# LAS VIRGENES - TRIUNFO
# JOINT POWERS AUTHORITY
# AGENDA

**4232 Las Virgenes Road, Calabasas, CA 91302**

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 April 2, 2018

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**

**A Minutes: Regular Meeting of March 5, 2018 (Pg. 3)**

Approve.

**B Rancho Las Virgenes Raw Sludge Wet Well Recirculation Modifications Project: Final Acceptance (Pg. 9)**

Execute a Notice of Completion and have the same recorded; extend the contract duration by 165 calendar days; appropriate $16,987 in additional funds; and, in the absence of claims from subcontractors and others, release the retention, in the amount of $17,795, within 30 calendar days after filing the Notice of Completion for the Rancho Las Virgenes Raw Sludge Wet Well Recirculation Modifications Project.

**C Digester No. 1 Rehabilitation Project: Approval of Scope Change (Pg. 14)**

Authorize the Administering Agent/General Manager to execute a Change of Scope, in the amount of $10,158, for Pacific Advanced Civil Engineering, Inc. to provide additional services during construction for the Digester No. 1 Rehabilitation Project.

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

**A Pure Water Project Las Virgenes-Triunfo: Update**

## 6 ACTION ITEMS

**A Infrastructure Investment Plan: Fiscal Years 2018-19 through 2022-23 (Pg. 19)**

Receive and file the JPA Infrastructure Investment Plan for Fiscal Years 2018-19 through 2022-23.

**B Relocation of Conrad N. Hilton Foundation 115 kW Solar Carport System: Award (Pg. 26)**

Authorize the General Manager to execute a service agreement, in the amount of $65,443.84, to Go Green Solar Solutions, Inc., for the disassembly and transport of a 115kW solar carport system to a JPA-owned site for temporary storage.

**C Heal the Bay's "Bring Back the Beach" Event: Attendance (Pg. 66)**

Authorize one Board Member from each agency and the Administering Agent/General Manager to attend the Heal the Bay "Bring Back the Beach" Event at a cost of $600 per person.

## 7 BOARD COMMENTS

## 8 ADMINISTERING AGENT/GENERAL MANAGER REPORT

## 9 FUTURE AGENDA ITEMS

## 10 INFORMATION ITEMS

**A Annual Bioassessment Monitoring Report: Approval of Purchase Order (Pg. 69)**

**B Rancho Las Virgenes Composting Facility Rain Gutter Replacement: Authorization of Purchase Order (Pg. 71)**

**C Tapia Water Reclamation Facility Switchgear and Transformer Maintenance (Pg. 75)**

## 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 – Pending Litigation (Government Code Section 54956.9(d)(1)):**

Zusser Construction, 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 availalbe in appropriate alternative format upon request.

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

5:00 PM March 5, 2018

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance to the Flag was led by Josie Guzman.

## 1. CALL TO ORDER AND ROLL CALL

The meeting was called to order at **5:00 p.m.** by Chair Peterson in the Conference Room at Oak Park Library, 899 Kanan Road, in Oak Park, California. Josie Guzman, Clerk of the Board, conducted the roll call.

Present: Directors Caspary, Orkney, Pan, Peterson, Polan, Renger, Tjulander, and Wall.
Absent: Directors Lewitt and Paule.

## 2. APPROVAL OF AGENDA

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

AYES: Caspary, Orkney, Pan, Peterson, Polan, Renger, Tjulander, Wall
NOES: None
ABSENT: Lewitt, Paule
ABSTAIN: None

## 3. PUBLIC COMMENTS

None.

## 4. CONSENT CALENDAR

**A Minutes: Regular Meeting of February 5, 2018: Approve**

**B Pure Water Project Las Virgenes-Triunfo: Advanced Water Treatment Plant Preliminary Siting Study**

**Receive and file the Pure Water Project Las Virgenes-Triunfo: Advanced Water Treatment Plant Preliminary Siting Study, Report No. 2760.00.**

Director Polan moved to approve the Consent Calendar. Motion seconded by Director Caspary. Motion carried by the following vote:

AYES: Caspary, Orkney, Pan, Peterson, Polan, Renger, Tjulander, Wall
NOES: None
ABSENT: Lewitt, Paule
ABSTAIN: None

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

### A Pure Water Project Las Virgenes-Triunfo: Update

Administering Agent/General Manager David Pedersen deferred discussion of this item due to related items on the agenda.

### B Fiscal Year 2019–2020 Two-Year JPA Budget Plan Workshop

Angela Saccareccia, Finance Manager, provided a PowerPoint presentation and reviewed the Fiscal Years 2019-2020 Two-Year JPA Budget Plan. She noted that the Infrastructure Investment Plan would be presented at the April 2, 2018 meeting; the preliminary budget would be presented at the May 7, 2018 meeting; and the proposed budget would be presented for adoption at the June 4, 2018 meeting.

## 6. ACTION ITEMS

### A Pure Water Project Las Virgenes-Triunfo: Purchase of 30800 Agoura Road (APN 2061-001-025)

**Authorize the Administering Agent/General Manager to execute the *Option Notice* and *Purchase and Sale Agreement and Escrow Instructions* for 30800 Agoura Road, in the amount of $2,100,000.**

Administering Agent/General Manager David Pedersen presented the report.

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

David Gondek, Legal Counsel, responded to a question regarding whether the property's title was verified to be clear by stating that the title was clear at the time that the option agreement was executed. He also stated that the title condition would be updated prior to the close of the transaction.

Administering Agent/General Manager David Pedersen responded to a question regarding the basis of the appraisal by stating that the appraisal was dated May 15, 2017.

David Lippman, Director of Facilities and Operations, responded to a question regarding the location of proposed Calleguas Municipal Water District interconnection in relation to the recycled water extension to the Pure Water Project Las Virgenes-Triunfo by stating that although both of these pipelines will be located on Lindero Canyon Road, they are located on opposite sides of the freeway.

Motion carried by the following vote:

AYES: Caspary, Orkney, Pan, Peterson, Polan, Renger, Tjulander, Wall
NOES: None
ABSENT: Lewitt, Paule
ABSTAIN: None

**B Consulting Services for Expanded Solar Energy Generation Facility**

**Accept the proposal from Terra Verde Renewable Partners, LLC; authorize the Administering Agent/General Manager to execute a professional services agreement, in the amount of $93,453; and appropriate $150,000 for an expanded solar energy generation facility.**

Kevin Ross, representing Terra Verde Renewable Partners, LLC, provided an overview of the feasibility assessment for an expanded solar energy generation facility, which included consideration of expansion of the existing solar facility, purchasing and installing battery storage, and a new Renewable Energy Self-Generation Bill Credit Transfer (RES-BCT) tariff-based project. He responded to several questions posed by the Board related to the project.

Administering Agent/General Manager David Pedersen summarized the proposal received from Terra Verde Renewable Partners, LLC, for consulting services related to a RES-BCT Solar Energy Project Request for Proposals Process, subsequent approval of a Power Purchase Agreement, certification of the environmental document, and grandfathering for the current time-of-use rates.

Mr. Ross responded to a question regarding whether consideration was given to the use floating solar arrays in the reservoir by stating that floating solar arrays have a higher cost than a ground-mount system; however, this scenario could be explored.

A discussion ensued regarding applying the tariffs to the meters and the cost distribution between the JPA partners.

Director Orkney moved to approve Item 6B. Motion seconded by Director Wall.

David Lippman, Director of Facilities and Operations, responded to a question regarding whether the sprayfield location would be a compatible use for solar generating panels by stating that the solar arrays are not compatible with sprayfield use; however, there is enough field capacity remaining, together with the ability to discharge excess recycled water to the Los Angeles River.

Motion carried by the following vote:

AYES: Caspary, Orkney, Pan, Peterson, Polan, Renger, Tjulander, Wall
NOES: None
ABSENT: Lewitt, Paule
ABSTAIN: None

## 7. BOARD COMMENTS

Director Orkney stated that she was pleased to see Clerk of the Board Josie Guzman featured in LVMWD's *The Current Flow*.

Chair Peterson suggested that copies of LVMWD's Monthly Report of District Activities be forwarded to the TSD Board of Directors.

## 8. ADMINISTERING AGENT/GENERAL MANAGER REPORT

Administering Agent/General Manager David Pedersen reported that the Tapia Water Reclamation Facility received 3.7 inches of rain during the first three days of the month. The peak flow was 12.5 million gallons per day (MGD), and the daily influent averaged 8.7 MGD on the last day of the storm. He noted that electrical and filter backwash issues were experienced; however, staff responded and kept everything in service.

Director Caspary noted that there was previous discussion regarding changing the voltage and transformer system at Tapia, and he inquired whether this would result in any savings or increase in demand charges. David Lippman, Director of Facilities and Operations, responded that staff would follow-up.

## 9. FUTURE AGENDA ITEMS

None.

## 10. INFORMATION ITEMS

**A Pure Water Project Las Virgenes-Triunfo: Flow Chart for Technical Studies and Environmental Analysis**

Administering Agent/General Manager David Pedersen presented the report.

Director Pan requested that pilot testing be listed before final design in the flow chart. David Lippman, Director of Facilities and Operations, responded that staff would make this change.

## 11. PUBLIC COMMENTS

None.

## 12. CLOSED SESSION

**A Conference with Legal Counsel – Pending Litigation (Government Code Section 54956.9(d)(1)):**

**Zusser Construction, Inc., v. Las Virgenes Municipal Water District**

The Board recessed to Closed Session at **6:12 p.m.,** and reconvened to Open Session at **6:23 p.m.**

Authority Counsel Keith Lemieux announced there was no reportable action taken during the Closed Session.

## 13. ADJOURNMENT

Seeing no further business to come before the Board, the meeting was duly adjourned at **6:23 p.m**.

