

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

899 Kanan Road, Oak Park, CA 91377

Members of the public wishing to address the Las Virgenes-Triunfo Joint Powers Authority (JPA) Board of Directors are advised that a statement of Public Comment Protocols is available from the Clerk of the Board. Prior to speaking, each speaker is asked to review these protocols, complete a speakers' card, and hand it to the Clerk of the Board. Speakers will be recognized in the order the cards are received.

The Public Comments agenda item is presented to allow the public to address the Board on matters not on the agenda. The public may also present comments on matters on the agenda; speakers for agenda items will be recognized at the time the item is called up for discussion.

Materials prepared by the JPA in connection with the subject matter on the agenda are available for public inspection at 4232 Las Virgenes Road, Calabasas, CA 91302. Materials prepared by the JPA and distributed to the Board during this meeting are available for public inspection at the meeting or as soon thereafter as possible. Materials presented to the Board by the public will be maintained as part of the records of these proceedings and are available upon request to the Clerk of the Board.

5:00 PM

March 2, 2020

PLEDGE OF ALLEGIANCE

1 CALL TO ORDER AND ROLL CALL

2 APPROVAL OF AGENDA

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

Matters listed under the Consent Calendar are considered to be routine, non-controversial and normally approved with one motion. If discussion is requested by a member of the Board on any Consent Calendar item, or if a member of the public wishes to comment on

an item, that item will be removed from the Consent Calendar for separate action.

A Minutes: Regular Meeting of February 3, 2020 (Pg. 3)

Approve.

5 ILLUSTRATIVE AND/OR VERBAL PRESENTATION AGENDA ITEMS

A Welcome TWSD Director Jane Nye to JPA Board of Directors (Pg. 10)

B Pure Water Project Las Virgenes-Triunfo: Update

6 ACTION ITEMS

A Pure Water Project Las Virgenes-Triunfo: Public Outreach Plan Update (Pg. 11)

Receive and file the Public Outreach Plan update for the Pure Water Project Las Virgenes-Triunfo and provide feedback on any additional outreach activities that should be considered.

7 BOARD COMMENTS

8 ADMINISTERING AGENT/GENERAL MANAGER REPORT

9 FUTURE AGENDA ITEMS

10 INFORMATION ITEMS

A State and Federal Legislative Update

B Tapia Water Reclamation Facility: Flood Protection Update (Pg. 15)

C Rancho Las Virgenes Composting Facility Repairs: Approval of Change Order (Pg. 29)

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 Legal Counsel – Existing Litigation (Government Code Section 54956.9(a)):

Zusser Company, Inc. v. Las Virgenes Municipal Water District

13 ADJOURNMENT

Pursuant to Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132), and applicable federal rules and regulations, requests for a disability-related modification or accommodation, including auxiliary aids or services, in order to attend or participate in a meeting, should be made to the Executive Assistant/Clerk of the Board in advance of the meeting to ensure availability of the requested service or accommodation. Notices, agendas, and public documents related to the Board meetings can be made available in appropriate alternative format upon request.

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

5:00 PM

February 3, 2020

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance to the Flag was led by John Zhao.

1. CALL TO ORDER AND ROLL CALL

The meeting was called to order at **5:00 p.m.** by Chair Lewitt in the Board Room at Las Virgenes Municipal Water District headquarters at 4232 Las Virgenes Road in Calabasas, California. Josie Guzman, Clerk of the Board, conducted the roll call.

Present: Directors Caspary, Lewitt, Lo-Hill, Orkney, Polan, Renger (arrived at 5:46 p.m.), Shapiro, Tjulander, and Wall.

Absent: None

2. APPROVAL OF AGENDA

Director Wall moved to approve the agenda. Motion seconded by Director Polan. Motion carried by the following vote:

AYES: Caspary, Lewitt, Lo-Hill, Orkney, Polan, Shapiro, Tjulander, and Wall

NOES: None

ABSTAIN: None

ABSENT: Renger

3. PUBLIC COMMENTS

None.

4. CONSENT CALENDAR

A Minutes: Special Meeting of January 6, 2020: Approve

B Rancho Las Virgenes Farm Sprayfields Operation and Maintenance: Contract Extension

Authorize the Administering Agent/General Manager to execute a three-month contract extension to W. Litten Land Preparation, in an amount not to exceed \$70,000, for the operation and maintenance of the Rancho Las Virgenes Farm Sprayfields.

Director Orkney moved to approve the Consent Calendar. Motion seconded by Director Wall. Motion carried by the following vote:

AYES: Caspary, Lewitt, Lo-Hill, Orkney, Polan, Shapiro, Tjulander, and Wall

NOES: None

ABSTAIN: None

ABSENT: Renger

5. ILLUSTRATIVE AND/OR VERBAL PRESENTATION AGENDA ITEMS

A School Education Program Update

Riki Clark, Public Affairs Associate, provided an overview and PowerPoint presentation regarding the School Education Program, including classroom presentations, facility tours, and collaboration with the Las Virgenes Unified School District. She responded to questions regarding students' concerns related to climate change and their positive reaction to potable water reuse.

B Pure Water Project Las Virgenes-Triunfo: Update

Eric Schlageter, Principal Engineer, reported that progress was continuing on the Pure Water Demonstration Facility and the Demonstration Garden Project. He noted that installation of the shade canopy structure was pending, as well as coordinating electrical service with Southern California Edison to provide power to the equipment. He stated that initial start-up, testing, sampling, and a soft opening would occur in mid-March. He also reported that staff was in the process of developing Requests for Proposals to solicit professional services to support engineering, planning, and financial needs for the full-scale Pure Water Project Las Virgenes-Triunfo. He responded to a question regarding the possibility of using an emergency generator to power the equipment while waiting for electrical service by stating that the switchgear would need to be disassembled and having an emergency generator would not save significant time. He also noted that there were no plans for emergency power to the demonstration equipment.

Administering Agent/General Manager David Pedersen stated that staff would soon propose a date for the ribbon-cutting ceremony. He noted that staff hoped to ensure that the facility would be ready to operate, and that the treated water would be ready for tasting. He also stated that staff hoped to coordinate the ribbon-cutting ceremony with local elected officials at the state and federal levels and to develop a "Save the Date" postcard.

Director Caspary suggested wiring in an upgraded receptacle to plug in an emergency generator if desired. Mr. Schlageter responded that staff would discuss Director Caspary's suggestion.

