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.

5:00 PM October 2, 2017

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 September 5, 2017 (Pg. 3)

Approve.

5 ILLUSTRATIVE AND/OR VERBAL PRESENTATION AGENDA ITEMS

A Pure Water Project Las Virgenes-Triunfo: Update

6 ACTION ITEMS

A Tapia and Rancho Operations and Maintenance Project List Development: Accept Proposal (Pg. 11)

Budget and appropriate $70,000; accept the proposal from KEH & Associates, Inc., in the amount of $69,824; and authorize the Administering Agent/General Manager to execute a professional services agreement for development of a Tapia and Rancho operations and maintenance project list.

B Donation of 115 kW Solar Carport System from the Conrad N. Hilton Foundation: Acceptance (Pg. 36)

Accept the donation of a 115 kW solar carport system and three electrical vehicle charging stations from the Conrad N. Hilton Foundation, and budget and appropriate $300,000 for the Hilton Foundation Solar Carport System Relocation Project.

C Tapia Water Reclamation Facility Switchgear and Transformer Maintenance: Award (Pg. 42)

Accept the quotation from Hampton Tedder Technical Services, in the amount of $61,711.60; and authorize the Administering Agent/General Manager to issue a purchase order, in the amount of $67,882.76, which includes a 10% contingency, for routine maintenance of the switchgear and transformers at the Tapia Water Reclamation Facility.

7 BOARD COMMENTS

8 ADMINISTERING AGENT/GENERAL MANAGER REPORT

9 FUTURE AGENDA ITEMS

10 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

11 CLOSED SESSION

12 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 September 5, 2017

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance to the Flag was led by Chair Wall.

1. CALL TO ORDER AND ROLL CALL

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

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

2. APPROVAL OF AGENDA

Director Orkney moved to approve the agenda. Motion seconded by Director Caspary. Motion carried by the following vote:

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

3. PUBLIC COMMENTS

None.

4. CONSENT CALENDAR

A Minutes: Regular Meeting of August 7, 2017

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

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

5. ILLUSTRATIVE AND/OR VERBAL PRESENTATION AGENDA ITEMS

A Pure Water Project Las Virgenes-Triunfo: Update

Administering Agent/General Manager David Pedersen provided the following update:

Institutional Issues: Staff met with City of Thousand Oaks Public Works Department staff to discuss progress on the project. Staff also discussed possible partnership opportunities with Thousand Oaks for the proposed brine pipeline and bringing groundwater from Thousand Oaks to the Advanced Water Treatment Facility for treatment during the summertime when the plant would not be running.

Funding and Financing: Staff participated in a debriefing with the United States Environmental Protection Agency (USEPA) to discuss the JPA's letter of interest for the Water Infrastructure Finance and Innovation Act (WIFIA) low-interest loan program funding. The Pure Water Project Las Virgenes-Triunfo (Pure Water Project) was one of 43 applications submitted; however, the project was not selected because the USEPA was seeking projects that were ready for construction and demonstrated diversity in geography. The Pure Water Project did well with respect to project type because it is unique; however, the project had challenges with geography due to the large number of applicants from California. Staff learned about the USEPA's review process, which included three different criteria: selection criteria scoring; preliminary engineering feasibility; and credit worthiness. The project scored well in the category for selection criteria, scored low in the preliminary engineering feasibility category due to uncertainty and risk because a site had not been selected, and scored low in credit worthiness due to the lack of a pro forma showing how the debt would be serviced by member agencies. The USEPA encouraged the JPA to reapply for funding opportunities in the future.

Public Outreach: Staff reported that it has conducted 24 presentations to date, including a presentation to the Oak Park Municipal Advisory Council on July 25th, Ventura College Advanced Water Treatment Science Class on July 27th, and the JPA Quarterly Tour on August 8th. Presentations will be given on September 8th to the Westlake Village Sunrise Rotary Club and to Mark Gold at UCLA.

A discussion ensued regarding the following topics:

- The timing for the formal site selection for the Advanced Water Treatment Facility, which is expected by March 2018 pending completion of the siting

study and commencement of the environmental document;

- Partnership opportunities with the City of Thousand Oaks on the brine line and through treatment of impaired groundwater, along with the possibility of wheeling water through the future interconnection with Calleguas Municipal Water District to Thousand Oaks;
- Potential partnership with the City of Thousand Oaks on the Pure Water Project, which could improve the financial structure so that the treated water would cost less on an acre-foot basis and compete with the cost of imported water, help with grant applications due to multi-county involvement, and demonstrate that the project will be regional, which could assist when competing for grants;
- Consideration of including Calleguas Municipal Water District or the City of Thousand Oaks in a new joint powers authority or financing entity for the project; and
- Consideration of seeking other funding/financing sources other than WIFIA.

6. ACTION ITEMS

A Tapia Process Air Improvements Project: Approval of Design Scope Change

Authorize the Administering Agent/General Manager to approve a Change in Scope to the professional services agreement with Pacific Advanced Civil Engineering (PACE) in the amount of $47,718, for the Tapia Process Air Improvements Project.

Administering Agent/General Manager David Pedersen presented the report.

Director Peterson moved to approve Item 6A.

David Lippman, Director of Facilities and Operations, responded to a question regarding the possibility of installing a smaller pipe within the existing deteriorated pipeline by stating that it would be challenging because there is not much space for an entry and exit pit. He noted that staff would continue to explore the possibility of sliplining as an option.

Administering Agent/General Manager David Pedersen responded to a question regarding installing the pipe above ground instead of underground by stating that staff was concerned that installing the pipe above ground could impair access through and under the area; however, he explained that this may turn out to be one of the better options.

David Lippman, Director of Facilities and Operations, responded to a question regarding the lifecycle of the pipe by stating that these types of pipelines can be expected to last 30 to 35 years.

Motion seconded by Director Polan. Motion carried by the following vote:

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

B Policy Principles for Management of the JPA's Recycled Water System

Adopt the draft *Policy Principles for Management of the JPA's Recycled Water System.*

Administering Agent/General Manager David Pedersen presented the report.

Director Peterson expressed concern with the value of the proposed policy principles because they could be changed at any time. He suggested that it needed to be made clear that the recycled water belongs to the JPA, and the JPA should include a policy principle to keep the recycled water in the region. He referred to proposed Policy Principle No. 2 and expressed concern with sharing the system with the City of Thousand Oaks and that the policy principle might affect a potential future partnership. Administering Agent/General Manager David Pedersen responded that this was not the intent of this policy principle; the purpose was to ensure the wastewater generated within the service area would only be used within the service area. He stated that the intent of Policy Principle No. 2 would only be for new, long-term agreements for recycled water, and not for rendering judgment on existing agreements. Additionally, he clarified that staff would not have the authority to make changes to the policy principles; Board approval would be required for any changes. He suggested amending Policy Principle No. 2 to indicate that the JPA will not enter into long-term sale or transfer agreements without first evaluating the ability to provide that benefit to its own customers.

Administering Agent/General Manager David Pedersen continued presenting the report. He recommended a correction to proposed Policy Principle No. 5 to strike the words "and its member agencies." He also noted that the word "but" should be included between "including" and "not limited to" in proposed Policy Principle No. 6.

Director Pan suggested including a policy principle for stormwater capture and increasing recycled water storage before treatment. Administering Agent/General Manager David Pedersen responded that storage could be a policy principle on its own, including seeking cost-effective opportunities to increase recycled water storage.

Administering Agent/General Manager David Pedersen summarized the proposed changes to the draft Policy Principles: add a conditional element to Policy Principle No. 2 to include "without first evaluating opportunities for its use within the service

area," strike the words "and its member agencies" from Policy Principle No. 5, and add the word "but" between "included" and "not limited to" as well as add mention of stormwater to Policy Principle No. 6.

Director Caspary moved to approve Item 6A as amended. Motion seconded by Director Lewitt.

Director Peterson expressed concern that the policy principles would be restrictive for future expansion of the recycled water system and noted there were currently several exceptions such as Pepperdine University. Administering Agent/General Manager David Pedersen suggested removing Policy Principle No. 5 and that staff would bring it back for a more thorough discussion.

Director Caspary amended his motion to adopt Policy Principles Nos. 1, 2, 3, 4, and 6, with Policy Principles Nos. 2 and 6 as amended, and bring back Policy Principle No. 5 for future discussion. Amended motion seconded by Director Lewitt. Motion carried by the following vote:

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

C Woodland Hills Country Club Recycled Water System Extension Project

Opt not to sell or transfer wholesale recycled water to the Los Angeles Department of Water and Power, instead preserving it to augment future drinking water supplies through the Pure Water Project Las Virgenes-Triunfo.

Director Peterson moved to approve Item 6C. Motion seconded by Director Caspary. Motion carried by the following vote:

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

D Pure Water Project Las Virgenes-Triunfo: Next Steps for Demonstration Project

Find that the work is exempt from the provisions of the California Environmental Quality Act, authorize the issuance of a Request for Proposals for project delivery management services, and authorize the solicitation of proposals from one or more public outreach firms for the Pure

Water Demonstration Project.

David Lippman, Director of Facilities and Operations, presented the report.

Director Peterson suggested using the current Las Virgenes Municipal Water District board room as the meeting room and using the old board room in Building No. 1 for the demonstration project. He also suggested placing all of the tanks and chemicals outside and behind Building No. 1, and installing a sink and faucet at the water tasting station instead of a laboratory-type water spigot.

A discussion ensued regarding the use the old board room for assembly and school education purposes, and operating the Demonstration Project until the Advanced Water Treatment Facility is online.

Administering Agent/General Manager David Pedersen suggested following the recommendations in the Preliminary Design Report in order to allow staff time to explore the costs for the architectural elements. He noted that the thought was to have the Demonstration Project be in a stand-alone facility, and he expressed concern that there could be challenges with space if all of the equipment were to be placed inside of the old board room.

David Lippman, Director of Facilities and Operations, stated that the Request for Proposals would include looking into options from the Preliminary Design Report, such as using the current board room versus the old board room, using bathroom facilities at the District Office rather than in Building No. 1, and maximizing existing facilities to the greatest extent.

Director Renger moved to approve Item 6D. Motion seconded by Director Tjulander. Motion carried by the following vote:

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

7. BOARD COMMENTS

Director Polan noted there was discussion at the recent California Association of Sanitation Agencies (CASA) Conference regarding the need for more internship programs in the water and wastewater sector.