Glen Peterson, Chair

ATTEST:

Michael Paule, Vice Chair

April 2, 2018 JPA Board Meeting

TO: JPA Board of Directors

FROM: Facilities & Operations

**Subject : Rancho Las Virgenes Raw Sludge Wet Well Recirculation Modifications Project: Final Acceptance**

**SUMMARY:**

On July 10, 2017, the JPA Board awarded a construction contract to Pacific Hydrotech Corporation, in the amount of $355,900, for the Rancho Las Virgenes Raw Sludge Wet Well Recirculation Modifications Project. There were no change orders issued during construction. The work has been completed, and there are no outstanding issues to prevent acceptance of the project. As a result, staff recommends filing a Notice of Completion, extending the contract duration by 165 calendar days, appropriating $16,987 in additional funds, and releasing the retention as stipulated in the contract documents.

**RECOMMENDATION(S):**

Execute a Notice of Completion and have the same recorded; extend the contract duration by 165 calendar days; appropriate $16,987 in additional funds; and, in the absence of claims from subcontractors and others, release the retention, in the amount of $17,795, within 30 calendar days after filing the Notice of Completion for the Rancho Las Virgenes Raw Sludge Wet Well Recirculation Modifications Project.

**FISCAL IMPACT:**

Yes

**ITEM BUDGETED:**

Yes

**FINANCIAL IMPACT:**

The total cost of the project was $601,929. Funding for the project is available in the adopted Fiscal Year 2017-18 JPA Budget, including an additional appropriation approved by the JPA Board on July 10, 2017. The total appropriation for the project to-date is $584,942, compared to the total project cost of $601,929. Due to an increase in the project duration, additional staff time and general and administrative expenses were required to complete the project. To reconcile all project-related costs, staff recommends an additional appropriation of $16,987.

Following is a summary of the total project cost:

| Description | Cost |
|---|---|
| Professional Services: | |
| Design & Construction Support | $64,564 |
| Construction: | |
| Construction Award | $355,900 |
| Integration Scope (estimate) | $40,000 |
| Construction Change Orders | N/A |
| Administrative | |
| District Labor | $43,984 |
| G&A | $97,481 |
| **Total Project Cost** | **$601,929** |
| Existing Appropriation | $584,942 |
| **Additional Appropriation (proposed)** | **$16,987** |

**DISCUSSION:**

Background:

The Rancho Las Virgenes Composting Facility was designed with a dedicated recirculation pump to suspend and recirculate solids within the sludge wet wells at the Dewatering Building. The pump was intended to suspend solids prior to pumping the sludge to the digesters. Without recirculation, the solids coagulate and settle out within the wet wells, requiring costly cleaning. However, since its installation in 1992, the recirculation pump did not perform as intended and was taken out of service due to pump failure. Before this project, staff used one of the two digester pumps to temporarily recirculate the wet wells. Although this work-around maintained the suspension of solids in the sludge, only one digester pump was left to feed sludge to the digesters, impacting the redundancy of the system.

The project consisted of the installation of a new positive displacement pump to replace the existing centrifugal pump, new in-line grinder, flow meter and modulating plug valves for the discharge line into each well, piping/fittings at the new grinder/isolation valve and associated electrical/instrumentation work. The new pump system restores redundancy for the digester pump system. Also, the pump now assists in maintaining proper sludge solids suspension within the wet wells, as well as controlling the concentration of the sludge sent to the digesters.

Change Orders:

There were no change orders issued for this project.

Contract Extension:

The original contract completion date was October 10, 2017. An error in the required lead-time for the glass-lined valves by a supplier during the design process resulting in the

specification of a shorter contract duration than actually necessary for the project. The Contractor, Pacific Hydrotech Corporation, worked diligently with the JPA to expedite all materials and coordinate the construction as quickly as possible, given the long-lead items. Given the circumstances and diligence of the contractor, staff recommends that the Board approve a contract extension of 165 calendar days.

Prepared by: Coleman Olinger, P.E., Associate Engineer

**ATTACHMENTS:**

Notice of Completion

RECORDING REQUESTED BY

Las Virgenes Municipal Water District

AND WHEN RECORDED MAIL TO

Name Susan Brown
Street Address Las Virgenes Municipal Water District
City & State Zip 4232 Las Virgenes Road
Calabasas, CA 91302

T 420 LEGAL (9-94)

SPACE ABOVE THIS LINE FOR RECORDER'S USE

# Notice of Completion

**NOTICE IS HEREBY GIVEN THAT:**

1. The undersigned is the owner of the interest or estate stated below in the property hereinafter described.
2. The full name of the undersigned is Las Virgenes Municipal Water District (NAME).
3. The full address of the undersigned is 4232 Las Virgenes Road, Calabasas CA 91302 (NUMBER AND STREET, CITY, STATE, ZIP).
4. The nature of the title of the undersigned is OWNER IN FEE (E.G., owner in fee OR vendee under contract of purchase OR lessee OR OTHER APPROPRIATE DESIGNATION).
5. The full names and full addresses of all persons, if any, who hold title with the undersigned as joint tenants or as tenants in common are:

| Names | Addresses |
|---|---|
| N/A | |

6. The names of the predecessors in interest of the undersigned, if the property was transferred subsequent to the commencement of the work of improvement herein referred to are (OR IF NO TRANSFER WAS MADE, INSERT THE WORD "none"):

| Names | Addresses |
|---|---|
| N/A | |

7. A work of improvement on the property hereinafter described was completed on April 2, 2018 (DATE).
8. The name of the original contractor, if any, for the work of improvement was Pacific Hydrotech Corporation (NAME OF CONTRACTOR, OR IF NO CONTRACTOR FOR THE WORK OF IMPROVEMENT AS A WHOLE, INSERT THE WORD "none"). [IF NOTICE COVERS COMPLETION OF CONTRACT FOR ONLY PART OF THE WORK OF IMPROVEMENT, ADD: The kind of work done or material furnished was _____ (GIVE GENERAL STATEMENT, E.G., furnishing of concrete for sidewalks].
9. The property on which the work of improvement was completed is in the City of Calabasas, County of Los Angeles, State of California, and is described as follows: Rancho Las Virgenes Raw Sludge Wet Well Recirculation Modifications Project (set forth description of jobsite sufficient for identification, using legal description if possible).
10. The street address of the said property is 3700 Las Virgenes Rd (NUMBER AND STREET, OR, IF THERE IS NO OFFICIAL STREET ADDRESS, INSERT THE WORD "none".)

Dated: April 2, 2018, _____

Las Virgenes Municipal Water District

_____ (SIGNATURE)

Jay Lewitt, Secretary of the Board (TYPED NAME)

## VERIFICATION

I, the undersigned, say:
I am the person who signed the foregoing notice. I have read the above notice and know its contents, and the facts stated therein are true of my own knowledge.

I declare under penalty of perjury that the foregoing is true and correct.

Executed at Calabasas, California, this 2nd day of April, 2018.

_____ (SIGNATURE)

Jay Lewitt, Secretary of the Board

## DO NOT RECORD

**Recommended Procedure in the Preparation of a Notice of Completion**

A notice of completion must be filed for record *within* 10 *days* after completion of the work of improvement (to be computed exclusive of the day of completion), as provided in section 3093, Civil Code.

The "owner" who must file for record a notice of completion of a building or other work of improvement means the owner (or his successor in interest at the date of notice is filed) on whose behalf the work was done, though his ownership is less than the fee title. For example, if A is the owner in fee, and B, lessee under a lease, causes a building to be constructed, then B, or whoever has succeeded to his interest at the date the notice is filed, must file the notice.

If the ownership is in *two or more persons as joint tenants or tenants in common,* the notice may be signed by any one of the co-owners (in fact, the foregoing form is designed for giving of the notice by only one co-tenant), but the names and addresses of the other co-owners must be stated in paragraph 5 of the form.

In paragraphs 3 and 5, the full address called for should include street number, city, county and state.

As to paragraph 6, insert the date of completion of the work of improvement *as a whole* if applicable. However, if the notice is to be given only of completion of a particular contract, where work of improvement is made pursuant to two or more original contracts, strike the words "a work of improvement" and insert a general statement of the kind of work done or materials furnished pursuant to such contract (e.g. "The foundations for the improvements").

If the notice is to be given as a notice of completion of the work of improvement *as a whole,* insert the name of the prime contractor, if any, in paragraph 7. No contractor's name need be given if there is no general contractor, e.g., on so-called "owner-builder jobs". However, if the notice is to be given only of completion of a particular contract, where work of improvement is made pursuant to two or more original contracts, insert the name of the contractor who performed that particular contract.

Paragraph 8 should be completed only where the notice is signed by a successor in interest of the owner who caused the improvement to be constructed.

In paragraph 9, insert the *full legal* description, not merely a street address or tax description. Refer to deed or policy of title insurance. If the space provided for description is not sufficient, a rider may be attached.

In paragraph 10, show the street address, if any, assigned to the property by any competent public or governmental authority.

# NOTICE OF COMPLETION

CHICAGO TITLE COMPANY

WESTERN DIVISION HEADQUARTERS
245 S. LOS ROBLES AVENUE, SUITE 105
PASADENA, CALIFORNIA 91101-2820
(818) 432-7600

CHICAGO TITLE COMPANY

April 2, 2018 JPA Board Meeting

TO: JPA Board of Directors

FROM: Facilities & Operations

**Subject : Digester No. 1 Rehabilitation Project: Approval of Scope Change**

**SUMMARY:**

On November 7, 2016, the Board accepted a proposal, in the amount of $53,694, from Pacific Advanced Civil Engineering, Inc. (PACE) and authorized the Administering Agent/General Manger to execute a professional services agreement for engineering design and support during construction for the Digester No. 1 Rehabilitation Project. Additional time and effort for services during construction were required due to the need for engineering reviews requested by staff. As a result, staff recommends approval of a scope change, in the amount of $10,158, for PACE to complete the work for the project.