6. ACTION ITEMS

A Pure Water Demonstration Garden: Final Acceptance

Approve the execution of a Notice of Completion and have the same recorded; and, in the absence of claims from subcontractors and others, and completion of the shade canopy installation, release the retention, in the amount of \$21,572.10, 30-calendar days after filing the Notice of Completion for the Pure Water Demonstration Garden.

Administering Agent/General Manager David Pedersen presented the report.

Director Caspary moved to approve Item 6A. Motion seconded by Director Tjulander.

A discussion ensued regarding the release of the retention after the installation of the shade canopy, and the size and materials of the shade structure.

Motion carried by the following vote:

AYES: Caspary, Lewitt, Lo-Hill, Orkney, Polan, Shapiro, Tjulander, and Wall

NOES: None

ABSTAIN: None

ABSENT: Renger

B Infrastructure Investment Plan: Fiscal Years 2020-21 through 2029-30

Receive and file the JPA Infrastructure Investment Plan for Fiscal Years 2020-21 through 2029-30.

Doug Anders, Administrative Services Coordinator, presented the report and PowerPoint presentation.

Director Caspary moved to receive and file Item 6B. Motion seconded by Director Shapiro.

Mr. Anders responded to a question regarding the expected dates for receiving the grant funding for the Pure Water Project Las Virgenes-Triunfo (Pure Water Project) by referring to the data listed under CIP Job No. 201911, Pure Water Project Grant Offset.

Brett Dingman, Water Reclamation Manager, responded to a question regarding the size of the storage tank for CIP Job No. 201904, Tapia Flow Equalization - Design/Construct.

Mr. Anders responded to a question regarding the warning and protection systems for CIP Job No. 201915, Fire Hardening - JPA Facilities.

Administering Agent/General Manager David Pedersen discussed the financial analysis prepared by The PFM Group to consider different scenarios to finance the expenditures needed for the Pure Water Project, and to determine the impacts to both agencies. He stated that staff would bring back a discussion regarding financing and institutional issues on a future agenda.

Director Renger arrived at 5:46 p.m.

Mr. Dingman responded to a question regarding CIP Job No. 201839, Rancho Reliability Improvements, which would allow funding to replace various instruments and drives, design replacement chlorine tanks, and complete metering improvements.

Eric Schlageter, Principal Engineer, responded to a question regarding the scope of work for CIP Job No. 201928, Wildlife Corridor Utility Relocation – JPA – Offset. Mr. Anders noted that CIP Job No. 201901, Wildlife Corridor Utility Relocation – JPA Recycled Water, included the expected reimbursement for the cost of CIP Project No. 201928.

Mr. Anders responded to a question regarding revising the JPA Infrastructure Investment Plan for Fiscal Years 2020-21 through 2029-30 to include the scope of work for all projects by stating that corrections and the scope of work for all projects would be included in the final version of the document.

Director Caspary amended his motion receive and file the updated document that would include the scope of work on all identified capital improvement projects. Amended motion seconded by Director Shapiro.

Motion carried unanimously.

C Financial Review: Second Quarter of Fiscal Years 2019-20

Receive and file the financial review for the second quarter of Fiscal Year 2019-20.

Angela Saccareccia, Finance Manager, presented the report and PowerPoint presentation.

Director Polan moved to approve Item 6C. Motion seconded by Director Tjulander.

Director Polan requested that staff include the charts from the PowerPoint presentation in the agenda packet in the future, and that staff email a copy of the charts to the Board.

Motion carried unanimously.

7. BOARD COMMENTS

Director Lo-Hill expressed an interest in viewing the v-ditch at the Rancho Las Virgenes Composting Facility.

Director Renger reported that he attended the California Association of Sanitation Agencies (CASA) Winter Conference, where he attended a session regarding climate change and sea level rise. He expressed concern that due to the increased likelihood of wildfires and intensification of rainstorms, there could be flooding issues and trees falling and blocking the passage of water at the bridge at the Tapia Water Reclamation Facility (Tapia). He asked the Board to consider revisiting clearing of the channel adjacent to Tapia. Administering Agent/General Manager David Pedersen responded that staff would bring back the flood risk assessment report that was prepared for Tapia to consider the issue of debris flow.

8. ADMINISTERING AGENT/GENERAL MANAGER REPORT

Administering Agent/General Manager David Pedersen provided an update regarding the helicopter crash, known as the Willow Incident, which occurred on the hillside east of Las Virgenes Municipal Water District's headquarters. He noted that staff provided support to the Los Angeles County Fire Department, Los Angeles County Sheriff's Department, National Transportation Safety Board, and Federal Bureau of Investigation. He also noted that the incident investigation and debris clearing was nearly completed, and site restoration and remediation would take place. He also reported that staff met with representatives from the City of Calabasas, Los Angeles County Sheriff's Department, Mountains Conservation & Recreation Authority, and Las Virgenes Unified School District to discuss various concerns and contingency plans. He also provided an update regarding the Rancho Las Virgenes Composting Facility Biofilter Repair Project and noted that the new baseplates and trench covers should arrive by the following week and would be ready for installation. He also reported that inflow at Tapia was at 7.3 million gallons per day, recycled water demand was 5.1 million gallons per day, and discharge to Malibu Creek was 2.2 million gallons per day.

9. FUTURE AGENDA ITEMS

None.

10. INFORMATION ITEMS

A State and Federal Legislative Update

B Saddle Peak and Cordillera Tank Rehabilitation Project: Reject Bid

C Rancho Solar Generation Project Phase 2: Update

John Zhao, Director of Facilities and Operations, responded to a question regarding the status of construction by stating that the commercial operation date was scheduled for July 16th, followed by a 60-day grace period.

11. PUBLIC COMMENTS

None.

12. CLOSED SESSION

None.

13. ADJOURNMENT

Seeing no further business to come before the Board, the meeting was duly adjourned at **6:17 p.m.**

Jay Lewitt, Chair

ATTEST:

James Wall, Vice Chair



Providing Outstanding Service Since 1963

Board of Directors

James Wall, Chair

Raymond Tjulander, Vice Chair

Jane Nye, Director

Janna Orkney, Director

Leon Shapiro, Director

NEWS RELEASE

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Jane Nye Appointed to Triunfo Water & Sanitation District Board of Directors

VENTURA, Calif., Feb. 12 – Jane Nye, a 30-year resident of Oak Park, has been appointed as a Director of the Triunfo Water & Sanitation District, filling the vacancy created by Susan Pan’s resignation on Dec. 17. Nye took the oath of office at a special meeting of the Triunfo Water & Sanitation District board on Tuesday, Feb. 11. She was one of three applicants interviewed by the Board for the open position.