8. ADMINISTERING AGENT/GENERAL MANAGER REPORT

Administering Agent/General Manager David Pedersen reported on the status of the Centrate Equalization Tank Project and the contractor, Zusser Company. He noted that the contractor had demobilized from the site; however, all of the work

was not completed. He stated that payments to the contractor had ceased, the JPA holds a five percent retention and performance bond, and a notice of default had been filed. He explained that staff was working with legal counsel on the matter, and that the JPA Board may need to take action in the future. He also noted that the Las Virgenes Municipal Water District Board may need to designate a hearing officer to provide the contractor with due process.

Administering Agent/General Manager David Pedersen reported that he would be testifying before the U.S. House of Representatives Subcommittee on Water Resources and Environment in Washington DC on September 26th regarding support for robust federal funding for water and wastewater projects and to support longer terms for NPDES permits under the Clean Water Act. He provided an update on SB 231 (Hertzberg), which was pending the Governor's signature and would define the term "sewer" for Proposition 218 property-related fees. He also reported on the feedback provided by staff and the JPA's lobbyist regarding the implementation of *Making Water Conservation a California Way of Life*.

9. FUTURE AGENDA ITEMS

None.

10. PUBLIC COMMENTS

None.

11. CLOSED SESSION

None.

12. ADJOURNMENT

Seeing no further business to come before the Board, the meeting was duly adjourned at **6:52 p.m**.

James Wall, Chair

ATTEST:

Glen Peterson, Vice Chair

October 2, 2017 JPA Board Meeting

TO: JPA Board of Directors

FROM: Facilities & Operations

Subject : Tapia and Rancho Operations and Maintenance Project List Development: Accept Proposal

SUMMARY:

With the adoption of the updated NPDES Permit for the Tapia Water Reclamation Facility on June 1, 2017, there is assurance that the level of treatment at Tapia and Rancho will remain unchanged, and no major facility upgrades will be necessary for further nutrient reductions. As a result, staff can focus on the operational and maintenance needs of both Tapia and Rancho that had been temporarily deferred due to the potential for major facility upgrades. Both facilities are aging and in need of maintenance to extend their useful lives.

The JPA plans for larger projects through its Five-Year Infrastructure Investment Plan and annual Capital Improvements Plan (CIP). For minor operational and maintenance projects, a $100,000 CIP is budgeted annually for each facility. One concern with completing multiple projects through the annual CIP is that the improvements could be implemented without consideration of the potential impact on future projects, which could result in repeating work or other inefficiencies. To avoid this challenge, staff solicited a proposal to develop an operations and maintenance project list from KEH & Associates, Inc. KEH's proposed team for the effort includes six professionals with a wide range of experience and expertise in wastewater treatment design, operational support, structural evaluations, concrete condition assessments and specification of protective coatings.

The proposed scope of work includes a review existing CIP projects planned for Tapia and Rancho and a workshop with operations and maintenance staff to identify the need for potential future projects. The projects will be prioritized based upon pre-defined criteria. The deliverable product will be an operations and maintenance project list, including cost estimates and an implementation schedule.

RECOMMENDATION(S):

Budget and appropriate $70,000; accept the proposal from KEH & Associates, Inc., in the amount of $69,824; and authorize the Administering Agent/General Manager to execute a professional services agreement for development of a Tapia and Rancho operations and maintenance project list.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

No

FINANCIAL IMPACT:

The adopted Fiscal Year 2017-18 JPA Budget does not provide funding for this project; therefore, a budget and appropriation, in the amount of $70,000, is requested. The cost of the work will be allocated 70.6% to LVMWD and 29.4% to Triunfo Sanitation District.

DISCUSSION:

The National Pollutant Discharge Elimination System (NPDES) Permit for the Tapia Water Reclamation was adopted on June 1, 2017, incorporating the first five years of a compliance schedule for the JPA to effectively eliminate discharges to Malibu Creek through the Pure Water Project Las Virgenes-Triunfo. Construction of the advanced water treatment plant for the Pure Water Project provides the JPA with assurance that the level of treatment at Tapia and Rancho will remain unchanged, and no major facilities upgrades will be necessary further nutrient reductions. As a result, staff can focus its attention on the operational and maintenance needs of both Tapia and Rancho.

Construction of Tapia was originally completed in 1965, and the treatment plant has undergone four major expansions. The majority of the facilities are over 30 years old, and many assets have remained in service beyond their originally-expected service life. The Rancho Las Virgenes Composting Facility was completed in 1994, and there are many components that require maintenance. Staff believes it would be prudent to perform the necessary maintenance and repairs to extend the useful life of these critical facilities.

The JPA plans for larger projects through its Five-Year Infrastructure Investment Plan and annual Capital Improvements Plan (CIP). Examples include the multi-year Primary Sedimentation Tank Rehabilitation Projects at Tapia and the Bulk Amendment Storage Bin Project at Rancho. For minor operational and maintenance projects, a $100,000 CIP is budgeted annually to deal with items such as aging structures, leaking pipes, failed coatings, mechanical issues, and general SCADA and electrical needs.

With the recent assurances that Tapia and Rancho will not be required to undergo major improvements for nutrient reductions, staff proposes to concentrate on addressing operations and maintenance needs. One concern with completing multiple projects through the annual CIP is that the improvements could be implemented without consideration of the potential impact on future projects, which could result in repeating work or other inefficiencies. To avoid this challenge, staff solicited a proposal to develop an operations and maintenance project list from KEH & Associates, Inc.

The proposed scope of work includes a review existing CIP projects planned for Tapia and Rancho and a workshop with operations and maintenance staff to identify the need for potential future projects. The projects will be prioritized based upon the following criteria, in no particular order:

- Condition and remaining asset life
- Impact on safety and working environment
- Consequence of failure
- Regulatory compliance need
- Cost efficiency
- Energy efficiency

KEH's proposed staff for the project includes six professionals with a wide range of experience and expertise in wastewater treatment design, operational support, structural evaluations, concrete condition assessments and specification of protective coatings. The team has previously worked with other local municipalities such as the cities of Thousand Oaks, Oxnard and Simi Valley on similar projects. The deliverable will be an operations and maintenance project list, including cost estimates and an implementation schedule.

Prepared by: Brett Dingman, Water Reclamation Manager

ATTACHMENTS:

KEH Proposal
KEH Staff CVs

September 8, 2017

Brett Dingman, PE
Water Reclamation Manager
Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, CA 91302

Subject: Tapia/Rancho Operations and Maintenance Project List Development

Dear Brett,

This letter transmits our proposal for engineering support services for the development of a 5 year operations and maintenance project list for Tapia Water Reclamation Facility and Rancho Composting Facility. KEH proposes to provide services as detailed in the attached Scope of Work (Exhibit A). This Scope of Work is based on discussions with District staff and site visit on August 23, 2017.

The task breakdown and associated cost is presented in the enclosed Fee Estimate (Exhibit B). KEH proposes to provide these services on a time-and-materials basis, utilizing the rates from our 2017 Fee Schedule for Professional Services (Exhibit C).

We appreciate the opportunity to provide this proposal to the District, and look forward to working together. Please do not hesitate to contact me should you require additional information.

Sincerely,

KEH & Associates, Inc.

Ryan Gallagher, PE
Managing Engineer

Enclosure: Exhibit A – Scope of Work
Exhibit B – Engineering Fee Estimate
Exhibit C – 2017 Fee Schedule for Professional Services

Tapia WRF and Rancho LV Composting Facility O&M CIP Development
Exhibit A - Scope of Work

Project Background

The Las Virgenes- Triunfo Joint Powers authority (JPA) owns and operates two wastewater facilities: the Tapia Water Reclamation Facility (Tapia) and the Rancho Las Virgenes Composting Facility (Rancho).

Tapia was originally constructed in 1965 with a wastewater capacity of 0.5 MGD. After five (5) expansions, Tapia currently has a capacity of up to 16 MGD, but currently averages 9.5 MGD. Tapia receives wastewater and produces recycled water that is used for irrigation of public and commercial landscaping, including golf courses, schools, medians, and parks. Tapia implements the following general processes before producing recycled water effluent:

- Vertical slatted bar screen and grit chamber
- Primary sedimentation tanks
- Biological secondary treatment in aeration tanks
- Secondary sedimentation tanks
- Flocculation and filtration
- Disinfection

Wastewater solids generated during wastewater treatment at Tapia are pumped to Rancho using a 4-mile pipeline. These solids undergo anaerobic digestion, dewatering, composting and then are distributed to the public as Class A Exceptional Quality compost. The Rancho facility was constructed in 1994.

District has been progressing through the projects identified in their Capital Improvements Plan (CIP), which was developed by their previous Sanitation Master Plan Update in 2014 and as updated in the five year CIP. In addition, District is making minor Operation and Maintenance (O&M) improvements, as identified by their operators, using a $100,000 annual budget. Although structures, such as the primary sedimentation tanks are being addressed by CIP projects, other issues include structures that are aging, pipes that leak, coating that has failed, mechanical issues, generator problems, and general SCADA and electrical needs. Examples of potential projects are illustrated in **Figure 1**.

FIGURE 1: EXAMPLE PROJECTS

Left: Failing pipe support & coating needs

Right: Electrical/Instrumentation Upgrades

The JPA's concern is that the O&M improvements are being implemented without consideration of the impact on future projects, which potentially results in re-work and/or inefficiencies. The goal of this scope is to provide District with a concise, organized, practical list of rehabilitation projects that are prioritized, categorized by type (safety, optimization, etc.) and location, and includes a magnitude level of cost. This list should consider the impact on future projects and will incorporate input from operators and outside experts but is intended to be a high level list, not a master plan.

The general process to develop this list is illustrated in **Figure 2** and further detailed in the proposed scope of work.

FIGURE 2: CIP DEVELOPMENT PROCESS

The process illustrated in **Figure 2** will be detailed in the final deliverable. The benefit of this approach is that the District will be able to utilize the format and process established as part of this effort and ***conduct the future updates using internal resources***.

Scope of Work

Task Group 1 – Project Management and QA/QC

Task 1.1 Project Management

Overall project management, which includes supervision of in-house staff, planning and monitoring of contract budget and schedule, and coordination with the JPA will be conducted by the Consultant's Project Manager (PM). The PM will review the status of budget, schedule, and relevant project issues with District's Project Manager on a monthly basis via email or telephone. The project is assumed to be three (3) months in duration.