**RECOMMENDATION(S):**

Authorize the Administering Agent/General Manager to execute a Change of Scope, in the amount of $10,158, for Pacific Advanced Civil Engineering, Inc. to provide additional services during construction for the Digester No. 1 Rehabilitation Project.

**FISCAL IMPACT:**

Yes

**ITEM BUDGETED:**

Yes

**FINANCIAL IMPACT:**

Sufficient funds for the additional work are available in the adopted Fiscal Year 2017-18 JPA Budget under CIP Job No. 10565. No additional appropriation is required. The cost of the project is allocated 70.6% to LVWMD and 29.4% to Triunfo Sanitation District.

**DISCUSSION:**

The original scope of work with Pacific Advanced Civil Engineering, Inc. (PACE) for engineering design and services during construction included $6,502, or 51 hours, for services

during construction to review shop drawing submittals and minor requests for information (RFIs). As the construction work proceeded, PACE's level of effort increased significantly as compared to that included in the original proposal. For example, PACE evaluated a number of "or equal" products submitted by the contractor, responded to over 20 RFIs, performed compatibility evaluations for actuators and valves and completed additional engineering reviews for specialized joint sealant and pipe coating products. The additional services required during construction to complete the project are estimated to be $10,158 (70 hours).

The amount of the scope change exceeds 10% of the original contract amount; therefore, Board approval is required for this action.

Prepared by: Coleman Olinger, P.E., Associate Engineer

**ATTACHMENTS:**

Request for Scope Change

March 20, 2018

Mr. Coleman Olinger, PE
**Las Virgenes Municipal Water District**
**Triunfo Sanitation District Joint Powers Authority**
4232 Las Virgenes Road
Calabasas, CA 91302
Phone (818) 251-2100



**Re: Change Order No.1 for the Digester 1 Rehabilitation –**
Additional Services During Construction **# B112**

Dear Mr. Olinger,

PACE provided engineering design services and services during construction (SDC) for the Digester 1 Rehabilitation Project. As part of our original fee proposal, we estimated only 51 hours for SDC, which was mainly for our staff to help the District review shop drawing submittals and minor Request for Information (RFI). The original intent of the hourly fee estimate was that PACE would only play a minor role in the construction phase; however, as the construction phase proceeded, PACE's role significantly increased for multiple unforeseen reasons. Some of the more significant reasons are listed below:

1. **Actuators:** During the project kick-off and through design, PACE was asked to essentially copy Digester 3 for several design elements, including the new actuators. During the submittal phase, PACE researched and had several lengthy conversations and email correspondences with actuator manufacturers regarding classifications for the environment in which the actuators were to be installed (CLASS 1, DIV 1). It was then discovered (and brought to the attention of the District) that BECK (the manufacturer spec's at Digester 3) does not manufacture an actuator meeting the classification requirements, and that the District's "alternative selection" for actuator (AUMA) was also still in the process of getting a formal classification certification. This required significant involvement from PACE to help resolve the actuator issue. There was also research and efforts involved in coordinating the hand stations for the actuators.
2. **Instruments:** There were several instruments submittals that did not meet the specifications and was not originally spec'd. This required additional effort by PACE to research to ensure conformity with the specification and to allow for the District's intent to have commonality with Digester 3's instruments. Several of these instruments required multiple resubmittals, such as the radar level and the gas flow meter
3. **Pipe coating:** The glass lined steel pipe and fitting submittal noted that it included a Tnemec product for exterior pipe coating. PACE then dug into this further and found that the contract document specified exterior coating (Ceramapure) would require a specific pipe prep and prime coat meeting Cerampure's specs. For compatibility purposes and to ensure the end product would meet design intent inside the digester tank, PACE needed to contact Tnemec, whom provided info on a product that could be field applied (rather than factory applied like the Cerampure) and would work with the prime coat product already on supplied with the pipe.
4. **Construction Joint Sealant:** PACE discussed using a "more robust" construction joint sealant product with the District that would be better suited for the digester environment. During design PACE contacted Sika Products and were provided info on a product meeting the design criteria, which then ended up being specified as a special product for use in the digester within the project specifications. During the submittal phase, the contractor submitted a different product (with no

deviations listed in the submittal) that was not suitable for the digester environment. This required additional effort from PACE to further researched and discussed with Sika.

5. **General Submittal Review:** In many cases the submittals from the contractor were unclear as to what was being provided or not provided. Deviations from the plans/specs were not noted in several submittals, requiring further effort by PACE on what was intended to be submitted (e.g., the vic couplings not readily available in 316 SS for larger sizes, with no deviations listed or intent to use).
6. **Re-submittal Review:** There were several resubmittals (and in some cases, up to two re-submittals for a single submittal).
7. **Coordination of RFIs:** There were several RFIs that were specifically directed to the District, that PACE helped facilitate (e.g., As-Builts plans needed, info from As-Built plans needed, flow ranges for meters, etc.).

As a result, we are requesting a change order for the additional SDC, which includes the following:

| | |
|---|---|
| Task 5.2 – Additional Estimated SDC for the Duration of the Project | $10,158 |
| Total Change Order No.1 | $10,158 (T&E) |

Attached is the hourly fee schedule showing the original budgeted hours, and the additional estimated hours (beyond what was budgeted) that may be needed from now until the completion of the project.

Please contact me if you have any questions regarding the Change Order at (714) 514-8812 or by email at ddo@pacewater.com

Sincerely,

Duong Do, PE
Vice President – Environmental Water

PACE
Advanced Water Engineering

## ENGINEERING FEE PROPOSAL
## PROJECT WORKSHEET

| Project Data |
|---|
| **Project:** LVMWD - Digester 1 Rehabilitation |
| **Client:** LVMWD |
| **PACE Job Number:** B112 |
| **Estimate Date:** March 20, 2018 |

| Total Fee Amount | $10,158 |
|---|---|

| Item No. | Work Item Description | PACE | | | | | | | | Man-Power | Budgeted | Additional Fee |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Principal | Sr. Electrical Engr/ Sr. GIS Analyst | Sr. Project Engineer/Sr. Design Engr. | Project Engineer /Design Engr. II | Instrumentation Specialist | Design Engineer | Sr. CAD Designer /Sr. GIS Analyst | Project Coordinator | ESA CEQA Review | | |
| | | 240 | 195 | 156 | 136 | 140 | 120 | 120 | 80 | | | |
| | | | | | | | | | | | | |
| 5 | **Services During Construction** | **1** | **4** | **30** | **50** | | **16** | **16** | **4** | | **$6,502** | |
| 5.1 | Original Services During Construction (51 Hours) | 1 | 2 | 4 | 8 | | 16 | 16 | 4 | | $6,502 | |
| | | | | | | | | | | | | |
| 5.2 | Estimated Additional SDC for the Duration of the Project (70 Hours) | | 2 | 26 | 42 | | | | | | | $10,158 |
| | | | | | | | | | | | | |
| | **TOTALS** | 1 | 4 | 30 | 50 | 0 | 16 | 16 | 4 | 0 | $6,502 | **$10,158** |

April 2, 2018 JPA Board Meeting

TO: JPA Board of Directors

FROM: Facilities & Operations

**Subject : Infrastructure Investment Plan: Fiscal Years 2018-19 through 2022-23**

## SUMMARY:

The Infrastructure Investment Plan (IIP) is a planning document used to identify, prioritize and establish preliminary budgets for facility improvements and replacement projects over a multi-year planning period. The IIP incorporates proposed projects from a number of sources including the Sanitation and Recycled Water Master Plans, recommendations from specific facility plans, regulatory requirements and facility condition assessments. The IIP anticipates a total of $75,082,643 in JPA capital improvements over the five-year planning period. LVMWD's share of the total is $53,008,346, and TSD's share is $22,074,297.

## RECOMMENDATION(S):

Receive and file the JPA Infrastructure Investment Plan for Fiscal Years 2018-19 through 2022-23.

## FISCAL IMPACT:

No

## ITEM BUDGETED:

No

## FINANCIAL IMPACT:

The IIP is a planning document and does not involve the appropriation of funds. Appropriations for proposed projects for Fiscal Years 2018-19 will be recommended in the upcoming JPA Budget.

## DISCUSSION:

The IIP covers a five-year planning period and uses the Sanitation and Recycled Water Master Plans, recommendations from specific facility plans, known regulatory requirements and facility condition assessments to identify proposed capital projects and programs. In the early years of the proposed IIP, the focus is on the replacement and rehabilitation of aging

facilities. In the latter years, the focus remains on replacement and rehabilitation of aging facilities, but significant work begins on the design and construction of the Pure Water Project Las Virgenes-Triunfo.

The following is a summary of the major projects currently proposed in the IIP:

Tapia Water Reclamation Facility:

- Continue to replace worn and failed sluice gates.
- Replace programmable logic controllers (PLCs).
- Increase the capacity of the Recycled Activated Sludge Pump Station and replace worn equipment.
- Comply with summer time TMDL limits.
- Complete the Process Air Improvements Project.
- Design and construct primary effluent flow equalization.
- Complete the Fiscal Year 2017-18 Primary, Grit and Skimming Pipe and Gate Replacement Project.

Recycled Water System:

- Rehabilitate the Cordillera Tank.
- Complete the Calabasas Park Main Extension/Rehabilitation Project.

Rancho Las Virgenes Composting Facility:

- Rehabilitate Digester No 2.
- Complete the Amendment Bin Replacement Project.
- Start the conceptual design of a FOG receiving station.
- Rehabilitate the storm water diversion structures.
- Pilot test and evaluate an alternative bio-filter media.

Pure Water Project Las Virgenes-Triunfo:

- In Fiscal Year 2018-19, construct a Pure Water Demonstration Project and preform preliminary design and environmental analysis for the full-scale project.
- In Fiscal Year 2019-20, complete the Pure Water Demonstration Project and the preliminary design and environmental analysis for the full-scale project.
- In Fiscal Year 2020-21 and Fiscal Year 2021-22, complete the final design of the full-scale project.
- In Fiscal Year 2022-23, begin construction of the full-scale project.

