AGENDA

REGULAR MEETING OF THE BOARD OF COMMISSIONERS
VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY (VVWRA)
Victorville City Hall – Conference Room "D", 14343 Civic Drive, Victorville, CA 92392
Phone: (760) 246-8638

MEETING DATE: Thursday, March 16, 2017 **TIME: 8:00 AM (Closed Session)**
8:30 AM (Regular Session)

CALL TO ORDER

PUBLIC COMMENTS – CLOSED SESSION AGENDA

CLOSED SESSION

CLOSED SESSION: During the course of conducting the business set forth on this agenda as a regular meeting of the Board, the Chair may convene the Board in closed session to consider matters of pending real estate negotiations, pending or potential litigation, or personnel matters, pursuant to Government Code Sections 54956.8, 54956.9, 54957 or 54957.6, as noted.
Reports relating to (a) purchase and sale of real property; (b) matters of pending or potential litigation; or (c) employment actions, or which are exempt from public disclosure under the California Public Records Act, may be reviewed by the Board during a permitted closed session and are not available for public inspection. At such time the Board takes final action on any of these subjects, the minutes will reflect all required disclosures of information.

CONFERENCE WITH LEGAL COUNSEL-POTENTIAL LITIGATION (Gov. Code Sec. 54956.9(d)(2)):

1. **Threatened or Pending Litigation – Flow Diversion**

2. **Threatened or Pending Litigation- Upper Narrows Project**

3. **Threatened or Pending Litigation- Liberty Utilities**

CONFERENCE WITH LEGAL COUNSEL—EXISTING LITIGATION- (Gov. Code Sec. 54956.9 (1)(D)):

4. **Valles v. VVWRA et al, Case No. 5:15-CV-02297**

REGULAR SESSION

CALL TO ORDER & PLEDGE OF ALLEGIANCE

REPORT FROM CLOSED SESSION

PUBLIC COMMENTS – REGULAR SESSION AGENDA

ANNOUNCEMENTS AND CORRESPONDENCE:

5. **Possible conflict of interest issues**

6. **General Managers Report**

7. **Article: WWEMA Window- A new Paradigm For Funding**

CONSENT CALENDAR:

8. **Approve February 2017 Disbursement Registers**

9. **Approve Minutes from the February 16, 2017 Regular Meeting**

REPORTS & PRESENTATIONS:

10. **Presentation: Preliminary Analysis for Desert Knolls Wash (Mike Fleury- Carollo)**

ACTION & DISCUSSION ITEMS:

11. **Recommendation to Approve Resolution 2017-04: Appreciation of Service for Steve Schindler**

12. **Recommendation to Approve Design of the Stormwater bypass for the WWTP**

13. **Recommendation to Approve Proposal to Provide Professional Engineering Services for VVWRA Energy Use Evaluation**

STAFF/PROFESSIONAL SERVICES REPORTS:

14. **Financial and Investment Report – February 2017**

15. **Operations & Maintenance Report – February 2017**

16. **Environmental Compliance Department Reports – February 2017**

17. **Septage Receiving Facility Reports – February 2017**

18. **Safety & Communications Report – February 2017**

NEXT VVWRA BOARD MEETING:

Thursday, April 20, 2017 – Regular Meeting of the Board of Commissioners

FUTURE AGENDA ITEMS

Leave Policy

COMMISSIONER COMMENTS
ADJOURNMENT

Agenda Posting: In accordance with the requirements of California Government Code Section 54954.2, this agenda has been posted in the main lobby of the Authority's Administrative offices not less than 72 hours prior to the meeting date and time above. All written materials relating to each agenda item are available for public inspection in the office of the Board Secretary.

Items Not Posted: In the event any matter not listed on this agenda is proposed to be submitted to the Board for discussion and/or action, it will be done in compliance with Section 54954.2(b) as an emergency item or because there is a need to take immediate action, which came to the attention of the Board subsequent to the posting of the agenda, or as set forth on a supplemental agenda posted in the manner as above, not less than 72 hours prior to the meeting date.

Public Comments: Any member of the public may address the Board of Commissioners on specific agenda items or matters of general interest. As determined by the Chair, speakers may be deferred until the specific item is taken for discussion and remarks may be limited to five minutes. Persons desiring to submit paperwork to the Board of Commissioners shall provide a copy of any paperwork to the Board Secretary for the official record.

Matters of Interest addressed by a member of the public and not listed on this agenda cannot have action taken by the Board of Commissioners except as authorized by Section 54954.2(b). If you wish to speak, please complete a Speaker's Form (located at the table in the lobby outside of the Board Room) and give it to the Board Secretary prior to the start of the meeting.

If any individual wishes to challenge an action of the Commission in court, he or she may be limited to raising those issues that were raised at the public hearing pertaining to the Commission's actions, or in any written correspondence delivered to the Commission on or prior to the public hearing.

Consent Calendar: All matters placed on the Consent Calendar are considered as not requiring discussion or further explanation and unless any particular item is requested to be removed from the Consent Calendar by a Commissioner, staff member or member of the public in attendance, there will be no separate discussion of these items. All items on the Consent Calendar will be enacted by one action approving all motions, and casting a unanimous ballot for resolutions included on the consent calendar. All items removed from the Consent Calendar shall be considered in the regular order of business.

The Chair will determine if any items are to be deleted from the Consent Calendar.

Items Continued: Items may be continued from this meeting without further notice to a Committee or Board meeting held within five (5) days of this meeting per Government Code Section 54954.2(b)(3).

Meeting Adjournment: This meeting may be adjourned to a later time and items of business from this agenda may be considered at the later meeting by Order of Adjournment and Notice in accordance with Government Code Section 54955 (posted within 24 hours).

Accommodations for the Disabled: In compliance with the Americans with Disabilities Act (ADA), the Board of Commissioners Meeting Room is wheelchair accessible. If you require any special disability related accommodations, please contact the Victor Valley Wastewater Reclamation Authority Board Secretary's office at 760-246-2892 at least 72 hours prior to the scheduled meeting. Requests must specify the nature of the disability and the type of accommodation requested.

General Manager's Report

Logan Olds

March 16, 2017

Capital Projects

• Subregionals

The subregional water reclamation plants (WRP) will reduce flows in VVWRA's over capacity interceptors which convey sewage to the main plant in Victorville. The Hesperia WRP will begin operational testing in late May of 2017. The Town of Apple Valley facility should begin operational testing in September of 2017.

• Nanticoke Interceptor

The Nanticoke interceptor has completed construction and is designed to replace the obsolete Nanticoke pump station. The interceptor will save VVWRA over $400,000.00 per year in staff time and consumables like electricity, chemicals and equipment replacement.

• Desert Knolls Wash Interceptor

The Upper Narrows Emergency Project completed construction on October 25, 2016! The project occurred from December 25, 2010 to October 25, 2016 for a total of 2132 days, or 5 years, 10 months and 1 day. The project operated for 24 hours a day 365 days a year. The next phase of the project is to complete the Office of the Inspector General (OIG) audit, finalize the accounting with the California Office of Emergency Services (Cal OES) and the Federal Emergency Management Agency (FEMA). Staff believes that the close out process will require an additional six months. VVWRA will then be required to retain all documentation associated with the project for ten years. The project will cost approximately 42 million dollars of which VVWRA is responsible for 2.7 million dollars of the expense.

General Manager's Report

Logan Olds

March 16, 2017

Capital Projects

• Upper Narrows Interceptor / OIG

It's safe to say that the Upper Narrows Emergency Pipeline project was unlike any other for the Victor Valley Wastewater Reclamation Authority.

When a series of powerful storms in late 2010 broke open a large sewer line, spilling 42 million gallons of sewage into the Mojave River, the stage was set for one of the largest and most important recent FEMA projects in California.

Over the next five years, planners, engineers and construction teams navigated complex technical and environmental obstacles – first in laying nearly 5,000 feet of temporary pipe, then designing and building a permanent solution that included tunneling under the streets of Old Town Victorville and under 270 feet of rock through an earthquake fault.

To serve Apple Valley, two 16-inch pipes were installed using directional drilling 40 feet below the Mojave River and under one of the busiest railroad lines in the nation.

The $41 million project was designed to keep the new pipe out of the river and away from other environmentally sensitive areas, but the challenges grew with each passing month. Many of these were impossible to anticipate – unusual geological formations, endangered species and archeological remains – but we had to persevere. The immediate and long-term public safety and well-being of the water of our region depended on it.

Now, it seems, we're being made an example of – in the wrong way.

In recent weeks, stories have surfaced questioning the project's costs and accounting. These were based on a draft audit from the Office of Inspector General (OIG), claiming that VVWRA did not properly account for and expend $31.7 million in FEMA grant funds.

To say that we were caught off-guard by the report would be a massive understatement. Only six months earlier, we were told that the audit was 95 percent complete and that our expenses and accounting were "generally acceptable."

While we appreciate the federal government's checks and balances, this particular audit trail leaves us baffled – because of both what we were led to believe and the nature of the pipeline project itself.

General Manager's Report

Logan Olds

March 16, 2017

Capital Projects

• Upper Narrows Interceptor / OIG cont.

Even in the best of circumstances – never mind something as complex as Upper Narrows – it is not unusual for a major engineering project to come in more expensive than originally thought because of unforeseen challenges. Tunneling projects often experience cost overruns in excess of 30 percent. With Upper Narrows, the additional costs were less than half that – approximately 15 percent, or only 5 percent above the 10 percent contingency built into the project. It's the only time, in fact, that a project we've managed has exceeded the standard 10 percent contingency, which speaks to both our excellent record of controlling costs and the unusual – and urgent – nature of the Upper Narrows project.

The extent of the damage – and the work required to fix it – was something we could not have anticipated. We performed triage first, and then maneuvered through unchartered territory to ensure the safety of the community we serve and the protection of our groundwater and environment. Our teams used every type of boring technology in existence, outside of using explosives, including the use of a massive 80-inch boring machine, smaller micro tunneling machines, horizontal directional drilling, pipe ramming and open cut construction. In addition, 10 concrete manholes ranging from 48-96 inches in diameter were installed.

These were no small tasks – complicated even more by challenges beyond our control, such as the need to ensure that wetlands, critical habitat and endangered species such as the Least Bell's Vireo would not be disrupted. The project required close collaboration with the Native American community to ensure that any artifacts or remains were handled with great care, and with the railroads to ensure that the work being done beneath crossings was properly engineered and that all appropriate special permits were secured. Even with the invaluable support of these groups and other stakeholders such as the Kemper-Campbell Ranch, The Lewis Center and the City of Victorville, the project was as daunting as any we'd ever encountered.

Along the way, we went to great lengths to ensure that every "i" was dotted and every "t" crossed when it came to spending and accounting – and felt confident, based on our communications with auditors last March that we had taken all appropriate steps. Recently, the Daily Press published a report referencing a transcript of that phone call – suggesting that any lingering questions the auditors might have had were small in nature.

General Manager's Report

Logan Olds

March 16, 2017

Capital Projects

• Upper Narrows Interceptor / OIG cont.

We provided the auditors detailed answers those questions, and had no reason to believe that anything was wrong.

We still don't, which is why we find ourselves scratching our heads over the draft audit we received six months later.

Whatever the internal dynamics are within OIG and FEMA, we stand ready to defend how this critically important project was managed and accounted for.

One who gains strength by overcoming obstacles possesses the only strength which can overcome adversity.
--Albert Schweitzer

Water Online

Guest Column | February 16, 2017

WWEMA Window: A New Paradigm For Funding

By Bill Decker

Every four years, the American Society of Civil Engineers (ASCE) releases a new report card on the state of our nation's infrastructure, and their 2013 grade for both water and wastewater was a "D". That report estimated that the infrastructure needed $3.6 trillion in investment by 2020. I do not look for a significant movement in our current grade for either water or wastewater with the 2017 report when it is released this year, because the funding at the level required to significantly change our infrastructure has not been made except at a few local utilities.

While there are some municipalities that have passed rate increases to fund modernization, for the most part our water rates are among the cheapest in the developed world. Albert Einstein said that "We cannot solve our problems with the same thinking we used when we created them." I submit that our problem in the industry is not purely a lack of public funding, but our mentality is that we cannot raise rates and must depend on more central funding to modernize and maintain the infrastructure that we already have. This is a paradigm that we need to break through.

I believe that every municipality wants to modernize and maintain their infrastructure, but the truth is that federal, state, and local funding has not been adequate for decades. Largely due to decisions in the past, every government entity has more demands for funding than can be met – and in today's sharply polarized political landscape, even great

ideas struggle to gain bipartisan support. Because our water infrastructure is largely out of sight, it often lacks the public support for funding until a crisis brings it back into focus for both government officials and the public. But like the many water main breaks that occasional make the news, these crises soon fade due to the incessant political noise, tweets, and two-second sound bites. The solution to our industry funding gap is unfortunately not going to come from the federal or state government until politicians resolve to work together for the common good rather than for the advancement of one party's political agenda. The solution needs to largely come from our local municipalities and the industry working together.

First, as an industry we need to become active locally to raise the awareness of the state of our infrastructure and the investment required. As one congressman famously remarked, "You don't get the funding because you don't have the votes." Our industry supports every other industry and without water our entire economy would quickly grind to a halt. In essence, every other industry should advocate for investment within the water industry.

But the solution is not purely dependent on public funding. Manufacturers have products that they are trying to bring to the market to lower the operational cost of treating water and wastewater, as well as decreasing the lifecycle cost. However, we collectively find the process to be overly long and unduly difficult due to the labyrinth of regulations that vary from state to state and the reluctance from virtually every utility to try a technology until someone within their state is already using it. We have created technology clusters, forums, focus groups, as well as programs associated with numerous trade associations in an effort to break through this resistance to new technologies with limited but growing success.

An old maxim states "necessity is the mother of invention," and in this regard the necessity for increased funding may have already been the mother of a new solution. I believe that we are on the forefront of a new movement in the industry that is a type of public-private partnership in conjunction with the effort to become energy-neutral.

Reading various trade journals, I am encouraged by the work at Victor Valley Water Reclamation District. General Manager Logan Olds champions the use of their state-of-the-art "biogas to energy program," which they have developed through a novel pilot approach. He stated that by 2016, the plant would produce 73 percent of its own energy. Long term, they could supply energy back to the grid. Imagine a world where every city became an energy exporter instead of an energy consumer through their water treatment facilities. This would radically shift the landscape for both the water industry and the power industry.

Another case is DC Water, where general manager George Hawkins recently announced the creation of Blue Drop, a nonprofit organization with the "goal of marketing products and services that DC Water has already developed." Under this type of organization, utilities are able to expedite development of new technologies for water treatment in conjunction with manufacturers as well as possibly other agencies such as academic institutions. They could then jointly own intellectual property that they could then license to other municipalities. This type of peer-to-peer marketing is not completely new to our industry, but this could result in a partnership where manufacturers could test their equipment at a plant that had a vested interest in the mutual success. This new way of thinking could unleash improvements in the plant in a quicker fashion which benefits both the plant and the manufacturer. It also allows other utilities to learn from work at organizations like DC Water without investing in some of the research, again allowing them to save money on future piloting.

Neither of these programs alone will solve the shortage of funding in the industry, but they are a start to an alternative source of funding. Programs like these that team the best talent from the manufacturing community along with engineers and utilities working together to develop energy-neutral plants and diversified revenue streams will change our dependence on public funding. We all need to take an active role in our industry and I commend general managers Olds and Hawkins for their leadership in the industry.

Bill Decker is Vice President and General Manager, Equipment and Services Group, for Aqua-Aerobic Systems Inc. (a Metawater Company) in Loves Park, IL. He is a member of the Water and Wastewater Equipment Manufacturers Association's Board of Directors and is Vice Chair of its Marketing and Member Services Committee. For more information about WWEMA, go to www.wwema.org.

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Victor Valley Wastewater Reclamation Authority
A Joint Powers Authority and Public Agency of the State of California

20111 Shay Rd. Victorville, CA 92394
Telephone: (760) 246-8638
Fax: (760) 948-9897

DATE: March 7, 2017

TO: Logan Olds
General Manager

FROM: Angela Valles
Director of Finance

SUBJECT: Cash Disbursements Register

RECOMMENDED ACTION

It is recommended that the Board of Commissioners approve the cash disbursements and payroll register for the Victor Valley Wastewater Reclamation Authority.

BACKGROUND

The Cash Disbursements Register totals represented below are for the month of FEBRUARY 2017, check numbers 120571 – 120631 and EFT/Wires.