James Wall, District board chairman, stated, “I would like to congratulate Ms. Nye on her appointment to the TWSD board and thank all of the applicants for their interest in serving the community. On behalf of all board members, I am pleased to have the board vacancy filled so we can focus on the challenges we have in front of us. We remain committed to providing high quality water and sanitation services to our customers.”

In addition to Wall, directors Janna Orkney, Leon Shapiro, and vice chairman Raymond Tjulander participated in the interview and appointment process. Triunfo Water & Sanitation District Board members are elected at large and serve staggered four-year terms – Nye will serve out Pan’s term through Dec. 2020.

Nye is a software business operation manager with Keysight Technologies. She attended Boston University and holds an MBA from California Lutheran University. She currently serves as Vice Chair of the Oak Park Municipal Advisory Council.

Commenting on her appointment to the TWSD Board, Nye said, “I believe we need a full partnership, a vision, to improve our community. I am committed to taking action and providing a better quality of life for our community by ensuring a clean supply of drinking water and sanitation services.” Nye continued, “We are ambassadors. We are the public’s representatives to help oversee the water system, and we are also the system’s representatives to tell Triunfo Water & Sanitation District’s story to the media and the public.”

About TWSD

Triunfo Water & Sanitation District provides sewage collection services and wastewater treatment, supplies potable water, and treats and sells recycled water in the southeastern portion of Ventura County. The District covers approximately 50 square miles and serves a population in excess of 30,000. For additional information, visit trunfowsd.com.

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March 2, 2020 JPA Board Meeting

TO: JPA Board of Directors

FROM: Engineering and External Affairs

Subject : Pure Water Project Las Virgenes-Triunfo: Public Outreach Plan Update

SUMMARY:

Public outreach is a critical component of the Pure Water Project Las Virgenes-Triunfo. In February 2017, a Public Outreach Plan was developed for the project and has since been implemented. The Outreach Plan was last updated and presented to the JPA Board on August 6, 2018. While most components of the Plan have been completed or started, a few items remain that have not yet been implemented, along with others that have been newly added. As with any large, multi-year project, it is important to gage progress and make necessary adjustments to outreach and branding efforts associated with the project to ensure success.

RECOMMENDATION(S):

Receive and file the Public Outreach Plan update for the Pure Water Project Las Virgenes-Triunfo and provide feedback on any additional outreach activities that should be considered.

FISCAL IMPACT:

No

ITEM BUDGETED:

No

DISCUSSION:

In collaboration with staff, Katz and Associates developed the Public Outreach Plan for the Pure Water Project Las Virgenes-Triunfo. The plan was presented to the JPA Board on February 6, 2017 and provides a roadmap for conveying timely, accurate and clear information about the project to local leaders, stakeholders and customers. The main categories of the plan include data collection and research, informational materials and branding, stakeholder engagement, media/social media, partnerships, and tracking and measurement.

An update of the plan was presented to the JPA Board on August 6, 2018. Most items of the updated plan have either been completed or at least started. The Pure Water Project

Outreach Plan Update (Attachment A) summarizes the status of the various elements organized by each of the main categories. New elements of the plan are shown in *italics* and include the following:

Item 3.6 – Pure Water Beer Brew-Off

Item 3.7 – Pure Water Morning Coffee Brew

As part of the plan, staff have kept track of the various speaking engagements since implementation. Since February 2017, there has been approximately 40 presentations about the project provided to various community groups, forums, and as part of LVMWD/JPA and Metropolitan Water District of Southern California facility inspection tours.

Major items that have not been started include Item 2.10 – Material Translated into Spanish and Item 4.7 – Rapid Response Program. Target completion dates for these items are provided in the plan update.

While we will continue with efforts to engage the community and implement other items outlined in the plan, staff has and will continue to focus efforts on the upcoming launch of the Pure Water Demonstration Facility. Construction of the facility is nearly complete and a soft opening is scheduled for June 2020. The formal Grand Opening/Ribbon-Cutting is proposed for September 11, 2020. With the opening of the demonstration facility, there will be an increased emphasis on providing tours to the community, issuing news releases and posting social media updates. Tours will initially be scheduled to occur two Saturday mornings each month, along with one Wednesday afternoon option per month. The frequency of the tours will be increased or decreased based on the level of interest. The plan will continue to be revisited and updated as needed as the project moves forward.

The main observation or takeaway with regards to the current plan is that, while much has been accomplished to-date, there is still a significant amount of work to be done to inform and educate the public. Data collected from the community surveys will assist staff in modifying the plan.

GOALS:

Sustain Community Awareness and Support

Prepared by: Joe McDermott, Director of Engineering and External Affairs

ATTACHMENTS:

Pure Water Project Outreach Plan Update

Pure Water Project Outreach Plan Update
Rev. 2.13.20

Item	Element	Status	Date Completed/Target Completion	Notes
1.0 - Data Collection and Research				
1.1	In-Depth Interviews	Completed	September-16	Katz report dated Sept. 16, 2016
1.2	Online Secondary Research	Started	On-going	includes participation in WaterReuse
1.3	Formalized Survey(s) (Random throughout JPA Service Area)	in progress	April-20	Pepperdine University and interns currently conducting surveys
1.4	Design and Build Demonstration Facility	in progress	March-20	near completion - soft start and tours by June 2020
1.5	Pre and Post Demonstration Facility Tour Surveys	in progress	March-20	
2.0 - Informational Materials and Branding				
2.1	Branding (logo and theme line)	Completed	October-16	updates as needed
2.2	Malibu Creek Watershed Brochure	Completed	February-16	
2.3	Pure Water Project Brochure	Completed	February-17	updated in May 2019
2.4	Fact Sheets	Started	April-20	
2.5	Key Message Graphics/Infographics	Started	On-Going	Path to Pure Water Graphic
2.6	Frequently Asked Questions (FAQs)	Completed	April-17	updated February 2019
2.7	Presentation Template (various modules for various audiences)	Completed (different versions)	Varies	updates as needed
2.8	Quick Facts Card (for use by field personnel and at presentations)	Started	April-20	
2.9	Animated Videos	in progress	June-20	utilizing WaterReuse videos
2.10	Material Translated into Spanish	Not Started	TBD	Select Material Only
2.11	Newsletter/E-Newsletter	Started	On-going	incorporated into Current Flow
2.12	Website (www.pure-water-project.com) - standalone	Completed	February-19	PureH2O.com - updates as needed
2.13	Utility Branding Network Initiative	in progress	On-Going	e-mails to 100 top influential people
2.14	Pure Water Lunch Pale	Completed	March-18	
2.15	Demonstration Project Orientation Video	Completed	November-19	
2.16	Demonstration Facility Visitor Experience	in progress	June-20	"Soft" Opening w/Ribbon Cutting 9/11/20
3.0 - Stakeholder Engagement				
3.1	Identify Project Liaison	Completed	varies	liaisons are the GM and Board of Directors. Alternates (EEA Director and Public Affairs Manager)
3.2	Key Stakeholder Briefings	Started	On-going	per Tracking Sheet
3.3	One-on-One Meetings	Started	On-going	per Tracking Sheet
3.4	Speakers Bureau / Speaking Events	Started	On-going	per Tracking Sheet
3.5	Events and Forums	Started	On-going	per Tracking Sheet
3.6	Pure Water Beer Brew-Off (new)	Not Started	July-21	
3.7	Pure Water Coffee Brew (new)	Not Started	July-21	
4.0 - Media / Social Media				
4.1	Enhance traditional and social media outreach	Started	On-going	added Instagram, Nextdoor, Pinterest
4.2	Provide media with continuously stimulating and newsworthy content related to water supply diversity and indirect potable reuse	Started	On-going	press-releases after critical JPA decisions