Task 1.2 Quality Assurance and Quality Control

Consultant will provide senior technical review and implementation of their quality assurance and quality control (QA/QC) measures throughout the project.

Task Group 2 – Data Request and Review Information

Prepare and submit a Data Request Letter, including, but not limited to, requests for:

- Previous Master Plan
- Record drawings
- Record geotechnical reports
- Record concrete assessment reports
- Year plants areas placed into service
- Current CIP

- O&M budget
- Outstanding maintenance work orders that may be relevant to impacts on CIP
- Energy Network Report
- Process and non-process area definitions
- Review of project template and evaluation criteria, prior to the Operator Workshop

KEH will review the provided information in preparation for Task 3.1. Workshop.

Task Group 3 – CIP Development

Task 3.1 Operator and Maintenance Workshop and Site Visit

Recognizing that District staff have ongoing responsibility for facility operation, workshop schedules and staff participation levels will be finalized prior to the notice-to-proceed for the work identified herein. Our goal is to maximize staff input while minimizing impacts to ongoing operations.

KEH will prepare an agenda and lead a workshop with District operations and maintenance staff. The tentative agenda is as follows:

1. Objective, Scope Overview, Budget and Schedule
2. Confirm process areas, format of deliverable and evaluation criteria
3. Solicit Operator input on existing and potential Non-CIP related work efforts (description, prioritization, scheduling, etc.) for each process area
4. Site Walk (both facilities)

The meeting is assumed to take a full day, with Items 1-3 occurring in the first half of the day, and the site walk occurring on the second half. KEH will prepare minutes from the meeting and provide them as a PDF to the District. The minutes will be provided in the final deliverable as **Attachment 1**.

Task 3.2 Development of Non-CIP Work Items

Using the information provided by the District at the Operator Workshop and Site Visit, KEH will prepare a list of projects, which include the following information:

1. Process or Non-process Area (nomenclature provided by the District)
2. Project Name
3. Brief Description (photo optional)
4. Project Status (Study, Design, Construction)
5. Cost Estimate (in conformance with AACEI Class 4 standards for budgetary estimates)

Each project will be rated with evaluation criteria, as established in conjunction with District staff as part of Task 3.1. KEH assumes the following criteria will be ranked 1 to 5:

1. Condition and Remaining Asset Life
2. Impact on Safety and Working Environment
3. Consequence of Failure
4. Regulatory Compliance
5. Cost Efficiency
6. Energy Efficiency

Using the ranking results, projects will be organized into four categories: Year 1, Year 2, Year 3, 4 and 5 Yrs. This complete table will constitute **Attachment 2** of the final deliverable. An abbreviated version, including only project, cost and recommended year, will be developed and included as **Attachment 3** of the final deliverable.

The draft table will be delivered to the District (PDF), and a workshop (Task 3.3) held to review the draft recommendations.

A general review of the District's existing CIP documents will also be undertaken in order to assess the potential impact of the Non-CIP work items on the scope and schedule of proposed CIP work.

Task 3.3 Draft Review Workshop

KEH will provide an agenda and lead a workshop to review the draft table of projects (Task 3.2). The workshop will be held at the District's Tapia facility. KEH will prepare minutes from the meeting and distribute to all attendees. The workshop is assumed to be up to 3 hours.

Task 3.4 Prepare Final Deliverable

Following receipt of results, a final table will be prepared and submitted as part of the following package (PDF and source files):

1. Cover Letter – intro, objective, background, process and attachments
2. Attachment 1 – Initial kickoff meeting minutes, site photos
3. Attachment 2 – Project list with details (as noted above)
4. Attachment 3 – Abbreviated table with project, cost and recommended year.

Schedule

The following tentative schedule is provided:

- 2 weeks Prepare Data Request
- 2 weeks District responds to Data Request
- 1 week review Data Request response, prepare agenda and set Workshop
- Operator Workshop/Initial Meeting
- 4 weeks from Operator Workshop deliver Draft
- Draft Review Workshop
- 4 weeks from Draft Review Workshop deliver Final

Total duration is approximately 13 weeks.

Exclusions/Assumptions

- Energy efficiency is not a focus; a report previously completed by the Energy Network identified areas of opportunity that the District is partially pursuing.
- This list is not anticipated to include any existing CIP projects, as defined by the Master Plan.
- Cost estimates are assumed to be Class 4 in accordance with AACEI standards.

- The majority of projects are assumed to be provided by District staff.
- Process optimization is not a focus of this project.
- Based on preliminary discussions, approximately 30 CIP projects are assumed to be identified for each location (Tapia WRF and Rancho).

KEH & ASSOCIATES

Exhibit B - Fee Schedule
Las Virgenes-Triunfo JPA
Fee Estimate for Tapia WRF/Rancho CIP Project List Development

LABOR HOUR BREAKDOWN

	Principal	Managing Engineer	Senior Engineer	Senior Operator	Associate Engineer	Project Accountant	Labor Hours	Labor Cost	Coating *Subconsultants*	Structural *Subconsultants*	Direct Costs	Total Cost
Task Description												
Hourly Rates	$235	$215	$185	$175	$145	$108						
Task 1 - Project Management / Qa/Qc												
1.1 - Project Management (4 months)		12				4	16	$3,012		$792		$3,804
1.2 - QA/QC			10				10	$1,850		$396		$2,246
Subtotal Task 1	**0**	**12**	**10**	**0**	**0**	**4**	**26**	**$4,862**	**$0**	**$1,188**	**$0**	**$6,050**
Task 2 - Data Request and Review Information												
Data Request and Review	4		4	4	4		16	$2,960		$792		$3,752
Subtotal Task 2	**4**	**0**	**4**	**4**	**4**	**0**	**16**	**$2,960**	**$0**	**$792**	**$0**	**$3,752**
Task 3 - Site Visits and Workshops												
3.1 - Operator Workshop and Site Visit	8	12	8	12	12		52	$9,780	$1,100	$2,376	$1,500	$14,756
3.2 - CIP Development	12	4	28	28	90	2	164	$27,026	$2,200	$5,148	$0	$34,374
Project List	4		8	12	30		54	$8,870	$1,100	$1,980	$0	$11,950
Project Cost	4		12	8	24		48	$8,040	$1,100	$3,168	$0	$12,308
Evaluation Criteria			4	4	12		20	$3,180			$0	$3,180
Schedule			4	4	12		20	$3,180			$0	$3,180
Prepare Draft	4	4			12	2	22	$3,756			$0	$3,756
3.3 - Draft Review Workshop	8	4		8	4		24	$4,720		$792		$5,512
3.4 - Prepare Final Deliverable		6			12	2	20	$3,246	$550	$1,584		$5,380
Subtotal Task 3	**28**	**26**	**36**	**48**	**118**	**4**	**260**	**$44,772**	**$3,850**	**$9,900**	**$1,500**	**$60,022**
Total	**32**	**38**	**50**	**52**	**122**	**8**	**302**	**$52,594**	**$3,850**	**$11,880**	**$1,500**	**$69,824**

EXHIBIT C

2017 KEH HOURLY RATE SCHEDULE

Classification / Billing Title	Hourly Billing Rates
Principal	$235.00
Managing Engineer	$225.00
Senior Project Manager	$215.00
Project Manager	$195.00
Senior Engineer	$185.00
Senior Operator	$175.00
Project Engineer	$175.00
Engineer	$155.00
Associate Engineer	$145.00
CADD Designer	$145.00
Senior Drafter	$135.00
Drafter	$115.00
Field Inspector	$120.00
Project Accountant	$108.00
Project Coordinator	$95.00

Professional Reimbursement

The hourly billing rates include the cost of salaries of the KEH employees, plus sick leave, vacation, holiday and other fringe benefits. The percentage added to salary costs includes indirect overhead costs and fee. All employees classified as "non-exempt" by the U.S. Department of Labor will be compensated at 1½ times salary, as per State and Federal wage and hour laws. Billing rates will be calculated according for these overtime hours.

Direct Expenses

Reimbursement for direct expenses, as listed below, incurred in connection with the work, will be at cost plus ten percent for items such as:

a. Maps, photographs, reproductions, printing, equipment rental and special supplies related to the work.
b. Consultants, soils engineers, surveyors, contractors, and other outside services.
c. Rented vehicles, local public transportation and taxis, travel and subsistence.
d. Specific telecommunications and delivery charges.
e. Special fees, insurance, permits, and licenses applicable to the work.
f. Outside computer processing, computation, and proprietary programs purchased for the work.

Reimbursement for employee-owned vehicles used in connection with the work will be at the rate per mile equal to the Privately Owned Vehicle (POV) Mileage Reimbursement Rate as established by the United States General Services Administration for the dates the POV is in use.

The foregoing Schedule of Charges is effective January 1, 2017 through December 31, 2017.

Years of Experience
11

Education
B.S. Civil Engineering, California Polytechnic State University, San Luis Obispo, 2006

Registrations and Certifications
Registered Civil Engineer, CA No. C74805

LEED Accredited Professional

Organizations & Associations
American Society of Civil Engineers
President, Santa Barbara/Ventura Branch
Younger Member Forum (2012)

American Public Works Association
President, Ventura County Chapter (2014)

Channel Counties Water Utilities Association

Association of Water Agencies of Ventura County
President (2013),
Board of Directors (2010-2016)

Orange County Water Association
Board of Directors (2016 to present)

RYAN GALLAGHER, PE

Project Manager

PROFILE

Mr. Ryan Gallagher has experience in the planning, design and construction support services for water, recycled water and wastewater systems projects. This experience includes providing project management and engineering duties for booster pumping stations, pipelines, tanks, groundwater treatment plants using various membrane systems, wastewater treatment plants, chemical system design and hydraulic modeling for water, recycled water and wastewater. In addition, he also has experience with alternative project delivery, with a combined contract value of $120M.

PROJECT EXPERIENCE

Wastewater Treatment

City of Thousand Oaks, Electrical and Instrumentation Upgrades at Hill Canyon Treatment Plant; Thousand Oaks, CA. Project Manager. Preliminary and final design of approximately $4M in improvements at the Hill Canyon Treatment Plant. Upgrades included replacement of two Motor Control Centers, FEB Pump Station replacements, new aqueous ammonia system, new fiber optic network, and new SCADA upgrades. Process included a two-day workshop peer review, including specialized subconsultants and process/I&C experts.