Accounts Payable			
Checks	***ACH/EFT***	***Payroll***	***Total***
$157,508.58	***$6,663,829.54***	***$201,652.44***	***$7,022,990.56***

Victor Valley Wastewater Reclamation Authority
Cash Disbursement Register
From 2/01/17 through 2/28/17

Check Number	Check Date	Effective Date	Fund Code	Vendor Name	Transaction Description	Check Amount
120571	2/2/2017	2/2/2017	01	American Crane Training & Consulting	Mobile Crane Operator Training	2,790.00
120572	2/2/2017	2/2/2017	01	Aquatic Bioassay / Consult Inc.	Chronic NPDES Bioassays	3,815.00
120573	2/2/2017	2/2/2017	01	Battery Mart	12 Volt for Golf Cart	645.98
120574	2/2/2017	2/2/2017	01	Russell Blewett	Commissioner Stipend	100.00
120575	2/2/2017	2/2/2017	01	Dunford Roofing Co I.I.	Roof Repairs	7,950.00
120576	2/2/2017	2/2/2017	01	Environmental Engineering & Contracting,	Pretreatment Permit Review	2,755.00
120577	2/2/2017	2/2/2017	01	Fiberglass Grating Professionals	Grating Resin and Clips	225.00
120578	2/2/2017	2/2/2017	01	Golf Cars Of Riverside	Front Leaf Spring	127.75
120579	2/2/2017	2/2/2017	01	High Desert Lock & Safe	Truck Body Tool Box Keys	21.56
120580	2/2/2017	2/2/2017	01	James N. Kennedy	Commissioner Stipend	100.00
120581	2/2/2017	2/2/2017	01	Scott Nassif	Commissioner Stipend	100.00
120582	2/2/2017	2/2/2017	01	Neofunds By Neopost	Postage	80.86
120583	2/2/2017	2/2/2017	01	Orkin	Pest Control	375.89
120583	2/2/2017	2/2/2017	01	Orkin	Pest Control	375.89
120584	2/2/2017	2/2/2017	01	Pacific Parts And Controls Inc.	GBT Relay	121.28
120584	2/2/2017	2/2/2017	01	Pacific Parts And Controls Inc.	GBT Timer and Relay	1,393.62
120585	2/2/2017	2/2/2017	01	Prudential Overall Supply	Uniform Service	406.90
120585	2/2/2017	2/2/2017	01	Prudential Overall Supply	Uniform Service	447.63
120586	2/2/2017	2/2/2017	01	Royal Wholesale Electric	Fuses and Contacts	277.24
120587	2/2/2017	2/2/2017	01	Thurlow'S Heating & A/C Inc.	Quarterly Maintenance	1,999.00
120588	2/2/2017	2/2/2017	01	Underground Service Alert Of Southern Ca	Dig Alert Charges	85.50
120589	2/2/2017	2/2/2017	01	Victor Valley College Foundation	Champions of Education Sponsorship	5,000.00
120590	2/2/2017	2/2/2017	01	Cintas Corporation	First Aide Supplies	153.62
120591	2/10/2017	2/10/2017	01	Liberty Utilities- Apple Valley Ranchos W	Water Usage	1,026.36
120592	2/10/2017	2/10/2017	01	Applied Industrial Technologies	Belts	22.89
120592	2/10/2017	2/10/2017	01	Applied Industrial Technologies	Belts for Mixing Pumps Digester 4 & 5	82.92
120593	2/10/2017	2/10/2017	01	California Board Of Accountancy	Chieko Keagy CPA License Renewal	120.00
120594	2/10/2017	2/10/2017	07	Ced	Port Cable	775.44
120595	2/10/2017	2/10/2017	01	City Employees Associates	VVWRA Supervisors Association Dues	50.00
120596	2/10/2017	2/10/2017	01	Flyers Energy, Llc	Gasoline	758.20
120597	2/10/2017	2/10/2017	01	Frontier	Acct# 661-194-9743-031907-5	202.99
120598	2/10/2017	2/10/2017	01	Frontier	Acct# 760-246-8178-122106-5	223.34
120599	2/10/2017	2/10/2017	01	Frontier	Acct# 760-246-7344-030481-5	58.03
120600	2/10/2017	2/10/2017	01	Frontier	Acct# 760-246-7864-030481-5	58.12
120601	2/10/2017	2/10/2017	01	Gfoa	Budget Presentation Review	425.00
120602	2/10/2017	2/10/2017	01	Hi-Desert Window Washing	Window Washing	307.00
120603	2/10/2017	2/10/2017	01	Luhdorff And Scalmanini Consulting Engir	Subregional Semi-Annual Ground Watering	15,249.50
120604	2/10/2017	2/10/2017	01	Luhdorff And Scalmanini Consulting Engir	Subregional Sem-Annual Ground Water M	817.50
120605	2/10/2017	2/10/2017	01	Luhdorff And Scalmanini Consulting Engir	Subregional Smei-Annual Ground Water M	1,230.00
120606	2/10/2017	2/10/2017	01	Luhdorff And Scalmanini Consulting Engir	Suibregional Semi-Annual Ground Water M	787.50
120607	2/10/2017	2/10/2017	01	Orkin	Pest Control	375.89
120608	2/10/2017	2/10/2017	01	Roto-Rooter Plumbers	Pump and Dump	675.00
120609	2/10/2017	2/10/2017	01	Sparkletts Drinking Water	Drinking Water	711.22
120610	2/10/2017	2/10/2017	01	Virtual Graffiti Inc.	Barracuda Spam and Virus Firewall	8,485.18
120611	2/15/2017	2/15/2017	01	Applied Industrial Technologies	Airbay Mixer Parts	586.59
120612	2/15/2017	2/15/2017	01	Apple Valley Transfer & Storage Dba Shre	Document Shredding Service	45.00
120613	2/15/2017	2/15/2017	07	Brithinee Electric	VFD Panel	4,509.34
120614	2/15/2017	2/15/2017	01	Daily Press	Employment Publication	515.42
120615	2/15/2017	2/15/2017	01	Desert Pumps & Parts, Inc.	Grit Pump Parts	3,142.00
120616	2/15/2017	2/15/2017	01	Fiberglass Grating Professionals	Fiberglass Grating	18,656.00
120617	2/15/2017	2/15/2017	01	Frontier	Acct# 760-247-4698-121382-5	221.62
120618	2/15/2017	2/15/2017	01	Haaker Equipment Company	Clamps for Vactor	174.63
120619	2/15/2017	2/15/2017	09	Hesperia Water District	Permit# COM14-00118	40,220.00
120620	2/15/2017	2/15/2017	01	Hopkins Technical Products, Inc.	Control Box	773.85
120620	2/15/2017	2/15/2017	01	Hopkins Technical Products, Inc.	Daft #3 Air Mixing System	2,799.50
120621	2/15/2017	2/15/2017	01	Koflo Corporation	Static Mixer	145.00
120622	2/15/2017	2/15/2017	01	Lewis Center For Educational Research	Damage and Excess Wear and Tear on Proj	10,000.00
120623	2/15/2017	2/15/2017	01	Lighting Resources, Llc	HID Fixtures Waste	4,882.55
120624	2/15/2017	2/15/2017	01	Prudential Overall Supply	Uniform Service	450.73
120624	2/15/2017	2/15/2017	01	Prudential Overall Supply	Uniform Service	445.28
120625	2/15/2017	2/15/2017	01	Quill Corporation	Office Supplies	623.41
120625	2/15/2017	2/15/2017	01	Quill Corporation	Office Supplies	16.43
120625	2/15/2017	2/15/2017	01	Quill Corporation	Office Supplies	918.52

Victor Valley Wastewater Reclamation Authority
Cash Disbursement Register
From 2/01/17 through 2/28/17

Check Number	Check Date	Effective Date	Fund Code	Vendor Name	Transaction Description	Check Amount
120625	2/15/2017	2/15/2017	01	Quill Corporation	Office Supplies	26.53
120626	2/15/2017	2/15/2017	01	Saw Service Of America	Band Saw Blades	759.25
120627	2/15/2017	2/15/2017	01	Victor Valley College Foundation	Professor Level Sponsorship	5,000.00
120628	2/15/2017	2/15/2017	01	Wageworks, Inc	FSA Monthly Spending Account	88.50
120629	2/21/2017	2/21/2017	01	Donna Anthony	Retiree Health Benefit Allowance	443.00
120630	2/21/2017	2/21/2017	01	City Employees Associates	Supervisors Association Dues	50.00
120631	2/21/2017	2/21/2017	01	Dan Sentman	Retiree Health Benefit Allowance	225.63
					Chech Total	**157,508.58**
020217SWG	2/2/2017	2/2/2017	01	Southwest Gas Company	Natural Gas	9,048.95
02a4b5d939-1	2/14/2017	2/14/2017	01	Marcos Avila	OT Pay Back	395.59
02a4b5d939-2	2/14/2017	2/14/2017	01	Thomas Hinojosa	OT Pay Back	433.37
0f248dc972-1	2/13/2017	2/13/2017	09	Carollo Engineers, A Professional Corporat	Subregionals Egineering Services	56,330.67
0f248dc972-2	2/13/2017	2/13/2017	09	Christensen Brothers Gen Eng Inc	Nanticoke Pump Station Bypass	528,042.52
0f248dc972-2	2/13/2017	2/13/2017	09	Christensen Brothers Gen Eng Inc	Naticoke Pump Station Bypass	471,985.99
0f248dc972-3	2/13/2017	2/13/2017	09	W.M. Lyles	Subregional Construction	1,334,469.99
0f248dc972-4	2/13/2017	2/13/2017	09	Mwh Constructors	Subregionals Construction Management	101,792.34
0f248dc972-5	2/13/2017	2/13/2017	09	Aecom	Nanticoke Bypass Interceptor	39,509.00
0f248dc972-5	2/13/2017	2/13/2017	09	Aecom	Nanticoke Bypass Interceptor	33,330.80
0f248dc972-5	2/13/2017	2/13/2017	09	Aecom	Nanticoke Bypass Interceptor	33,056.77
10591433	2/2/2017	2/2/2017	01	Verizon Wireless	Wireless Telephone Charges	1,839.83
10591450	2/2/2017	2/2/2017	01	Verizon Wireless	Wireless Telephone Charges	152.04
1464c8eaf4	2/23/2017	2/23/2017	09	James W. Fowler Co.	Upper Narrows Pipeline Replacement	468,021.24
18730367	2/13/2017	2/13/2017	01	Lincoln Financial Group	Life and Disability Insurance	3,137.92
18730367	2/13/2017	2/13/2017	01	Lincoln Financial Group	Life and Disability Insurance	132.01
26173877	2/2/2017	2/2/2017	01	Hesperia Water District	Water Usage at Hesperia Subregional	171.76
33a4cba99e	2/21/2017	2/21/2017	09	James W. Fowler Co.	Fowler Retention Release Upper Narrows	718,089.05
39a4ffa889-1	2/23/2017	2/23/2017	01	2G Energy Inc.	Bridge Connector	50.85
39a4ffa889-10	2/23/2017	2/23/2017	01	Fastenal	Trubolt	174.31
39a4ffa889-11	2/23/2017	2/23/2017	01	Gierlich Mitchell, Inc.	Stators and Rotors	5,930.50
39a4ffa889-11	2/23/2017	2/23/2017	07	Gierlich Mitchell, Inc.	Stators and Rotors	9.03
39a4ffa889-12	2/23/2017	2/23/2017	01	Ilink Business Management	Temp Septage Attendant	883.60
39a4ffa889-12	2/23/2017	2/23/2017	01	Ilink Business Management	Temp Septage Attendant	883.60
39a4ffa889-13	2/23/2017	2/23/2017	01	Patton Sales Corp	Tubing	837.00
39a4ffa889-14	2/23/2017	2/23/2017	01	Protection One	Protection One Monitoring	523.53
39a4ffa889-15	2/23/2017	2/23/2017	09	Michael Baker International	Nanticoke Pump Station Bypass	8,558.08
39a4ffa889-16	2/23/2017	2/23/2017	01	Resc-Q Services, Llc.	H2S Media and Change	18,102.00
39a4ffa889-17	2/23/2017	2/23/2017	09	Tetra Tech Inc.	Engineering Services Upper Narrows Pipeli	490.00
39a4ffa889-18	2/23/2017	2/23/2017	01	West Coast Safety Supply	Docking Station Repairs	367.71
39a4ffa889-2	2/23/2017	2/23/2017	01	All Covered	Cisco Configuration	960.00
39a4ffa889-3	2/23/2017	2/23/2017	01	Applied Maintenance Supplies & Solution	Cam and Groove	63.67
39a4ffa889-3	2/23/2017	2/23/2017	01	Applied Maintenance Supplies & Solution	Maintenance Consumables	772.06
39a4ffa889-4	2/23/2017	2/23/2017	01	Brenntag Pacific, Inc	Ferric Chloride	4,864.99
39a4ffa889-5	2/23/2017	2/23/2017	01	Cdw Government, Inc	1P Symmetra	685.38
39a4ffa889-6	2/23/2017	2/23/2017	07	Consumers Pipe & Supply, Co.	Rigid Coupling	723.14
39a4ffa889-7	2/23/2017	2/23/2017	01	Ehs International Inc.	Hazwioer Refresher	1,950.00
39a4ffa889-8	2/23/2017	2/23/2017	07	Energy Choice, Inc.	Spark Plugs	16,008.00
39a4ffa889-9	2/23/2017	2/23/2017	01	E.S. Babcock & Sons, Inc.	1WW	1,836.00
39a4ffa889-9	2/23/2017	2/23/2017	01	E.S. Babcock & Sons, Inc.	January Lab Testing	29,680.00
5014122a27-1	2/16/2017	2/16/2017	01	American Express	American Express Charges January	2,830.10
5014122a27-10	2/16/2017	2/16/2017	01	Honest Johns Septic Service, Inc.	AVPS Pump Service	1,200.00
5014122a27-11	2/16/2017	2/16/2017	07	Hug Engineering, Inc.	CHP Units HUG System	15,545.09
5014122a27-12	2/16/2017	2/16/2017	01	Ilink Business Management	Janitorial Services	2,569.76
5014122a27-13	2/16/2017	2/16/2017	09	Larry Walker Associates	Subregional Recycled Water Assistance	1,393.13
5014122a27-14	2/16/2017	2/16/2017	01	Vision Internet Providers	Web Hosting	231.52
5014122a27-15	2/16/2017	2/16/2017	01	Victor Valley Wastewater Employees Asso	Employee Association Dues	575.00
5014122a27-16	2/16/2017	2/16/2017	01	Xylem Water Solutions	UV Intensity Probe Yearly Calibration	3,305.72
5014122a27-2	2/16/2017	2/16/2017	01	Applied Maintenance Supplies & Solution	Maintenance Consumables	547.49
5014122a27-3	2/16/2017	2/16/2017	01	Solenis Llc	Praestol	6,908.93
5014122a27-4	2/16/2017	2/16/2017	01	Brenntag Pacific, Inc	Ferric Chloride	4,903.56
5014122a27-5	2/16/2017	2/16/2017	01	Fedak & Brown Llp	Special Project- Cash Balance	4,810.00
5014122a27-6	2/16/2017	2/16/2017	01	Culligan Water Conditioning	Water Softner	470.00
5014122a27-7	2/16/2017	2/16/2017	01	D.K.F. Solutions Inc.	MSO Subscription	350.00

Victor Valley Wastewater Reclamation Authority
Cash Disbursement Register
From 2/01/17 through 2/28/17

Check Number	Check Date	Effective Date	Fund Code	Vendor Name	Transaction Description	Check Amount
5014122a27-8	2/16/2017	2/16/2017	07	Graham Equipment	Erosion Damages	24,740.75
5014122a27-8	2/16/2017	2/16/2017	07	Graham Equipment	Erosion Damages	1,451.93
5014122a27-8	2/16/2017	2/16/2017	07	Graham Equipment	Erosion Damages	5,350.00
5014122a27-8	2/16/2017	2/16/2017	07	Graham Equipment	Erosion Damages	4,650.00
5014122a27-8	2/16/2017	2/16/2017	07	Graham Equipment	Erosion Damages	1,200.00
5014122a27-9	2/16/2017	2/16/2017	01	Grainger	Consumables	151.80
5014122a27-9	2/16/2017	2/16/2017	01	Grainger	Submersible Sewage Pump	1,610.75
5014122a27-9	2/16/2017	2/16/2017	01	Grainger	Zoeller Pump EQ 3	1,610.75
50f4e508b5	2/13/2017	2/13/2017	09	W.M. Lyles	Subregional Construction	1,665,389.18
624200332	2/2/2017	2/2/2017	01	City Of Victorville / Sanitation	Trash Service	2,964.88
6374e4496d	2/9/2017	2/9/2017	01	Keith Lueken	OT Adjustment Payback	331.25
83149a956-1	2/2/2017	2/2/2017	01	American Express	American Express Charges December 2016	11,975.58
83149a956-10	2/2/2017	2/2/2017	01	Piller Tsc Corp	External Cooling Circuit	1,998.20
83149a956-11	2/2/2017	2/2/2017	01	Principal Life Ins. Co.	Vision and Dental	3,589.43
83149a956-12	2/2/2017	2/2/2017	01	U.S.A. Bluebook	Storm Drain Control Panel Replacement	1,923.36
83149a956-12	2/2/2017	2/2/2017	01	U.S.A. Bluebook	TNT Vials	632.93
83149a956-13	2/2/2017	2/2/2017	01	Xerox	Xerox	44.99
83149a956-2	2/2/2017	2/2/2017	01	Biogas Engineering	Reimbursable Expenses- Arnold Ramirez	473.96
83149a956-3	2/2/2017	2/2/2017	01	Brenntag Pacific, Inc	Ferric Chloride	4,861.55
83149a956-4	2/2/2017	2/2/2017	01	Caltrol, Inc.	EIM Electronics Package	3,721.68
83149a956-5	2/2/2017	2/2/2017	01	D.K.F. Solutions Inc.	MSO Subrciption	350.00
83149a956-6	2/2/2017	2/2/2017	01	Graham Equipment	2" Rock	1,750.94
83149a956-6	2/2/2017	2/2/2017	01	Graham Equipment	Clean/set up rock	500.00
83149a956-6	2/2/2017	2/2/2017	01	Graham Equipment	Gravel	1,451.93
83149a956-6	2/2/2017	2/2/2017	01	Graham Equipment	Loader Work and Set Rock	1,425.00
83149a956-6	2/2/2017	2/2/2017	01	Graham Equipment	RIP RAP	3,771.25
83149a956-6	2/2/2017	2/2/2017	01	Graham Equipment	RIP RAP	2,155.00
83149a956-6	2/2/2017	2/2/2017	01	Graham Equipment	UNE K Rails Rental	1,200.00
83149a956-7	2/2/2017	2/2/2017	01	Grainger	Consumables	118.29
83149a956-8	2/2/2017	2/2/2017	01	Honest Johns Septic Service, Inc.	AVPS Wet Well Pumping	1,200.00
83149a956-9	2/2/2017	2/2/2017	07	Ovivo Usa, L.L.C.	DAF Rebuild	10,272.10
84549b1b3b-1	2/16/2017	2/16/2017	01	Billings, Richard	Retiree Health Benefit Allowance	398.73
84549b1b3b-10	2/16/2017	2/16/2017	01	Randy Main	Retiree Health Benefit Allowance	443.00
84549b1b3b-11	2/16/2017	2/16/2017	01	Mark Mcgee	Retiree Health Benefit Allowance	443.00
84549b1b3b-12	2/16/2017	2/16/2017	01	Lillie Montgomery	Retiree Health Benefit Allowance	443.00
84549b1b3b-13	2/16/2017	2/16/2017	01	L. Christina Nalian	Retiree Health Benefit Allowance	443.00
84549b1b3b-14	2/16/2017	2/16/2017	01	Nave, Patrick	Retiree Health Benefit Allowance	443.00
84549b1b3b-2	2/16/2017	2/16/2017	01	Roy Dagnino	Retiree Health Benefit Allowance	443.00
84549b1b3b-3	2/16/2017	2/16/2017	01	Tim Davis	Retiree Health Benefit Allowance	443.00
84549b1b3b-4	2/16/2017	2/16/2017	01	Terrie Gossard Flint	Retiree Health Benefit Allowance	261.76
84549b1b3b-5	2/16/2017	2/16/2017	01	Gillette, Randy	Retiree Health Benefit Allowance	443.00
84549b1b3b-6	2/16/2017	2/16/2017	01	Andrew Gyurcsik	Retiree Health Benefit Allowance	443.00
84549b1b3b-7	2/16/2017	2/16/2017	01	Thomas Hinojosa	Retiree Health Benefit Allowance	443.00
84549b1b3b-8	2/16/2017	2/16/2017	01	Patricia J Johnson	Retiree Health Benefit Allowance	172.48
84549b1b3b-9	2/16/2017	2/16/2017	01	Olin Keniston	Retiree Health Benefit Allowance	261.76
859787	2/2/2017	2/2/2017	01	Swrcb	Recycled Water Fees	3,735.20
896950	2/13/2017	2/13/2017	09	State Water Resources Control Board	NAVI SFR Financing Agreement	258,151.05
9354f16889	2/23/2017	2/23/2017	01	Desert Community Bank / A Division Of E	Transfer to DCB Checking Account	250,000.00
e454e5f898	2/23/2017	2/23/2017	09	James W. Fowler Co.	Upper Narrows Pipeline Replacement	250,000.00
CHAR2525021317	2/13/2017	2/13/2017	01	Charter Communications	Telephone Charges	199.16
CHAR560321317	2/13/2017	2/13/2017	01	Charter Communications	Telephone Charges	2,498.34
d6348bb953-1	2/9/2017	2/9/2017	01	A.D.S. Corp.	Flow Monitoring Service	8,333.28
d6348bb953-10	2/9/2017	2/9/2017	01	U.S.A. Bluebook	SJE Central Panel	736.06
d6348bb953-11	2/9/2017	2/9/2017	01	U.S. Bank	Cal Card Statements December 2016	10,370.12
d6348bb953-12	2/9/2017	2/9/2017	01	Victor Valley Wastewater Employees Asso	Employee Association Dues Deduction	600.00
d6348bb953-13	2/9/2017	2/9/2017	01	Waxie Sanitary Supply	Janitorial Supplies	168.62
d6348bb953-14	2/9/2017	2/9/2017	01	West Coast Safety Supply	MX6 Replacement	1,998.00
d6348bb953-2	2/9/2017	2/9/2017	09	Biogas Power Systems- Mojave, Llc	Biogas Project	61,167.00
d6348bb953-3	2/9/2017	2/9/2017	07	Consumers Pipe & Supply, Co.	GBT Sludge Transfer Piping	1,566.47
d6348bb953-3	2/9/2017	2/9/2017	07	Consumers Pipe & Supply, Co.	GBT Sludge Transfer Piping	16,156.04
d6348bb953-3	2/9/2017	2/9/2017	07	Consumers Pipe & Supply, Co.	Grooved Y	577.27
d6348bb953-4	2/9/2017	2/9/2017	01	E.S. Babcock & Sons, Inc.	December Lab Testing	29,848.00
d6348bb953-4	2/9/2017	2/9/2017	01	E.S. Babcock & Sons, Inc.	November Lab Testing	41,126.00

