over the ammonia pumps and electrical control panels, handrails along the sidewalk and the installation of a toxic gas detector to detect ammonia gas leaks.					
	Project Funding:		JPA Share - LV:	JPA Share - TSD:		
	Sanitation Replacement	100.00%	70.60%	29.40%		
	Estimated Impact on Annual Operating Expense		\$0			

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# JPA - Capital Improvement Project Detail, FY2014-15

Proj #	Project Name/Description	Project Manager	Priority/ Status	through June 30, 2014	FY14-15 Appropriations	
99936	<b>Programmable Logic Controller Upgrades</b>	Dingman	2 New	Appr. Exp.	\$0 \$0	<b>\$216,500</b>
	This project replaces programmable logic controllers (PLC's) with newer PLCs and provides necessary equipment upgrades (fiber optics, network switches and programming) to complete the installation. This is a program project which addresses Tapia in the first three years and centrate treatment in the fourth year. Design will occur in the first year for all facilities.					
	Project Funding:			JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%		70.60%	29.40%	
	Estimated Impact on Annual Operating Expense			\$0		
99942	<b>Rancho Las Virgenes Composting Facility: Purchase of New Loader</b>	Dingman	3 New	Appr. Exp.	\$0 \$0	<b>\$180,000</b>
	Replace the existing Michigan/Volvo loader used to move amendment and compost at Rancho with a like model.					
	Project Funding:			JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%		70.60%	29.40%	
	Estimated Impact on Annual Operating Expense			\$0		
99946	<b>Sewer Grit Handling</b>	Olney	2 New	Appr. Exp.	\$0 \$0	<b>\$50,000</b>
	Plan, design and build a sewer grit removal system at Tapia. This project will reduce the weight of inorganic grit that is removed and disposed as solid waste.					
	Project Funding:			JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%		70.60%	29.40%	
	Estimated Impact on Annual Operating Expense			\$0		
99947	<b>Rancho Facility Improvements</b>	Johnson	3 New	Appr. Exp.	\$0 \$0	<b>\$174,500</b>
	Replace and repair significant components of the JPA's Rancho Las Virgenes Composting Facility. 1) Replacement Sump Pumps (4 @ \$8K/ea.) - \$35,000 2) Amendment Bin Overhaul (welding/coating) - \$50,000 3) Conveyor Screw Replacement (2) - \$30,000 4) Dewatering Compressor (1) - \$10,000					
	Project Funding:			JPA Share - LV:	JPA Share - TSD:	
	Sanitation Replacement	100.00%		70.60%	29.40%	
	Estimated Impact on Annual Operating Expense			\$0		

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# JPA - Capital Improvement Project Detail, FY2014-15

Proj #	Project Name/Description	Project Manager	Priority/ Status	through June 30, 2014	FY14-15 Appropriations	
99953	<b>Security Upgrades - JPA</b>	Miller	3 New	Appr. Exp.	\$0 \$0	<b>\$5,000</b>
	Remote Access Control: \$10,000 Security Cameras: \$15,000 Lock and Key Control: \$5,000					
	Project Funding:		JPA Share - LV:	JPA Share - TSD:		
	Sanitation Replacement	100.00%	70.60%	29.40%		
	Estimated Impact on Annual Operating Expense		\$0			
99954	<b>Tapia Equipment Replacement</b>	Dingman	2 New	Appr. Exp.	\$0 \$0	<b>\$70,750</b>
	Purchase of replacement Hach MLSS Center Zero Analysser.					
	Project Funding:		JPA Share - LV:	JPA Share - TSD:		
	Sanitation Replacement	100.00%	70.60%	29.40%		
	Estimated Impact on Annual Operating Expense		\$0			
99956	<b>Tapia Balancing Pond Sealant Replacement</b>	Dingman	2 New	Appr. Exp.	\$0 \$0	<b>\$80,500</b>
	Replace approximately 1,300' of sealant in the balancing pond.					
	Project Funding:		JPA Share - LV:	JPA Share - TSD:		
	Sanitation Replacement	100.00%	70.60%	29.40%		
	Estimated Impact on Annual Operating Expense		\$0			
99961	<b>Recycled Water Storage Study</b>	Zhao	2 Continuing	Appr. Exp.	\$0 \$0	<b>\$300,000</b>
	To perform a study for potential recycled water storage area identified in 2006 TEA and 2007 RW Master Plan update and the 2012 recycled water storage feasibility study by RMC. The study would include but not be limited to geological, environmental, CEQA, water quality and any regulatory constraints .Continuation of Project 10393.					
	Project Funding:		JPA Share - LV:	JPA Share - TSD:		
	Recycled Water Conservation	30.00%	70.60%	29.40%		
	Sanitation Construction	20.00%				
	Sanitation Replacement	50.00%				
	Estimated Impact on Annual Operating Expense		\$0			

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# JPA - Capital Improvement Project Detail, FY2014-15

Proj #	Project Name/Description	Project Manager	Priority/ Status	through June 30, 2014	FY14-15 Appropriations	
99962	<b>Woodland Hills Golf Course RW Pipeline Extension</b>	Schlageter	2 Continuing	Appr. Exp.	\$0 \$0	<b>\$310,000</b>
<p>Installation of a 16 inch pipeline from the intersection of Park Granada and Park Capri (Calabasas) to the Los Angeles city boundary and extending to the Woodland Hills Country Club. The JPA will manage the development of the preliminary design, environmental documentation (with CEQA) and final design and construction of the project. The JPA will be reimbursed for all costs related to this project by the LADWP.FY 2014-2015 activity includes development of a Preliminary Design Report (PDR) for the project. Construction costs will be added once the PDR provides a construction cost mate. Continuation of Project 10474.</p>						
Project Funding:		JPA Share - LV:		JPA Share - TSD:		
Recycled Water Conservation		100.00%	70.60%	29.40%		
<b>Other Funding from: Los Angeles Dept. of Water &amp; Power</b>		<b>\$12,350,000</b>				
Estimated Impact on Annual Operating Expense		\$0				

<b>Total Capital Improvement Project Appropriations</b>	<b>\$5,146,184</b>
<i>Total Other Funding</i>	<b>\$12,350,000</b>
Total Estimated Impact on Annual Operating Expense	(\$120,000)

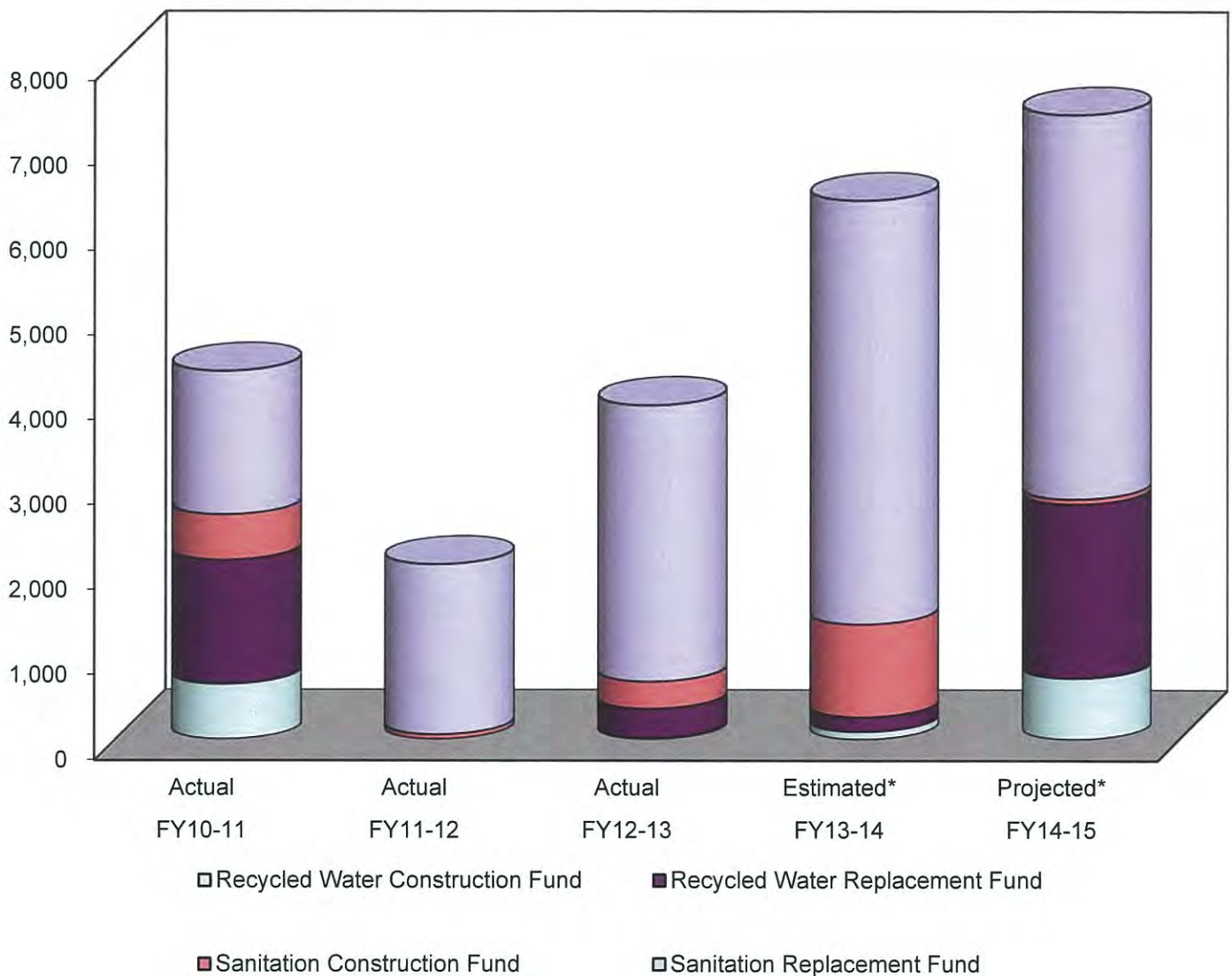
Appropriations by Fund	FY 2014-15 Appropriations	TSD Share	LVMWD Share
Recycled Water Conservation	\$723,103	\$212,592	\$510,511
Recycled Water Replacement	\$1,773,985	\$521,552	\$1,252,433
Sanitation Construction	\$60,000	\$17,640	\$42,360
Sanitation Replacement	\$2,589,096	\$765,769	\$1,823,327
<b>GRAND TOTAL</b>	<b>\$5,146,184</b>	<b>\$1,517,553</b>	<b>\$3,628,631</b>

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**Las Virgenes - Triunfo  
Joint Powers Authority  
Capital Improvement Projects  
Annual Expenditures  
(Dollars in Thousands)**

	FY10-11 Actual	FY11-12 Actual	FY12-13 Actual	FY13-14 Estimated*	FY14-15 Projected*
<b>Recycled Water Construction Fund</b>	649	-	13	91	720
<b>Recycled Water Replacement Fund</b>	1,455	2	346	171	2,048
<b>Sanitation Construction Fund</b>	537	55	320	1,089	60
<b>Sanitation Replacement Fund</b>	1,691	1,998	3,253	4,999	4,530
	<b>4,332</b>	<b>2,055</b>	<b>3,932</b>	<b>6,350</b>	<b>7,358</b>



\*Estimated and Projected expenditures represent working capital requirements for each fiscal year.

**LAS VIRGENES - TRIUNFO JOINT POWERS AUTHORITY**  
**CAPITAL IMPROVEMENT PROJECTS**  
**WORKING CAPITAL REQUIREMENT by FUND**  
**FY 2014-15**

WORK ORDER NO.	PROJECT NAME / FUND	FY 2014-15 PROJECT REQUIREMENTS	% OF TOTAL PROJECT	FY 2014-15 ALLOCATED REQUIREMENTS	JOINT POWERS ALLOCATION			
					TSD SHARE		LVMWD SHARE	
					RATIO	AMOUNT	RATIO	AMOUNT
<b>Recycled Water Conservation</b>								
10536	Agoura Road Recycled Water Main - Ladyface to Cornell Road	\$319,502	100.0%	319,502	29.4%	93,934	70.6%	225,568
99961	Recycled Water Storage Study	\$300,000	30.0%	90,000	29.4%	26,460	70.6%	63,540
99962	Woodland Hills Golf Course RW Pipeline Extension	\$310,000	100.0%	310,000	29.4%	91,140	70.6%	218,860
<b>Total:</b>	<b>Recycled Water Conservation</b>			<b>719,502</b>		<b>211,534</b>		<b>507,968</b>
<b>Recycled Water Replacement</b>								
10418	Rehabilitation of 18" RW Pipe (Tapia/Mulholland Highway)	\$178,200	100.0%	178,200	29.4%	52,391	70.6%	125,809
10522	Reservoir #2 Improvements (Lining Cover)	\$1,557,010	100.0%	1,557,010	29.4%	457,761	70.6%	1,099,249
10540	Lost Hill Overpass Recycled Water Main Relocation	\$313,000	100.0%	313,000	29.4%	92,022	70.6%	220,978
<b>Total:</b>	<b>Recycled Water Replacement</b>			<b>2,048,210</b>		<b>602,174</b>		<b>1,446,036</b>
<b>Sanitation Construction</b>								
99961	Recycled Water Storage Study	\$300,000	20.0%	60,000	29.4%	17,640	70.6%	42,360
<b>Total:</b>	<b>Sanitation Construction</b>			<b>60,000</b>		<b>17,640</b>		<b>42,360</b>
<b>Sanitation Replacement</b>								
10446	Buffer Land at Rancho	\$250,000	100.0%	250,000	29.4%	73,500	70.6%	176,500
10512	Tapia: Primary Tank Rehabilitation	\$636,015	100.0%	636,015	29.4%	186,988	70.6%	449,027
10513	Tapia Sluice Gate and Drive Replacement	\$342,000	100.0%	342,000	29.4%	100,548	70.6%	241,452
10520	SCADA System Communication Upgrades	\$86,861	100.0%	86,861	29.4%	25,537	70.6%	61,324
10537	Raw Sludge Wet Well Mixing Improvements	\$100,000	100.0%	100,000	29.4%	29,400	70.6%	70,600
10538	Tapia Channel Mixing Improvements	\$410,000	100.0%	410,000	29.4%	120,540	70.6%	289,460
10544	Centrate Tank Cathodic Protection (CP) System Replacement	\$118,816	100.0%	118,816	29.4%	34,932	70.6%	83,884

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**LAS VIRGENES - TRIUNFO JOINT POWERS AUTHORITY  
CAPITAL IMPROVEMENT PROJECTS  
WORKING CAPITAL REQUIREMENT by FUND  
FY 2014-15**

WORK ORDER NO.	PROJECT NAME / FUND	FY 2014-15 PROJECT REQUIREMENTS	% OF TOTAL PROJECT	FY 2014-15 ALLOCATED REQUIREMENTS	JOINT POWERS ALLOCATION			
					TSD SHARE		LVMWD SHARE	
					RATIO	AMOUNT	RATIO	AMOUNT
10549	Rancho Las Virgenes Compost Facility Agitator Control Upgrad	\$14,000	100.0%	14,000	29.4%	4,116	70.6%	9,884
10551	Centrate System - New Pump Impellers	\$35,000	100.0%	35,000	29.4%	10,290	70.6%	24,710
80720	Manhole Rehabilitation, F2/F3 Line	\$15,000	100.0%	15,000	59.9%	8,985	40.1%	6,015
80742	Rancho: Rehabilitate Existing Centrate Line	\$175,390	100.0%	175,390	29.4%	51,565	70.6%	123,825
99901	NPDES Permit Renewal	\$25,000	100.0%	25,000	29.4%	7,350	70.6%	17,650
99927	Tapia Structural Repairs	\$46,500	100.0%	46,500	29.4%	13,671	70.6%	32,829
99929	Tapia Supplemental Carbon Study	\$85,000	100.0%	85,000	29.4%	24,990	70.6%	60,010
99932	Centrate Equalization Tank	\$890,000	100.0%	890,000	29.4%	261,660	70.6%	628,340
99934	Rancho Las Virgenes Digester Cleaning and Repair	\$287,500	100.0%	287,500	29.4%	84,525	70.6%	202,975
99935	Tapia Alternative Disinfection Safety Improvements	\$85,750	100.0%	85,750	29.4%	25,211	70.6%	60,540
99936	Programmable Logic Controller Upgrades	\$216,500	100.0%	216,500	29.4%	63,651	70.6%	152,849
99942	Rancho Las Virgenes Composting Facility: Purchase of New Lo	\$180,000	100.0%	180,000	29.4%	52,920	70.6%	127,080
99946	Sewer Grit Handling	\$50,000	100.0%	50,000	29.4%	14,700	70.6%	35,300
99947	Rancho Facility Improvements	\$174,500	100.0%	174,500	29.4%	51,303	70.6%	123,197
99953	Security Upgrades - JPA	\$5,000	100.0%	5,000	29.4%	1,470	70.6%	3,530
99954	Tapia Equipment Replacement	\$70,750	100.0%	70,750	29.4%	20,801	70.6%	49,950
99956	Tapia Balancing Pond Sealant Replacement	\$80,500	100.0%	80,500	29.4%	23,667	70.6%	56,833
99961	Recycled Water Storage Study	\$300,000	50.0%	150,000	29.4%	44,100	70.6%	105,900
<b>Total: Sanitation Replacement</b>				<b>4,530,082</b>		<b>1,336,419</b>		<b>3,193,663</b>
<b>GRAND TOTAL</b>				<b>7,357,794</b>		<b>2,167,766</b>		<b>5,190,028</b>

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**LAS VIRGENES - TRIUNFO JOINT POWERS AUTHORITY  
CAPITAL IMPROVEMENT PROJECTS  
EXPENDITURE LISTING by FUND  
FY 2013-14 ESTIMATED ACTUAL**

WORK ORDER NO.	PROJECT NAME / FUND	FY 2013-14 ESTIMATED EXPENDITURES	% OF TOTAL PROJECT	FY 2013-14 ALLOCATED EXPENDITURES	JOINT POWERS ALLOCATION			
					TSD SHARE		LVMWD SHARE	
					RATIO	AMOUNT	RATIO	AMOUNT
<b>Recycled Water Conservation</b>								
10536	Agoura Road Recycled Water Main - Ladyface to Cornell Road	\$90,836	100.0%	\$90,836	29.4%	\$26,706	70.6%	\$64,130
<b>Total: Recycled Water Conservation</b>				<b>\$90,836</b>		<b>\$26,706</b>		<b>\$64,130</b>
<b>Recycled Water Replacement</b>								
10418	Rehabilitation of 18" RW Pipe (Tapia/Mulholland Highway)	\$11,530	100.0%	\$11,530	29.4%	\$3,390	70.6%	\$8,140
10516	Recycled Water Master Plan	\$49,669	100.0%	\$49,669	29.4%	\$14,603	70.6%	\$35,066
10522	Reservoir #2 Improvements (Lining Cover)	\$13,317	100.0%	\$13,317	29.4%	\$3,915	70.6%	\$9,402
10534	Rancho Solar Project	\$45,379	100.0%	\$45,379	29.4%	\$13,341	70.6%	\$32,038
10540	Lost Hill Overpass Recycled Water Main Relocation	\$50,744	100.0%	\$50,744	29.4%	\$14,919	70.6%	\$35,825
<b>Total: Recycled Water Replacement</b>				<b>\$170,639</b>		<b>\$50,168</b>		<b>\$120,471</b>
<b>Sanitation Construction</b>								
10487	Construct 3rd Digester at Rancho	\$5,447,424	20.0%	\$1,089,485	29.4%	\$320,309	70.6%	\$769,176
<b>Total: Sanitation Construction</b>				<b>\$1,089,485</b>		<b>\$320,309</b>		<b>\$769,176</b>
<b>Sanitation Replacement</b>								
10446	Buffer Land at Rancho	\$0	100.0%	\$0	29.4%	\$0	70.6%	\$0
10448	Rancho Polymer Feed System Rehabilitation	\$0	100.0%	\$0	29.4%	\$0	70.6%	\$0
10453	Tapia and Rancho Vulnerability Assessment	\$0	100.0%	\$0	29.4%	\$0	70.6%	\$0
10457	Tapia Alternative Disinfection Improvements	\$257,060	100.0%	\$257,060	29.4%	\$75,576	70.6%	\$181,484
10487	Construct 3rd Digester at Rancho	\$5,447,424	80.0%	\$4,357,939	29.4%	\$1,281,234	70.6%	\$3,076,705
10493	Tapia Sludge Screening	\$0	100.0%	\$0	29.4%	\$0	70.6%	\$0
10499	Tapia Grit Cyclone Conveyor System	\$145,997	100.0%	\$145,997	29.4%	\$42,923	70.6%	\$103,074
10512	Tapia: Primary Tank Rehabilitation	\$48,985	100.0%	\$48,985	29.4%	\$14,402	70.6%	\$34,583
10513	Tapia Sluice Gate and Drive Replacement	\$0	100.0%	\$0	29.4%	\$0	70.6%	\$0

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**LAS VIRGENES - TRIUNFO JOINT POWERS AUTHORITY  
CAPITAL IMPROVEMENT PROJECTS  
EXPENDITURE LISTING by FUND  
FY 2013-14 ESTIMATED ACTUAL**

WORK ORDER NO.	PROJECT NAME / FUND	FY 2013-14 ESTIMATED EXPENDITURES	% OF TOTAL PROJECT	FY 2013-14 ALLOCATED EXPENDITURES	JOINT POWERS ALLOCATION			
					TSD SHARE		LVMWD SHARE	
					RATIO	AMOUNT	RATIO	AMOUNT
10515	Sanitation Master Plan Update	\$48,695	100.0%	\$48,695	29.4%	\$14,316	70.6%	\$34,379
10519	Miscellaneous CIP (Bandsaw)	\$11,924	100.0%	\$11,924	29.4%	\$3,506	70.6%	\$8,418
10520	SCADA System Communication Upgrades	\$0	100.0%	\$0	29.4%	\$0	70.6%	\$0
10537	Raw Sludge Wet Well Mixing Improvements	\$0	100.0%	\$0	29.4%	\$0	70.6%	\$0
10538	Tapia Channel Mixing Improvements	\$48,205	100.0%	\$48,205	29.4%	\$14,172	70.6%	\$34,033
10544	Centrate Tank Cathodic Protection (CP) System Replacement	\$25,121	100.0%	\$25,121	29.4%	\$7,386	70.6%	\$17,735
10548	Tapia Roof Replacement	\$23,895	100.0%	\$23,895	29.4%	\$7,025	70.6%	\$16,870
10549	Rancho Las Virgenes Compost Facility Agitator Control Upgrad	\$13,564	100.0%	\$13,564	29.4%	\$3,988	70.6%	\$9,576
10550	Rancho Reactor Room Door Replacement	\$17,467	100.0%	\$17,467	29.4%	\$5,135	70.6%	\$12,332
10551	Centrate System - New Pump Impellers	\$0	100.0%	\$0	29.4%	\$0	70.6%	\$0
<b>Total: Sanitation Replacement</b>				<b>\$4,998,852</b>		<b>\$1,469,663</b>		<b>\$3,529,190</b>
<b>GRAND TOTAL</b>				<b>\$6,349,812</b>		<b>\$1,866,845</b>		<b>\$4,482,967</b>



# RESOURCE CONSERVATION AND PUBLIC OUTREACH

## Program Descriptions

Resource Conservation and Public Outreach Programs are included as individual line-item requests throughout the Budget. To provide a consolidated review, each Program is detailed on the following pages. This allows a more in-depth description of each Program and a more comprehensive perspective than is available within the business unit line-item explanations.

# RESOURCE CONSERVATION AND PUBLIC OUTREACH

## Public Outreach Programs

### School Education

#### FUNDING SOURCES

Las Virgenes MWD - general	701230
Las Virgenes MWD - 100%	101900
Joint Powers Authority - 100%	751840

ACCT #	DESCRIPTION	2013-14 Adopted Budget	2013-14 Estimated Actual	2014-15 Proposed Budget
	<b>Program Expenses</b>			
701230.6602	School Education	19,976	5,691	8,725
101900.6602	School Education - 100% LVMWD	150,012	161,904	177,195
751840.6602	School Education - 100% JPA	6,006	7,706	9,488
	Total Expenses	\$ 175,994	\$ 175,301	\$ 195,408

#### PROGRAM DESCRIPTION

All programs include staff time charged from 701230.6100 and other units.

- 701230.6602 Staff support for Outdoor Education including educational materials.
- 101900.6602 Includes LVUSD water science education school initiative (\$107,000); annual primary school poster contest and related calendar (\$7,500); elementary school theatrical presentations and related take-home support materials (\$8,800); secondary school outreach program (\$5,000) and the annual library book program (\$3,500).
- 751840.6602 Wastewater education initiatives, programs and tours (\$5,000). Also includes programs designed to accommodate home-school students.



# RESOURCE CONSERVATION AND PUBLIC OUTREACH

## Public Outreach Programs

### Public Education

#### FUNDING SOURCES

Las Virgenes MWD - general	701230
Las Virgenes MWD - 100%	101900
Joint Powers Authority - 100%	751840

ACCT #	DESCRIPTION	2013-14 Adopted Budget	2013-14 Estimated Actual	2014-15 Proposed Budget
	<b>Program Expenses</b>			
701230.6604	Public Education	174,293	214,987	173,617
101900.6604	Public Education - 100% LVMWD	105,209	86,643	74,324
751840.6604	Public Education - 100% JPA	34,686	68,114	36,847
	Total Expenses	\$ 314,188	\$ 369,744	\$ 284,788

#### PROGRAM DESCRIPTION

All programs include staff time charged from 701230.6100 and other units.

Overall reductions reflect an anticipated decrease in water conservation advertising programs.

- 701230.6604 Includes community outreach (\$15,000); events and activities (\$50,000); printing and production of customer newsletters (\$30,000), website costs; District brochures and handout materials (\$15,000).
- 101900.6604 Includes water conservation-related display advertising, shut down notifications and other incident-specific notices to customers (\$10,000); conservation education to hotels, restaurants and businesses (\$5,000); chamber directories (\$1,800) and "water supply only" District quarterly tours for potable water (\$4,000), production and mailing of the annual water quality report, production of the annual "Popular Budget", construction project notifications and outreach (variable), rate change notifications.
- 751840.6604 Quarterly tours of Rancho/Tapia (\$4,000); Malibu Creek Watershed and regulatory issue outreach (\$3,500); JPA activities and display advertising related to watershed, compost promotion, pharmaceutical disposal education, etc. (\$10,000).

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# RESOURCE CONSERVATION AND PUBLIC OUTREACH

## Public Outreach Programs

### Community Group Outreach

#### FUNDING SOURCES

Las Virgenes MWD - general	701230
Las Virgenes MWD - 100%	101900
Joint Powers Authority - 100%	751840

ACCT #	DESCRIPTION	2013-14 Adopted Budget	2013-14 Estimated Actual	2014-15 Proposed Budget
	<b>Program Expenses</b>			
701230.6606	Community Group Outreach	25,025	16,919	22,512
101900.6606	Community Group Outreach - 100% LVMWD	24,765	43,923	45,954
751840.6606	Community Group Outreach - 100% JPA	10,001	7,373	7,786
	Total Expenses	\$ 59,791	\$ 68,215	\$ 76,252

#### PROGRAM DESCRIPTION

All programs include staff time charged from 701230.6100 and other units.

- 701230.6606 Includes funding for community forums and workshops (\$10,000); meetings and fees for speaker's bureau, chamber events and luncheons (\$2,000) and community liaison expenses (\$1,000).
- 101900.6606 Includes water-related community group events (\$40,000); brochures, advertising, posters, speaker's bureau publications and supplies, photos and training materials (\$2,000).
- 751840.6606 JPA related publications and community group outreach related to watershed stewardship and NPDES permit (\$6,000) and speaker's bureau expenses (\$1,000).

# RESOURCE CONSERVATION AND PUBLIC OUTREACH

## Public Outreach Programs

### Intergovernmental Coordination

#### FUNDING SOURCES

Las Virgenes MWD - general	701230
Las Virgenes MWD - 100%	101900
Joint Powers Authority - 100%	751840

ACCT #	DESCRIPTION	2013-14 Adopted Budget	2013-14 Estimated Actual	2014-15 Proposed Budget
	<b>Program Expenses</b>			
701230.6608	Intergovernmental Coordination	10,225	11,756	5,504
101900.6608	Intergovernmental Coordination - 100% LVMWD	15,005	1,866	4,324
751840.6608	Intergovernmental Coordination - 100% JPA	16,018	4,807	11,990
	Total Expenses	\$ 41,248	\$ 18,429	\$ 21,818

#### PROGRAM DESCRIPTION

Programmed funds include support for intergovernmental activities such as legislative monitoring and activities with the state legislature, county, cities, school districts, federal agencies and regulatory bodies.

Budget includes funds for responses to legislative or regulatory issues that emerge during the year.

# RESOURCE CONSERVATION AND PUBLIC OUTREACH

## Water Conservation Operations

### FUNDING SOURCES

Potable Water (LVMWD) - 100% 101800

ACCT #	DESCRIPTION	2013-14 Adopted Budget	2013-14 Estimated Actual	2014-15 Proposed Budget
<b>Program Revenue</b>				
4400	MWD Conservation Credit	86,000	61,445	132,555
4421	Prop. 50 IRWMP	11,000	-	-
	Total Revenues	\$ 97,000	\$ 61,445	\$ 132,555
<b>Program Expenses</b>				
6639	Turf Removal Program	65,962	74,597	148,165
6662	Sprinkler Nozzles	55,373	590	-
	Total Expenses	\$ 65,962	\$ 74,597	\$ 148,165

### PROGRAM DESCRIPTION

This program, which receives varying levels of monetary offsets from MWD and other agencies, provides quantifiable, cost-effective water savings through hardware, retrofits and changes in water use practices.

### LINE ITEM EXPLANATIONS

- 4400 Reimbursement for Local Conservation Credits Program.
- 6639 Turf Replacement Program – Incentives provided for removal of turfgrass. Program is administered in-house and funded by MWD as a Member Agency Administered.
- 6662 FreeSprinklerNozzles.com – This fixed spray nozzle retrofit program provides up to 50 free high efficiency sprinkler nozzles for single family residential customers. (Contractor administered, MWD funded)

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# RESOURCE CONSERVATION AND PUBLIC OUTREACH

## Conservation Education Programs

### FUNDING SOURCES

Potable Water (LVMWD), MWD CPP program – 101900

ACCT #	DESCRIPTION	2013-14 Adopted Budget	2013-14 Estimated Actual	2014-15 Proposed Budget
	<b>Program Expenses</b>			
6742	Garden Program	2,922	4,265	15,459
6748	Professional Landscape & Irr Wkshp	6,951	3,879	3,214
6749	Residential Customer Landscape & Irr Training	56,414	60,244	60,742
	Total Expenses	\$ 66,287	\$ 68,388	\$ 79,415

### PROGRAM DESCRIPTION

Conservation Education Programs are designed to educate District customers and contractors working in and around the service area on sustainable, water efficient landscape and irrigation design, maintenance and management concepts and practices.

### LINE ITEM EXPLANATIONS

- 6742 Garden Program – This program funds water efficient landscape and irrigation demonstration gardens in public areas.
- 6748 Professional Landscape and Irrigation Workshops - Pursuing linkages with established conservation programs operated by MWD and others..
- 6749 Homeowner Landscape and Irrigation Workshops – Popular landscape and irrigation design and maintenance classes for single-family and multi-family homeowners. Additional classes, added in response to customer interest, will continue to be developed and offered. The expanded and refocused curriculum will continue to concentrate on water conservaton and sustainable gardening practices (including customer drought response) that can be easily and affordably implemented, will improve garden health, reduce chemical use and deliver other additional benefits from our irrigation water dollars.

# RESOURCE CONSERVATION AND PUBLIC OUTREACH

## Watershed Programs

### FUNDING SOURCES

Potable Water/Grants	101900
Joint Powers Authority/Grants	751840

ACCT #	DESCRIPTION	203-14 Adopted Budget	2013-14 Estimated Actual	2014-15 Proposed Budget
	<b>Program Expenses</b>			
101900.6785	Watershed	13,064	51,066	14,030
751840.6785	Watershed	88,475	84,918	90,840
	Total Expenses	\$ 101,539	\$ 135,984	\$ 104,870

### PROGRAM DESCRIPTION

Multiple projects are administered under this business unit to manage community water resources, especially those that may be affected by District facilities or operations, and to participate in water quality projects supported by the District within the Malibu Creek watershed. Watershed programs focus on advancing the district's leadership role as a steward of the watershed, its water and aquatic life (emphasis on water quality).

### SIGNIFICANT CHANGES

In FY2014-15 we anticipate significant new work for submission of District / JPA projects for Prop. 84 Round 3 grants (IRWMP). We will also re-engage the county and local cities to explore coordinating irrigation runoff control efforts with similar efforts under the MS4 permit.

### LINE ITEM EXPLANATION

#### Watershed Programs

- 101900.6785 Staff support and leadership in the Integrated Regional Water Management Plan (IRWMP), including participation on the Regional Leadership Committee, and subregional steering committee. The objective of this effort is to coordinate water management efforts across the greater Los Angeles County region and secure grant funds for District initiatives through Prop. 84 Round 3 bond funds.
- 751840.6785 Staff participation and technical assistance managing water resources (primarily surface water quality) in the Malibu Creek and upper Los Angeles River watersheds. FY 2014-15 budget Includes \$40,000 for special studies to address information gaps in the recent EPA benthic macroinvertebrate / sedimentation TMDL.

## *Las Virgenes Municipal Water District FY 2014-15 Budget Planning Calendar*

<b>Date Scheduled</b>	<b>Date Completed</b>	<b>BM - Board Meeting</b>	<b>BW - Board Workshop</b>
1/6/2014		BM	JPA Budget Process review - distribute Budget Planning Calendar
1/14/2014		BM	Budget Process review - distribute Budget Planning Calendar
1/22/2014			Budget Kickoff Meeting Distribute Budget Manual YTD reports through December available
1/28/2014		BM	Financial Status Report - Second Quarter
2/3/2014		BM	Financial Status Report JPA - Second Quarter
2/3/2014			Draft 5-year IIP published
2/10/2014			JPA Budget submissions due to Administering Agent
2/10/2014			FY2013-14 estimated actuals/FY2014-15 proposed budget to Accounting, including CIP project budgets
2/18/2014			Line item explanations to Accounting
2/28/2014		BM	IIP to LV Board for review
2/27/2014			Draft budgets (LV & JPA) to departments
3/3/2014		BW	Budget Workshop - JPA
		BM	IIP Review - JPA
		BW	Strategic Plan Workshop Review FY2013-14 accomplishments, propose Action Plan for FY2014-15 Financial Policies Reviewed
		BW	Budget Workshop Review Staffing requirements Discuss funding of OPEB liability
3/10/2014			Dept comments on drafts back to Accounting, including CIP budget comments
3/11/2014		BM	Strategic Plan and Action Plan update approval JPA Finance Committee meeting
3/20/2014			Drafts to Departments, GM & TSD staff Figures ready for Working Capital schedule
4/2/2014			Meetings with GM/Department staff, TSD staff
4/7/2014			Budget Letter, Goals, Objectives due to Accounting
4/7/2014			Final Department changes to Accounting, including CIP changes
4/14/2014			Distribute Preliminary Budgets (LV & JPA)
4/22/2014		BM	Financial Status Report - 3rd Quarter LV Preliminary Budget to Board
5/5/2014		BM	Financial Status Report JPA - Third Quarter JPA Preliminary Budget to Board JPA Recycled Water, Sanitation Master Plans review
5/8/2014			Final changes to Accounting, including CIP - Typos/error correction only Figures ready for Working Capital schedule
5/12/2014			Final drafts to General Manager
5/13/2014		BM	Potable Water, Recycled Water, Sanitation Master Plans approval
5/27/2014		BM	LV Budget Adoption
6/2/2014		BM	JPA Budget Adoption

## GLOSSARY

**005** – Alternate effluent discharge point for treated wastewater from Tapia WRF.

**Account** – A record of a business transaction; a reckoning of money received or paid.

**Accounting System** – The total structure of records and procedures that discover, record, classify, summarize, and report information on the financial position and results of operations of a government entity.

**Accounts Payable** – Purchase of services and supplies as of or prior to June 30 but not yet paid at June 30.

**Accounts Receivable** – General bills due from customers.

**Accrual** – The recognition of a revenue or expense in a budget year even though the actual cash may not be received or paid until the following budget year.

**Acre-Foot of Water (AF)** – The volume of water that would cover one acre to a depth of one foot.

**Adoption** – Formal action by the Board of Directors, which sets the spending limits for the fiscal year.

**Advance Refunding** – A defeasance of outstanding debt prior to the date the bonds can be called by depositing cash and/or securities.

**American Water Works Association (AWWA)** – An international nonprofit scientific and educational society dedicated to the improvement of water quality and supply.

**Amortization** – Gradual reduction, redemption, or liquidation of the balance of an account; according to a specified schedule of times and amounts.

**Appropriation** – A funding authorization made by the Board, which permits the District to incur obligations and to make expenditures of resources.

**Aqueduct** – A canal for conveying a large amount of water.

**Assets** – Resources owned or held by the enterprise as a result of past events and from which future economic benefits are expected to flow to the enterprise.

**Association of California Water Agencies (ACWA)** – Association representing over 400 public water agencies consisting of municipal, irrigation, county and California water districts, and a number of special purpose agencies. ACWA also represents non-profit and non-public mutual water companies. Members provide the link between local, state and federal water projects, and ultimate water consumers.

**Audit** – Performed by the District's independent certified public accountant (CPA), with the objective to determine if the District's financial statements present fairly the District's financial position and results of operations in conformity with generally accepted accounting principles (GAAP).

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**Automatic Meter Reading (AMR)** – Automatic collection of water meter data using remote reading devices.

**Biosolids** – Nutrient-rich solid materials that are produced from the organic residuals that are a byproduct of the treatment of domestic wastewater in a wastewater treatment plant.

**Bond Call** – Bonds that are redeemable by the issuer prior to the specified maturity date at a specified price at or above par.

**Budget** – The District's financial plan balancing proposed expenditures for a certain period of time to the expected income or revenue for that same period.

**California Association of Sanitation Agencies (CASA)** – An organization of various municipal agencies that provide wastewater collection, treatment, transportation and disposal in California.

**California Environmental Quality Act (CEQA)** – Legislation passed in 1969 to implement Federal law establishing environmental standards. Turbidity and other standards were established for treated wastewater discharges into public streams and rivers.

**California Public Utilities Commission (CPUC)** – Commission governing the business operations of private utilities in so much as they affect the rates of the services sold.

**Capacity Fee** – Fee imposed when a customer requests a new service connection. Capacity fee funds are used by the District to plan, design and construct new facilities to support the additional demand placed by on the water and sanitation systems by the new service connections.

**Capital Assets** – Assets of a long-term nature such as land, buildings, machinery, furniture, plants and transmission and distribution infrastructure, and other equipment. The District has defined such assets as those with an expected life in excess of three years and an acquisition cost in excess of \$5,000.

**Capital Improvement Program (CIP)** – A plan to provide for the maintenance or replacement of existing assets, infrastructure, and equipment and for the construction or acquisition of new facilities and equipment.

**Capital Improvement Program-Labor Reimbursement** – Salaries are budgeted 100% in the District's operating budget. Labor expended on capital improvement projects is then reimbursed to the operating budget from the project budget.

**Capital Improvement Project Funds** – Funds used to account for financial resources used for the acquisition or construction of major capital facilities, as approved in the five year Capital Improvement Plan.

**Capitalized Interest** – Funds provided from the proceeds of a bond issue, used to cover interest payments until revenue sources to repay the debt are available.

**Certificates of Participation (COP)** – Form of lease-purchase financing used to construct or acquire capital facilities and equipment.

**Coverage** – A margin of safety for payment of debt service, reflecting the number of times by which earnings for a period of time exceed debt service payable in such a period.

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**Current Assets** – Cash, bank deposits, investments, accounts and other amounts receivable. Assets which can be converted to cash, consumed or sold within one year.

**Current Liabilities** – Accounts, contracts, deposits and other payables due within one year.

**Customer Information System (CIS)** – A system maintaining customer data including usage, billing and payment information.

**Customer Water Budget** – Volumetric allotments of water based on a set indoor demand volume and weather-adjusted outdoor demand.

**Debt** – An obligation resulting from the borrowing of money or from the purchase of goods and services. These include bonds and accounts payable.

**Debt Service** – Interest and principal payments on bond issues and Certificates of Participation. Also included are the issuance costs related to bond funding.

**Defeasance** – To set aside sufficient money to retire outstanding debt when due. A full defeasance results in release from covenants and contractual obligations contained in the bond documents.

**Deficiency** – A general term indicating the amount by which anything falls short of some requirement of expectation.

**Deficit** – The excess of expenditures over revenues during an accounting period.

**Depreciation** – An element of cost resulting from the service of long-lived assets in an economic organization and represents the loss in asset value because of wear, deterioration, obsolescence or action of the physical elements.

**Effluent** – Treated wastewater discharged from wastewater treatment plants.

**Emergency Action Plan (EAP)** – Emergency Action Plan as required by the Federal Energy Regulatory Commission (FERC) as it applies to dams and reservoirs of high or moderate hazard potential to life and property. The EAP consists typically of notification procedures to alert the appropriate authorities in the event of a hazardous condition developing and also includes continuous monitoring of the facility to provide an early warning to the operator.

**Enterprise Fund** – A fund established to account for the financing of self-supporting enterprises, such as a utility fund, which render services primarily to the public.

**Entity** – The basic unit upon which accounting and/or financial reporting activities focus.

**Equivalent Residential Unit (ERU)** – Water usage equivalent to a typical single-family dwelling.

**Expenses** – Decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity.

**Fiscal Year** – The beginning and ending period for recording financial transactions. The District has specified July 1 to June 30 as its fiscal year.

**Full Time Equivalent (FTE)** – An FTE equates to one full-time employee working 2,080 hours per year.

**Fund** – An accounting entity that records all financial transactions for specific activities or government functions.

**Geographic Information System (GIS)** – A system combining computer hardware, software, and geographic data for collecting, storing, analyzing and displaying geographically referenced information.

**Generally Accepted Accounting Principles (GAAP)** – Accounting standards and financial reporting practices promulgated by several national committees and boards. Primary sources for governmental accounting are the National Council on Governmental Accounting, producing governmental accounting, auditing and financial reporting (GAAFR), the Governmental Accounting Standards Board (GASB), and the Government Finance Officers Association (GFOA).

**Governmental Accounting Standards Board (GASB)** – National advisory board of accounting standards for public agencies. Identifies procedures, methods and standards for presenting the financial condition of public agencies.

**Hundred Cubic Feet (HCF)** – The base billing unit used to charge customers for water service, equal to one hundred cubic feet of water. Also used to express Customer Water Budget volumes.

**Infrastructure** – The accumulated pipelines, treatment plants and storage facilities of the District, including all meters, valves, pumps, filters and other appurtenances, whether constructed by the District or dedicated by private entities.

**Internal Service Funds** – Internal Service Funds are used to account for the financing of goods or services provided by one or more departments to other operating departments of the District on a cost reimbursement basis.

**Joint Powers Authority (JPA)** – A joint powers agreement between the District and Triunfo Sanitation District for the purpose of constructing, operating, maintaining and providing for the replacement of a joint sewer system.

**Liabilities** – Present obligations of the enterprise arising from past events.

**Line Item** – Expenditure classifications established to account for and budget the appropriations approved.

**Local Agency Investment Funds (LAIF)** – An investment fund established by the California State Treasurer for the benefit for public agencies. The District, per its investment policy may invest up to the maximum permitted under State law (California Government Code Section 16429.1).

**Maintenance** – The upkeep of physical properties in condition for use or occupancy. Examples are the inspection of equipment to detect defects and the making of repairs.

**Metropolitan Water District (MWD)** – A consortium of 26 cities and water districts that provides drinking water to nearly 18 million people in parts of Los Angeles, Orange, San Diego, Riverside, San Bernardino and Ventura counties.

**Municipal** – In its broadest sense, an adjective, which denotes the state and all subordinate units of government.

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**Net Assets** – The excess of assets over liabilities, represents the cumulative effect of revenues and other financing sources over expenses and other financing uses.

**NPDES** – National Pollution Discharge Elimination System

**O&M** – Operations and Maintenance

**Obligations** – Amounts that a government may be legally required to meet out of its resources. They include not only actual liabilities, but also encumbrances not yet paid.

**Operating Expenses** – All costs associated with the day-to-day business of the District, which are not considered capital improvements or debt repayments.

**Operating Revenue** – Revenue generated from the day-to-day business of the District.

**Potable Water** – Water that is suitable for drinking.

**Projected** – An estimate of revenues and expenditures based on past trends, the present economic situation and future financial forecasts.

**Proposition 50** – The Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002.

**Proprietary Fund** – A method of accounting for a government's ongoing activities that is similar to those often found in the private sector.

**Public Employees Retirement System (PERS)** – An agent, multiple-employer, public retirement system to which the District contributes that acts as a common investment and administrative agent for participating public entities within the State of California.

**Pump Station** – Mechanical devices installed in sewer or water systems or other liquid-carrying pipelines that moves the liquids to a higher level.

**Recycled Water** – Treated wastewater of a quality suitable for nonpotable applications, such as landscape irrigation, decorative water features, and nonfood crops.

**Regional Water Quality Control Board (RWQCB)** – Statewide Regional Water Control Boards that work to preserve California water.

**Reserves** – An amount set aside in an account for future use.

**Reservoir** – A pond, lake, tank, or basin (natural or engineered) where water is collected and stored.

**Resolution** – A special or temporary order of a legislative body; an order to a legislative body requiring less legal formality than an ordinance or statute.

**Revenue** – An inflow of assets, not necessarily in cash, in exchange for services rendered.

**Revenue Bond** – A bond payable solely from net or gross non ad valorem tax revenues derived from general fund revenues, tax increment revenues, or tolls, charges or rents paid by users of the facility constructed with the proceeds of the bond issue.

**Right of Way** – A legal right of passage over another person’s ground.

**Sanitation Service** – The collection, treatment, reuse and disposal of wastewater.

**Sewage** – Word used interchangeably with wastewater.

**Standby Charge** – Fee collected for the maintenance and upkeep of the District’s Potable Water Infrastructure.

**Supervisory Control and Data Acquisition (SCADA)** – The Supervisory Control and Data Acquisition system collects operational data from remote units to monitor and control water and wastewater systems and facilities throughout the District service area.

**Tapia Effluent Alternatives (TEA)** – Study funded by the JPA to identify alternatives to effluent discharge into Malibu Creek.

**Title 22** – Title 22 of the California Code of Regulations sets state environmental health standards for potable and non-potable water. When “Title 22” is referenced in conjunction with reclaimed wastewater, this means a tertiary wastewater effluent that has been filtered and disinfected and meets California State Health Department standards for full human body contact.

**Total Maximum Daily Load (TMDL)** – The maximum amount of a given pollutant that a receiving body of water can assimilate without violating water quality standards.

**Wastewater** – Word used interchangeably with sewage. Any water that has come into contact with, or contains biological contaminants, particulate contaminants, or inorganic or organic solutes.

**Water Budget** – Same as Customer Water Budget.

**Water Reclamation Facility (WRF)** – A facility that controls and filters out raw sewage and water-treating both to meet standards set by state and federal guidelines for the discharge of the effluent into streams and rivers or for reuse, and for the proper disposal of the sludge.

**Water Treatment Plant (WTP)** – A facility that monitors and controls the quality of water, to include purity and turbidity as required by state and federal guidelines.