City of Thousand Oaks, Biosolids Drying Feasibility Study; Thousand Oaks, CA. Project Manager. Feasibility study included of installing drying technology at the 9 MGD Thousand Oaks Hill Canyon Wastewater Treatment Plant. Project included evaluation of available technologies, including direct, indirect and combination dryers. The project also required evaluation of thickening and dewatering improvements, including bench scale testing. A life cycle cost analysis was provided for the recommended project.

City of Oxnard, Wastewater Operations Support; Oxnard, CA. Deputy Project Manager. Served as Deputy Project Manager for operations support efforts at the City of Oxnard 25 MGD Wastewater Treatment Plant. Major tasks include design of emergency plant projects, organization study, O&M manual update, startup and commissioning of the Advanced Water Purification Facility and recycled water system, health and safety training, regulatory and permitting support, and staff augmentation. Startup of the recycled water system included retrofit coordination, design review, development of training and user manuals, regulatory coordination and cross connection testing support.

City of Thousand Oaks, Coating Specification; Thousand Oaks, CA. Principal-in-Charge. Provided technical peer review of City provided coating specifications for use at the Hill Canyon Treatment Plant.

Water Replenishment District, GRIP Program Owner's Engineer; Lakewood, CA. Deputy Project Manager. Served as Deputy Project Manager responsible for Program Management, Procurement and Offsite Improvements. The overall program consisted of a $100M advanced water purification facility located in Pico Rivera. The treatment train consists of a 10 MGD capacity microfiltration, reverse osmosis and ultraviolet disinfection. The procurement process included development of the procurement process and documents, including Request for Information, Request for Qualifications and Request for Proposals. The program management role included development of a document control system, master project schedule, task coordination, monthly reporting, and cost control.

City of Thousand Oaks, Dewatering Screw Press; Thousand Oaks, CA. Project Manager. Screw press dewatering system to replace existing belt press at the 9 MGD Hill Canyon Treatment Plant. Project included dewatering technology analysis, evaluation of struvite/filtrate impacts, ancillary systems, preliminary technical memorandum and detailed design.

City of Simi Valley, Dewatering Screw Press; Simi Valley, CA. Project Manager. Screw press dewatering system to replace existing belt press at the 9.5 MGD Simi Valley Water Quality Control Plant. Project included dewatering technology analysis (5 screw press manufacturers surveyed), evaluation of ancillary system improvements, and a preliminary technical memorandum.

City of Simi Valley, Digester Improvements; Simi Valley, CA. Task Lead. The Preliminary Design Report included evaluation of alternatives for replacement of existing digester mixing system, including draft tube, linear motion, large bubble gas and external pumped. Evaluation also include review of primary feed and digested sludge transfer piping and sludge heating system alternatives. Served as Task Lead for cost estimate, construction sequencing, and piping.

Camrosa Water District, Dewatering Screw Press; Camarillo, CA. Project Manager. Development of a preliminary design report for a Class A screw press facility and associated equipment. The project included process modeling of the existing 2.25 MGD oxidation ditch water reclamation facility, evaluation of Class A filtrate impacts, and preliminary design of ancillary equipment such as a polymer system, open air canopy, truck loading area, conveyor system and emergency storage capability.

City of Thousand Oaks, Centrate Treatment Evaluation; Thousand Oaks, CA. Project Manager. Development of a fatal flaw level analysis of using various technologies to increase the energy efficiency of the current centrate treatment (Basin 6) and to further reduce the ammonium loading to the main plant secondary process at the City of Thousand Oaks' Hill Canyon WWTP. Technologies included DEMON Sequencing Batch Reactor, Cleargreen Sequencing Batch Reactor, and a Moving Bed Biofilm Reactor.

Ventura County Watershed Protection District, Biodigester Feasibility Study, Ventura, CA. Project Manager. Developed report determining the feasibility of an anaerobic digester to convert local horse manure, food waste and green waste into energy in the Ventura River Watershed area. Tasks included participation in multiple public workshops, and development of the following four technical memorandums: (1) Feedstock Summary and Collection Methods, (2) Technology and Site Analysis, (3) Conceptual Site Plan, Environmental/Permitting & Delivery, and (4) Implementation and Business Plan.

Channel Islands Beach Community Services District, Force Main Rehabilitation; Channel Islands Harbor, CA. Project Manager. Construction management services related to cured in place lining for approximately 10,300 linear feet of 8 and 12-inch wastewater force main piping.

City of Thousand Oaks, Bioreactor Optimization; Thousand Oaks, CA. Project Manager. Served as Project Manager for preliminary design study of optimizing existing bioreactors at the 9 MGD Thousand Oaks Hill Canyon Wastewater Treatment Plant. Project included evaluation of blower replacement, instrumentation and control valve improvements, deammonification for filtrate treatment, hydraulic modeling of basins, computational fluid dynamic modeling and process modeling. The preliminary design included a summary of improvements and life cycle cost analysis for modifications to increase efficiency and performance of the City's bioreactor process train.

City of Oxnard, Recycled Water System Startup and Retrofit Support; Oxnard, CA. Task Leader. Served as Task Leader for the startup of the City's recycled water backbone system and customer retrofits, as part of the larger Wastewater Operations Support Contract with the City of Oxnard. The task included retrofit of two 18-hole golf courses and cross connection testing for the RiverPark development which includes 33 separate recycled water sites. Efforts included value engineering for existing retrofit designs, design of golf course retrofits, staff augmentation for cross connection testing, coordination with DDW, development of user manuals and training program, hydraulic analysis, creation of startup procedures for the AWPF finish water pumping station and backbone, and overall program management.

City of Simi Valley, Recycled Water Retrofit; Simi Valley, CA. Project Manager. Served as Project Manager for development of site specific Engineering Reports for recycled water customer retrofits in the City of Simi Valley.

LIBBY TORTORICI, PE

CIP Development

Years of Experience
45

Education
B.S., Civil Engineering, Manhattan College 1971

M.S. Environmental Engineering, Manhattan College 1972

Registrations and Certifications
Registered Civil Engineer, CA 24096
CA Grade V Wastewater Treatment Plant Operator

PROFILE

Mr. Tortorici has 45 of experience in environmental engineering, and has been responsible for managing the design, post design, construction administration assistance, and operation assistance of major wastewater collection, treatment, residual solids handling, and water reclamation capital improvement projects in southern California. His wastewater treatment experience includes facilities up to 350-mgd, and he is one of a limited number of professionals possessing both a Grade V Wastewater Treatment Plant Operator Certification and a Professional Engineer Registration in the State of California.

PROJECT EXPERIENCE

City of Oxnard, Wastewater Treatment Plant Headworks Project; Oxnard, CA. Project Manager. Project manager for assessment, planning, design, construction administration assistance and start-up of a new 40 MGD (ADWF)/77.4 MGD (PWWF) headworks facility. The facility consists of influent wastewater by-pass pumping and conveyance, mechanical bar screens, aerated grit chamber, influent pump station, odor control system and grit/screening dewatering facilities, stand-by power generators, infrastructure support systems and SCADA monitoring and control system. Construction of the project required design by-pass pumping and conveyance facilities for the entire influent flow for implementation and operation by the construction contractor.

City of Oxnard: Phase 2A Condition Assessment and Preliminary Design of Immediate Needs Projects for the Wastewater Treatment Plant/Oxnard CA. Project Manager for pre-design investigations, focused condition assessments and preliminary design of Immediate Needs Improvements recommended in the Phase 1 Condition Assessment for the 31.7 MGD treatment facility.

International Boundary and Water Commission: South Bay International Wastewater Treatment Plant; San Ysidro, CA. Project Manager. Project Manager for planning, design, design services during construction, construction administration assistance, construction inspection, start-up and operator training of a new 25 MGD advanced primary and "selector" modified activated sludge wastewater treatment plant located on the US/Mexico Border in San Ysidro, CA. Planning and pre-design investigations included wastewater characterization studies, a Headwork's allocation Study, geotechnical investigations and development of "deep dynamic compaction" (DDC) criteria to mitigate soil liquefaction issues; and laboratory activated sludge treatability studies to establish loading and design criteria for the "selector" modified activated sludge system.

Malcolm Pirnie, Inc, Western Region Quality Assurance/Control Technical Director; Technical Director. Served for 5 years as the firm's Technical Director responsible for quality assurance and quality control reviews for design and post design services for wastewater and reclamation capital improvement projects throughout Arizona, California and Texas.

City of Oxnard: Phase 1 Condition Assessment of Immediate Needs for Wastewater Treatment Plant and Collection System Lift Stations/Oxnard CA. Senior Engineer and Task Leader for on-site assessment of existing facilities, identification, and development of Immediate Needs capital improvements for structures/buildings, mechanical equipment, electrical equipment, and process controls for the 31.7 MGD treatment facility and sewerage lift stations.

Fallbrook Public Utility District, Water Reclamation Plant 1 Capital Improvement Plan; Fallbrook, CA. Project Manager. Project Manager for plant assessment and development of the Capital Improvement Plan for upgrade and expansion of the 2.7 MGD water reclamation plant. The Capital Improvement Plan resulted in the subsequent design and construction of approximately $25 million of upgrades and improvements to Water Reclamation Plant 1.

Otay Water District, Jamacha Basin Water Reclamation Facility; San Diego CA. Project Manager. Project manager for the assessment, design, post design, construction management, start-up assistance and operator training for the upgrade and improvement of the District's 1.3 MGD water reclamation facility. Facility upgrades and improvements included new influent screening system, upgraded conventional activate sludge secondary treatment system, new secondary sedimentation tanks, new Title 22 tertiary filtration system and new chlorination facilities.

Inland Empire Utilities Agency, Reclamation Plant No. 1 Dewatering Facility Replacement; Chino, CA. Project Manager. Project Manager for planning, design, design services during construction, start-up and operator training for a new $25 million centrifuge dewatering facility at the 60 MGD (ultimate flow) reclamation plant. Processes included sludge grinding, polymer conditioning facilities, four new Alfa-Laval G-2 120 centrifuges, shaftless screw sludge conveyors, sludge storage silos and truck loading facilities, and DCS and electrical support facilities.