Victor Valley Wastewater Reclamation Authority
Cash Disbursement Register
From 2/01/17 through 2/28/17

Check Number	Check Date	Effective Date	Fund Code	Vendor Name	Transaction Description	Check Amount
d6348bb953-4	2/9/2017	2/9/2017	01	E.S. Babcock & Sons, Inc.	October Lab Testing	528.00
d6348bb953-4	2/9/2017	2/9/2017	01	E.S. Babcock & Sons, Inc.	September Lab Testing	524.56
d6348bb953-5	2/9/2017	2/9/2017	01	Goldstreet Design Agency, Inc	FOG Brochures	1,072.55
d6348bb953-6	2/9/2017	2/9/2017	01	Grainger	Hand Cleaner	233.82
d6348bb953-7	2/9/2017	2/9/2017	01	Hach Company	Benchtop Meter	1,756.09
d6348bb953-7	2/9/2017	2/9/2017	01	Hach Company	KCL Solution	76.27
d6348bb953-7	2/9/2017	2/9/2017	01	Hach Company	pH Probe	490.26
d6348bb953-8	2/9/2017	2/9/2017	01	Ilink Business Management	Septage Receiving Attendant	883.60
d6348bb953-8	2/9/2017	2/9/2017	01	Ilink Business Management	Septage Receiving Temp	530.16
d6348bb953-8	2/9/2017	2/9/2017	01	Ilink Business Management	Septage Receiving Temp	891.88
d6348bb953-9	2/9/2017	2/9/2017	01	Polydyne Inc.	Clarifloc	10,104.26
d6348bb953-9	2/9/2017	2/9/2017	01	Polydyne Inc.	Clarifloc	3,674.28
d6348bb953-9	2/9/2017	2/9/2017	01	Polydyne Inc.	Clarifloc	1,102.28
d6348bb953-9	2/9/2017	2/9/2017	01	Polydyne Inc.	Polydyne Credit	(3,899.88)
ede43db9ea	2/2/2017	2/2/2017	01	Latif Laari	Certificate Reimbursement	305.00
					Total ACH and EFT's	**6,663,829.54**

APPROVED 03/07/17

Total Checks and ACH's	6,821,338.12
Payroll - February 16	201,652.44
Total Disbursements - February 2017	**7,022,990.56**

MINUTES OF A REGULAR MEETING
REGULAR MEETING OF THE BOARD OF COMMISSIONERS
VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY (VVWRA)
February 16, 2017

CALL TO ORDER: Chair Jim Kennedy called the meeting to order at 8:00 am; in Conference Room D at Victorville City Hall, located at 14343 Civic Drive, Victorville California, with the following members present:

CITY OF VICTORVILLE	**Jim Kennedy,** Chair
HESPERIA WATER DISTRICT	**Russell Blewett,** Vice Chair
ORO GRANDE (CSA 42) AND	**Jeff Rigney,** Secretary
SPRING VALLEY LAKE (CSA 64)	
TOWN OF APPLE VALLEY	**Scott Nassif,** Treasurer

VVWRA Staff and Legal Counsel:

Logan Olds, General Manager	**Kristi Casteel,** Secretary to GM/Board
Piero Dallarda, Legal Counsel (BB&K)	**Alton Anderson,** Construction Manager
Angela Valles, Director of Finance	**Chieko Keagy,** Accounting Supervisor
Eugene Davis, Acting Director of Operations	**Robert Townsend,** EC Inspector
David Wylie, Communications & Safety Officer	
Robert Coromina, Director of Administration	
Ryan Love, Lead Operator	

Others Present:

Jim Cox, City of Victorville	**Nils Bentsen,** City of Hesperia
Brian Johnson, City of Hesperia	**Frank Robinson,** Town of Apple Valley
Walter Linn, Rep for Congressman Cook	**Jeff Anderson,** Fowler Construction
Brian Gengler, City of Victorville	**Andrew Dale,** Anaergia
Greg Snyder, Town of Apple Valley	**Blanca Gomez,** City of Victorville

CLOSED SESSION

PUBLIC COMMENTS- CLOSED SESSION AGENDA

Chair Kennedy asked if there were any comments from the public regarding any item on the Closed Session Agenda. Hearing none, he called for a motion to enter into Closed Session.

Commissioner Nassif made a motion to enter into Closed Session, which was seconded by Commissioner Blewett and approved by unanimous voice vote.

REGULAR SESSION

CALL TO ORDER & PLEDGE OF ALLEGIANCE

Chair Kennedy called the meeting to order at 8:46 am.

REPORT FROM CLOSED SESSION

Piero Dallarda stated that the Board met in closed session under section code 54956.9(D) to discuss a complaint that was filed on March 31, 2016. On March 31, 2016 VVWRA received a letter from Jim Mettias, counsel for Ms. Angela Valles. The letter listed a series of concerns and complaints about VVWRA back then the Board decided to hire an independent law firm Haight Brown & Bonesteel, Partner Kevin Osterberg to conduct an investigation of all the serious allegations that were made in the complaint. The Board has received a report back from Mr. Osterberg. The report has concluded that all the allegations and complaints that were made in the March 31st letter are unsubstantiated, meaning there wasn't evidence to support those allegations.

PUBLIC COMMENTS- REGULAR SESSION AGENDA

Blanca Gomez- Introduced herself with the City of Victorville Council

ANNOUNCEMENTS AND CORRESPONDENCE:

8. Possible conflict of interest issues

Commissioner Nassif abstained from any disbursements to Napa Auto Parts.

9. VVWRA Boundaries Map

Manager Olds thanked the staff at the member agencies and Mojave Water Agency for working with VVWRA on a boundaries map. This is the first up to date map in over 10 years.

10. CWEA Awards

David Wylie announced that VVWRA was awarded by the local section of the California Water Environment Association two awards. The first award the Engineering Achievement Award for the Upper Narrows Project, and the second award was for Newsletter of the Year for VVWRA's Purple Pipe. This is the second year in a row that VVWRA has received this honor.

VVWRA was also recognized nationally as a Utility of the Future.

11. General Managers Report

CONSENT CALENDAR:

12. Approve January 2017 Disbursement Registers

Commissioner Nassif abstained from any disbursements to Napa Auto Parts.

13. Approve Minutes from the January 19, 2017 and January 26, 2017 Regular Meeting

14. Recommendation to Approve 2017 Regulatory Assistance

Commissioner Blewett made a motion to approve the consent calendar, seconded by Commissioner Nassif and approved by roll call vote with Commissioner Nassif abstaining from any disbursements to Napa Auto Parts.

Chair Kennedy: Yes

Commissioner Blewett: Yes

Commissioner Rigney: Yes

Commissioner Nassif: Yes

REPORTS & PRESENTATIONS:

15. Presentation: Mid-Year Budget Review (Keagy)

Chieko Keagy gave a Mid-year Budget review

16. Presentation: Energy Projects (Olds)

Manager Olds gave a presentation on VVWRA's Energy Project

ACTION & DISCUSSION ITEMS:

17. Recommendation to Amend The Biogas and Services Agreement

Commissioner Nassif asked Manager Olds how were there unforeseen issues?

Manager Olds stated that there were two issues. The first was at some point, historically, VVWRA made the decision to install a 10,000 gallon propane tank and a power generation system directly on top of Edison utilities. This should not have been done. There were significant expenses associated with getting rid of that tank. The second was that all of the engineers and engineers from Edison jointly developed the cost estimate. There was a meeting onsite and then the people that were in the field came to the site and they had a different perspective on the type of

infrastructure and installed significantly more electrical equipment than what was originally believed to be the case by everyone involved.

Commissioner Nassif made a motion to approve the Recommendation, seconded by Commissioner Rigney

Chair Kennedy: Yes

Commissioner Blewett: Yes

Commissioner Rigney: Yes

Commissioner Nassif: Yes

18. Recommendation to Approve Resolution 2017-02: CalPERS Employee 2% Pick Up

Commissioner Blewett made a motion to approve the Recommendation, seconded by Commissioner Rigney

Chair Kennedy: Yes

Commissioner Blewett: Yes

Commissioner Rigney: Yes

Commissioner Nassif: Yes

19. Discussion: Expense of 14.5 and 18 MGD Expansion

Manager Olds stated that this is information only.

20. Permission to issue RFP's for the

A. Maintenance of the earthworks for the drying beds and percolation ponds.

There has been damage to the plant from the winter storms. The RFP that had a contractor on call was extremely valuable to VVWRA and staff would like to request that rather than one year, it would be for three years.

B. Coating of the UV channels

In the UV disinfection system, the water must be a little more acidic, and the cream that you put over as the final stage has degraded and caused some tiny little pockets in the concrete and staff believes that those tiny little pockets are retaining dirt and bacteria causing spikes in our disinfection system. A spike or a hit is a violation, and staff does not want to violate the NPDES permit.

C. Design of the Desert Knolls Wash sewer interceptor

The emergency that is ongoing at Desert Knolls Wash. Staff would like to issue the RFP to begin the engineering services. There will be a presentation at the March Board meeting.

Commissioner Nassif made a motion to approve the Recommendation, seconded by Commissioner Blewett

Chair Kennedy: Yes

Commissioner Blewett: Yes

Commissioner Rigney: Yes

Commissioner Nassif: Yes

21. Recommendation to Approve Change in Banking Services

Commissioner Nassif made a motion to approve the Recommendation, seconded by Commissioner Rigney

Chair Kennedy: Yes

Commissioner Blewett: Yes

Commissioner Rigney: Yes

Commissioner Nassif: Yes

22. Recommendation to Create Flow Diversion Ad-Hoc Committee

Commissioner Blewett read a statement into record:

I have taken a moment to write down some thoughts that I feel are important as we move forward and try to resolve some long standing problems at VVWRA. First and most importantly, if we are going to resolve our differences it is absolutely imperative that we are honest and are accurately informing the public of our current situation. We all know there are a number of press articles about VVWRA in recent days. As a point of clarification there were a number of statements made by Victorville that I must respond to. They claim to be bearing more than 70% of the Authority's costs. This is not accurate and has not been for some time. Victorville is currently at 60% or less. Most importantly each member of this authority pays the exact same amount for treatment of wastewater. The Authority provides a service. Victorville pays more because they use more of the service. Victorville claims to have a disproportionate burden on its taxpayers for the authority as well as projects outside the city. If Victorville provides 60% of the flow then 60% of the electrical costs, salaries, and infrastructure are devoted to Victorville. There is no extra burden to Victorville residents. They pay the same rate based on flow everyone else pays. Up until this past year when construction of the subregional plants were being built, virtually all construction, assets, infrastructure, and the main plant were in Victorville. The other authority members paid for many

decades for the construction of facilities outside their city limits without complaint. I think it is important to remind everyone that Victorville's representative on VVWRA voted for a project outside your city limits and have your city's official spokesperson denounce it, acting as if you had no say or nothing to do with it. Victorville was also instrumental in creating and voted for our current user rates and connection fees. A recent article said Victorville has been diverting wastewater for 2 years. This too is not true. To one degree or another Victorville has been diverting for 6 years or more. This has caused significant financial burden to the authority. Hesperia and other authority members have long believed Victorville's diversion, withholding of connection fees and construction of its own wastewater treatment plant were a breach of contract with the authority. Recent developments have proven us right. It should also be noted one very important fact that Victorville never mentions. For over 15 years Victorville has been the only member of this authority to have access to recycled water. The water has been provided only to Victorville and it is provided at a highly discounted rate. Victorville has received this benefit of millions of dollars from the authority by having access to this recycled water. On addition to the Ad Hoc committee looking into the flow diversion issue I have another request of the General Manager. I want a staff report based on the recently received advisory opinion, which identifies full cost recovery to the authority. This would include diversion, connection fees, construction of independent facilities and any other costs that should have rightly gone to this authority. I want to see at least a draft of that report within one month with a final version within 2 months. This will help guide the Ad Hoc committee as well as the other members. Lastly I want to say the time for action is now. The authority members have been very patient and this current situation has gone on for too many years. I have made it clear Hesperia is ready to resolve this problem now. If others are not willing to act, then they will be to blame in the coming months as things become far more difficult.

Chair Kennedy asked Manager Olds if he would be able to produce the report in a month.

Manager Olds said he would try.

Chair Kennedy asked if he thought he could have a solid draft two months.

Manager Olds said absolutely.

Chair Kennedy told Manager Olds to do try for a month but no more than two months to produce a draft report of what Commissioner Blewett asked for.

Commissioner Blewett made a motion to approve to create Flow Diversion Ad Hoc Committee to consist of the General Manager, the attorney, and two members of the Board, failed for lack of second.

Commissioner Nassif stated that he would like to form a TAC committee to involve all the agencies to resolve the issues.

Commissioner Nassif made a motion to develop a TAC Committee with City Managers, seconded by Commissioner Rigney

Commissioner Blewett stated that he will vote against this motion because, in the past, the TAC Committee has not performed all that well. The TAC Committee seems to change the issue to the

overall agreement as opposed to the actual flow diversion and the issue of non-payment. The issue is money and this agency needs the money. This is just one more way of Victorville stonewalling.

Chair Kennedy stated that Victorville is not stonewalling and would like to resolve these issues as much as the other members.

Chair Kennedy: Yes

Commissioner Blewett: No

Commissioner Rigney: Yes

Commissioner Nassif: Yes

Manager Olds asked for clarification for direction. Since the Ad-Hoc committee was not formed, will the staff report be presented to the full Board, or to the TAC Committee?

Chair Kennedy directed Manager Olds to present it to everyone.

23. Amendment to Agreement for Legal Representation-Special Counsel Rates

Piero Dallarda stated that the only thing changing will be Special Counsel Fees. If Special Counsel is hired the rate will go from $286 to $316 which is what the member agencies are charged.

Commissioner Nassif made a motion to approve the Recommendation, seconded by Commissioner Rigney

Chair Kennedy: Yes

Commissioner Blewett: Yes

Commissioner Rigney: Yes

Commissioner Nassif: Yes

24. Request Authorization to Retain the Professional Services of a Firm to Assist VVWRA Staff with Project Close Out for FEMA Projects 828 and 1136 Upper Narrows

Table

STAFF/PROFESSIONAL SERVICES REPORTS:

25. Financial and Investment Report – January 2017

26. Operations & Maintenance Report – January 2017

27. Environmental Compliance Department Reports – January 2017

28. Septage Receiving Facility Reports – January 2017

29. Construction Report – January 2017

NEXT VVWRA BOARD MEETING:

Thursday, March 16, 2017 – Regular Meeting of the Board of Commissioners

FUTURE AGENDA ITEMS

Resolution- Appreciation of Service for Steve Schindler (March)

Design of the stormwater bypass for the WWTP (March)

Discussion: Desert Knolls Wash (March)

Leave Policy

COMMISSIONER COMMENTS

ADJOURNMENT

APPROVAL:

DATE: _____ **BY:** _____
Approved by VVWRA Board
Jeff Rigney, Secretary
VVWRA Board of Commissioners

Victor Valley Wastewater Reclamation Authority

TECHNICAL MEMORANDUM 1 SOUTH APPLE VALLEY INTERCEPTOR PRELIMINARY ASSESSMENT

DRAFT | March 2017

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Victor Valley Wastewater Reclamation Authority

TECHNICAL MEMORANDUM 1 - SOUTH APPLE VALLEY INTERCEPTOR PRELIMINARY ASSESSMENT

Andrew Gilmore,
February 14, 2017,
State of California,
Civil Engineer, PE No. 66158.