**Watershed** – A geographic area, surrounded by the highest ridgelines, which drains into a river, river system, or body of water.

**Working Capital** – The difference between current assets and current liabilities. Represents the amount available for operations or other expenditures.

## ACRONYMS

<b>ACWA</b>	Association of California Water Agencies
<b>AF</b>	Acre Feet
<b>AMMS</b>	Automated Maintenance Management System
<b>AMR/AMI</b>	Automated Meter Reading/Advanced Metering Infrastructure
<b>APWA</b>	American Public Works Association
<b>ASCE</b>	American Society of Civil Engineers
<b>AWA</b>	Association of Water Agencies of Ventura County
<b>AWWA</b>	American Water Works Association
<b>BMP</b>	Best Management Practice
<b>BNR</b>	Biological Nutrient Removal
<b>CAL-ARP</b>	California Accidental Release Program
<b>CALPERS</b>	California Public Employees Retirement System
<b>CASA</b>	California Association of Sanitations Agencies
<b>CCR</b>	Consumer Confidence Report
<b>CEQA</b>	California Environmental Quality Act
<b>CIP</b>	Capital Improvement Program
<b>CIS</b>	Customer Information System
<b>CIWMB</b>	California Integrated Waste Management Board
<b>COBRA</b>	Consolidated Omnibus Budget Reconciliation Act
<b>COP</b>	Certificates of Participation
<b>CPUC</b>	California Public Utilities Commission
<b>CUPA</b>	Certified Unified Program Agency
<b>CSMFO</b>	California Society of Municipal Finance Officers
<b>CWEA</b>	California Water Environment Association
<b>DCDA</b>	Double Check Detector Assembly
<b>DCS</b>	Distributed Control System
<b>DE</b>	Diatomaceous Earth
<b>DPH</b>	Department of Public Health
<b>DMP</b>	Digital Map Products
<b>DWR</b>	Department of Water Resources
<b>EAP</b>	Emergency Action Plan
<b>EPA</b>	United States Environmental Protection Agency
<b>ERU</b>	Equivalent Residential Unit
<b>FOG</b>	Fats, Oils and Grease disposal
<b>FSA</b>	Flexible Spending Allowance
<b>FTE</b>	Full Time Equivalent
<b>GAAP</b>	Generally Accepted Accounting Principles
<b>GASB</b>	Governmental Accounting Standards Board

ITEM SA

<b>Geosmin/MIB</b>	Geosmin/Methylisoborneol
<b>GFOA</b>	Government Finance Officers Association
<b>GIS</b>	Geographical Information Systems
<b>GPS</b>	Global Positioning System
<b>HAA5</b>	Haloacetic acids five
<b>HCF</b>	Hundred Cubic Feet
<b>HECW</b>	High Efficiency Clothes Washer
<b>HET</b>	High Efficiency Toilet
<b>HOA</b>	Home Owners Association
<b>HVAC</b>	Heating, Ventilation and Air Conditioning
<b>IIP</b>	Infrastructure Investment Plan
<b>IRP</b>	Integrated Resources Plan
<b>IRWMP</b>	Integrated Regional Water Management Plan
<b>JPA</b>	Joint Powers Authority
<b>JPIA</b>	Joint Powers Insurance Authority
<b>LAFCO</b>	Local Agency Formation Commission
<b>LAIF</b>	Local Agency Investment Fund
<b>LIMS</b>	Laboratory Information Management System
<b>LVMWD</b>	Las Virgenes Municipal Water District
<b>LVR</b>	Las Virgenes Reservoir
<b>LVUSD</b>	Las Virgenes Unified School District
<b>MCRC</b>	Malibu Creek Runoff Control Project
<b>MGD</b>	Million gallons per day
<b>MLSS</b>	Mixed Liquor Suspended Solids
<b>MOU</b>	Memorandum of Understanding
<b>MTBE/TOC</b>	Methyl Tertiary Butyl Ether/Total Organic Compound
<b>MWD</b>	Metropolitan Water District
<b>NGO</b>	Non Government Organization
<b>NPDES</b>	National Pollution Discharge Elimination System
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PERS</b>	Public Employees Retirement System
<b>PLC</b>	Programmable Logic Controller
<b>POWER</b>	Political Officials for Water and Environmental Reform
<b>PPA</b>	Power Purchase Agreement
<b>PVC</b>	Polyvinylchloride
<b>PW</b>	Potable Water
<b>RAS</b>	Return Activated Sludge
<b>RCPO</b>	Resource Conservation and Public Outreach
<b>RLV</b>	Rancho Las Virgenes
<b>RW</b>	Recycled Water
<b>RWPS</b>	Recycled Water Pump Station

<b>RWQCB</b>	Regional Water Quality Control Board
<b>SCADA</b>	Supervisory Control and Data Acquisition
<b>SCAP</b>	Southern California Association of Publicly-Owned Treatment Works
<b>SCAQMD</b>	South Coast Air Quality Management District
<b>SCE</b>	Southern California Edison
<b>SWRCB</b>	State Water Resources Control Board
<b>TEA</b>	Tapia Effluent Alternatives
<b>TMDL</b>	Total Maximum Daily Load
<b>TSD</b>	Triunfo Sanitation District
<b>TTHM</b>	Total trihalomethanes
<b>ULFT</b>	Ultra Low Flush Toilet
<b>UWMP</b>	Urban Water Management Plan
<b>VFD</b>	Variable Frequency Drive
<b>WBIC</b>	Weather Based Irrigation Controller
<b>WDR</b>	Waste Discharge Requirement
<b>WEF</b>	Water Environment Federation
<b>WRF</b>	Water Reclamation Facility
<b>WTP</b>	Water Treatment Plant



**June 2, 2014 JPA Board Meeting**

TO: JPA Board of Directors

FROM: Facilities &amp; Operations

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**Subject: Recycled Water, Sanitation, and Integrated Master Plan Updates 2014: Receive and File**

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**SUMMARY:**

On March 3, 2014, staff and Kennedy/Jenks Consultants made a presentation to the JPA Board on the draft Recycled Water and Sanitation Master Plan Updates. On May 5, 2014, additional JPA Board comments were received on the final draft of the Recycled Water and Sanitation Master Plan Updates. The comments have been incorporated into the final versions of the documents, which are ready to be received and filed.

Additionally, an Integrated Master Plan Update has been completed. The Integrated Master Plan Update provides a layman's executive summary of the Potable Water, Recycled Water, and Sanitation Master Plan Updates and addresses the interrelationships between the potable water, recycled water and sanitation systems. At the JPA Board meeting, a presentation will be made on the Integrated Master Plan Update.

A budget and appropriation increase in the amount of \$15,162 (12.7%) is requested for Kennedy/Jenks Consultants. The increase consists of \$9,190 for the Recycled Water Master Plan Update, \$9,900 for the Sanitation Master Plan Update, and a credit of \$3,928 for the Integrated Master Plan Update. An explanation of the need for the budget and appropriation increase is provided in the discussion section of this report.

**RECOMMENDATION(S):**

Receive and file the Recycled Water Master Plan Update 2014 (JPA Report No. 2561.00), Sanitation Master Plan Update 2014 (JPA Report No. 2560.00), and Integrated Master Plan Update 2014 (JPA Report No. 2563.00); and approve a budget and appropriation increase of \$15,162, consisting of \$7,936 to CIP Job No. 10515 for the Sanitation Master Plan Update and \$7,226 to CIP Job No. 10516 for the Recycled Water Master Plan Update.

**FINANCIAL IMPACT:**

The adopted JPA Fiscal Year 2013-14 Budget includes \$62,500 for the Sanitation Master Plan Update (CIP Job No. 10515) and \$62,500 for the Recycled Water Master Plan Update (CIP Job No. 10516). Budget and appropriation increases in the amounts of \$7,936 and \$7,226 are needed for CIP Job Nos. 10515 and 10516, respectively.

**DISCUSSION:**

The Recycled Water Master Plan Update identifies 22 potential recycled water system expansion projects in both the TSD and LVMWD service areas. The Sanitation Master Plan Update identifies 12 projects at Tapia Water Reclamation Facility and Rancho Las Virgenes Composting Facility to allow the JPA to process 12 MGD of sewage, the ultimate projected influent flow. The 12 projects address operational reliability and efficiency objectives to meet current discharge limits. No expansion of the trunk sewers is projected to be necessary. At the discretion of the JPA Board, the recycled water and sanitation projects included in the Master Plan Updates will be included in future proposed Infrastructure Investment Plans and annual budgets.

Comments from the JPA Board on the Recycled Water and Sanitation Master Plan Updates were incorporated in final versions of the documents. These comments included adding the Sherwood Executive Golf Course to the Recycled Water Master Plan Update, including an index of abbreviations for the Sanitation Master Plan Update, and adding page numbers to the appendices.



The Integrated Master Plan Update confirmed that with the completion of the 1235-Ft. Backbone Improvements Program, the potable system can support the future expansion of the recycled water system with potable supplement during summer demand period. In addition, expansion of the recycled water system in the Seminole and Jed Smith sub-systems can reduce the cost of planned expansions of the potable sub-systems in those areas.

Kennedy/Jenks Consultants requested a fee increase in the amount \$15,162, consisting of \$9,190 for the Recycled Water Master Plan Update, \$9,900 for the Sanitation Master Plan Update, and a credit to the District of \$3,928 for the Integrated Master Plan Update.

The fee increase for the Recycled Water Master Plan Update is associated with additional work to build a new recycled water hydraulic model linking the JPA's GIS parcel information with the recycled water customer billing and demand records. The original proposal from Kennedy/Jenks Consultants included only updating the existing hydraulic model, which did not include the TSD service area.

The fee increase for the Sanitation Master Plan Update is associated with additional efforts in projecting sewer generation quantities, including estimating future conversions of septic systems. This work required a significantly higher level of coordination with city and county planning agencies than originally estimated. The proposed fee increase also includes an additional review and comment iteration for Recycled Water and Sanitation Master Plan Updates. The original proposal from Kennedy/Jenks Consultants estimated only two review and comment iterations.

Finally, the fee credit for the Integrated Master Plan Update is associated with a reduction in the level-of-effort for the document due to use of information that was already included in the Potable Water, Recycled Water, and Sanitation Master Plan Updates.

The final Recycled Water, Sanitation and Integrated Master Plans Updates 2014 will be published on District website.

Prepared By: John Zhao, P.E., Principal Engineer

**ATTACHMENTS:**

[Recycled Water Master Plan Update 2014](#)

[Sanitation Master Plan Update 2014](#)

[Integrated Master Plan Update 2014](#)

A copy of the Recycled Water Master Plan Update 2014 (JPA Report No. 2561.00) can be obtained by contacting the Clerk of the Board, Daryl Betancur at (818) 251-2123.

A copy of the Sanitation Master Plan Update 2014 (JPA Report No. 2560.00) can be obtained by contacting the Clerk of the Board, Daryl Betancur at (818) 251-2123.



# Integrated Master Plan Update 2014

for the  
**Joint Powers Authority of:**

*Las Virgenes Municipal Water District &  
Triunfo Sanitation District*



KJ Project No. 1389005\*00



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### **Integrated Water Master Plan Update 2014**

22 May 2014

Prepared for:

**Joint Powers Authority of:**  
**Las Virgenes Municipal Water District**

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LVMWD Project No. 2563.00

K/J Project No. 1389005\*00

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## Section 1: Introduction and Summary

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This Integrated Master Plan summarizes and synthesizes the results of three recently completed master plan documents:

1. *The Potable Water Master Plan, 2014 Update*, prepared for the Las Virgenes Municipal Water District (LVMWD)
2. *The Sanitation Master Plan, 2014 Update*, prepared for the Joint Powers Authority (JPA) of LVMWD and Triunfo Sanitation District (TSD)
3. *The Recycled Water Master Plan, 2014 Update*, prepared for the LVMWD/TSD JPA and for Calleguas MWD

The different utilities involved in these master plans reflect the differing ownerships of the water and wastewater facilities analyzed in these studies. These jointly-owned facilities and these planning studies also typify the cooperative relationship of water utilities in the area, which goes back several decades. Forward-thinking water planning has produced reliable, efficient regional systems that are the envy of other utilities, including:

- A recycled water (RW) system that makes effective use of every drop of wastewater in the summer and 75 percent of wastewater produced year round,
- A potable water system that provides reliable service to a geographically challenging area, including a reservoir and treatment plant capable of meeting system-wide needs following a major earthquake, and
- A wastewater treatment system that produces useful compost and achieves nutrient limits in its effluent through innovative treatment methods

This Integrated Master Plan serves as an executive report, providing an overview of the three systems, their capabilities and limitations, and issues relevant to their future performance. A particular focus of this report is how each system affects the others; how the recycled system relieves demands from the potable system; how the potable system supplements the recycled system; and how the wastewater system affects and is affected by how much water is recycled. This report is intended for a relatively non-technical reader. Those who seek technical information and discussion will find this in the primary master plan report documents. A general list of Acronyms and Abbreviations is included in Appendix A.

### 1.1 The Potable Water, Recycled Water and Wastewater Systems of Las Virgenes MWD

The Las Virgenes Municipal Water District (LVMWD, District) is located on the western edge of Los Angeles County and includes the cities of Agoura Hills, Calabasas, Hidden Hills, and Westlake Village, as well as adjacent unincorporated areas of LA County. The District provides potable water, recycled water, and wastewater treatment services to roughly 71,000 people within a 122-square mile service area.

The District is geographically widespread, stretching from the northern end of the San Fernando Valley to the southern slopes of the Santa Monica Mountains, serving the area in between the City of Los Angeles and Ventura County, just north of the City of Malibu. The District is also topographically rugged, spanning the ridges, summits, canyons and valleys of the Santa Monica

Mountains. While the majority of District customers reside in communities along the 101 Freeway corridor at an elevation of roughly 1000 feet, high-lift pump stations deliver water to service areas above 2500 feet. Because of this geography, providing water and wastewater services within this area is challenging, with hundreds of miles of pipes and dozens of pump stations and water storage tanks needed to serve some relatively sparsely populated areas.

The areas served by LVMWD have almost no native water sources. Natural surface water is only seasonal and groundwater basins are shallow and generally of poor quality. Essentially all water consumed in this area is imported through the Sacramento delta, where environmental issues and droughts have restricted the amount of water available for export. This imported water is delivered by the Metropolitan Water District of Southern California (MWDSC). The only reliable and relatively abundant local source of water for LVMWD is recycled water.

An additional challenge to operating a water/wastewater utility in this area is created by the inland location of the wastewater treatment facility. For seven months of the year, discharges of treated wastewater to Malibu Creek are prohibited. This has created an additional need to maximize the use of recycled water, whenever and wherever it is feasible.

LVMWD initiated the Backbone Improvement Program in 2008 to address both current and projected future deficiencies in system storage, transmission and treatment capacity that create risks of low pressure, water outages, inadequate emergency supplies and inadequate fire flows. The program consists of transmission mains in Agoura Hills completed in 2012, transmission mains in Calabasas completed in 2014, a five million gallon storage tank under construction in Westlake Village, expansion of the Westlake Filtration Plant and modernization of the Westlake Pump Station. Construction of many of these facilities is necessary to correct the system deficiencies and ensure reliable water service. The analysis of the potable water system in this master plan was based on these improvements being completed. If they are not completed, as planned, many of the conclusions in this report will no longer be valid.

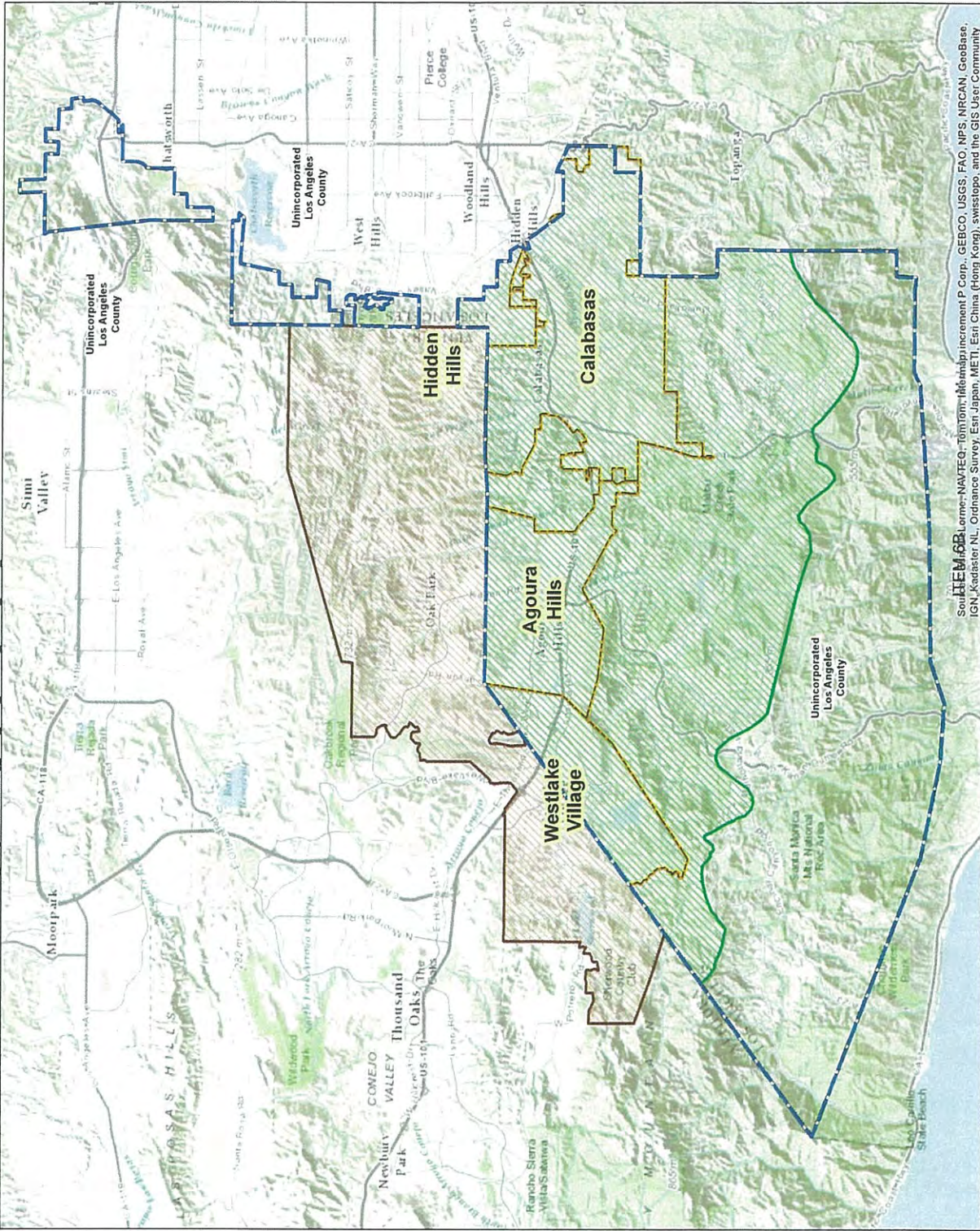
### **1.1.1 The Wastewater and Recycled Water Systems of the JPA**

For wastewater treatment, LVMWD is partnered with Triunfo Sanitation District (TSD) as co-owners of the Tapia Water Reclamation Facility (Tapia WRF). Approximately two-thirds of the water treated at Tapia WRF originates in LVMWD with the other third coming from the community of Oak Park and the Westlake portion of Thousand Oaks. The Tapia WRF service areas are generally within the Malibu Creek watershed, but Tapia WRF also receives water from portions of Calabasas that are naturally tributary to the Los Angeles River. This latter wastewater must be pumped to the top of the Calabasas Grade, where it then flows downhill to the treatment plant. The Tapia WRF is located where Malibu Creek and Cold Creek meet near the intersection of Malibu Canyon Road and Piuma Road.

The JPA's sanitation system also includes the Rancho Las Virgenes Composting Facility for processing sludge pumped from Tapia WRF, 3.8 miles away. At this facility, sludge is dewatered using a centrifuge, anaerobically digested, then mixed with wood chips or other organic amendments. When completed, the compost is approved for both commercial use and distribution to JPA customers.

Not all wastewater generated in the two districts is treated at Tapia WRF due to practical limits in constructing collection and conveyance systems. Flows from some customers are delivered to the City of Los Angeles for treatment. Others rely on individual septic systems. Figure 1-1 shows the LVMWD potable water service area, as well as the TSD and LVMWD areas from which wastewater is collected for treatment.

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**Kennedy/Jenks Consultants**  
 Integrated Water Master Plan Update 2014  
 Los Angeles County, CA

**LVMWD/TSD Service Areas**

K/J 1389005.00

Figure 1-1

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The JPA of LVMWD and TSD also owns and operates a recycled water system recognized throughout California as a model for how wastewater can be effectively recycled. For well over a decade, all water reaching the Tapia Water Reclamation Facility during the summer has been beneficially reused. Together with a connecting system owned by Calleguas MWD (CMWD), the JPA system serves recycled water from Calabasas to North Ranch and to Lake Sherwood, providing water for irrigation of schools, parks, golf courses, street medians, homeowner associations, and other uses, primarily within the communities of Calabasas, Agoura Hills, Westlake Village, Thousand Oaks, and Oak Park.

## 1.2 Water Planning by LVMWD and the JPA

These potable water, recycled water, and wastewater systems are the result of decades of forward-thinking, long-range planning, and commitment. Approximately every 5 to 10 years, starting in 1962, LVMWD has written or updated various water system master plans. Updates to master plans for the Potable Water, Recycled Water, and Sanitation Master Plans were completed earlier this year (2014). To the extent that these master plans have addressed the wastewater treatment and recycled water systems owned by the JPA, TSD has also participated in these studies. This year, TSD has been a very active participant in the master planning process, as well as Calleguas MWD, who funded the development of a computer model for the recycled water system in Ventura County.

As implied by the title of this report, a particular focus is how the three systems function together:

- Treated wastewater becomes the supply for the recycled water system,
- The recycled water system relieves demands from the potable water system,
- The potable water system provides supplemental water to the recycled water system, in order to meet peak demands, and
- The recycling of water helps the wastewater treatment plant meet restrictions of effluent discharge.

The major topics of this report are:

- **Water and wastewater service demands.** How has water demand changed historically in LVMWD and how much is needed in the future? The primary drivers of demand are: 1) land development and associated increases in population, 2) weather conditions, and 3) economic conditions. Thanks to water conservation programs and other factors, LVMWD's demands have leveled off in recent years, but they are expected to ramp up with an improved economy and as land development resumes. With only a small amount of land suitable for development remaining, the era of rapidly increasing demands from large new residential tracts appears to have passed. New demands will come largely from in-fill development and some redevelopment.
- **Water supply.** Nearly all water consumed in LVMWD comes from the State Water Project. A significant portion of this water is used twice within the District. The portion that becomes wastewater is likely to be recycled for irrigation. A small amount of District water also comes from two wells in Westlake Village. An even smaller amount of supply comes from surface runoff captured in the District's Las Virgenes Reservoir, but the quantity of reservoir capture is roughly the same as what is lost to evaporation and seepage. This 10,000 acre-ft reservoir serves as a seasonal storage facility, allowing the District to purchase less water in

the summer. The reservoir also provides the only dependable source of water when the supply from MWDSC is interrupted, such as during planned outages and following a major earthquake.

- **Facilities analyses.** The rugged topography of the potable water service area has necessitated a complex system, where 24 pump stations and 25 water storage tanks are used to supply water to 22 main pressure zones or subsystems. Nearly all these facilities receive water directly or indirectly from the main “backbone” system (the 1235-ft zone), which extends along the 101 Freeway. The highest water storage tank in the system is at 2513 feet. To fill this reservoir, water must be pumped through two separate pump stations.

Though not as complex, the recycled water system pumps water from Tapia WRF (elevation 490 feet) to five different zones, with the highest tanks located in Oak Park and Calabasas at over 1500 feet in elevation. Located just east of LVMWD’s Headquarters, the 45 acre-ft. Reservoir 2 buffers between the demands of recycled water customers and the supply from Tapia WRF, providing about two days of water supply during peak demands.

To assure that these systems function well now and into the future, hydraulic analyses were performed using computer models which examined various scenarios involving peak summer demands, fire flows, and various growth projections. Based on these analyses, improvements have been recommended to address both current and projected future deficiencies. Master planning for these facility improvements is performed to promote an orderly expansion of these utility systems. Facilities constructed to meet current demands also have the capability of meeting future demands.

- **Integration opportunities.** Deficiencies in the potable water systems can sometimes be addressed by expanding the recycled water system. Likewise, deficiencies in the recycled water system can sometimes be addressed by strategic supplements from the potable water system. Expansion of the recycled water system is also an important strategy for minimizing the costs associated with water disposal at Tapia WRF. By considering such opportunities during the analysis of each system, the overall solutions can be optimized.

A reservoir for seasonal storage of surplus recycled water would provide benefits to all three systems. As a means of reducing or eliminating wastewater disposal costs, it would benefit the wastewater system. It also would help relieve demand on the potable system, by eliminating the need for recycled water system supplements. A seasonal storage reservoir would also improve the recycled water system, by providing a larger, nearly drought-proof source of water.

- **Possible capital improvements.** A seasonal storage reservoir for recycled water is just one of many possible improvements to be considered over the next several decades. Other possible recycled water system improvements include ambitious system extensions into the City of Thousand Oaks and into the City of Los Angeles, as well as more modest extensions to serve current and future customers within the LVMWD and TSD service areas. Extensions outside the JPA’s service area will need to be balanced the JPA’s own needs and benefits. Because the District has been very proactive in extending the recycled system within its own area, highly attractive potential recycled water customers are essentially non-existent, but with changing rules, more frequent water shortages, and escalating costs for imported water, decisions related to the cost effectiveness of expanding recycled water systems are being revisited.

For the potable water system, the story is similar. Most of the “Backbone Improvements” identified in the 2007 Master Plan will be completed within a few short years. Once this occurs, the pace of construction for major new facilities will significantly slow. Considering that much of LVMWD’s vacant land is in the more rugged areas of the Santa Monica Mountains, the need for other major improvements may take decades to materialize.

Improvements to the water reclamation system will likely be driven by regulations. While the hydraulic capacity of the treatment plant is generally adequate to handle the expected future flows, with each permit renewal cycle, the Regional Water Quality Control Board develops more stringent requirements, many of which generate the need for new or improved systems of treatment.

In addition to system improvements to meet capacity needs or regulatory requirements, additional improvements will be required over the next few decades simply because the infrastructure is aging and portions will wear out. Much of the infrastructure was constructed in the mid-1960s and is now a half century old. As pipeline breaks become more common, mains will need to be replaced. At an average cost of several hundred dollars per foot, this expense will be significant. Pumps, control systems, compressors, blowers, and other equipment all have finite lives counted in years, not decades. In the future, replacement and rehabilitation projects will likely be the primary elements of infrastructure investments, with an emphasis on energy conservation and resource sustainability.

## **Section 2: Demands for Potable Water, Recycled Water and Wastewater Service**

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### **2.1 Estimating Service Area Demands**

To determine the optimum sizes of the pipelines, pump stations, water storage tanks, and treatment facilities, future demands for water and wastewater services must be estimated. This is generally done by examining the approved use of each parcel of land in the service areas, and assigning it a rate of demand that is appropriate for the approved use. For instance, if a parcel is permitted for a single-family house, the usage estimated for that parcel would be based on how much water is typically consumed and how much wastewater is typically generated by similarly sized single-family residences in the same area.

#### **2.1.1 Estimating Future Potable Water Use in LVMWD**

LVMWD is unusual compared to neighboring water utilities to the extent that large areas of privately-held land are still undeveloped. In the neighboring areas of Oak Park and Thousand Oaks, very little unrestricted, undeveloped land remains. While these communities are surrounded by empty land areas, these areas are largely dedicated as “open space” and cannot be developed. LVMWD, on the other hand, still has many undeveloped private parcels, particularly in the southern half of the service area.

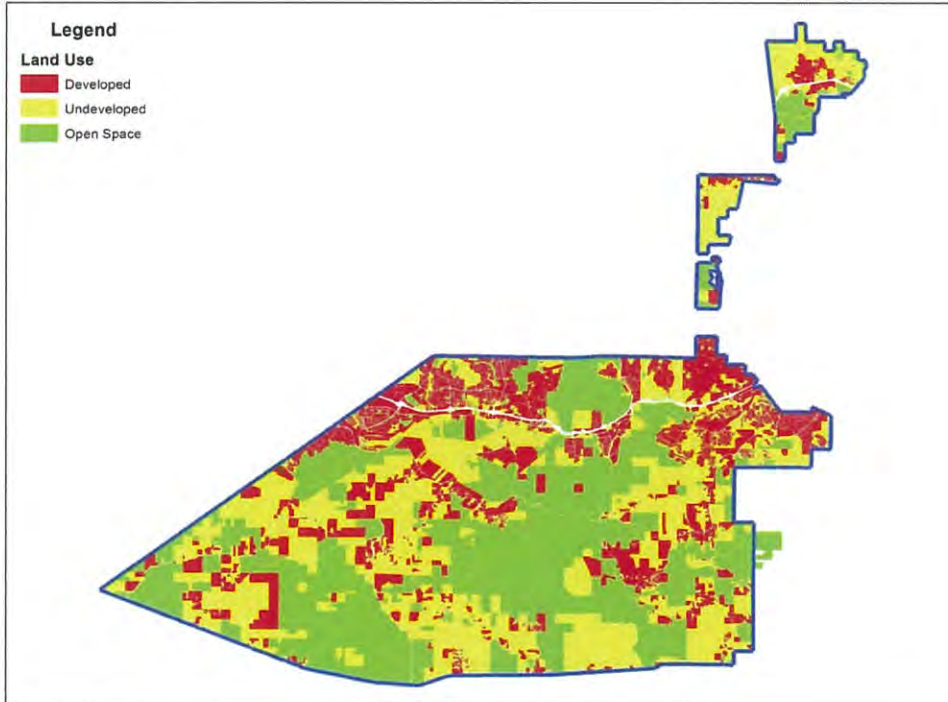
These parcels have not been developed largely due to the topography of the land. To develop many of these parcels, extensive grading would be needed, plus access roads and pipelines would need to be constructed along the ridges and across the rugged ravines of the Santa Monica Mountains. Designing and constructing these facilities is difficult enough; obtaining permits to do so is even tougher. Because of these difficulties, an increasing amount of this land is being deeded to the National Park Service, the State of California, and various land conservancies. However, many undeveloped, unrestricted parcels remain, and must be accounted for as these parcels have a right for services if requested. The implications of this particular development issue have the greatest potential impact on LVMWD’s Seminole/Latigo and Saddle Peak water pressure zones.

Figure 2-1 shows land in the District grouped in three categories: developed, undeveloped, and dedicated open space. The yellow areas are parcels that currently do not receive water from LVMWD, but potentially could in the future. While many of these parcels may never develop, and the maximum allowed development density is generally quite low (e.g., 1 dwelling unit per 10 acres), considerable potential for new water demands exists and are therefore incorporated in this and previous master plans, and other long-range water planning demand projection activities.

Areas of particular concern are:

- The 101 Freeway corridor, where permitted densities are relatively high and potential for redevelopment also exists
- The southwest portion of the district, where water facilities are already operating at capacity, yet a large potential for new demand exists

**Figure 2-1. Developed, Undeveloped, and Dedicated Open Space Land in LVMWD**



### 2.1.2 Estimating Future Recycled Water Use in the JPA

Planning for recycled water system has its own unique challenges. To serve recycled water to a customer, a second pipeline must be constructed, and the cost of the second pipeline is often considered prohibitively expensive. Utilities must therefore make decisions regarding who to serve based on a benefit/cost analysis. The primary benefit of expanding the RW system is a reduction in the cost of water purchased from MWDSC, but there are other benefits that also must be considered. These include the benefits of lessened demands on the potable water system and a reduction in the disposal of unused treated wastewater.

Traditional users of recycled water are schools, parks, golf courses, and similar irrigation users, where a large amount of water is consumed through a small number of meters. Main recycled water pipelines to these customers generally make economic sense. Along the way, these mains may also serve other customers (homeowners associations, commercial facilities, and roadway landscaping), but these smaller customers are seldom the drivers for a new recycled water main. Within the JPA's service areas of Calabasas, Agoura Hills, Westlake Village and Oak Park, there is little untapped potential for additional recycled water use. This is because prior planning efforts at optimizing RW use have been quite successful. Virtually all the schools, parks and golf courses within LVMWD and TSD are currently connected to the RW system. The notable exceptions are Alice Stele School/Freedom Park in Calabasas and the Malibu Golf Course in the Santa Monica Mountains, and neither one is easily reached by the current system. While there are many single-family residences with substantial irrigation demands within the District, serving single-family residences entails added operational costs (training, testing, and paperwork) required by state health officials.



### 2.1.3 Estimating Demands for Wastewater Services in the JPA

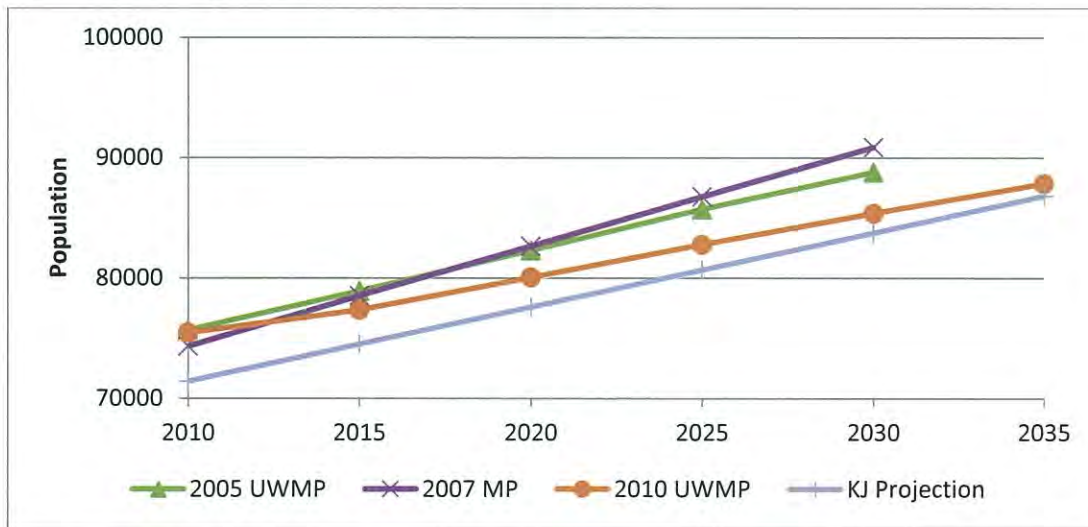
Estimating the demands for future wastewater service is probably the most straight-forward of the three systems. If a development occurs within the area that drains toward the Tapia WRF, the wastewater generated by the development is assumed to be collected and conveyed to Tapia for treatment. Wastewater from remote properties is very often economically handled with on-site septic system, rather than by constructing a sewer pipe to the property. However, as infill occurs and these properties become less remote, conversion from an on-site septic system to the local sewer system would be expected and should be considered in the plan.

Even if all developed property in the watershed is eventually connected to Tapia WR, there are some areas where LVMWD potable water customers will never be connected to Tapia WRF. Specifically, the south facing slopes of the Santa Monica Mountains, where water drains towards Malibu (and no treatment currently exists), and the properties along the north and west side of the San Fernando Valley, where wastewater naturally flows to Los Angeles treatment facilities.

## 2.2 Projections of Future Population

Historically, the primary driver of increasing demand for water and wastewater services has been population. As the Cities of Calabasas, Hidden Hills, Agoura Hills and Westlake Village were established and filled in, demands for water and wastewater service developed. Figure 2-2 shows the expected population figures for Las Virgenes, as found in various studies, including the 2014 Water Master Plan (“KJ Projection”). As more and more land in the District has become dedicated open space, projects have tapered. The original projections from the 1960s estimated a future population of nearly 140,000, compared to the most recent projection of roughly 87,000. The current population in the LVMWD service area is a little more than 71,000.

**Figure 2-2. Population Projections for LVMWD**



Legend: UWMP = Urban Water Management Plan; MP = Master Plan

For an agency like LVMWD, whose service area encompasses multiple cities and unincorporated areas, one of the major planning challenges is the collection and integration of land use data from several different sources. In general, agencies develop and manage information in different ways or platforms, compile data differently, and utilize different definitions to describe their information and data. Within LVMWD’s service area each agency has its own unique land use categories and definitions. Another common issue associated with

master planning is the unquantifiable pace of growth within a service area. While land use planning and other data provide a reasonable nexus for where growth will occur, the pace at which that growth will occur is dependent on many factors that are difficult to predict.

### **2.3 Regulatory Requirements**

A backdrop to the development of water master plans is the regulatory framework for operating and managing a publicly owned water system. There are a number of state and federal requirements that are established to assure public safety, performance, and water quality. While these regulations are constantly being updated, LVMWD and the JPA have developed ongoing programs and procedures to comply with the core regulatory requirements.

Among the main regulations that affect water utilities are the criteria that must be used to evaluate the operation of the potable water distribution facilities. California Code of Regulations Title 22 states that, "At all times, a public water system's source(s) shall have the capacity to meet the system's maximum day demand." Fire flow requirements are established by the Los Angeles County Fire Department Regulation No. 8. The type and size of structures served by the potable water system determine the fire flows. The potable water system is required to sustain the required flow rate for the prescribed duration at a residual pressure of 20 pounds per square inch (psi). Wastewater utilities must likewise meet regulations regarding the quality of the water that is disposed to surface waters and recycled for irrigation and other use. Other regulations dictate where and how recycled water may be used.

Enacted in 2009, Senate Bill x7-7 (SBx7-7) requires a statewide 20 percent reduction in urban per capita water use by year 2020. It requires that urban water retail suppliers determine baseline water use and set reduction targets according to specified requirements. Failure to achieve the goals renders a water utility ineligible for state grants and loans.

While not directly affecting this planning effort, an additional issue facing LVMWD's water systems is the cost implications of the Bay Delta Conservation Plan (BDCP) and associated Delta Habitat Conservation and Conveyance Plan. The cost of water purchased from Metropolitan Water District of Southern California (MWDSC) may escalate sharply as a result of projects to improve water conveyance through the delta and lessen the environmental effects.

### **2.4 Topography and Climate**

The climate in LVMWD's service area is semi-arid with mild winters, warm summers and moderate rainfall, consistent with coastal Southern California. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or dry hot Santa Ana winds. Summers are quite dry with an average temperature of about 76°F, and almost no rain. Winters are generally cool and wet with an average temperature of about 67°F. August is generally the warmest month.

Within the LVMWD/JPA service area, considerable climate variability exists, creating large differences in water demands and summertime peaks. As one moves away from the coast, summertime water demands increase considerably, with seasonal peaks in the hottest areas more than twice the peaking level that is found nearer to the coast.

### **2.5 Historical and Future LVMWD Potable Water Demands**

Figure 2-3 shows historical potable water consumption within LVMWD along with significant milestones in the system's construction. Construction of the first major infrastructure began in the early 1960s with the Calabasas 8 MG tank and associated transmission pipelines. These facilities are still in use, and a project to rehabilitate this tank is currently underway. In the late



1970s, the source water changed from the Colorado River Aqueduct (“CRA”) to the State Water Project (“SWP”).

This growth in demand follows closely the development and growth of the District, but two remarkable drop-offs in demand are seen, the first starts in the late 1980s and is concurrent with three events, an economic downturn, mandatory water restrictions due to a shortfall in supply from the State Water Project, and the completion of the Western Recycled Water System, which removed considerable demand from the system. The second drop-off starts around 2008 and corresponds to the start of the “Great Recession” and implementation of mandatory water restrictions due to a shortfall in supply from the State Water Project. The various ups and downs in this graph reflect other factors, including the amount of rainfall that occurs in the wet season and the severity of summertime temperatures.

**Figure 2-3. Historical Potable Water Use in LVMWD**

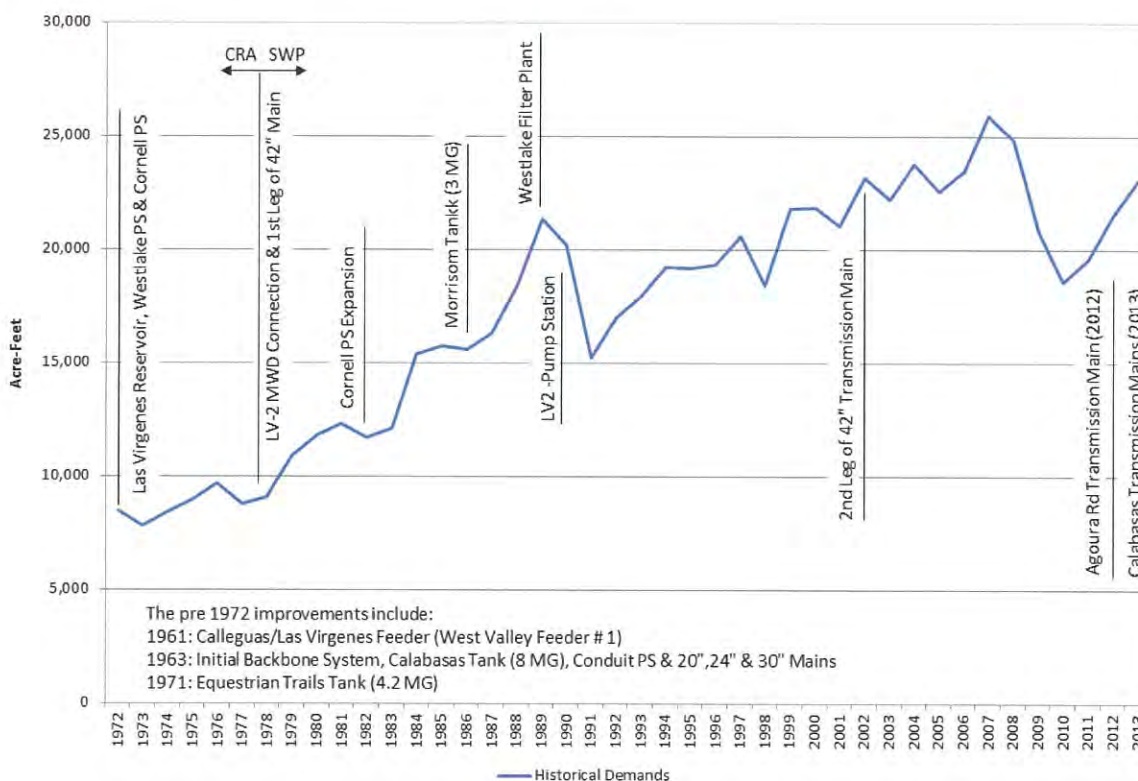
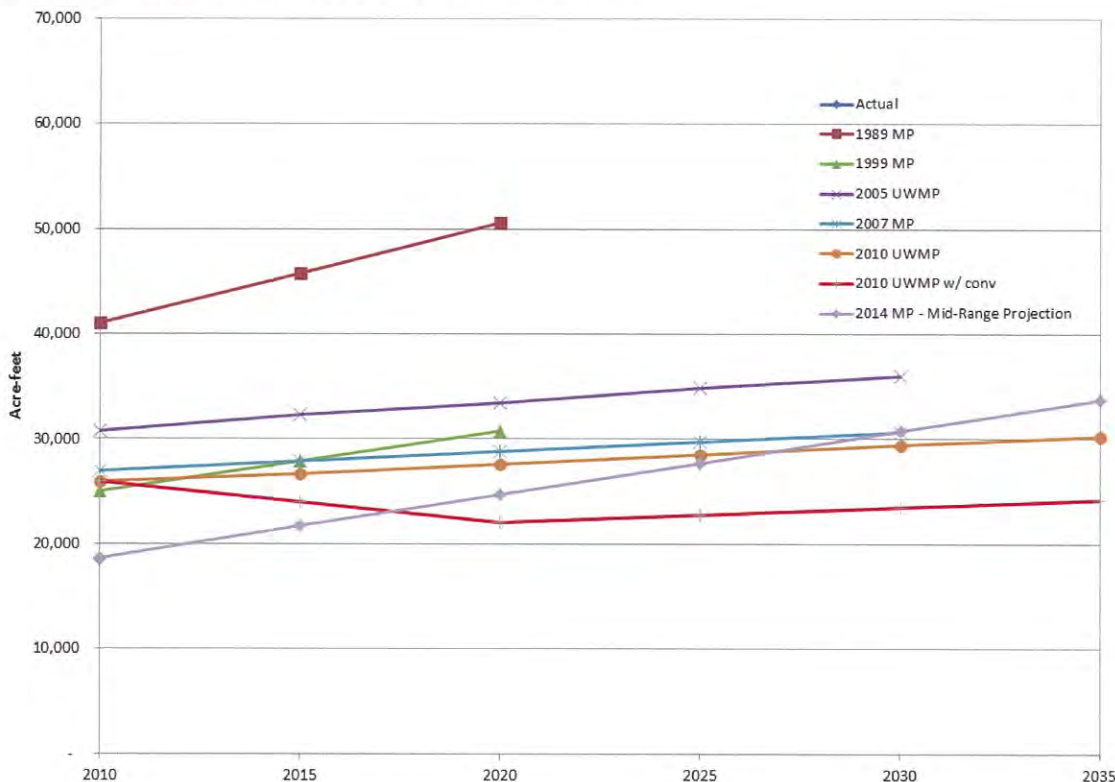


Figure 2-4 presents a compilation of various potable water projections including the most recent projection of future water demands made by Kennedy-Jenks Consultants for the 2014 Master Plan. As part of its forecast, Kennedy-Jenks performed a statistical analysis which showed that the state of the economy, in particular the area-wide unemployment rate, was highly correlated to water demands. As the unemployment rate drops over the next few years, water demands are expected to recover to their pre-2008 level and then continue to climb. As such, the most recent forecast suggests a rebound in demands will likely occur as the economy recovers. Each of these forecasts ends at “build out”, the point when all developable land in the District is used up. For planning purposes, “build out” is projected to occur around 2035, but will actually occur sometime beyond that planning period.