This version of the IIP currently consists of two tables. The first table lists the projects by area and shows the proposed funding over the five-year period. The second table lists the projects by area and describes the scope of work, including a project justification. A more detailed repot with individual pages for each project will be provided at a future meeting.

Prepared by: David R. Lippman, P.E., Director of Facilities and Operations

**ATTACHMENTS:**

Table 1: Summary of Infrastructure Investment Plan Funding Needs

Table 2: Scope of Work for Infrastructure Investment Plan Projects

**JPA FY2018/19 to FY2022/23 IIP**
**Funding by Fiscal Year**

| Area | Title | FY18/19 | FY19/20 | FY20/21 | FY21/22 | FY22/23 |
|---|---|---|---|---|---|---|
| Tapia | Tapia Sluice Gates Replacement | $ 556,600 | $ 212,800 | | | |
| Tapia | Programmable Logic Controller Upgrades (Tapia) | $ 332,850 | $ 376,700 | $ 52,800 | | |
| Tapia | Tapia Water Reclamation Facility Reliability Improvements | $ 100,000 | $ 100,000 | $ 100,000 | $ 100,000 | $ 100,000 |
| Tapia | Tapia Duct Bank Infrastructure Upgrade | $ 160,000 | | | | |
| Tapia | Grit Chamber Mixing System Replacement | | | $ 133,000 | | |
| Tapia | New RAS Wet Well and Pumps | | | | $ 1,220,000 | |
| Tapia | Pavement Restoration Tapia | | | $ 432,000 | | |
| Tapia | Summer Season 2013 TMDL Compliance | $ 440,000 | $ 2,220,000 | $ 2,220,000 | | |
| Tapia | Process Air Improvements | $ 3,250,000 | | | | |
| Tapia | Primary Effluent Equalization | | | $ 490,000 | $ 2,446,000 | $ 2,442,000 |
| Tapia | A/B Bus Electrical Modification | $ 100,000 | | | | |
| Tapia | Tapia Rehab 17-18 Primary, Grit and Skimming Pipe & Gate Replacement | $ 556,600 | | | | |
| Tapia | Tapia Chemical Delivery Line Replacement | $ 35,000 | | | | |
| Tapia | Tapia Headworks White Room Floor Plate Repair and Steel Framing Replacement | $ 55,000 | | | | |
| Tapia | Tapia Effluent Pump Station 4160 V Feeder Relocation | | $ 100,000 | | | |
| Tapia | Tapia Tertiary Filters Rehabilitation | | $ 60,000 | $ 543,000 | | |
| Tapia | Modernize Tapia's Entrance Sign | $ 2,500 | | | | |
| Tapia | Develop Tour Seating Area at Tapia & Fish Tank Removal | $ 25,000 | | | | |
| Tapia | Tapia Building Access Control | | $ 50,000 | | | |
| | **Tapia Total** | **$ 5,613,550** | **$ 3,119,500** | **$ 3,970,800** | **$ 3,766,000** | **$ 2,542,000** |
| REW | Agoura Road Extension Phase II | $ - | | | | $ 150,000 |
| REW | Cordillera Tank Rehabilitation | $ 1,201,267 | | | | |
| REW | Calabasas Park Recycled Water Main Extension | $ 320,000 | | | | |
| REW | SCADA System Communication Upgrades | | | $ 67,361 | $ 43,845 | |
| | **Recycled Water Total** | **$ 1,521,267** | **$ -** | **$ 67,361** | **$ 43,845** | **$ 150,000** |
| Rancho | Rancho Las Virgenes Digesters Cleaning and Repair | $ 225,000 | $ 1,300,000 | | | |
| Rancho | Rancho Reliability Improvements | $ 100,000 | $ 100,000 | $ 100,000 | $ 100,000 | $ 100,000 |
| Rancho | Rancho Amendment Bin and Conveyance Modification Project | $ 1,260,000 | | | | |
| Rancho | Pavement Restoration Rancho | | $ 533,320 | | | |
| Rancho | Rancho: Replace Agitators | | | $ 555,000 | $ 555,000 | |
| Rancho | Rancho Las Virgenes: FOG Receiving Facilities | $ 30,000 | | | $ 712,000 | |
| Rancho | Ovation Upgrade | | | | $ 632,000 | |
| Rancho | Rancho LV Storm Water Diversion Structure Replacement | $ 30,000 | | | | |
| Rancho | Rancho LV Composting Biofilter Alternative Media Study | $ 30,000 | | | | |
| | **Rancho/Centrate Total** | **$ 1,675,000** | **$ 1,933,320** | **$ 655,000** | **$ 1,999,000** | **$ 100,000** |
| Pure Water | Pure Water Project Las Virgenes - Triunfo | $ 4,500,000 | $ 3,500,000 | $ 5,000,000 | $ 5,000,000 | $ 30,000,000 |

**JPA FY2018/19 to FY2022/23 IIP**
**Funding by Fiscal Year**

| | | | | | | |
|---|---|---|---|---|---|---|
| Pure Water | Pure Water Project Grants | $ (300,000) | | | | |
| | **Pure Water Total** | **$ 4,200,000** | **$ 3,500,000** | **$ 5,000,000** | **$ 5,000,000** | **$30,000,000** |
| Other | Trunk Sewer System Improvements | | | | | $ 66,000 |
| Other | Centrate 20-Inch Valve Repair | $ 150,000 | | | | |
| Other | Centrate Tank Inspection and Rehab Assessment | | | $ 10,000 | | |
| | **Other Areas Total** | **$ 150,000** | **$ -** | **$ 10,000** | **$ -** | **$ 66,000** |
| | **Grand Total by Fiscal Year** | **$13,159,817** | **$ 8,552,820** | **$ 9,703,161** | **$10,808,845** | **$32,858,000** |
| | | | | | | |
| | **LVMWD Share 70.6%** | **$ 9,290,831** | **$ 6,038,291** | **$ 6,850,432** | **$ 7,631,045** | **$23,197,748** |
| | **TSD Share 29.4%** | **$ 3,868,986** | **$ 2,514,529** | **$ 2,852,729** | **$ 3,177,800** | **$ 9,660,252** |

**JPA FY2018/19 to FY2022/23 IIP**
**Scope of Work and Justification**

| Area | Title | Scope of Work | Project Justification |
|---|---|---|---|
| Tapia | Tapia Sluice Gate Replacement | Replace existing gates in the tanks and channels at Tapia | Many of the gates that separate channels and tanks are worn and do not work properly. These items have reached their useful life and are in need of replacement. |
| Tapia | Programmable Logic Controller Upgrades (Tapia) | This project replaces programmable logic controllers (PLCs) 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 and centrate treatment in the first two years. | The PLCs at Tapia and centrate treatment have become obsolete and need to be replaced with new PLCs and ancillary equipment |
| Tapia | Tapia Water Reclamation Facility Reliability Improvements | Replace or rehabilitate facilities and equipment at the Tapia Water Reclamation Facility based on failure, exceedance of useful life, or obsolescence. Specific projects are identified for each fiscal year. | Provides reliability and regulatory compliance requires systematic replacement or rehabilitation of facilities and equipment. |
| Tapia | Tapia Duct Bank Infrastructure Upgrade | Add new duct bank from the front gate to the chemical building with several intercept points along the way. | Inability to provide wiring and communication paths to various areas of the plant without disrupting the current system. |
| Tapia | Grit Chamber Mixing System Replacement | Replace grit chamber mixing system with a more efficient mixing system. | The grit chamber uses a jet mixing system to keep light solids in suspension while heavier, inert solids settle out. There are "Blind Spots" where the grit and sludge accumulate with this system. |
| Tapia | New RAS Wet Well and Pumps | Replaces RAS wet well and pumps to increase pumping capacity and reliability. | The return activated sludge (RAS) rate has significant effect upon the BNR efficiency. If the RAS rate is increased, efficiency will improve. |
| Tapia | Pavement Restoration Tapia | Pavement restoration/slurry seal at Tapia | To keep the pavement at Tapia in good repair. |
| Tapia | Summer Season 2013 TMDL Compliance | In February 2017, the SWRCB adopted the Implementation Plan for the 2013 TMDL. The plan provides for compliance with summer time limits within five years. The options for compliance include a "side stream" treatment plant, the use of potable water, and nutrient trading in the watershed. This CIP funds the selection, preliminary studies, outreach, CEQA analysis, preliminary design and final design for summer time compliance. | The RWQCB approved an implementation plan for the EPA established 2013 Malibu Creek and Lagoon TMDL for Sedimentation and Nutrients to Address Benthic Community Impairments. The TMDL set summer season limit of 1 mg/L total nitrogen and 0.1 mg/L total phosphorus. The RWQCB has indicated that flow augmentation discharges will be required to meet this limit. The final compliance date is May 16, 2022. |
| Tapia | Process Air Improvements | Replaces process air blowers and aeration diffusers with new "full floor" retrievable diffusers and three new more efficient blowers. Structural and mechanical modifications of the installation of the blowers and diffusers are included in the scope of this work. | The Tapia Process Air Study was completed in 2012 and showed that an annual energy savings $184,000 could be achieved by implementing these improvements. Additionally, aging infrastructure will be replaced and plant reliability will improve with the implementation of this program. |
| Tapia | Primary Effluent Equalization | Design and construct 1.25 million gallons of primary effluent equalization storage. The storage will be located at the "bone yard." | Primary effluent equalization will dampen peak flows into Tapia allowing greater control over hydraulic loading of the plant processes improving performance and reliability. |
| Tapia | A/B Bus Electrical Modification | Study the feasibility of reconfiguring the Tapia electrical switch gear and then hire electrical team to make the modifications. Construction cost estimates will be developed following the completion of the feasibility study. | The main electrical switch gear at Tapia operates on two power phases (Wye/Delta). The two phases are not compatible and inhibit staff's ability to shut off power at the plant for repairs. |
| Tapia | Tapia Rehab 17-18 Primary, Grit and Skimming Pipe & Gate Replacement | Rehabilitation or replacement of equipment in three different areas of Tapia WRF: rehabilitation of primary clarifiers No. 4 & 5, replacement of grit and skimmings piping, and replacement of 12 (of 20) channel 4 slide gates on the secondary sedimentation basins. | This is a combination of 3 budgeted CIP projects. Primary clarifiers No. 4 and 5 are the last (5 total) of the clarifiers to be rehabilitated. The concrete and other structural elements have deteriorated due to the harsh environment, requiring replacement. The Grit and Skimmings piping has reached the end of its useful life and now requires replacement. The Chanel 4 slide gates on the secondary effluent basins are deteriorated and leaking. They require replacement to restore proper system operation and metering of RAS. |
| Tapia | Tapia Chemical Delivery Line Replacement | Commission a study including a detailed review of the record drawings, a pot hole plan and pot holing, and investigation into piping alternatives for the eventual replacement of approximately 400 feet (each) of underground (beneath asphalt roadway) sodium hypochlorite and sodium bisulfite piping with dual containment piping and leak detection. Inspect existing vaults to determine where repairs are required. | Chemical lines out of the chemical building and to the two vaults include secondary containment, but do not have leak detection. Currently, one of the lines is leaking. Replacement tubing is extremely difficult to pull through the secondary containment piping without damaging the tubing. Both sodium bisulfite and sodium hypochlorite lines need replacement. |