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SOUTH APPLE VALLEY INTERCEPTOR PRELIMINARY ASSESSMENT

1.1 Introduction

1.1.1 Background

The South Apple Valley Interceptor (Interceptor) was constructed in 1981 and crosses the Desert Knolls Wash several times in the vicinity of the Lewis Center for Educational Research. The wash upstream of the impacted area was concrete channelized by San Bernardino Flood Control District (FCD) which serves to protect the first crossing. Because the water is sediment free and has increased velocity it scours down picking up sediment and transporting the sediment further downstream until the velocity slows. On December 24, 2016 a portion of one crossing (15-inch PVC) was totally exposed and possibly floated during a significant rain event.

1.1.2 Purpose

The purpose of this technical memorandum is to prepare a Preliminary Assessment of the South Apple Valley Interceptor that was exposed on December 24, 2016.

The goals of the Preliminary Assessment include:

- Develop a new alignment that removes the South Apple Valley Interceptor from the Desert Knolls Wash and minimizes conflict with the future San Bernardino Wash Improvements in this area.
- Explore options to remove grit (sand and rocks) from entering the new 16-inch double barrel siphon beneath the Mojave River.
- Explore options for cleaning the new 16-inch double barrel siphon beneath the Mojave River.
- Provide for relocated flow monitoring.
- Explore options for odor control.

1.2 Field Observations

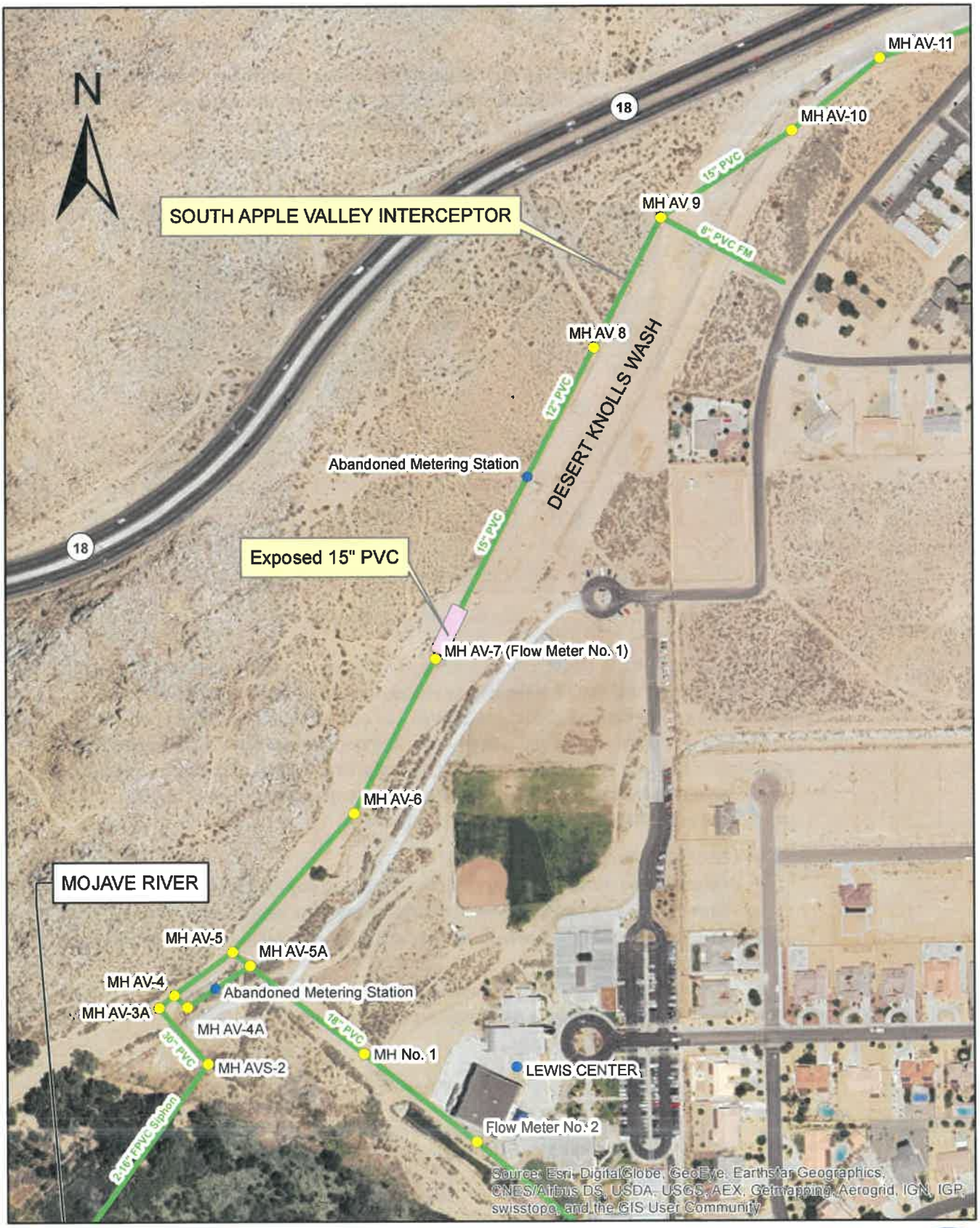
On January 4, 2017, Mike Fleury from Carollo Engineers, Inc. (Carollo) accompanied Logan Olds, Alton Anderson, Latif Laari, and Robert Townsend from VVWRA to the project site to observe the current conditions. The South Apple Valley Interceptor crosses the Desert Knolls Wash several times in the vicinity of the Lewis Center for Educational Research. The wash upstream of the impacted area was concrete channelized by San Bernardino FCD, which serves to protect the first wash crossing. However, the resulting stormwater from the FCD channel improvement causes increased velocity and relatively sediment free stormwater until it reaches the unimproved channel where the second crossing is located. Because the water is sediment free and has increased velocity, it scours down picking up sediment and transporting the sediment further downstream until the velocity slows.

The original interceptor design within the wash area was also inadequately designed to protect the pipe from major storm events and related scour. The design should have included concrete encasement tied into piers or piles to prevent lateral and vertical movement. On December 24, 2016 a portion of one crossing (15-inch PVC) was totally exposed and possibly floated during a significant rain event. See Figure 1.1 and Figure 1.2.

Figure 1.1 Exposed Interceptor

Fortunately the bell and spigot joints were not pulled apart or the pipe fractured causing a catastrophic structural failure of the interceptor and a sanitary sewer overflow (SSO). The original interceptor design within the wash area was also inadequately designed to protect the pipe from major storm events and related scour. The design should have included concrete encasement tied into piers or piles to prevent lateral and/or vertical movement. In addition, the wash channel has moved over time due to scour from major storm events. The failure of this interceptor would have had the following consequences:

- SSO with resultant fines.
- Uncontrolled stormwater entry into the remaining downstream pipe.
- Stormwater and debris (rocks and sand) entry into the new Upper Narrows double barrel inverted siphon under the Mojave River and the Victor Valley Interceptor to the Wastewater Treatment Plant.
- Potential plugging of the new inverted siphons with no way to clean out the debris.
- Media coverage of event with resultant political fallout.



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SITE MAP
SHOWING EXPOSED INTERCEPTOR
FIGURE 1.2
VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
SOUTH APPLE VALLEY INTERCEPTOR RELOCATION

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The exposed section was discovered on December 29, 2016 and an emergency temporary repair was performed by VVWRA on December 30, 2016. The temporary repair consisted of covering the exposed section with rock aggregate and a temporary channel diversion around the exposed section. See Figure 1.3.

The channel diversion upstream shown on Figure 1.3 now diverts stormwater to the adjacent channel. See Figure 1.4.

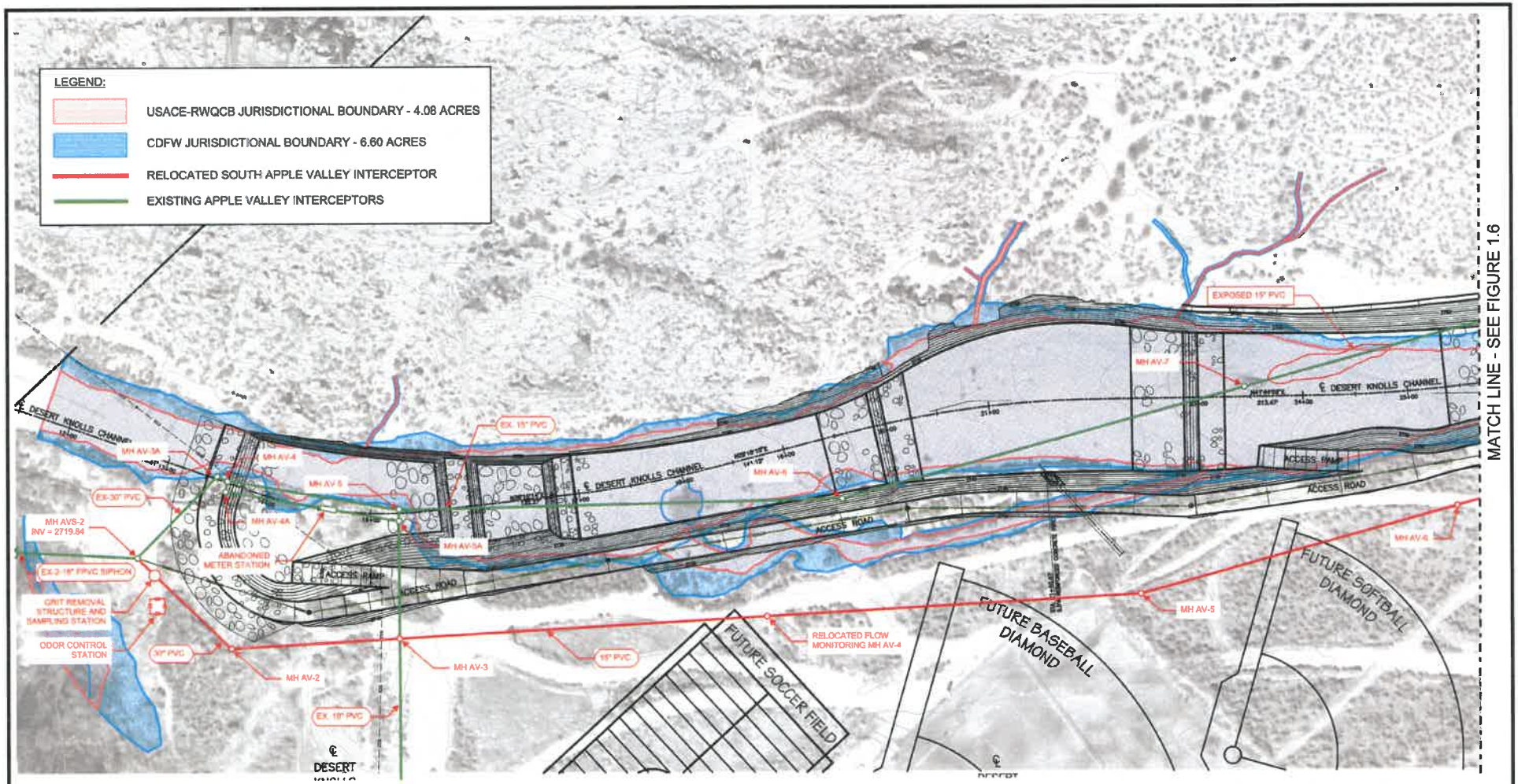
The channel shown on Figure 1.4 is now taking the entire stormwater flow that was conveyed by the two channels, thus increasing the likelihood that the interceptor in this area could be damaged by another large storm event. Carollo recommends that this interceptor be relocated out of the Desert Knolls Wash as an emergency project. The risk of failure and resulting consequences were discussed above.

Figure 1.3 Temporary Repair

1.3 Relocated Interceptor Alignment

VVWRA desires a new alignment that removes the South Apple Valley Interceptor from the Desert Knolls Wash area and minimizes future conflicts with the San Bernardino County Flood Control District Desert Knolls Wash Phase III Project and the Academy for Academic Excellence. The relocated alignment begins at existing MH AV-10 and ends at MH AVS-2 on Figure 1.5 and Figure 1.6. The majority of the alignment is proposed to be 15-inch diameter PVC pipe. The new alignment also intercepts an 8-inch PVC force main at MH AV-9 and an existing 18-inch interceptor from the Lewis Center at MH AV-3. The new interceptor has a 43.67 foot drop between existing MH AV-10 and MH AVS-2. To minimize the potential hydraulic jump prior to entering the siphon a 30-inch PVC pipe is proposed from MH AV-10 to MH AVS 2 similar to the existing design. During final design hydraulic modeling will confirm the required diameters.

Figure 1.4 Unprotected Wash Crossing



10-8

PROPOSED PIPELINE ALIGNMENT - 1 OF 2

FIGURE 1.5

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
SOUTH APPLE VALLEY INTERCEPTOR RELOCATION

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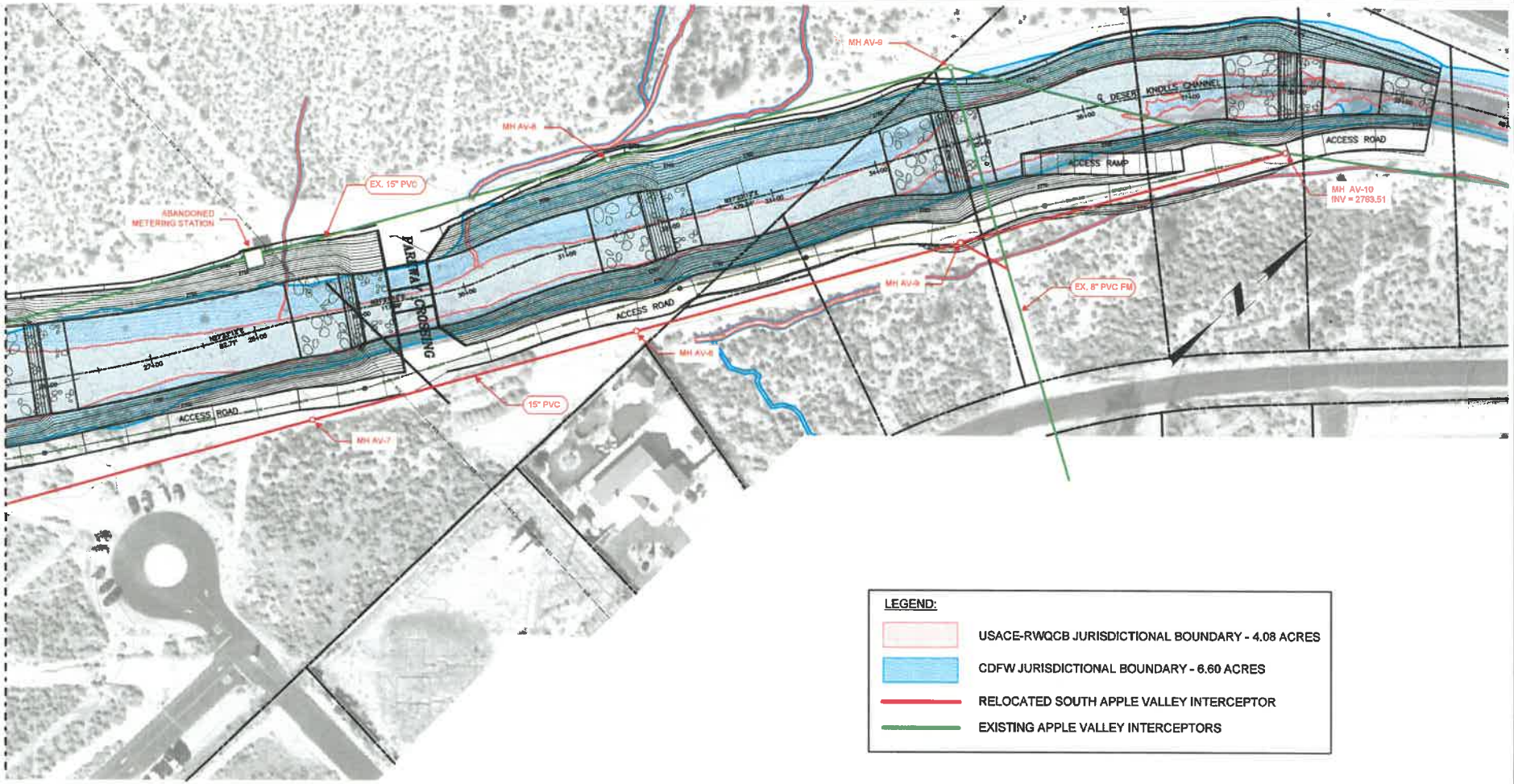

MATCH LINE - SEE FIGURE 1.5

10-9

PROPOSED PIPELINE ALIGNMENT - 2 OF 2

FIGURE 1.6

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
SOUTH APPLE VALLEY INTERCEPTOR RELOCATION

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Also, outlined on Figures 1.5 and 1.6 the relocated interceptor is outside of the jurisdictional boundaries for the US Army Corps of Engineers and the Lahontan Regional Water Quality Control Board (USACE-RWQCB). The proposed alignment is outside of both of these jurisdictions to minimize environmental impacts and permits. See Section 9.0 for discussion on environmental and permitting.

The existing South Apple Valley Interceptor from MH AV-10 to MH AV-1 and MH AV-4 to MH AVS-2 will be abandoned upon final construction of the new relocated interceptor. The above grade structures will be demolished and the manholes and pipes will be filled with sand or grout from outside of the jurisdictional boundaries discussed above.