City of Oxnard, Oxnard Wastewater Treatment Plant Expansion; Oxnard CA. Project Manager. Project manager for design of a major modification and expansion project. The difficult $60 million project expanded the plant in 1990 from 22.6 MGD to 40 MGD. Processes included sewage collection and influent pumping, preliminary and primary treatment, conventional activated sludge, flow equalization, chlorination/dechlorination, anaerobic digestion, sludge dewatering, and odor control facilities.

City of Oxnard, Oxnard Wastewater Treatment Plant-Biosolids Pasteurization Project; Oxnard CA. Project Manager. Project manager for planning, and preliminary design of a time-temperature biosolids pasteurization facility to produce Class A biosolids at the City's 40 MGD wastewater treatment plant.

Buena Sanitation District, Shadowridge Wastewater Treatment and Reclamation Plant; Vista, CA. Project Engineer. Project Engineer for EIR preparation, design, and start-up and operator training of the 1.0-mgd facility, and the design of a reclaimed water pumping and distribution system.

City of Yuma, Figueroa Water Pollution Control Facility Disinfection Improvement Project; Yuma, AZ. Project Manager. Project Manager for engineering assessment and evaluation of alternative disinfection technologies, and subsequent design, post design, and construction management services for disinfection system improvements at the 7-mgd water pollution control facility.

Encina Wastewater Authority, Encina Water Pollution Control Facilities; Carlsbad, CA. Project Engineer. Project Engineer for design of digester improvements to eliminate chronic digester foaming problems. This project resulted Mr. Tortorici being a co-recipient of the Water Pollution Control Federation's George Bradley Gascoigne Medal for outstanding contribution to the art of wastewater treatment plant operation.

Los Angeles County Sanitation Districts, Wastewater Sludge Management; Los Angeles, CA. Senior Project Engineer. Senior Project Engineer for on-site development of design criteria for physical-chemical secondary wastewater treatment, and on-site full scale investigations and pilot testing of sludge thickening, conditioning, stabilization, dewatering, and volume reduction processes.

Los Angeles County Sanitation Districts, Wastewater Sludge Management; Los Angeles CA. Senior Engineer. As Senior Engineer, led the research and development of design criteria for the waste activated sludge thickening, stabilization and dewatering facilities for the Districts' 200-mgd pure oxygen activated sludge plant.

City of Oxnard, Oxnard Wastewater Treatment Plant - Asset Management Study; Oxnard, CA. Project Manager. Project Manager for facility condition assessment, identification of upgrades and improvements, development of construction and capital costs, and implementation schedules for this 32 MGD plant.

Pima County Wastewater Management Department, AVRA Valley Wastewater Treatment Plant Upgrade and Expansion Project; Pima County, AZ. Design Task Manager. Design Task Manger for planning, design and design services during construction for new chemical addition, tertiary filtration and ultra-violet disinfection facilities for the 4 MGD treatment plant.

JOHN JARDIN

CIP Development

PROFILE

Mr. Jardin has over 34 years of experience in operations of wastewater treatment plants. He has served as wastewater instructor/ trainer, operator, chief operator, and director of operations for several public agencies. He is certified Grade V wastewater operator.

Years of Experience
34

Education
Regional Management Academy Fall 2008
AA Degree, Shasta College, Major course study in Water Technologies 1997

Leadership Techniques, Red Bluff Ca, October 1998

Supervising in the Public Sector, Long Beach, Ca, October 1990

Personal Effectiveness for Managers, UCSD, La Jolla, Ca, Fall 1990

Registrations and Certifications
Grade V Waste Water Operator V-5835

Professional Associations and Honors
Director, NSVS 1997-1998

President, NSVS 1996

Sec/Tres., NSVS 1994-1995

CWEA Operator Training Committee 1995-1999

Vista Optimist Director 2004-2014

State of California Associations and Honors
Operator Training Advisory Committee 1996-2001
Operator of the Year 1994

Plant of the Year, CWEA San Diego Local section, 2002 thru 2012

Plant of the Year, CWEA State of California, 2005 & 2011

PROJECT EXPERIENCE

2014 – 2016. Chief Wastewater Treatment Operator, KEH & Associates. Serving as the Chief Plant Operator for the City of Oxnard 36 mgd Secondary Wastewater Treatment Plant. Responsible for start-up and commission of the City of Oxnard's 6.25 mgd, Advanced Water Purification Facility (AWPF) with MF/RO treatment trains, UV disinfection and distribution facilities.

2001 – 2013. Director of Operations, Encina Wastewater Authority. Responsible for operations and management of 43 MGD conventional activated sludge wastewater treatment plant, 4 MGD water reclamation facility and five (5) wastewater pump stations. Resource recovery of digester gas for Co-Generation. Electrical power production with energy management. Heat dryer operation for bio-pellet production with marketing and distribution as a fertilizer and bio-fuel.

1992 – 2001. Senior Operator, City of Redding. Grade 5 Certified Operator. Responsible for operation and maintenance of 6 MGD extended aeration, activated sludge facility using Aerobic Digesters, Belt Filter Presses, Tertiary Sand Filters, Chlorination, De-Chlorination before river discharge. Design and operate Biosolids recycling project for land application. Design selection team member for Co-Generation and Solids processing facilities. Provided equipment and design alternative analysis for added facilities including; Solids handing, Heat dryer, Grease to gas project, Digester gas treatment system, Aeration system upgrades, Secondary Clarifiers, and Influent Junction Structure rehabilitation.

1997 – 2001. Instructor, American Rescue Institute. Train safety personnel on Chlorine and Sulfur Dioxide handling, Emergency respond procedures, chemical leak containment, and leak kit applications.

1998 – 2001. Instructor, Shasta College. Waste Water Treatment instructor for the Science, Industry and Natural Resources Department.

1983 – 1992. Encina Water Pollution Control Facility. Certified Operator. Responsible for Operation of 30 MGD Conventional activated sludge facility using grit removal, primary sedimentation, anaerobic digestion, CO-generation, secondary flow equalization, DAF units, waste activated sludge, with ocean discharge.

Years of Experience
35

Education
B.S. Biology/Civil Engineering, Manhattan College, New York

M.S., Environmental Engineering, Manhattan College, New York

Registrations
Civil Engineer, New York No. 066726

Registered Environmental Assessor, California No. 01737

KEN HUME, PE

CIP Development

PROFILE

Mr. Hume has over 35 years of engineering and construction experience in the civil/environmental field. Mr. Hume has special expertise in treatment facility startup, commissioning and operations as well as alternative project delivery for public water, wastewater and water reclamation projects.

PROJECT EXPERIENCE

City of Oxnard, Wastewater System Operations Support Program; Oxnard, CA. Program Manager. Serving as program manager for the City of Oxnard's $4.2M Wastewater Division Operations Support Program that includes the City's 32 MGD wastewater treatment plant, 6.25 MGD Advanced Water Purification Facility, collection system, storm water system and source control department. The program management services include oversight and management of plant operations, regulatory compliance and permitting support, and plant optimization services.

City of Oxnard, Phase 2A Oxnard Wastewater Treatment Plant Condition Assessment and Preliminary Design of Immediate Needs Project; Oxnard, CA. Project Manager. Phase 2A Preliminary Design of Phase 1 Condition Assessment recommended Immediate Needs Projects which focused on mechanical, electrical, controls, structural and process improvements for the City's 31.7 MGD treatment plant.

Triunfo Sanitation District's Water, Wastewater and Recycled Water Capital Improvements Plan; Ventura, CA. Project Manager. Provided a comprehensive condition assessment of all existing sewer collection, water, and recycled water distribution facilities throughout the District service area and prepared the District's first Capital Improvement Plan (CIP).

City of Oxnard, Startup & Testing Manager for the Advanced Water Purification Facility; Oxnard, CA. Project Manager/Lead Engineer. Project Manager and lead engineer for the startup and testing for the City's 6.25 MGD Advanced Water Purification Facility (AWPF). Undertaking the complete start-up of the City's Advanced Water Purification Facility and recycled water distribution system as well as the startup and initial operation oversight of their groundwater desalter facility. Responsible for preparation of testing and startup plan, coordination with vendors and City operations staff, and preparation of Operation plan.

City of Oxnard, Wastewater Treatment Plant Industrial Storm Water Pollution Prevention Plan; Oxnard, CA. Project Manager. Provided regulatory support to the City of Oxnard in updating the Oxnard Wastewater Treatment Plant's Storm Water Pollution Prevention Plan (SWPPP), site maps and monitoring program to comply with revised IGP and evaluated the applicability of the City's AWPF and Headworks facilities to the IGP.

South Bay International Wastewater Treatment Plant, Start-up and Commissioning Management Services; International Boundary and Water Commission; San Diego, CA. Start-up and commissioning team member for the IBWC's South Bay treatment plant.

Wastewater Management Plan; Otay Water District, CA. Project Engineer. Project included detailed review of treatment process and pump station improvements associated with the RWCWRF. Project included existing system and new system facilities assessments with recommendations for wastewater infrastructure system capital improvement program projects to build out over a five-year period.

City of Coalinga, Design/Build Procurement & Program Management Services; Coalinga, CA. Procurement/Program Manager. Procurement and Program Manager for the City's wastewater treatment plant relocation and sewer trunk line Design-Build program. Responsible for preparation of all procurement and technical documents, management of the procurement process, contract development and negotiations support and management of the Design-Build construction project. Project Team provides support to City relative to compliance with enabling legislation and other legal issues associated with Design-Build project delivery.

City of Phoenix, Construction Management at Risk of the 91st Avenue WWTP Unified Plant 2001 Project; Phoenix, AZ. Principal-in-Charge. Principal-in-Charge and Program Manager for the pre-construction support services and construction services as general contractor for this $100 million expansion/upgrade project for the largest wastewater treatment facility in the State of Arizona. Responsible for overall project oversight, contracts negotiation and client liaison for the pre-construction support services and construction services as general contractor for this $100.0 million WWTP expansion/upgrade project.

City of Barstow, Design/Build Procurement Services; Barstow, CA. Procurement Manager. Procurement Manager for the City's wastewater reclamation facility expansion and upgrade project for Title 22 water delivery.