Pure Water Project Outreach Plan Update

Rev. 2.13.20

Item	Element	Status	Date Completed/Target Completion	Notes
4.3	Cultivate working relationships with local/regional media representatives, bloggers and specialty reporters to facilitate accurate and balanced media coverage	Started	On-going	
4.4	Develop short video presentations featuring indirect potable reuse descriptions and benefits that can be shared with the media and stakeholders	Started	On-going	Pure Water Project Episodes
4.5	Engage multicultural publications and media outlets that reach a diverse readership	Started	On-going	
4.6	Increase the presence, audience and level of engagement on social media	Started	On-going	will "boost" high importance items on Facebook
4.7	Rapid Response Program	Not Started	June-20	
5.0 - Partnerships				
6.0 - Tracking and Measurement				
		Started	On-going	need to seek out additional partners

INFORMATION ONLY

March 2, 2020 JPA Board Meeting

TO: JPA Board of Directors

FROM: Facilities & Operations

Subject : Tapia Water Reclamation Facility: Flood Protection Update

SUMMARY:

On February 3, 2020, JPA Director Lee Renger expressed concerns regarding flood protection at the Tapia Water Reclamation Facility. The concerns were specifically related to the effects of climate change resulting in the potential for high intensity rain events and more frequent occurrence of wildfire. These events could have an impact on the Tapia Water Reclamation Facility because debris from fire events during flooding could cause an obstruction at the Malibu Canyon Road bridge during high intensity rain events. Attached is a copy of the 2015 Tapia Flood Wall Study Update, which was presented to the JPA Board on August 3, 2015. The report included an evaluation of flow station data, channel sediment, channel debris, channel vegetation conditions and impervious area percentage changes for the drainage basin from 2003 to 2015 to conclude the following:

- The existing flood protection facilities provide adequate protection for Tapia, based on observations of significant flow events since 2003 versus design ultimate peak flow of 52,500 CFS.
- Observations of high water elevations should continue for significant flow events.
- Periodic validation and updates of the flood plain evaluation for Tapia should continue to be performed.
- Flood protection facilities should continue to be inspected and maintained to assure continued performance.
- Cold Creek at Malibu Canyon Bridge experienced higher water elevations with lower flow events in 2005 than previously recorded for higher flow events in 1998. This phenomenon might be the result of overgrown vegetation in the creek and should continue to be monitored.
- Fallen Willow tree removal within the creek area adjacent to Tapia should be encouraged, particularly after major storm events when environmental habitat would not be affected.

The highest peak flow since the 2015 study update at the Malibu Creek gauging station was

16,900 cubic feet per second in March 2018. Tapia experienced no issues with flood protection during this event.

Past work with the State Parks has not been effective as debris from trees is viewed as habitat for wildlife and not to be removed. To mitigate blockages of flow by debris, staff will coordinate with Los Angeles County Department of Public Works during major storm events to implement their standard practice of staging equipment at major flood control basins to expedite the removal of debris to assure that flow channels remain open to convey stormwater downstream.

FISCAL IMPACT:

No

ITEM BUDGETED:

No

FINANCIAL IMPACT:

There is no financial impact associated with this item.

Prepared by: Brett Dingman, Water Reclamation Manager

ATTACHMENTS:

Tapia Flood Wall Study Update 2015

Tapia Water Reclamation Facility
Flood Wall Study Update



Las Virgenes Municipal Water District

Lindsay Cao, P.E.

June 1, 2015

Background Information

The Tapia Water Reclamation Facility (Tapia WRF) is located in Los Angeles County on the south bank of Malibu Creek, just upstream of the Malibu Canyon Road Bridge. A flood plain delineation study was performed by the Los Angeles County Flood Control District in 1965. This study indicated that the Tapia WRF was outside of the flood plain boundary except for some storage buildings on the northwest corner of the plant. In 1990, Rivertech, Inc. performed a flood plain evaluation to determine the level of protection necessary for the Tapia Water Reclamation Facility. Based on the results of ultimate peak flow condition, the flood wall at Tapia was constructed to a height of 477.66 feet at the west end of the plant stepping down to an elevation of 472.50 feet at the east end of the plant. In 2003, District staff performed an update of the Rivertech study and validated the recommended elevations by comparison of high water elevation observed at Tapia for the following events (see Table1).

Table 1

Date	Flood wall at east	Flow Surface (Bridge top 472')	Gauging Station F130-R Peak (cfs)	Ultimate Peak flow (cfs)
February 10-12, 1992	472.5	465	23,300	52,250
February 6-7, 1998	472.5	461	19,100	52,500

This report provides a further update of observation of major storm events since the 2003 update using gauging station data, channel sediment, channel debris, channel vegetation conditions, and percentage changes of impervious area of the drainage basins. The objective of this study is to determine whether existing flood protection measures are sufficient in the future due to climate change and vegetation growth which may reduce the drainage capacity of Cold Creek, and any maintenance program which is needed to assure continued performance with the flood walls.

Two Significant Events Since 2003

Since 2003, there were two high raining events, and both of them were well under the ultimate peak flow of 52,250 cfs¹. The first event was between January 9 and 10, 2005 when a peak flow of 12,700 cfs was measured at the gauging station on January 9th. The second event was between March 20 and 21, 2011 when a peak flow of 6,490 cfs was measured on March 20th. Figure 1 shows the peak flow and daily maximum flow at the gauging station F130-R for the water years 1996-97 to 2012-13². Figure 2 shows the total runoff in acre-feet for this same period, and Figure 3 shows the daily mean flow at the gauging station for the January 2005 and

¹ Ultimate flow of 52,250 cubic feet per second (cfs) at the county gauging station at Cold Creek was used to design the flood wall elevations at Tapia WRF.