1.4 Grit Removal Options

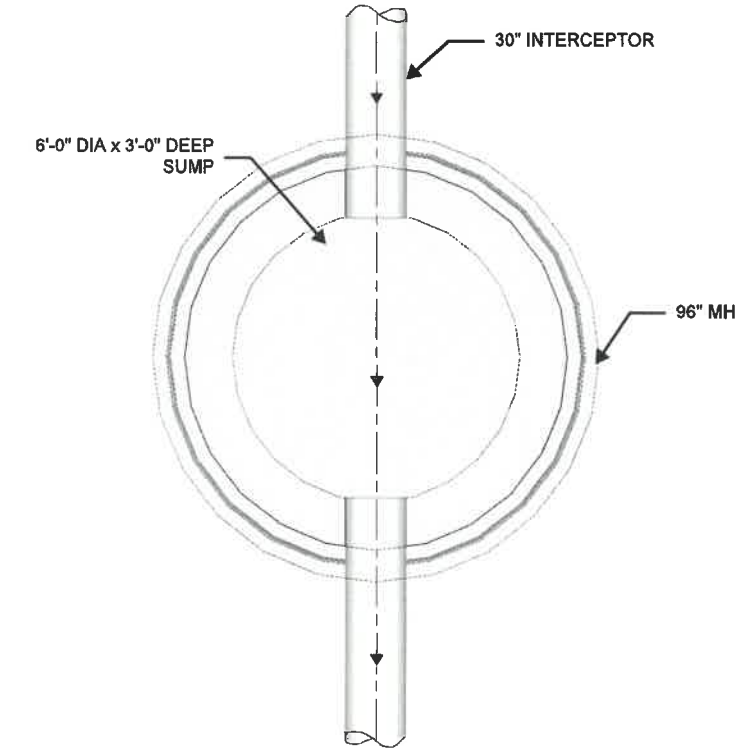
The sewer system in conjunction with the double siphon crossing the Mojave River currently operates with a daily peak velocity of 3.3 fps with one siphon operating and the other providing 100-percent redundancy. This velocity is adequate for self-cleaning of the siphons. However, once the Apple Valley Sub-Regional Water Reclamation Facility is commissioned approximately 0.7 mgd will be diverted from the existing interceptor lowering the daily peak velocity to 2.2 fps. At this velocity, a high potential for grit, sand, rocks, and other deposits to settle in the low point of the inverted siphon creating significant maintenance issues for VVWRA. Once the heavier solids settle in the siphon they will be nearly impossible to remove. See Section 1.5. Based on this concern a grit removal structure is proposed upstream of junction manhole AVS-2 (STA 217+97.04). Three grit removal structure options were reviewed as described below, a circular manhole structure, circular manhole structure with a bypass channel, and a rectangular structure with a bypass channel.

1.4.1 Option No. 1 Circular Manhole Structure

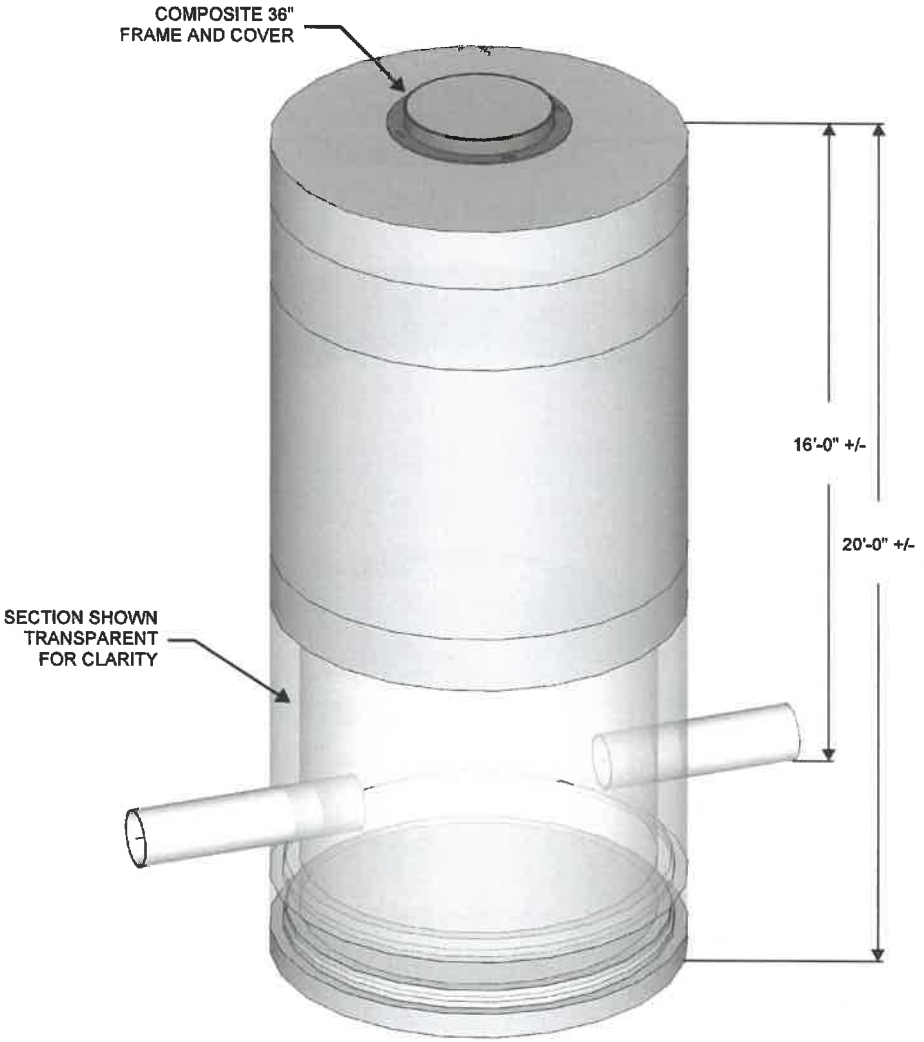
Option No. 1 includes a 96-inch diameter circular manhole structure which would be constructed of precast polymer concrete (corrosion resistant) and incorporate an 85 cubic foot sump/grit basin in the middle of the base for the collection of deposits. Maintenance would be required on a periodic basis, while the sewer is in operation, it is anticipated that a significant amount of liquid will be extracted during the cleaning. The maintenance personnel would clean out the sump using a vactor truck with a decanting feature to remove the extra water. The addition of a decanting feature doubles the cost of solids removal. The frequency for cleaning would be based on the amount of debris depositing in the sump/grit basin over time; however, the smaller the grit sump/basin, the more scheduled cleaning visits will be required. The flat top on the manhole structure could incorporate a locking, double leaf hatch for easy access to the sump/grit basin. The budgetary material cost for the circular polymer concrete manhole structure (without installation) would be $38,000. See Figure 1.7.

1.4.2 Option No. 2 Circular Manhole Structure with a Bypass Channel

Option No. 2 includes a 144-inch diameter circular manhole structure which would be constructed of precast polymer concrete (corrosion resistant) and incorporate a 117 cubic foot sump/grit basin in the middle of the base for the collection of deposits and incorporating a bypass channel. This would allow the flow to be diverted around the sump/grit basin and significantly reduce the amount of liquid extracted during the cleaning process. The flat top on the structure could incorporate a locking, double leaf hatch for easy access to the sump/grit basin and removable stop gates. The budgetary material cost for the polymer concrete circular manhole structure (without installation) with a bypass channel would be $85,000. See Figure 1.8.



A - PLAN VIEW
SCALE: NTS



B - ISOMETRIC VIEW
SCALE: NTS

OPTION NO. 1
CIRCULAR MANHOLE STRUCTURE
FIGURE 1.7
VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
SOUTH APPLE VALLEY INTERCEPTOR RELOCATION

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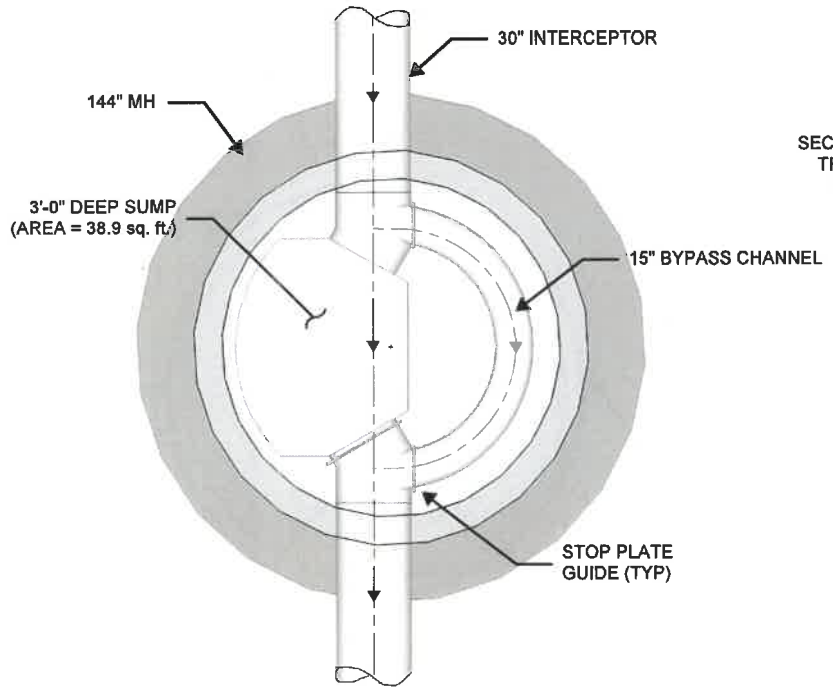
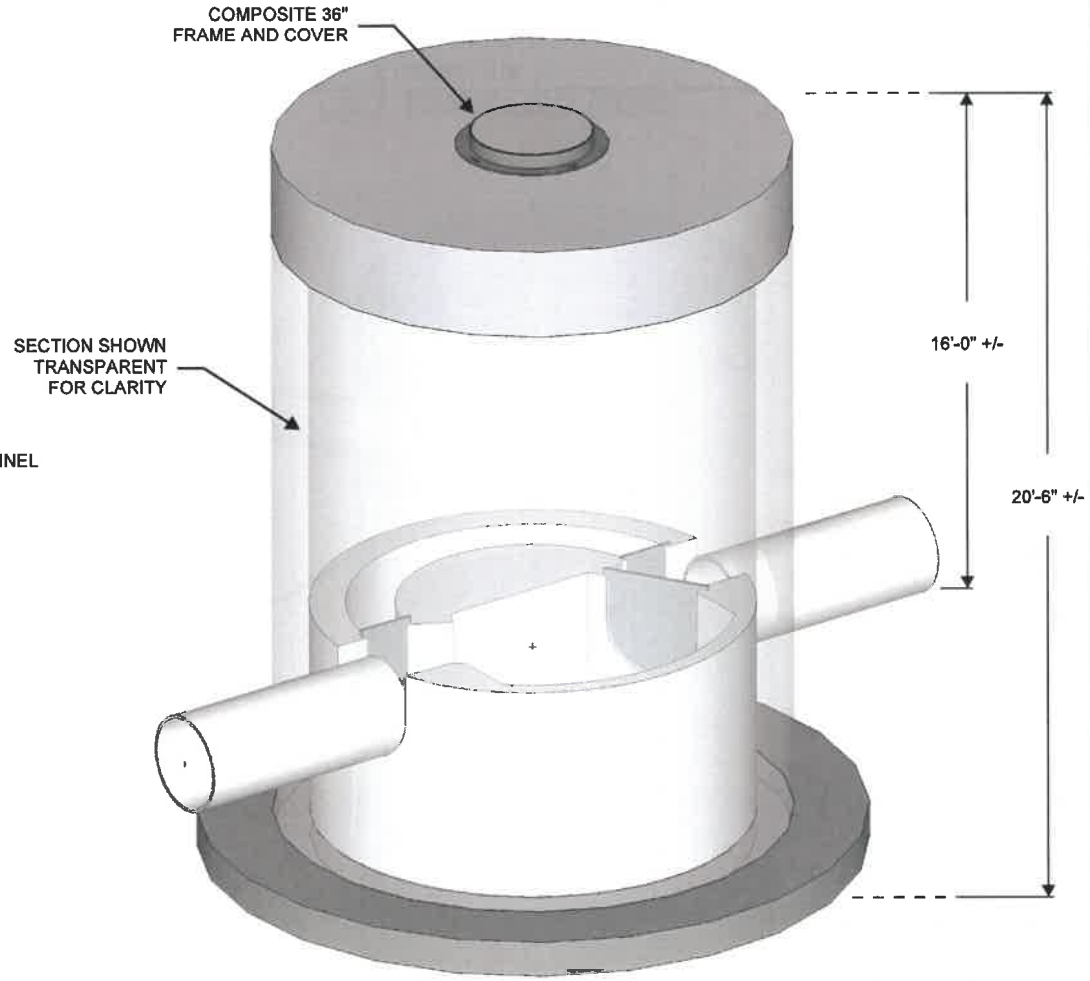


A - **PLAN VIEW**
SCALE: NTS



B - **ISOMETRIC VIEW**
SCALE: NTS

OPTION NO. 2 - CIRCULAR MANHOLE STRUCTURE WITH BYPASS CHANNEL

FIGURE 1.8

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
SOUTH APPLE VALLEY INTERCEPTOR RELOCATION

1.4.3 Option No. 3 Rectangular Manhole Structure with a Bypass Channel

Option No. 3 includes a rectangular structure which would be constructed of precast polymer concrete (corrosion resistant) and allow for an increased sump/grit basin capacity (120 cubic feet) and residence time to collect more deposits. This results in a reduction in the number of scheduled cleaning visits when compared to the circular structures. Additionally, a bypass channel can be incorporated into the structure with removable stop gates so the flow can be temporarily diverted around the grit basin allowing more grit vs. liquid to be removed. The flat top on the structure could incorporate a locking, double leaf hatch for easy access to the sump/grit basin and removable stop gates. The budgetary material cost of the polymer concrete rectangular manhole structure (without installation) would be $166,000. See Figure 1.9.

Grit removal is essentially the most important function for these structures. Based on the flexibility of the bypass channel in the rectangular and circular structures, increased grit removal capacity resulting in reduced maintenance costs, and comparison of the material costs, Carollo recommends the 144-inch circular structure with a bypass channel.

1.5 Siphon Cleaning

The existing 1,744 foot double barrel 16-inch siphons, constructed utilizing horizontal directional drilling (HDD), cross underneath the Mojave River between two 96-inch siphon structures (MH AVS-1 and MH AVS-2). As previously mentioned, the sewer system will be operating in the future with increased concentration of suspended solids and lower daily peak flow, which will require a grit removal facility be constructed upstream of the siphon structure. See Section 1.4.

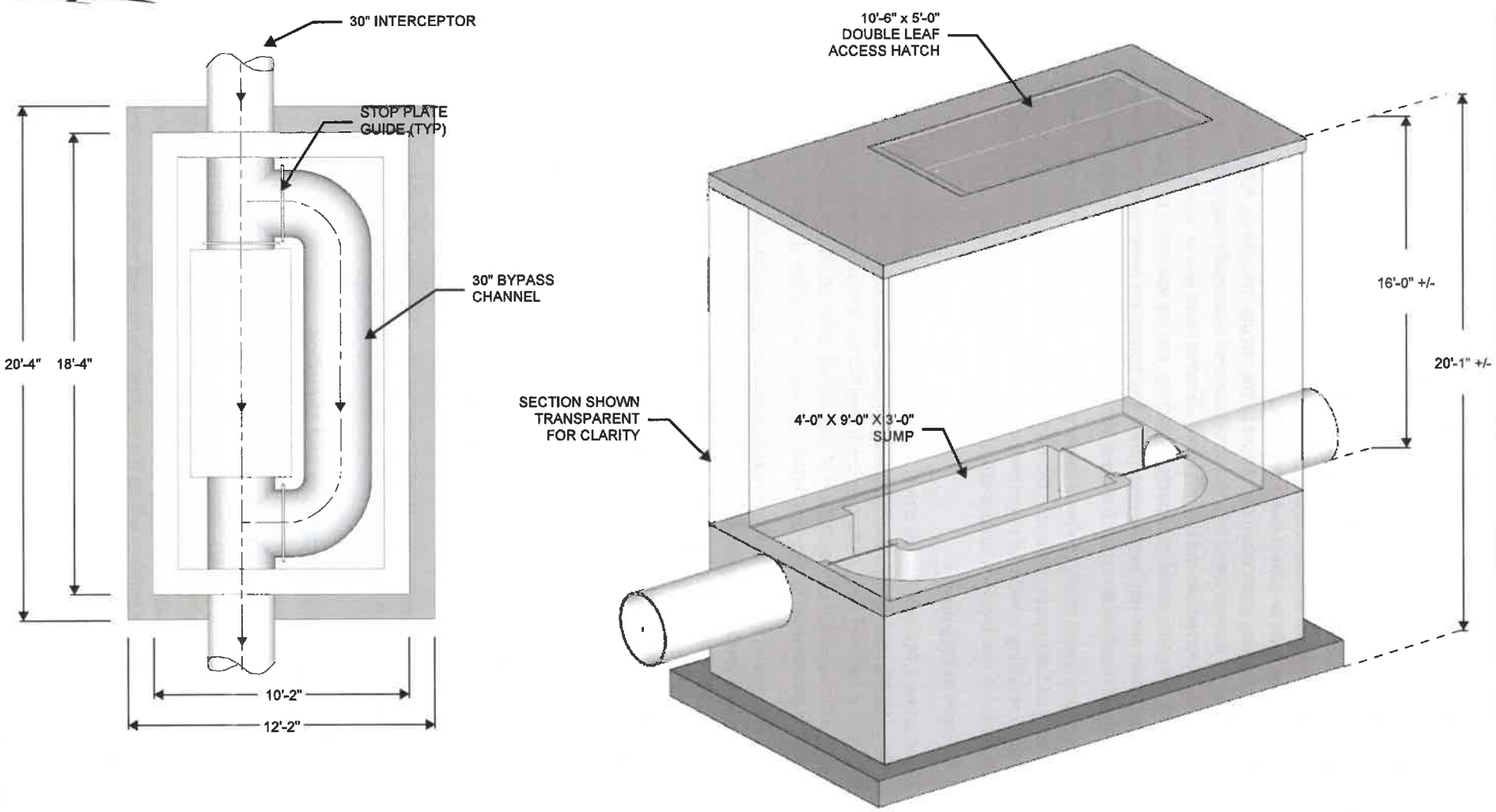
There are several ways to perform maintenance on the siphon, depending on the available facilities and surrounding conditions. The wastewater can be backed up and released or clean water can be admitted to the sewer at the upstream siphon structure MH AVS-2 by a storage facility. However, insufficient volume exists between MH AVS-2 and the first connection from the Lewis Center for effective cleaning by backing up and releasing to flush the siphon. Also, the siphon not in use can be drained and cleaned by using rods, scrapers, and a vactor truck.