| | | | |
|---|---|---|---|
| Tapia | Tapia Headworks White Room Floor Plate Repair and Steel Framing Replacement | Modification or replacement is needed for the floor plates and steel framing floor plate supports in the white room located at Tapia's headworks building. | Fiberglass floor plates that cover the channels up and downstream of the bar screens in the "white room" of the headworks building are not well secured. They offer a general walking/tripping hazard. When there is a flooding of the process, some plates float up and end up out of place. The steel framing around floor openings require shoring and replacement. This floor was constructed in 1979. |
| Tapia | Tapia Effluent Pump Station 4160 V Feeder Relocation | Remove or abandon in place existing 4160 Volt feeders currently encased in the top slab of the Effluent Pump Station Wet Well, underneath the existing MCCs. Perform electrical design and replace with overhead 4160 Volt feeders. Ensure coordination with 480V switchgear improvements. | Staff are concerned that the existing 4160 Volt feeder encased in the Effluent Pump Station floor slab is not accessible and poses a risk to operations if it were to fail. Effluent PS constructed in 1979; asset design life is 50 years. |
| Tapia | Tapia Tertiary Filters Rehabilitation | Tertiary Filters concrete rehabilitation. Approximately 25 locations that require a 1 square foot patching with rebar repair. Replace 45 metal plates (2' x 4') on the filter deck and fix concrete around the plates with proper joint sealer. Also include the repair of an electrical panel in the Filter gallery. Replace existing electric actuators at filter structure with new electric actuators. Program plant control system to function with both remote PLC control of actuators and local actuator control. Upgrade local controls to replace old filter annunciator panels which are currently located on the top deck of the filter structure. Potentially provide 1 local control panel for multiple filters. Provide weather protection for existing controls until replacement. | Concrete top surface and concrete beam deterioration and reinforcing positioned with inadequate concrete cover requires rehabilitation by selective demolition of unsound concrete, blast cleaning, and replacement concrete including bonded deck topping to provide 2-inch clear cover over reinforcing. The metal plates on the filter deck do not fit perfectly and do not seal well. Rainwater runs off the filter deck and into the filters. Most plates have cracking of concrete around the edges and joint sealer installed. The electrical panel in the gallery is corroded. The panel appears to be old and probably has hard wire relays and not PLC based controls. During power outages, filters must be operated manually, which requires an operator to be at the filter location. |
| Tapia | Modernize Tapia's Entrance Sign | Modernize Tapia's entrance sign to reflect the JPA partnership and stewardship. The sign will likely remain in its current location and configuration because it is in the public right of way. | Tapia's entrance sign is dated, becoming worn and does not fully reflect the JPA partnership and stewardship. |
| Tapia | Develop Tour Seating Area at Tapia & Fish Tank Removal | Develop tour seating area at Tapia adjacent to the control building | There nowhere for tour guests to sit at Tapia during the outside orientation portion of the tour. This is uncomfortable for the guests and congregating in the parking lot is not the safest situation. |
| Tapia | Tapia Building Access Control | Add a Fob access control system to the current building alarm system | The Fob access control system will allow for better security to the building with a trackable key Fob which eliminates the need to disperse door keys. The system will identify the user and allow access if granted preventing false alarms. |
| | | | |
| REW | Agoura Road Extension Phase II | The project consists of continuation of the 8" recycled water main gap closure identified inn the 2007 Recycled Water Master Plan along Agoura Road from Lewis road to Cornell Road. Phase I of the project was completed as a part of City of Agoura Hill's Agoura Road widen project. | The project will close a recycled water system gap and provide recycled water system redundancy, improve reliability. |
| REW | Cordillera Tank Rehabilitation | Rehabilitation including interior and exterior coating, valve and appurtenance upgrades and replacements, restoration of deteriorated asphalt, and work to ensure up-to-date compliance for safety and water quality equipment. | The Tank Condition Summary found that Cordillera Tank has failing coating, requiring rehabilitation. In addition, upon site visit staff identified other items that require replacement or rehabilitation to function properly. |
| REW | Calabasas Park Recycled Water Main Extension | Install approximately 1,200 LF of 6-8 inch pipeline to loop the existing recycled water system. | The existing system is undersized and the existing 4-inch AC-pipe in this location has seen numerous failures and repairs. Looping the system will increase capacity, reduce pressure fluctuations and stress to the existing pipe to extend the life of the existing infrastructure. |
| REW | SCADA System Communication Upgrades | 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. These improvements are necessary for communication in the Recycled Water System. | The existing system is now limited in speed, bandwidth and flexibility. The system is also past its peak communication bandwidth and expected life-span. Upgrading will dramatically increase the bandwidth of the system allowing the use of security cameras, voice over IP (VOIP) phone and certain types of smart sensors. The upgrades will reduce dependency on telephone company equipment and will help reduce time spent coordinating repairs with outside vendors. |
| | | | |

| | | | |
|---|---|---|---|
| Rancho | Rancho Las Virgenes Digesters Cleaning and Repair | Clean out and make all necessary repairs to digesters #2. the scope of repairs is based on the recently completed rehabilitation of digester # 1. | The digesters have not been taken off line for cleaning in their 20 years of service. It is recommended that digesters are cleaned every 10 years. With the completion of the third digester project in 2015, there will be enough digester capacity for the existing digesters to be cleaned and repaired. |
| Rancho | Rancho Reliability Improvements | Replace or rehabilitate facilities and equipment at the Rancho facility based on failure, exceedance of useful life, or obsolescence. Specific projects are identified for each fiscal year. | Providing reliability and regulatory compliance requires systematic replacement or rehabilitation of facilities and equipment. |
| Rancho | Rancho Amendment Bin and Conveyance Modification Project | The project consists of installing a new smaller amendment bin and modification to the conveyor system to simplify the amendment conveyance process | The existing amendment bin has reached the end of its life expectancy. The existing bin is highly corroded and requires significant rehabilitation or replacement. The cost to rehabilitate the existing bin exceeds the cost to replace it with a smaller bin with a more simplified process that will reduce future maintenance costs and provide a new service life. |
| Rancho | Pavement Restoration Rancho | Pavement restoration/slurry seal at Rancho | To keep the pavement at Rancho in good repair. |
| Rancho | Rancho: Replace Agitators | Purchase new compost agitators to replace the existing ones. | The existing agitators are approaching the end of their service life will need to be replaced. The original agitators had a seven-year life as they were placed in service in 1994 and replaced in 2001-2002. The existing agitators will be approaching the end of their service life. An aggressive maintenance schedule has doubled the service life of these agitators. |
| Rancho | Rancho Las Virgenes: FOG Receiving Facilities | | |
| Rancho | Ovation Upgrade | Future upgrade of Rancho control system. | The current control system is nearing the end of its useful life. |
| Rancho | Rancho LV Storm Water Diversion Structure Replacement | Replacement of the two storm water diversion structures at the Rancho Las Virgenes Composting Facility. Increase the size and length of the farm field discharge pipeline. | Replacement of the two storm water diversion structures at Rancho. These diversion structures can send runoff from the facility to the farm fields or a v-ditch, which flows to Las Virgenes Creek. Currently, the pipeline in the structures draining to the farm fields becomes clogged with debris and overflows to the v-ditch and subsequently, Las Virgenes Creek. This can cause unauthorized discharges to the creek of water from Rancho. |
| Rancho | Rancho LV Composting Biofilter Alternative Media Study | Perform an Odor Control Alternatives Study to determine if replacement of the wood chips with alternative media ("biosorbens") is advisable. Alternatives study should evaluate adequacy and capacity of existing supply air facilities and the consistency of air distribution throughout the bed area. If a new alternative is selected, staged removal of the woodchips should be followed by inspection of the underlying gravel, plastic underdrain plates, and perforated pipe. Replacement or repair as necessary. | District currently has issues acquiring the media used in the biofilter; no responses on RFPs and only one vendor located in Chino is able to source the product. The elimination of the hauling and disposal of used media may increase the marketability and bidding of the project. Annual costs are approximately $150,000 per year to maintain the biofilter. Odor control is very important at the facility. There is a regulatory compliance aspect of this project. |
| | | | |
| Pure Water | Pure Water Project Las Virgenes - Triunfo | On August 1, 2016, the JPA Board selected indirect potable reuse using Las Virgenes Reservoir as the preferred scenario for the Basis of Design Report. This CIP will fund preliminary studies, outreach, CEQA analysis, preliminary design, final design and the demonstration project. | The JPA desires to maximize beneficial reuse of recycled water while avoiding costly treatment upgrades to comply with new TMDL water quality limits. On June 2, 2014, the Board adopted guiding principles creating a framework resulting in the Pure Water project. |
| | | | |
| Other | Trunk Sewer System Improvements | Replace or rehabilitate trunk sewer system components based on failure, exceedance of useful life, or obsolescence. Specific projects are identified for each fiscal year. | Providing reliability and regulatory compliance requires systematic replacement or rehabilitation of facilities and equipment. |
| Other | Centrate 20-Inch Valve Repair | Repair buried 20-inch Miliken valve at the centrate facility. | One of the 20-inch Miliken valves does not allow for a full shut down and must be re-built. |
| Other | Centrate Tank Inspection and Rehab Assessment | Inspect, and report on the interior and exterior condition of the existing (2) centrate treatment and storage tanks and make recommendations for repair and maintenance | The two existing tank have been in service for approximately 30-years. With the completion of the new Centrate storage tank to allow removal from service we are able to inspect and make projections for repair and maintenance of the original tanks in order to extend their useful life. |