City of Barstow, Program Management Services; Barstow, CA. Program Manager. Program Manager for the City's wastewater reclamation facility capital improvements. Provided all regulatory coordination related to compliance with cease and desist orders. Scope included treatment plant facility assessments, conceptual design, cost estimating and funding review related to development of capital improvement and upgrades program. Provided support services relative to federal grant applications.

City of Quincy, Design/Build/Finance/Operate of Wastewater Treatment Facilities; Quincy, WA. Principal-in-Charge/Project Manager. Principal-in-Charge and Project Manager for the program that includes financing, design, construction and operation of upgrades to the City's industrial wastewater treatment facility and municipal wastewater treatment facility.

Iraq Reconstruction; Water Sector Program Management. Joint Venture Executive-in-Charge. Served as JV board member and executive in charge for Iraq water sector program management under the US Government Iraq Reconstruction Program. Program responsible for assessing and establishing requirements nationwide for water, wastewater and water resources infrastructure needs.

City of Jasper, Design/Build/Operate of Wastewater Treatment Facilities; Alberta, Canada. Principal-in-Charge. Principal-in-Charge for the program that includes design, construction and operation of upgrades to the City's municipal wastewater treatment facility.

City of Oxnard, Oxnard GREAT Project – Advanced Water Purification Facility Start-up and Commissioning; Oxnard, CA. Lead Start-up and Commissioning Engineer. Lead Start-up and Commissioning Engineer for the City's advanced water purification plant. Project Manager for the design-build of regulatory monitoring and compliance facilities related to the advanced treatment plant and Oxnard Wastewater Treatment Plant.

County of San Bernardino, Design/Build of Upgrades and Improvements to Kaiser WWTP; San Bernardino, CA. Principal-in-Charge/Project Manager. Principal-in-Charge and Project Manager for the design and turnkey construction of upgrades and improvements to the Kaiser WWTP.

City of San Diego, Constructability Review of Contract Documents for the Expansion and Upgrade of the Alvarado Filtration Plant, Phase 4 Ozone Project; San Diego, CA. Undertook review of Contract Documents with focus on civil and mechanical areas with general interface checks related to the structural, electrical and instrumentation drawings. Provided detailed comments associated with coordination, general constructability, potential cost savings, missing or conflicting depictions or unclear direction which may result in construction contractor questions or potential change orders.

City of Oxnard, Oxnard Wastewater Treatment Plant Expansion Project; Oxnard, CA. Lead Project Engineer. Lead Project Engineer for process design and interdisciplinary design supervision of the Oxnard Wastewater Treatment Plant Expansion Project for the City of Oxnard, CA.

Design/Build/Operate of Wastewater Treatment Facilities for the City of Banff, Alberta, Canada. Principal-in-Charge for the program that includes design, construction and operation of upgrades to the City's municipal wastewater treatment facility.

Benjamin H. Porritt, PE, SE, LEED Green Associate

Project Manager

CURRENT RESPONSIBILITIES:

Senior Project Manager with far-reaching experience in the structural design of transit, manufacturing, research and development, industrial, power, and water treatment facilities, including extensive experience involving the modification of existing building and plant structures. Public sector project experience includes primary structural design responsibility for rail and bus maintenance facilities, major water treatment process trains, and airport and convention complex facilities. Private sector background includes primary responsibility for structural design and multi-discipline project management for complex and diverse projects for major firms, such as General Motors, Ford, Toyota, Caterpillar, Abbott Laboratories, and Boeing. Responsibilities include structural engineering and management for projects from first idea through final construction, including concept development; specification writing; discipline coordination; building information management; contract document production; construction administration; and the supervision of engineering, design, and inspection staff.

SUMMARY OF RELATED EXPERIENCE:

Concrete Structures Conditions Assessment at Johnny G. Martinez and South Tempe Water Treatment Plants, Tempe, AZ, *City of Tempe*

Project manager for assessing existing conditions and life cycle analysis.

Johnny G. Martinez Water Treatment Plant (WTP) Aqueduct Rehabilitation and Plant Modifications, Tempe, AZ, *City of Tempe.* Senior Project Manager for the rehabilitation of WTP intake aqueduct deteriorated concrete, major reservoir revisions, and other plant structural modifications.

On-Call Structural Engineering Services, Plant Maintenance Improvements, Scottsdale, AZ, *City of Scottsdale.* Senior Project Manager for on-call engineering service projects for multiple water and wastewater facility access and fall protection improvements, including platforms, stairs, ladders, and storage tank modifications.

YEARS EXPERIENCE WITH FIRM: 16

YEARS EXPERIENCE WITH OTHER FIRMS: 19

EDUCATION:
BS, Civil Engineering, Michigan State University, 1982
MS, Civil Engineering, Wayne State University, 1991

CONTINUING EDUCATION:
Confined Space Entry Training, National Environmental Trainers, Inc., 2012

PROFESSIONAL REGISTRATION(S):
PE: Michigan - No. 6201033202 (1987)
Washington (Civil) - No. 30673 (1994)
Arizona (Civil) - No. 35666 (2000)
Arizona (Structural) - No. 36712 (2001)
California (Civil) - No. 64789 (2003)
California (Structural) - No. S5989 (2013)
USGBC - LEED Green Associate - No. 10692311 (2011)

On-Call Structural Engineering Services, Pump Station Investigation and Rehabilitation, Scottsdale, AZ, *City of Scottsdale.* Senior Project Manager for on-call engineering service projects to perform multiple water and wastewater pump station investigations and develop rehabilitation recommendations and contract documents.

Water Reclamation Facility – Headworks Bridge Crane Addition and Other Plant Modifications, Avondale, AZ, *City of Avondale.* Senior Project Manager for the addition of a headworks bridge crane and other facility upgrades.

Structural Design Services for Booster Pump Station Upgrades, AZ, *City of Scottsdale.* Senior Project Manager for five pump station buildings and site structures.

Structural Design for Effluent Disinfection Project, American Samoa, *American Samoa Power Authority.* Senior Project Manager for ultraviolet light disinfection basins at two wastewater treatment plants.

Arsenic Mitigation Project, Keyes, CA, *Keyes Community Services District.* Senior Project Manager for water supply arsenic mitigation tank foundations and other process facilities.

Chaparral Water Treatment Plant, Scottsdale, AZ, *City of Scottsdale.* Senior Project Manager for multiple structural studies and designs to support process renovations.

Scottsdale Water Campus Advanced Water Treatment Facility Expansion, Scottsdale, AZ, *City of Scottsdale.* Senior Project Manager for the structural design of building additions, renovations, and industrial structures.

Union Hills Water Treatment Plant, Phoenix, AZ, *City of Phoenix Water Services Department.* Senior Project Manager for buildings and plant structures for plant renovation projects.

Cave Creek Water Treatment Plant, Cave Creek, AZ, *Town of Cave Creek.* Senior Project Manager for a water treatment plant expansion.

Lake Pleasant Water Treatment Plant Design-Build-Operate Project, Phoenix, AZ, *City of Phoenix Water Services Department.* Senior Project Engineer for flocculation, ozone contact, filters, granular activated carbon contact, and ultraviolet disinfection for an 80 mgd water treatment plant.

Unified Plant 01 and 05 Expansions, 91st Avenue Wastewater Treatment Plant, Phoenix, AZ, *Sub-Regional Operating Group.* Senior Project Manager for 156 mgd plant expansions including headworks through final treatment.

Patrick Sweeney, PCS

Curricular Vitae

psweeney@CSIServices.biz

Patrick Sweeney is a Senior Project Manager for CSI Services, Inc. (CSI), a consulting engineering firm with specific expertise in protective coatings and linings. Serving a host of industries around the country – from water and wastewater to petrochemical, power, and transportation – CSI's long-standing commitment to efficient, cost-effective, quality service has positioned the company as one of the most respected and sought-after firms in the field.

The company's comprehensive approach to its independent, third-party services is tailored specifically to each client's needs, based on the industry and specifications. CSI routinely provides facility surveys, specification development, bid phase support, in-process construction inspection, failure analysis, expert witness, and underwater inspections. CSI is an SSPC QP5 Certified Coating and Lining Inspection Firm.

Education

1990 – Bachelor of Science Degree, California State University at Los Angeles

1994 – NACE International Coatings Inspector Training Program

1995 – SSPC: The Society of Protective Coatings C-3 Course "Supervisor for Deleading of Industrial Structures"

2000 – SSPC: The Society of Protective Coatings C-2 Course "Specifying and Managing Protective Coatings Projects"

2001 – Federal Highway Administration/Federal Highway Institute Course No. 13709 "Bridge Coatings Inspection"

2003 – SSPC: The Society of Protective Coatings C-1 Course "Fundamentals of Coating on Industrial Structures."

2004 – SSPC: The Society of Protective Coatings C-7 Course "Fundamentals of Dry Abrasive Blast Cleaning."

2008 – SSPC: The Society of Protective Coatings Protective Coating Inspector Program

Numerous courses and seminars covering: Corrosion, Coatings, Inspection, and Safety.

Association Memberships

American Water Works Association – California/Nevada Section
- Chairman - Operations and Maintenance Division
- Past Chairman (6 years) - Tank, Reservoirs, and Structures Maintenance Committee
- Past Chairman - Corrosion Control Committee
- Member - Engineering and Construction Committee
- Member - Revision Task Group AWWA D101

California Rural Water Association/ California Water Environment Association

International Code Council (formerly International Conference of Building Officials)

NACE International (formerly National Association of Corrosion Engineers)
- Past Ventura/Channel Islands Section Trustee

SSPC: The Society for Protective Coatings (formerly Steel Structures Painting Council)
- Chairman - Southern California/Southern Nevada Chapter
- Chairman - Individual Certification Task Group (ICTG)

Certifications

SSPC – Certified Protective Coatings Specialist Certificate #887-792-1267

NACE International –Certified Coatings Inspector Certificate #4324

SSPC – Certified Protective Coatings Inspector Level 3 #21886

Instructor - NACE International - Coating Inspector Program (CIP), Levels 1 and 2

Instructor - SSPC's C-1 "Fundamentals of Coating on Industrial Structures"

Instructor - SSPC's C-2 "Specifying and Managing Protective Coatings Projects"

Instructor - SSPC's Protective Coating Inspector (PCI) Program, Levels 1 and 2

SSPC-C-3 Certified Supervisor for Deleading of Industrial Structures

ICBO/ICC Certified Spray Applied Fireproofing Special Inspector (41410052165)

Federal Highway Administration/Federal Highway Institute - Certified Instructor "Bridge Coatings Inspection" (Course No. 13709).