² A water year is from October to September

March 2011. Table 2 summarizes two storm events in comparison with 1992 and 1998's events. Both events' peak flows were much lower than the ultimate flow of 52,250 cfs.

Table 2

Date	Flood Wall At east	Flow Surface (Bridge top 472')	Gauging Station F-130-R Peak (cfs)	Ultimate Peak Flow (cfs)	Creek Vegetation
January 9, 2005	472.5	<465 ³ ft	12,700	52,500	<50%
March 30, 2011	472.5	No Data	6,490	52,500	<50%
February 10, 1992	472.5	465 ft	23,200	52,500	<50%
February 6, 1998	472.5	461 ft	19,100	52,500	<50%

There is no water surface data available for 2011 event, but no records were shown that flow surface is higher than the Tapia WRF flood walls at the east.

Channel Sediments, Debris and Vegetation Conditions

The upstream of the main channel may experience sediment deposits from smaller storms, but during the major storms the sediment is moved downstream and the streambed returns to its natural depth.

The Malibu Canyon Road bridge piers may trap debris during a flood resulting in head loss and a higher upstream water surface elevation. Recent field observation and picture of 2005 storm event at the Malibu Canyon Road Bridge show the bridge opening is not blocked by debris. This is important since the willow tree vegetation in the main channel can impact the water surface elevation; therefore, willow removal within the creek area adjacent to Tapia should be encouraged. (These photographs are included in Appendix A).

It is also noticed from the attached photos that water surface flow is higher in January 2005 storm than February 1998 storm, even though 2005 peak flow is 45% smaller. Growing vegetation within the creek, especially adjacent to Tapia WRF may be a cause to the increased flow. Channel maintenance adjacent to the plant might be necessary. Both Rivertech and 2003 Flood Protection indicate that channel maintenance adjacent to the plant can reduce the water surface elevations by 2 to 4 at the upstream end of the plant for willow tree removal percentages of 50% and 100%, respectively. There is only a small effect on the water surface elevation at the downstream end of the plant.

No significant impervious area change in the drainage basin

³ See elevation difference in pictures in Appendix A - by comparing water surface from pictures taken for 1998 and 2005 events).

The other factor that may impact flood flow pattern is the impervious area in the drainage basin, since impervious surfaces encourages direct runoff. In the Rivertech study, the ultimate flow condition was calculated based on an assumption that the total percent impervious area would increase from 6% to 20%. Based on Malibu Creek & Lagoon TMDL study⁴, the imperviousness percentage only changed from 5.26% in 1990 to 6.95% in 2008; therefore, the assumption made by Rivertech on the increase of impervious area in the drainage basin remains valid and conservative.

Conclusion:

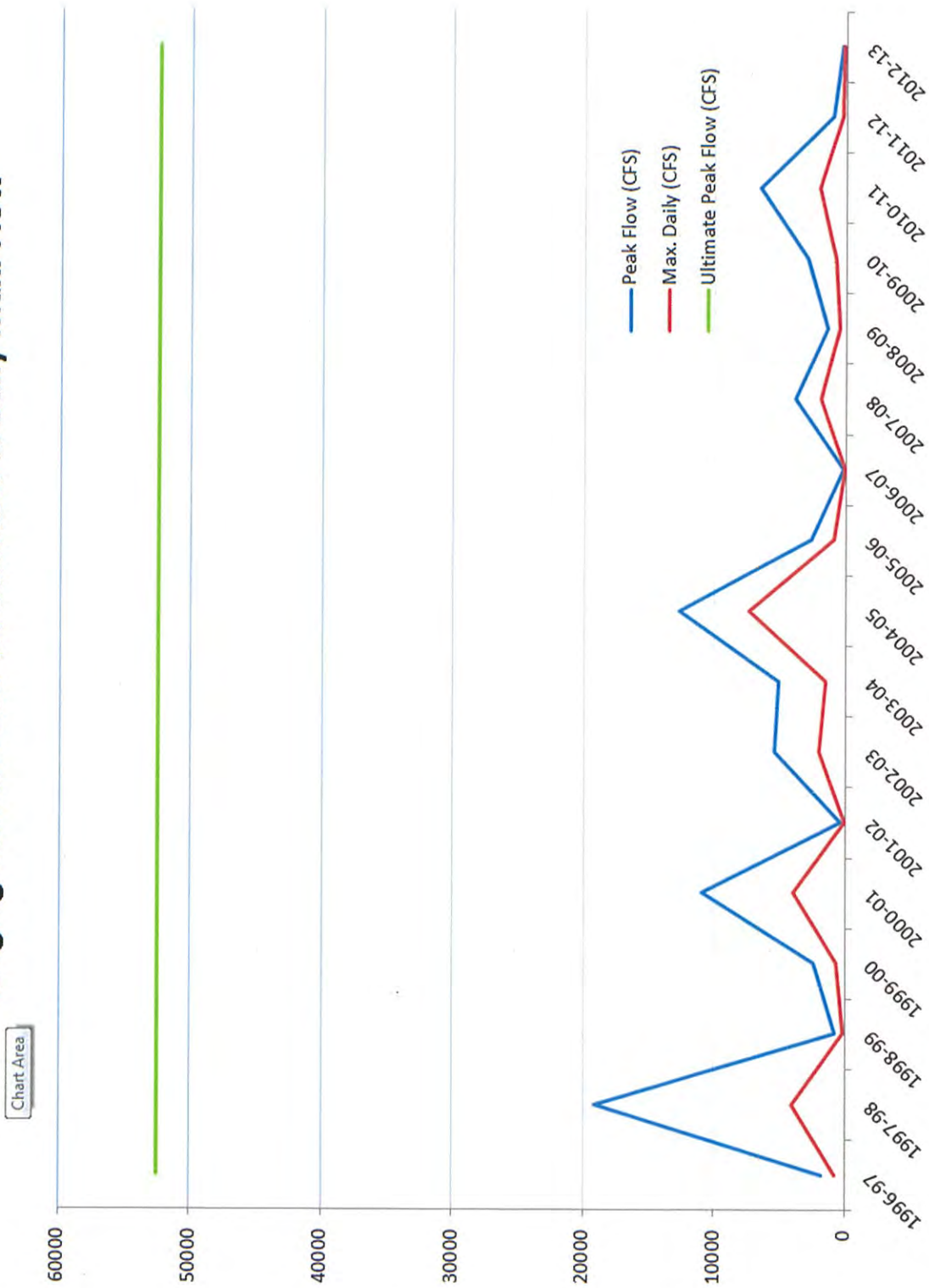
1. The flood protection facilities in place provide adequate protection for Tapia WRF, based on observation of significant flow versus designed ultimate peak flow and the slightly increased impervious area.
2. Based on Malibu Creek & Lagoon TMDL study, the assumption made by Rivertech on the increase of impervious area in the drainage basin remains valid, which is actually conservative.
3. Willow removal within the creek area adjacent to Tapia should be encouraged particularly after major storm events where the environmental habitat would not be affected if fallen trees were removed.