April 2, 2018 JPA Board Meeting

TO: JPA Board of Directors

FROM: Facilities & Operations

**Subject : Relocation of Conrad N. Hilton Foundation 115 kW Solar Carport System: Award**

## SUMMARY:

On October 2, 2017, the JPA Board accepted the donation of a 115 kW solar carport system and three electric vehicle charging stations from the Conrad N. Hilton Foundation. The Board also appropriated $300,000 for the relocation and installation of the facilities to provide renewable energy for the JPA's proposed Pure Water Demonstration Project.

A request for proposals was issued for the disassembly, relocation and installation of the solar carport system at the JPA's Headquarters. Two proposals were received for the work. After discussion with representatives of the Hilton Foundation and the Pure Water Demonstration Project team, it was concluded that it would be best to incorporate installation of the solar carport system into the design and construction of the Pure Water Demonstration Project. As a result, staff recommends awarding a service contract to Go Green Solar Solutions, Inc., in the amount of $65,443.84, for disassembly and transport of the system to a JPA location for temporary storage. After completion of design of the Pure Water Demonstration Project, staff will provide the Board with a recommendation for reinstallation of the system, which may occur in conjunction with construction of demonstration facilities.

## RECOMMENDATION(S):

Authorize the General Manager to execute a service agreement, in the amount of $65,443.84, to Go Green Solar Solutions, Inc., for the disassembly and transport of a 115kW solar carport system to a JPA-owned site for temporary storage.

## FISCAL IMPACT:

Yes

## ITEM BUDGETED:

Yes

## FINANCIAL IMPACT:

The total cost of this work is $65,443.84. The Board previously appropriated $300,000 for the relocation of the solar carport system. No additional appropriation is needed. Representatives of the Hilton Foundation informed JPA staff that the Foundation proposes to provide the JPA with a grant of up to $150,000 to offset the cost for removal and future reinstallation of the solar carport system.

## DISCUSSION:

Following the release of the Request for Proposals and an extended proposal deadline, staff contacted 25 of the largest solar installers in Southern California and vendors referred to the JPA by the Hilton Foundation. Several pre-proposal field visits were conducted with prospective proposers; however, most of the solar companies decided not to submit proposals because of the small size and unique nature of the project. Staff performed additional outreach and was successful in receiving proposals from Go Green Solar Solutions, Inc., and Waisman Construction, Inc., in the amounts of $199,995.84 and $1,358,000.00, respectively.

After reviewing the two proposals and meeting with the Pure Water Demonstration Project team, staff concluded that it would be best to incorporate the solar carport system into the design and construction of the Pure Water Demonstration Project. This approach would ensure that the solar carport system would become an integral part of the demonstration project and allow for a more thorough evaluation of construction details such as electrical tie-in locations and potentially conflicting underground utilities. These construction details would be helpful to better define the scope of work for reinstallation of the solar carport system, making it more attractive to prospective contractors. As a result, staff recommends awarding a service contract to Go Green Solar Solutions, Inc., in the amount of $65,443.84, for disassembly and transport of the system to a JPA location for storage.

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

## ATTACHMENTS:

Go Green Proposal
Why Go Green
Qualifications

# *115kw Remove and Replace Carport Pro*

*Date:* 16-Feb-18
*Owner* *LVMWD*
Atn John Zhao
*Address:* *4232 Las Virgenes Rd*
Calabasas, CA 91302
*Phone:* *818-251-2230*
***E-Mail:*** jzhao@LVMWD.com


Greg Johanson
***805-857-4925***
greg@solarelectricalsystems.com


| *Salesperson* | *Contractors Lic. #* | *Terms: 10% to Moblize, 20% on Removal & Storage, 10% New Design, 15% on Installed* |
|---|---|---|
| GJ | ***1009682*** | *new Foundations, 20% on Carport Errection, 15% Solar System Turn On, 10% Retention* |

| *Quantity* | *Description* | *Total Price* |
|---|---|---|
| 1 | **Remove Existing 115kW Carport, Hilton Foundation**<br>**Palletize, Deliver & Store in LVMWD Yard (Prevailing Wage Work)** | **$65,443.84** |
| 1 | **Design, Engineer, Permit, Install Multiple Array 115kW Carport at LVMWD Facility**<br>**(Point of Electrical Connection NW Utility Room) Civil Work and Trenching By Others**<br>**(Prevailing Wage Work)** | **$16,800.00** |
| 1 | **Supervizse Civil Work, Carport Foundations and Concrete Pour (Civil work Excluded)**<br>**Fabricate Rebar Cages, Structure Baseplates and Post and Beams & Steel Errection Work.**<br>**(Prevailing Wage Work) Estimated Sub Work $62,400 excluded.** | **$12,142.00** |
| 1 | **Install Used Solar Modules on Carport Structures and Rewire Solar Electrcal System to Used Inverter. Others to Trench to Electrical Room. Point of connection 600 Amp, 240 Volt, 3W Main Electrical Panel. (Prevailing Wage Work)** | **102,000.00** |
| | **Estimated Labor Costs $158,385**<br>**Estimated Materials $38,000** | |
| | **Go Green Solar Solutions, formaley Solar Electrical Sysytems has over 34 Years of Solar Electrical carport expereince. See Commerical Power Point with 350kW LLAFB Carport, MTA, City of Calabasas Park and Ride, Long Horn Ranger Station National Park Service. Prevailing Wage Projects.** | |

Quotation is good for 30 days

| | |
|---|---|
| *SUBTOTAL* | **$196,385.84** |
| *SALES TAX* | **$3,610.00** |
| *TOTAL* | **$199,995.84** |
| ***Total*** | **$199,995.84** |

Seller Date

Purchaser Date

2524 Townsgate Road, Suite C
Westlake Village, CA 91361
TEL 805-497-9808
FAX 805-497-6199
gogreensolarsolutions.com

# Why Go Green Solar Solutions?

- **Over 37 years of experience** – 5 times more than any of our competitors.
- We are your one-stop solar energy shop **… experts in solar electricity, radiant heat, solar hot water, and solar pool heating**. We know how to make every system in your home or business work together seamlessly to provide long-term reliable energy performance.
- GGSS is the largest, most experienced and most innovative solar design and installation company in Southern California, in **business since 1981.** Locally owned and operated. Visit our website at gogreensolarsolutions.com
- Go Green Solar Solutions has installed over **5,000 residential systems** and **over 500 commercial and municipal systems…over $110 Million in solar installed.**
- **A+ Rating** from the Better Business Bureau since 2002.
- **2008, 2010 & 2012 Super Service Award** from Angie's List. angieslist.com
- We are licensed, bonded and insured, unlike many of our competitors. We always maintain Worker's Compensation Insurance and $2 Million in liability insurance to protect our customers. Certificate of Insurance available.
- Licensed General and Electrical Contractor #1009682, B-1, C-10.
- **We handle all paperwork** for you, including solar rebates, utility interconnection agreements, the building permit process, HOA approvals, and Coastal Commission approvals.
- Factory authorized dealer for SolarWorld, SMA inverters, Heliocol products, Warmboard and Infloor products.
- We **specialize in high-end custom homes and remodels, plus residential, commercial and multifamily installations.**
- Stainless steel and galvanized hardware used on installations for 30-year life and performance.
- We serve and support general contractors, architects, energy consultants, builders, designers and roofers.
- Solar industry recognition for quality work and outstanding customer service for over 37 years.
- We provide **a complete owner's manual with every job** including spec sheets, approved permit package, rebate approval documents, interconnection approval letter, copies of your contract and all product warranties.

# Commercial PV Systems


Go Green Solar Solutions

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gogreensolarsolutions.com

# About Us


***Go Green Solar Solutions*** is your local green team, specializing in new green construction and major green remodels since 1981. We custom design and install solar electrical, radiant heat, solar domestic hot water, and solar pool heating systems throughout Southern California for more than 37 years. We are the largest and most experienced full-service solar contractor in the area, with a highly-trained staff, including specialized departments for each type of solar project you may have.  Professional, Responsive and Trustworthy.

# What Our Customers are Saying …

"I want to thank you for a wonderful job. I will definitely be singing your praises to anyone who will listen."

Rhoda Kruger
Dink's Restaurant
Palm Springs, CA

"For the first time, all our electrical needs were completely met without using one single watt from the electrical grid. We are daily generating more electricity than we are using."

Lee Lizarraga, President
ABC Autocare, Inc.
Ventura, CA

# What Our Customers are Saying …

"I watched the meter run backwards. I would highly recommend solar. It makes a lot of business sense."