Certified Linabond Structure and Pipeline Copolymer Inspector

Certified ACI Concrete Field Technician

Certified Ameron T-Lock Welder and Inspector

Certified PADI Scuba Diver (8912237760)

Professional Experience

Beginning in 1990, Mr. Sweeney has completed projects in virtually every type of industry. A partial listing of professional accomplishments follows:

Golden Gate Bridge Highway and Transportation District Project Manager for both the shop and field coating inspection for the Bridge's $350,000,000 Seismic Retrofit and Repainting of the North Approach Viaduct Project. The 3-year project involved a zinc-rich primer/acrylic system.

Castaic Lake Water Agency Inspector and/or Project Manager during the construction or maintenance of over 75 different steel water storage tank projects. These assignments included the development of a tank maintenance plan following both dry and underwater surveys (over 100 dive inspections), work prioritization, budgeting, specification development, and in-process inspection services. Tank capacities have ranged from 100,000 gallons to 4MG and involved various epoxy, coal enamel, and urethane systems. Projects have also included various 102" pipeline lining evaluation and inspection projects. The pipeline projects involved cement mortar and polyurea lining systems.

Disneyland Themepark Inspector and/or Project Manager during the corrosion mitigation and maintenance of various attractions within the park. Projects included work on Splash Mountain, Matterhorn, CA Screaming, Fantasmic Experience, and Pirates of the Caribbean. Systems involved epoxies, urethanes, acrylics, and moisture-cured urethanes.

Los Angeles County Sanitation Districts Project Manager for 3-year assignment at the Joint Water Pollution Control Plant's Secondary Treatment Facilities, Stages 1 and 2 Project. This assignment involved the resurfacing and relining of the interior of numerous concrete reactor clarifiers. This project involved the application of 100 percent solids polyurethane products.

Since 1991 Mr. Sweeney has tested or supervised the testing for the installation certification of over 3,000,000 square feet of polyvinyl chloride (PVC) linings and 250,000 linear feet of PVC weld strip to various structures, manholes, and outfalls. Outfalls have ranged from 48" diameter RCP to 12 foot reinforced concrete tunnels.

Southern California Alliance of Publicly Owned Treatment Works (SCAP) Project Manager and Field Technician during the $200,000 two year coating and lining evaluation program for SCAP, which involved testing low VOC materials on both concrete and steel substrates in atmospheric, gas vapor, and immersion environments in both field and laboratory conditions. SCAP is comprised of an alliance of 35 water and wastewater facility owners throughout Southern California. Systems included virtually every type of coating system typically used in water and wastewater environments.

San Diego Padre Baseball Stadium Technician and Project Manager for coatings failure analysis of the steel superstructure of the new San Diego Padre Baseball Stadium (PETCO Park). The project involved the analysis of failed coatings, recommendations for maintenance repair activities, and inspection of the recoating.

Eastern Municipal Water District Inspector and/or Project Manager during the construction or maintenance of 60 steel water storage tanks. Tank capacities ranged from 500,000 gallons to 8.9 MG. Systems included coal-tar enamel, inorganic zinc rich, epoxies, and urethanes.

U.S. Department of Defense Technician and Project Manager during the corrosion and lining evaluations for the Title 22/23 recertification of over 125 steel, concrete, and plastic storage tanks located throughout numerous military installations.

Valencia Water Company Inspector and/or Project Manager during the construction or maintenance of 40 different steel and concrete water storage tank projects. These assignments included the development of a tank maintenance plan following both dry and underwater surveys (over 50 dive inspections), work prioritization, budgeting, specification development, and in-process inspection services. Tank capacities have ranged from 1MG to 5MG, and systems included coal-tar enamel, zinc-rich, epoxies, and urethanes.

Southern California Edison Project Manager during the evaluation and inspection of the repainting of multiple steel penstocks throughout the environmentally sensitive and complex Big Creek Hydroelectric Project, which involved numerous hydroelectric powerhouse and vertical penstocks.

National Aeronautical Space Administration (NASA) Inspector and Project Manager during the coating of three super structure for the space shuttle program. The coating installed was an inorganic zinc-rich, epoxy, and urethane system.

U.S Navy, San Diego, CA Technician and Project Manager for the 2002 coatings failure analysis and relining of potable water storage tanks on the USS Dubuque, USS Lake Champlain, US Bendfold, and USS John Paul Jones. Mr. Sweeney also acted as Project Manager during the 1998 – 2001 Navy Preservation Team Maintenance Painting Program for various aircraft carriers, ships, submarines, and other vessels.

Grant County Public Utility District No. 2 Coating Technician and Project Manager during the coating evaluation of the Priest Rapids and Wanapum hydroelectric dams on the Columbia River, Washington. The evaluation included over 2000 components, which became the centerpiece for the maintenance plan of all facility areas from draft tubs to spillway gates.

City of Yuma, AZ Project Manager during the evaluation, coating testing, and development of a maintenance recoating specification for the City's historically landmarked Old Yuma City Bridge.

US Department of Energy Project Manger during the maintenance of five different steel storage tanks located at the Nevada Test Site (Yucca Mountain & Areas 12, 24, 15, and 18). Mercury, NV. The project involved the corrosion evaluation, professional certification, and recoating of each tank.

City of San Diego Project Manager for the lead-abatement and repainting of the First Ave Bridge Over Maple Canyon, a historic span superstructure. The project was named Structure Project of the Year by the California Transportation Foundation and SSPC: The Society of Protective Coatings.

California National Guard Project Manger during the maintenance evaluation and maintenance painting of more than twenty armory facilities located throughout the State .

Aircraft International Service Group Inspector and Project Manager during the maintenance evaluation of 32 different large capacity fuel storage tanks located at Honolulu International Airport. These assignments included the development of a tank maintenance plan, specifications, and on-going in-process inspection.

NASA/Jet Propulsion Laboratory Project Manager for the maintenance of seven different steel water storage tanks located at the Deep Space Satellite Communications Facility, Goldstone. This project included both dry and underwater surveys, work prioritization, budgeting, specification development, and in-process inspection services.

U.S. Navy, NAVFAC - Project Manager for the evaluation of the newly developed splash zone coatings (SZC) applied to sheet piling at Naval Station, San Diego, CA and Naval Air Station, Pensacola, FL. The assignment surveyed SZC's over a 3-year period to determine the use of polysulfide modified epoxies throughout the Navy's worldwide infrastructure.

Mr. Sweeney has completed numerous failure analysis or expert witness assignments. A partial listing follows:

City and County of Honolulu - Investigation of the failed lining of the Ko Olina Interceptor and the preparation of recommendations for the repair of severely corroded surfaces and the rehabilitation of the failed liner.

Ameron Linings vs City of Phoenix - $12 million litigation involved the investigation of the failed lining in over 10,000 LF of the Salt River Outfall wastewater pipeline.

PCL vs City of San Diego – Expert opinion for litigation involving the failed lining in the Rose Canyon Outfall owned and operated by the City of San Diego, CA.

Port of San Diego - Investigation of failed coating on Broadway Pier Ship Terminal.

Tilden-Coil vs Weststar - Investigation of the failed coating and expert opinion of the coatings failure on the Biosolids Composting Facility, Inland Empire Utilities Agency.

San Diego Zoo - Investigation and expert opinion of the failed coating on different superstructures located at both the Zoo and Wild Animal Park.

Orange County Sanitation District - Investigation of the failed lining located within the IDB-1 Headworks Process Structure located within Treatment Plant No. 2

Southern Nevada Water Authority - Expert opinion on the quality and conditions of polyvinyl chloride (PVC) welds and liner plate installed in the sodium hypochlorite and brine tanks located at the River Mountain Water Treatment Facility.

Metro Transit Authority - Expert opinion on the failed paint on both the Exposition Subway Line in Los Angeles and the Goldline in Pasadena of the MTA system.

Trona Train Lines - Investigation of the failed coatings on over 500 railcars. This evaluation was used as the basis for the successful mediation.

U.S Navy, FISC Manchester, WA - Investigation and expert opinion of the failed 100 percent solids lining within a large capacity concrete underground fuel storage tank.

Additional specific projects available upon request

Other Activities and Personal Information

- Very happily married to Rebecca with two sons, Cameron and Wyatt
- Avid mountain biker and hiker

October 2, 2017 JPA Board Meeting

TO: JPA Board of Directors

FROM: Facilities & Operations

Subject : Donation of 115 kW Solar Carport System from the Conrad N. Hilton Foundation: Acceptance

SUMMARY:

The Conrad N. Hilton Foundation has an existing 115 kW carport photovoltaic system and three electrical vehicle charging stations that were installed in 2013 at its Agoura Hills campus. The solar carport system is approximately 270 feet long and 35 feet wide. To accommodate the proposed expansion of the campus, the solar carport system and charging stations need to be removed or relocated. The Hilton Foundation offered to donate the solar carport system and charging stations to the JPA in an effort to ensure its continued use to provide renewable energy for the region.

Based on discussions with three potential solar contractors, the cost to remove and re-install the solar system will be approximately $300,000. The system has an estimated 98% of its generation capacity remaining based on a degradation rate of 0.5% per year. As such, the facility would produce a net annual energy savings of approximately $26,000 for the JPA, corresponding to a payback period of 11.5 years. Staff recommends acceptance of the donation given the favorable payback period and recognizing the value of a partnership with the Hilton Foundation.

RECOMMENDATION(S):

Accept the donation of a 115 kW solar carport system and three electrical vehicle charging stations from the Conrad N. Hilton Foundation, and budget and appropriate $300,000 for the Hilton Foundation Solar Carport System Relocation Project.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

No

FINANCIAL IMPACT:

The proposed project is not currently included in the adopted Fiscal Year 2017-18 JPA Budget. The total cost of the work is estimated to be $300,000, which would need to be budgeted and appropriated.