Recommendation:

1. It is recommended that the District staff pursue with California State Parks for development of a selective clearance program in the streambed in a manner sensitive to the riparian habitat, because additional factors of flood protection can be achieved by removing some, or all, of the willow growth.
2. Observations of high water elevations should be continued for significant flow events
3. Flood protection facilities should continue to be inspected and maintained to assure continued performance.

⁴ U.S. Environmental Protection Agency Region IX, Malibu Creek & Lagoon TMDL for Sedimentation and Nutrients to Address Benthic Community Impairments.

Figure 1
Gauging Station F130-R Peak Flow & Daily Max. Flow



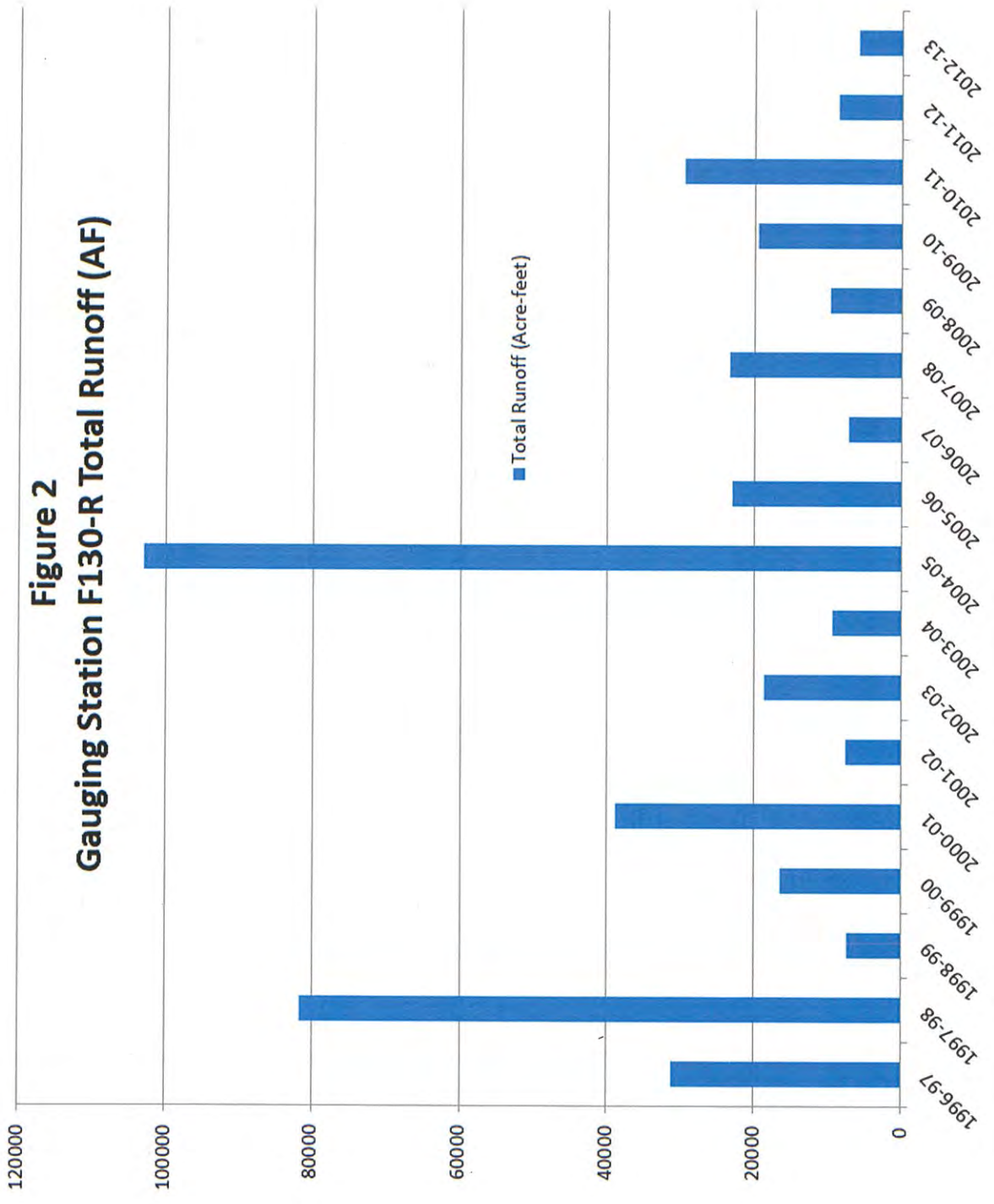
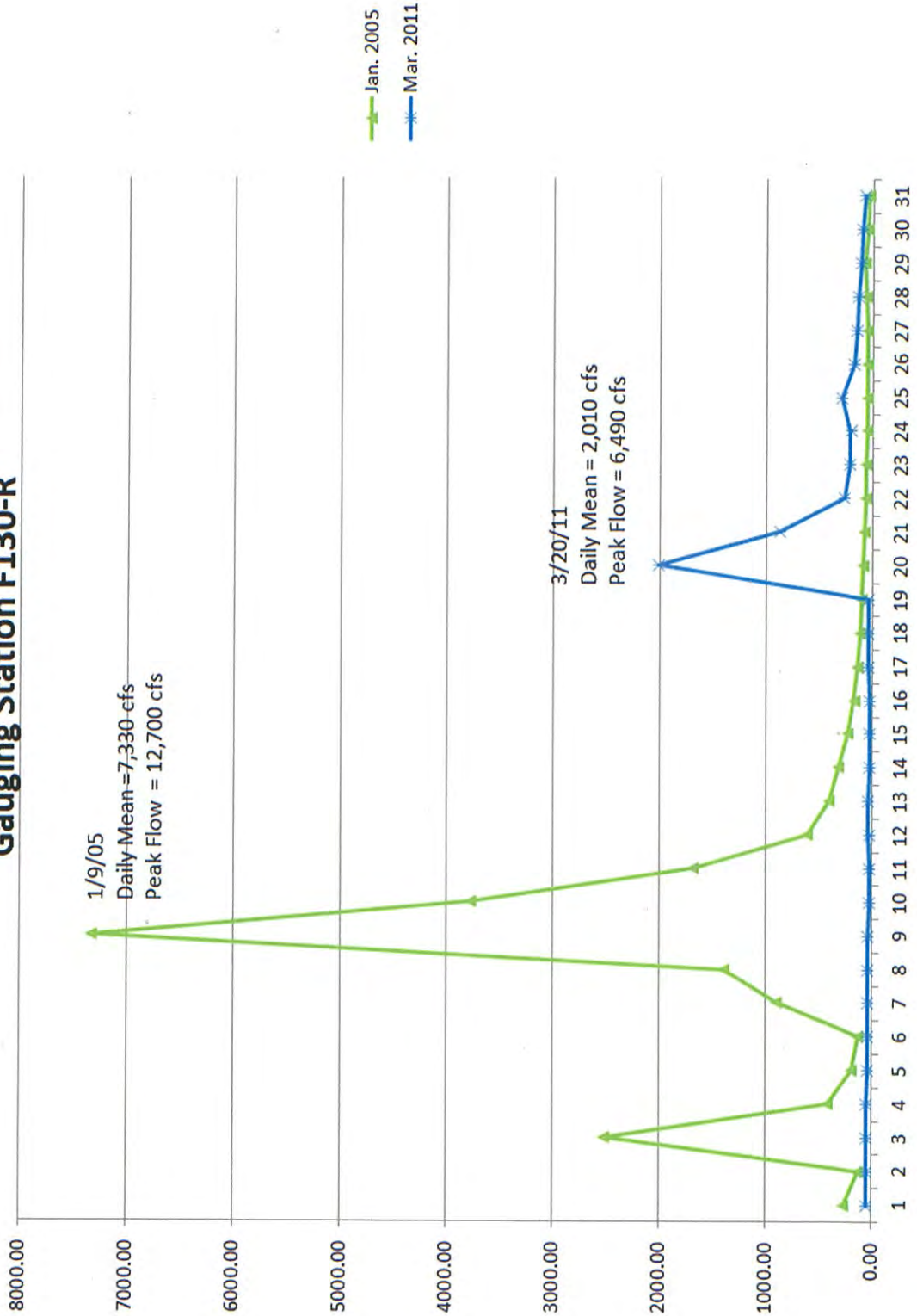