**Figure 2-4. Potable Water Demand Projections**

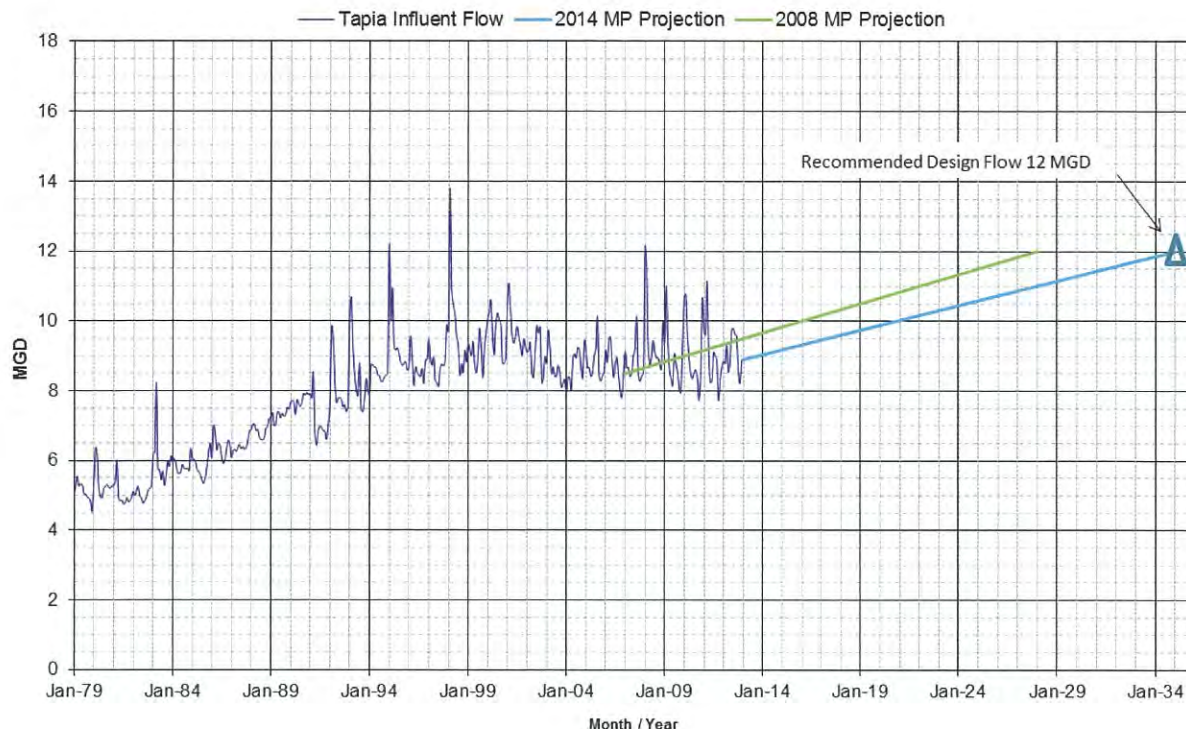


## 2.6 Historical and Future Demands for Wastewater Services

Figure 2-5 shows historical and projected flows of wastewater to the Tapia WRF. This treatment plant was originally constructed in 1965 and has undergone several upgrades and expansion through the years. The last major expansion occurred in the 1990’s provided a hydraulic capacity of 16 million gallons per day (MGD). However, because the plant must now remove nitrogen and other nutrients in addition to meeting the criteria for which it was originally constructed (e.g., “BOD”, biological oxygen demand), the plant is currently able to treat a maximum of about 12 MGD on a typical dry-weather day. At present, the average dry-weather flow is a little more than 9 MGD.



**Figure 2-5. Historical and Projected Wastewater Flows at Tapia WRF**



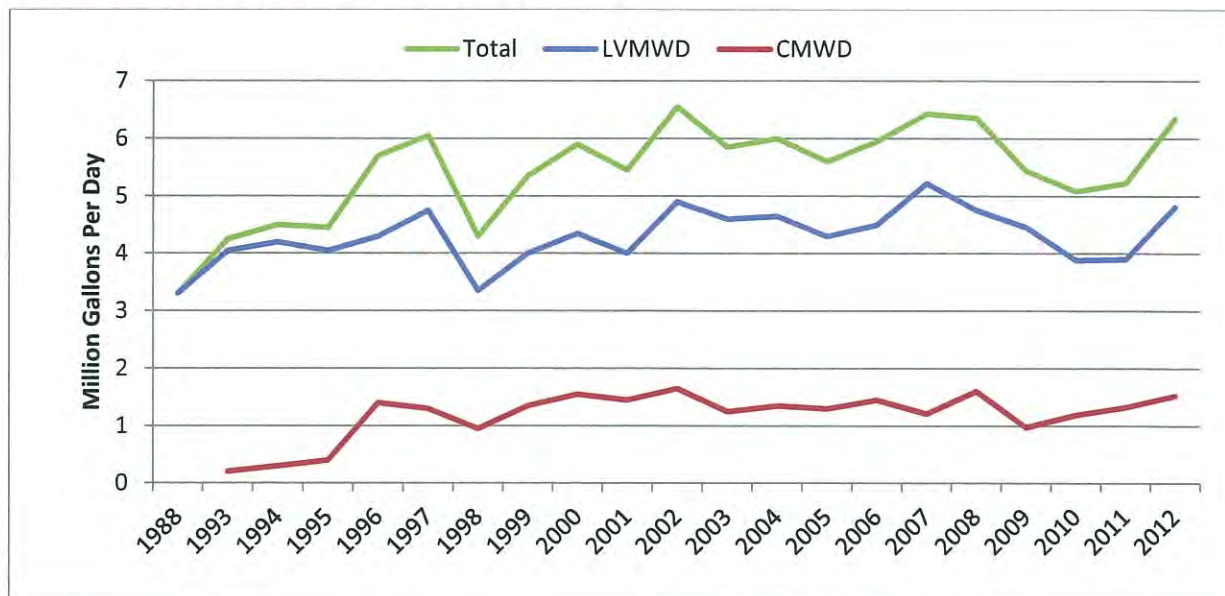
This chart shows a definite flattening of wastewater flows beginning in 1995. Interior water conservation programs such as low-flow toilets, shower heads, washing machines, and other appliances implemented by LVMWD and TSD account for a large part of this change. This chart also shows several peak flows well above the average. These correspond to large rain events, when water flows into the collection system through manhole lids, leaks in pipes, and inappropriate connections of roof drains or other catchments to the sewer system.

### **2.7 Historical and Future Demands for Recycled Water**

Overall records of recycled water sales are shown in Figure 2-6. There has been an upward trend in sales since the system’s inception in 1988, with two noticeable dips in demand. The first one, occurred in 1998 and corresponded to unusually wet “El Niño” year, and a second smaller dip in 2005, when near-record rainfall was also experienced. Higher demands in the early 1990s may also reflect a large amount of grading activity in the district, or some other factor which stimulated a temporary demand for recycled water that then ceased at about the same time as the “El Niño” year. While cooler weather and the economic downturn in the 2008 to 2010 time period have affected recycled water sales, an increase in usage in 2011 and 2012 from an improved economy and hotter, drier weather has returned recycled water sales to near historical highs for the JPA.



**Figure 2-6. Historical Recycled Water Sales**



In general, Ventura County sales (i.e., “CMWD”) have been proportionally lower than Los Angeles County sales (i.e., “LVMWD”). As noted earlier, TSD wastewater customers in Ventura County account for about one-third of the recycled water produced, but recycled water sales to TSD, CalWater, and Lake Sherwood customers in Ventura County account for 25 percent or less of recycled water usage.

An important observation from the information shown in Figure 2-6 is that the JPA has essentially doubled its usage of recycled water since this service began, some 28 years ago. This is particularly noteworthy in light of the importance and scarcity of water supplies in Southern California. Today, approximately 75 percent of the average dry-weather wastewater received at the Tapia WRF is reused through the JPA’s extensive recycled water system.

To maintain or increase the portion of treated wastewater that is used by the recycled water system will be more difficult than in the past. Since infill development is limited and there are minimal new opportunities to serve the typical major recycled water customers (schools, parks, and golf courses), LVMWD, Oak Park Water Service, and other local retail water purveyors will need to make a concerted effort to maximize the use of recycled water whenever new developments occur. The conversion of estate-sized residential customers to recycled water user may also be needed.

Moving forward, the majority of potential growth in recycled water usage will have to come from proposed extensions to the recycled water system. The vast majority of the Recycled Water Master Plan analysis consisted of assessing the hydraulic and economic feasibility of building various recycled water system extensions. These main extensions, summarized in Section 4, would largely serve existing customers both within and outside of the JPA service areas, converting a portion of existing potable water demand to recycled water use.

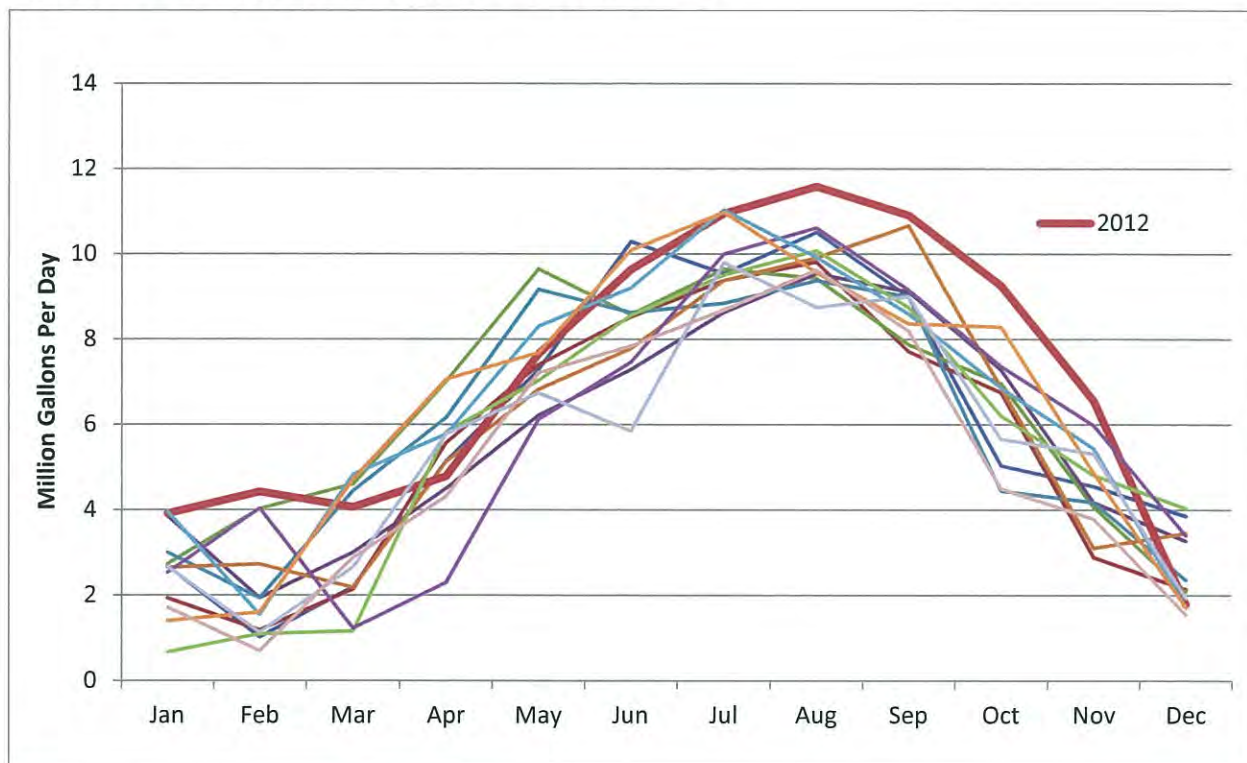


## 2.8 Seasonal Variations in Water Demand

As one would expect, demands for water vary considerably with the season; summer usage is often two to three times higher than winter water usage. Seasonal peaking is particularly pronounced for the recycled water system which is used for little else but irrigation in the JPA areas. In wet years in particular, sales in January and February can be miniscule, then sharply escalate as temperatures increase and the rain disappears.

Figure 2-7 shows the variability in monthly recycled water sales over the last 12 years, with 2012 graphically emphasized. It appears that higher sales in the winter, summer and fall of 2012 contributed to a near-record recycled water sales year. This large uptick in total annual sales was previously shown in Figure 2-6. This review of the seasonal 2012 demands suggests that the recent increase in usage may partially diminish when wetter winters and cooler weather returns. On the other hand, as discussed by Kennedy Jenks in the 2014 Potable Water Master Plan Update, since the state of the economy tends to have a greater influence on water usage than the weather; even higher recycled water usage may occur with continued economic improvement.

**Figure 2-7. Average Monthly Recycled Water Sales**



An important element of integrated planning is the seasonal imbalance of recycled water demands and the availability of treated wastewater (supply). The supply is relatively constant but the demand is anything but constant. This seasonal imbalance is discussed in the following section of this report.

## **Section 3: Water Supplies**

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Located in the Santa Monica Mountains, LVMWD has limited availability of natural water resources and is currently limited to four sources: treated, potable water imported from Metropolitan Water District of Southern California (MWDSC), recycled water from the Tapia Water Reclamation Facility, groundwater from the “Westlake Wells” (Russell Valley Basin, used to supplement Tapia WRF), and surface runoff into Las Virgenes Reservoir. The imported water supplied to LVMWD originates from the State Water Project (SWP).

Although not a subject of this study, the water supply to TSD is similar, with MWDSC water being supplied through the Ventura County wholesale agency, Calleguas Metropolitan Water District (CMWD) and recycled water from Tapia WRF.

### **3.1 Imported Water - MWDSC**

Imported water is the primary water source and supplies virtually all potable water demands. LVMWD’s imported water supplier is MWDSC, which imports water from northern California through the SWP and the Colorado River to meet the needs of 26 member agencies across six Southern California counties. MWDSC also supplies water to CMWD, which supplies water to TSD and other Ventura County water utilities.

LVMWD and CMWD are two of MWDSC’s 26 member agencies. Currently, the configuration of MWDSC’s distribution system provides LVMWD and CMWD solely with SWP water originating from northern California through the Sacramento-San Joaquin Bay-Delta. This may change; in response to the current severe drought, MWDSC has indicated that Colorado River Water may soon return to LVMWD and CMWD. Should this occur, it is projected to be a temporary water supply condition.

The SWP water is treated at the Jensen Filtration Plant in Granada Hills prior to delivery to LVMWD. LVMWD maintains three connections to the MWDSC system, all on the eastern side of the District. The most important connection is “LV-2”, a metering and pumping facility located in Old Town Calabasas. LV-2 supplies more than 90 percent of the MWDSC water consumed by the District, while the remaining 10 percent is supplied by the LV-1 and LV-3 connections.

### **3.2 Groundwater – Russell Valley Basin**

Groundwater underlying the JPA service areas is of poor quality and is not currently used for the potable water supply systems. Currently, the JPA operates two groundwater wells in the Russell Valley groundwater basin (Basin): Westlake Well 1 and Westlake Well 2, near the intersection of Lindero Canyon and Lakeview Canyon Road. Both wells pump water from the Russell Valley. The combined capacity of these two wells is approximately 1.15 MGD (800 gallons per minute (gpm)), but extended reliable production averages about 0.75 MGD (500 gpm), when run for several consecutive summer months.

Due to high levels of iron and manganese in this basin, groundwater pumped from these wells would require treatment to be used for drinking water. To avoid the cost of a separate treatment facility, the pumped groundwater is discharged into the sewer collection system. After mixing with wastewater, this water is treated at the Tapia WRF and used to supplement needed recycled water system production in the summer, when demands for recycled water exceed the normal supply from Tapia WRF.



### 3.3 Other Sources of Water

Las Virgenes Reservoir is a key facility for the LVMWD system, as it provides both seasonal and emergency storage. The reservoir allows LVMWD to purchase water from MWDSC in the winter and store it for summer. The storage capacity for this reservoir is 9600 acre-feet. While the Las Virgenes Reservoir is not truly a "source" of water, it is the primary water supply when the MWDSC supply is interrupted for maintenance or emergency conditions. It is also used to meet peak summer demands, enabling smaller transmission pipes and pumping facilities, by providing a source of water on the west side of the District, balancing the MWDSC supplies on the east side. The Las Virgenes Reservoir is located in the hills just south of Westlake Village.

In addition to serving as a seasonal storage facility, the Las Virgenes Reservoir also provides emergency storage capacity during imported water outages. Although LVMWD also utilizes a connection to the Los Angeles Department of Water and Power (LADWP) System during scheduled MWDSC outages, following a major earthquake, the Las Virgenes Reservoir is the only source of supply that the District can count on. Lake Bard in the CMWD system provides a similar function for TSD and other Ventura County utilities.

While these reservoirs watersheds do not supply a significant source of water in most years, runoff does help offset evaporative and seepage losses. In very wet years, significant inventories have been realized. Based on an assumed watershed area of 550 acres, the Las Virgenes Reservoir watershed is estimated to receive about 770 AF annually. Average evaporation losses are estimated at about 700 AFY.

In addition to the connection to the LADWP system, Las Virgenes has a small connection to Ventura County Waterworks District No. 8, which supplies a few customers in the Box Canyon area. A large intertie connection with Calleguas MWD has been studied several times, including during the 2014 Potable Water Master Plan. This connection would provide mutual benefit, particularly during times of emergency. LVMWD also occasionally supplies water to Malibu and Oak Park through small connections.

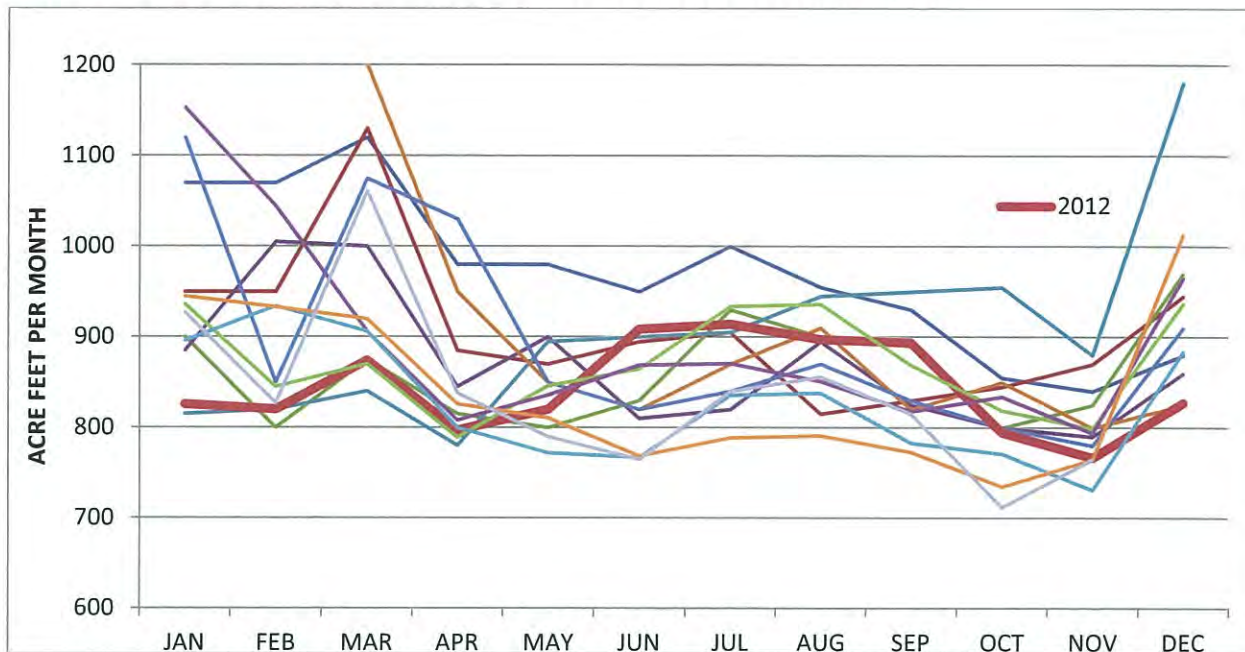
### 3.4 Recycled Water Supply

The year-round supply of recycled water to the JPA's Recycled Water System is tertiary-treated wastewater produced at the Tapia WRF. Supplies of groundwater from the Westlake Wells and potable water are also used to supplement the recycled water to meet peak demands. These supplemental sources allow a greater volume of wastewater to be recycled during non-peak periods which results in greater overall usage of recycled water and lower demands for imported water.

Figure 3-1 shows the monthly variation in Tapia WRF inflow from 2000 to 2012, with January generally being the largest inflow month. This figure shows that recent flows have been somewhat lower than in previous years. The flows in the traditionally wet weather period of December through March have been markedly lower. Since this is the seasonal period when sales of RW water are low, this water is excess to the recycled system and has limited value to the JPA at this time.

The average daily wastewater flows to Tapia WRF are fairly constant, but do show some seasonal variation. Flows are generally highest in the wintertime after rain, due to inflow and infiltration (I/I) into the sewer pipelines. Infiltration is the result of water entering joints or cracks in the sewers from the ground either due to a high water table or due to interflow in the ground. Infiltration tends to increase wastewater flows throughout the winter period with some variation. Inflow is a result of storm water entering manhole lids, illegal storm-water cross connections, or from other surface features. Inflow peaks with rain, but decreases shortly after the rain event ends.

**Figure 3-1. Historical RW Production at Tapia WRF, 2000 through 2012**



Note: Flows include supplemental water from the Westlake wells (typically June through September)

The flows shown in Figure 3-1 include the water pumped from the Westlake Wells. This water is discharged to the sewer system and is processed through Tapia WRF and thus is recorded by the influent meter. Other supplemental sources of water are provided at various points in the recycled water distribution system and are not shown in this figure.

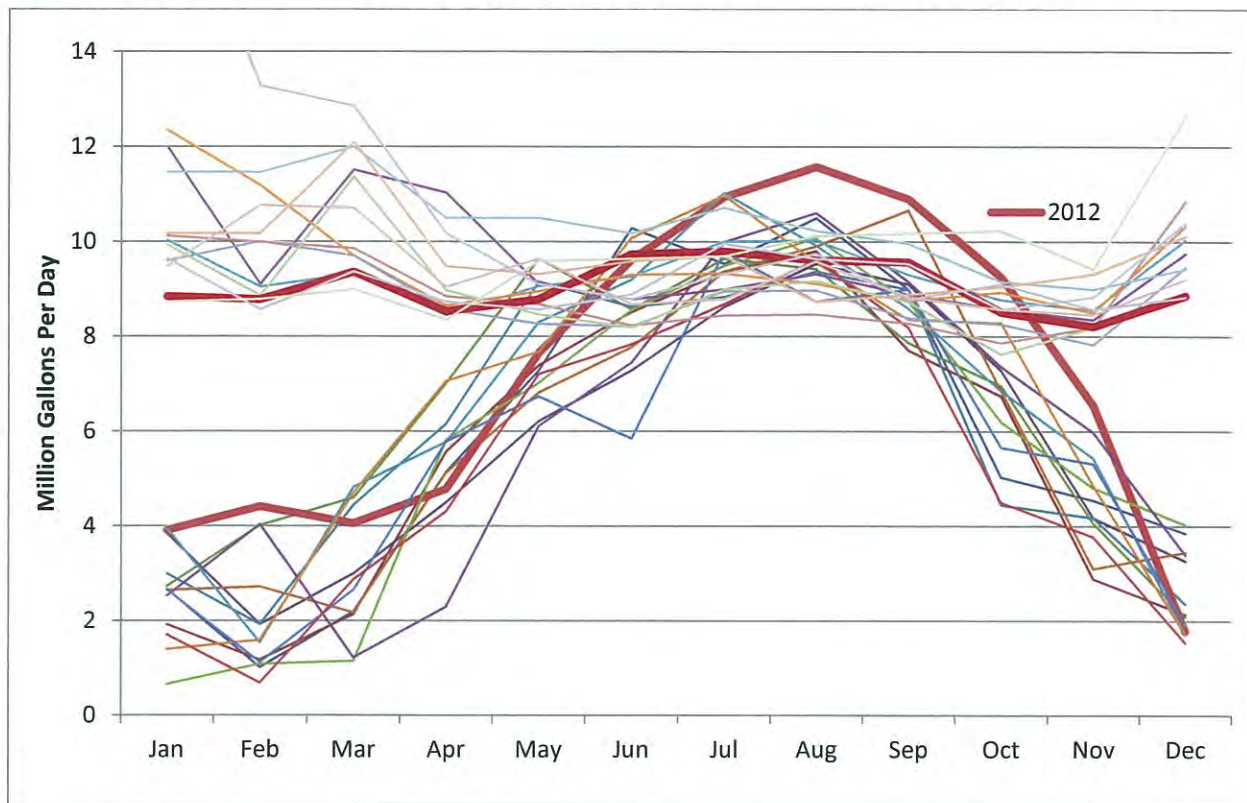
### 3.5 Supply vs. Demand

Figure 3-2 compares monthly recycled water sales with available recycled water for the years 2000 through 2012. This figure shows that recycled water sales in the summer significantly exceed recycled water availability, even when water from the Westlake Wells was provided. This means that considerable potable water supplement is needed, starting in late June and continuing into October.

Potable water is supplied to the recycled water system through various “air gaps” which prevent the backflow of water from the recycled water system into the potable water system. Las Virgenes has such facilities within each of its RW pressure zones. A similar supplemental facility has been suggested for the Oak Park RW system, to increase its reliability and improve its ability to supply a major extension into Thousand Oaks, if such an extension is implemented.



**Figure 3-2. Comparison of Monthly RW Sales and Supply, 2000 through 2012**



**Note:** Flows include supplemental water from the Westlake Wells, but not potable water supplement

An alternative to the use of the Westlake Wells and potable water to supplement the RW system would be to store surplus RW in the winter for use in the summer. Such seasonal storage has been evaluated in several studies, but the current and foreseeable future demands are insufficient to make a seasonal reservoir economically viable. There are also considerable environmental and regulatory difficulties associated with permitting an open-reservoir storage project. Such a project would likely be controversial, necessitating substantial public outreach and education. At this time, the storage of surplus RW in groundwater basins in the area has been determined to be unfeasible due to limited capacities and environmental concerns.

Of the wastewater processed at Tapia WRF, about two-thirds derives from the LVMWD service area in Los Angeles County and one-third comes from the TSD service areas in Ventura County. Each of these utilities is entitled to recycled water in proportion to their wastewater contribution.

### 3.5.1 “Shoulder Month” Strategies

In the operation of the JPA system, a chief concern is how best to dispose of water in the “shoulder months”. This is the time of year when the supply of recycled water exceeds demands, and the excess water cannot be discharged to Malibu Creek due to the permit restrictions. This occurs in the spring (April 15 through mid-June) and late fall (mid-October to November 15). Disposing of this excess water creates added costs for the JPA.

The JPA has disposed of water during these shoulder-month periods through a combination of strategies:

- **Give away.** During the shoulder months, recycled water customers are encouraged to use water above their normal requirements at no added cost. This disposal method is very cost-effective. The only added cost to the JPA is the cost to pump the water to the customer and the administrative cost of figuring out what portion is free and what is to be billed.
- **Spray fields.** The JPA owns several nearby fields where irrigation systems are set up during the shoulder months and water is applied through spray application. Disposal occurs through evaporation and consumption by grass that is then harvested. This disposal alternative is relatively expensive due to the labor intensive work of setting up and operating the irrigation systems and harvesting the grass.
- **Los Angeles River.** The JPA has a discharge permit that allows water to be discharged to a stormwater conduit in Calabasas that drains to the Los Angeles River. Disposal through this facility is relatively inexpensive, although it requires pumping the water to a relatively high elevation. Additional testing and monitoring for the NPDES permit is also needed.

LVMWD also has the ability to divert a portion of Calabasas-area wastewater flows to the City of Los Angeles sewer system. While these diversions were frequent in the past (and expansion of this capability was once studied), this is now a costly strategy due to the charges by Los Angeles to accept these flows.

### 3.5.2 Potable Water Reuse

As water supplies in California and elsewhere have become more constrained, there has been increasing focus on using advanced treated purified water (ATPW) as a supply for potable water systems. Indirect reuse is where ATPW is discharged to a lake or groundwater basin in locations that are relatively removed from water intakes or wells. The time required for the water to travel from discharge point to intake enables additional natural treatment to occur as well as allows a time buffer, in case of a malfunction of the treatment process. Indirect reuse already occurs in several systems throughout the United States and California. Direct reuse is where ATPW is used as a supply to a potable water treatment plant or directly used in a potable water distribution system. Direct reuse is currently not permitted in California, but studies are underway with the goal of developing regulations for its future implementation. Direct reuse is currently being implemented in Texas.

In order to use RW as a source of producing ATPW either directly or indirectly in the LVMWD or TSD systems, additional treatment involving ultra-filtration, reverse osmosis, and disinfection using UV and peroxide would likely be required. At the current time, this is not practical because such treatment produces a concentrated brine, which would need to be discharged to the ocean or through deep-well injection. Constructing an ocean outfall extending from Tapia through Malibu and into the ocean would be a very expensive project, and would result in considerable opposition. Calleguas MWD is currently constructing such a brine disposal pipeline which has an ocean outfall near Port Hueneme. The Calleguas pipeline should eventually extend to Moorpark and Simi Valley, but this pipeline would still be a considerable distance from the JPA recycled water system. Connecting to this pipeline would be an expensive project, but probably not as controversial as an outfall through Malibu Canyon.

Should a brine disposal method ever be developed (and with anticipated changes in regulation), advanced treated RW could possibly be discharged to the Las Virgenes Reservoir, which would provide both seasonal buffering and dilution.

Brine disposal and potable reuse would also make a seasonal storage reservoir much more attractive. A larger reservoir would capture all excess RW for reuse, not just the portion needed for irrigation customers.

### **3.6 Possible Future Discharge Limits**

In November 2005, the LA RWQCB issued a new NPDES permit for the TWRF. The new permit consolidated the Malibu Creek and Los Angeles River discharge and monitoring requirements under a single permit. A nitrogen requirement of 8 mg/L nitrate, based on the EPA TMDL, was specified. An associated TSO provides less stringent, interim limits until the final compliance date of May 18, 2010. Facilities needed to comply with the nitrogen requirement have been constructed and have been in operation since late 2009. In addition to the nitrogen requirement described above, the permit also includes requirements for other constituents. A 3 mg/L total phosphorus limit as a monthly average, based on historical plant performance, is unchanged in the new permit from the previous 1997 permit. However, the daily maximum value is more restrictive, changing from 6 mg/L to 4 mg/L. Compliance has generally been achieved since the end of 2011.

It should be noted that discharge limitations for some of the mineral-based constituents, like total dissolved solids and chlorides, are actually more stringent to the LA River than to Malibu Creek. Since mineral removal at Tapia WRF would be a high cost addition to the plant, it is recommended that the JPA continue to monitor mineral constituents for trends in increased loadings. Moreover, given the potential significant cost of mineral removal for LA River discharges emphasizes the long-term benefit of maintaining the ability to discharge to Malibu Creek. While there are limits for other toxic materials, these are not anticipated to pose compliance problems based on recent plant performance.

The current permit also includes a provision for an annual Reasonable Potential Analysis (RPA) that may trigger new limits for priority pollutants that have a reasonable potential to cause, or contribute to an excursion above any State Water Quality Standard. Some of these pollutants include those discussed previously. In the first RPA conducted under the new permit, seven pesticide chemicals triggered reasonable potential. A reopener provision in the permit allows the LA RWQCB to reopen the permit to allow inclusion of new numeric limitations for constituents that exhibit reasonable potential. No treatment facilities are planned to remove these constituents. The current permit also retained the Malibu Creek discharge prohibition from April 15 to November 15 except during treatment plant upsets and operational emergencies, qualifying storm events, and creek flow augmentation.

The JPA anticipates the next discharge permit will be issued in the fall of 2015. With each renewal, there's a significant chance expensive plant upgrades will be required. In the Tapia Effluent Alternatives (TEA) Study of 2005 (LVMWD Report No. 2321.03), Kennedy/Jenks explored dozens of alternatives to Malibu Creek discharges, but found that complete creek avoidance would be very costly. In the meantime, prudent expansions of the RW system offers a sound approach to efficiently maximize the use of this local water resource, meet the complex regulatory requirements of seasonal discharges to Malibu Creek, and provide a financial hedge against the rising costs of imported water.

## **Section 4: Analysis of System Facilities**

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An important part of the Potable Water, Recycle Water, and Sanitation Master Plan updates is the need to develop various computer models to analyze the capabilities of these systems to meet current and anticipated future demands. The criteria used for the analyses were derived from regulatory requirements, standard operational practices for water, recycled, and wastewater systems, and long-established local standards.

These analytical models included:

- A computer network analysis model of the potable water system. This model was an update of an earlier model, developed for the 1999 Master Plan, and previously updated in 2007.
- A computer network analysis of the recycled water system. This model was essentially new. Geographical information system (GIS) data from LVMWD, TSD, and CMWD were used to generate a model that, for the first time, included the Ventura County portions of the system and was linked to customer billing records. This new model architecture provides additional accuracy and promotes efficient future updates.
- A computer biological simulation model of the wastewater treatment system.

Validation of these models was performed by comparing modeling results with data from existing system operations. These validation tests showed good agreement between expected results for current conditions and data recorded by the District's SCADA (supervisory control and data acquisition) system and other applicable data sets. Because the model findings compared very well with actual existing operations, there is a high confidence in using these models to analyze system responses to various demand scenarios and ascertain appropriate solutions to identified deficiencies. In addition to these computer models, spreadsheet analyses were also performed to determine whether existing facilities had sufficient capacities to reliably meet current and future requirements.

### **4.1 Analysis of Potable Water System**

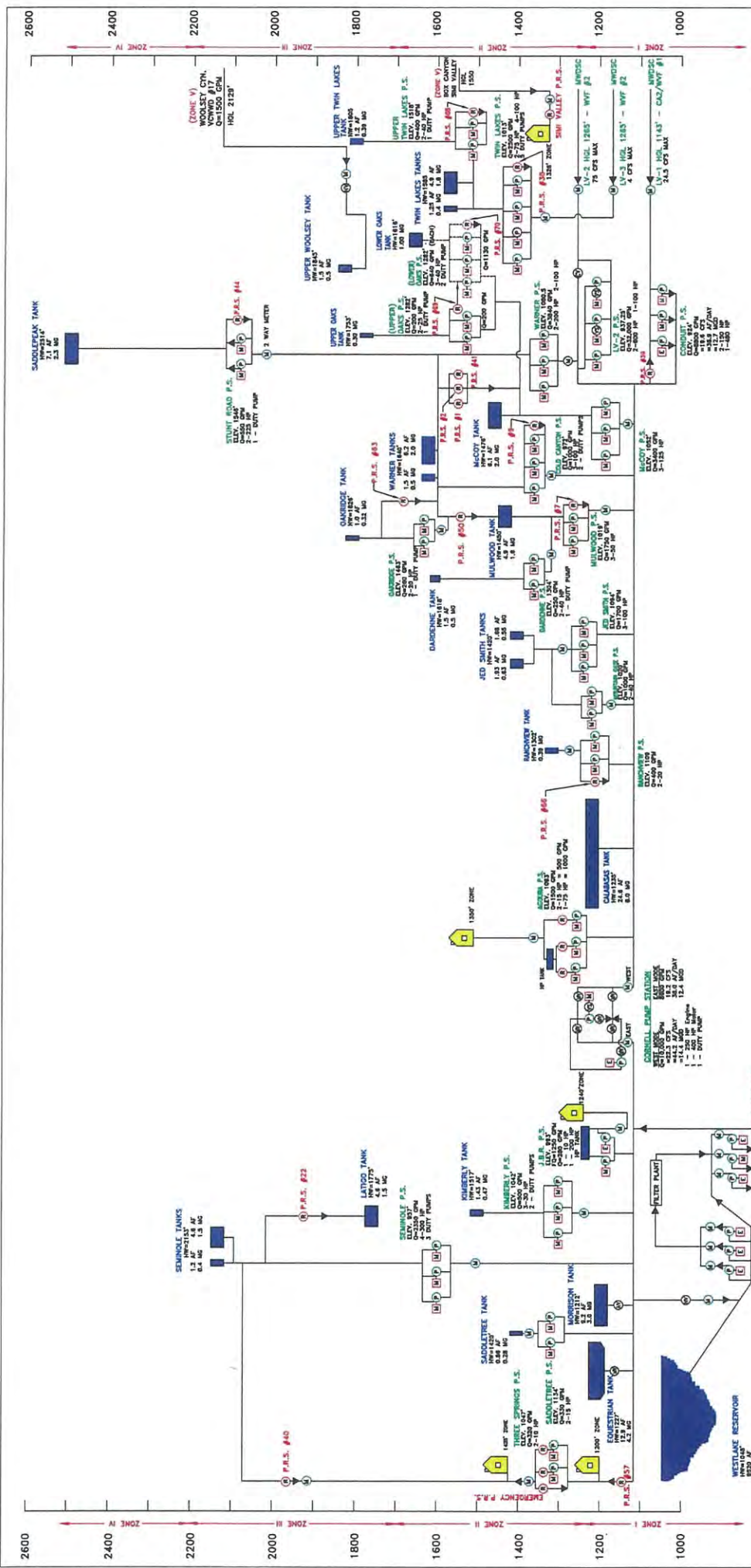
An analysis of the potable water system is summarized in the following subsections.

#### **4.1.1 Description of LVMWD Potable Water System**

The potable water system owned and operated by LVMWD is shown schematically in Figure 4-1 and is generally described below:

- Water originates at three "turnouts" on the MWDSC system. LVMWD's principal turnout is LV-2, which provides more than 90 percent of the water consumed by its customers.
- LV-2 pumps water into the "backbone system", which denotes the transmission, pumping and storage facilities along the 101 Freeway corridor. This system feeds water directly to many customers, and indirectly to nearly everyone else, via various pump stations that draw water from this system or zone.





07163-03

LAS VIRGENES MUNICIPAL WATER DISTRICT  
 POTABLE WATER GRADIENT DIAGRAM  
 (PUMPING-STORAGE FACILITIES)  
 PREPARED BY: [Name]  
 LIVING PRODUCTIONS  
 OJALA, CA 91532  
 DATE: JULY 30, 1991  
 SHEET 1 OF 1

REV. NO.	DATE	DESCRIPTION	APPROV.	DATE
7	5-22-14	MISC. CORRECTIONS		
6	4-04-07	MISC. CORRECTIONS		
5	7-14-05	MISC. CORRECTIONS		
4	10-18-04	MISC. CORRECTIONS		
3	5-24-02	MISC. CORRECTIONS		
2	3-1-95	MISC. CORRECTIONS		
1	5-12-92	ADDED ZONE LIMITS, MISC. CORRECTIONS		

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7	5-22-14	MISC. CORRECTIONS		
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3	5-24-02	MISC. CORRECTIONS		
2	3-1-95	MISC. CORRECTIONS		
1	5-12-92	ADDED ZONE LIMITS, MISC. CORRECTIONS		

SCALE  
 VERTICAL GRADIENT SCALE 1" = 100'  
 HORIZONTAL TANK VOLUME SCALE 1" = 3 MG  
 0' 100' 200'

LEGEND	DESCRIPTION
(E)	ENGINE DRIVE PUMP
(M)	ELECTRIC MOTOR DRIVE PUMP
(V)	CHECK VALVE
(H)	HYDRO-PNEUMATIC
(C)	METER
(D)	HYDRAULIC CONTROL VALVE
(F)	DESIGN FLOW OF DUTY PUMPS
(S)	DESIGN FLOW OF FIRE SERVICE PUMP
(V)	VARIABLE SPEED DRIVE
(R)	PRESSURE REGULATOR
(Z)	ZONES WITHOUT TANKS

Schematic of LVWMD Potable Water System Figure 4-1

GA

- Water is conveyed to LV-2 via MWDSC's Calabasas Feeder, a prestressed concrete cylinder pipe (PCCP). While this pipe material rarely fails, historical failures have been substantial. To minimize the risk of PCCP failures, MWDSC has an active program for evaluating the condition of these pipes, and has targeted the Calabasas Feeder for rehabilitation within the next decade.
- The LV-1 turnout was the original source of MWDSC water and has largely been displaced by LV-2. LV-1 can provide supply to the West Hills area and supplements supply to the "backbone" system, via the Conduit Pump Station.
- The LV-3 turnout provides supply to the Twin Lakes Subsystem at the northwest corner of the San Fernando Valley. This subsystem is hydraulically isolated from the rest of the District, but plans to construct an interconnecting pipeline have been drafted. The Twin Lakes Subsystem in turn supplies the Upper Twin Lakes and future Deerlake Highlands Subsystems.
- At the western end of the Backbone System is the Las Virgenes Reservoir, Westlake Filtration Plant, and Westlake Pump Station. These facilities provide a source of emergency supply, as well additional supply to cost effectively meet peak summer demands. Construction of a new 5MG tank, expansion of the filtration plant, and improvements to the pump station are currently underway, which will enhance the supply capabilities of these facilities and provide additional system reliability and emergency flow capabilities.
- Other key facilities in the Backbone System are the Calabasas Tank, Equestrian Trails Tank, Morrison Tank and Cornell Pump Station. These facilities help balance the flows and demands of customers between Calabasas and Westlake Village.
- 22 distinct subsystems are supplied from the backbone system, via pump stations and tanks which supply customers at various elevations throughout the Santa Monica Mountains. The operations of these facilities is coordinated to optimize flows in pipelines, conserve emergency supplies, maintain good water quality, and minimize the cost of energy to provide meet system needs.

#### **4.1.2 Potable Water System Analysis – Results and Recommendations**

After the model was verified, projections of future water demands throughout the system were added and the system performance was analyzed under peak-hour and fire flow conditions during the summer's maximum day demands. In addition to the use of the updated hydraulic model, the District's storage and pumping facilities were evaluated against maximum day demand conditions to ensure that the system can operate properly. The latter analysis determines if the facilities have sufficient capacity to accommodate off-peak pumping, when energy costs are the lowest. The storage and pumping facilities were evaluated together, as off-peak pumping requires both more pumping capacity and more storage.

Recommendations to address the findings of the potable water system analysis are divided into three categories: piping, storage, and pumping. A summary of the findings and recommended improvements for each of these areas of the system follows:



#### 4.1.2.1 Potable Water Pipelines - Findings and Recommendations

Pipeline deficiencies were prioritized based on discussions with District staff as follows:

- Priority 1 - are projects that address significant existing capacity deficiencies
- Priority 2 - are projects that address less significant existing capacity deficiencies, many of which occur in older parts of the system due to changes in standards from when annexed systems were acquired.
- Priority 3 - are projects that address small capacity deficiencies
- Priority 4 - are deficiencies that were less than 10 percent of capacity requirements. These deficiencies do not merit inclusion in the capital improvement program, but have been retained in the report for use in future master plan analyses.

The improvements needed to correct current and future deficiencies are summarized in Tables 4-1 and 4-2.

**Table 4-1. Pipeline Improvements for Existing Demand Conditions**

Existing CIP Priority	Length (Ft)	Estimated Cost
1	2,400	\$927,450
2	13,297	\$4,575,150
3	3,913	\$1,410,750
<b>Total</b>	<b>19,611</b>	<b>\$6,913,350</b>

**Table 4-2. Pipeline Improvements for Future Demand Conditions**

Future CIP Priority	Length (Ft)	Estimated Cost
Total	28,975	\$13,548,600

Note: Approximately \$10.7M is associated with new Seminole System pipelines.

#### 4.1.2.2 Potable Water Storage - Findings and Recommendations

The findings of the storage analysis in the 2014 Master Plan update were comparable to the findings in the 2007 Master Plan and confirmed the need for the new 5 MG tank in the main zone. Other current deficiencies exist in the Jed Smith and Upper Oaks systems. Based on the degree of deficiency and discussions with District staff, only the Jed Smith storage deficit is considered for improvement under existing demands. The estimated cost (including contingencies) to meet the 0.8 MG storage deficit in this zone is shown in Table 4-3.

**Table 4-3. Storage Projects for Existing Demand Conditions**

Pressure Zone	Storage Needed (gallons)	Estimated Cost
Jed Smith	820,000	\$1,912,000

Under full-build-out future demand conditions, storage deficits occur in eight pressure zones. A summary of these findings is included in Table 4-4. In this table, the storage deficit for the Jed Smith system is in addition to the storage needed for existing demand conditions.

**Table 4-4. Storage Projects for Future Demand Conditions**

<b>Pressure Zone</b>	<b>Total Storage Needed (gallons)</b>	<b>Estimated Cost</b>
Jed Smith	1,430,000 <sup>(1)</sup>	\$1,403,000
McCoy	300,000	\$699,000
Mulwood	180,000	\$423,000
Seminole	1,170,000	\$3,951,000
Twin Lakes	1,510,000	\$3,504,000
Upper Oaks	150,000	\$360,000
Upper Woolsey	470,000	\$1,098,000
Warner	1,040,000	\$2,415,000
<b>Total</b>	<b>6,250,000</b>	<b>\$13,853,000</b>

Notes:

(1) The 1.4 MG in total storage need includes existing deficit. Future-only need is 600,000 gallons.

#### 4.1.2.3 Potable Water Pump Stations - Findings and Recommendations

The analysis pumping facilities revealed no significant deficiencies for existing demand conditions. However, there are several pump stations that do not appear to have standby pumps. Standby pump deficiencies are summarized in Table 4-5.

**Table 4-5. Potential Standby Pumping Needs for Existing Conditions**

<b>Pressure Zone</b>	<b>Standby Pumping Needed (hp)</b>	<b>Standby Pumping Needed (gpm)</b>	<b>Estimated Cost</b>
McCoy	69	1133	\$959,900
Mulwood	39	750	\$540,850
<b>Total</b>			<b>\$1,500,750</b>

Notes: : Existing pumping capacity appears sufficient for Oak Ridge, Saddle Tree, Upper Oaks, and Upper Twin Lakes pumping facilities.

To assure analysis and recommendation consistency, the storage and pumping for each zone were analyzed together to determine the pumping needs for each zone. Table 4-6 summarizes the capacity deficiencies identified for future demand conditions.

**Table 4-6. Pumping Needs for Future Conditions**

<b>Pressure Zone</b>	<b>Pumping Needed (hp)</b>	<b>Pumping Needed (gpm)</b>	<b>Estimated Cost</b>
Jed Smith/Mountain Gate	47	987	\$653,950
Mulwood	25	485	\$348,000
McCoy	60	981	\$804,750
Seminole	79	2934	\$1,059,950
Twin Lakes	163	1878	\$1,890,800
<b>Total</b>			<b>\$4,757,450</b>

### **4.1.3 Backbone Improvements Program**

LVMWD initiated the Backbone Improvement Program in 2008 to address both current and projected future deficiencies in system storage, transmission and treatment capacity that create risks of low pressure, water outages, inadequate emergency supplies and inadequate fire flows. The program consists of transmission mains in Agoura Hills completed in 2012, transmission mains in Calabasas completed in 2014, a five million gallon storage tank under construction in Westlake Village, expansion of the Westlake Filtration Plant and modernization of the Westlake Pump Station. Construction of many of these facilities is necessary to correct the system deficiencies and ensure reliable water service.

The analysis of the potable water system in this master plan was based on these improvements being completed. If they are not completed, as planned, many of the conclusions in this report will no longer be valid.

## **4.2 Analysis of Recycled Water System**

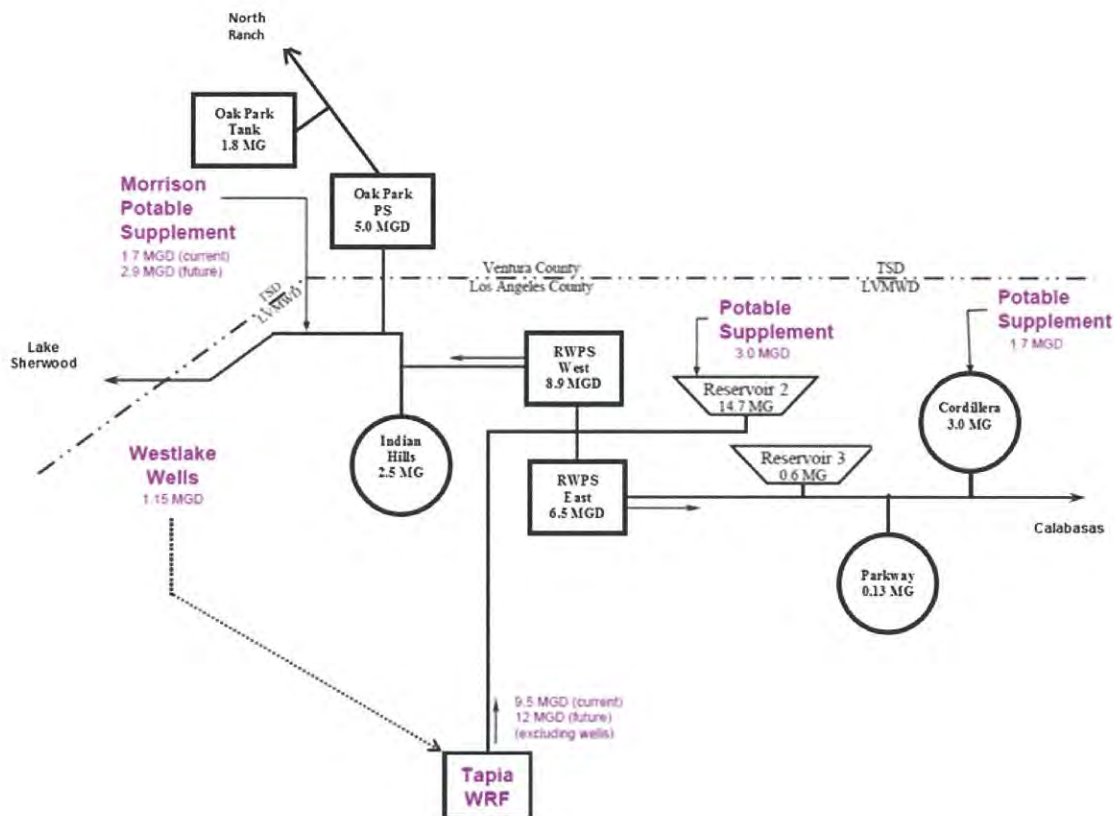
An analysis of the recycled water system is summarized in the following subsections.