Another method for cleaning is pigging. However, pigging is not recommended. Pigging is typically associated with pressurized pipelines which can provide the necessary amount of controlled head to properly administer the pigging procedures. Using a pig with low head in a dirty pipe could get the pig stuck and may require excavation for removal. Excavation is not practical as the lines were installed by horizontal direction drilling (HDD) at a 42-foot depth beneath the Mojave River.

Carollo's recommendation for cleaning is to monitor the operation of the inverted siphon and if they do not self-clean, then investigate a storage facility to hold water that could be used to flush the siphon.

1.6 Relocated Flow Monitoring and Sampling

The existing flowmeters and structures have been abandoned and ADS Environmental Services has a current service contract that covers the equipment and maintenance of two meters (Apple Valley and the Lewis Center). See Figure 1.1 for existing meter locations. The relocated interceptor will have the existing flowmeter No .1 transferred to new manhole AV-4 as shown on Figure 1.5. The relocated sampling facilities will also be located just upstream of the grit removal facilities. Equipment building will be the existing abandoned metering building located between MH AV-5A and MH AV 4A.



A - PLAN VIEW
SCALE: NTS

A - ISOMETRIC VIEW
SCALE: NTS

OPTION NO. 3 - RECTANGULAR MANHOLE STRUCTURE WITH BYPASS CHANNEL

FIGURE 1.9

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
SOUTH APPLE VALLEY INTERCEPTOR RELOCATION

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1.7 Odor Control

VVWRA has for years contracted with EVOQUA Water Technologies for BIOXIDE® treatment systems. BIOXIDE® calcium nitrate solution eliminates the odor, corrosion, and safety problems associated with hydrogen sulfide gas release. It controls the formation of dissolved sulfide once properly mixed in the wastewater. At the new Apple Valley Sub-Regional Water Reclamation Facility (WRF) a connection point was provided that could be used to inject BIOXIDE® into the waste activated sludge (WAS) prior to discharge into the Apple Valley Interceptor. The product requires a residence time to fully react with the wastewater. Therefore, the best place for a BIOXIDE® injection system is at Tao Road and Highway 18 for the South Apple Valley Interceptor. By injecting BIOXIDE® at this point it will provide proper mixing and help to prevent sulfide generation and related hydrogen sulfide gas release downstream prior to the siphon. The facilities including chemical storage, pumping, and injection facilities are paid for as part of the chemical charge from EVOQUA. VVWRA would only be responsible for site improvements.

The new siphon facilities were not designed with an air jumper and consequently air moving along the South Apple Valley Interceptor will be released upstream of the siphon facilities. It is very likely that this air will contain hydrogen sulfide of sufficient quantity to cause odor and health/safety issues, unless BIOXIDE® is injected upstream at Tao Road and Highway 18. If this facility is not installed then Carollo recommends that a new biotrickling filter be installed at this location. Final sizing would be after commissioning of the upstream WRF based on the results of an odor study. The odor study would determine the air volume and concentration of hydrogen sulfide that will require treatment.

A bio-trickling filter is a biological reactor for the removal of odors from airstreams. It functions much like a conventional wet packed tower scrubber except that the chemical solution has been replaced by a neutral pH bio-active solution. Biotrickling filters provide effective removal of hydrogen sulfide under all loading conditions. Biotrickling filters have a moderate footprint and are a cost-effective treatment technology. However, bio-trickling filters are not particularly effective at removing volatile organic compounds (VOCs), require moderate operations and maintenance (O&M), and may require nutrient storage. Figure 1.10 shows a schematic of a typical biotrickling filter.

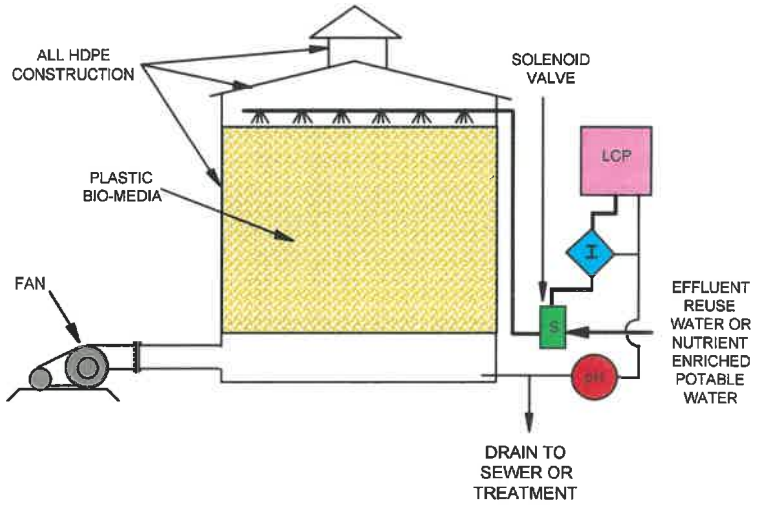

Figure 1.10 Biotrickling Filter Schematic

Biotrickling filters are readily available as vendor supplied systems. Most vendor supplied systems have relatively low empty bed contact times (10 seconds or less), resulting in a smaller footprint. Biotrickling filters also require a moderate amount of operator time and attention to maintain the proper conditions for bacterial growth.

Advantages:

- Low Life Cycle Cost.
- Moderate Footprint.
- Considered a green technology (sustainable).

Disadvantages:

- Only effective at treating H_2S.
- Cannot handle dramatic or atypical shock loads.
- Must be operated continuously to maintain bacteria.

1.8 Conceptual Cost Estimate

Table 1.1 below outlines the conceptual cost estimate for this project.

Table 1.1 Conceptual Cost Estimate

Description	Cost ($)
Interceptor (15,30-inch PVC)	508,000
Manholes (60,72-inch)	125,000
Grit Removal Facility	105,000
Abandoned Pipe, Manholes, and Demolish Flowmeter Facility(1)	68,000
Connections (MH AVS-2, and MH AV-10	20,000
Flowmeter Relocation	0
Sampling Equipment w/Relocated Building(2)	30,000
Odor Control	72,000
Project Subtotal	928,000
Contractor O & P @ 20%	186,000
Contingency @ 20%	232,000
Total Estimated Conceptual Construction Cost	1,336,000
Engineering - Design, CMS and Permitting/Legal/Admin @ 25%	334,000
ESTIMATED TOTAL CONSTRUCTION COST	**1,670,000**

Notes:
(1) Costs for abandoned pipe and manholes are only outside of Jurisdiction Boundaries.
(2) Sampling equipment building will be the relocated abandoned metering facility.

1.9 Environmental and Permitting

Based on Figures 1.5 and 1.6, the relocated interceptor is outside of the jurisdictional boundaries for the USACE-RWQCB. Therefore, it appears that the proposed alignment avoids regulatory jurisdictions and as such no USACE permit is needed. Abandonment of the existing interceptor and related structures would trigger work within the Jurisdictional Waters and would require a USACE permit. Carollo recommends that this project only abandon facilities outside of the Jurisdictional Waters and leave the remaining abandonments for the San Bernardino FCD Desert Knolls Wash Improvements Project.

The California Environmental Quality Act (CEQA) would likely entail an Initial Study/Mitigated Negative Declaration (IS/MD) due to site issues related to Native Americans and the Lewis Center. An IS/MD takes a minimum of 90 days and includes a 30-day public review period.

Based on the most recent archaeological site record, the area in question for this project is within Locus 1, which appears to contain considerable data potential related to chronology, settlement-subsistence strategies, lithic technology, site formation processes, inter- and intra-site variability, and mortuary practices. The site is situated within the Area of Potential Effect (APE) and avoidance is recommended. Since avoidance is not a feasible option, Phase II testing is recommended.

RESOLUTION NO. 2017-04

A RESOLUTION OF THE VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY IN RECOGNITION AND APPRECIATION OF DEDICATED SERVICE TO STEVE SCHINDLER

WHEREAS, Steve Schindler served as Chief Executive Officer and General Manager for Big Bear Regional Wastewater Agency and provided valuable knowledge and guidance to the Board of Commissioners ("Commission") for the Victor Valley Wastewater Reclamation Authority ("Authority"); and

WHEREAS, Mr. Schindler's background, knowledge, and experience while serving as Chief Executive Officer and General Manager for Big Bear Regional Wastewater Agency were invaluable not only to the community of Big Bear but his service has impacted the entire Wastewater Community; and

WHEREAS, Mr. Schindler performed his duties with the utmost diligence and distinction and with perceptive insight of community issues; and

WHEREAS, Mr. Schindler's accomplishments and guidance have created significant positive and lasting impacts upon Big Bear City, the entire Wastewater Community and the environment.

NOW THEREFORE, BE IT RESOLVED that this Commission does hereby recognize and extend sincere gratitude and appreciation to Steve Schindler for his dedicated service and commitment to the Big Bear Regional Wastewater Agency and the entire Wastewater Community for his concern for the residents and environment.

ADOPTED this 16th day of March 2017.

James Kennedy, Chair
VVWRA Board of Commissioners

APPROVED AS TO FORM:

Piero C. Dallarda of
Best Best & Krieger LLP

Jeff Rigney, Secretary
VVWRA Board of Commissioners

CERTIFICATION

I, Kristi Casteel, Secretary to the Board of Commissioners of the Victor Valley Wastewater Reclamation Authority, State of California, do hereby certify that the foregoing is a full, true and correct copy of Resolution No. 2017-04, adopted by the Board of Commissioners of said Authority at its meeting of March 16, 201.

_____

Kristi Casteel
Secretary to the Board of Commissioners

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
Report/Recommendation to the Board of Commissioners

16 March 2017

FROM: Logan Olds, General Manager

TO: Board of Commissioners

SUBJECT: Wastewater Treatment Plant Stormwater Containment System

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RECOMMENDATION

It is recommended that the Board of Commissioners authorize the General Manager to retain the professional design engineering services of David Evans and Associates Inc. (DEA) for the final design of the spill containment system for the Shay Road wastewater treatment plant (WWTP) in an amount not to exceed $20,130.00, twenty thousand one hundred and thirty dollars.

REVIEW BY OTHERS

This recommendation was reviewed by Piero Dallarda, Legal Counsel and Alton Anderson, Construction Manager.

BACKGROUND INFORMATION

VVWRA has experienced two spills in recent years from its treatment works which reached the stormwater conveyance system on site. Lahontan Regional Water Quality Control Board (Lahontan) was notified and has indicated that the Authority must proceed with addressing the issue (Attached).

An initial preliminary design was created with the assistance of Mr. Kevin Schmidt of (DEA) in 2014. The professional service proposal would complete the design and provide a construction cost estimate of the proposed infrastructure. The completion of the design should also satisfy Lahontan until such time as VVWRA has the financial resources to construct the project.

This project was not budgeted for in FY 16/17 therefore staff will delay awarding the design contract until the project is incorporated in to the adopted FY 17/18 budget. Staff will not incorporate a construction cost estimate for this project in to the FY 17/18 budget due to fiscal constraints. The Authority believes that completing the design in FY 17/18 and scheduling construction in FY 18/19 should address the issues raised by Lahontan.

FINANCIAL IMPACT

This will be a budgeted item for FY 17/18, Account Code 09-02-162-9025, C130

RELATED IMPACTS

Compliance with Lahontan direction.

DAVID EVANS
AND ASSOCIATES INC.

SCOPE OF SERVICES
FINAL DESIGN OF SPILL CONTAINMENT SYSTEM
VICTOR VALLEY WASTEWATER RECLAMATION AUTHOURITY
February 3, 2017

This scope of services describes work to be performed by David Evans and Associates, Inc. (DEA) to produce final design documents, suitable for bidding by qualified general contractors. Our understanding of the scope of work is derived from a planning memorandum prepared by Hall & Foreman, Inc. in July, 2014. The Planning Memorandum investigated two alternatives for collecting, containing and recycling any spills in the main process area of the Westside Water Reclamation Plant. Alternative 1 was the recommended solution and is the basis for this scope of work. Alternative 1 is summarized as follows:

1. Add a new catch basin so that if a VVWRA basin overflows in to the storm drain system, the flow is captured and returned to the Headworks. This will reduce the likelihood that the storm drain system will discharge non-storm water flows to the Mojave River.
2. Construct a new Diversion Structure in the existing storm drain at the low point of drainage near the existing outlet to the Mojave River, and equip this diversion structure with an automatically actuated gate that can be closed if there is a wastewater spill.
3. Route the spill from the new Diversion Structure to the existing Backwash Water Storage Tanks.
4. Add the required electrical power facilities to energize the new diversion gate and instrumentation to tie critical indicators and alarms into the plant's existing control systems.

Task 1-Project Management

This task will cover meetings with VVWRA staff, conduct project administration and quality assurance/quality control (QA/QC).

1.1 Meetings
Kickoff Meeting with VVWRA staff to define all design criteria and assumptions, along with schedule for completion and any coordination needed with outside agencies. Conduct one review meeting (at the 90% completion level). Summarizes all conclusions and action items at meeting in minutes and distribute to VVWRA.

1.2 Administration
Prepare and distribute invoices for the work. Include progress list and schedule update with invoices.

1.3 QA/QC
Implement the DEA QA/QC system for all submittals to VVWRA.

Task 2-Prepare Contract Documents

This task will prepare the Contract Documents for the Spill Containment System. Documents are anticipated to include plans, specifications and estimates for probable construction cost. All Contract Documents will be prepared to be suitable for an open bidding process to qualified general contractors.

2.1 Prepare Plans

Plans will be prepared for the new system. Five sheets are anticipated. Plans will be prepared using Autocad software. Plans will be prepared to VVWRA Standards

2.2 Prepare Specifications

This task will prepare the front end and technical specifications for the project. Specifications will prepared to CSI Standards. The latest version of VVWRA contract, bidding and special provisions will be incorporated into the project

2.3 Cost Estimates

Estimates of probable construction cost will be prepared at each submittal stage. The estimates will be prepared to industry standards.

VVWRA-Final Design of Spill Containment System
Estimate of Engineering Effort

By: K. Schmidt
February 3, 2017

Task	Labor, hours								Labor Totals		Direct Costs	Total Cost
	Classification	Project Manager	QA/QC Engineer	Electrical Engineer	Structural Engineer	Staff Engineer	Survey Crew	Administrative	Hours	Fee		
	Billing Rate, $/hr	240	160	180	180	80	225	65				
1-Project Management												
1.1 Meetings		6	0	0	0	0	0	0	6	$1,440	$250	$1,690
1.2 Administration		2	0	0	0	0	0	2	4	$610	$0	$610
1.3 QA/QC		1	0	0	0	0	0	0		$240	$0	$240
Subtotal		**9**	**0**	**0**	**0**	**0**	**0**	**2**	**10**	**$2,050**	**$250**	**$2,300**
2-Prepare Contract Documents												
2.1 Prepare Plans		4	1	2	6	100	8	0	121	$12,360	$110	$12,470
2.2 Prepare Specifications		4	1	2	4	30	0	0	41	$4,600	$0	$4,600
2.3 Cost Estimates		1	0	1	1	2	0	0	5	$760	$0	$760
Subtotal		**9**	**2**	**5**	**11**	**132**	**8**	**0**	167	**$17,720**	**$110**	**$17,830**
TOTAL		**18**	**2**	**5**	**11**	**132**	**8**	**2**	**177**	**$19,770**	**$360**	**$20,130**

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Logan Olds

From: Morales, John@Waterboards <john.morales@waterboards.ca.gov>
Sent: Thursday, January 26, 2017 2:49 PM
To: Logan Olds
Cc: Cass, Jehiel@Waterboards
Subject: RE: VVWRA stormwater infrastructure project

Logan,

Per your e-mail below regarding funding issues that have impeded the completion of the infrastructure to divert on-site spills to the back wash basin, please proceed to complete this project as best and economically feasible as you can.

As you may know, Water Board staff is unable to dictate manner or method on resolving any Discharger's projects. We therefore encourage you to proceed with completing the necessary infrastructure that will divert on-site spills to the back wash basin and eventually to the headworks; thus eliminating on-site spills from flowing to the Mojave River and the percolation ponds.

Please notify the Water Board's Regional office once the infrastructure project is completed. Both the Water Board and VVWRA acknowledge that the completion of this project is pending and that it is of utmost importance that the project is completed as soon as economically possible.

12-5

If you have any questions, please contact me by replying to this e-mail.

Thank you,

John M.

From: Logan Olds [mailto:lolds@vvwra.com]
Sent: Wednesday, January 11, 2017 10:51 AM
To: Morales, John@Waterboards
Subject: RE: VVWRA stormwater

Hi John,

We looked at installing infrastructure to divert on-site spills in to the backwash basin which then goes to the headworks. However due to funding issues we have been unable to do so. I was also expecting a letter from Lahontan regarding this issue which might provide us with direction.

12

Thank You

Logan Olds
General Manager

(760) 246-8638
20111 Shay Road
Victorville CA 92394

"Good leaders must communicate vision clearly, creatively, and continually. However, the vision doesn't come alive until the leader models it." John C. Maxwell

12-6

From: Morales, John@Waterboards [mailto:john.morales@waterboards.ca.gov]
Sent: Wednesday, January 11, 2017 10:48 AM
To: Logan Olds
Subject: RE: VVWRA stormwater

Hi Logan,

As I recall, my initial conversation and understanding with Gilbert consisted of installing a pump on the on-site storm water infrastructure such that any on-site spill would be intercepted by the pump and directed to the headworks. Further conversations alluded to my understanding that there would be no pump installed; rather, on-site spills would flow onto the existing Water Drainage Basin. I believe at this point that there is no infrastructure construction pending to handle on-site spills, such that the existing infrastructure is adequate to handle any on-site spill that would prevent raw sewage to flow to the river and/or north percolation ponds as it had done in the past.