Marty Cherrie
Harley-Davidson
Baldwin Park, CA


"Your entire team has been great."

Becky Walton
Kish Rigging, Inc.
Thousand Oaks, CA

# Commercial PV Systems


***Over 500 Commercial Installations and 12 Municipalities***



Go Green Solar Solutions

# 288kW Rooftop, Carport, Hillside System

San Clemente Villas Assisted Living
San Clemente, CA

# 42kW Standing Seam Sawtooth Roof


Ability to meet Custom Design/Build Parameters
Dink's Restaurant, Palm Springs, CA



Go Green Solar Solutions

# 70kW Commercial PV System

Sloped Built-Up Louvered Roof, Burbank, CA

# 50kW Foam Roof PV System

Spectrum 6 Medical Building, Orange County, CA

# 144kW Commercial PV System


Non-Penetrating Install w/ Obstacles
Laidlaw Harley-Davidson, Baldwin Park, CA

# 29kW Common Area System

Abbott Kinney Multi-Use Development
Los Angeles, CA

# Commercial PV  & Hot Water Systems



Go Green Solar Solutions

# Apartment PV & Hot Water System

Gateway Apartments
Los Angeles, CA

# Apartment PV & Hot Water System

Palmdale Transit Apartments
Palmdale, CA

# Apartment PV & Hot Water System

Playa Vista Apartments
Los Angeles, CA

# Apartment PV & Hot Water System

Dunbar Apartments
Los Angeles, CA

# Carport PV Systems

# 360kW Carport Structure

Los Angeles Air Force Base
El Segundo, CA

# 75kW Apartment Carport System

Thousand Oaks, CA

# 53kW Apartment Carport System

Westlake Village, CA

# 20kW Solar Carport


Helms Bakery
Culver City, CA



Go Green Solar Solutions

# Profit from Your Parking Lot

- Carports are the most cost-efficient way to install solar at a business.
- Some commercial roofs can't support solar. Carports and shadeports allow the business to go solar without roofing inconvenience and expense.
- Each parking space accommodates 2kW of solar.  A bay of just six parking spaces translates into 12kW of solar power.



Go Green Solar Solutions

# Non-Profit/Low-Income PV Systems



***New Affordable Housing Projects and Community Buildings***



Go Green Solar Solutions

# 26.7kW Affordable Housing System

7 Maples New Construction
Los Angeles, CA

# 90kW Affordable Housing System

Irvine Inn Affordable Housing Project
Irvine, CA

# 42kW Affordable Housing System

Affordable Housing 105 Units LEED Gold Certified
Bronson Court Apartments, Los Angeles, CA

# 100kW Non-Profit System

Camp Ramah, Jewish Community Summer Camp
Ojai, CA

# Building the Road Map for Going Green

*Go Green Educates Local Building Inspectors*

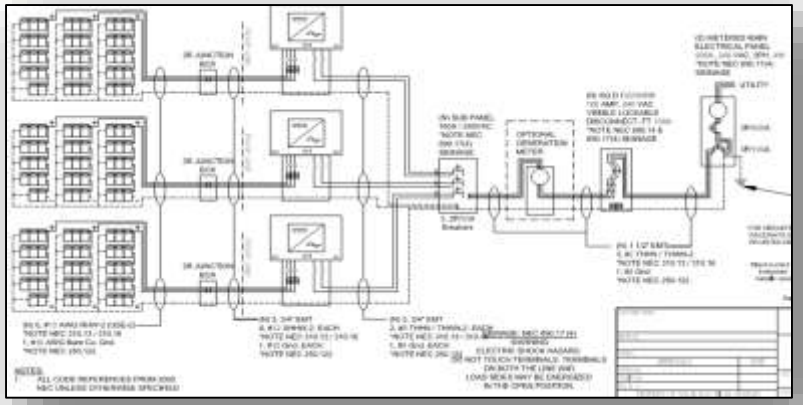
**Go Green Solar Solutions can provide you with a complete Energy Efficiency Package:**

- Energy Audit
- Lighting Retro-fit
- HVAC upgrade
- Energy Management Systems
- Solar Electrical System

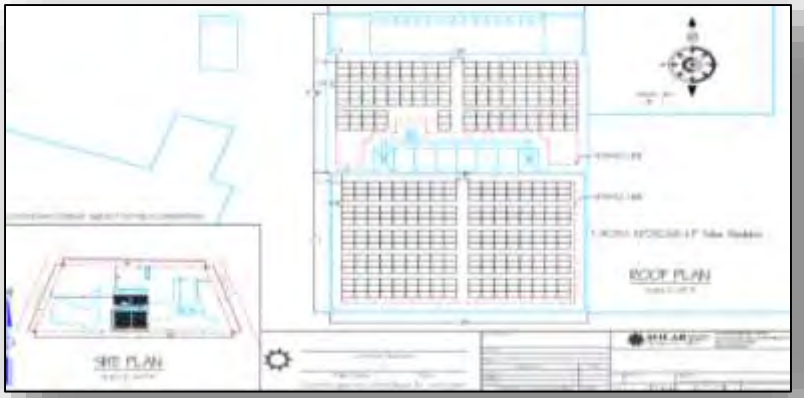
Build It GREEN MEMBER

U.S. GREEN BUILDING COUNCIL MEMBER

# In-House Design & Management Support



Electrical One-Line




Site Layout


Design, Engineering & CAD



We are a full service solar company able to provide CAD and engineering support with our own in-house CAD Design, Project Management, and Engineering Departments.

# Highest Quality Products

## SolarWorld Solar Modules

SolarWorld's Sunmodule® solar panels are designed and manufactured to the highest standards of quality, performance and durability. The grid-tied and off-grid products from SolarWorld come in a variety of sizes and power, making them suitable for all applications.

## SMA Smart Energy

It comes with everything. This combination of a modern PV inverter and a battery with an effective capacity of 2 kWh not only optimizes energy consumption but also makes it possible to use home-generated solar energy around the clock. The Sunny Boy Smart Energy is the first wall-mountable, series-produced PV inverter to feature an integrated lithium-ion battery.

# Non-Penetrating Flat Plate Product

- For Large Area Roofs with many obstacles.
- Easy Cleaning & Access
- Can Be Installed Quickly.
- Up to 125 mph Wind Rated Exposure B.
- Allows Evaporation from Roof
- Will Not Void Existing Roof Warranties.

# Penetrating Flashable Roof Stanchion

- Quality Construction Standards
- 100kW or less Commercial Photovoltaic Systems
- Standard Flashings
- Fast and Easy to Install
- Stainless Steel, Anodized Aluminum, & Galvanized Metal
- Fully Engineered & Tested – includes structural & electrical engineering
- Meets or Exceeds National Roofing Association Standards

# Web Monitoring


Webconnect is ideally suited for online monitoring of PV systems with up to four inverters. It provides free access to Sunny Portal with existing Internet access and a DSL router, without an additional data logger. Once configured, key data can be accessed and displayed in a clear format whenever needed via Sunny Portal and automatic product updates ensure that the device firmware is always up to date.

# 2018 Incentives Available

**Rebates**
- Utility Rebates available for some commercial and multi-family applications.
- We handle all of the paperwork for you!

**Federal, Investment Tax Credit**
- 30% Investment Credit for Commercial projects, IRS form 3468

**Federal, Depreciation**
- Section 179 Deduction (up to $1,000,000 for 2018), IRS form 4562
- 5 yr MACRS Depreciation
- 100% Bonus Depreciation

**State Property Tax Exempt**
- Solar Installations are exempt from property tax (CA Revenue & Taxation Code Section 6353.5)

**Property Value**
- A historic increase of 3% in property resale value

**ROI**
- 3-7 yr. return on investment
- 25 year positive after tax cash flow
- Comparable to a 15% tax-free CD



Please consult your tax advisor.

Go Green Solar Solutions

# Why Go Green Solar Solutions?

**Knowledge:**

- Highly Diverse projects & wide range of expertise in Southern California
- Long term, knowledgeable, field employees
- We are a B/C10 licensed contractor, bonded $6 MN, and insured $5 MN, unlike many of our competitors

**Experience:**

- 37 years of experience - 5 times the experience of any of our competitors
- 5,000 Residential projects, 500 Commercial/Non-Profit projects
- Prevailing Wage, certified payroll

**Capabilities:**

- Highly trained office staff coordinate all inspections, permits, and installations
- Full CAD engineering department to rapidly support project changes for small and large projects
- Complete owner's manual with every job including spec sheets, approved permit package, rebate approval documents, interconnection approval letter, copies of your contract & all product warranties.

# Thank you for allowing us to be Your Partner in the Green Building Revolution.

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April 2, 2018 JPA Board Meeting

TO: JPA Board of Directors

FROM: General Manager

**Subject : Heal the Bay's "Bring Back the Beach" Event: Attendance**

**SUMMARY:**

Each year, the environmental group Heal the Bay holds its "Bring Back the Beach" Event in Santa Monica as one of its key fundraising activities. This year the event will be held on Thursday, May 17, 2018, at the Jonathan Club in Santa Monica. Attached is a copy of the event flyer.

Over the years, JPA Directors have attended the event to build relationships, not only with Heal the Bay, but also with other environmental group representatives attending the function. Previously, the JPA reserved a 10-seat table, but when costs rose from $3,000 to $5,000, it was decided to only send the Chairs of each Board, or their designees. Individual seats for the event are $600.

**RECOMMENDATION(S):**

Authorize one Board Member from each agency and the Administering Agent/General Manager to attend the Heal the Bay "Bring Back the Beach" Event at a cost of $600 per person.

**FISCAL IMPACT:**

Yes

**ITEM BUDGETED:**

Yes

**FINANCIAL IMPACT:**

Sufficient funds for the event are available in the adopted Fiscal Year 2017-18 JPA Budget. Historically, the expense has been charged to the "Watershed Programs" portion of the JPA's Administration Budget, which is allocated 70.6% to LVMWD and 29.4% to Triunfo Sanitation District.