### **4.2.1 Description of JPA/Calleguas MWD RW System**

The recycled water system owned and operated by the JPA and Calleguas MWD is shown schematically in Figure 4-2. A general description of this system follows.

- The recycled water is produced at Tapia WRF, at the southern end of the system. The source water is wastewater treated at the facility mixed with well water discharged into the sewer system, when supplemental water is required.
- Water is pumped to Reservoir 2, a 45 acre-ft facility located adjacent to LVMWD headquarters. Additional supplemental potable water is often added at this facility, during times when RW demands exceed RW supply.
- The Recycled Water Pump Station (RWPS), also located adjacent to LVMWD headquarters, pumps water to the eastern and western systems.
- Cordillera Tank is the primary storage facility in the eastern system, which serves recycled water to Calabasas and adjacent areas.
- The small Parkway Pump Station draws water from the Eastern System for storage in the Parkway Tank. This subsystem serves the Oaks of Calabasas subdivision.

**Figure 4-2. Schematic of JPA and Calleguas RW Systems**



- Indian Hills Tank is the primary storage facility in the western system. This system serves recycled water to Agoura Hills, Westlake Village, Lake Sherwood and adjacent areas. This system also provides RW to the Oak Park Pump Station.
- The Morrison Pump Station draws potable water from the Morrison Tank, one of the primary storage facilities in the LVMWD potable water backbone system. Through this facility, additional potable water supplement is provided.
- Recycled water entering Ventura County along Kanan Road is pumped by the Oak Park Pump Station to the Oak Park Tank. The systems in Ventura County are owned and operated by Calleguas MWD, who sells the recycled water to Oak Park Water Service and Cal Water Service Company. The Oak Park Pump Station and Tank serve customers in the community of Oak Park and the North Ranch neighborhood of Thousand Oaks.
- Another pipeline into Ventura County serves Lake Sherwood Golf Course and a few customers in the Westlake portion of Thousand Oaks.
- Not shown in this figure is Discharge Facility 005, which discharges RW from the Eastern System to a Los Angeles River storm drain. This facility is used when discharges to Malibu Creek are prohibited and water supply exceeds water demands.

- Also not shown in this figure are the spray fields used to dispose of surplus water. These fields are located along Las Virgenes Road, between the Tapia WRF and LVMWD headquarters.

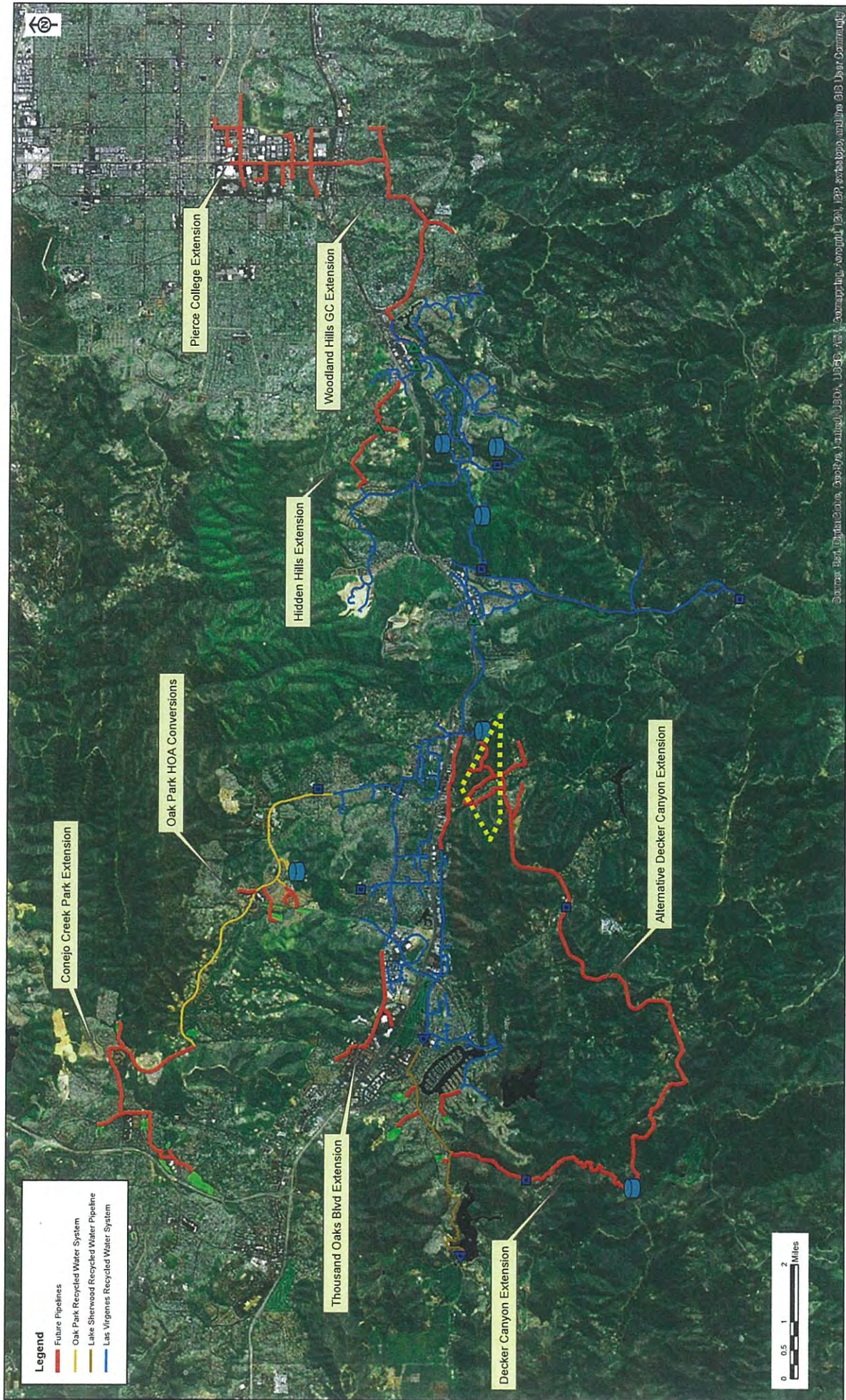
#### 4.2.2 Possible RW System Extensions

The model developed in the Recycled Water Master Plan Update 2014 was used to evaluate various future scenarios. The future scenarios that were modeled included a general increase in recycled water demands from in-fill development, plus a number of system extensions targeted to serve specific existing water consumers. The water main extensions that were analyzed include large irrigation uses both inside and outside the JPA service areas, as shown in Figure 4-3 and summarized in Table 4-7.

**Table 4-7. Recycled Water Main Extensions Analyzed**

Possible RW Main Extension	Description
Thousand Oaks Boulevard Extension	Would serve Cal Water customers along the eastern end of Thousand Oaks Boulevard. Over two dozen customers have been identified along this route. The largest are Baxter Pharmaceutical, Westlake High School, and Russell Park.
Oak Park HOA Conversions	These extensions would serve common irrigation areas maintained by several homeowners associations and a few multi-family apartment complexes, as well as greenbelts along Lindero Canyon Boulevard and the North Ranch Playfield.
Lake Sherwood Pipeline Future Customers	There are several customers along the existing main serving Lake Sherwood that are highly attractive; each requires a short main extension. The attractive potential customers are: Westlake Hills Elementary, Triunfo Community Park, and Evenstar Park.
Conejo Creek Park Extension	This extension would convey water to areas currently served by the City of Thousand Oaks, irrigating several parks maintained by the Conejo Recreation and Parks District.
Decker Canyon Extension	The primary user would be the Malibu Golf Club, the largest potable water user in the LVMWD service area.
Alternative Decker Canyon Extension	This extension would likewise serve the Malibu Golf Club, as well as a proposed new development (Triangle Ranch) and conversion of Medea Valley ranchettes to RW use.
Hidden Hills Extension	This extension would create a "backbone" pipeline through the Hidden Hills community, from which other mains could be extended. The main would serve the front yard irrigation of houses along the route as well as the irrigation needs of Round Meadows School.
Woodland Hills GC Extension	This main extension would serve Woodland Hills Golf Course, Louisville High School, and Serrania Park, within the City of Los Angeles. Along the way, a lateral would extend southwest, conveying RW to Freedom Park and Alice Stelle Middle School within the LVMWD service area.
Pierce College Extension	This main further extends the Woodland Hills project, ultimately reaching Pierce College.





Future RW Pipeline Extensions  
 Figure 3-3



### 4.2.3 Recycled Water System Analysis – Results and Recommendations

The conclusions derived from the Master Plan system analyses are as follows.

1. With the exception of the Pierce College extension, the existing system should be capable of serving the proposed expansions and demands from infill development, with only modest upgrades.
2. To serve Pierce College, upgrades to much of the Eastern recycled water system would be required.
3. Some amount of pressure degradation may be noticed by some customers, but there are several strategies to overcome these future problems.
4. As part of an extension to the Conejo Creek Parks, a supplemental supply facility at the Oak Park Tank should be considered.
5. Existing supplemental facilities are adequate to serve all other future demand scenarios

### 4.2.4 Economic Evaluation of Proposed Main Extensions

Generally, if a deficiency exists in the potable water system, a correction is recommended, because service to all customers is required.<sup>1</sup> “Deficiencies” in the recycled water system are not as clearly defined. The JPA decides whom to serve, based on whether the benefits are greater than the costs. Recycled water systems also don’t need to meet the same reliability standards as potable systems, as the water is not needed for drinking, sanitation, and ongoing fire safety.

As a commodity, the recycled water produced by Tapia WRF is virtually free to the JPA partners. Whether the water is reused or discharged, the cost of treatment is the same. The only major variable cost is pumping. To distribute the water, it must be pumped from an elevation of less than 500 feet (Tapia WRF) to various distribution tanks, ranging in elevation from 1225 feet to 1752 feet. While the cost of energy to pump the water is significant, it is far less than the basic alternative – the cost of pumping water over the Tehachapi Mountains to Southern California. The low commodity costs and relatively low pumping costs mean that recycled water is the economically and environmentally preferred option to meet applicable demands when it is available.

*Availability* is the key word. What limits recycled water availability? The primary limit is the affordability of the distribution system—the pumps, tanks and pipelines needed to convey recycled water to where it can be used. Most potable water consumers are served by a single pipeline, which provides water for drinking, irrigation, sanitation, and fire-fighting. For a potable water customer to receive recycled water, a second pipeline is required, essentially doubling the cost of providing water on that particular street and to that particular customer. The cost of such infrastructure is not negligible. For the construction of a second main to be economical, it generally must generate sufficient revenue to recoup the cost of the additional pipeline.

For the RW Master Plan, the costs of various main extensions were estimated and evaluated in terms of how much additional recycled water would be sold annually. The results are shown in Table 4-8 below. Generally, if the cost per acre-ft is less than \$8,000, the project is considered economically feasible on its own merits, and those costing more than \$50,000 per AFY are

<sup>1</sup> The obligation to serve customers is not unlimited. Customers may need to construct main, pump stations, and tanks in order to receive water from the system.

unattractive. The division between what is affordable and what is not is not a clear line—it depends of various specific conditions, but \$20,000 is a estimated point of division. [Those projects matching this criterion are highlighted in red.]

The economic feasibility of many recycled water projects is expected to increase, as the cost of imported water increases, and due to the need to conserve potable water for SBX7-7 compliance. Recycled water projects may also be attractive as a way of avoiding expenditures where deficiencies exist in the potable water system, as discussed later in this section. If grants or other sources of funding are available, these projects can become even more attractive.

**Table 4-8. Summary of Potential RW Projects**

<b>System Extension Projects</b>	<b>Retail Utility</b>	<b>Estimated Cost</b>	<b>Acre feet per Year (AFY)</b>	<b>\$/AFY</b>
T.O. Boulevard Extension	CalWater	\$5,140,000	251	\$20,500
T.O. Blvd Extension - Shorter Version	CalWater	\$3,810,000	215	\$17,700
Westlake Elementary	CalWater	\$125,000	15	\$8,300
Triunfo Community Park	CalWater	\$611,000	60	\$10,200
Evenstar Park	CalWater	\$364,000	42	\$8,700
Southshore Hills Park	CalWater	\$790,000	14	\$56,400
North Ranch Park / Lindero Greenbelts	CalWater	\$844,000	58	\$14,600
Capris Tract / Lindero Greenbelt	TSD / CalWater	\$864,000	55	\$15,700
Montenegro Community Ctr Extension	TSD	\$219,000	4	\$54,800
Hillcrest Tract / Oak Park North	TSD	\$300,000	21	\$14,300
Conejo Creek Parks Extension	Thousand Oaks	\$5,500,000	206	\$26,900
Sherwood Executive Golf Course	Thousand Oaks	\$4,000,000	23	\$170,000
Decker Canyon Project	LVMWD	\$12,130,000	229	\$53,000
Alternative Decker Canyon Project	LVMWD	\$18,280,000	459	\$39,800
Hidden Hills Extension	LVMWD	\$3,700,000	50	\$74,000
Woodland Hills GC Extension	LADWP	\$9,790,000	324	\$30,200
Pierce College Extension	LADWP	\$20,900,000	666	\$31,400

Red = project cost < \$20,000 per AFY

### 4.3 Analysis of Wastewater Treatment System

The results of the biological process simulations of the Tapia WRP found that many of the systems are only marginally capable of meeting current permit limitations. These limitations will need to be addressed if significant flow increases occur, or if more stringent permit limitations are imposed. A summary of the Sanitation Master Plan Update 2014 findings are:

- The aerobic treatment volume is marginal with regard to nitrogen removal,
- There is insufficient carbon to fully complete the de-nitrification process,
- The existing oxygen transfer is inefficient,

- The percent solids in the feed sludge to the digesters is limited by the capabilities of the transfer line from Tapia to Rancho. The dilute concentration of the feed sludge impacts the hydraulic capacity of the digesters. Sludge thickening at the composting facility should be considered prior to digestion,
- With the two existing operational digesters, there is insufficient redundancy to perform required maintenance. A third digester is currently under construction, and
- Another tank would be helpful to equalize centrate flows and provide needed redundancy for centrate treatment.

The projected total cost of these improvements is approximately \$19.7 Million.

## **4.4 Integration Opportunities**

In implementing capital improvements to the water, recycled water, and wastewater systems, the effects these systems have on each other should also be considered. In general, an expanded use of recycled water is beneficial because it relieves demands from the potable water system and makes it easier to achieve treatment plant discharge permit limitations. Expanded use of recycled water also helps in achieving compliance with the water conservation goals of SBx7-7.

Conversely, the recycled water system also places high demands on the potable system in the locations where supplemental water is added. Currently, supplemental water is added at Reservoir 2 and the Morrison Pump Station; additional supplemental facilities exist at Cordillera Tank and Parkway Tank. In reviewing the three master plans together, there are several potential integration opportunities to be considered.

### **4.4.1 Seminole Zone Improvements**

In Section 4.1.2, future Seminole Zone improvements are shown, including a new transmission pipeline, new pump station, and new tank, costing over \$16 million. These costs would occur if the Seminole Zone (in the southwest quadrant of the LVMWD service area) continues to develop. In recent years, pumping capacity was added to this system, but the pipeline capacity is now at its maximum. If potable water demands continue to increase, a major investment in infrastructure would be needed for this area. Even if only a modest increase in demands occur and the facilities were sized exactly as needed, the length of pipelines, the rugged topography, and the high-lift pumping required would result in a project costing at least \$12 million.

An alternative to reduce the cost of constructing a long pipeline, high-lift pump station, and tank for the potable water system is to construct similar facilities for the recycled water system. The potential Decker Canyon Project would accomplish this, serving the Malibu Golf Course, the largest potable water user in the LVMWD area. Although this \$12.1 Million recycled water project is no guarantee that potable water improvements might not eventually be needed for the Seminole Zone, if improvements are needed, they would be further delayed. Due to the ruggedness of the topography and associated difficulties in constructing access roads, pipelines, and houses in the Seminole Zone, development of this area will likely never reach full built-out potential.

To further enhance the economics of this recycled water project, constructing RW facilities rather than potable water facilities often has the advantage of grant funding from the State. The Local Water Resource Program of MWDSC is also a source of funding for projects such as this.

#### **4.4.2 Jed Smith Zone Improvements**

The Jed Smith Pressure Zone serves Hidden Hills and the Mountain Gate Estates areas of LVMWD, and has been the subject of various capital improvements over 15 years. Originally designed to serve equestrian properties in Hidden Hills, the facilities in this zone became over-taxed as many of these properties were converted to well-irrigated estates. Moderate-cost pumping and pipeline improvements have already been implemented, but facility capacities are still less than desirable. More water storage is acutely needed, but the only available tank site is already fully occupied by District tanks. Squeezing more storage onto the site would likely involve constructing an oddly shaped tank, which is doable, but requires existing tanks to be taken off line during construction—this is not feasible. Pumping upgrades are also needed. In Section 4.1.2, more than \$4 million in improvements have been identified for this zone.

A possible alternative to these projects is an extension of the RW system into Hidden Hills. The RW Master Plan outlines a pipeline through Hidden Hills that would serve various front-yards along the main as well as Round Meadow School. On its own merits, the benefits of these pipelines do not warrant the \$3.7 million estimated cost, but if the project relieves enough demands to delay or negate the need for Jed Smith Zone improvements, this could be an attractive project. The proposed main is sized to serve as a “backbone” main. Future lateral mains could be constructed to serve other streets. Similar to the Decker Canyon Project, grant funding may also be available to improve the economics of this recycled water extension.

#### **4.4.3 Oak Park and Westlake RW Extensions**

Recycled Water System extensions in the Oak Park Community and the Westlake portion of Thousand Oaks would also relieve potable demands in these areas. Since these areas are served by Cal Water and Oak Park Water Service and not part of LVMWD’s Potable Water Master Plan, the capacity related deficiencies and integration benefits are not known. However, with any reduction in potable water demand, these agencies would benefit in its their ability to comply with the water conservation goals of SBx7-7.

#### **4.4.4 RW Main Extensions to Thousand Oaks and LADWP**

The Recycled Water Master Plan also investigated possible extensions of the system beyond the JPA’s boundaries. Evaluations included western service extensions to the Conejo Creek parks in Thousand Oaks and easterly extensions to the Woodland Hills Country Club and Pierce College in Los Angeles. These projects would certainly help these agencies meet their water conservation goals and help generate regional benefits to by reducing the need for imported water. Other benefits to the potable water systems in Thousand Oaks and LADWP are not known, as these were not included in the breadth of these Master Plan studies.

If these projects go forward, during their preliminary design phases, the construction of new potable water supplemental facilities should be considered. Such supplemental facilities would draw water from the Thousand Oaks and LADWP systems, rather than the LVMWD system. The benefits of these supplemental facilities being provided by other agencies are:

- **LVMWD SBx7-7 compliance.** If additional potable water is provided by LVMWD, these demands would be added to the LVMWD water usage values and would count against LVMWD in meeting its water use efficiency goals.
- **Facility sizing and energy.** Adding the water closer to the customer reduces the need to convey it long distances, which may reduce facility sizes and pumping costs.
- **Redundancy.** In many situations, supplemental facilities can be constructed at low-cost, but act like a much more expensive tank, providing a ready source of water to outlying areas. These are particularly valuable for system maintenance and emergencies, when facilities outages occur.

## Section 5: Conclusions

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Growth in the LVMWD and TSD areas has leveled off, and is not expected to return to the rapid growth conditions that occurred when major subdivisions were being constructed. Most growth will stem from infill development. Although both agencies' service areas appear to be largely developed, when scrutinized at a parcel level, both will have additional needs for utility services.

Even without the impact of new development, demands for service are expected to increase with improving economic conditions. However the need for major capital improvements to the LVMWD "Backbone System" and other primary JPA facilities is concluding. Recent estimates of future demands are in line with the 2007 Master Plan and other studies, and reflect the changing designations in land use and ongoing water conservation programs and activities.

The LVMWD and JPA systems work well today due to a series of plans developed over the last 50 years. Customers receive reliable service. The JPA's recycled water system is the envy of its neighbors, serving nearly all schools, parks, and golf courses in the area. Every drop of wastewater produced in the summer and fall is effectively recycled. While there is adequate potable water system capacity to keep up with increasing recycled water demands, escalating costs and potential supply limitations may limit the future use of this treated water supply.

Integration opportunities include the construction of specific recycled water improvements, which relieve demands from the potable system, and make the wastewater system more easily managed. Integration could expand greatly through the advanced treatment of recycled water and its seasonal storage, but projects to implement these ideas face technical, economic, and other challenges.

Since the recycled water system is very well developed and the "low-hanging fruit" is gone, why should LVMWD and the JPA conduct new potable water, recycled water, and sanitation master plans? The reasons are several:

- **Changing economics.** With the cost of imported water ever increasing, the benefits of certain investments will increase. In fact, recent information on the Bay Delta Conservation Plan (BDCP) suggests that imported water costs will have to essentially double to fully fund the debt service obligations for this \$15 Billion project.
- **Regulatory incentives.** There are new state-mandated requirements to reduce per capita water consumption (i.e., SBx7-7, the "20x2020" law). These provide incentives for investment in recycled water infrastructure.
- **Potable water cost avoidance.** In cases where the potable water systems are overtaxed, investments in recycled water pipelines may be more attractive than new potable pipelines. For LVMWD in particular, investments in recycled water system extensions could help avoid or postpone potable water system upgrades in the Seminole and Jed Smith Subsystems.
- **Resource diversification.** Greater use of local resources reduces some of the risks over which a utility has little control, including risks associated with imported water and climate change.
- **Discharge reduction.** The JPA is prohibited from discharging water to Malibu Creek during certain months of the year. When surplus recycled water exists during these



periods, the JPA incurs various costs for disposing of this water using spray fields and pumping to the Los Angeles River drainage. Future permit requirements will not be less restrictive than the current requirements, and likely be more stringent.

Master planning is a way of looking toward the future, determining what scenarios could and are likely to occur, and developing possible responses in advance of those conditions becoming reality. No one can fully predict the future, but all of us must plan for it. A water utility is no different.

## Section 6: References

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5. "Project Alternatives Study for the 1235-ft Backbone Improvements", LVMWD Report No. 2433.00, AECOM, October 2009.
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8. "Master Plan for Potable and Reclaimed Water Systems, Phase 1, Demand Projections" LVMWD Report # 1671, by Boyle Engineering Corporation, March 1989.
9. "Tapia Effluent Alternatives Study" LVMWD Report #2321.03, by Kennedy/Jenks Consultants, December 2005.

## Appendix A – Acronyms and Abbreviations

AF, AFY	acre-feet, acre-feet per year
CalWater	California Water Service Company
CIP	capital improvement plan or program
CMWD	Calleguas Municipal Water District
DPH	Department of Public Health
ft	Feet
GIS	geographical information system
gpm	gallons per minute
GC	golf course or golf club
hp or HP	horsepower
HOA	homeowners association
HGL	hydraulic grade line
HP	horsepower
JPA	Joint Powers Authority of LVMWD and TSD
LA	Los Angeles
LADWP	City of Los Angeles, Department of Water and Power
LV	Las Virgenes (Road or MWD)
LVMWD	Las Virgenes Municipal Water District
MDD	maximum daily demand (the maximum amount of water used in one day)
MG, MGD	million gallons, million gallons per day
MP	Master Plan
MWDSC	Metropolitan Water District of Southern California
NPDES	National Pollutant Discharge Elimination System
OPWS	Oak Park Water Service
PHD	peak hourly demand (the maximum amount of water used in one hour)
PS	pump station
psi	pounds per square inch
PW	potable water
RW	recycled water
SBx7-7	Senate Bill x7-7, which mandates a 20 percent reduction in per capita water consumption
SCADA	supervisory control and data acquisition (the automated system used to control and monitor water system operations)
SWP	State Water Project
TO	The City of Thousand Oaks
TSD	Triunfo Sanitation District
TWRF	Tapia Water Reclamation Facility
WW	wastewater

**June 2, 2014 JPA Board Meeting**

TO: JPA Board of Directors

FROM: Facilities &amp; Operations

**Subject: Tapia Water Reclamation Facility NPDES Effluent Limit Exceedences: Consideration of Settlement Offer No. R4-2011-0157-M, Expedited Payment Program****SUMMARY:**

On November 15, 2011, the Los Angeles Regional Water Quality Control Board (Regional Board) issued the JPA a notice of alleged violations of effluent limits for the Tapia Water Reclamation Facility. A total of 19 violations were alleged, 17 of which were subject Mandatory Minimum Penalties (MMPs) of \$3,000 each, consisting of exceedences of dichlorobromethane (DCBM), total residual chlorine and turbidity for a total penalty of \$51,000.

In December 2011, the JPA responded to the Regional Board, disputing all but one of the violations. Almost two years later in October 2013, the Regional Board agreed to dismiss all but nine of the disputed violations. The nine violations were for high turbidity caused by rainstorms between March 20 and March 25, 2011. However, at the same time, the Regional Board alleged 19 new violations, 17 of which were subject to MMPs, for a total updated penalty of \$81,000.

In November 2013, the JPA again disputed the nine original turbidity violations and three new violations for total trihalomethanes (TTHM). The Regional Board responded in May 2014 and agreed to dismiss the three TTHM violations but not the nine turbidity violations, for a total penalty of \$72,000. The amount included \$27,000 for the nine turbidity violations.

The JPA argued that the rainstorms between March 20 and March 25, 2011 that resulted in the turbidity violations constituted "an unanticipated, grave natural disaster or other natural phenomenon of an exceptional, inevitable and irresistible character, the effects which could not have been prevented or avoided by exercise of due care or foresight" as defined by Water Code Section 13385(j)(l)(B). This statute stipulates that violations of a waste discharge requirement caused by this type of event are not subject to MMPs. The Regional Board responded that the JPA has not demonstrated that the rainfall events met the requirements of an affirmative defense under Water Code section 13385(j)(l)(B), and when asked for further clarification, referred the JPA to the Regional Board's legal counsel.

At this time, the JPA can participate in the Regional Board's Expedited Payment Program by signing an Acceptance of Conditional Resolution and Waiver of Right to Hearing Form and agreeing to pay the penalty of \$72,000. Alternatively, the JPA forgo the Expedited Payment Program and further contest the alleged violations through the Regional Boards' formal administrative complaint proceedings, which include a right to a hearing. The deadline for a decision on participation in the Expedited Payment Program is June 5, 2014.

**RECOMMENDATION(S):**

Determine whether or not to accept Settlement Offer R4-2011-0157-M from the Los Angeles Regional Water Quality Control Board, involving participation in the Expedited Payment Program and payment of \$72,000 in penalties, for settlement of alleged violations of the NPDES Permit for the Tapia Water Reclamation Facility.

**FINANCIAL IMPACT:**

The adopted JPA Fiscal Year 2013-14 Budget does not include funds for penalties associated with permit violations. Of the 34 violations alleged between October 2010 and June 2013, staff concurs that fifteen are legitimate violations for a total penalty of \$45,000. The nine disputed turbidity violations have an associated penalty of \$27,000. Acceptance of Settlement Offer R4-2011-0157-M would require paying the \$72,000 penalty from the JPA's operating funds. The penalty would be shared between the JPA partners with 70.6% of the cost to LVMWD (\$50,832) and 29.4% of the cost to TSD (\$21,168).

ITEM 6B



## **DISCUSSION:**

In November 2011, the Regional Board issued the JPA a notice of alleged violations of effluent limitations for the Tapia Water Reclamation Facility. The alleged violations included exceedances of limitations for DCBM, total residual chlorine and turbidity, resulting in a total penalty of \$51,000. Staff responded to the allegations on December 5, 2011, explaining that the total residual chlorine samples should not result in a violation because they were drawn for a verification check of the dechlorination system from the effluent forebay, which is not representative of the recycled water discharged to Malibu Creek. Staff also argued that the turbidity violations resulted from a single operational upset due to near record rainfall between March 20 and March 25, 2011, and constituted a single violation. In addition, staff explained that the turbidity results of March 31, 2011 were caused by a data entry error and should be dismissed. The JPA did violate the DCBM water quality limit. In the December 5, 2011 letter to the Regional Board, staff proposed that the penalty should be reduced from \$51,000 to \$3,000.

Almost two years later on October 18, 2013, the Regional Board responded to the JPA's December 5, 2011 letter. The Regional Board concurred with staff's argument that total residual chlorine violations and March 31, 2011 turbidity violation should be dismissed. However, Regional Board representatives did not agree with staff's argument that the turbidity violations should be dismissed because Water Code Section 13385(f) states that a single operational upset that leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation and only turbidity, a single parameter, was violated.

In addition, the Regional Board added 19 new violations that allegedly took place between November 2011 and June 2013. Based on staff's investigation, all but three of the additional alleged violations are legitimate. Three violations for TTHM were incorrectly based a final limit, not the interim limit that is currently in place until September 2014, and should be dismissed.

With regard to the outstanding turbidity violations, the Regional Board appears to be correct in its strict interpretation of Water Code Section 13385(f) that the JPA only violated a single parameter. The rain events of March 20 to March 25, 2011 caused Tapia's influent flows to peak at close to 33 MGD, compared to the normal peak of 14 MGD. These storm events were near record setting and much of the state including Southern California experienced record-breaking rain events in mid-March 2011. Water Code section 13385(j)(l)(B) stipulates that violations of a waste discharge requirement effluent limitation shall not be subject to mandatory minimum penalty, if the violations are caused by "an unanticipated, grave natural disaster or other natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which could not have been prevented or avoided by the exercise of due care or foresight."

On November 19, 2013, staff responded to October 18, 2013 notice from the Regional Board, explaining that the rain events of March 20 to March 25, 2011 were an unanticipated natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which the JPA could not have been prevented or avoided by the exercise of due care or foresight.

In December 2013, staff meet with Regional Board representatives to discuss the disputed turbidity violations, and in January 2014, staff provided the Regional Board with additional information as requested. On May 5, 2014, the Regional Board dismissed the three TTHM violations but not the nine disputed turbidity violations. The Regional Board stated in its May 5, 2014 letter that "the Permittee has not demonstrated that the rainfall events meet the requirements of an affirmative defense under Water Code section 13385 subdivision (j)(l)(B)." When staff requested additional clarification and information on this determination, the Regional Board referred the JPA to the Regional Board's legal counsel.

Settlement Offer R4-2011-0157-M provides for participation in the Expedited Payment Program by executing an Acceptance of Conditional Resolution and Waiver of Right to Hearing. By participating in the program, the JPA agrees to pay \$72,000, deemed as payment in full of any civil liability for the violations. If the JPA opts to participate in the program, a notice it is published for 30 days to solicit public comments. If any significant comments are submitted in opposition, the offer will be withdrawn and formal enforcement action will proceed.

Conversely, if the JPA chooses not to participate in the program, then formal enforcement action will be taken by the Regional Board. The process will consist of administrative complaint proceedings, which include a right to a hearing. The JPA would have an opportunity to argue its position with regard to the disputed turbidity violations. However, the Regional Board could seek additional discretionary civil liabilities

of up to \$10,000 for each day in which the violations occurred, plus \$10 for each gallon discharged but not cleaned up in excess of 1,000 gallons.

For reference, attached are copies of all correspondence between the JPA and Regional Board on this matter.

Prepared By: David R. Lippman, Director of Facilities & Operations

**ATTACHMENTS:**

[November 15, 2011](#)

[December 5, 2011](#)

[October 18, 2013](#)

[October 22, 2013](#)

[October 29, 2013](#)

[November 19, 2013](#)

[January 16, 2014](#)

[May 5, 2014](#)

[May 8, 2014](#)

[May 16, 2014](#)





Matthew Rodriguez  
Secretary for  
Environmental Protection

## California Regional Water Quality Control Board Los Angeles Region

320 W 4<sup>th</sup> Street, Suite 200, Los Angeles, California 90013  
(213) 576-6600 • FAX (213) 576-6640  
<http://www.waterboards.ca.gov/losangeles>



Edmund G. Brown Jr.  
Governor

November 15, 2011

Mr. David R. Lippman, P.E.  
Director of Facilities and Operations  
Las Virgenes Municipal Water District  
4232 Las Virgenes Road  
Calabasas, CA 91302

VIA CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
Claim No. 7009 2820 0001 6537 8020

**SETTLEMENT OFFER NO. R4-2011-0157-M: OFFER TO PARTICIPATE IN EXPEDITED PAYMENT PROGRAM RELATING TO VIOLATIONS OF THE NPDES PERMIT FOR LAS VIRGENES MUNICIPAL WATER DISTRICT, TAPIA WATER RECLAMATION FACILITY, 731 MALIBU CANYON ROAD, CALABASAS, CA (ORDER NO. R4-2010-0165, NPDES PERMIT NO. CA0056014, CI NO. 4760)**

Dear Mr. Lippman:

This letter is to notify Las Virgenes Municipal Water District (hereinafter "Permittee or "you") of alleged violations of the California Water Code identified in the State Water Resources Control Board's water quality data system and to allow the Permittee to participate in the Los Angeles Regional Water Quality Control Board's (Regional Board) Expedited Payment Program for Effluent and/or Reporting Violations (Expedited Payment Program) to address liability that may be assessed pursuant to California Water Code sections 13385 and 13385.1.

### NOTICE OF VIOLATION:

Based on information in the California Integrated Water Quality System (CIWQS) as of October 6, 2011, the Regional Board alleges that the Permittee has violated the effluent limitations, reporting violations, or California Water Code provisions identified in the Notice of Violation (NOV) attached as Exhibit "A". The Permittee will have the opportunity to address the alleged violations as discussed below.

### STATUTORY LIABILITY:

Subdivisions (h) and (i) of California Water Code section 13385 require the assessment of a mandatory minimum penalty of three thousand dollars (\$3,000) for specified serious and chronic effluent limit and reporting violations. For the purposes of subdivision (h) of section 13385, failure to file a discharge monitoring report required pursuant to sections 13383 for each complete period of 30 days following the deadline for submitting the report constitutes a serious violation. The Permittee is subject to discretionary administrative civil liabilities of up to ten thousand dollars (\$10,000) for each day in which the violation occurs, plus ten dollars (\$10) for each gallon discharged but not cleaned up in excess of 1,000 gallons. These mandatory

Mr. David R. Lippman, P.E.  
Las Virgenes Municipal Water District

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November 15, 2011

minimum penalties and discretionary administrative civil liabilities may be assessed by the Regional Board beginning with the date that the violations first occurred.<sup>1</sup> The formal enforcement action that the Regional Board uses to assess such liability is an administrative civil liability complaint, although the Regional Board may instead refer such matters to the Attorney General's Office for prosecution. If referred to the Attorney General for prosecution, the Superior Court may assess up to twenty-five thousand dollars (\$25,000) per violation. In addition, the Superior Court may assess up to twenty-five dollars (\$25) per gallon discharged but not cleaned up in excess of 1,000 gallons.

#### **OFFER TO PARTICIPATE IN EXPEDITED PAYMENT PROGRAM:**

The Permittee can avoid the issuance of a formal enforcement action and settle the alleged violations identified in the attached NOV by participating in the Regional Board's Expedited Payment Program. Details of the proposed settlement are described below and addressed in the enclosed documents.

To promote resolution of these violations, the Regional Board makes this Conditional Offer. The Permittee may accept this offer, waive the Permittee's right to a hearing, and pay the mandatory minimum penalty of \$51,000 for the violations described in the NOV. If the Permittee elects to do so, subject to the conditions below, the Regional Board will accept that payment in settlement of any enforcement action that would otherwise arise out of the violations identified in the NOV. Accordingly, the Regional Board will forego issuance of a formal administrative complaint, will not refer the violations to the Attorney General, and will waive its right to seek additional discretionary civil liabilities for the violations identified in the NOV.

The Expedited Payment Program does not address or resolve liability for any violation that is not specifically identified in the NOV regardless of the date that the violation occurred.

#### **PERMITTEE'S OPTIONS FOR RESPONSE TO OFFER:**

If you accept this offer, please complete and return the enclosed "Acceptance of Conditional Resolution and Waiver of Right to Hearing; (proposed) Order" (Acceptance and Waiver) on or before **December 15, 2011**.

If the Permittee chooses to contest any of the violations alleged in the NOV, please identify the specific violation and the basis for the challenge (factual error, affirmative defense, etc.) on or before the due date specified above. The Regional Board staff will evaluate the contested violation and take one of two actions:

---

<sup>1</sup> Please note that there are no statutes of limitation that apply to administrative proceedings to assess mandatory minimum penalties. See *City of Oakland v. Public Employees' Retirement System*, (2002) 95 Cal.App.4th 29, 48, 3 Witkin, Cal. Procedure (4th ed. 1996) Actions, §495(2), p. 510.

Mr. David R. Lippman, P.E.  
Las Virgenes Municipal Water District

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November 15, 2011

- 1) The Regional Board staff will determine that the violation is not supported, expunge the alleged violation from the CIWQS database, take no further action against the Permittee for the alleged violation, and notify the Permittee of that determination. The Permittee will be given thirty (30) days from the date of receipt of the Regional Board staff determination to complete and return the Acceptance and Waiver for the remainder of the violations; or
- 2) The Regional Board staff will determine that the alleged violation is meritorious, and will notify the Permittee of that determination. The Permittee will be given thirty (30) days from the date of receipt of the Regional Board staff determination to complete and return the Acceptance and Waiver.

If the Permittee chooses not to make a payment in response to the Regional Board staff's determination, the Permittee should expect to be contacted regarding formal enforcement action that will be initiated with regard to the contested violations. In a formal enforcement action, the liability amount sought and/or imposed may exceed the liability amount set forth in this Conditional Offer. Moreover, the cost of enforcement is a factor that can be considered in assessing the liability amount.

#### **CONDITIONS FOR REGIONAL BOARD ACCEPTANCE OF RESOLUTION:**

Federal regulations require the Regional Board to publish and allow the public thirty (30) days to comment on any settlement of an enforcement action addressing NPDES permit violations (40 C.F.R. section 123.27(d)(2)(iii)). Upon receipt of the Permittee's Acceptance and Waiver, the Regional Board staff will publish a notice of the proposed resolution of the violations.

If no comments are received within the 30-day comment period, and unless there are new material facts that become available to the Regional Board, the Regional Board Executive Officer will execute the Acceptance and Waiver as a stipulated order assessing the uncontested mandatory minimum penalty amount pursuant to Water Code sections 13385 and 13385.1.

If, however, significant comments are received in opposition to the settlement, this Offer may be withdrawn. In that case, the Permittee's waiver pursuant to the Acceptance and Waiver will also be treated as withdrawn. In that case, the violations will be addressed in a liability assessment proceeding. At the liability assessment hearing the Permittee will be free to make arguments as to any of the alleged violations, and the Permittee's agreement to accept this conditional offer will not in any way be binding or used as evidence against the Permittee. The Permittee will be provided with further information on the liability assessment proceeding.

In the event the Acceptance and Waiver is executed by the Regional Board Executive Officer, full payment of the assessed amount shall be due within ten (10) calendar days after the Permittee's receipt of the notice of the Regional Board Executive Officer's execution. In accordance with California Water Code section 13385(n)(1), funds collected for violations of effluent limitations and reporting requirements pursuant to section 13385 shall be deposited in

Mr. David R. Lippman, P.E.  
Las Virgenes Municipal Water District

- 4 -

November 15, 2011

the State Water Pollution Cleanup and Abatement Account. Accordingly, the \$51,000 liability shall be paid by cashiers or certified check for \$51,000 made out to the "State Water Pollution Cleanup and Abatement Account". Failure to pay the full penalty within the required time period may subject the Permittee to further liability.

Should you have any questions about this Conditional Offer or Notice of Violation, please contact Enforcement Unit staff Ms. Pansy Yuen at (213) 620-6367 regarding this matter.

Sincerely,



Paula Rasmussen, Chief  
Compliance and Enforcement Section

Enclosures:

Exhibit "A" - Notice of Violation  
Acceptance of Conditional Resolution and Waiver of Right to Hearing; (proposed) Order

cc: Ms. Mayumi Okamoto, Office of Enforcement, State Water Resources Control Board  
Mr. Brett Dingman, Las Virgenes Municipal Water District (via facsimile only)

Settlement Offer No. R4-2011-0157-M  
 CI No. 4760, NPDES Permit No. CA0056014

**ACCEPTANCE OF CONDITIONAL RESOLUTION  
 AND WAIVER OF RIGHT TO HEARING; (proposed) ORDER**

Las Virgenes Municipal Water District  
 Settlement Offer No. R4-2011-0157-M  
 NPDES Permit No. CA000056014

By signing below and returning this Acceptance of Conditional Resolution and Waiver of Right to Hearing (Acceptance and Waiver) to the Los Angeles Regional Water Quality Control Board (Regional Board), Las Virgenes Municipal Water District (Permittee) hereby accepts the "Offer to Participate in Expedited Payment Program" and waives the right to a hearing before the Regional Board to dispute the allegations of violations described in the Notice of Violation (NOV), which is attached hereto as Exhibit "A" and incorporated herein by reference.

The Permittee agrees that the NOV shall serve as a complaint pursuant to Article 2.5 of the California Water Code and that no separate complaint is required for the Regional Board to assert jurisdiction over the alleged violations through its Chief Prosecutor. The Permittee agrees to pay the penalties required by California Water Code section 13385, in the sum of \$51,000 (Expedited Payment Amount), which shall be deemed payment in full of any civil liability pursuant to Water Code sections 13385 and 13385.1 that otherwise might be assessed for the violations described in the NOV. The Permittee understands that this Acceptance and Waiver waives the Permittee's right to contest the allegations in the NOV and the amount of civil liability for such violations.

The Permittee understands that this Acceptance and Waiver does not address or resolve liability for any violation that is not specifically identified in the NOV.

Upon execution by the Permittee, the completed Acceptance and Waiver shall be returned to:

Ms. Pansy Yuen, Enforcement Unit  
 Expedited Payment Program  
 Regional Water Quality Control Board, Los Angeles Region  
 320 West 4<sup>th</sup> Street, Suite 200  
 Los Angeles, California 90013

The Permittee understands that federal regulations set forth at title 40, Code of Federal Regulations, section 123.27(d)(2)(iii) require the Regional Board to publish notice of and provide at least 30 days for public comment on any proposed resolution of an enforcement action addressing NPDES permit violations. Accordingly, this Acceptance and Waiver, prior to execution by the Regional Board Executive Officer, will be published as required by law for public comment.

If no comments are received within the notice period that cause the Regional Board Executive Officer to question the Expedited Payment Amount, the Regional Board Executive Officer will execute the Acceptance and Waiver.

Settlement Offer No. R4-2011-0157-M  
CI No. 4760, NPDES Permit No. CA0056014

The Permittee understands that if significant comments are received in opposition to the Expedited Payment Amount, the offer on behalf of the Regional Board to resolve the violations set forth in the NOV may be withdrawn. In that circumstance, the Permittee will be advised of the withdrawal and an administrative civil liability complaint may be issued and the matter may be set for a hearing before the Regional Board. For such a liability hearing, the Permittee understands that this Acceptance and Waiver executed by the Permittee will be treated as a settlement communication and will not be used as evidence in that hearing.

The Permittee further understands that once the Acceptance and Waiver is executed by the Regional Board Executive Officer, the full payment required by the deadline set forth below is a condition of this Acceptance and Waiver. In accordance with California Water Code section 13385(n)(1), funds collected for violations of effluent limitations and reporting requirements pursuant to section 13385 shall be deposited in the State Water Pollution Cleanup and Abatement Account. Accordingly, the \$51,000 liability shall be paid by a cashiers or certified check for \$51,000 made out to the "State Water Pollution Cleanup and Abatement Account". The payment must be submitted to the Regional Board no later than ten (10) calendar days after the date the Permittee receives written notice that the Regional Board Executive Officer has executed this Acceptance and Waiver.

I hereby affirm that I am duly authorized to act on behalf of and to bind the Permittee in the making and giving of this Acceptance and Waiver.