12-7

Please advise if my understanding is accurate and if VVWRA plans to construct additional infrastructure to prevent on-site spills to flow to the Mojave River , including the North Percolation Ponds.

Thank you,

John M.

From: Logan Olds [mailto:lolds@vvwra.com]
Sent: Wednesday, January 11, 2017 9:32 AM
To: Morales, John@Waterboards
Subject: VVWRA stormwater

HI John,

Gilbert mentioned to me that Lahontan was asking about our stormwater infrastructure as it relates to the overflow we had a few years ago. Would you mind sharing with me what is being considered by Lahontan on this issue?

Thank You

Logan Olds
General Manager

(760) 246-8638
20111 Shay Road
Victorville CA 92394

"Good leaders must communicate vision clearly, creatively, and continually. However, the vision doesn't come alive until the leader models it." John C. Maxwell

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VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
SPILL CONTAINMENT SYSTEM ALTERNATIVES ANALYSIS
AT THE WESTSIDE WATER RECLAMATION PLANT
JULY 2014

The Victor Valley Wastewater Reclamation Authority (VVWRA) will construct a Spill Containment System at its Westside Water Reclamation Plant (WWRP) to help ensure that any wastewater overflow is contained on site. The primary wastewater treatment area at the WWRP consists of a screenings removal, grit removal, primary clarification, activated sludge, filtration, UV disinfection, sludge thickening and sludge digestion. Treated wastewater is disposed of in percolation ponds, sold to recycled water customers and discharged to the Mojave River. Treated sludge is dried in open air drying beds. The overall site encompasses over 300 acres. This alternatives analysis focuses on the primary treatment processes that encompass approximately 11 acres, as shown on Figure 1.

Finished grade at the main process area of the existing site drains from the northwest to the southeast, with a high point of approximately 2620 and a low point near the Mojave River of approximately 2598. The existing site is served by a series of storm drains that collect rain water and discharge it to an outlet structure on the west bank of the Mojave River. The existing storm drain system is shown on Figure 2. It was recently augmented with a drainage swale that discharges to the existing Waste Backwash Water Storage Tank.

Two alternatives were considered for this analysis:

1. Collect any overflow from the process tanks in the existing storm drain system. Augment the existing storm drain system with shutoff and recycle capabilities.

2. Add overflow pipes from the existing tanks and route overflow to the existing Tank Drain Pump Station, which returns flow to the Headworks.

Alternative 1

Figure 3 shows the additional facilities for Alternative 1. A new Spill Containment Diversion Structure (SCDS) would be constructed on the existing 30-inch storm drain nears is discharge on the west bank of the Mojave River. The SCDS would be equipped with a motor operated sluice gate. The sluice gate would be closed during a spill. The spill would collect in the storm drain system and new SCDS. A new, 24-inch gravity pipe would route the spill from the SCDS to the existing Waste Backwash Water Storage Tank. This tank is equipped with pumps that route flow

back to the Headworks. It is recommended that a new catch basin be constructed near the SCDS to catch overflow from the Tertiary Treatment Area.

Alternative 2

Alternative 2 would add overflow pipes from the Headworks, Grit Tanks, Primary Clarifiers, Aeration Basins, Secondary Clarifiers, Filters and UV Disinfection System. The new overflow pipes would be routed to the Existing Tank Drain Pump Station, which would return the overflow to the Headworks. This system is shown on Figure 4.

Alternatives Comparison

An estimate of probable construction cost was prepared for each alternative. Alternative 1 was shown the most cost effective with an estimated construction cost of $150,000, compared to $300,000 for Alternative 2. Alternative 1 also has several qualitative advantages over Alternative 2:

1. Alternative 2 focuses on the major process tanks. In addition to the main tanks, Alternative 1 would accommodate spills from the auxiliary systems, such as the chemical feed systems and pump stations.

2. Alternative 2 would involve construction of new deep drain lines in congested existing utility corridors. Alternative 1 consists of construction in relatively uncongested areas of the WWRP.

3. The Waste Backwash Water Tank is much larger than the Tank Drain Pump Station Wet Well, and the Waste Backwash Water Pumps have higher capacity than the Tank Drain Pumps. This yields more storage capabilities and a higher spill return rate.

Recommendation

Alternative 1 is recommended with the following features:

1. Add a new catch basin near the existing Recycled Water Pump Station. This is a low point that will contain spills from the Filters, Rapid Mix Tank, Flocculation Tanks, RW Pump Station, NaOCL Chemical Feed System and UV Disinfection System.

2. Use a sluice gate instead of a slide gate for corrosion resistance, durability and reliability.

3. The gate should be normally closed. Plant procedures will need to be modified to open the gate during periods of rainfall.

4. It is recommended that the gate be equipped with a local push button operated and connected to the WWRP SCADA system for remote operation.

5. The existing overflow pipe in the Backwash Water Storage Tank will need to be lowered to 2597.50 to prevent backup and overflow in the existing storm drain system.

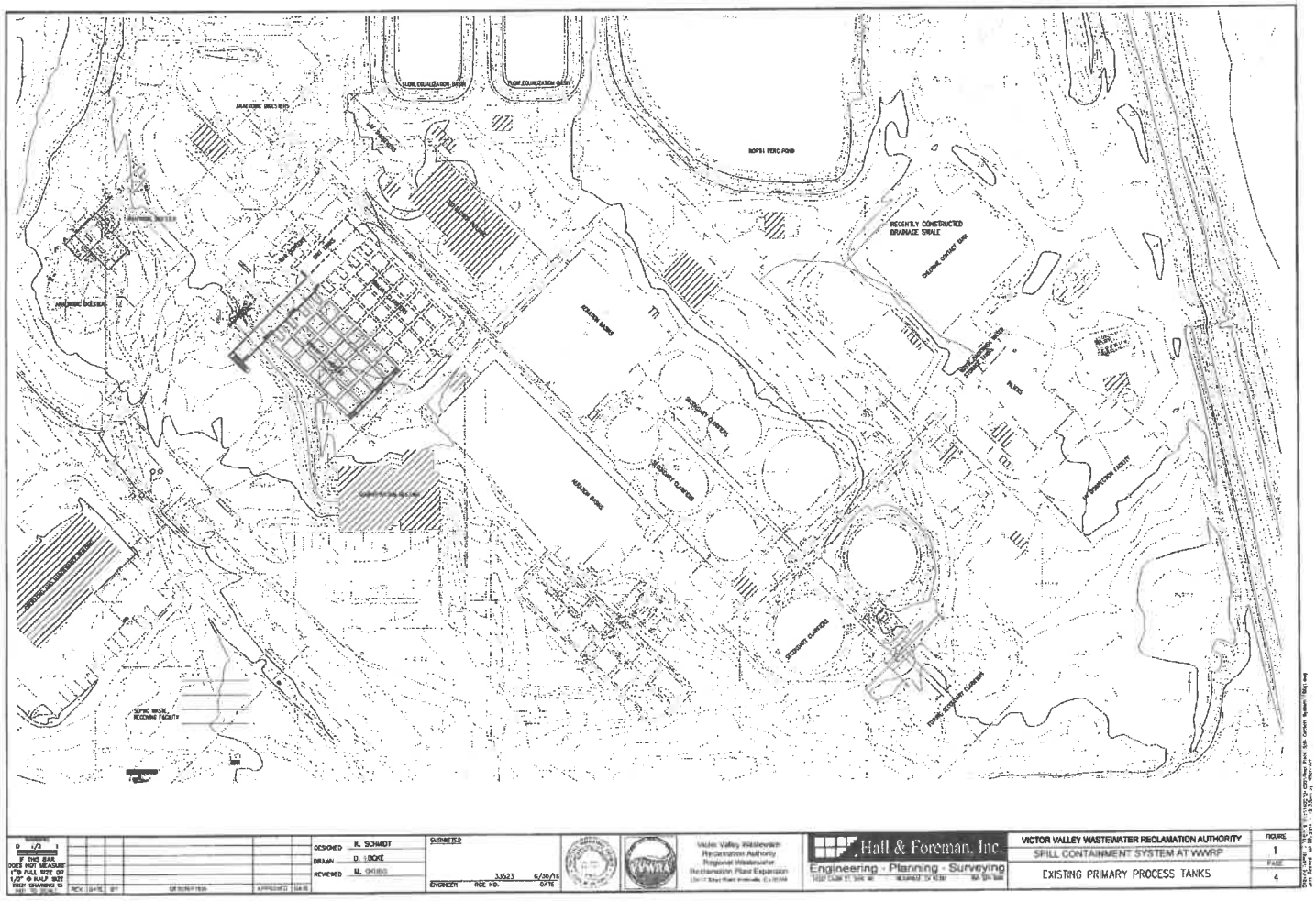
6. The discharge to the Backwash Water Storage Tank should be equipped with a flap gate to prevent backflow into the storm drain system during normal operations.

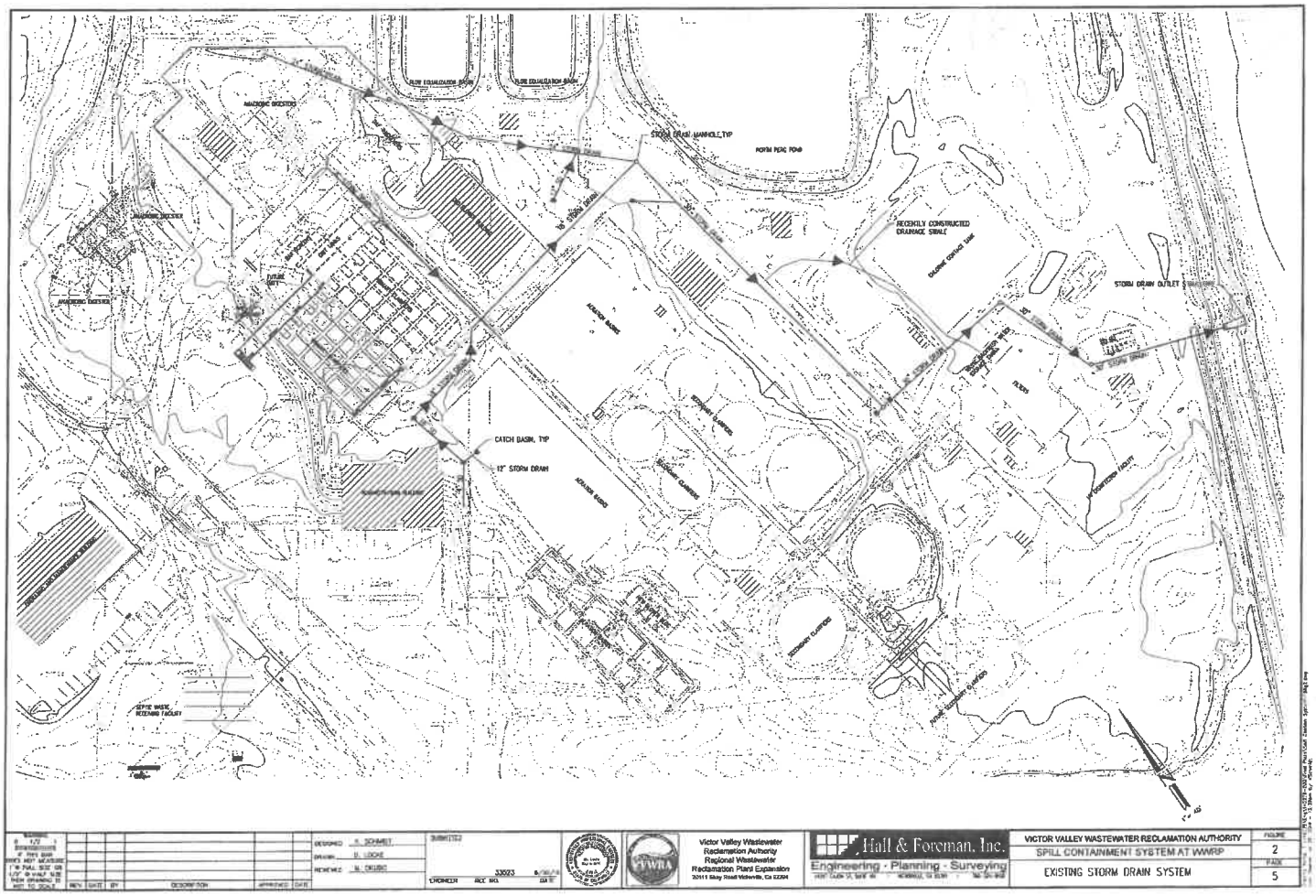
Alternative 1 will allow for some storage, should the pumps in the Backwash Water Storage Tank become inoperable during the spill event. The tables below show total storage available in the storm drain pipes and Backwash Water Storage Tank at approximately 325,000 gallons. This would yield a reaction time of approximately 30 minutes to divert flow to the Equalization Basin 3 or take other emergency measures.

Spill Containment Alternative 1 Storage

Item	Dia, inches	Length, ft	Width, ft	Depth, ft	Volume, cf	Volume, gal
18" SD	18	214			378	2,827
18" SD	18	264			466	3,486
18" SD	18	107			188	1,408
18" SD	18	782			1,381	10,333
8" SD	8	571			199	1,490
24" SD	24	440			1,381	10,331
24" SD	24	287			902	6,743
24" SD	24	557			1,748	13,073
30" SD	30	1,163			5,708	42,694
30" SD	30	516			2,529	18,919
30" SD	30	365			1,792	13,406
30" SD	30	454			2,227	16,659
New 24" Bypass	24	480			1,507	11,274
BW Water Storage Tank		71	28	12	22,862	171,008
Total					**43,269**	**323,651**

Plant Flow, mgd	Storage Time	
	Hours	Minutes
13	0.60	36
14	0.55	33
15	0.52	31
16	0.49	29
17	0.46	27
18	0.43	26


FLOW EQUALIZATION BASIN
FLOW EQUALIZATION BASIN
ANAEROBIC DIGESTERS
NORTH PERC POND
RECENTLY CONSTRUCTED DRAINAGE SWALE
AERATION BASINS
SECONDARY CLARIFIERS
AERATION BASINS
SECONDARY CLARIFIERS
SECONDARY CLARIFIERS
SECONDARY CLARIFIERS
SEPTIC WASTE RECEIVING FACILITY
DESIGNED K. SCHMIDT
DRAWN D. LOCKE
REVIEWED M. OHIRO
SUBMITTED
ENGINEER RCE NO. 33523 6/30/15 DATE
Hall & Foreman, Inc.
Engineering - Planning - Surveying
VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
SPILL CONTAINMENT SYSTEM AT WWRP
EXISTING PRIMARY PROCESS TANKS
FIGURE 1
PAGE 4


FLOW EQUALIZATION BASIN
FLOW EQUALIZATION BASIN
AERATION BASINS
STORM DRAIN MANHOLE, TYP
NORTH PERC POND
RECENTLY CONSTRUCTED DRAINAGE SWALE
STORM DRAIN OUTLET
AERATION BASINS
AERATION BASINS
CATCH BASIN, TYP
12" STORM DRAIN
SECONDARY CLARIFIER
SECONDARY CLARIFIER
SECONDARY CLARIFIER
SEPTIC WASTE RECEIVING FACILITY
Victor Valley Wastewater Reclamation Authority
Regional Wastewater Reclamation Plant Expansion
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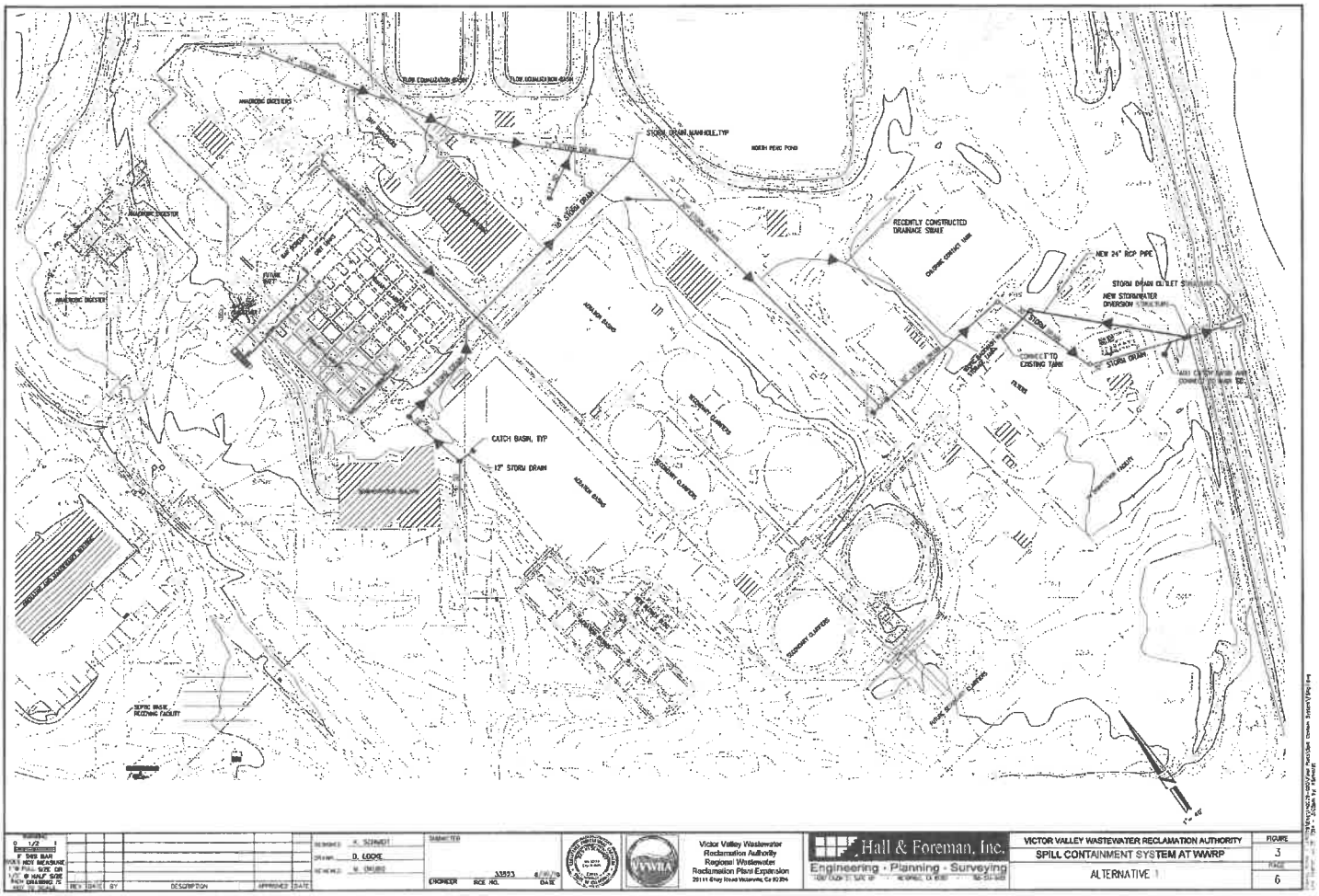
SPILL CONTAINMENT SYSTEM AT VVWRP
EXISTING STORM DRAIN SYSTEM
FIGURE 2
PAGE 5