Prepared by: David W. Pedersen, Administering Agent/General Manager

**ATTACHMENTS:**

Heal the Bay Bring Back the Beach Flyer

# SAVE THE DATE

## 2018 ANNUAL AWARDS GALA

THURSDAY, MAY 17, 2018

5:30PM

JONATHAN CLUB

HEALTHEBAY.ORG/BBB


HEAL THE BAY

ITEM 10A

**INFORMATION ONLY**

April 2, 2018 JPA Board Meeting

TO: JPA Board of Directors

FROM: Facilities & Operations

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**Subject : Annual Bioassessment Monitoring Report: Approval of Purchase Order**

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The Las Virgenes-Triunfo Joint Powers Authority (JPA) approved funding for this matter in the JPA Budget. On March 13, 2018, the LVMWD Board, acting as Administering Agent of the JPA, authorized the General Manager to approve a purchase order to Aquatic Bioassay Consulting Laboratories, Inc., in the amount of $44,652, for the annual bioassessment monitoring report.

**SUMMARY:**

Since 2006, the JPA has submitted an annual bioassessment monitoring report to the Los Angeles Regional Water Quality Control Board as required by Tapia's NPDES Permit. The report is intended to assess the "eco-health of the stream" by measuring the physical condition of the receiving waters and their biological communities. The work involves sampling and characterizing the habitat potential of the creek, as well as identifying and quantifying the species of benthic macroinvertebrates and algae at eight different receiving water stations. In 2010, new requirements were established for the JPA to conduct sampling and taxonomic identification of algal biomass taken from the substrate. This task is labor intensive and requires the use of specialized consultants and laboratories. As a result, the overall cost of the bioassessment monitoring has increased. The cost of the 2017 bioassessment monitoring report is $44,652.

**FISCAL IMPACT:**

Yes

**ITEM BUDGETED:**

Yes

**FINANCIAL IMPACT:**

Sufficient funds are available for this work in the adopted Fiscal Year 2017-18 JPA Budget.

**DISCUSSION:**

Bioassessment monitoring for sampling sites along Malibu Creek is required by Tapia's NPDES Permit. The monitoring consists of creek site sampling and observations, laboratory analysis and data analysis for each site under protocols established by the Surface Water Ambient Monitoring Program (SWAMP) and the U.S. EPA estuarine sampling guidance documents for RSW-MC011D (Malibu Lagoon).
Site observations include stream flow measurements and a physical habitat assessment, which evaluates stream bank conditions, potential sediment impairment, and canopy cover. It was noted that the stream flows were below average due to persistent drought conditions. Physical habitat assessments were optimal to suboptimal for most sites with RSW-007U having the lowest (marginal) score due to sediment deposition and channel alteration. The laboratory analyses of the site samples identified 4,265 benthic macroinvertebrates from 42 different taxa. The sample sites the majority of organisms included disturbance tolerant species, including snails, flies, mayflies, amphipods, midges, and New Zealand Mud Snails.

Results from sampling and laboratory analyses were used to determine scores using the California Stream Condition Index (CSCI) and the Southern California Algae Index of Biological Integrity (SoCA Algae IBI). CSCI scores were determined by the composition of the benthic macroinvertebrate community, while SoCA Algae IBI scores were determined by the abundances and composition of diatom and soft-bodied algae communities. CSCI scores were either "likely altered" or "very likely altered," and SoCA Algal IBI scores were classified as "non-reference."

One of the potential reasons given for the low scores in the bioassessment report was the water quality in Malibu Creek. Because of high sulfate and phosphate concentrations in the water from the Monterey Formation, there was a detrimental effect on benthic macroinvertebrates.

Prepared by: Brett Dingman, Water Reclamation Manager

ITEM 10B

**INFORMATION ONLY**

April 2, 2018 JPA Board Meeting

TO: JPA Board of Directors

FROM: Facilities & Operations

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**Subject : Rancho Las Virgenes Composting Facility Rain Gutter Replacement: Authorization of Purchase Order**

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The Las Virgenes-Triunfo Joint Powers Authority (JPA) approved funding for this matter in the JPA Budget. On March 13, 2018, the LVMWD Board, acting as Administering Agent of the JPA, waived the formal bidding process, and authorized the General Manager to issue a purchase order, in the amount of $128,290, to Elite Sheet Metal and Rain Gutter Company for the replacement of deteriorated rain gutters and downspouts at the Rancho Las Virgenes Composting Facility.

**SUMMARY:**

The Rancho Las Virgenes Composting Facility was placed in service 24 years ago in 1994. As the facility has aged, the rain gutters and downspouts on the buildings have deteriorated to the point that they require replacement. Staff solicited bids from a variety of firms that perform rain gutter and sheet metal work over a period of several months. However, due to the large quantity of rain gutter, height of the buildings and specialized configuration, only one bid was received from Elite Sheet Metal and Rain Gutter Company. Staff recommends issuing a purchase order to Elite Sheet Metal and Rain Gutter Company, in the amount of $128,290, to complete the work.

**FISCAL IMPACT:**

Yes

**ITEM BUDGETED:**

Yes

**FINANCIAL IMPACT:**

The adopted Fiscal Year 2017-18 JPA Budget provided $132,000 for the work. No additional appropriation is required. The cost of the project will be allocated 70.6% to LVMWD and 29.4% to Triunfo Sanitation District.

**DISCUSSION:**

The rain gutters and downspouts at the Rancho Las Virgenes Composting Facility have deteriorated to the point that they require replacement. Attached are photos that illustrate the condition of the rain gutters. The scope of work consists of removing and disposing of the old rain gutter for all seven buildings at the facility and installing a total of 4,910 linear feet of new rain gutters and downspouts.

Staff solicited bids from a variety of firms that perform rain gutter and sheet metal work over a period of several months without any response. The large quantity of rain gutter and height of several of the buildings deterred most firms from submitting a bid. In addition, the rain gutters are larger and deeper than typical commercial installations and require custom sheet metal fabrication. Fortunately, staff identified Elite Sheet Metal and Rain Gutter Company as a potential firm to perform the work and received a bid, in the amount of $128,290. The cost of the work is approximately 3% below the budgeted amount, and staff believes the fee is reasonable.

Prepared by: Brett Dingman, Water Reclamation Manager

**ATTACHMENTS:**

Photo 1
Photo 2

ITEM 10C

**INFORMATION ONLY**

April 2, 2018 JPA Board Meeting

TO: JPA Board of Directors

FROM: Facilities & Operations

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**Subject : Tapia Water Reclamation Facility Switchgear and Transformer Maintenance**

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**SUMMARY:**

Much of the electrical service equipment at the Tapia Water Reclamation Facility was installed in the late 1960s and 70s. Periodic and routine preventative maintenance is required to keep the equipment serviceable. Preventative maintenance work was performed on the electrical equipment between December 11 and 15, 2017.

**FISCAL IMPACT:**

No

**ITEM BUDGETED:**

Yes

**DISCUSSION:**

The following scope of work was performed by NETA-certified technicians in accordance with NETA specifications and industry guidelines. Also, a technical service engineering report was provided to detail the service that was performed on the electrical equipment as outlined below. The report dated February 19, 2018 was prepared by Hampton Tedder Technical Services and includes field data, analysis and recommendations.

Equipment Serviced:

- 2 72KV, 1200 amp SF6 gas circuit breakers
- 8 GE 50/51 12IAC518806A electro-mechanical relays
- 2 5MVA, 66KV Delta HV x 4160/2400 Wye, oil-filled substation transformers
- 7 300-750 KVA, 4160 x 480, oil-filled substation transformers
- 14 5KV, 600 amp, fused-load interrupter switches
- 7 480 volt switchboards including ground fault tests and certifications

Hampton Tedder Technical Services, the company that performed the emergency high-voltage repair work at the Rancho Las Virgenes Composting Facility after last year's rainstorm, completed the preventive maintenance work at Tapia. Previously, there were discussions with Southern California Edison (SCE) regarding the feasibility of making major modifications to the high-voltage electrical service to Tapia. Investigation revealed that the oil-filled 66 KV/4.1 KV transformers that feed the plant belong to the JPA (Tapia) and not SCE as previously thought. Discussion between staff and SCE representatives centered on re-configuring the electrical service by lowering the incoming voltage, removing the existing 66 KV transformers, installing new transformers and transferring ownership of the facilities to SCE.

However, after completion of the maintenance work and receipt of the Hampton Tedder report, staff feels more comfortable with the JPA's continued ownership of the existing 66 KV system and transformers, which were built in 1992 and are PCB-free. Also, a reduction in the voltage of the service connection from SCE would result in a significant increase in demand charges, making the conversion uneconomical. The report recommended a minor overhaul of the transformers to include re-taping high voltage connections, replacing older weathered instrumentation and flexible wiring to those devices, re-painting the exterior, and reviewing the condition of the oil. An oil analysis is currently in progress with a recommendation to follow. Once the extent of this additional work is determined, plans and purchasing agreements will be developed to make the necessary modifications.

Additionally, recommended modifications to the existing 4.1 KV medium-voltage system identified by the District's electrical maintenance section were verified by Hampton Tedder Technical Service. The work involves standardizing Tapia's original, older medium-voltage "delta" transformers to the newer and safer existing "wye" configuration. The current "mixed" configuration does not allow for properly splitting the electrical bus. Splitting the bus allows for greater reliability, redundancy and personnel/equipment safety. Hampton Tedder is preparing a quote to re-wind the existing two redundant delta transformers versus purchasing two new wye transformers. Once that information is received, staff will recommend a project to facilitate the change from delta to wye configuration.

Prepared by: Larry J. Miller, Water Systems and Facilities Manager