Las Virgenes Municipal Water District

By: _____	_____
(Signed Name)	(Date)
_____	_____
(Printed or typed name)	(Title)

IT IS SO ORDERED PURSUANT TO WATER CODE SECTION 13385

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Samuel Unger, P.E.  
Executive Officer



**EXHIBIT "A" - NOTICE OF VIOLATION**  
Effluent Limit Violations

Date	Monitoring Period	Discharge Point	Violation Type	Parameter	Reported Value	Permit Limit	Units	Pollutant Category	% Exceeded	Serious/Chronic	Water Code Section 13385	Penalty
10/31/10	October 2010	005	Monthly Average*	Dichlorobromomethane	47.93	46	ug/L	2	4%	Chronic	(i)	\$0
11/06/10	November 2010	005	Daily Maximum	Dichlorobromomethane	87.3	77	ug/L	2	13%	Chronic	(i)	\$0
11/30/10	November 2010	005	Monthly Average*	Dichlorobromomethane	68.55	46	ug/L	2	49%	Serious	(h)	\$3,000
12/13/10	December 2010	001	Daily Maximum	Total Residual Chlorine	0.8	0.1	mg/L	2	700%	Serious	(h)	\$3,000
12/23/10	December 2010	001	Daily Maximum	Total Residual Chlorine	0.39	0.1	mg/L	2	290%	Serious	(h)	\$3,000
12/27/10	December 2010	001	Daily Maximum	Total Residual Chlorine	0.6	0.1	mg/L	2	500%	Serious	(h)	\$3,000
03/20/11	March 2011	001	Daily Average	Turbidity	4	2	NTU	OEV	NA	Chronic	(i)	\$3,000
03/20/11	March 2011	001	Daily Maximum	Turbidity	>10 (472 min)	5 (>72 min)	NTU	OEV	NA	Chronic	(i)	\$3,000
03/20/11	March 2011	001	Instantaneous	Turbidity	>10	10	NTU	OEV	NA	Chronic	(i)	\$3,000
03/21/11	March 2011	001	Daily Average	Turbidity	7	2	NTU	OEV	NA	Chronic	(i)	\$3,000
03/21/11	March 2011	001	Daily Maximum	Turbidity	>10 (940 min)	5 (>72 min)	NTU	OEV	NA	Chronic	(i)	\$3,000
03/21/11	March 2011	001	Instantaneous	Turbidity	>10	10	NTU	OEV	NA	Chronic	(i)	\$3,000
03/24/11	March 2011	001	Daily Maximum	Total Residual Chlorine	0.3	0.1	mg/L	2	200%	Serious	(h)	\$3,000
03/25/11	March 2011	001	Daily Maximum	Turbidity	>10 (259 min)	5 (>72 min)	NTU	OEV	NA	Chronic	(i)	\$3,000
03/25/11	March 2011	001	Daily Average	Turbidity	3	2	NTU	OEV	NA	Chronic	(i)	\$3,000
03/25/11	March 2011	001	Instantaneous	Turbidity	>10	10	NTU	OEV	NA	Chronic	(i)	\$3,000
03/28/11	March 2011	001	Daily Maximum	Total Residual Chlorine	0.2	0.1	mg/L	2	100%	Serious	(h)	\$3,000
03/31/11	March 2011	001	Daily Maximum	Turbidity	10	5 (>72 min)	NTU	OEV	NA	Chronic	(i)	\$3,000
03/31/11	March 2011	001	Instantaneous	Turbidity	10	10	NTU	OEV	NA	Chronic	(i)	\$3,000
<b>Total</b>											<b>Total</b>	<b>\$51,000</b>

\* Staff Calculation



Dedicated to Providing Quality  
Water & Wastewater Service

December 5, 2011

President  
*Lee Renger*  
Director, Division 3

Vice President  
*Joseph M. Bowman*  
Director, Division 4

Secretary  
*Charles P. Caspary*  
Director, Division 1

Treasurer  
*Barry S. Steinhardt*  
Director, Division 5

*Glen D. Peterson*  
Director, Division 2  
MWD Representative

*John R. Mundy*  
General Manager

*Wayne K. Lemieux*  
Counsel

HEADQUARTERS  
4232 Las Virgenes Road  
Calabasas, CA 91302  
(818) 251-2100  
Fax (818) 251-2109

WESTLAKE  
FILTRATION PLANT  
(818) 251-2370  
Fax (818) 251-2379

TAPIA WATER  
RECLAMATION FACILITY  
(818) 251-2300  
Fax (818) 251-2309

RANCHO LAS VIRGENES  
COMPOSTING FACILITY  
(818) 251-2340  
Fax (818) 251-2349

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MEMBER AGENCY OF THE  
METROPOLITAN WATER  
DISTRICT  
SOUTHERN CALIFORNIA

Samuel Unger, Executive Officer  
California Regional Water Quality Control Board  
Los Angeles Region  
320 West 4th Street, Suite 200  
Los Angeles, Ca 90013

**Subject:** Settlement Offer No. R4-2011-0157-M  
Offer to Participate in Expedited Payment Program  
NPDES Permit No. CA0056014, CI 4760

Dear Mr. Unger:

Las Virgenes Municipal Water District would like to contest sixteen of the nineteen violations alleged in the Notice of Violation included in the Settlement Offer No. R4-2011-0157-M dated November 15, 2011.

**Turbidity Violations Dated March 20,21,24, and 31, 2011**

In the notice of violation, there are a total of eleven (11) turbidity violations listed for daily average, daily maximum, and instantaneous limits. Las Virgenes Municipal Water District requests that these violations be reclassified as a single violation since they were caused by a single operational upset (as defined in Attachment D, General Provisions, of our NPDES Permit) caused by an extraordinary rain event.

Beginning on March 19 and continuing until March 21, 2011, a significant rain event occurred. A total of 5.55 inches of rain fell from March 19-21 (0.08 inches on March 19, 4.95 inches on March 20, and 0.52 inches on March 21). This intense rainfall over a short period of time caused a much higher than normal amount of influent flow to the Tapia Water Reclamation Facility. Peak flow on March 20 was 32.6 MGD (normal peak flow is 14.5 MGD) and the treated effluent flow was 17.59 MG (normal effluent flow is 9.6 MG). The high flow into the facility exceeded the capacity of the tertiary filters and the balancing pond, which caused an involuntary bypass of secondary treated effluent around the tertiary filters. The bypass caused a high turbidity in the effluent. The secondary effluent was disinfected before discharge. A report of this bypass was submitted to the Regional Board within 24 hours as required (see attached e-mail). A second rain event occurred on March 23-25 (1.86 inches of rain) before the system could recover from the previous rain event, which caused the turbidity limits to be exceeded again.

November 29, 2011  
Settlement Offer No. R4-2011-0157-M  
Offer to Participate in Expedited Payment Program  
NPDES Permit No. CA0056014, CI 4760

Page 1 of 3

ITEM 6B

The exceptional rain events of March 2011 caused a single operational upset in which there was unintentional and temporary noncompliance with the permit effluent limitations because of factors beyond the reasonable control of the Las Virgenes MWD. This upset was not caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, or lack of maintenance, but rather by an intense three-day rain event followed by another three-day rain event. The facility was being operated properly at the time of the upset and notice was provided to the Regional Board as required. There were no remedial measures that could have been undertaken to address the exceedance of turbidity levels. It was unsafe to perform additional sampling in the Malibu Creek because of the surge in flow (see attached chart on Malibu Creek flow) due to the rain event, so sampling was not performed.

The alleged turbidity violation on March 31, 2011, was the result of a laboratory data entry error into the CIWQS system. The turbidity on March 31 never exceeded any of the permit limits. A trend of turbidity from that day is attached and the monitoring report from March will be modified and resubmitted.

**Chlorine Residual Violations for December 13, 23 and 27, and March 24 and 28, 2011**

There are five (5) violations for total chlorine residual in the notice of violation from December 2010 and March 2011. Actual chlorine residual violations did not occur during these dates. As stated in the summary of non-compliance for the months of December 2010 and March 2011:

"...the chlorine residual samples drawn for a verification check of the dechlorination system were drawn from the effluent forebay (001, 003 and 005 compliance point)...This site is more appropriate for sampling when the LA River serial outfall 005 is the only one in use. When Malibu Creek serial outfall 001 is in use, there is an additional injection of dechlorination agent before discharge. Therefore, sample collection in the forebay is not actually representative of the recycled water discharged to Malibu Creek.

...when chlorine was detected in the forebay, additional samples were drawn from the effluent pond in which no chlorine was detected; moreover, no chlorine was detected by the continuous on-line chlorine analyzers. If chlorine were to be detected, the Malibu Creek serial outfall 001 valve would immediately close, alarms would be triggered and effluent flows would be diverted. Chlorine detection equipment is inspected daily to insure proper functionality.

In conclusion, Tapia recycled water met compliance limits for chlorine residual, as well as all other compliance limits,..."

The Summaries of Non-Compliance for the months of December 2010 and March 2011 as well as charts showing readings from our chlorine sensors are attached for reference. Please note that the "spikes" in the charts for chlorine residual are a result of daily calibration and testing of the automated sensors.

Additionally, Las Virgenes staff was contacted in late August by Mr. Renan Jauregui from the California State Water Resources Control Board NPDES unit regarding the chlorine residual levels listed in the Notice of Violation for December and March. Mr. Jauregui was sent Summaries of Non-Compliance for the months of December 2010 and March 2011 for clarification. He responded, in the attached e-mail, that "The data in the ICIS has been modified to reflect the non-detect results for chlorine residual on the month of December 2010 and March 2011." We request that the CIWQS database be updated to reflect non-detect results for these instances as well.

A table showing the existing Notice of Violation and a proposed Notice of Violation is attached for reference. Please call Brett Dingman, Water Reclamation Manager, at (818) 251-2330 if you have any questions or need further information.

Sincerely,



David R. Lippman, P.E.  
Director of Facilities & Operations

Enclosures

**Dingman, Brett**

---

**From:** Brandi Outwin [boutwin@waterboards.ca.gov]  
**Sent:** Monday, March 28, 2011 10:00 AM  
**To:** Dingman, Brett; David Hung; Samuel Unger  
**Cc:** Lippman, David; Cuaresma, Ed; Glaser, Heather; Gamble, Jacqy  
**Subject:** Re: Tapia Water Reclamation Facility Storm Event

Brett-

Thank you for the notification. Please submit written reports of the bypass as required in the permit.

Thanks-

Brandi Outwin-Beals, Unit Chief  
Municipal Permitting Unit  
California Regional Water Quality Control Board  
Los Angeles Region  
Phone: (213)576-6664  
Fax: (213)576-6660

>>> "Dingman, Brett" <BDingman@lvnwd.com> 3/21/2011 1:35 PM >>>  
Brandi,

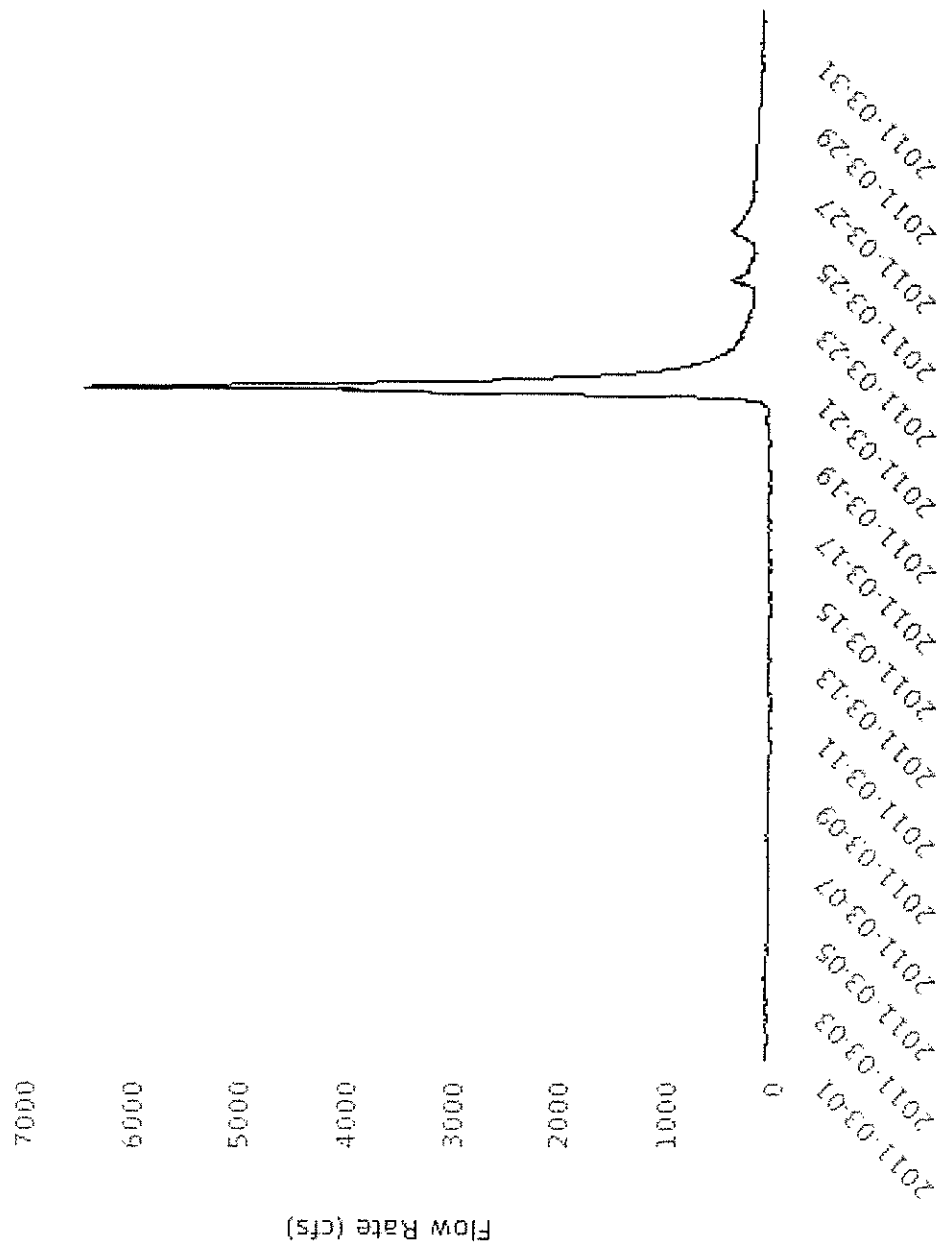
The Tapia Water Reclamation Facility (NPDES Permit No. CA0056014, CI # 4760) is experiencing extremely high flows due to the current weather system. Peak flow on Sunday, March 20 was 32.6 MGD (more than twice our normal peak flow). Due to these high flows, our balancing pond is partially flowing directly into the chlorine contact channel. This causes some secondary treated water to bypass the tertiary filters before chlorination and dechlorination. Our permit states that if this condition occurs, we need to implement additional sampling in Malibu Creek for total and fecal coliforms (Receiving Water Monitoring Requirements A, 3. on page E-29 of the MRP). Due to the current rain event the creek flows are changing unpredictably (flow surged from 50 cfs to 6400 cfs in twelve hours) and it is unsafe for monitoring. We will be unable to complete this monitoring. Please note that all effluent is going through the disinfection and dechlorination process. Please advise us if there are any additional requirements.

Brett Dingman, P.E.  
Water Reclamation Manager  
Las Virgenes Municipal Water District  
4232 Las Virgenes Road  
Calabasas, CA 91302  
Phone: (818) 251-2330  
Cell: (818) 324-5589  
Fax: (818) 251-2309  
[bdingman@lvnwd.com](mailto:bdingman@lvnwd.com)

ITEM 6B

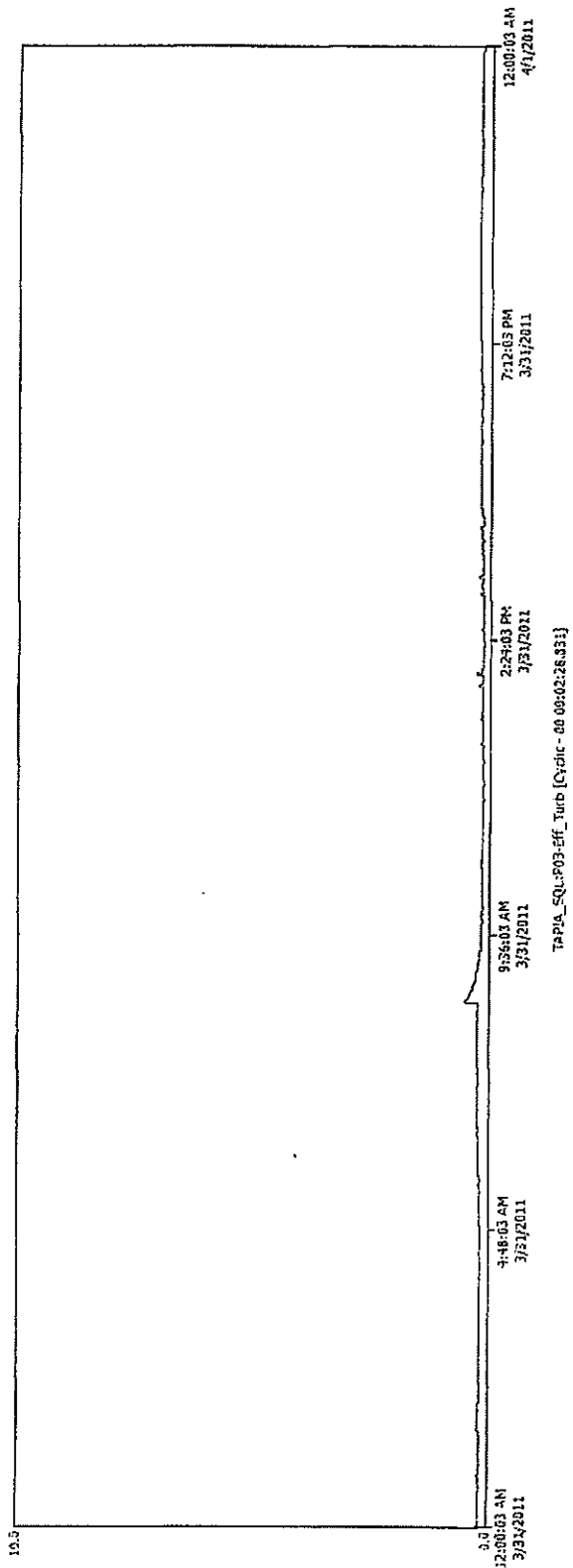
11/17/2011

Malibu Creek (347)  
- Flow Rate (347)





Tapia Turb



Tag Name	Description	Server	Color	Units	Minimum	Maximum	ID Address	Time Off...
UJ-P03-Eff_Turb	Effluent Turbidity	TAPIA_SQL	█	NTU	0.0	10.0	\\14-Tapia-Scada\VIEW...	0:00:00....
							TAPIA_SQL-P03-Eff_Turb [Cyclic - 00 00:02:26.831]	
12:00:03 AM							9:56:03 AM	
3/31/2011							3/31/2011	
							2:24:03 PM	
							3/31/2011	
							7:12:03 PM	
							3/31/2011	
							12:00:03 AM	
							4/1/2011	

Tag Name Description Server Color Units Minimum Maximum ID Address Time Off...

UJ-P03-Eff\_Turb Effluent Turbidity TAPIA\_SQL █ NTU 0.0 10.0 \\14-Tapia-Scada\VIEW... 0:00:00....

TAPIA\_SQL-P03-Eff\_Turb [Cyclic - 00 00:02:26.831]

12/1/2011 11:23:50 AM

C:\Documents and Settings\jacqyg\Desktop\shortcuts\trends\Tapia Turb.aaTrend

GB

**LAS VIRGENES MUNICIPAL WATER DISTRICT  
TAPIA WATER RECLAMATION FACILITY  
California Regional Water Quality Control Board  
NPDES No. CA0056014, CI No. 4760  
Order Nos. R4-2010-0165, R4-2010-0166 and R4-2010-0167**

**SUMMARY OF NON-COMPLIANCE**

During the month of December 2010, the chlorine residual samples drawn for a verification check of the dechlorination system were drawn from the effluent forebay (001, 003 and 005 compliance point). Three days showed detected levels of chlorine. This site is more appropriate for sampling when the LA River serial outfall 005 is the only one in use. When Malibu Creek serial outfall 001 is in use, there is an additional injection of dechlorination agent before discharge. Therefore, sample collection in the forebay is not actually representative of the recycled water discharged to Malibu Creek.

On the three days when chlorine was detected in the forebay, additional samples were drawn from the effluent pond in which no chlorine was detected; moreover, no chlorine was detected by the continuous on-line chlorine analyzers. If chlorine were to be detected, the Malibu Creek serial outfall 001 valve would immediately close, alarms would be triggered and effluent flows would be diverted. Chlorine detection equipment is inspected daily to ensure proper functionality.

In conclusion, Tapia recycled water met compliance limits for chlorine residual, as well as all other compliance limits, during the entire month of December.

**LAS VIRGENES MUNICIPAL WATER DISTRICT  
TAPIA WATER RECLAMATION FACILITY  
California Regional Water Quality Control Board  
NPDES No. CA0056014, CI No. 4760  
Order Nos. R4-2010-0165, R4-2010-0166 and R4-2010-0167**

**SUMMARY OF NON-COMPLIANCE**

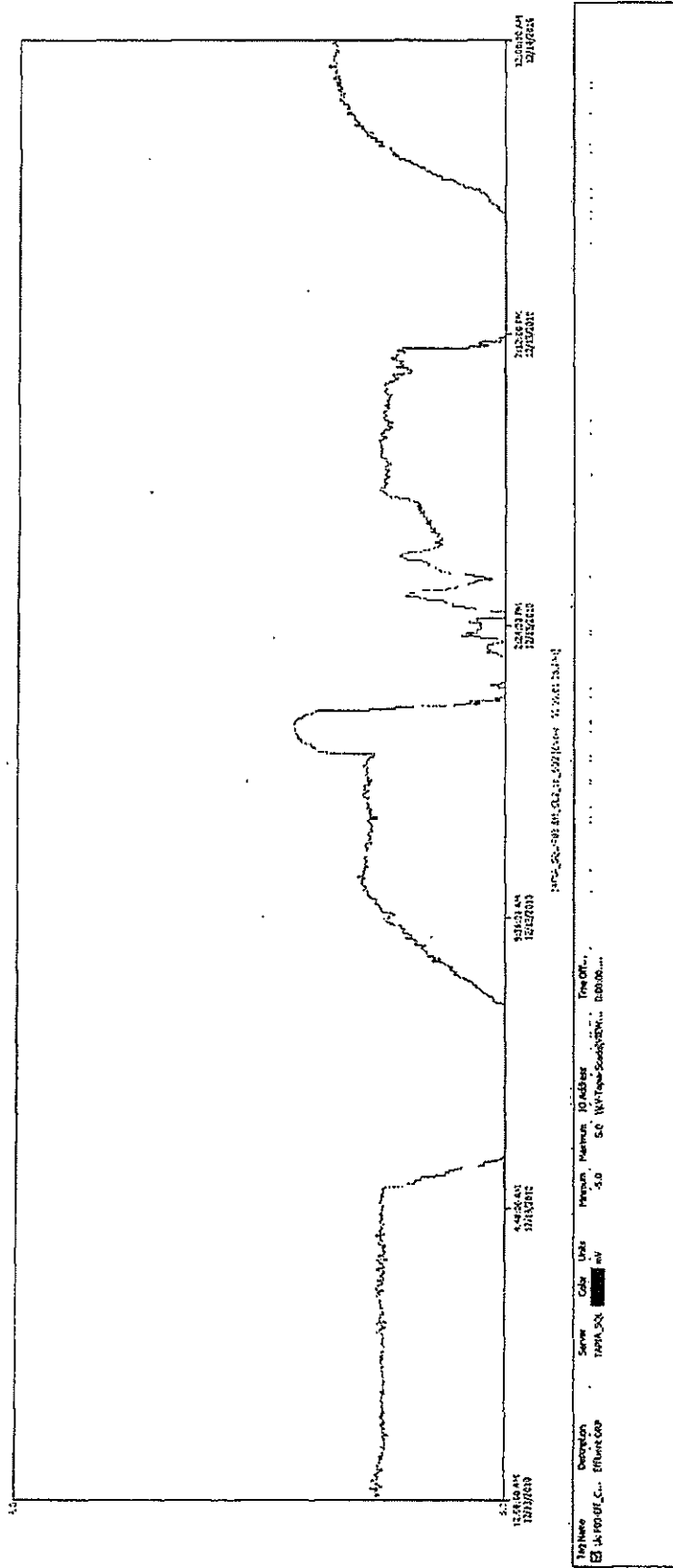
During the month of March 2011, the county of Los Angeles received several intense rainstorms. Rain impacts caused facility flows to double the normal volume for several consecutive days and, as a result, the final effluent turbidity requirements were exceeded on March 20, 21 and 25.

In addition, the chlorine residual samples drawn for a verification check of the dechlorination system were drawn from the effluent forebay (001, 003 and 005 compliance point). Two days showed detected levels of chlorine. This site is more appropriate for sampling when the LA River serial outfall 005 is the only one in use. When Malibu Creek serial outfall 001 is in use, there is an additional injection of dechlorination agent before discharge. Therefore, sample collection in the forebay is not actually representative of the recycled water discharged to Malibu Creek.

On the two days when chlorine was detected in the forebay, additional samples were drawn from the effluent pond in which no chlorine detected; moreover, no chlorine was detected by the continuous on-line chlorine analyzers. If chlorine were to be detected, the Malibu Creek serial outfall 001 valve would immediately close, alarms would be triggered and effluent flows would be diverted. Chlorine detection equipment is inspected daily to ensure proper functionality; therefore, Tapia recycled water met compliance limits for chlorine residual.

All other permit requirements were met during this period.

Tapia Final Effl Chlorine



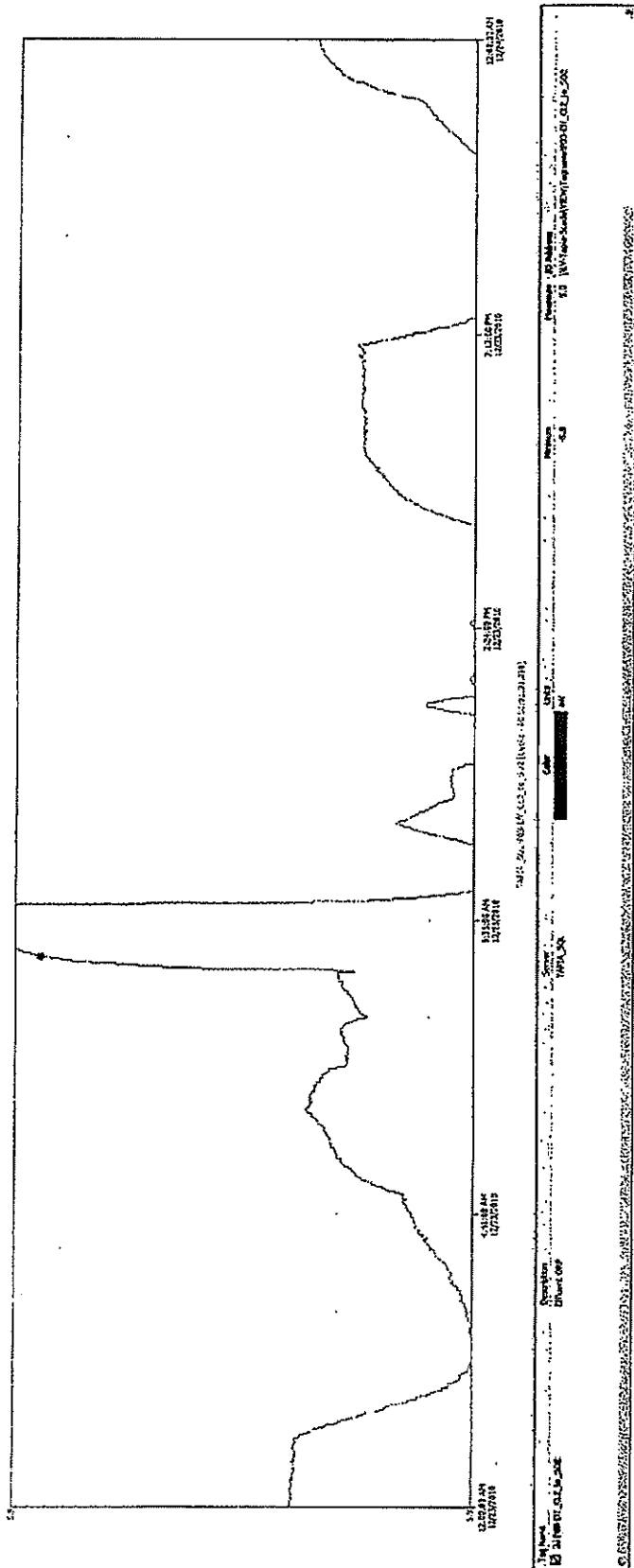
By Name: Description: Server: Color: Units: Harmon: Maxima: ID: Address: Time: Off: ...  
 E:\Tapia\Effl... Front-Cell TAPIA-001 av 5.0 5.0 W:\Tapia-Scout\Station... 8/20/2011...

12/1/2011 12:05:33 PM

C:\Documents and Settings\jacyg\Desktop\Tapia Final Effl Chlorine.aaTrend

6B

Tapia Final Effi Chlorine

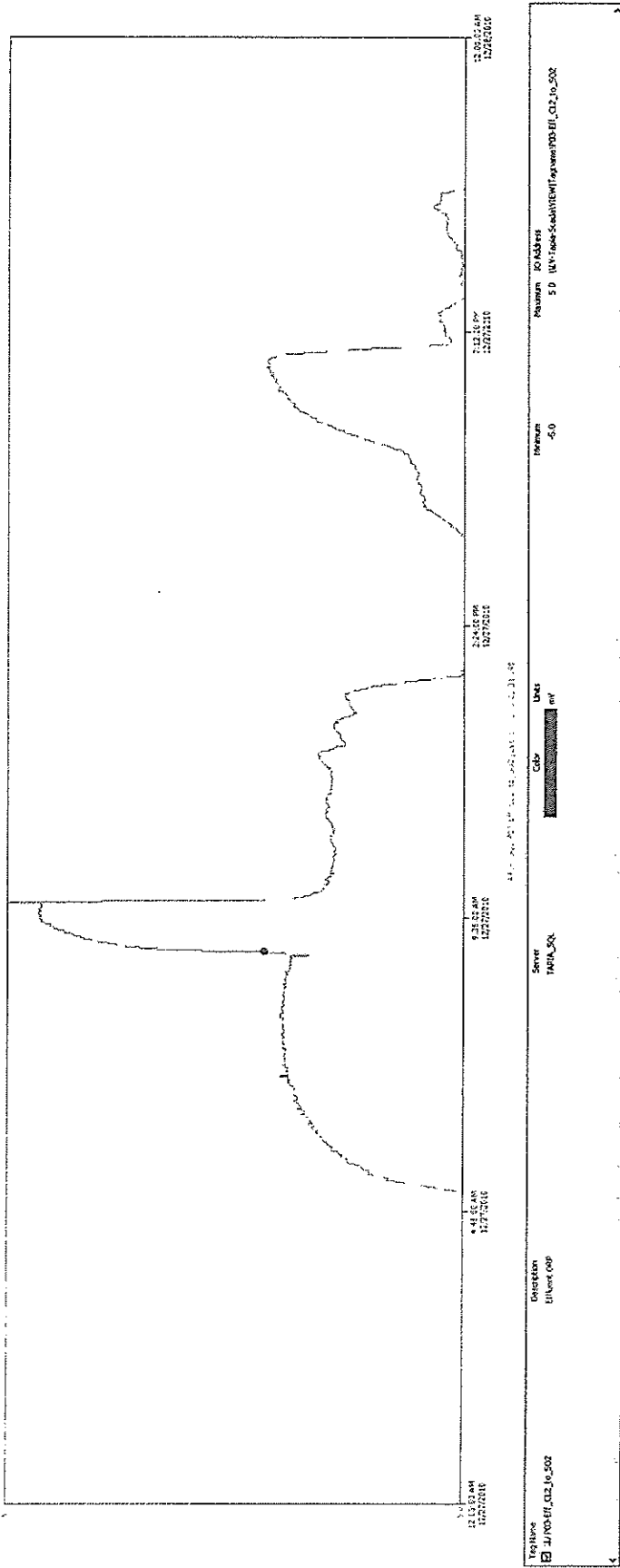


12/1/2011 2:22:51 PM

C:\Documents and Settings\jaccyg\Desktop\Tapia Final Effi Chlorine.aaTrend

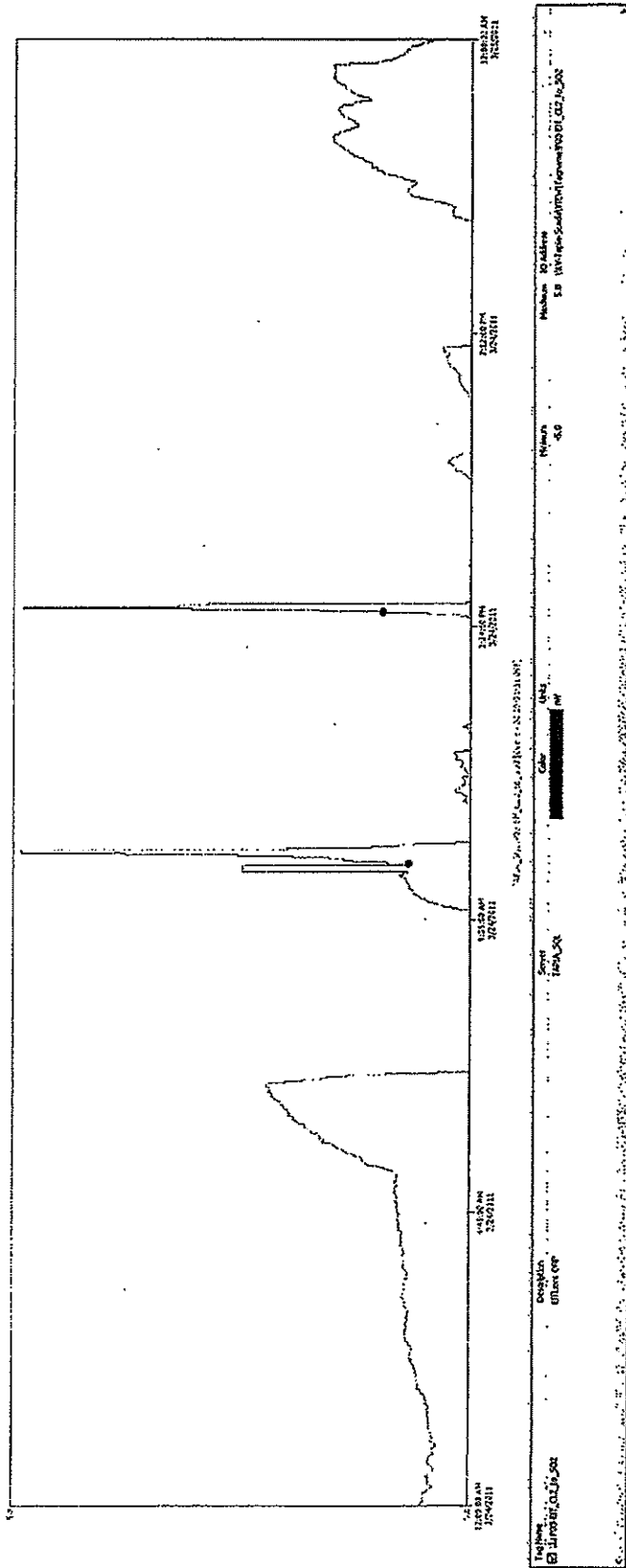
6 B

### Tapia Final Effi Chlorine

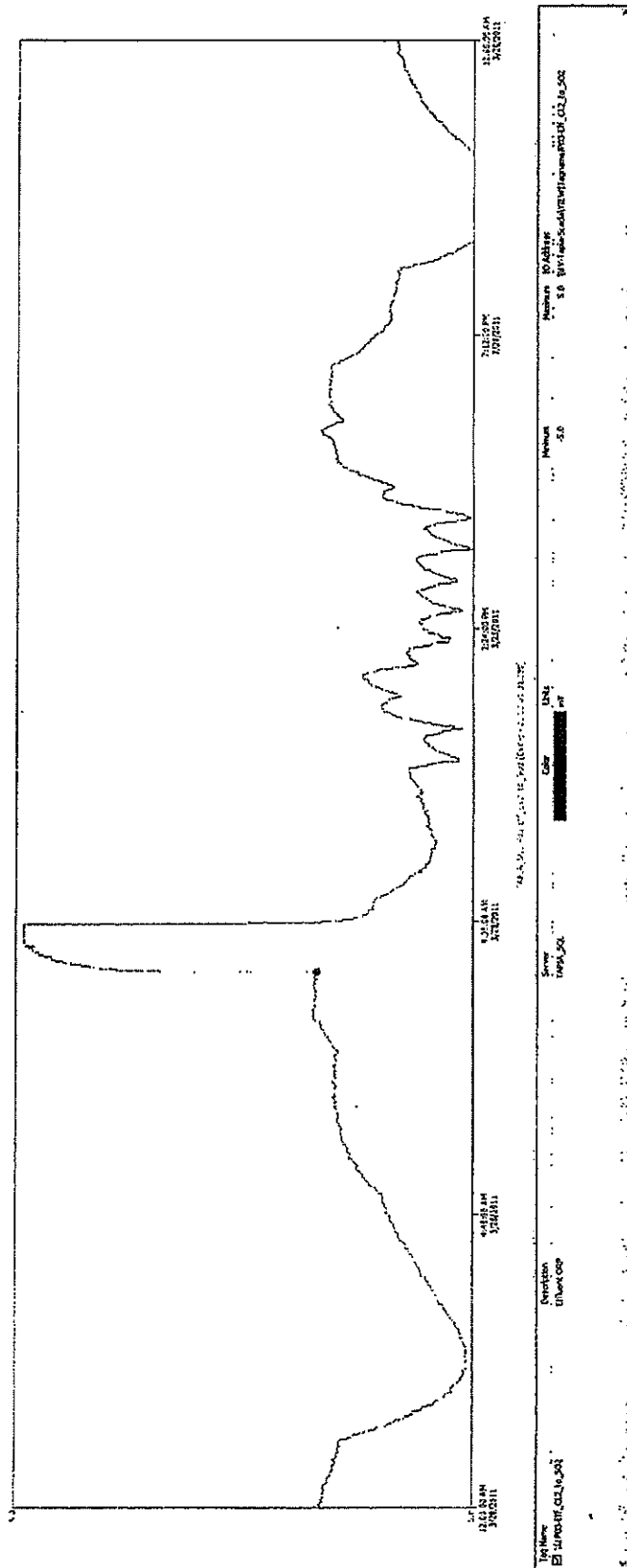




Tapia Final Effl Chlorine



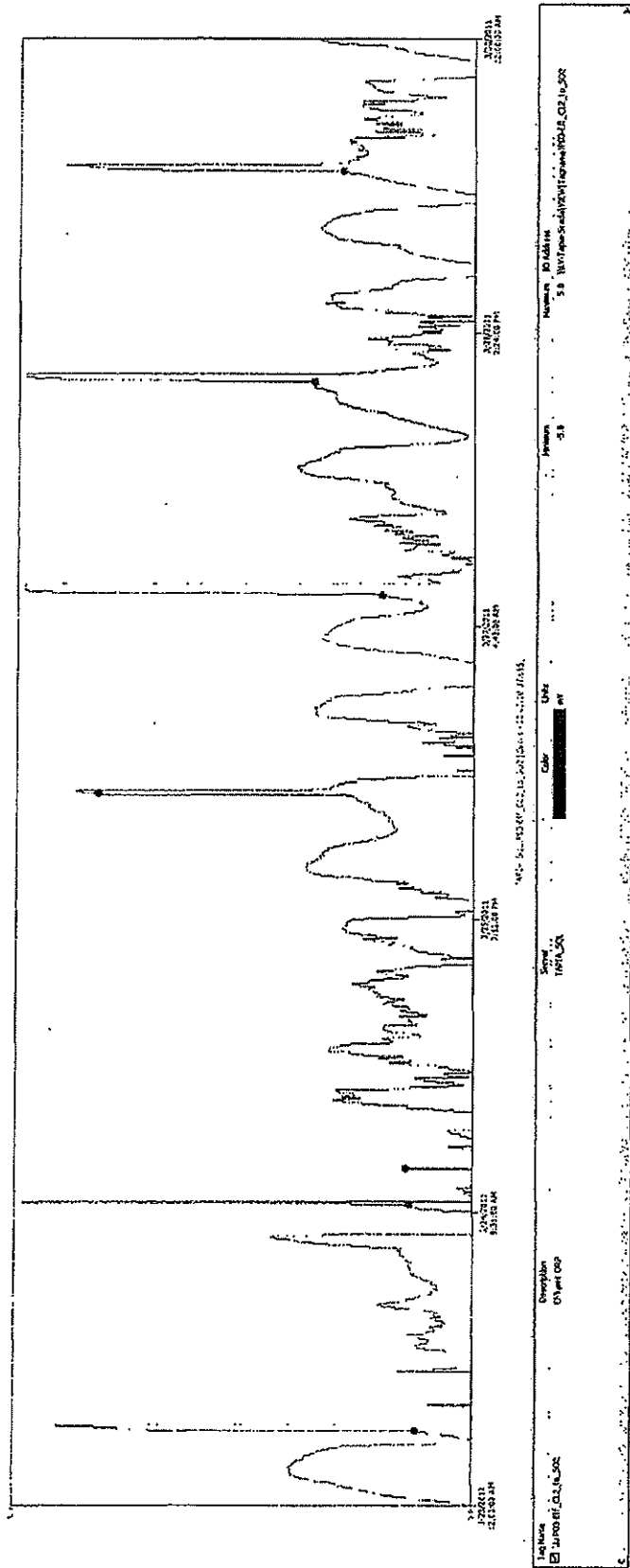
### Tapia Final Effl Chlorine



12/1/2011 1:18:18 PM

C:\Documents and Settings\jacqyg\Desktop\Tapia Final Effl Chlorine.a Trend

Tapia Final Effi Chlorine



Type	Tag Name	Server	Content	User	Time	Created On
Public	P03-Eff_CL2_to_SO2	TAPIA_SQL	Daily cleaning and calibration check of analyzer	public	3/23/2011 8:37:05.007 AM	12/1/2011 12:41:33.757 PM
Public	P03-Eff_CL2_to_SO2	TAPIA_SQL	Analyzers running on generator power: power tripped and caused false Cl2 residual alarm	public	3/24/2011 10:31:21.587 AM	12/1/2011 12:14:04.710 PM
Public	P03-Eff_CL2_to_SO2	TAPIA_SQL	Analyzers running on generator power: power tripped and caused false Cl2 residual alarm	public	3/24/2011 2:38:12.307 PM	12/1/2011 12:14:18.740 PM
Public	P03-Eff_CL2_to_SO2	TAPIA_SQL	Daily cleaning and calibration check of analyzer	public	3/26/2011 9:38:01.117 AM	12/1/2011 12:42:03.473 PM
Public	P03-Eff_CL2_to_SO2	TAPIA_SQL	Daily cleaning and calibration check of analyzer	public	3/27/2011 8:24:24.140 AM	12/1/2011 12:42:42.897 PM
Public	P03-Eff_CL2_to_SO2	TAPIA_SQL	Daily cleaning & calibrating analyzer	public	3/28/2011 8:46:32.727 AM	12/1/2011 12:18:03.007 PM
Public	P03-Eff_CL2_to_SO2	TAPIA_SQL	Daily cleaning and calibration check of analyzer	public	3/29/2011 8:47:18.220 AM	12/1/2011 12:43:17.710 PM

ITEM 6C

12/1/2011 1:44:43 PM

6B

**Dingman, Brett**

---

**From:** Glassman, Brad  
**Sent:** Tuesday, August 30, 2011 8:18 AM  
**To:** Dingman, Brett  
**Subject:** FW: NPDES CA0056014

fyi

-----Original Message-----

**From:** DMR DMR [mailto:DMR@waterboards.ca.gov]  
**Sent:** Monday, August 29, 2011 5:33 PM  
**To:** Glassman, Brad  
**Subject:** Re: NPDES CA0056014

Brad, thank you for this clarification. The data in ICIS has been modified to reflect the non-detect results for chlorine residual on the month of Dec 2010 and Mar 2011.

Renan Jauregui  
 NPDES Unit

=====  
 Discharge Monitoring Report Help Center  
 State Water Resources Control Board  
 Division of Water Quality  
 916-324-6683 [hotline]  
 916-324-6684 [fax]  
 dmr@waterboards.ca.gov  
<http://www.waterboards.ca.gov/dmr>  
 How are we doing?: <http://www.calepa.ca.gov/Customer/CSForm.asp>

>>> "Glassman, Brad" <BGlassman@lvnwd.com> 8/29/2011 3:05 PM >>>  
 Renan, enclosed is the report summary from the December 2010 and March 2011 NPDES reports explaining our chlorine residual reporting and how we determined our compliance on both 12/13/10 and 3/28/11.

Regards,

Brad Glassman

818-251-2333

## EXHIBIT "A" - NOTICE OF VIOLATION

Las Virgenes MWD  
CI No. 4760

## Effluent Limit Violations

ORIGINAL

Date	Monitoring Period	Discharge Point	Violation Type	Parameter	Reported Value	Permit Limit	Units	Pollutant Category	% Exceeded	Serious/Chronic	Water Code Section 13385	Penalty
10/31/10	October 2010	005	Monthly Average*	Dichlorobromomethane	47.93	46	ug/L	2	4%	Chronic	(j)	\$0
11/06/10	November 2010	005	Daily Maximum	Dichlorobromomethane	87.3	77	ug/L	2	13%	Chronic	(j)	\$0
11/30/10	November 2010	005	Monthly Average*	Dichlorobromomethane	68.55	46	ug/L	2	49%	Serious	(h)	\$3,000
12/13/10	December 2010	001	Daily Maximum	Total Residual Chlorine	0.8	0.1	mg/L	2	700%	Serious	(h)	\$3,000
12/23/10	December 2010	001	Daily Maximum	Total Residual Chlorine	0.39	0.1	mg/L	2	290%	Serious	(h)	\$3,000
12/27/10	December 2010	001	Daily Maximum	Total Residual Chlorine	0.6	0.1	mg/L	2	500%	Serious	(h)	\$3,000
03/20/11	March 2011	001	Daily Average	Turbidity	4	2	NTU	OEV	NA	Chronic	(j)	\$3,000
03/20/11	March 2011	001	Daily Maximum	Turbidity	>10 (472 min)	5 (>72 min)	NTU	OEV	NA	Chronic	(j)	\$3,000
03/20/11	March 2011	001	Instantaneous	Turbidity	>10	10	NTU	OEV	NA	Chronic	(j)	\$3,000
03/21/11	March 2011	001	Daily Average	Turbidity	7	2	NTU	OEV	NA	Chronic	(j)	\$3,000
03/21/11	March 2011	001	Daily Maximum	Turbidity	>10 (940 min)	5 (>72 min)	NTU	OEV	NA	Chronic	(j)	\$3,000
03/21/11	March 2011	001	Instantaneous	Turbidity	>10	10	NTU	OEV	NA	Chronic	(j)	\$3,000
03/24/11	March 2011	001	Daily Maximum	Total Residual Chlorine	0.3	0.1	mg/L	2	200%	Serious	(h)	\$3,000
03/25/11	March 2011	001	Daily Maximum	Turbidity	>10 (259 min)	5 (>72 min)	NTU	OEV	NA	Chronic	(j)	\$3,000
03/25/11	March 2011	001	Daily Average	Turbidity	3	2	NTU	OEV	NA	Chronic	(j)	\$3,000
03/25/11	March 2011	001	Instantaneous	Turbidity	>10	10	NTU	OEV	NA	Chronic	(j)	\$3,000
03/28/11	March 2011	001	Daily Maximum	Total Residual Chlorine	0.2	0.1	mg/L	2	100%	Serious	(h)	\$3,000
03/31/11	March 2011	001	Daily Maximum	Turbidity	10	5 (>72 min)	NTU	OEV	NA	Chronic	(j)	\$3,000
03/31/11	March 2011	001	Instantaneous	Turbidity	10	10	NTU	OEV	NA	Chronic	(j)	\$3,000
Total											\$51,000	

\*Staff Calculation

PROPOSED

Date	Monitoring Period	Discharge Point	Violation Type	Parameter	Reported Value	Permit Limit	Units	Pollutant Category	% Exceeded	Serious/Chronic	Water Code Section 13385	Penalty
10/31/10	October 2010	005	Monthly Average*	Dichlorobromomethane	47.93	46	ug/L	2	4%	Chronic	(j)	\$0
11/06/10	November 2010	005	Daily Maximum	Dichlorobromomethane	87.3	77	ug/L	2	13%	Chronic	(j)	\$0
11/30/10	November 2010	005		Dichlorobromomethane	68.55	46	ug/L	2	49%	Serious	(h)	\$3,000
Total											\$3,000	

EDMUND G. BROWN JR.  
GOVERNORMATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## Los Angeles Regional Water Quality Control Board

October 18, 2013

Mr. David R. Lippman, P.E.  
Director of Facilities and Operations  
Las Virgenes Municipal Water District  
4232 Las Virgenes Road,  
Calabasas, CA 91302

VIA CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
Claim No. 7009 2820 0001 6537 8518

**RESPONSE TO REQUEST FOR ALLEGED VIOLATION REVIEW – LAS VIRGENES MUNICIPAL WATER DISTRICT, TAPIA WATER RECLAMATION FACILITY, 731 MALIBU CANYON ROAD, CALABASAS, CA (ORDER NO. R4-2010-0165, NPDES PERMIT NO. CA0056014, CI NO. 4760)**

Dear Mr. Lippman:

The Regional Board received your letter dated December 5, 2011, responding to the November 15, 2011 Settlement Offer No. R4-2011-0157-M, which assessed mandatory minimum penalties (MMPs) for violations of effluent limitations. This letter addresses your comments in this regard.