Figure 3 January, February 2005 & February 2010 Gauging Station F130-R



Appendix A



January 10, 2005 Malibu Canyon Bridge top of the pier is at elevation of 465 feet. Peak Flow 12,700 cfs.



Main channel flow in January 10, 2005.



February 11, 1992 Malibu Canyon Bridge top of pier is at elevation 465 feet

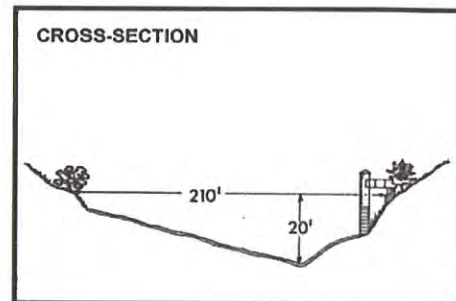
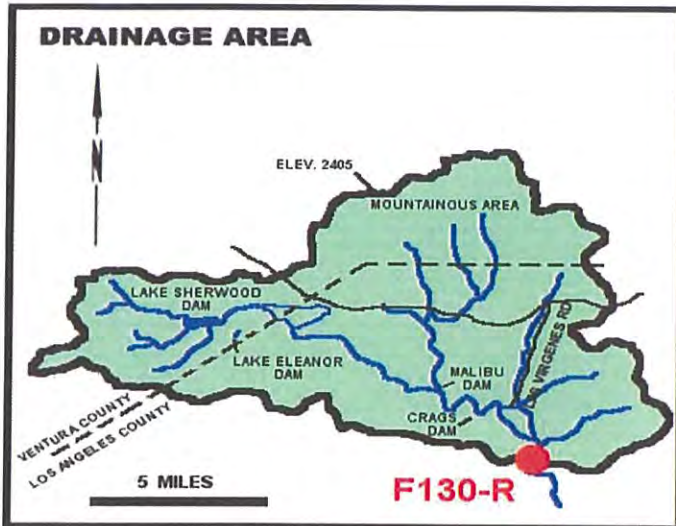
Peak Flow 23,200 cfs.

RUNOFF – STREAM GAGING STATION INFORMATION

MALIBU CREEK

Below Cold Creek.

STATION NO. F130-R



RECORDER - 5 min. interval data logger.

METHOD OF MEASUREMENT - Wading

DRAINAGE AREA - 104.96 square miles.

LOCATION - 0.2 mile downstream of Cold Creek, 6.0 miles southwest of Calabasas.

REGULATION - Lake Sherwood Dam, Lake Eleanor Dam, Malibu Lake Dam and Crags Dam. Other small recreational dams affect low summer flows.

DIVERSION - None.

CHANNEL - Coarse sand and gravel, lined with trees and brush, natural in section.

CONTROL - Concrete stabilizer.

LENGTH OF RECORD - January 17, 1931 to date.

REMARKS - Cableway washed out on January 25, 1969, no high flow measurements since that date.