DISCUSSION:

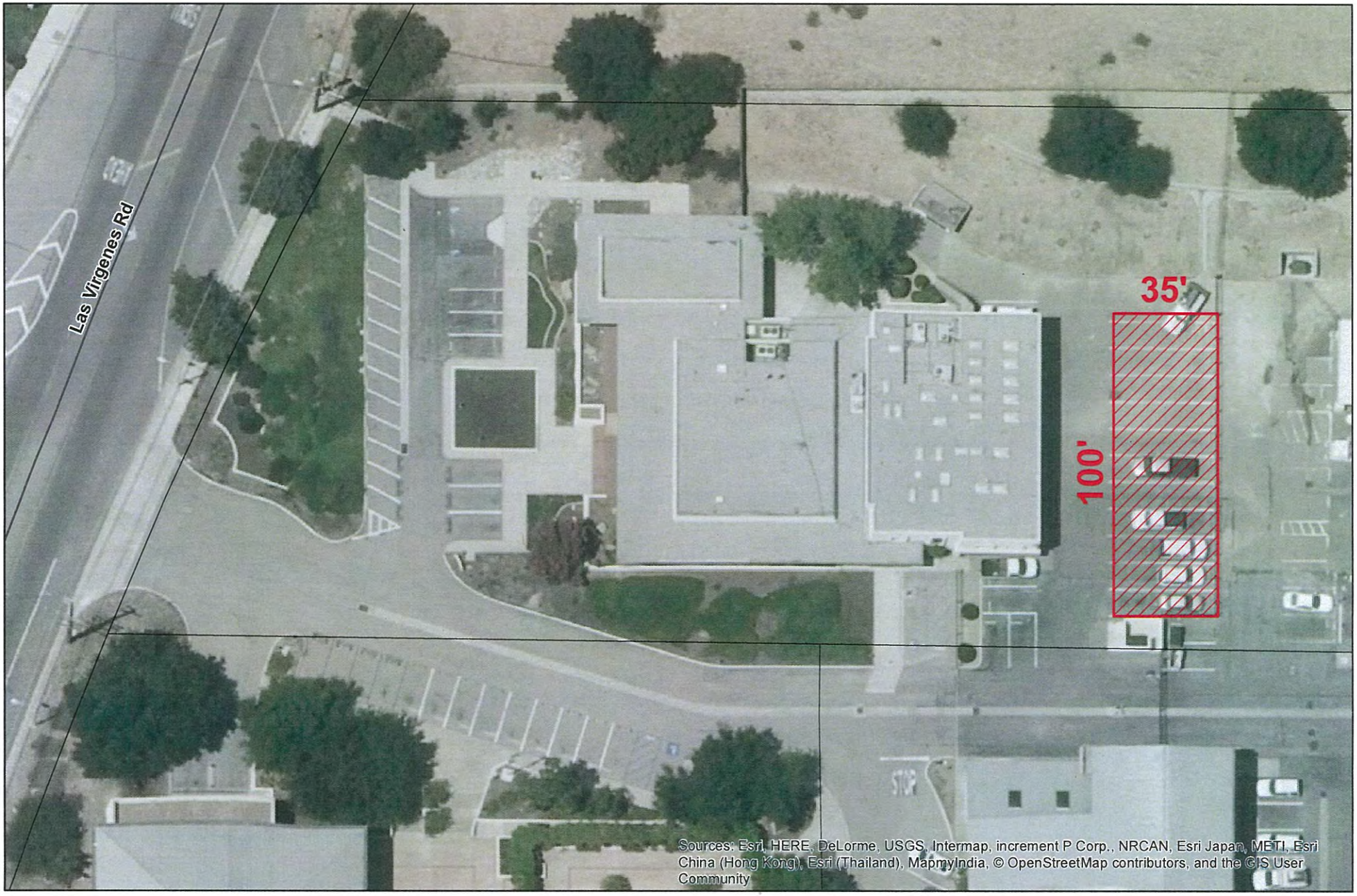
Staff reviewed various potential locations for the solar carport system and recommends considering two sites for its relocation. One part of the solar system, approximately 170 feet long, could be installed at the Rancho Las Virgenes Composting Facility in front of the Cure Building. The other part, approximately 100 feet long, could be installed at the Headquarters campus, covering the tandem parking spots behind Building No. 1 (see attached illustrations). The three vehicle charging stations could also be installed at the Headquarters campus.

The proposed relocation of a 170-foot-long array to the front of the Cure Building would offset Rancho's electrical usage and provide shade to visitors who come to pick up compost and recycled water. The remaining 100-foot-long array to be relocated behind Building No. 1 would offset electrical usage for the proposed Pure Water Demonstration Project and provide shade for approximately 24 existing tandem parking spots.

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

ATTACHMENTS:

Photos of Solar Carport System and Illustrations of Proposed Relocation Sites



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SOLAR CARPORTS SYSTEM RELOCATION
DISTRICT HEADQUARTERS

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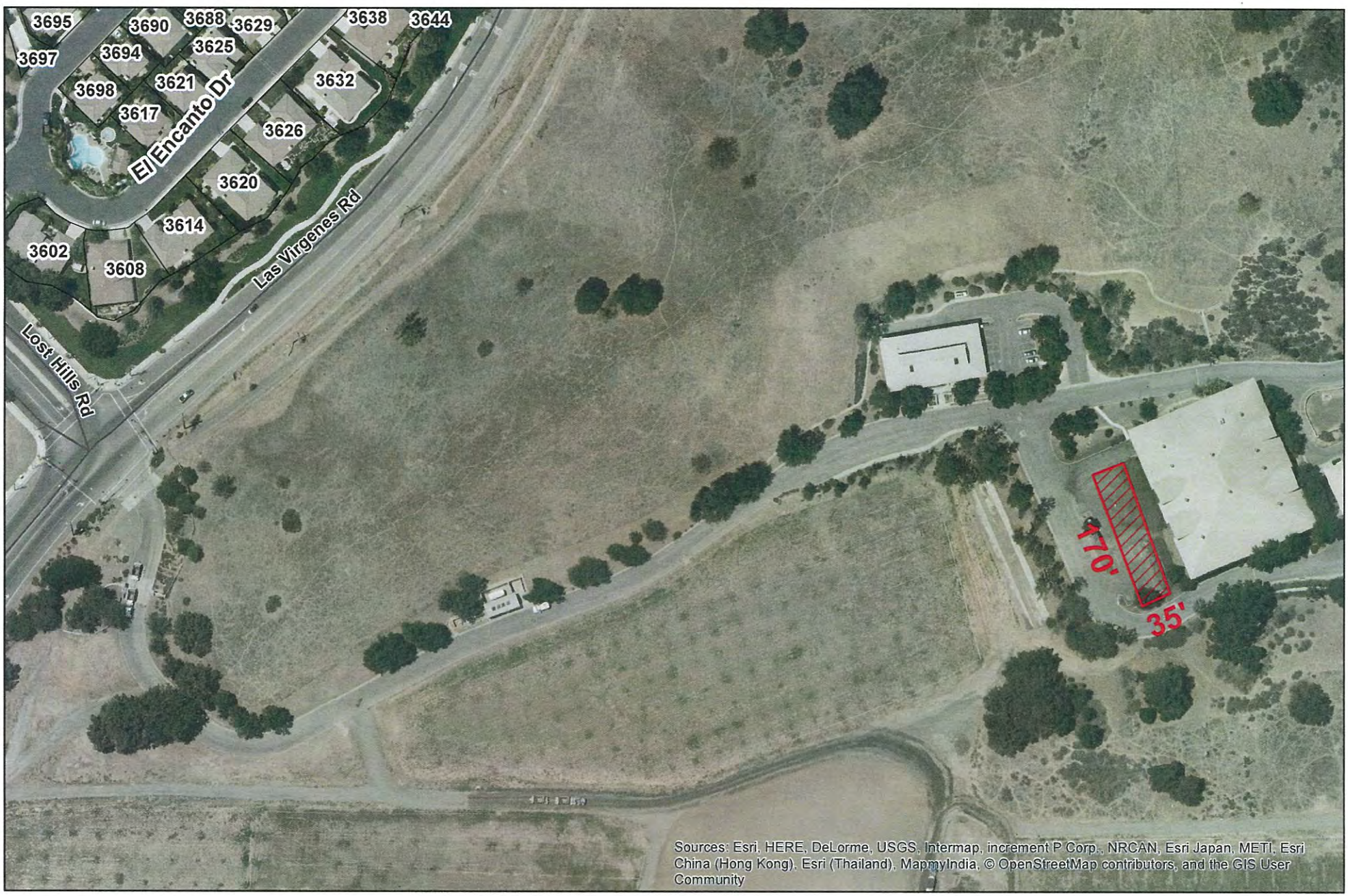

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SOLAR CARPORTS SYSTEM RELOCATION
RANCHO CURE BUILDING

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October 2, 2017 JPA Board Meeting

TO: JPA Board of Directors

FROM: Facilities & Operations

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

SUMMARY:

Much of the high voltage electrical service equipment at the Tapia Water Reclamation Facility was installed in the late 1960s and early 1970s. Routine preventative maintenance of the equipment is required to keep it serviceable and maintain the reliability of electrical service to the treatment plant.

Staff solicited quotations for the maintenance work from qualified vendors. As the work is highly specialized, only two quotes were received. Hampton Tedder Technical Services, the same company that recently performed the high voltage work at the Rancho Las Virgenes Composting Facility, submitted a quotation in the amount of $61,711.60. Eaton Corporation, another company that has done high voltage work for the JPA, quoted $70,625.00. Staff recommends awarding the work to Hampton Tedder Technical Services as the firm submitting the lowest responsible quotation. Due to the nature of the work, minor additional costs may be incurred as the equipment is tested and evaluated for compliance with InterNational Electrical Testing Association (NETA) specifications and industry guidelines.

RECOMMENDATION(S):

Accept the quotation from Hampton Tedder Technical Services, in the amount of $61,711.60; and authorize the Administering Agent/General Manager to issue a purchase order, in the amount of $67,882.76, which includes a 10% contingency, for routine maintenance of the switchgear and transformers at the Tapia Water Reclamation Facility.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The total cost of the work is not expected to exceed $67,882.76. Sufficient funds are available in the adopted Fiscal Year 2017-18 Budget.

DISCUSSION:

NETA-certified technicians will service the electrical equipment in accordance with NETA specifications and industry guidelines. A technical service engineering report will be provided to detail the service performed and will include applicable recorded field data, analyses and recommendations.

Following is a list of the equipment to be serviced:

Quantity	Equipment
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

Prepared by: Larry J. Miller, Water Systems/Facilities Manger