**Issue 1:**

The Las Virgenes Municipal Water District (Permittee) has requested that nine (9) turbidity effluent limit violations, from March 20, 2011 to March 25, 2011, be combined into a single violation on the basis of a single operational upset event due to the significant rain event experienced between March 19, 2011 and March 21, 2011. The Permittee asserts that this rainfall caused a much higher than normal amount of influent flow to the Tapia Water Reclamation Facility. "The high flow into the facility exceeded the capacity of the tertiary filters and the balancing pond, which caused an involuntary bypass of secondary treated effluent around the tertiary filters." The bypass then caused high turbidity in the effluent. Furthermore, the Permittee asserts that before the system could recover from this rain event, a subsequent rain event between March 23, 2011 and March 25, 2011, caused the exceedances in turbidity limits.

The Permittee also states that two (2) turbidity violations on March 31, 2011, were the result of a laboratory data entry error into the CIWQS system. Accordingly, as per the Permittee, there were no turbidity violations on March 31, 2011.

**Staff Response:**

Regional Board staff has reviewed the nine (9) turbidity violations that occurred during the two consecutive storm events that occurred from March 19, 2011 through March 21, 2011 and on from March 23, 2011 through March 25, 2011. While these events generated high flow that activated bypass of the tertiary filters, Regional Board staff determined that the violations do not meet the requirements of a single operational upset pursuant to Water Code section 13385(f). Water Code section 13385(f) states that a single operational upset (SOU) that leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation. The SOU provisions apply where there are exceedances of more than one effluent limitation. Here, there was one effluent limit exceedance, turbidity, during the two consecutive storm events. Because only one effluent limit exceedance resulted, Water Code section



13385(f) cannot be used to mitigate the penalty amount. Moreover, the intent of the SOU provisions is to “mitigate those penalties when specified circumstances that are difficult to control or largely beyond the control of a wastewater treatment facility operator are the cause of the violations and imposing the penalties would be fundamentally unfair.” (Sen. Rules Com., Off. Of Sen. Floor Analyses, 3d reading analysis of Assem. Bill No. 2351 (2001-2002 reg. Sess.) as amended August 5, 2002, pg. 3.) The reference to “specified circumstances that are difficult to control” refers to the sensitive nature of these biological processes in wastewater treatment systems (*Id.* at 4). Factors disrupting the equilibrium conditions of these living systems may result in an upset of discharges exceeding the effluent limitations in the permit. Effluent limit violations from an SOU incident would likely result in exceedances beyond turbidity. Here, if the two consecutive storm events were considered SOU incidents, one would expect exceedances for pollutant parameters beyond a single effluent limit. In addition, the Permittee did not demonstrate all reasonable and feasible actions were immediately carried out to reduce noncompliance with the applicable effluent limitations as required under Water Code section 13385(f)(2)(A)(III). The Permittee also failed to comply with Section O of the permit on March 25, 2011 requiring the Permittee to submit notice of the upset within 24 hours of the exceedance of the effluent limits, as required in Provision V.E.2(b) of Attachment D. Therefore, Regional Board staff decline to accept the Permittee’s request to reclassify the multiple day violations as a single violation.

The Permittee references that a single operational upset is defined in Attachment D, General Provisions of the NPDES permit. However, Regional Board staff would like to clarify that Attachment D, General Provisions references an “upset”, a defense provided in 40 C.F.R. § 122.41(n), not a single operational upset as defined by Water Code section 13385(f). An upset may be an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the conditions in Attachment D-4 are met. Here, the effluent parameters violated are water quality based, not technology based. Therefore, the “upset” defense is not applicable.

The Permittee provided information that the two (2) reported values for turbidity on March 31, 2011 are invalid because of laboratory error. Therefore, Regional Board staff has determined it is appropriate to expunge these as violations from the CIWQS database.

#### **Issue 2:**

The Permittee asserts that “the five (5) violations for total residual chlorine cited during the months of December 2010 and March 2011 did not occur because the samples were drawn for a verification check of the dechlorination system from the effluent forebay, which is not representative of the recycled water discharged to the Malibu Creek serial discharge point 001. In addition, when chlorine was detected in the effluent forebay, additional samples were drawn from the effluent pond in which no chlorine was detected.”

#### **Staff Response:**

In response to the five (5) total residual chlorine effluent limit violations, Regional Board staff has determined, based on information provided, that the samples in question taken on December 13, 2010, December 23, 2010, December 27, 2010, March 24, 2011, and March 28, 2011 from the effluent forebay do not represent discharges from serial discharge point 001. The samples were taken immediately after an additional injection of the dechlorination agent as a verification check of the dechlorination system for serial discharge point 001. Therefore, the five (5) total residual chlorine effluent limit violations cited in Settlement Offer No. R4-2011-0157-M NOV are hereby rescinded.



Mr. David R. Lippman, P.E.  
Las Virgenes Municipal Water District

- 3 -

October 18, 2013

**Conclusions:**

You are hereby notified that , based on your December 5, 2011 submittal to the Regional Board, nine (9) turbidity effluent limit violations from March 20, 2011 to March 31, 2011 remain, as noted in the Settlement Offer No. R4-2011-0157-M Amended Exhibit "1" – Notice of Violation (NOV).

Furthermore, two (2) effluent limit violations for turbidity on March 31, 2011 and five (5) effluent limit violations for total residual chlorine on December 13, 2010, December 23, 2010, December 27, 2010, March 24, 2011, and March 28, 2011 cited in Settlement Offer No. R4-2011-0157-M are hereby rescinded. However, be advised that failure to sample and report your discharge in accordance with your waste discharger requirements is a violation of Order No. R4-2010-0165 and the California Water Code and that the Permittee is ultimately responsible for compliance with the permit.

Finally, the Regional Board staff has identified nineteen (19) additional violations verified by the Permittee in their October 2011 through June 2013 monthly self-monitoring reports. The nineteen (19) effluent limit violations have been included in the amended Exhibit "1"- NOV.

Since the Permittee requested a review of this violation, the Regional Board has established new deadlines. If you intend to participate in the Expedited Payment Program, you must sign and return the Acceptance of Conditional Resolution and Waiver of Right to Hearing form by **November 1, 2013**. By signing the Acceptance and Waiver, Las Virgenes Municipal Water District agrees to pay the penalty of \$81,000 as indicated on the amended Exhibit "1"– NOV and waives the right to a hearing. If you do not elect to sign the Acceptance and Waiver, you will be contacted regarding formal enforcement action that will be initiated with regard to the contested violation.

If you have any questions regarding this matter, please contact Ms. Pansy Yuen at (213) 620-6367 or by email at [pansy.yuen@waterboards.ca.gov](mailto:pansy.yuen@waterboards.ca.gov) or Mr. Russ Colby at (213) 620-6373 or by email at [russ.colby@waterboards.ca.gov](mailto:russ.colby@waterboards.ca.gov).

Sincerely,



Paula Rasmussen  
Assistant Executive Officer

Enclosures:

Amended Exhibit "1" - Notice of Violation  
Amended Acceptance of Conditional Resolution and Waiver of Right to Hearing;  
(proposed) Order

cc: Vanessa Young, Office of Enforcement, State Water Resources Control Board

Settlement Offer No. R4-2011-0157-M  
 CI No. 4760, NPDES Permit No. CA0056014

**AMENDED ACCEPTANCE OF CONDITIONAL RESOLUTION  
 AND WAIVER OF RIGHT TO HEARING; (proposed) ORDER**

Las Virgenes Municipal Water District  
 Settlement Offer No. R4-2011-0157-M  
 NPDES Permit No. CA0056014

By signing below and returning this Acceptance of Conditional Resolution and Waiver of Right to Hearing (Acceptance and Waiver) to the Los Angeles Regional Water Quality Control Board (Regional Board), Las Virgenes Municipal Water District (Permittee) hereby accepts the "Offer to Participate in Expedited Payment Program" and waives the right to a hearing before the Regional Board to dispute the allegations of violations described in the Notice of Violation (NOV), which is attached hereto as Exhibit "1" and incorporated herein by reference.

The Permittee agrees that the NOV shall serve as a complaint pursuant to Article 2.5 of the California Water Code and that no separate complaint is required for the Regional Board to assert jurisdiction over the alleged violations through its Assistant Executive Officer. The Permittee agrees to pay the penalties required by California Water Code section 13385, in the sum of \$81,000 (Expedited Payment Amount), which shall be deemed payment in full of any civil liability pursuant to Water Code sections 13385 and 13385.1 that otherwise might be assessed for the violations described in the NOV. The Permittee understands that this Acceptance and Waiver waives the Permittee's right to contest the allegations in the NOV and the amount of civil liability for such violations.

The Permittee understands that this Acceptance and Waiver does not address or resolve liability for any violation that is not specifically identified in the NOV.

Upon execution by the Permittee, the completed Acceptance and Waiver shall be returned to:

Ms. Pansy Yuen, Enforcement Unit  
 Expedited Payment Program  
 Regional Water Quality Control Board, Los Angeles Region  
 320 West 4<sup>th</sup> Street, Suite 200  
 Los Angeles, California 90013

The Permittee understands that federal regulations set forth at title 40, Code of Federal Regulations, section 123.27(d)(2)(iii) require the Regional Board to publish notice of and provide at least 30 days for public comment on any proposed resolution of an enforcement action addressing NPDES permit violations. Accordingly, this Acceptance and Waiver, prior to execution by the Regional Board Executive Officer, will be published as required by law for public comment.

If no comments are received within the notice period that cause the Regional Board Executive Officer to question the Expedited Payment Amount, the Regional Board Executive Officer will execute the Acceptance and Waiver.

Settlement Offer No. R4-2011-0157-M  
CI No. 4760, NPDES Permit No. CA0056014

The Permittee understands that if significant comments are received in opposition to the Expedited Payment Amount, the offer on behalf of the Regional Board to resolve the violations set forth in the NOV may be withdrawn. In that circumstance, the Permittee will be advised of the withdrawal and an administrative civil liability complaint may be issued and the matter may be set for a hearing before the Regional Board. For such a liability hearing, the Permittee understands that this Acceptance and Waiver executed by the Permittee will be treated as a settlement communication and will not be used as evidence in that hearing.

The Permittee further understands that once the Acceptance and Waiver is executed by the Regional Board Executive Officer, the full payment required by the deadline set forth below is a condition of this Acceptance and Waiver. In accordance with California Water Code section 13385(n)(1), funds collected for violations of effluent limitations and reporting requirements pursuant to section 13385 shall be deposited in the State Water Pollution Cleanup and Abatement Account. Accordingly, the \$81,000 liability shall be paid by a cashiers or certified check for \$81,000 made out to the "State Water Pollution Cleanup and Abatement Account". The payment must be submitted to the Regional Board no later than ten (10) calendar days after the date the Permittee receives written notice that the Regional Board Executive Officer has executed this Acceptance and Waiver.

I hereby affirm that I am duly authorized to act on behalf of and to bind the Permittee in the making and giving of this Acceptance and Waiver.

Las Virgenes Municipal Water District

By: \_\_\_\_\_  
(Signed Name) (Date)

\_\_\_\_\_ (Printed Name) \_\_\_\_\_ (Title)

IT IS SO ORDERED PURSUANT TO WATER CODE SECTION 13385

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Samuel Unger, P.E.  
Executive Officer

## AMENDED EXHIBIT "1" - NOTICE OF VIOLATION

## Effluent Limit Violations

Date	Monitoring Period	Discharge Point	Violation Type	Parameter	Reported Value	Permit Limit	Units	Pollutant Category	% Exceeded	Serious/Chronic	Water Code Section 13385	Penalty
10/31/10	October 2010	005	Monthly Average*	Dichlorobromomethane	47.93	46	ug/L	2	4%	Chronic	(f)1	\$0
11/06/10	November 2010	005	Daily Maximum	Dichlorobromomethane	87.3	77	ug/L	2	13%	Chronic	(f)1	\$0
11/30/10	November 2010	005	Monthly Average*	Dichlorobromomethane	68.55	46	ug/L	2	49%	Serious	(h)1	\$3,000
12/13/10	December 2010	001	Daily Maximum	Total Residual Chlorine	0.8	0.1	mg/L	2	700%	Serious	(h)1	Dismissed
12/23/10	December 2010	001	Daily Maximum	Total Residual Chlorine	0.39	0.1	mg/L	2	290%	Serious	(h)1	Dismissed
12/27/10	December 2010	001	Daily Maximum	Total Residual Chlorine	0.6	0.1	mg/L	2	500%	Serious	(h)1	Dismissed
03/20/11	March 2011	001	Daily Average	Turbidity	4	2	NTU	OEV	NA	Chronic	(f)1	\$3,000
03/20/11	March 2011	001	Daily Maximum	Turbidity	>10 (472 min)	5 (>72 min)	NTU	OEV	NA	Chronic	(f)1	\$3,000
03/20/11	March 2011	001	Instantaneous	Turbidity	>10	10	NTU	OEV	NA	Chronic	(f)1	\$3,000
03/21/11	March 2011	001	Daily Average	Turbidity	7	2	NTU	OEV	NA	Chronic	(f)1	\$3,000
03/21/11	March 2011	001	Daily Maximum	Turbidity	>10 (940 min)	5 (>72 min)	NTU	OEV	NA	Chronic	(f)1	\$3,000
03/21/11	March 2011	001	Instantaneous	Turbidity	>10	10	NTU	OEV	NA	Chronic	(f)1	\$3,000
03/24/11	March 2011	001	Daily Maximum	Total Residual Chlorine	0.3	0.1	mg/L	2	200%	Serious	(h)1	Dismissed
03/25/11	March 2011	001	Daily Maximum	Turbidity	>10 (259 min)	5 (>72 min)	NTU	OEV	NA	Chronic	(f)1	\$3,000
03/25/11	March 2011	001	Daily Average	Turbidity	3	2	NTU	OEV	NA	Chronic	(f)1	\$3,000
03/25/11	March 2011	001	Instantaneous	Turbidity	>10	10	NTU	OEV	NA	Chronic	(f)1	\$3,000
03/28/11	March 2011	001	Daily Maximum	Total Residual Chlorine	0.2	0.1	mg/L	2	100%	Serious	(h)1	Dismissed
03/31/11	March 2011	001	Daily Maximum	Turbidity	10	10	NTU	OEV	NA	Chronic	(f)1	Dismissed
03/31/11	March 2011	001	Instantaneous	Turbidity	10	10	NTU	OEV	NA	Chronic	(f)1	Dismissed
11/15/11	November 2011	001	Daily Maximum	Bis (2-Ethylhexyl) Phthalate	19	15	ug/L	2	27%	Serious	(h)1	\$3,000
11/15/11	November 2011	001	Monthly Average*	Bis (2-Ethylhexyl) Phthalate	19	5.9	ug/L	2	222%	Serious	(h)1	\$3,000
04/17/12	April 2012	005	Monthly Average*	Total Suspended Solids	6.9	5.0	mg/L	1	38%	Chronic	(f)1	\$0
04/18/12	April 2012	005	Monthly Average*	Total Trihalomethanes	162	80	ug/L	2	103%	Serious	(h)1	\$3,000
04/21/12	April 2012	005	Daily Average	Turbidity	4	2	NTU	OEV	NA	Chronic	(f)1	\$3,000
05/08/12	May 2012	005	Monthly Average*	Total Trihalomethanes	100	80	ug/L	2	25%	Serious	(h)1	\$3,000
05/23/12	May 2012	005	Daily Average	Turbidity	3	2	NTU	OEV	NA	Chronic	(f)1	\$3,000
05/24/12	May 2012	005	Daily Average	Turbidity	3	2	NTU	OEV	NA	Chronic	(f)1	\$3,000
05/30/12	May 2012	005	Daily Average	Turbidity	3	2	NTU	OEV	NA	Chronic	(f)1	\$3,000
05/31/12	May 2012	005	Monthly Average*	Total Suspended Solids	5.2	5.0	mg/L	1	4%	Chronic	(f)1	\$3,000
04/30/13	April 2013	005	Monthly Average*	Cyanide	6.3	4.2	mg/L	2	50%	Serious	(h)1	\$3,000
04/30/13	April 2013	005	Monthly Average*	Total Trihalomethanes	110	80	ug/L	2	38%	Serious	(h)1	\$3,000
05/10/13	May 2013	005	Monthly Average*	Turbidity	3	2	NTU	OEV	50%	Chronic	(f)1	\$0
05/31/13	May 2013	005	Monthly Average*	Total Trihalomethanes	110	80	ug/L	2	38%	Serious	(h)1	\$3,000
05/31/13	May 2013	005	Monthly Average*	Total Suspended Solids	5.8	5.0	mg/L	1	16%	Chronic	(f)1	\$3,000
05/31/13	May 2013	001	Monthly Average*	Cyanide	5.6	4.2	mg/L	2	33%	Serious	(h)1	\$3,000
05/31/13	May 2013	001	Monthly Average*	Bis (2-Ethylhexyl) Phthalate	7	5.9	ug/L	2	19%	Chronic	(f)1	\$3,000

\* Staff Calculation

Effluent Limit Violations

Date	Monitoring Period	Discharge Point	Violation Type	Parameter	Reported Value	Permit Limit	Units	Pollutant Category	% Exceeded	Serious/Chronic	Water Code Section 13385	Penalty
06/19/13	June 2013	001	Daily Maximum	Bis (2-Ethylhexyl) Phthalate	19	15	ug/L	2	27%	Serious	(h)1	\$3,000
06/30/13	June 2013	001	Monthly Average*	Bis (2-Ethylhexyl) Phthalate	19	5.9	ug/L	2	222%	Serious	(h)1	\$3,000
<b>Total</b>											<b>\$81,000</b>	





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MEMBER AGENCY OF THE  
METROPOLITAN WATER  
DISTRICT  
OF SOUTHERN CALIFORNIA

October 22, 2013

Sent Via e-mail

Ms. Pansy Yuen

Los Angeles Regional Water Quality Control Board  
320 West 4<sup>th</sup> St. Suit 200  
Los Angeles, Calif. 90013

Response to Request for Alleged Violation Review – Las Virgenes Municipal  
Water District, Tapia Water Reclamation Plant (Order No. R4-2010-0165, NPDES  
Permit No. CA0056014, CI NO 4760)

Request for Additional Time

Dear Ms. Yuen,

The District received your letter of October 18, 2013 responding to our December 5, 2011 response to a November 15, 2011 Settlement Offer No. R4-2011-0157-M. The letter included a very detailed response to our request to our December 5, 2011 letter and added an additional nineteen alleged violations.

A deadline of November 1, 2013 was given to us to either accept or reject the settlement offer, which is only a two week period to consider the arguments presented by the Regional Board and the new alleged violations. In order to adequately review and respond to your October 18, 2013 letter we are requesting the deadline to respond to the new settlement agreement be extended to December 1, 2013.

As time is of the essence please let us know as soon as possible when the deadline extension has been granted.

If you have any questions please do not hesitate to contact me at 818-251-2221 or [dlippman@lvmwd.com](mailto:dlippman@lvmwd.com).

Sincerely

David R. Lippman, P.E.  
Director of Facilities and Operations

cc. Sam Unger  
Paula Rasmussen  
Russ Colby  
Brett Dingman  
Dave Petersen

FILE COPY  
ITEM 68





## Los Angeles Regional Water Quality Control Board

October 29, 2013

Mr. David R. Lippman, P.E.  
 Director of Facilities and Operations  
 Las Virgenes Municipal Water District  
 4232 Las Virgenes Road,  
 Calabasas, CA 91302

VIA CERTIFIED MAIL  
 RETURN RECEIPT REQUESTED  
 Claim No. 7010 3090 0002 1021 8578

**RESPONSE TO REQUEST FOR ALLEGED VIOLATION REVIEW: REQUEST FOR EXTENSION FOR LAS VIRGENES MUNICIPAL WATER DISTRICT, TAPIA WATER RECLAMATION FACILITY, 731 MALIBU CANYON ROAD, CALABASAS, CA (ORDER NO. R4-2010-0165, NPDES PERMIT NO. CA0056014, CI NO. 4760)**

Dear Mr. Lippman:

On October 18, 2013, the Regional Board issued a Response to Request for Alleged Violation Review for the November 15, 2011 Settlement Offer No. R4-2011-0157-M to the Las Virgenes Municipal Water District (District). The Response to Request for Alleged Violation Review required the District to respond on or before November 1, 2013.

On October 22, 2013, the Regional Board received your correspondence requesting that the due date of November 1, 2013 for submission of information be extended by thirty days to December 1, 2013. The extension would allow the District to adequately review the additional alleged violations and to fully evaluate the response from the Regional Board.

Based on the above, your request for an extension of thirty (30) days is hereby granted. The due date to submit the response to the Response to Request for Alleged Violation Review is now extended to December 1, 2013.

Should you have any questions, please contact Enforcement Unit staff Ms. Pansy Yuen at [pyuen@waterboards.ca.gov](mailto:pyuen@waterboards.ca.gov) or at (213) 620-6367 or Mr. Russ Colby at [rcolby@waterboards.ca.gov](mailto:rcolby@waterboards.ca.gov) or at (213) 620-6373.

Sincerely,

  
 Paula Rasmussen  
 Assistant Executive Officer

cc: Vanessa Young, Office of Enforcement, State Water Resources Control Board



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MEMBER AGENCY OF THE  
METROPOLITAN WATER  
DISTRICT  
OF SOUTHERN CALIFORNIA

November 19, 2013

Sam Unger

Los Angeles Regional Water Quality Control Board  
320 West Fourth Street, Suite 200  
Los Angeles, CA 90013

Subject: Settlement Offer No. R4-2011-0157-M

Offer to Participate in Expedited Payment Program  
NPDES Permit CA0056014, CI 4760

Dear Mr. Unger,

Las Virgenes Municipal Water District (District) appreciates your consideration in dismissing seven of the alleged violations in the original Settlement Offer No. R4-2011-0157-M. However, the District contests twelve (12) of the violations included in the revised settlement offer of October 18, 2013.

**Total Trihalomethanes (TTHM) Violations Dated May 8, 2012 and April 30 and May 31, 2013**

Time Schedule Order R4-2010-0166 provides for an interim limit of 154 ug/L for TTHM effective from September 2, 2010 through September 2, 2014. The interim limit and duration are specified under Option 2, implementation of alternative disinfection technology. The District chooses to comply with the final limit by implementing chloramination facilities as an alternative disinfection technology. The three (3) violations cited for TTHM on May 8, 2012 and April 30 and May 31, 2013 are below the interim limit and should be dismissed.

**Turbidity Violations Dated March 20, 21 and 25, 2011**

The Regional Board denied our request to treat the nine (9) turbidity violations that took place on March 20, 21 and 25, 2011 as a single violation. The Regional Board stated that the violations did not meet the requirements of a single operational upset (SOU) pursuant to Water Code section 13385(f), in particular only one effluent limit was exceeded and the code section states that a SOU that leads to simultaneous violations of *more than one* pollutant parameter shall be treated as a single violation. The District concedes that this is the correct interpretation of section 13385(f) and that only one parameter, turbidity, was violated during the exceptional rain events of March 20 to March 25, 2011.



Water Code section 13385(j)(l)(B) stipulates that violations of a waste discharge requirement effluent limitation shall not be subject to mandatory minimum penalty if the violations are caused by “An unanticipated, grave natural disaster or other natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which could not have been prevented or avoided by the exercise of due care or foresight.” The rain events of March 20 to March 25, 2011 were an unanticipated natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which the District could not have been prevented or avoided by the exercise of due care or foresight.

March 2011 was a near record setter for California and Southern California for precipitation. These exceptional rain events led the Governor to declare the end of the three-year drought in California. With a statewide average of 6.41 inches, precipitation for March 2011 was 205% of the long-term average. On March 20, 2011, Southern California recorded some of its greatest rainfall totals for March. Santa Barbara airport recorded 5.23 inches for that day well exceeding the old record of 0.90 inches set in 1991. Camarillo recorded 4.91 inches well exceeding the old record of 2.26 inches set in 1954 and Los Angeles airport recorded its third wettest March day with 2.36 inches. The monthly average for March measured at Tapia between 2013 and 1994 is 3.18” and for station 99 of the State’s CIMIS system located at Santa Monica pier the monthly average between 2013 and 1993 is 1.9 inches<sup>1</sup>. A total of 5.5 inches of rain fell at Tapia from March 20 - 25, 2011, with 4.95 inches falling on March 20, 2011<sup>2</sup>. During this five-day period, the rainfall was almost double the monthly average at Tapia and almost 5 times the monthly average at nearby Santa Monica pier. The probability of receiving at least 5 inches of rain in a two day period at nearby Santa Monica pier is less than 1% and in a five day period less than 2%<sup>3</sup>.

The effects of these exceptional rain events caused Tapia’s influent to peak at 32.6 MGD on March 20, 2011; normal peaks are 14.5 MGD. The volume of treated effluent was 17.6 MG compared to normal treated effluent of 9.6 MG. The high flows into the facility exceeded the capacity of the tertiary filters and balancing pond caused an involuntary bypass of the secondary treated effluent. The plant was not fully stabilized from the intensity of the rain event of March 20 and 21, 2011, when a second rain event of March 23 to March 25, 2011 caused another involuntary bypass.

The exceptional rain events of March 20 to 25, 2011 were not ordinary and much above average, the very definition of exceptional. The probability of this type of event is extremely low almost approaching zero, inevitable events that could not be evaded or avoided. The events were of irresistible character being of such strength and intensity that they could not be resisted. In your letter of October 18, 2013, it was stated, “one would expect exceedances for pollutant parameters beyond a single limit” during these events. Conversely, the fact that only a single water quality limit was violated demonstrates that the District took all necessary precautions and due care and all reasonable and feasible actions were immediately carried out during this phenomenon.

Further, your letter states that the District failed to comply with Section O of the permit requiring notice within 24 hours of the exceedance due to the rain events, this is not correct. The attached e-mail was sent

<sup>1</sup> California Department of Water Resources, California Monthly Climate Summary March 2011

<sup>2</sup> Data from Tapia’s weather station and Western Regional Climate Center

<sup>3</sup> See attached plots from the Western Regional Climate Center

to the Brandi Outwin-Beals on March 21, 2011 and she acknowledged receiving the e-mail on March 28, 2011.

Mandatory minimum penalties should not apply to the nine (9) turbidity violations that took place on March 20, 21 and 25, 2011 because they were caused by a unanticipated natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which could not have been prevented or avoided by the exercise of due care or foresight and should be dismissed.

#### **Bis (2-Ethylhexyl) Phthalate Violations**

The District acknowledges the Bis (2-Ethylhexyl) Phthalate (also known as Di (2-ethylhexyl) phthalate, or DEHP) violations but asks that the Regional Board bear in mind that DEHP is a compound which has been used in the production of many products such as polyvinyl chloride (PVC), paints, lubricants, pharmaceuticals, cosmetics, insecticides, toys, sheathing for wire and cable, medical tubing, and blood storage bags. The widespread applications of DEHP make it a ubiquitous environmental substance as it is detected throughout the world. It is difficult to impossible to remove DEHP to consistently meet permit limits using conventional or even advanced wastewater treatment methods.

#### **Total Suspended Solids and Turbidity Violations for 005 Outfall**

The Total suspended solids and turbidity violations that occurred from April to May of 2012 were the result of conditions in the District's recycled water reservoir. HDR Engineering completed a recent study of water quality issues in the reservoir. The study concluded that water quality issues in the reservoir are caused by biological growth, bird droppings, wind-blown dust run-off sediment, and sediment from the reservoirs earthen sides. To address these issues, the report recommended the cleaning of the reservoir, the installation of a membrane liner on the earthen sides and implementation of floating shade balls as a cover. Currently, the District is soliciting proposals from consultants for the design of these improvements.

In closing, the District requests that the twelve (12) violations be dismissed, three (3) violations cited for TTHM on May 8, 2012 and April 30 and May 31, 2013 that were below the interim limit and nine (9) turbidity violations that took place on March 20, 21 and 25, 2011 because they were caused by a unanticipated natural phenomenon be dismissed. This would reduce the settlement amount by \$36,000, from \$81,000 to \$45,000.

Please contact Brett Dingman, Reclamation Manager at 818-251-2330 or [bdingman@lvmwd.com](mailto:bdingman@lvmwd.com) or myself at 818-251-2221 or [dlippman@lvmwd.com](mailto:dlippman@lvmwd.com) with any questions you may have.

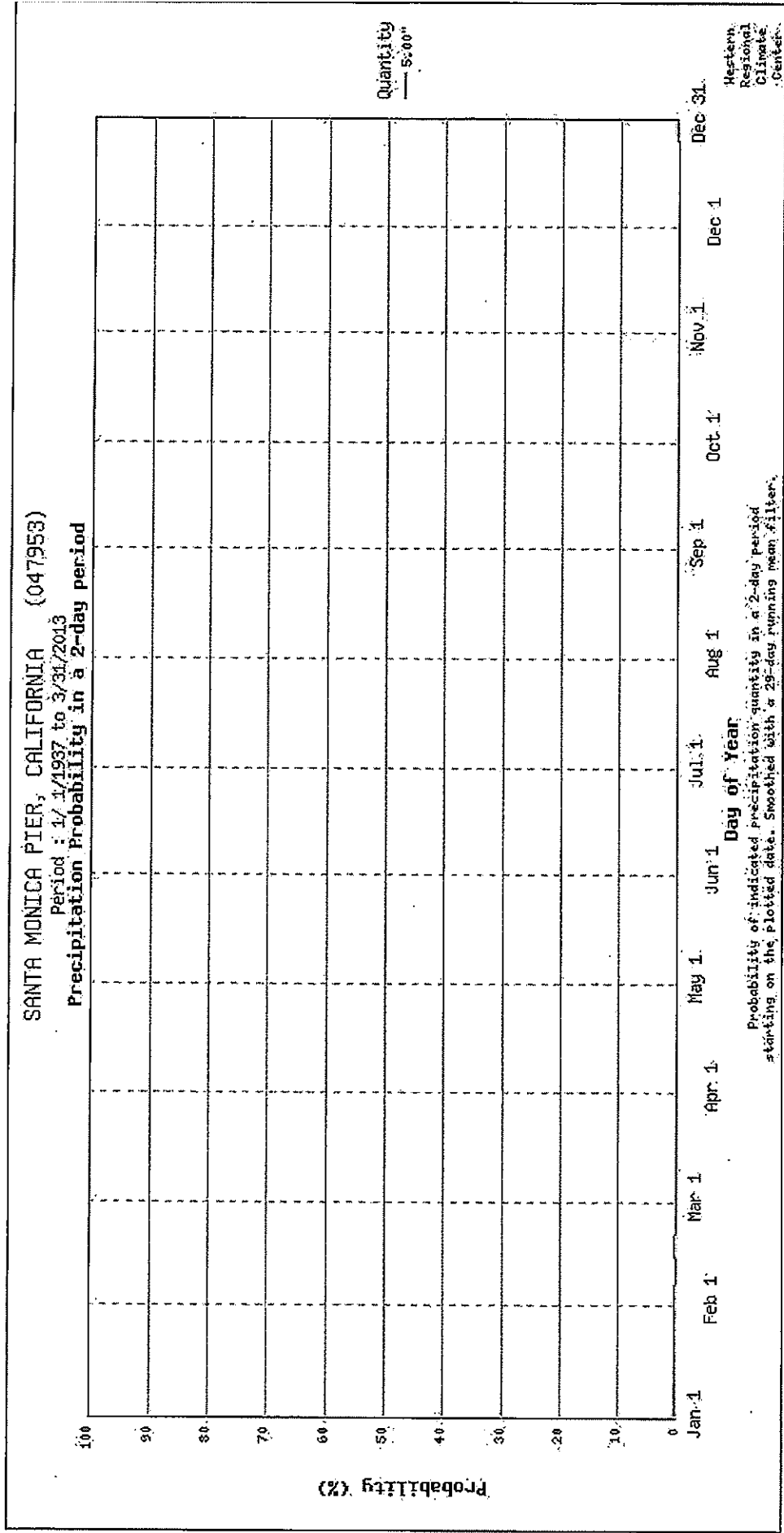
Sincerely



David R. Lippman, P.E.

Director of Facilities and Operations

# Precipitation Probability by Duration

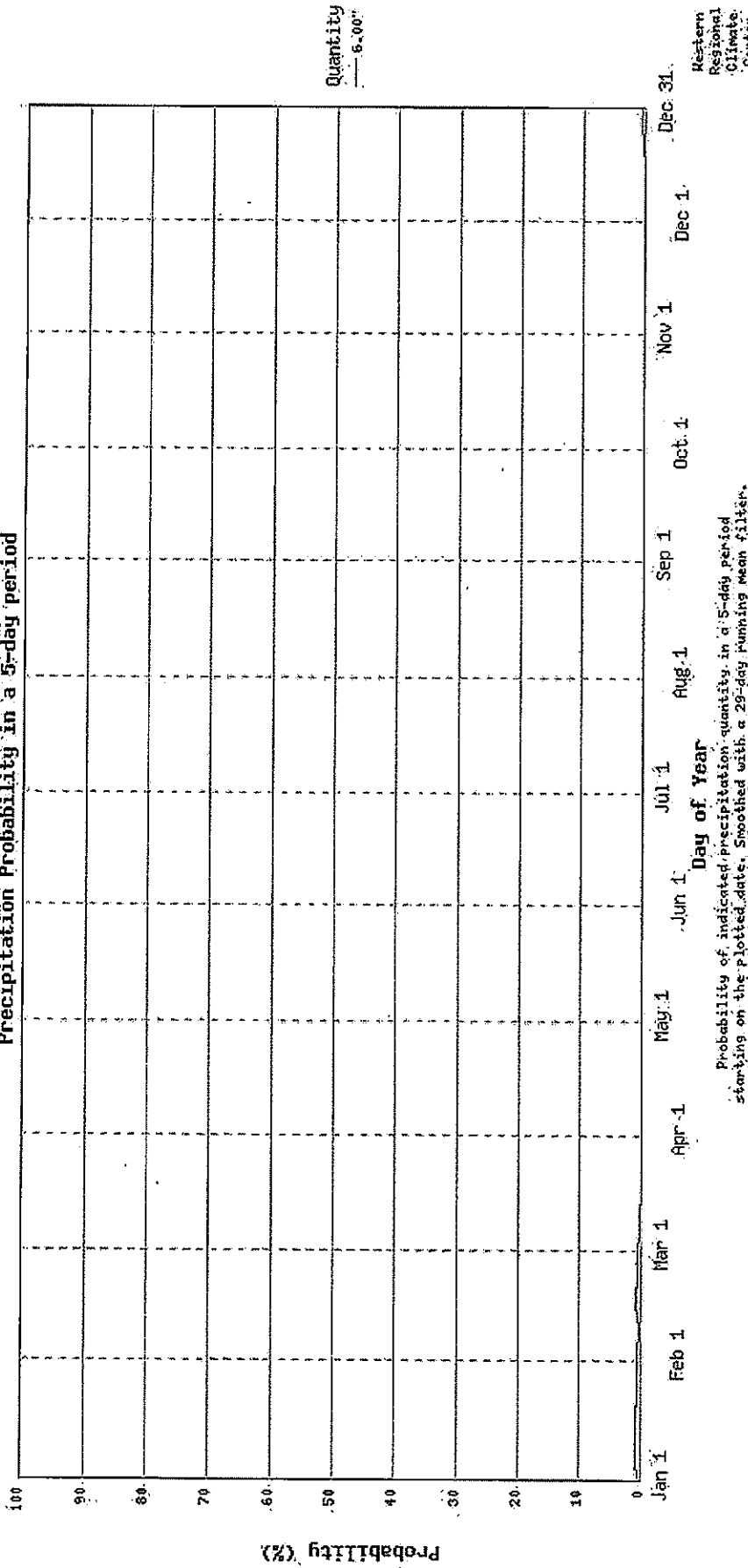


# Precipitation Probability by Duration

SANTA MONICA PIER, CALIFORNIA (047953)

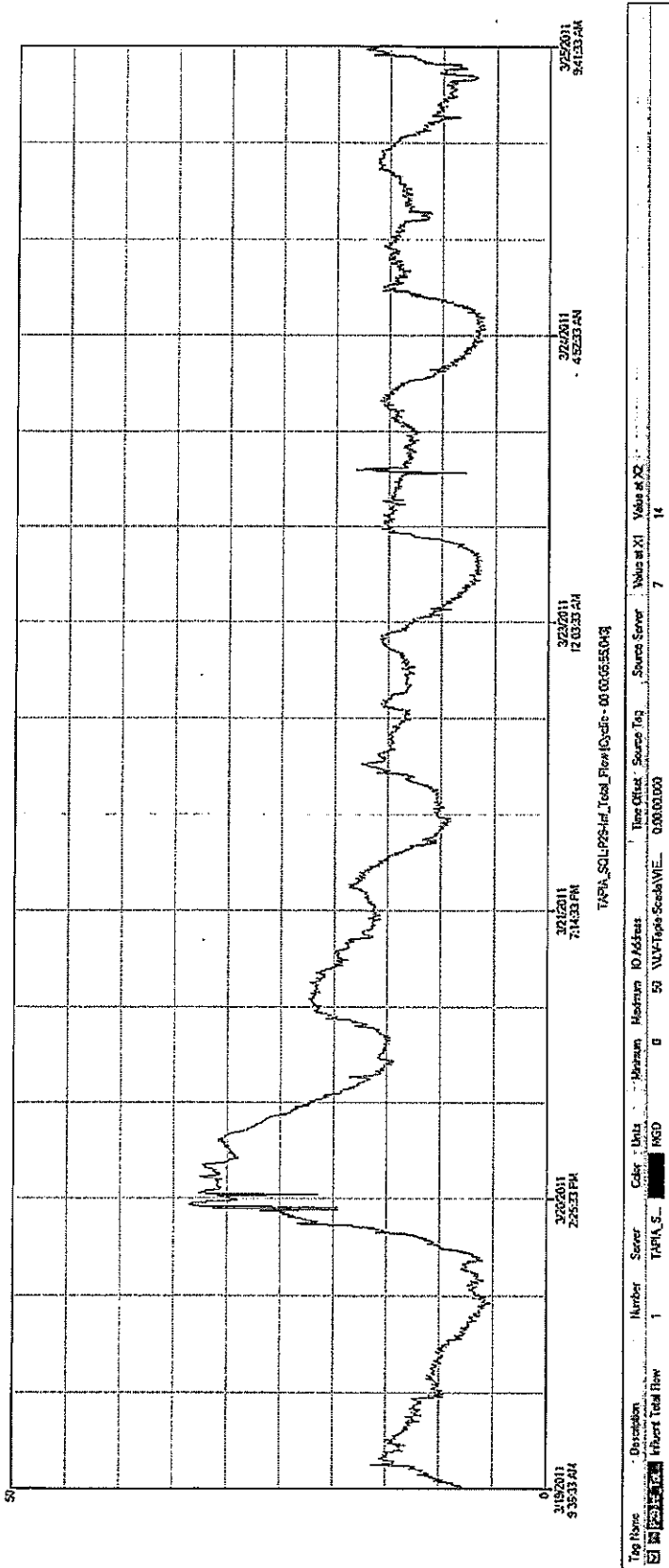
Period: 1/1/1937 to 3/31/2013

Precipitation Probability in a 5-day period





Trend2



11/16/2013 10:29:55 AM  
C:\Users\David\Desktop\Trend2.aaTrend

**Lippman, David**

---

**To:** Dingman, Brett  
**Subject:** RE: Tapia Water Reclamation Facility Storm Event

---

**From:** Brandi Outwin [mailto:boutwin@waterboards.ca.gov]  
**Sent:** Monday, March 28, 2011 10:00 AM  
**To:** Dingman, Brett; David Hung; Samuel Unger  
**Cc:** Lippman, David; Cuaresma, Ed; Glaser, Heather; Gamble, Jacqy  
**Subject:** Re: Tapia Water Reclamation Facility Storm Event

Brett-

Thank you for the notification. Please submit written reports of the bypass as required in the permit.

Thanks-

Brandi Outwin-Beals, Unit Chief  
 Municipal Permitting Unit  
 California Regional Water Quality Control Board  
 Los Angeles Region  
 Phone: (213)576-6664  
 Fax: (213)576-6660

>>> "Dingman, Brett" <[BDingman@lvmwd.com](mailto:BDingman@lvmwd.com)> 3/21/2011 1:35 PM >>>  
 Brandi,

The Tapia Water Reclamation Facility (NPDES Permit No. CA0056014, CI # 4760) is experiencing extremely high flows due to the current weather system. Peak flow on Sunday, March 20 was 32.6 MGD (more than twice our normal peak flow). Due to these high flows, our balancing pond is partially flowing directly into the chlorine contact channel. This causes some secondary treated water to bypass the tertiary filters before chlorination and dechlorination. Our permit states that if this condition occurs, we need to implement additional sampling in Malibu Creek for total and fecal coliforms (Receiving Water Monitoring Requirements A, 3. on page E-29 of the MRP). Due to the current rain event the creek flows are changing unpredictably (flow surged from 50 cfs to 6400 cfs in twelve hours) and it is unsafe for monitoring. We will be unable to complete this monitoring. Please note that all effluent is going through the disinfection and dechlorination process. Please advise us if there are any additional requirements.

Brett Dingman, P.E.  
 Water Reclamation Manager  
 Las Virgenes Municipal Water District  
 4232 Las Virgenes Road  
 Calabasas, CA 91302  
 Phone: (818) 251-2330  
 Cell: (818) 324-5589  
 Fax: (818) 251-2309  
[bdingman@lvmwd.com](mailto:bdingman@lvmwd.com)



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MEMBER AGENCY OF THE  
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OF SOUTHERN CALIFORNIA

January 16, 2014

Samuel Unger, Executive Officer  
California Regional Water Quality Control Board  
Los Angeles Region  
320 West 4th Street, Suite 200  
Los Angeles, Ca 90013

Subject: Response to request for additional information for Settlement Offer No. R4-2011-0157-M: Offer to Participate in Expedited Payment Program Relating to Violations of the NPDES Permit for Las Virgenes Municipal Water District, Tapia Water Reclamation Facility, 731 Malibu Canyon Road, Calabasas, CA (Order No. R4-2010-0165 NPDES Permit No. CA0056014, CI 4760).

Dear Mr. Unger:

On December 23, 2013, a conference call was conducted between Las Virgenes Municipal Water District (District) Staff and LARWQCB staff in which additional information was requested regarding the District's response to the Settlement Offer referenced above.

In the District's previous response dated November 19, 2013, it was stated that nine turbidity violations should not be subject to minimum mandatory penalties under Water Code section 13385(j)(1)(B) because "The rain events of March 20 to March 25, 2011 were unanticipated natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which the District could not have been prevented or avoided by the exercise of due care or foresight." LARWQCB staff requested additional information on the storm event as well as the Districts preparation for and response to the event. These questions are listed and addressed below.

**Does the Tapia WRF have a maximum wet weather design flow?**

The Tapia WRF does not have a design wet weather flow for the current operations of the facility. The original facility was designed to nitrify influent wastewater and a maximum wet weather flow design was calculated. However, with the conversion of the facility to perform nitrification and denitrification (BNR), a new maximum wet weather flow has not been established.

**Was the storm event a 50 year or 100 year storm event?**

The storm events of March 2011 are not 50 or 100 year storms. Using the Los Angeles County Public Works 2006 Hydrology Manual, an isohyet rating for Tapia was developed (attached). The results show that the storm event for March 20<sup>th</sup> was a seven year storm event and if the March 20-21 and March 25<sup>th</sup> storm events were combined into a 24-hour rain event, it would be an 8 or 9 year storm event. However, it is the accumulation of the storm events in March and the intensity of the March 20<sup>th</sup> -25<sup>th</sup> storms that caused the exceptionally high inflow into Tapa.

**Did the Governor issue a declaration of emergency for this storm event?**

Governor Brown issued a letter dated April 22, 2011 through FEMA to President Obama asking that he declare a major disaster for the State of California for the severe storm system that struck California between March 15 and March 27. This request was denied by FEMA on June 21, 2011. Governor Brown appealed this decision on July 13, 2011 and it was again denied by FEMA on August 4, 2011 based upon the determination that “the damage was not of such severity and magnitude as to be beyond the combined capabilities of the state, affected local governments, and voluntary agencies.” It was also determined by FEMA that the damage was the result of three different storm events that “produced high winds and rainfall that affected different parts of the State at different times”. These documents are included for reference.

Los Angeles County, in which the Tapia WRF is located, was not included in the list of the seventeen counties that the Governor attempted to declare a disaster for. However, Ventura County was included. Ventura County is adjacent to the Las Virgenes Municipal Water District service area and the Triunfo Sanitation District, our Joint Powers Authority partner, is located within Ventura County. Approximately 1/3 of wastewater flow into Tapia comes from Ventura County.

**Was the storm a localized event?**

As stated in the FEMA denial of Governor Browns request for a disaster declaration, dated August 4, 2011, the storm systems “produced high winds and rainfall that affected different parts of the State at different times.” Although the State in general received rain events, the intensity varied dependent upon the path of the severe storm cells. As stated in Governor Brown’s appeal dated July 13, 2011, “The system, which temporarily set up over the region for nearly two weeks, had a persistently active jet stream and associated atmospheric rivers that shifted from north to south and back again across the state.” Because of the shifting of the “atmospheric rivers” and associated storm cells, rain amounts varied across the State. The Tapia service area appears to have experienced a higher amount of rainfall than many surrounding areas. This can be seen in the District’s letter to the RWQCB dated November 19, 2013 which gave rainfall amounts in surrounding areas which varied from 2.36 inches at the Los Angeles Airport to 5.23

inches at the Santa Barbara Airport on March 20, 2011. Tapia received 4.95 inches on that day.

**Did you know of the storm in advance?**

District staff was aware of the storm event and preparations were made for it. What we were not aware of was the intensity of the storm event. In the attached document provided by the Los Angeles County Department of Public Works it shows that the March rain events provided the maximum storm bursts (intensity) in the 5 minute, 12 hour and 1 day duration for the year (the October 5, 2011 storm on the attachment was a one day event that measured 3.75 inches of rain). The severe intensity of the March storm events caused an exceptionally high flow into the Tapia WRF which was unanticipated, exceptional, inevitable and irresistible in character.

**What was done to prepare for the storm event?**

To prepare for the winter season each year, Tapia Operations assures that all tanks at the facility are prepared for use either for treatment or to be placed into service to act as a buffer for high flows during rain events. In preparation for the winter season of 2011, all the primary clarifiers, secondary clarifiers and the balancing pond were ready to be placed into service. Additionally, all storm water is treated on site for the first 24 hours of a storm event and to a minimum of 1 inch of rain. The storm flows from the rain event were diverted to the treatment process for the first 24 hours.

On March 19, before the effects of the rainstorms high flows, Tapia had three primary clarifiers, six aeration basins, and seven secondary clarifiers in operation. This left two primary clarifiers (200,000 gallons each), three secondary clarifiers (225,000 gallons each) and the balancing pond (a 2.4 MG tank used for secondary effluent equalization) available for storage of excess flow. When the high flow from the rainstorms hit, the empty tanks were filled to reduce the effect of the high storm flow (shave peak flows). These tanks remained in service throughout the storm event and for days afterward.

**Was the plant at capacity?**

Tapia was beyond capacity during the storm event. Even with all available tanks being placed into service to absorb some of the storm flow, the tertiary filters could not keep up as their capacity was exceeded.