RUNOFF – STREAM GAGING STATION PEAK FLOW

MALIBU CREEK below Cold Creek. STATION NO. F130-R

Season	Daily CFS			Total Runoff (Acre-feet)	Peak Flow	
	Maximum	Minimum	Mean		Date	CFS
1972-73	3,340	0.8	35.1	25,400	Feb 11	7,480
1973-74	2,240	2.7	22	15,910	Jan 07	5,100
1974-75	519	2.3	15.2	11,020	Dec 04	2,670
1975-76	163	1.1	5.4	3,910	Feb 09	339
1976-77	315	1.1	6.9	4,980	Jan 07	597
1977-78	7,620	1.7	112.4	80,990	Mar 04	19,400
1978-79	1,220	2.3	46.4	33,408	Mar 27	4,420
1979-80	*	*	*	*	Feb 16	*
1980-81	357	1.7	13.5	9,832	Mar 05	910
1981-82	400	2.2	13.9	10,031	Mar 17	676
1982-83	7,720	2.7	121.8	88,148	Mar 01	24,200
1983-84	758	2.5	24.1	17,411	Dec 25	1,840
1984-85	588	0.9	16.6	12,002	Dec 19	880
1985-86	1,480	1.4	39.3	27,881	Feb 15	5,880
1986-87	216	0.5	8.6	6,236	Nov 18	653
1987-88	559	0.6	24	17,337	Feb 28	1,680
1988-89	257	1.6	12.3	8,876	Feb 09	441
1989-90	*	*	*	*		*
1990-91	982	0.8	20.5	14,872	Mar 19	3,150
1991-92	5,850	2	92.7	67,330	Feb 10	23,300
1992-93	*	*	*	*		*
1993-94	880	0.9	16.7	11,090	Feb 20	2,450
1994-95	4,530	3.1	97.8	68,700	Mar 11	15,700
1995-96	637	1.5	12.9	9,395	Feb 21	1,220
1996-97	807	3.2	43.1	31,180	Dec 09	1,800
1997-98	4,020	2.4	113	81,700	Feb 07	19,100
1998-99	134	2.8	10.3	7,430	Apr 11	761
1999-00	701	1.4	22.6	16,440	Feb 23	2,380
2000-01	3,950	0.6	53.8	38,920	Mar 06	10,900
2001-02	93	0.9	10.6	7,670	Nov 24	413
2002-03	1,979	1.9	25.9	18,761	Feb 12	5,410
2003-04	1,470	1.2	13	9,442	Feb 26	5,130
2004-05	7,330	1.3		103,000	Jan 09	12,700
2005-06	845	3.1	31.9	23,120	Jan 02	2,586
2006-07	80	0.7	10.1	7,309	Feb 22	189
2007-08	1,940	0.9	32.4	23,510	Jan 27	3,851
2008-09	521	0.8	13.4	9,710	Feb 16	1,350
2009-10	816	1.97	27	19,530	Jan 20	2,970
2010-11	2,010	1.94	40.8	29,530	Mar 20	6,490
2011-12	320	0.86	11.9	8,660	Apr 13	1,030
2012-13	148	0.95	8.14	5,890	Jan 24	296

M Data missing

* Record incomplete

E Estimate

N.D. Not determined

** Record not computed

+ Less than 0.05 acre feet or less than 0.05 cfs, but greater than 0

INFORMATION ONLY

March 2, 2020 JPA Board Meeting

TO: JPA Board of Directors

FROM: Engineering and External Affairs

Subject : Rancho Las Virgenes Composting Facility Repairs: Approval of Change Order

On February 18, 2020, the LVMWD Board, acting as Administering Agent for the JPA, approved Change Order No. 1 to GSE Construction, Inc., in the amount of \$188,100, to include repair of the biofilter at the Rancho Las Virgenes Composting Facility as part of the Digester No. 2 Rehabilitation Project.

SUMMARY:

The Woolsey Fire burned 66% of the District's service area beginning on November 9, 2018, damaging many key facilities including the Rancho Las Virgenes Composting Facility. By the end of Fiscal Year 2018-19, the District recovered all operations with the exception of those at Rancho where dewatered biosolids continue to be hauled. The District continues the recovery effort and is seeking reimbursement for fire-related damages through its insurance carrier, the Governor's Office of Emergency Services (CalOES) and the Federal Emergency Management Agency (FEMA). As part of the process, staff solicited repair proposals for Rancho from companies with existing construction contracts for work at the facility: GSE Construction, Inc. (Digester No. 2 Rehabilitation Project) and Pacific Hydrotech Corporation (Amendment Bin and Conveyance System Modification Project). Staff recommends issuing a change order to GSE Construction, Inc., for repairs to the biofilter.

FISCAL IMPACT:

No

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The cost of the work is \$188,100, which will be allocated 70.6% to LVMWD and 29.4% to Triunfo Water & Sanitation District. Sufficient funding for the work is available in the adopted Fiscal Year 2019-20 JPA Budget.

DISCUSSION:

As of November 9, 2018, the Rancho Las Virgenes Composting Facility has been out of service due to the damages that occurred during the Woolsey Fire. Staff have been working with CalOES, FEMA and the District's insurance carrier to secure reimbursement for the cost of repairs to the facility. To expedite the completion of repairs and restore the operation of Rancho, staff determined that the best strategy is to issue change orders to two companies that currently hold construction contracts with the District for work at the facility: Pacific Hydrotech Corporation and GSE Construction, Inc. The two contractors were provided the same scope of work, which included repair of the biofilter together with structural and mechanical repairs to the Amendment Building. Legal Counsel advised staff to ensure that the work for any proposed change orders is related to the original scope of work described in the construction contract. The work being performed by GSE Construction for the Digester No. 2 Rehabilitation Project is most closely related to the proposed biofilter repairs, while Pacific Hydrotech's work for Amendment Bin and Conveyance System Modifications Project is most closely related to the required structural and mechanical repairs within the Amendment Building.

Staff proposed to complete the repairs at Rancho in two phases as additional funding is approved by the District's insurance carrier. Phase I will consist of repairing the biofilter, as it provides odor control for the composting process. Once the biofilter is repaired, staff can manually load amendment to allow for the composting process to be restarted. While this will temporary process will produce a lower yield of compost, the product can be provided again to the public by late summer 2020. LVMWD Board approved, acting as Administration Agent for the JPA, Change Order No. 1, in the amount of \$188,100, to GSE Construction for the Digester No. 2 Rehabilitation Project to repair the biofilter. The change order would constitute a 9.9% increase to the current contract amount. The LVMWD Code establishes that a single change order that amounts to 5% or more of the original contract amount must be approved by the Board. The scope of work consists of installing the recently purchased baseplates and trench covers, repairing the irrigation system and replacing the biofilter media. Completion of the Phase I work will allow for the composting operation to be restored with limited capacity.

Phase II will include the necessary structural and mechanical repairs within the Amendment Building. The work consists of structural repairs to the Amendment Building, replacement of the dust collector and other mechanical equipment repairs. This work will eliminate the need for staff to manually load amendment, resulting in a greater compost yield and restoring Rancho to its full pre-Woolsey Fire operational capacity. Staff will recommend a change order to Pacific Hydrotech Corporation to complete the Phase II repairs at a future meeting once additional reimbursement is secured and costs are confirmed.

GOALS:

Construct, Manage and Maintain All Facilities and Provide Services to Assure System Reliability and Environmental Compatibility

Prepared by: Mercedes Acevedo, E.I.T, Assistant Engineer