Tapia's storage and treatment capacity is listed below:

Primary clarifiers – 5 @ 200,000 gal. = 1 MG  
 Aeration basins – 6 @ 540,000 gal. = 3.24 MG  
 Secondary clarifiers – 10 @ 225,000 = 2.25 MG  
 Balancing Pond – 1 @ 2.4 MG  
 Filters – 12 @ 1.9 MGD = 22.8 MGD (if in full operation without backwash occurring)

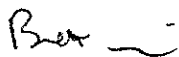
This gives a total storage and treatment capacity of 31.69 MGD. The peak flow on March 20<sup>th</sup> was 32.6 MGD which exceeds the total plant capacity. Additionally, it is not realistic to assume that all of the filters are in service and not backwashing, especially during high flows when solids are washed out of the system, so the capacity under heavy storm flows is actually less than 31.69 MGD.

**Can we get a copy of your Storm Water Pollution Prevention Plan?**

A copy is attached.

We would be happy to further discuss these questions or any other questions you may have through another conference call or meeting. Please call me at (818) 251-2330 if you need further information.

Sincerely,

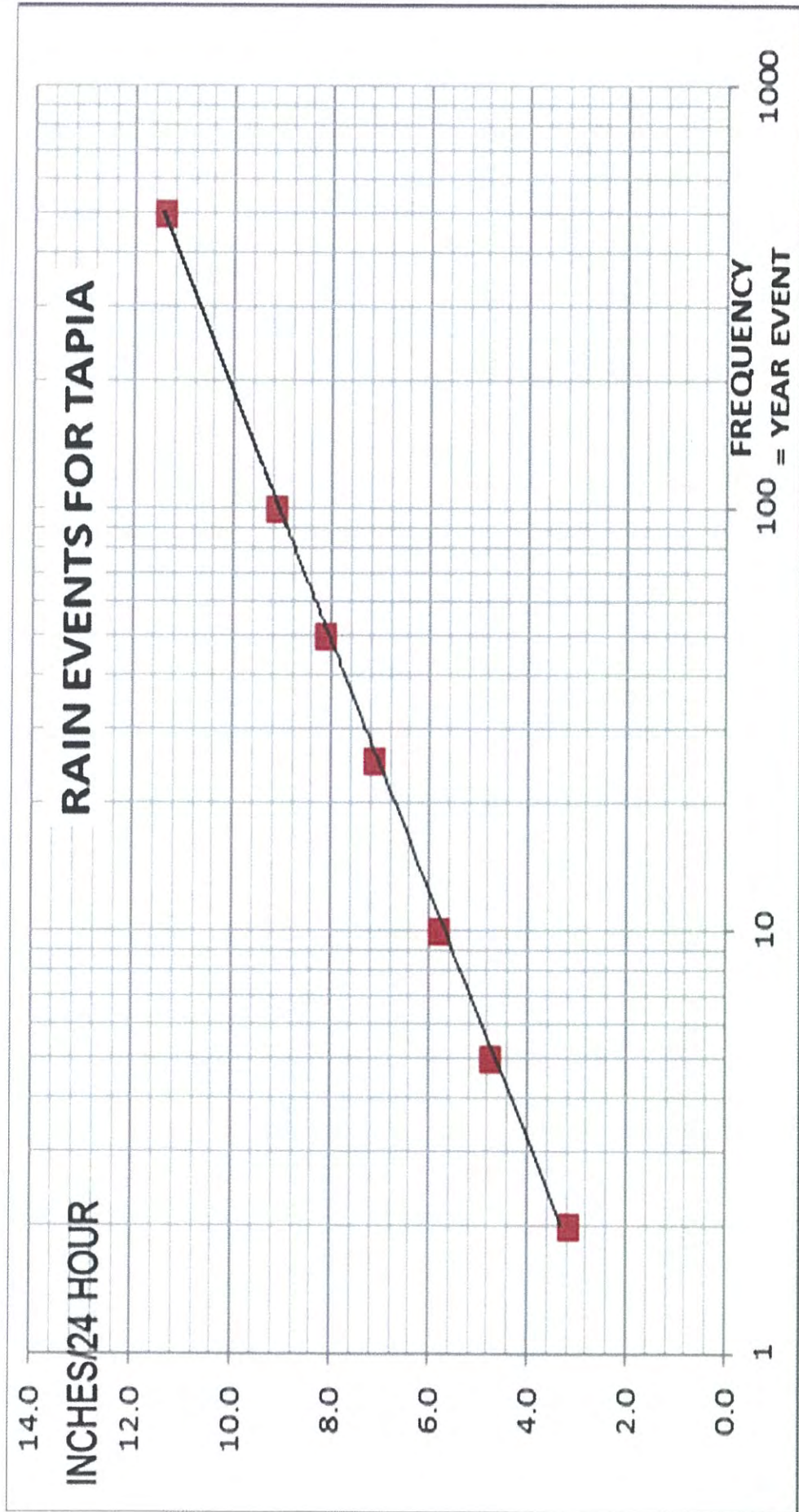


Brett Dingman, P.E.  
Water Reclamation Manager



## Isohyet Graph and Rating of Storm Events

Isohyet Graph for Tapia WRF



**Isohyet Rating for Tapia (inches/24 hour duration)**

Frequency or Year Event	Rainfall
2	3.13
5	4.73
10	5.78
25	7.11
50	8.10
100	9.09
500	11.36

Correspondence Between Governor Brown and FEMA on  
Disaster Declaration



Office of Governor  
**Edmund G. Brown Jr.**

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**GOVERNOR BROWN REQUESTS PRESIDENTIAL MAJOR DISASTER DECLARATION TO HELP COMMUNITIES RECOVER FROM MARCH STORMS**

4-22-2011

**SACRAMENTO** – In a letter to President Barack Obama, Governor Edmund G. Brown, Jr. today requested a Presidential major disaster declaration for the state following a series of storms last month that brought heavy rain and snow, high winds and flooding, destroying and damaging property throughout the state.

Today's request follows an emergency proclamation from the Governor for Alameda, Amador, Butte, Contra Costa, Del Norte, Humboldt, Madera, Mariposa, Mendocino, Monterey, San Luis Obispo, Santa Barbara, Santa Cruz, Sierra, Stanislaus, Sutter, Trinity, Tuolumne, and Ventura Counties earlier this month.

The full text of the letter is below.

The Honorable Barack Obama  
President of the United States  
The White House  
Washington, DC 20500

Through:

Ms. Nancy Ward  
Regional Administrator, Region IX  
Federal Emergency Management Agency  
1111 Broadway, Suite 1200  
Oakland, CA 94607-4052

Dear Mr. President:

I am writing to ask you to declare a major disaster for the State of California for damages sustained to seventeen counties from a series of storms last month that swept across California, bringing snowstorms, heavy rain, high winds, flooding, and flows of debris and mud. This request is made under Section 401 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§5121-5207, and implemented by 44 CFR §206.36.

The severe storms occurred between March 15 and 27, 2011, and they destroyed and damaged public facilities and private property throughout the state. The damage may not be over: ongoing threats remain, such as in Sutter County where saturation in some levees is causing horizontal cracking, slumping, slippage, seepage and boils. The seventeen California counties significantly impacted by the storm damage include Alameda, Amador, Butte, Contra Costa, Del Norte, Humboldt, Madera, Mariposa, Mendocino, Monterey, Santa Barbara, Santa Cruz, Sierra, Stanislaus, Sutter, Trinity, and Tuolumne.

In response to the storms, I executed California's State Emergency Plan and directed the California Emergency Management Agency (Cal EMA) to activate the State Operations Center, which coordinated response efforts. State disaster response and recovery staff were immediately assigned and deployed to the disaster areas to assist local officials and other state agencies. On April 15, 2011, I declared a state of emergency, which included the seventeen significantly impacted counties.

A joint FEMA-State preliminary damage assessment (PDA) has resulted in statewide damage estimates of \$44,547,342, in accordance with the table in Enclosure B. These assessments exceed California's threshold of \$44 million as established by FEMA. Preliminary damage estimates of the types and amount of assistance needed under the Stafford Act are tabulated in Enclosures B and the estimated requirements for assistance from certain federal agencies under other statutory authorities are tabulated in Enclosure C.

California is in an economic crisis, has a budget deficit of over ten billion dollars, and has suffered many disasters in the last 18 months due to severe winter storms, flooding, mudslides, fire, drought, heavy rains, and earthquake. Since January 2010, California has received four major federal disaster declarations, had six fires declared under FEMA's Fire Management Assistance Grant Program, endured twenty events for which funds under the California Disaster Assistance Act were issued, and received four disaster designations from the U.S. Department of Agriculture and ten U.S. Small Business Administration designations. More than 75 percent of California's population is covered under at least one of the recent federal disaster declarations. With a combined total of more than \$236 million in eligible damages statewide, which equates to more than \$9 per capita in the impacted counties and approximately \$7 per capita statewide, California is struggling to cope with the costs of these disasters. The impact at the local level during the last three months has also been significant. There have been sustained damages in Santa Cruz County of nearly \$40 million, or \$155 per capita, and sustained damages in Del Norte County of about \$21 million, or \$778 per capita.

**Latest News**



**Governor Brown Proposes 2014-15 Budget**  
01-09-2014



**Administration Officials to Hold Media Conference Call on Governor Brown's 2014-15 Education Budget** 01-09-2014



**Governor Brown Announces Appointments**  
01-08-2014



**UPDATED: Governor Brown to Introduce Budget In Sacramento, San Diego and Los Angeles Tomorrow** 01-07-2014



**Governor Brown Issues Proclamation Declaring Statewide Primary Election** 01-06-2014



**Governor Brown Announces Appointments**  
01-06-2014



**Governor Brown Announces Appointments**  
01-02-2014



**Governor Brown to Deliver State of the State Address on Wednesday, January 22nd** 01-02-2014



**Governor Brown Announces Appointments**  
12-30-2013



**Governor Brown Appoints Two to San Diego County Superior Court** 12-27-2013

ITEM 6B

I certify that the recent storm series, coupled with California's other recent disasters, was and is of such severity and magnitude that supplementary federal assistance is necessary, as the effective response is beyond the capabilities of the state and the affected local governments. I specifically request that you provide public assistance programs and any other disaster recovery programs that may be appropriate for the counties of Alameda, Amador, Butte, Contra Costa, Del Norte, Humboldt, Madera, Mariposa, Mendocino, Monterey, Santa Barbara, Santa Cruz, Sierra, Stanislaus, Sutter, Trinity, and Tuolumne.

I am requesting that you make hazard mitigation assistance available statewide. California has an enhanced Hazard Mitigation Plan that was approved by the Federal Emergency Management Agency. Cal EMA has requested a disaster declaration from the U.S. Small Business Administration (SBA) based upon physical damages to homes and businesses in Santa Cruz County. For the counties that did not meet the criteria for a physical disaster declaration, economic injury surveys are currently being conducted to determine if the state can request an SBA Economic Disaster Injury Loan declaration.

I certify that for this major disaster, the state and local governments will assume all applicable non-federal shared costs as required by the Stafford Act. Total expenditures are expected to exceed \$10,777,995, in accordance with the table in Enclosure D. In addition, I anticipate the need for debris removal, which poses an immediate threat to lives, public health, and safety. Under sections 403 and 407 of the Stafford Act, 42 U.S.C. Sections 5170b and 5173, California agrees to indemnify and hold harmless the United States of America for any claims arising from the removal of debris or wreckage for this disaster. The State agrees that debris removal from public and private property will not occur until the landowner signs an unconditional authorization for the removal of debris.

I have designated Cal EMA's Acting Secretary Mike Dayton as the state coordinating officer for this request. Mr. Dayton will work with FEMA in assessing damages and may provide further information or justification on my behalf.

Sincerely,

Edmund G. Brown Jr.

Attachments:  
Enclosure A  
Enclosure B  
Enclosure C  
Enclosure D

###

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ITEM 66





OFFICE OF THE GOVERNOR

July 13, 2011

The President  
The White House  
Washington, DC 20500

Through: Ms. Nancy Ward  
Regional Administrator, Region IX  
Federal Emergency Management Agency  
1111 Broadway, Suite 1200  
Oakland, California 94607-4052

Dear Mr. President:

On June 21, 2011, the Federal Emergency Management Agency (FEMA) denied the major federal disaster declaration I requested for the State of California. I made the request because of the results of a severe storm system that struck California between March 15 and March 27, 2011. I am appealing the FEMA denial of my request for Public Assistance and direct federal assistance for the significantly-impacted counties, as well as statewide Hazard Mitigation Grant Program (HMGP) funding.

The March storm system caused significant financial impacts to the state and the affected local jurisdictions that are of such severity and magnitude that recovery efforts remain beyond our capabilities. And the damage estimates continue to increase, with the current estimates exceeding \$51 million. This critical need for federal help prompted my requests for assistance through various programs, including a request for a major disaster declaration.

*The damages sustained were the result of a single event.*

FEMA's denial letter stated its opinion that the storm incident was comprised of three separate storms. However, the National Weather Service and the California Department of Water Resources have concluded that the series of severe winter storms was part of the same parent intense low-pressure system. The system, which temporarily set up over the region for nearly two weeks, had a persistently active jet stream and associated atmospheric rivers<sup>1</sup> that shifted from north to south and back again across the state. Its main weather impacts were extreme

<sup>1</sup> Atmospheric rivers are narrow regions in the atmosphere that transport large amounts of water vapor across the Pacific. In one day, an average atmospheric river transports an amount of water vapor equivalent to a foot of liquid water covering 10 million acres (roughly the size of Maryland), and as much as 40 percent of this water vapor is transformed into rain or snow.  
GOVERNOR EDMUND G. BROWN JR. • SACRAMENTO, CALIFORNIA 95814 • (916) 445-2841

July 13, 2011

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precipitation, with heavy rain in the low elevations and snow in the high elevations, and strong winds, especially in the Central Valley and at higher elevations. As the jet stream and atmospheric rivers shifted, the focus of the heavy precipitation changed with never more than two days between heavy precipitations in any single declared area in the state.

During the evaluation process of a request for a major disaster declaration late last year that was a result of an atmospheric river, FEMA Region IX's Regional Administrator indicated that, "a Stafford Act major disaster declaration for a storm event is limited to (1) a single storm, or (2) a series of storms that are deemed to be part of the same storm system that impact the same geographical areas, such that the impacts from the separate storms are indistinguishable, and are separated by three days or less."<sup>2</sup> The March storm system satisfies the second category.

Further, the conditions of the March storm system are the same type of occurrence that the state experienced in December of last year in which a federal major disaster declaration was granted. Also, atmospheric rivers have been present in several California weather-related major disaster declarations. See December 2010 (DR-1952), December 2004/January 2005 (DR-1577), February 1998 (DR-1203), January 1997 (DR-1155), and February 1986 (DR-758).

The precipitation levels of the March storm system event indicate it was the third-wettest storm event in 90 years. The average statewide snow water equivalent (SWE) on March 1, 2011, was 32 inches and 109 percent of average. On April 1, 2011, following the March storm system event, the SWE significantly increased to 48 inches and 165 percent of average. The gain of 16 inches of SWE in one month is significant as it equates to half of an entire winter season's gain.

Because the damages sustained were the result of the same storm system my request for a major federal disaster declaration should be granted.

*Additional factors support the major federal disaster declaration.*

*Estimated Cost of Assistance (44 C.F.R. § 206.48(a)(1))*

Under the regulations, a per capita figure measures the impact of a disaster within a state. California's impact indicator is \$44 million. Based upon the joint FEMA-State preliminary damage assessment, our damages exceed that amount. And subsequent damages have been reported, resulting in current damage estimates exceeding \$51 million.

*Localized Impacts (44 C.F.R. § 206.48(a)(2))*

The impacts at the local level are significant and overwhelming. In Santa Cruz County the current damage estimates have reached nearly \$19 million, which exceeds the county's threshold for assistance as prescribed by FEMA by more than 2,200 percent. Other counties also exceed the threshold: Sierra County by nearly 4,000 percent, Mendocino and Sutter counties by nearly 2,000 percent each, and Amador and Trinity counties by more than 1,200 percent each.

In addition to an extraordinary concentration of damages in many counties, the fierce storm system stressed California's mutual aid system and exhausted local resources in many areas of

<sup>2</sup> Nancy Ward, December 30, 2010, letter to the California Lieutenant Governor (copy attached).

July 13, 2011

Page 3

the state. For example, Del Norte County has recently reported that it has completely exhausted its road department resources. And in Monterey County the storm system event altered the Carmel River Channel alignment because of the combination of high river flows and extremely high surf. Elsewhere conditions of extreme peril to the safety of persons and property still exist due to progressive landslide activity.

For Mariposa County, which hosts more than three million Yosemite National Park visitors annually, the March storm system event remains an operational and financial disaster beyond the County's ability to recover. The storm caused the closure of Yosemite National Park and nearly 100 young campers were stranded at a snowed-in campground until crews were able to clear the snow impacted roadways. Also, the storm caused significant power losses and a lack of potable water, and downed power and phone lines throughout most of the county. Due to the inability to deliver water and sewer services, Yosemite visitors and residents were evacuated. Every available snow plow, tree removal crew, firefighter, law enforcement officer, and dispatcher was mobilized to preserve life and property. Also, numerous state entities worked to remedy the downed power lines, including the California Highway Patrol and the California Department of Transportation, which assisted by airlifting workers into the impacted sites via helicopter to repair the damaged transmission lines.

State and local resources were also deployed in California's coastal communities to alleviate the impacts of the storm system. For instance, in Santa Cruz County, local responders constructed an 850-foot long emergency temporary bypass road to enable access to residences that were completely inaccessible to emergency vehicles and essential services due to a debris flow. However, the temporary bypass was constructed through private property in a riparian corridor and is insufficient to withstand the next winter season. The debris flow is so significant and unstable that the County has not yet been able to begin removing the debris and it had to contract with an engineering geologist to evaluate the site and to offer recommendations for removal and restoration.

State and local resources were also activated in the inland areas of California due to this severe storm system. In Sutter County, the California Department of Water Resources, the California Conservation Corps, county staff, and volunteers were deployed to guard against a possible complete and catastrophic failure of a levee that protects local agricultural operations, homes, and schools. As reiterated in a recent letter I received from Sutter County's Office of Emergency Management, a complete failure of the levee has the potential to cause "billions of dollars in additional damages and the possible loss of lives and livelihood." Although all damages will not be eligible under a major disaster declaration, Sutter County, a small county with less than one hundred thousand residents, has experienced more than \$23 million in extreme storm related damages due to this disaster.

*Hazard Mitigation (44 C.F.R. § 206.48(a)(4))*

California has been aggressive in implementing mitigation efforts and has an enhanced Multi-Hazard Mitigation Plan that was approved by FEMA in October 2010. Specifically, in the counties impacted by the March storm system event, 41 flood mitigation projects have been completed, which equates to more than \$83 million in estimated losses avoided. In addition to the tens of millions of dollars in avoided losses, we firmly believe that these aggressive proactive mitigation efforts have also resulted in lives being saved in the affected areas.

July 13, 2011

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*Recent Multiple Disasters (44 C.F.R. § 206.48(a)(5))*

California has suffered multiple disasters in the last 18 months due to severe winter storms, flooding, mudslides, fires, drought, heavy rains, and earthquakes. Since January 2010, California has received four major federal disaster declarations, had six fires declared under FEMA's Fire Management Assistance Grant Program, endured twenty events for which funds under the California Disaster Assistance Act were issued, and received four disaster designations from the U.S. Department of Agriculture and ten U.S. Small Business Administration designations. More than 75 percent of California's population is covered under at least one of the recent federal disaster declarations with a combined total of more than \$236 million in eligible damages statewide, which equates to approximately \$7 per capita statewide. As a result of the significant number of recent disasters, California continues to struggle to cope with the financial impacts of these disasters. Additionally, the impact at the local level during the last three months alone is even more daunting; for example, damages in Santa Cruz County have exceeded \$45 million, which is \$178 per capita, and damages in Del Norte County have exceeded \$21 million, which is \$778 per capita.

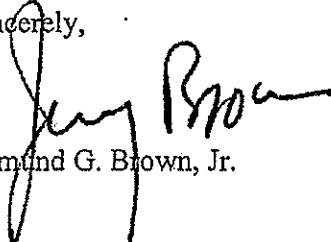
*Other Federal Assistance (44 C.F.R. § 206.48(a)(6))*

In addition to the federal Public Assistance program and statewide funding under HMGP, I have specifically sought assistance through other appropriate federal programs, including the U.S. Small Business Administration Disaster Loans program, the U.S. Army Corps of Engineers, the Federal Highway Administration, the Natural Resources Conservation Service, and the U.S. Department of Agriculture's Emergency Loan Program.

California has met the eligibility criteria for a major disaster declaration. We have provided additional supporting information from the National Weather Service and the California Department of Water Resources validating the original assertion that the damages sustained were the result of a single event. Also, we have substantiated that the magnitude of the damages and the monetary cost to the state, as well as the economic impact on local governments, exceeds our combined capabilities.

I respectfully seek your favorable consideration of this appeal and request that you declare a major disaster for California as a result of the March storm system event.

Sincerely,



Edmund G. Brown, Jr.

Enclosures

2011 March Storms PDA

COUNTY	A	B	C	D	E	F	G	PDA Total	Threshold	\$ per Capita	75%
ALAMEDA	\$ -	\$ 25,000	\$ -	\$ -	\$ -	\$ 200,000	\$ 680,000	\$ 905,000	\$4,721,033	\$ 0.63	\$ 678,750
AMADOR	\$ -	\$ 1,100	\$ 1,477,925	\$ -	\$ -	\$ -	\$ -	\$ 1,479,025	\$114,777	\$ 42.14	\$ 1,109,269
BUTTE	\$ 20,000	\$ -	\$ 56,700	\$ -	\$ -	\$ -	\$ -	\$ 76,700	\$664,369	\$ 0.38	\$ 57,525
CONTRA COSTA	\$ -	\$ 18,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,000	\$3,102,628	\$ 0.02	\$ 13,500
DEL NORTE	\$ 300,000	\$ 15,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ 665,000	\$89,948	\$ 24.18	\$ 498,750
HUMBOLDT	\$ 158,198	\$ 101,000	\$ 3,560,000	\$ -	\$ -	\$ -	\$ -	\$ 3,819,198	\$413,714	\$ 30.19	\$ 2,864,399
MADERA	\$ 121,733	\$ 120,303	\$ 30,000	\$ 201,880	\$ -	\$ -	\$ -	\$ 473,916	\$402,566	\$ 3.85	\$ 355,437
MARIPOSA	\$ 435,800	\$ 178,860	\$ 741,200	\$ -	\$ 174,000	\$ -	\$ -	\$ 834,860	\$56,015	\$ 48.74	\$ 626,145
MENDOCINO	\$ 95,000	\$ 247,000	\$ 4,805,000	\$ -	\$ -	\$ -	\$ -	\$ 5,147,000	\$282,087	\$ 59.66	\$ 3,860,250
MONTEREY	\$ 89,941	\$ 305,283	\$ 1,380,000	\$ 930,670	\$ -	\$ 12,000	\$ -	\$ 2,716,894	\$1,313,762	\$ 6.77	\$ 2,039,171
SANTA BARBARA	\$ 436,400	\$ 243,700	\$ 5,494,784	\$ 308,200	\$ 175,000	\$ 275,000	\$ 646,478	\$ 7,579,562	\$1,305,865	\$ 18.98	\$ 5,684,672
SANTA CRUZ	\$ 328,000	\$ 185,000	\$ 13,101,500	\$ 640,000	\$ 755,500	\$ 155,000	\$ 779,825	\$ 18,844,825	\$695,819	\$ 73.73	\$ 14,133,619
SIERRA	\$ 250,000	\$ 140,000	\$ 65,000	\$ -	\$ 3,000	\$ -	\$ -	\$ 458,000	\$ 11,625	\$ 128.83	\$ 343,500
STANISLAUS	\$ 25,000	\$ -	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ 375,000	\$1,461,680	\$ 0.84	\$ 281,250
SUTTER	\$ 15,000	\$ -	\$ 100,000	\$ 4,748,000	\$ -	\$ -	\$ 125,000	\$ 4,988,000	\$258,101	\$ 63.20	\$ 3,741,000
TRINITY	\$ 20,000	\$ 5,000	\$ 510,000	\$ -	\$ -	\$ -	\$ -	\$ 535,000	\$42,582	\$ 41.08	\$ 401,250
TUOLUMNE	\$ 234,000	\$ 491,7	\$ 236,000	\$ 65,000	\$ -	\$ 496,000	\$ 224	\$ 1,035,841	\$178,218	\$ 19.01	\$ 776,881
SUBTOTAL	\$ 5,407,072	\$ 1,590,863	\$ 31,588,109	\$ 6,893,750	\$ 1,104,500	\$ 1,138,000	\$ 2,231,527	\$ 49,953,821			
STATE AGENCIES	\$ -	\$ 1,019,362	\$ -	\$ -	\$ -	\$ 16,000	\$ 400,000	\$ 1,435,362			
TOTAL	\$ 5,407,072	\$ 2,610,225	\$ 31,588,109	\$ 6,893,750	\$ 1,104,500	\$ 1,154,000	\$ 2,631,527	\$ 51,389,183	\$44,033,142	\$ 51.52	\$ 38,541,887
Category %	10.52%	5.08%	61.47%	13.41%	2.15%	2.25%	5.12%				

POPULATION IS BASED ON 2000 CENSUS  
 FEMA's state threshold = \$1.30 / Capita  
 FEMA's county threshold = \$3.27 / Capita

E. PUBLIC BUILDINGS & EQUIPMENT  
 F. PUBLIC UTILITIES  
 G. OTHER FACILITIES

A. DEBRIS REMOVAL  
 B. PROTECTIVE MEASURES  
 C. ROADS AND BRIDGES  
 D. WATER CONTROL FACILITIES

The table below is for a federal declaration only. It does not include other state financial impacts.

	FEMA	CDAA	Local	Cost Share
FEMA	\$ 4,055,304	\$ 1,957,669	\$ 23,691,082	\$ 5,170,313
CDAA	\$ 1,013,826	\$ 298,287	\$ 5,922,770	\$ 1,292,578
Local	\$ 337,942	\$ 99,429	\$ 1,974,257	\$ 430,859
				\$ 69,031
				\$ 139,470
				\$ 3,422,514
				\$ 3,854,188
				\$ 418,411
				\$ 936,624
				\$ 3,422,514
				\$ 6,255

IMPORTANT NOTES

## ***Current Hydrologic Status & Forecast Conditions – June 30, 2011***

**Weather Outlook:** Temperatures will increase to just above normal into the next week as a weak ridge builds along the west coast following the recent rain storms from earlier this week in the Central Valley Central/Southern Sierra Nevada. Temperatures are expected to drop to near normal next week. In the Southern Sierra at elevation 8000 ft, the maximum temperatures will be in the lower 80s through this weekend and next week. Minimum temperatures at 8,000 ft will be in the upper 40s to low 50s through this weekend. Dry conditions will prevail throughout the state except possibly in portions of Southern California, which may receive small amounts of rain due to monsoonal moisture.

### **Snowmelt/Runoff:**

	Current Apr-Jul Forecast (MAF)	Total Runoff To Date (MAF)	Estimated Remaining Apr-Jul Runoff (MAF)	Currently Available Reservoir Storage (MAF)
Sacramento Valley:	11.2 (172% Ave)	9.8	1.4	0.2
San Joaquin Valley:	6.6 (174% Ave)	5.4	1.2	0.3
Tulare Lake Region:	<u>3.8 (185% Ave)</u>	<u>3.1</u>	<u>0.7</u>	<u>0.3</u>
Total:	21.6 (175% Ave)	18.3	3.3	0.8

The “current April-July forecast” is the total forecast runoff volume for the entire April-July period;

The “total runoff to date” is the actual runoff from April 1 to the current date for each basin;

The “estimated remaining April-July runoff” is the forecast volume from the current date to the end of July;

The “currently available reservoir storage” is the total capacity of the reservoirs minus the current storage total.

### **Reservoir Conditions:**

Sacramento Valley:	<u>Reservoir</u>	<u>% Capacity</u>
	Shasta (Sacramento)	97
	Oroville (Feather)	100
	New Bullards (Yuba)	99
	Folsom (American)	95

Reservoirs inflows have peaked, and varied release changes are being made in response to inflow forecasts for fill management.

San Joaquin Valley:	<u>Reservoir</u>	<u>% Capacity</u>
	New Melones (Stanislaus)	95
	Don Pedro (Tuolumne)	94



### ***Current Hydrologic Status & Forecast Conditions – June 30, 2011***

New Exchequer (Merced)	98
Friant (San Joaquin)	91

Reservoir inflows are receding from their peaks in late June. Some recent flow spikes from recent rainstorms are receding, as well. Reservoir operators are holding the increased flood releases and taking advantage of increased demands to manage storage space for the remaining water volume.

Tulare Lake Region:	<b><u>Reservoir</u></b>	<b><u>% Capacity</u></b>
	Pine Flat (Kings)	96
	Terminus (Kaweah)	97
	Success (Tule)	48
	Isabella (Kern)	63

Similar to the conditions in San Joaquin basin, the inflows to the reservoirs in Tulare Lake region are reduced from their observed peaks.

#### **River Conditions:**

- Sacramento Valley:** **Sacramento River at Rio Vista** may exceed monitor stage early Saturday morning during astronomical high tide..
- San Joaquin Valley:** The **Merced River at Stevinson** is forecast to exceed monitor stage tomorrow evening when increased releases are made from New Exchequer Dam.
- Eastern Sierra:** The **West Walker River at HWY 395 Below Little Walker** is forecast to exceed monitor stage when the diurnal fluctuation produces increased snowmelt streamflow in the forecast period, possibly exceeding flood stage for a brief time on Sunday morning.

#### **Areas of Interest:**

In the **San Joaquin Basin**, Friant (San Joaquin River) and Pine Flat (Kings River) have increased flood releases in response to increased snowmelt runoff inflows. Contributions from both reservoirs enter the Mendota Pool, and combined flood flows are currently being used for agricultural demand. Future increased releases may exceed demand resulting in increased releases from the Pool to the San Joaquin River upstream of Firebaugh, and increased flows diverted upstream of the Pool through the Chowchilla Bypass.

#### **More Information:**

## ***Current Hydrologic Status & Forecast Conditions – June 30, 2011***

### **Weather:**

Regional Weather Forecasts: <http://www.cnrfc.noaa.gov/forecasts.php>

### **Snowmelt/Runoff:**

Snow Water Content: [http://cdec.water.ca.gov/cgi-progs/products/PLOT\\_SWC.pdf](http://cdec.water.ca.gov/cgi-progs/products/PLOT_SWC.pdf)

Weekly Bulletin 120 Update: [http://cdec.water.ca.gov/cgi-progs/iodir\\_ss/b120up](http://cdec.water.ca.gov/cgi-progs/iodir_ss/b120up)

Forecast Peak Snow Melt: <http://www.cnrfc.noaa.gov/awipsProducts/RNOHFSSPK.php>

### **Reservoir Conditions:**

Reservoir Status: <http://cdec.water.ca.gov/cdecapp/resapp/GetDailyFCgraphs.action>

### **River Conditions:**

River Forecast Summary: <http://www.cnrfc.noaa.gov/>

## **Hydrology & Flood Operations Office**

<http://cdec.water.ca.gov>



**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
 NATIONAL WEATHER SERVICE

Forecast Office  
 520 N. Elevar St.  
 Oxnard CA 93030

July 14, 2011

MEMORANDUM FOR: The Record

FROM: Todd Morris  
 Regional Coordinator for Decision Support Services  
 and Physical Scientist

SUBJECT: California Weather Events of March 14-27, 2011

A series of severe winter storms, enhanced by atmospheric rivers<sup>1</sup>, impacted the State of California beginning Wednesday March 14 and continued through March 27, 2011. The main weather impacts were extreme precipitation with low elevation heavy rain and high elevation snow. The storms also were responsible for strong winds, especially in the Central Valley and at higher elevations.

The series of storms are properly understood as being part of the same parent intense low pressure system which temporarily set up over the region for nearly two weeks with a persistently active jet stream and associated atmospheric rivers that meandered north to south and back again across the state. As the jet stream and atmospheric rivers meandered, the focus of the associated heavy precipitation shifted with never more than 2 days between heavy precipitation events in any one of the declaration areas of the state.

<sup>1</sup>Atmospheric rivers, or ARs, are narrow regions in the atmosphere that transport large amounts of water vapor across the Pacific. In one day, an average AR transports an amount of water vapor equivalent to a foot of liquid water covering 10 million acres — an area roughly the size of Maryland. This is about seven and a half times the average daily flow of water from the Mississippi River into the Gulf of Mexico. As much as 40 percent of this water vapor is transformed into rain or snow. Another rainfall potential comparison would be that an AR is equivalent to the amount of moisture found in the eyewall of a landfalling hurricane if dissected and laid out end to end.

AR's were present in several recent California weather-related disaster declarations including December 2010(DR-1952), December 2004/January 2005(DR-1577), February 1998(DR-1203), January 1997(DR-1155), and February 1986(DR-758).



## California – Severe Storms, Flooding, and Debris and Mud Flows

### Denial of Appeal

#### *Denied on August 4, 2011*

On April 22, 2011, Governor Edmund G. Brown Jr. requested a major disaster declaration due to a series of storms bringing snowstorms, heavy rain, high winds, flooding and flows of debris and mud during the period of March 15-27, 2011. The Governor requested Public Assistance for 17 counties and Hazard Mitigation statewide. On June 21, 2011, the Governor’s request was denied. On July 13, 2011, Governor Brown appealed the denial. During the period of April 19-22, 2011, joint federal, state, and local government Preliminary Damage Assessments (PDAs) were conducted in the requested counties and are summarized below. PDAs estimate damages immediately after an event and are considered, along with several other factors, in determining whether a disaster is of such severity and magnitude that effective response is beyond the capabilities of the state and the affected local governments, and that federal assistance is necessary.<sup>1</sup>

On July 13, 2011, the Governor’s appeal for a major disaster declaration was denied based on the determination that the damage was not of such severity and magnitude as to be beyond the combined capabilities of the state, affected local governments, and voluntary agencies. Furthermore, it was determined that the damage to the infrastructure was a result of three separate storms systems that occurred on March 14-16; March 17-22; and March 23-27, 2011. Additionally, the individual storms that produced high winds and/or rainfall affected different parts of the State at different times.<sup>2</sup>

### Summary of Damage Assessment Information Used in Determining Whether to Declare a Major Disaster

#### Individual Assistance - (Not requested)

- Total Number of Residences Impacted:<sup>3</sup> -
  - Destroyed - -
  - Major Damage - -
  - Minor Damage - -
  - Affected - -
- Percentage of insured residences:<sup>4</sup> -
- Percentage of low income households:<sup>5</sup> -
- Percentage of elderly households:<sup>6</sup> -
- Total Individual Assistance cost estimate: N/A

## Public Assistance

- Primary Impact: Damage to roads and bridges
- Total Public Assistance cost estimate: \$44,547,342
- Statewide per capita impact:<sup>7</sup> \$1.32
- Statewide per capita impact indicator:<sup>8</sup> \$1.30
- Countywide per capita impact: Alameda County (\$0.63), Amador County (\$42.14), Butte County (\$0.38), Contra Costa County (\$0.02), Del Norte County (\$24.18), Humboldt County (\$30.19), Madera County (\$3.85), Mariposa County (\$18.50), Mendocino County (\$59.66), Monterey County (\$6.77), Santa Barbara County (\$18.87), Santa Cruz County (\$51.38), Sierra County (\$128.83), Stanislaus County (\$0.84), Sutter County (\$63.20), Trinity County (\$41.08), Tuolumne County (\$8.59)
- Countywide per capita impact indicator:<sup>9</sup> \$3.27

<sup>1</sup> The Preliminary Damage Assessment (PDA) process is a mechanism used to determine the impact and magnitude of damage and resulting needs of individuals, businesses, public sector, and community as a whole. Information collected is used by the State as a basis for the Governor's request for a major disaster or emergency declaration, and by the President in determining a response to the Governor's request (44 CFR § 206.33).

<sup>2</sup> When a Governor's request for major disaster assistance under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended (Stafford Act) is under review, a number of primary factors are considered to determine whether assistance is warranted. These factors are outlined in FEMA's regulations (44 CFR § 206.48). The President has ultimate discretion and decision making authority to declare major disasters and emergencies under the Stafford Act (42 U.S.C. § 5170 and § 5191).

<sup>3</sup> Degree of damage to impacted residences:

- Destroyed – total loss of structure, structure is not economically feasible to repair, or complete failure to major structural components (e.g., collapse of basement walls/foundation, walls or roof);
- Major Damage – substantial failure to structural elements of residence (e.g., walls, floors, foundation), or damage that will take more than 30 days to repair;
- Minor Damage – home is damaged and uninhabitable, but may be made habitable in short period of time with repairs; and
- Affected – some damage to the structure and contents, but still habitable.

<sup>4</sup> By law, federal disaster assistance cannot duplicate insurance coverage (44 CFR § 206.48(b)(5)).

<sup>5</sup> Special populations, such as low-income, the elderly, or the unemployed may indicate a greater need for assistance (44 CFR § 206.48(b)(3)).

<sup>6</sup> Ibid (44 CFR § 206.48(b)(3)).

<sup>7</sup> Based on State population in the 2010 Census.

<sup>8</sup> Statewide Per Capita Impact Indicator for FY11, *Federal Register*, October 1, 2010.

<sup>9</sup> Countywide Per Capita Impact Indicator for FY11, *Federal Register*, October 1, 2010.

Los Angeles County Department of Public Works  
Maximum Storm Bursts (intensity) Data for 2011

Los Angeles County Dept of Public Works

Site 4352 Monte Nido - Composite Records for Analysis  
 Variable 11.06 Rainfall (Inches)

Storm Intensity/Duration Report for Period Beginning 00:00\_01/01/2011  
 Ending 00:00\_01/01/2012

Total for Period : 19.69

Maximum Storm Bursts

Duration	Began Time Date	Amount (in.)	Intensity (in/hr)
5 Minute	11:55_03/21/2011	0.15	1.80
10 Minute	10:20_10/05/2011	0.20	1.20
15 Minute	10:15_10/05/2011	0.24	0.96
30 Minute	09:25_10/05/2011	0.40	0.80
1 Hour	09:30_10/05/2011	0.75	0.75
2 Hour	08:30_10/05/2011	1.42	0.71
3 Hour	07:30_10/05/2011	1.77	0.59
4 Hour	06:30_10/05/2011	2.13	0.53
6 Hour	06:15_10/05/2011	2.49	0.42
12 Hour	08:20_03/20/2011	3.27	0.27
1 Day	23:15_03/19/2011	3.98	0.17



# Tapia Water Reclamation Facility Storm Water Pollution Prevention Plan



# **TAPIA WATER RECLAMATION FACILITY**

## **STORM WATER POLLUTION PREVENTION PLAN**

**Las Virgenes Municipal Water District**

Updated June 2002

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on the 26th day of June 2002, at Calabasas, California.

---

Carlos G. Reyes  
Water Reclamation Manager  
Tapia Water Reclamation Facility

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## 1 Introduction and Background

In 1972, the Federal Water Pollution Control Act (also known as the Clean Water Act (CWA)) was amended to prohibit the discharge of pollutants to waters of the United States from any point source, unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) Permit. The 1987 amendments to the CWA added Section 402(p) establishing a framework for regulating municipal and industrial storm water discharge under the NPDES program. On November 16, 1990, the U.S. Environmental Protection Agency (USEPA) promulgated final regulations that establish application requirements for storm water permits. The regulations require storm water associated with industrial activity (industrial storm water) that discharges either directly to surface waters or indirectly, through municipal separate storm sewers, must be regulated by an NPDES permit.

The California State Water Board, with authorization from USEPA, chooses to issue its own general permits under the NPDES program that applies to all facilities of industrial storm water dischargers described in eleven separate categories. Category 9 dischargers refer to publicly or privately owned sewage treatment plants, to which the Tapia Water Reclamation Facility (*Tapia*) belongs.

### 1.1 General Industrial Activities Storm Water Permit

The *General Industrial Activities Storm Water Permit* (General Permit) was adopted by the California State Water Resources Control Board on November 19, 1991 and amended in September 1992 to simplify the monitoring and reporting requirements, as well as offer several sampling and analysis exemption options. (A separate general permit associated with construction activities was adopted on August 20, 1992.) To obtain authorization for continued and future industrial storm water discharge, owners/operators of these industrial facilities are required to first submit a *Notice of Intent* (NOI) to be covered by this general permit. The Tapia NOI was submitted on March 25, 1992 (See Figure 1.1).



## 1.2 General Permit Conditions

The General Permit identifies four sets of conditions that Tapia must comply with, and they are:

### (A) Prohibitions

Non-storm water discharges (including illicit connections) of significant quantities and discharges containing hazardous substances to the Tapia Storm Water Conveyance and Discharge System in excess of reportable quantities established at 40 CFR 117.3 and 40 CFR 302.4 are prohibited.

### (B) Effluent Limitations

Industrial storm water discharges must meet all applicable provisions of Sections 301 and 402 of the CWA. Since wastewater treatment plants are not among the ten industrial categories listed in 40 CFR Sub-chapter N, Tapia's effluent limitations are necessarily narrative. They include *best management practices* (BMPs) to control and eliminate the sources of pollutants in storm water through the development and implementation of the Storm Water Pollution Prevention Plan (SWPPP).

### (C) Storm Water Pollution Prevention Plan

Tapia is required to prepare, retain on site, and implement a SWPPP. The objectives of this plan are to

- (a) help identify the sources of pollution that affect the quality of industrial storm water discharges; and
- (b) describe and ensure the implementation of practices to reduce pollutants in industrial storm water discharges.

Elements of the Tapia SWPPP are described in Sections 2 and 3 of this public document.

**(D) Monitoring Program**

Tapia is also required to develop and implement a storm water discharge monitoring program, which includes

- (a) Visual observations during the dry (May through September) and wet (October through April) seasons;
- (b) Annual site inspection and compliance certification; and
- (c) Annual report summarizing all monitoring data for the year to be submitted to the Executive Officer of the Regional water Board.

Details of the monitoring program can be found in Section 4.

**FIGURE 1.1 THE TAPIA NOTICE OF INTENT (NOI)**

**FIGURE 1.1 (Cont'd)**

## **2 Facility Overview**

### **2.1 Facility Location**

The Tapia Water Reclamation Facility is a wastewater treatment facility in the City of Calabasas within Los Angeles County. It is located five miles south of the 101 Ventura Freeway on the west side of Malibu Canyon Road, just south of Malibu Creek (refer to the vicinity and location maps in Figure 2.1). The site's property encompasses 80 acres, of which approximately 7 acres are impervious and are designated for the industrial activity of wastewater treatment.

### **2.2 Existing Storm Water Conveyance and Discharge System**

The storm water surface runoff pattern and the existing storm drain system at Tapia are shown in Figure 2.2. The northwestern part of Tapia drains into a concrete gutter, which runs east-west near its northern boundary. There is a low point at the eastern edge of the Sludge Dewatering Facility, where the gutter drains into another gutter running north to a sump at the northern fence line. As a result, the areas near the Sludge Dewatering Facility, the Bar Screen and Grit Cyclone Building, the Sludge Pump Station Building, the Chemical Storage Area, the Laboratory at the Administrative Building, and the Maintenance Shop Building all drain into this sump. During normal operation, the sump pump discharges the collected surface runoff back to the plant system at the Headworks. In the event of a storm, the sump area is allowed to drain directly into Malibu Creek by manually opening a sluice gate on the property wall nearby or pumping over the wall.

The eastern part of Tapia drains into a catch basin at a low point close to the northern fence between the Balancing Pond and the Filter Building. The catch basin drains directly into the Balancing Pond. During a storm event, the valve leading to the Balancing Pond can be closed to allow the catch basin to overflow to the creek via the stairs north of the Pond.

Rainfall and spillage captured at the sodium bisulfite/alum tanks and floor drainage from the Chemical Storage Building drains into the underground 120,000-gallon Waste Wash Water Holding Tank. It is pumped periodically back to the Primary Sedimentation Tanks for processing.

The storm water surface runoff from unpaved areas surrounding Tapia minimizes contact with hardscaped areas by discharging into a diversion ditch, which runs along the southern part of Tapia which discharges into Malibu Creek. The majority of runoff from the parking lot flows down to the Balancing Pond.

### **2.3 Industrial Activities**

Tapia, first placed into service in 1965, is an advanced wastewater treatment facility. With a design capacity of 16.1 million gallons per day (MGD), it currently receives 8 to 9 MGD of raw sewage. The treatment processes include both solids (sludge) and liquid (wastewater) handling, and they are

- (a) Preliminary Treatment (removal of large objects and grit in the raw sewage);
- (b) Primary Treatment (skimming and sedimentation);
- (c) Aerobic Digestion (thickening and stabilization of volatile, biodegradable solids);
- (d) Secondary Treatment (clarification through aeration);
- (e) Tertiary Treatment (filtration); and
- (f) Chlorination and De-chlorination (disinfection).

### **2.4 Materials Inventory**

As a wastewater treatment facility operating 24 hours a day, Tapia has *significant quantities* of untreated and partially treated wastewater as well as raw and digested

sludge in both covered and uncovered tanks or basins throughout the treatment facility. Fully treated effluent is reclaimed for beneficial uses, or discharged to percolation beds and Malibu Creek, meeting all relevant National Pollution Discharge Elimination System (NPDES) and Non-NPDES discharge prohibitions and limitations. Under normal operation, digested sludge produced from the treatment process is pumped to an off-site facility for composting or sub-surface field injection. Other wastes such as grit and screenings removed from wastewater as well as sludge screenings are collected at the Headworks Building and the Sludge Pump Station Building, respectively. They are also hauled to landfills periodically.

Other *significant materials* that are required in significant quantities for plant operation include sodium hypochlorite (for disinfection), sodium bisulfite (for dechlorination), ferric chloride (for odor control), alum (for coagulation and removal of phosphate) and diesel fuel (for backup power generation). Their storage locations and types are presented in Table 2.1.

## **2.5 Potential Pollution Sources**

While Tapia is designed as a 16.1 MGD wastewater treatment plant, its hydraulic capacity is rated for 36 MGD. Substantial freeboard is maintained in all tanks in which untreated or partially treated wastewater and sludge are processed. This provides a substantial safety factor to handle most foreseeable wet season wastewater flows the facility may receive. While it is highly unlikely, the possibility of accidental spillage of untreated or partially treated wastewater into the storm water system due to extreme flow conditions; equipment failure or human error cannot be ruled out. Since all other significant materials at Tapia are either stored inside buildings or outdoors with secondary containment, the other major potential pollution source comes from spillage in outdoor material handling areas during loading and unloading. Figure 2.3 shows the delivery routes of significant materials at Tapia.



**FIGURE 2.1 SITE PLAN, LOCATION & VICINITY MAP**

**Table 2.1 SIGNIFICANT MATERIAL STORAGE AREAS**

SIGNIFICANT MATERIAL	STORAGE LOCATION	TYPE OF STORAGE
Partially treated wastewater	Primary sedimentation tanks	Covered tanks
Partially treated wastewater	Aeration tanks	Uncovered tanks
Partially treated wastewater	Final sedimentation tanks	Uncovered tanks
Partially treated wastewater	Re-aeration/digester tanks	Uncovered tanks
Partially treated sludge	Aerobic digesters	Uncovered tanks
Partially treated sludge	Sludge pump wetwells	Uncovered/covered tanks
Grit, rags and screenings	Headworks Building	Indoor/canisters
Digester screenings	Sludge Pump Station #1	Indoor/canisters
Sodium hypochlorite	Chemical Building	Indoor; enclosed vessel; secondary containment
Sodium bisulfite	North of Chemical Building	Outdoor; enclosed vessel; secondary containment
Aluminum sulfate	North of Chemical Building	Outdoor; enclosed steel; secondary containment
Diesel fuel	Fuel tank	Outdoor; enclosed vessel; secondary containment
Ferric chloride	South of Sludge Pump Station #2	Outdoor; enclosed vessel; secondary containment

**FIGURE 2.2 EXISTING STORM WATER CONVEYANCE AND DISCHARGE SYSTEM**

**FIGURE 2.3 SIGNIFICANT MATERIAL DELIVERY ROUTES**

### 3 Storm Water Management Controls

A review of existing Tapia records has indicated no significant materials that were treated, stored, disposed, spilled or leaked in significant quantities have come to contact with storm water runoffs that were ultimately discharged into Malibu Creek after November 19, 1988. There are no existing laboratory data describing pollutants in storm water discharges from Tapia.

Since the beginning of this program in 1992, there have not been any non-storm discharges. Moreover, since Tapia has the option of diverting non-storm flows to the treatment process, no dry weather flows are anticipated.

#### 3.1 Storm Water Management Practices

Besides source control, to be discussed in the next sub-section, the BMPs for the Tapia SWPPP are to eliminate non-storm water discharge into Malibu Creek except in emergency situations. These permanent systems include:

- (a) Diversion of the storm water collected in the eastern part of the plant directly to the Balancing Pond for subsequent treatment;
- (b) Redirection of storm water runoffs near the Chemical Building to the Balancing Pond using appropriate grades in the roads.
- (c) Pumping collected storm water at the low point near the Sludge Dewatering Facility back to the Headworks for treatment;
- (d) Opening the sluice gate on the northern flood wall near the Sludge Dewatering Facility to discharge storm water to Malibu Creek. It is the last resort *only* when the

rate storm water is accumulating is higher than that for pumping it back to the Headworks as outlined in (c) above, and *after* a visual observation indicating that significant materials are absent in the storm water. If the following criteria are met, storm water can be pumped over the flood wall using the yard pump west of the Electrical Substation:

- a. Additional flow to the facility jeopardizes the effluent quality compliance.
  - b. At least 1" of rain has been collected in the Tapia rain gauge over the last 24 hours.
  - c. No observable oils, floatables, suspended solids or odors are detected.
  - d. The Operations Supervisor has given approval to pump over the flood wall.
- (e) Road curbs prevent storm water from going to the drainage ditches that drain directly to Malibu Creek.
- (f) The connecting gate to Salvation Army, on the southwest corner of the plant is fitted with stop logs that divert storm water runoff around the plant.

Figure 3.4 shows the new surface storm water flow pattern and storm drainage system. Appendix 1 contains the procedure to be followed in the event it is necessary to discharge to Malibu Creek.

### **3.2 Pollutant Reduction Practices**

The pollutant reduction strategy adopted at Tapia is to reduce the likelihood of potential pollutants from industrial activities coming to contact with storm water. It includes housing significant materials indoors, providing them with secondary containment, good housekeeping in all material handling areas and storm water conveyance system, as well

as a good preventive maintenance program on storm water pollution prevention equipment to be discussed next.

### **3.3 Preventive Maintenance**

The storm water conveyance and discharge system consists of drainage trenches, gutters, ditches, the Waste Washwater Holding Tank, sump pumps, drain hole and piping on the northern flood wall. These items will be inspected, checked or tested at a minimum of twice a year by qualified personnel. Preventive maintenance records will be kept on-site at Tapia.

### **3.4 Housekeeping**

Housekeeping at Tapia is the responsibility shared by all employees. Good housekeeping is critical to pollutant reduction as well as spill prevention. It requires the maintenance of clean; orderly conveyance systems that collect and discharge storm water. Material handling areas, in particular, are inspected once a month as part of the regular monthly plant inspections. The Operations Supervisor is notified of any housekeeping deficiencies for improvement.

### **3.5 Spill Prevention and Response**

Pollutant spills at Tapia are minimized through employee training on established material handling procedures, material storage requirements, and preventive maintenance on equipment. In the event that potential pollutants are spilled - most likely in outdoor material handling areas during loading and unloading - Tapia's standard housekeeping practice calls for their immediate clean-up and proper disposal in accordance with USEPA, Department of Health Services and Department of Transportation regulations. When



significant quantities are spilled, the incident will be documented and the Operations Supervisor and/or the Water Reclamation Manager notified.

### **3.6 Erosion and Sediment Control**

As described in Section 2 of this document, the part of the storm water conveyance system, in which storm water may come to contact with pollutants from Tapia's industrial activities, is isolated from the rest for non-industrial storm water runoff. It is confined to the impervious area of Tapia. In the event that storm water has to be discharge, it is discharged directly to Malibu Creek. No specific erosion or sediment control will be necessary.

### **3.7 Employee Training**

The various elements of this SWPPP, especially the pollution reduction and spill prevention practices, will be reviewed with all Tapia employees immediately after the plan is implemented, and annually thereafter. They will also be included in the new employee orientation program for new employees. Individuals assigned to storm water conveyance system preventive maintenance and storm water discharge monitoring tasks will receive additional training on the procedures and recordkeeping requirements. They will review the procedures and requirements before the tasks are to be carried out.

### **3.8 Storm Water Pollution Prevention Personnel**

Carlos G. Reyes, Manager of Water Reclamation, has the overall responsibility for the development, implementation, and future revisions of this Tapia SWPPP. Other individuals providing operational, maintenance, laboratory, technical and reporting support include:

Ed Cuaresma	Operations Supervisor
Jacqy Gamble	Management Analyst
Brad Glassman	Laboratory Supervisor
David Lippman	Facilities Manager

### 3.9 Recordkeeping

Through the development process of the Tapia SWPPP, a set of documents has been identified as pertinent to the plan. These documents are to be kept on-site at Tapia for a minimum of five years, and they are

- (a) The Tapia Storm Water Pollution Prevention Plan and Monitoring Program (this document);
- (b) Material Handling and Spillage Clean-up Procedures;
- (c) Storm Water Discharge Procedures; and
- (d) Written records on
  - (1) Monitoring Data;
  - (2) Plant Inspections;
  - (3) Employee Training;
  - (4) Preventive Maintenance;
  - (5) Significant Material Spills.

Recordkeeping procedures for the SWPPP element are discussed in the corresponding sub-section above. These documents will be audited annually by the Manager of Water Reclamation or designee for accuracy and need for revision.

**FIGURE 3.1 ANNUAL SITE INSPECTION REPORT**

**FIGURE 3.1 (Cont'd)**

**FIGURE 3.2 DRY SEASON OBSERVATION REPORT**

**FIGURE 3.3 WET SEASON STORM WATER DISCHARGE REPORT**

**FIGURE 3.4 NEW STORM WATER CONVEYANCE AND DISCHARGE SYSTEM**



## **4 TAPIA STORM WATER PERMIT MONITORING PROGRAM**

The following constitutes the Tapia Water Reclamation Facility's monitoring program for storm water discharges under NPDES Permit #CAS000001, "Waste Discharge Requirements for Discharges of Storm water Associated with Industrial Activities." The monitoring methods described were selected to insure compliance with the storm water discharge permit.

### **4.1 Annual Site Inspection**

At least once per year the Water Reclamation Manager or designee will inspect the areas of industrial activity within the facility to verify that the SWPPP is adequate to insure that non-storm water discharges are excluded from the storm water flow.

The inspection includes the chemical storage and feed areas, the road between the aeration basins and the primary clarifiers, the road between the primary clarifiers and the maintenance facilities, the road between the aerobic digesters and the headworks/influent pumping/blower room area, and the road between the headworks/influent pumping/blower room area and the northern plant fence.

The inspector will look for evidence of non-storm water discharge such as flowing fluids, stains on the ground, or odors. The inspector will also check the discharge valve on the fence to insure proper operation and a proper seal.

In the event there is evidence that non-storm water flows have entered the storm water conveyance system or that the discharge valve is not working properly, an investigation will be undertaken to determine the cause of the problem, and the problem will be corrected.

The inspector is required to complete the annual site-inspection report whether or not problems are encountered. In the event problems are encountered, a written report detailing the cause of the problem and the actions taken to resolve the problem will be attached to the annual inspection report.

The Water Reclamation Manager will review the annual site-inspection report and certify that the facility is in compliance with its SWPPP and the general permit on or before June 1st of each year.

#### **4.2 Dry-season Observations**

Once a month during the dry season (May through September), the area adjacent to the storm water discharge valve will be inspected for the presence of non-storm water discharges. The inspector should note the presence or absence of flow, stains, sludge, odors, or other abnormal conditions, which would indicate a non-storm water flow.

In the event that a non-storm water flow is indicated at the storm water discharge point, an investigation will be undertaken to determine the cause of the non-storm water flow. Once the cause has been determined, appropriate actions will be taken to correct the situation.

The inspector is required to fill out the dry-season observation report each time an inspection is made whether or not non-storm water flow is indicated. In the event non-storm water flow is detected, a written report, which details the actions taken to correct the situation, will be submitted and attached to the observation report.

### 4.3 Wet-season Observations

Whenever it becomes necessary to open the storm water discharge valve, the staff member opening the gate will observe the discharge to Malibu Creek and determine the presence or absence of floating and suspended material, oil and grease, abnormal discoloration or turbidity, or other unusual conditions.

In the event any of the above conditions exist, the staff person who opened the gate is to contact the Operations Supervisor or the Water Reclamation Manager or designee immediately. The Operations Supervisor or the Water Reclamation Manager will then determine what actions are necessary and direct the staff person accordingly.

The wet-season storm water discharge report is to be filled out each time the discharge valve is opened. In the event unusual conditions are observed when the valve is opened, a report detailing the unusual condition and any actions taken will be attached to the wet-season storm water discharge report.

#### **4.4 Sampling and Analysis**

The Tapia Water Reclamation Facility is exempt from storm water sampling and analysis requirements. The areas of industrial activity are not exposed to storm water, as demonstrated by the following:

1. There are no illicit connections to the Tapia storm drainage system.
2. All materials at Tapia are completely contained at all times.
3. No unhooded equipment at Tapia is exposed to storm water.
4. There are no emissions from stacks or air exhaust systems at Tapia, which contribute significant quantities of pollutants to storm water discharge.

#### **4.5 No Exposure Certification (NEC) Evaluation**

Prior to the wet season (October 1), the Water Reclamation Manager or designee will perform a plant inspection to determine whether NEC eligibility requirements are met. In addition to inspection of plant-specific storm water collection facilities, the Manager will use Attachment 1 (SWRCB Checklist to Evaluate Potential Storm Water Pollutant Sources) as a guide for the inspection and evaluation.

# FIGURE 4.1 ANNUAL SITE INSPECTION REPORT

## TAPIA WATER RECLAMATION FACILITY ANNUAL SITE INSPECTION REPORT

Date of Inspection: \_\_\_\_\_

Inspected by: \_\_\_\_\_ (Initial or Signature)

Evaluated by: \_\_\_\_\_ (Initial or Signature)

### Areas of Inspection:

(1) Industrial Storm Water Conveyance System

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(2) Industrial Storm Water Discharge System

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**Evaluation:**

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**Certification:**

I certify under the penalty of law, based on the evaluation of the annual site inspection that Tapia Water Reclamation Facility is in compliance with the requirements of the General Industrial Activities Storm Water Permit and its Storm Water Pollution Prevention Plan.

---

Carlos G. Reyes  
Water Reclamation Manager  
Tapia Water Reclamation Facility

---

Date

## FIGURE 4.2 DRY SEASON OBSERVATION REPORT

### TAPIA WATER RECLAMATION FACILITY DRY SEASON OBSERVATION REPORT

Date of Observation: \_\_\_\_\_

Conducted by: \_\_\_\_\_ (Initial or Signature)

**Observations:**

Industrial Storm Water Conveyance & Discharge System

Discharges: \_\_\_\_\_

Stains: \_\_\_\_\_

Sludges: \_\_\_\_\_

Odors: \_\_\_\_\_

Others: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



### FIGURE 4.3 WET SEASON STORM WATER DISCHARGE REPORT

#### TAPIA WATER RECLAMATION FACILITY WET SEASON STORM WATER DISCHARGE REPORT

**Opening the Sluice Gate:**

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Operator: \_\_\_\_\_ (Initial or Signature)

Supervisor: \_\_\_\_\_ (Initial or Signature)

**Observations:**

Floatable Materials: \_\_\_\_\_

Suspended Materials: \_\_\_\_\_

Oil and Grease: \_\_\_\_\_

Discolorations: \_\_\_\_\_

Turbidity: \_\_\_\_\_

Odor: \_\_\_\_\_

Other Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Closing the Sluice Gate:**

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Operator: \_\_\_\_\_ (Initial or Signature)

Supervisor: \_\_\_\_\_ (Initial or Signature)

## APPENDIX 1 PROCEDURES FOR DISCHARGING STORM WATER TO MALIBU CREEK

### BACKGROUND

1. To comply with Tapia's General Industrial Activities Storm Water Permit, a new procedure for discharging storm water runoff to Malibu Creek is adopted.
2. This permit does not cover the runoff from the southern part of Tapia, including the Control Building, the parking lot, and the undeveloped hill slopes.
3. Under normal operation, the sluice gate on the north flood wall near the Belt Press Building (Sludge De-watering Facility) will remain closed.
4. Only the Manager, Operations Supervisor, Operator II's, and standby personnel are authorized to open the sluice gate and discharge collected storm water runoff to Malibu Creek.
5. The sluice gate should be opened *only* when the rate of accumulating storm water exceeds that of pumping back to headworks and the Malibu Creek level is below it. If the Malibu Creek level is above the drain hole, then pumping will be authorized.
6. Only Manager and Operations Supervisor can issue the authorization to open the sluice gate or pump over the flood wall.

## STANDARD OPERATING PROCEDURES

### (A) TO OPEN THE SLUICE GATE

1. Before opening the sluice gate:
  - Insure that no non-storm water materials enter the storm water flow. Inspect visually if the accumulated storm water runoff comes into contact with any process materials. Pay particular attention to the Chemical Storage (DCG) Area.
  - Conduct a cursory check of the accumulated storm water runoff for the presence of floating and suspended materials, oil and grease, as well as odor.
2. If no problems are found, the gate may be opened.
3. Fill out the top part of the *Wet Season Storm Water Discharge Report*.
4. Notify Operations Supervisor or Water Reclamation Manager of your action.

### (B) TO CLOSE THE SLUICE GATE

1. Obtain authorization from The Water Reclamation Manager, Operations Supervisor or their designee to close the sluice gate.
2. Close the sluice gate if so authorized.
3. Fill out the lower part of the *Wet Season Storm Water Discharge Report*.

STORMWATER POLLUTION PREVENTION PROGRAM  
ANNUAL & REFRESHER TRAINING EVENT

Training Date 4/17/13

Topics:

Housekeeping & BMP's

Diversion and potential discharge points

Dry weather discharge controls

Allowable discharge conditions

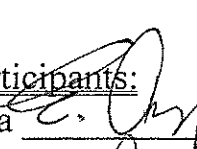
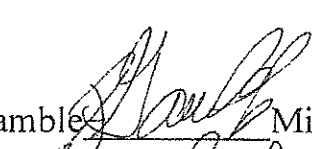
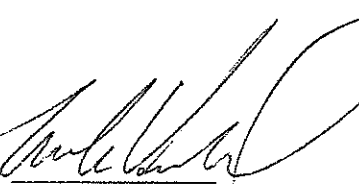
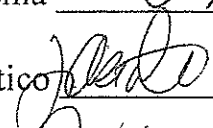
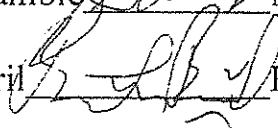
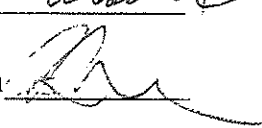
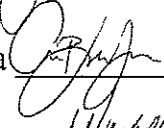
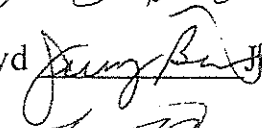

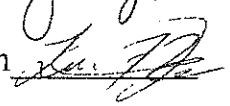
Weather Station Rain readings

Sampling requirements and Collection

Documentation & Record keeping

Other

Training Participants:

Ed Cuaresma		Jaeqy Gamble		Mike Varbel	
John Asiatico		Burton Brill		Reggie Lacson	
Erik Rabaja		Jeremy Boyd		Jonathon Vo	<u>RLV</u>
Wayne Wink		Leslie Flinn			

EDMUND G. BROWN JR.  
GOVERNORMATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## Los Angeles Regional Water Quality Control Board

May 5, 2014

Mr. David R. Lippman, P.E.  
Director of Facilities and Operations  
Las Virgenes Municipal Water District  
4232 Las Virgenes Road,  
Calabasas, CA 91302

VIA CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
CLAIM NO. 7010 3090 0002 1021 8721

**RE: RESPONSE TO REQUEST FOR ALLEGED VIOLATION REVIEW – LAS VIRGENES MUNICIPAL WATER DISTRICT, TAPIA WATER RECLAMATION FACILITY, 731 MALIBU CANYON ROAD, CALABASAS, CA (ORDER NO. R4-2010-0165, NPDES PERMIT NO. CA0056014, CI NO. 4760)**

Dear Mr. Lippman:

Thank you for your letters dated November 19, 2013 and January 16, 2014, responding to the October 18, 2013 *Response to Request for Alleged Violation* letter for the November 15, 2011 Settlement Offer No. R4-2011-0157-M, which assessed mandatory minimum penalties (MMPs) for violations of effluent limitations. This letter addresses your comments in this regard. Regional Board staff also discussed the matter with you by telephone on December 23, 2013.

**Issue 1:**

*The Las Virgenes Municipal Water District (Permittee) has requested that the three (3) total trihalomethanes (TTHM) effluent limit violations cited for May 8, 2012, April 30, 2013, and May 31, 2013 be dismissed because the Permittee met the conditions listed in Time Schedule Order (TSO) R4-2010-0166 that provide for an interim limit of 154 ug/L for TTHM effective from September 2, 2010 through September 2, 2014.*

**Staff Response:**

Regional Board staff concur that the Permittee satisfied conditions in the TSO that resulted in the TTHM interim monthly average effluent limitation of 154 ug/L to become effective between September 2, 2010 and September 2, 2014. Therefore, the four (4) TTHM effluent limit violations on April 18, 2012, May 8, 2012, April 30, 2013, and May 31, 2013, cited in Settlement Offer No. R4-2011-0157-M Amended Exhibit "1" – Notice of Violation (NOV) are hereby dismissed.

**Issue 2:**

*In its January 16, 2014 submission, the Permittee asserts that the affirmative defense in California Water Code section 13385 subdivision (j)(1)(B) should apply to the nine (9) effluent violations for turbidity cited on March 20, 21 and 25, 2011 because of the rain events which occurred between March 20 to March 25, 2011. Specifically, that provision states that a violation caused by "[a]n unanticipated, grave natural disaster or other natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which could not have been prevented or avoided by the exercise of due care of foresight" will not be subject to a mandatory minimum penalty.*

**Staff Response:**

Regional Board staff appreciate the extent of the documentation provided by the Permittee. However, based on the information provided, the Permittee has not demonstrated that the rainfall events meet



the requirements of an affirmative defense under Water Code section 13385 subdivision (j)(1)(B). Therefore, the nine (9) turbidity effluent limit violations from March 20, 2011 to March 25, 2011 noted in the Settlement Offer No. R4-2008-0093-M NOV attached as Exhibit "1" remain.

**Conclusions:**

You are hereby notified that, based on your January 16, 2014 submittal to the Regional Board, three (3) effluent limit violations for TTHM on May 8, 2012, April 30, 2013, and May 31, 2013 cited in Settlement Offer No. R4-2011-0157-M are hereby dismissed.

However, nine (9) turbidity effluent limit violations from March 20 through March 25, 2011 remain, as noted in the Settlement Offer No. R4-2011-0157-M Revised Exhibit "1" – Notice of Violation (NOV).

Since the Permittee requested a review of this violation, the Regional Board has established new deadlines. If you intend to participate in the Expedited Payment Program, you must sign and return the Acceptance of Conditional Resolution and Waiver of Right to Hearing form by **June 5, 2014**. By signing the Acceptance and Waiver, Las Virgenes Municipal Water District agrees to pay the penalty of \$72,000 as indicated on the revised Exhibit "1"– NOV and waives the right to a hearing. If you do not elect to sign the Acceptance and Waiver, you will be contacted regarding formal enforcement action that will be initiated with regard to the contested violation.

If you have any questions regarding this matter, please contact Ms. Pansy Yuen at (213) 620-6367/[pyuen@waterboards.ca.gov](mailto:pyuen@waterboards.ca.gov) or Mr. Russ Colby at (213) 620-6373/ [rcolby@waterboards.ca.gov](mailto:rcolby@waterboards.ca.gov).

Sincerely,



Paula Rasmussen  
Assistant Executive Officer

Enclosures:

Revised Exhibit "1" - Notice of Violation  
Revised Acceptance of Conditional Resolution and Waiver of Right to Hearing;  
(proposed) Order

cc: Ms. Vanessa Young, Office of Enforcement, State Water Resources Control Board

Settlement Offer No. R4-2011-0157-M  
 CI No. 4760, NPDES Permit No. CA0056014

**REVISED ACCEPTANCE OF CONDITIONAL RESOLUTION  
 AND WAIVER OF RIGHT TO HEARING; (proposed) ORDER**

Las Virgenes Municipal Water District  
 Settlement Offer No. R4-2011-0157-M  
 NPDES Permit No. CA0056014

By signing below and returning this Acceptance of Conditional Resolution and Waiver of Right to Hearing (Acceptance and Waiver) to the Los Angeles Regional Water Quality Control Board (Regional Board), Las Virgenes Municipal Water District (Permittee) hereby accepts the "Offer to Participate in Expedited Payment Program" and waives the right to a hearing before the Regional Board to dispute the allegations of violations described in the Notice of Violation (NOV), which is attached hereto as Exhibit "1" and incorporated herein by reference.

The Permittee agrees that the NOV shall serve as a complaint pursuant to Article 2.5 of the California Water Code and that no separate complaint is required for the Regional Board to assert jurisdiction over the alleged violations through its Assistant Executive Officer. The Permittee agrees to pay the penalties required by California Water Code section 13385, in the sum of \$72,000 (Expedited Payment Amount), which shall be deemed payment in full of any civil liability pursuant to Water Code sections 13385 and 13385.1 that otherwise might be assessed for the violations described in the NOV. The Permittee understands that this Acceptance and Waiver waives the Permittee's right to contest the allegations in the NOV and the amount of civil liability for such violations.

The Permittee understands that this Acceptance and Waiver does not address or resolve liability for any violation that is not specifically identified in the NOV.

Upon execution by the Permittee, the completed Acceptance and Waiver shall be returned to:

Ms. Pansy Yuen, Enforcement Unit  
 Expedited Payment Program  
 Regional Water Quality Control Board, Los Angeles Region  
 320 West 4<sup>th</sup> Street, Suite 200  
 Los Angeles, California 90013

The Permittee understands that federal regulations set forth at title 40, Code of Federal Regulations, section 123.27(d)(2)(iii) require the Regional Board to publish notice of and provide at least thirty (30) days for public comment on any proposed resolution of an enforcement action addressing NPDES permit violations. Accordingly, this Acceptance and Waiver, prior to execution by the Regional Board Executive Officer, will be published as required by law for public comment.

If no comments are received within the notice period that cause the Regional Board Executive Officer to question the Expedited Payment Amount, the Regional Board Executive Officer will execute the Acceptance and Waiver.

Settlement Offer No. R4-2011-0157-M  
CI No. 4760, NPDES Permit No. CA0056014

The Permittee understands that if significant comments are received in opposition to the Expedited Payment Amount, the offer on behalf of the Regional Board to resolve the violations set forth in the NOV may be withdrawn. In that circumstance, the Permittee will be advised of the withdrawal and an administrative civil liability complaint may be issued and the matter may be set for a hearing before the Regional Board. For such a liability hearing, the Permittee understands that this Acceptance and Waiver executed by the Permittee will be treated as a settlement communication and will not be used as evidence in that hearing.

The Permittee further understands that once the Acceptance and Waiver is executed by the Regional Board Executive Officer, the full payment required by the deadline set forth below is a condition of this Acceptance and Waiver. In accordance with California Water Code section 13385(n)(1) and California Water Code section 13385.1(c)(1), funds collected for violations of effluent limitations and reporting requirements pursuant to sections 13385 and 13385.1 shall be deposited in the State Water Pollution Cleanup and Abatement Account. Accordingly, the \$72,000 liability shall be paid by a cashiers or certified check made out to the "State Water Pollution Cleanup and Abatement Account". The payment must be submitted to the State Water Resources Control Board no later than thirty (30) calendar days after the date the Acceptance and Waiver is executed by the Regional Board Executive Officer.

Please mail check to:

State Water Resources Control Board  
Re: Order No. R4-2013-0120  
Division of Administrative Services, Accounting Branch  
1001 I Street, 18<sup>th</sup> Floor, [95814]  
P.O. Box 1888  
Sacramento, California 95812-1888

I hereby affirm that I am duly authorized to act on behalf of and to bind the Permittee in the making and giving of this Acceptance and Waiver.

Las Virgenes Municipal Water District

By: \_\_\_\_\_  
(Signed Name) (Date)

\_\_\_\_\_

(Printed Name) (Title)

IT IS SO ORDERED PURSUANT TO WATER CODE SECTION 13385

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Samuel Unger, P.E.  
Executive Officer



Date	Monitoring Period	Discharge Point	Violation Type	Parameter	Reported Value	Permit Limit	Units	Pollutant Category	% Exceeded	Serious/Chronic	Water Code Section 13385	Penalty
10/3/10	October 2010	005	Monthly Average*	Dichlorobromomethane	47.93	46	ug/L	2	4%	Chronic	(i)	\$0
11/06/10	November 2010	005	Daily Maximum	Dichlorobromomethane	87.3	77	ug/L	2	13%	Chronic	(i)	\$0
11/30/10	November 2010	005	Monthly Average*	Dichlorobromomethane	68.55	46	ug/L	2	49%	Serious	(h)	\$3,000
12/13/10	December 2010	001	Daily Maximum	Total Residual Chlorine	0.8	0.1	mg/L	2	700%	Serious	(h)	Dismissed
12/23/10	December 2010	001	Daily Maximum	Total Residual Chlorine	0.39	0.1	mg/L	2	290%	Serious	(h)	Dismissed
12/27/10	December 2010	001	Daily Maximum	Total Residual Chlorine	0.6	0.1	mg/L	2	500%	Serious	(h)	Dismissed
03/20/11	March 2011	001	Daily Average	Turbidity	4	2	NTU	OEV	NA	Chronic	(i)	\$3,000
03/20/11	March 2011	001	Daily Maximum	Turbidity	>10 (472 min)	5 (>72 min)	NTU	OEV	NA	Chronic	(i)	\$3,000
03/20/11	March 2011	001	Instantaneous	Turbidity	>10	10	NTU	OEV	NA	Chronic	(i)	\$3,000
03/21/11	March 2011	001	Daily Average	Turbidity	7	2	NTU	OEV	NA	Chronic	(i)	\$3,000
03/21/11	March 2011	001	Daily Maximum	Turbidity	>10 (940 min)	5 (>72 min)	NTU	OEV	NA	Chronic	(i)	\$3,000
03/21/11	March 2011	001	Instantaneous	Turbidity	>10	10	NTU	OEV	NA	Chronic	(i)	\$3,000
03/24/11	March 2011	001	Daily Maximum	Total Residual Chlorine	0.3	0.1	mg/L	2	200%	Serious	(h)	Dismissed
03/25/11	March 2011	001	Daily Maximum	Turbidity	>10 (259 min)	5 (>72 min)	NTU	OEV	NA	Chronic	(i)	\$3,000
03/25/11	March 2011	001	Daily Average	Turbidity	3	2	NTU	OEV	NA	Chronic	(i)	\$3,000
03/25/11	March 2011	001	Instantaneous	Turbidity	>10	10	NTU	OEV	NA	Chronic	(i)	\$3,000
03/28/11	March 2011	001	Daily Maximum	Total Residual Chlorine	0.2	0.1	mg/L	2	100%	Serious	(h)	Dismissed
03/31/11	March 2011	001	Daily Maximum	Turbidity	10	5 (>72 min)	NTU	OEV	NA	Chronic	(i)	Dismissed
03/31/11	March 2011	001	Instantaneous	Turbidity	10	10	NTU	OEV	NA	Chronic	(i)	Dismissed
11/15/11	November 2011	001	Daily Maximum	Bis (2-Ethylhexyl) Phthalate	19	15	ug/L	2	27%	Serious	(h)	\$3,000
11/15/11	November 2011	001	Monthly Average*	Bis (2-Ethylhexyl) Phthalate	19	5.9	ug/L	2	222%	Serious	(h)	\$3,000
04/17/12	April 2012	005	Monthly Average*	Total Suspended Solids	6.9	5.0	mg/L	1	38%	Chronic	(i)	\$0
04/18/12	April 2012	005	Monthly Average*	Total Trihalomethanes	162	80	ug/L	2	103%	Serious	(h)	\$3,000
04/21/12	April 2012	005	Daily Average	Turbidity	4	2	NTU	OEV	NA	Chronic	(i)	Dismissed
05/08/12	May 2012	005	Monthly Average*	Total Trihalomethanes	100	80	ug/L	2	25%	Serious	(h)	Dismissed
05/23/12	May 2012	005	Daily Average	Turbidity	3	2	NTU	OEV	NA	Chronic	(i)	\$3,000
05/24/12	May 2012	005	Daily Average	Turbidity	3	2	NTU	OEV	NA	Chronic	(i)	\$3,000
05/30/12	May 2012	005	Daily Average	Turbidity	3	2	NTU	OEV	NA	Chronic	(i)	\$3,000
05/31/12	May 2012	005	Monthly Average*	Total Suspended Solids	5.2	5.0	mg/L	1	4%	Chronic	(i)	\$3,000
04/30/13	April 2013	005	Monthly Average*	Cyanide	6.3	4.2	mg/L	2	50%	Serious	(h)	\$3,000
04/30/13	April 2013	005	Monthly Average*	Total Trihalomethanes	110	80	ug/L	2	38%	Serious	(h)	Dismissed
05/10/13	May 2013	005	Monthly Average*	Turbidity	3	2	NTU	OEV	50%	Chronic	(i)	\$0
05/31/13	May 2013	005	Monthly Average*	Total Trihalomethanes	110	80	ug/L	2	38%	Serious	(h)	Dismissed
05/31/13	May 2013	005	Monthly Average*	Total Suspended Solids	5.8	5.0	mg/L	1	16%	Chronic	(i)	\$3,000
05/31/13	May 2013	001	Monthly Average*	Cyanide	5.6	4.2	mg/L	2	33%	Serious	(h)	\$3,000
05/31/13	May 2013	001	Monthly Average*	Bis (2-Ethylhexyl) Phthalate	7	5.9	ug/L	2	19%	Chronic	(i)	\$3,000

\* Staff Calculation

## Effluent Limit Violations

Date	Monitoring Period	Discharge Point	Violation Type	Parameter	Reported Value	Permit Limit	Units	Pollutant Category	% Exceeded	Serious/Chronic	Water Code Section 13385	Penalty
06/19/13	June 2013	001	Daily Maximum	Bis (2-Ethylhexyl) Phthalate	19	15	ug/L	2	27%	Serious	(h)1	\$3,000
06/30/13	June 2013	001	Monthly Average*	Bis (2-Ethylhexyl) Phthalate	19	5.9	ug/L	2	222%	Serious	(h)1	\$3,000
											Total	\$72,000



Dedicated to Providing Quality Water & Wastewater Service

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Director, Division 1

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Director, Division 2  
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Director, Division 4

**Lee Renger**

Director, Division 3

**David W. Pedersen, P.E.**

General Manager

**Wayne K. Lemieux**

Counsel

HEADQUARTERS

4232 Las Virgenes Road  
Calabasas, CA 91302  
(818) 251-2100  
Fax (818) 251-2109

WESTLAKE  
FILTRATION PLANT  
(818) 251-2370  
Fax (818) 251-2379

TAPIA WATER  
RECLAMATION FACILITY  
(818) 251-2300  
Fax (818) 251-2309

RANCHO LAS VIRGENES  
COMPOSTING FACILITY  
(818) 251-2340  
Fax (818) 251-2349

www.LVMWD.com

MEMBER AGENCY OF THE  
METROPOLITAN WATER  
DISTRICT  
OF SOUTHERN CALIFORNIA

May 8, 2014

Ms. Paula Rasmussen

Assistant Executive Officer

Los Angeles Regional Water Quality Control Board

320 West 4<sup>th</sup> Street, Suite 200

Los Angeles, Calif. 90013

Re: Alleged Violation Review – Las Virgenes Municipal Water District, Tapia Water Reclamation Facility (Order R4-2010—0165, NPDES Permit CA0056014, CI NO. 4760) Settlement Offer R4-2011-0157-M

Dear Ms. Rasmussen,

Thank you for your letter of May 5, 2014 regarding Settlement Offer R4-2011-0157-M. We plan to place this item on the Las Virgenes – Triunfo Joint Powers Authority (JPA) agenda of June 2, 2014. However it would be helpful if you could provide additional rational and information on your conclusion related to issue 2 that we did not demonstrate that the rainfall events in March 2011 meet the requirements of affirmative defense under Water Code Section 13385 subdivision (j)(1)(B). Your letter of May 5, 2014 only included a statement that we did not demonstrate that the requirements have been met with no additional details. To include this additional information on June 2, 2104 JPA agenda we would need it by May 16, 2014. If that is not possible and you need a longer period to provide us the additional information we request an extension to July 14, 2014 to decide if we wish to participate in the Expedited Payment Program, this will allow us to place the item on the July 7, 2014 JPA agenda.

Sincerely,

David R. Lippman, P.E.

Director of Facilities & Operations

- cc. Dave Pedersen
- Brett Dingman
- Russ Colby
- Pansy Yuen
- Sam Unger



Los Angeles Regional Water Quality Control Board

May 16, 2014

Mr. David R. Lippman, P.E.  
Director of Facilities and Operations  
Las Virgenes Municipal Water District  
4232 Las Virgenes Road,  
Calabasas, CA 91302

VIA CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
CLAIM NO. 7009 3090 0002 1021 8950

**RESPONSE – LAS VIRGENES MUNICIPAL WATER DISTRICT, TAPIA WATER RECLAMATION FACILITY, 731 MALIBU CANYON ROAD, CALABASAS, CA (ORDER NO. R4-2010-0165, NPDES PERMIT NO. CA0056014, CI NO. 4760)**

Dear Mr. Lippman:

Thank you for your letter dated May 8, 2014 responding to our May 5, 2014 letter regarding Settlement Offer No. R4-2011-0157-M issued on November 15, 2011. In your letter, you requested additional rational and information on the March 2011 rainfall event not meeting the requirements of an affirmative defense under Water Code Section 13385 subdivision (j)(1)(B).

The provisions of Water Code section 13385(j)(1) are construed as affirmative defenses to the imposition of mandatory minimum penalties. Regional Board staff acknowledge the arguments raised regarding the affirmative defense outlined in Water Code section 13385(j)(1)(B). Regional Board staff continue to assert that the analysis provided does not meet the burden of proof to show that the asserted “natural phenomenon” meets all three factors of “exceptional, inevitable, and irresistible” and that “the effects of which could not have been prevented or avoided by the exercise of due care or foresight.”

For additional questions regarding the burden of proof and the affirmative defense in Water Code section 13385(j)(1)(B), Regional Board staff recommend Tapia have their legal counsel contact our attorney, Vanessa Young at [vanessa.young@waterboards.ca.gov](mailto:vanessa.young@waterboards.ca.gov) or at (916) 327-8622.

Sincerely,



Paula Rasmussen  
Assistant Executive Officer

Enclosures:

cc: Vanessa Young, Office of Enforcement, State Water Resources Control Board

**June 2, 2014 JPA Board Meeting**

TO: JPA Board of Directors

FROM: Facilities &amp; Operations

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**Subject: Recycled Water Seasonal Storage Project: Revised Guiding Principles**

---

**SUMMARY:**

On May 5, 2014, staff presented the Board with a revised draft of the guiding principles for the Recycled Water Seasonal Storage Project. Based comments from the Board, staff has revised the draft principles. In the general, the comments were as follows:

- Revise the preamble to be more straight-forward using layman's terms.
- Clarify that public safety is established as a top priority.

Attached is a revised version of the guiding principles for consideration.

**RECOMMENDATION(S):**

Approve the revised Guiding Principles for the Recycled Water Seasonal Storage Project.

**FINANCIAL IMPACT:**

There is no financial impact associated this action.

Prepared By: David R. Lippman, Director of Facilities & Operations

**ATTACHMENTS:**

[Guiding Principles - Revised](#)



## Recycled Water Seasonal Storage Project Guiding Principles

The Las Virgenes-Triunfo Joint Powers Authority (JPA) considers recycled water a valuable resource to be beneficially reused. The JPA produces recycled water at its Tapia Water Reclamation Facility (Tapia) by treating wastewater flows from its service area to meet strict state and federal water quality standards. The amount of recycled water produced at Tapia is relatively constant throughout the year. However, customers' needs or "demands" for recycled water fluctuate significantly during the year. Demands are very high during the hot summer months, exceeding the supply from Tapia, and can drop to near zero during periods of rainfall during the winter.

As a result, the JPA is challenged to balance the constant supply of recycled with fluctuating demands throughout the year. During the summer months, potable water must be added to the recycled water system to meet the high demands. Conversely, during the winter months, excess recycled water must be released to Malibu Creek and the Los Angeles River or applied to the JPA's sprayfields. Releases to Malibu Creek are subject to ever increasing regulatory requirements, which will likely be cost-prohibitive to meet in the near future.

A seasonal storage reservoir for recycled water would allow the JPA to balance supply and demands. Excess recycled water could be placed in the reservoir during the winter months for use during the high demand summer period. Additional demands for recycled water would need to be developed to ensure that the reservoir could be drawn down each year, making room for needed storage in the wintertime. A seasonal storage reservoir has been envisioned since the first Recycled Water Master Plan was completed in the 1970s. In 2012, the JPA completed a Recycled Water Seasonal Storage Feasibility Study. This study evaluated the technical and economic feasibility of three alternatives for the reservoir.

The JPA desires to fully and beneficially reuse its recycled water by moving forward with investigation of seasonal storage. This investigation will be guided by the following principles.

### **1. Maximize Beneficial Reuse by:**

- 1.1. Being an environmental steward
- 1.2. Reducing existing potable water use
- 1.3. Reducing discharge to Malibu Creek and Los Angeles River
- 1.4. Encouraging infill use in both service areas
- 1.5. Providing regional benefits
- 1.6. Creating water supply reliability

### **2. Seek Cost Effective Solutions by:**

- 2.1. Seeking funding from grants, matching funds and partnerships
- 2.2. Engaging permitting and regulatory agencies early and often
- 2.3. Each partner sharing in outside funding
- 2.4. Each partner funding their share
- 2.5. Being on time, on schedule and within budget
- 2.6. Analyzing impacts and benefits of the project from each partners perspective

**3. Seek Partnerships beyond the JPA by:**

- 3.1. Considering multiple uses such as;
  - 3.1.1. Recreation
  - 3.1.2. Education
  - 3.1.3. Creation of open space
- 3.2. Engaging stakeholders early and often
- 3.3. Considering additional partners that will purchase recycled water

**4. Gain Community Support by:**

- 4.1. Engaging and educating the public and stakeholders
- 4.2. Being transparent
- 4.3. Establishing public safety as a top priority

**5. Govern with a Partnership by:**

- 5.1. Using the JPA Agreement as a guiding document
- 5.2. Communicating openly and frequently
- 5.3. Being committed to the project
- 5.4. Equitably allocating costs and sharing benefits from both partners perspective

**6. Be Forward Thinking by considering the possibilities of:**

- 6.1. Expanding the recycled water system beyond the JPA service area
- 6.2. Exterior residential reuse
- 6.3. Exterior and interior use for new and remodeled commercial projects
- 6.4. Indirect potable reuse
- 6.5. Direct potable reuse



## INFORMATION ONLY

**June 2, 2014 JPA Board Meeting**

TO: JPA Board of Directors

FROM: Facilities & Operations

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**Subject: Construction of Impressed Current Cathodic Protection System for Centrate Treatment and Storage Tanks: Postponement of Construction Work**

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**SUMMARY:**

On February 3, 2014, the Board awarded a construction contract to Exaro Technologies Corporation in the amount of \$98,800 for the Construction of Impressed Current Cathodic Protection System for Centrate Treatment and Storage Tanks Project. The contract included an optional pay item of \$5,000 to compensate the Contractor for a one-year delay at the District's discretion in the event that discharge to Malibu Creek is necessary to augment flow in the creek this summer.

Staff has determined that the work cannot be performed this summer because the centrate treatment facility must be fully-operational to support flow augmentation to the Malibu Creek. As a result, the construction work will be postponed until April 2015. Exaro Technologies will complete the submittals and material procurement this year and be ready to begin construction on April 15, 2015, the first day of creek avoidance.

The decision to postpone construction was based on the projection of this year's similar drier-than-normal weather pattern and creek flow conditions as last year. Flow augmentation will likely be needed for an extended period of time this summer and fall. The attached chart shows 2013 creek flows and recycled water discharges along with 2014 creek flows to-date. As shown on the chart, the 2013 and 2014 creek flows have followed a similar pattern; flow augmentation will likely be required, similar to last summer.

For discussion purposes, if potable water was used for flow augmentation to Malibu Creek this year to allow for construction of the project, the estimated cost would be \$93,199. This amount, based on last year's flows amounting to 93.48 AF released to Malibu Creek, is significantly more than paying the optional \$5,000 delay item. HDR's corrosion engineer has verified that the delay will not be detrimental to centrate treatment and storage tanks.

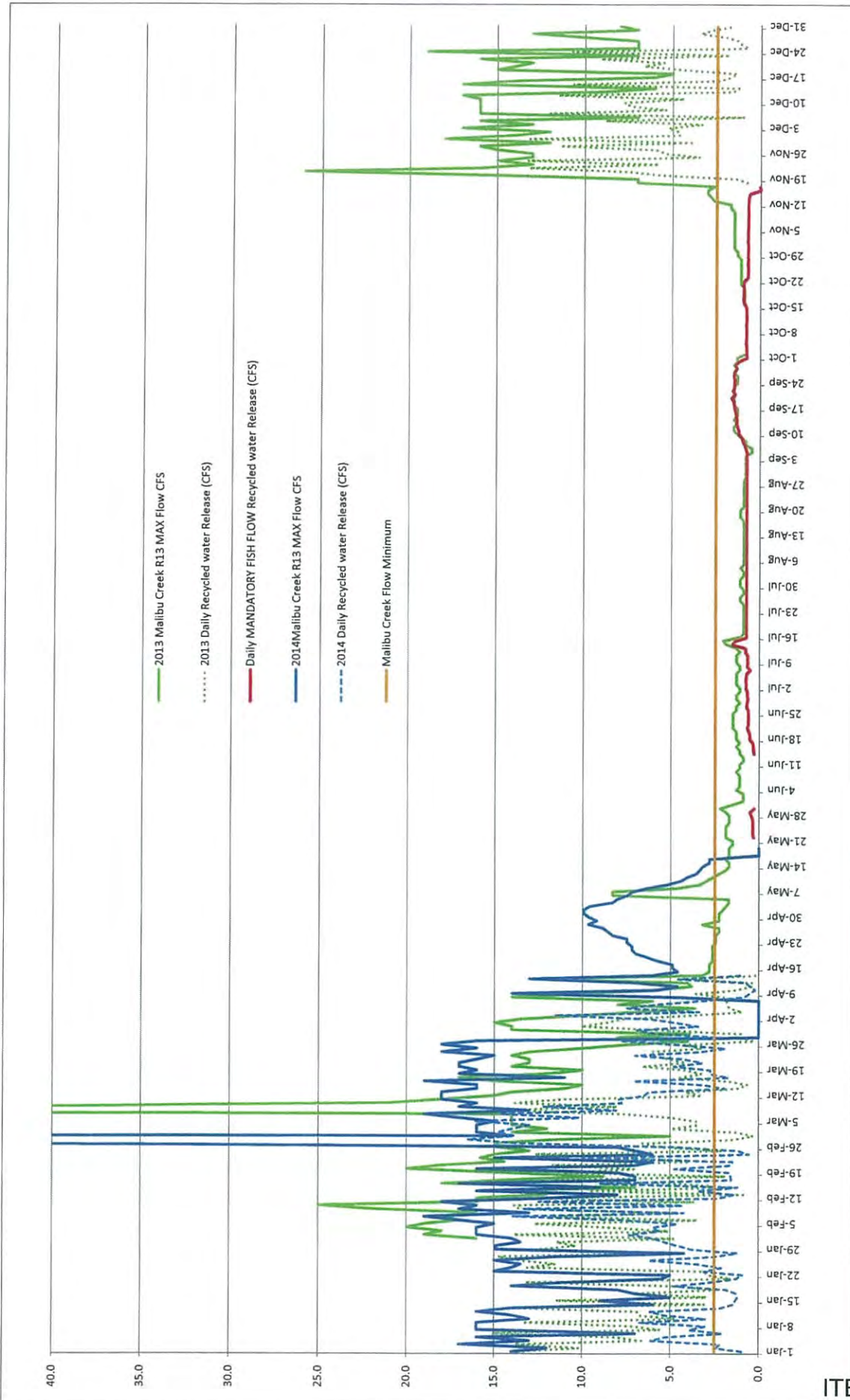
Prepared By: Lindsay Cao, P.E., Associate Engineer

**ATTACHMENTS:**

[Malibu Creek Flows - 2013 and 2014](#)



## 2013\_14 Creek Flow Tapia Release REW



**Notes:**

1. Zero readings for R13 MAX Flow CFS indicate a temporary instrumentation error (i.e. March 27 to April 8, 2014 and May 16 to May 20, 2014).
2. There was a temporary stop in flow augmentation during late May/early June 2013 due to the R13 gauging station registering flows greater than 2.5 CFS; however, the gauging station was subsequently recalibrated and actual flows were shown to be less than 2.5 CFS.

**INFORMATION ONLY**

**June 2, 2014 JPA Board Meeting**

TO: JPA Board of Directors

FROM: General Manager

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**Subject: Board Meeting Follow-up Items**

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**SUMMARY:**

Attached is a list of follow-up items from previous JPA Board meetings. The list provides a brief description of the various items, origination dates, and responsible managers.

Prepared By: David W. Pedersen, Administering Agent/General Manager

**ATTACHMENTS:**

[Board Follow-up Items](#)

**BOARD MEETING FOLLOW-UP ITEMS**

<b><u>Item No.</u></b>	<b><u>Origination Date</u></b>	<b><u>JPA or LVMWD</u></b>	<b><u>Description</u></b>	<b><u>Responsible Manager</u></b>
1	01/06/2014	JPA	Provide an update on changes to the State's draft Toxicity Policy.	Lippman
2	05/05/2014	JPA	FUTURE AGENDA ITEM - Determine the appropriate retention period for JPA Board meeting video recordings.	Pedersen

ITEM 0B

5/28/2014