STORM DRAIN MANHOLE, TYP
NORTH PERC POND
RECENTLY CONSTRUCTED DRAINAGE SWALE
NEW 24" RCP PIPE
STORM DRAIN OUTLET STRUCTURE
NEW STORMWATER DIVERSION
CONNECT TO EXISTING TANK
CATCH BASIN, TYP
12" STORM DRAIN
SECONDARY CLARIFIER
SEPTIC WASTE RECEIVING FACILITY
Victor Valley Wastewater Reclamation Authority
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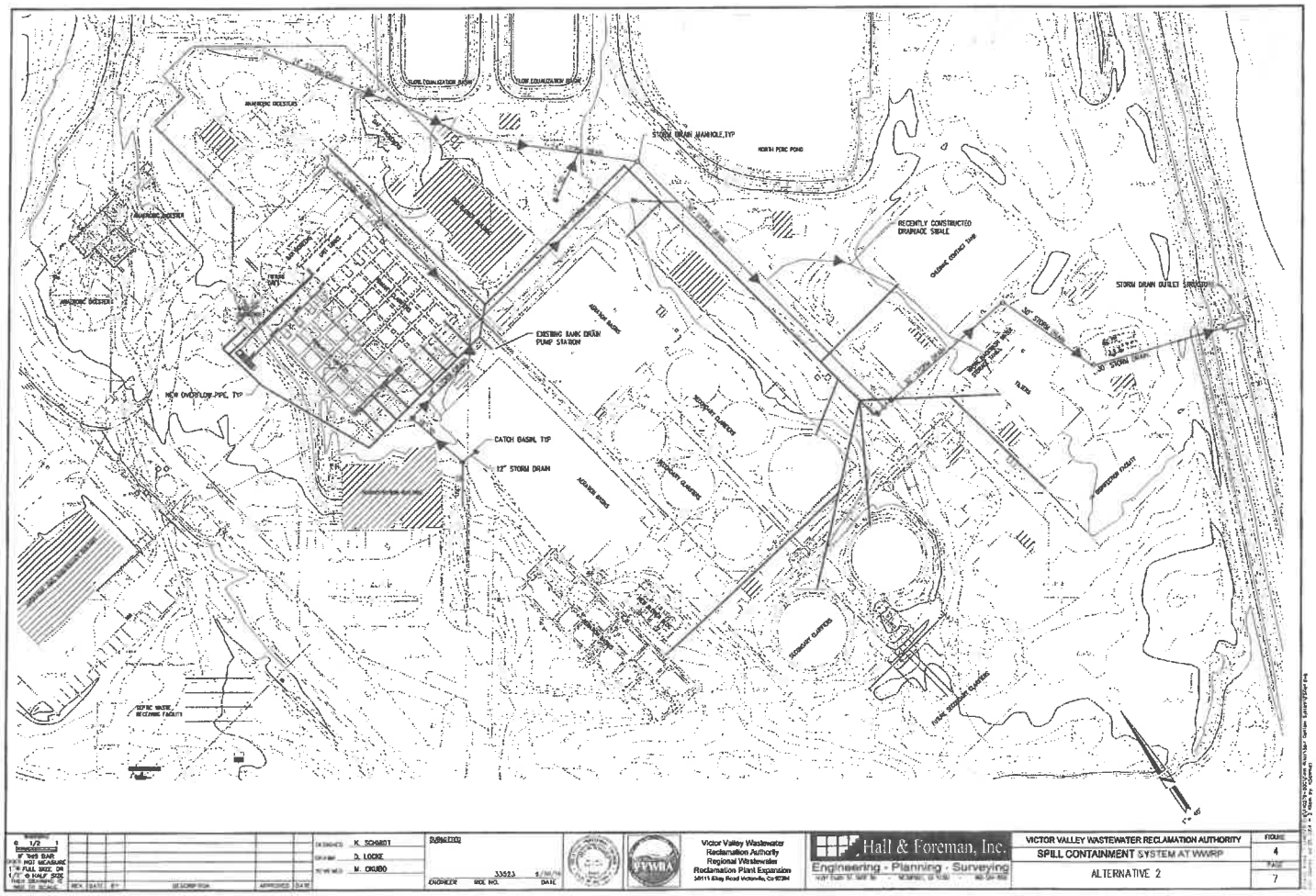
VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
SPILL CONTAINMENT SYSTEM AT WWRP
ALTERNATIVE 1
FIGURE 3
PAGE 6


STORM DRAIN MANHOLE, TYP
NORTH PERC POND
RECENTLY CONSTRUCTED DRAINAGE SWALE
STORM DRAIN OUTLET STRUCTURE
EXISTING BARC DRAIN PUMP STATION
NEW OVERFLOW PIPE, TYP
CATCH BASIN, TYP
12" STORM DRAIN
SEPTIC WASTE RECEIVING FACILITY
K. SCHMIDT
D. LOCKE
M. OKUBO
Victor Valley Wastewater Reclamation Authority Regional Wastewater Reclamation Plant Expansion
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VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
SPILL CONTAINMENT SYSTEM AT WWRP
ALTERNATIVE 2
FIGURE
4
PAGE
7

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
Report/Recommendation to the Board of Commissioners

16 March 2017

FROM: Logan Olds, General Manager

TO: Board of Commissioners

SUBJECT: Third Party Analysis of VVWRA's Energy Use Evaluation Spreadsheets

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RECOMMENDATION

It is recommended that the Board of Commissioners authorize the General Manager to retain the professional services of Carollo Engineering to review the overall assumptions, calculations, and approach used to estimate the potential annual cost and energy savings VVWRA achieves through existing energy efficiency measures and the recent implementation of the cogeneration and storage systems, in an amount not to exceed $4,800.00, four thousand eight hundred dollars.

REVIEW BY OTHERS

This recommendation was reviewed by Piero Dallarda, Legal Counsel, Greg Snyder, Town of Apple Valley, Tim Millington County Special Districts, Brian Gengler, City of Victorville, and David Burkett, City of Hesperia.

BACKGROUND INFORMATION

The Engineering Committee met twice and reviewed the VVWRA energy use evaluation spreadsheets. As a result of those meetings staff refined the layout and assumptions (interest rate, model base year calculations, engine maintenance costs, etc.) to ensure the conservativism and precision of the values presented. The information was then presented to the Board on February 16, 2017. Although the members of the Engineering Committee are well versed in engineering principles, the Committee is uncertain if the methodology used for the VVWRA energy evaluation is consistent with other facilities and state wide goals.

Additionally as the Authority reviews future energy opportunities it would be helpful to be able to submit a third party peer reviewed document as evidence of the monetary benefit to date of VVWRA's projects. The attached proposal from Carollo Engineering was reviewed by the Engineering Committee and it is the consensus of the members to place this item before the Board for consideration.

FINANCIAL IMPACT

Finance Approval:

Fund 01 or 07	
Accounting Code (String) example: 01-xx-xxx-xxxx (project code if any)	01-02-600-8105

Fund 09	
Accounting Code (String) example: 09-xx-xxx-xxxx (mandatory project code)	

Transfer Needed due to Insufficient Budget	Y[ ] N[ ]
If Transfer, from Which Account String or Reserve	09-02-500-9030
Budgeted Amount Where Money Comes from	
Budget Remaining after the Recommendation	$12,500
Outside Funding Source if applicable	$
Original Contract Amount	$
Change Order	Y[ ] N[ ]
Contract after Change	$

Transfer Needed due to Insufficient Budget	Y[ ] N[ ]
If Transfer, from Which Account String or Reserve	
Budgeted Amount Where Money Comes from	
Budget Remaining after the Recommendation	
Outside Funding Source	$
Original Contract Amount	$
Change Order	Y[ ] N[ ]
Contract after Change	$

RELATED IMPACTS

carollo
Engineers...Working Wonders With Water®

February 15, 2017

Mr. Logan Olds
General Manager
Victor Valley Wastewater Reclamation Authority
20111 Shay Road
Victorville, CA 92394

Subject: Proposal to Provide Professional Engineering Services - Review of Victor Valley Wastewater Reclamation Authority's (VVWRA) Energy Use Evaluation Spreadsheet

Dear Mr. Olds:

In response to VVWRA's request, Carollo is submitting a letter proposal to provide third party review services of VVWRA's Energy Use Evaluation spreadsheet. We understand the spreadsheet has been developed internally and you are in need of review of the overall assumptions, calculations, and approach used to estimate the potential annual cost and energy savings VVWRA achieves through existing energy efficiency measures and the recent implementation of the cogeneration and storage systems.

We propose that Sarah Deslauriers perform the review services. Sarah has 15 years of experience in the areas of energy and greenhouse gas emissions management, decision-making analysis, regulatory review, and wastewater master planning. She is Carollo's climate change technical lead, responsible for tracking regulations from the national to local levels, as well as educating and advising agencies and Carollo on potential regulatory impacts and opportunities. Not only does Sarah have the needed expertise, she is also backed by a team of wastewater experts at Carollo that can be called upon if necessary. We have provided a summary of the firm and Sarah's qualifications for your reference.

Our proposed engineering cost to perform the third party review ranges between $3,200-4,800, dependent on the need for restructuring calculations. We will commence this work upon notice to proceed and complete this work by March 31, 2017. We look forward to working with you. You can reach me at sdeslauriers@carollo.com (925-932-1710) if you have any questions.

Sincerely,

CAROLLO ENGINEERS, P.C.

Andrew Gilmore, P.E.
Vice President
Principal-in-Charge

Sarah A. Deslauriers, P.E.
Project Manager

2700 Ygnacio Valley Road, Suite 300, Walnut Creek, California 94598
P. 925.932.1710 F. 925.930.0208
carollo.com

Carollo Engineers

Carollo Engineers is an environmental engineering firm specializing in the planning, permitting, design, and construction of facilities that reliably treat and convey water across the U.S. Our focus is exclusively on water and wastewater, resulting in a level of understanding of key supply, treatment, and conveyance issues that few can match. With a staff that includes more than 900 employees in 40 offices throughout the country, Carollo has successfully completed more than 20,000 projects for public sector clients. Our reputation is based upon client service and a continual commitment to quality. Carollo has worked for local, regional, and statewide agencies providing engineering services. Carollo was named the top design firm in California by Engineering News Record (ENR) in 2016.

Point of Contact:
Sarah Deslauriers, PE
2700 Ygnacio Valley Road,
Suite 300
Walnut Creek, CA 94598
Tel: (925) 932-1710
Email: SDeslauriers@carollo.com

Carollo Office Locations

RESUME: Sarah A. Deslauriers

Firm: Carollo Engineers
Years of Experience: 15

Education:

- MSE Environmental Engineering, University of Michigan, 2004
- MS Atmospheric and Space Science, University of Michigan, 2002
- BS Atmospheric, Oceanic, and Space Science, University of Michigan, 2000

Licenses:
Civil Engineer, California

Professional Affiliations:

- California Association of Sanitation Agencies Climate Change Program Manager
- Bay Area Biosolids to Energy Coalition Program Manager
- American Water Works Association Climate Change Committee Chair
- Water Environment Federation Carbon Resource & Recovery Subcommittee Chair
- California Water Environment Association

Ms. Deslauriers' expertise is in the areas of greenhouse gas emission management, life cycle assessment, water and wastewater master planning, climate change impact analyses, water and air quality monitoring and laboratory analysis, integrated water resources management, project prioritization using decision analysis, alternative funding, and asset management. Her experience includes:

Climate Change and Greenhouse Gas Evaluations

•Program manager for the Bay Area Biosolids to Energy Coalition supporting their efforts in developing subregional biosolids to energy projects for long term management of biosolids generated by the 19 member agencies in the San Francisco Bay Area, securing alternative funds for those projects, and identifying viable wet weather options for biosolids management, all in support of achieving the state's greenhouse gas emissions reduction targets by 2020, 2030, and 2050.

•Program manager for the California Association of Sanitation Agencies (CASA) Climate Change Program implementing their vision to be the recognized providers of education, leadership, and advocacy for California's wastewater community on climate change issues. The CASA is a statewide group of wastewater agencies that collect and treat over 90 percent of municipal wastewater in California, many of whom also provide recycled water services and actively participate in the beneficial use of biosolids and biogas. The Climate Change Program is focused on helping California achieve its multiple mandates and goals by 2020 and beyond, including: (1) providing 50 percent of the State's energy needs from renewable sources; (2) reducing carbon dioxide equivalent emissions to 40% below 1990 levels; (3) reducing the carbon intensity of transportation fuel used in the State by 10 percent; (4) diverting organic waste from landfills and recycling 75 percent of the solid waste generated in the State; and (5) reducing short-lived climate pollutants. Additionally, we engage in state and federal policy development for adapting critical municipal infrastructure.

- Engineer supporting the City of Longmont, Colorado, Wastewater Treatment Plant Digester Gas Utilization Alternatives Analysis. Project included evaluation of alternatives for the beneficial use of digester gas in order to select the most sustainable option and proceed with design and construction of facilities for gas utilization. It also included identifying alternative funding options for digester gas utilization options.

- Project engineer serving as the supporting consultant to the Bay Area Clean Water Agencies Air Issues and Regulations (BACWA AIR) Committee, advocating for them in discussions and written development of air permits, climate change policy, and regulations with Bay Area Air Quality Management District (BAAQMD) staff, Air Resources Board staff, and other state agencies as needed.

- Project engineer for the Denver Metro Wastewater Reclamation District to create a greenhouse gas (GHG) emission inventory tool for the Robert W. Hite Treatment Facility (RWHTF) and METROGRO Farm establishing a comprehensive baseline inventory to account for GHG emissions and sinks. The tool enables the

Sarah A. Deslauriers (Con't)

Metro District to assess their ability to comply with regulatory changes and impacts/benefits of operational changes, as well as evaluate potential energy efficiency measures.

- Engineer for the evaluation and inventory of greenhouse gas emissions resulting from the construction and/or operation of project alternatives developed for various projects and in compliance with relevant existing and developing regulations (e.g., California's Assembly Bill 32 and U.S. EPA's Mandatory Reporting Program). The evaluation process includes boundary development; collecting, reducing, and analyzing data; and development of a technical memorandum summarizing the methodology, assumptions, and results. Evaluations and/or inventories have been conducted for the following projects:

- Project manager for the Fresno-Clovis Regional Water Reclamation Facility greenhouse gas emissions estimation and reporting project for the City of Fresno, California. Estimated greenhouse gas emissions from onsite stationary combustion sources and electricity generating units to determine California Air Resources Board (CARB) reporting requirements, reported the 2009 through 2016 emissions using CARB's electronic online Greenhouse Gas Reporting Tool (Cal e-GGRT), and assisted in the third party verification process.

- Project engineer for Central Contra Costa Sanitary District Master Plan estimating greenhouse gas emissions for the operation of the solids and liquids treatment alternatives. Specific focus was given to the solids treatment alternatives to determine viable, long-term solids management strategies that avoid CA regulatory requirements for greenhouse gas emissions and incorporate beneficial use of solids treatment byproducts (i.e., biogas, ash, biosolids, etc.).

- Project engineer for the 30-year Sewer System Master Plan for the City and County of San Francisco, California, in its evaluation of wastewater treatment and collection system project alternatives. Provided support by estimating greenhouse gas emissions from the operation of the treatment and collection system alternatives.

- Project engineer for the Water Pollution Control Plant Improvement Project for the City of Davis, California. Estimated the greenhouse gas emissions for the operation of acid-phase digestion and anaerobic digestion alternatives, including renewable energy credits from the production of biogas.

- Project engineer for the City of Longmont's (CO) Wastewater Treatment Plant estimating greenhouse gas emissions for solids dewatering and disposal alternatives.

- Project engineer for the El Estero Wastewater Treatment Plant Tertiary Filter Rehabilitation Project for the City of Santa Barbara, California. Estimated greenhouse gas emissions for the operation of tertiary (recycled water) treatment alternatives.

- Project engineer for San Luis Obispo County, California's Los Osos Wastewater Project Development in its evaluation of wastewater treatment and collection system project alternatives. Provided environmental review support by estimating greenhouse gas emissions from the construction and operation of the treatment and collection system alternatives.

- Project engineer for the Oro Loma Sanitation District greenhouse gas emissions estimate project for the City of San Lorenzo, California. Estimated greenhouse gas emissions for onsite stationary combustion sources to determine CARB reporting requirements and provided emissions monitoring system recommendations.

- Project engineer for the Rancho California Water District greenhouse gas emissions baseline inventory project for the City of Rancho, California. Estimated greenhouse gas emissions for existing plant operations as well as estimates of emissions after a plant expansion to determine CA reporting requirements and potential for developing carbon offset and renewable energy credit projects.

- Project engineer for the City of Everett's Water Pollution Control Facility estimating greenhouse

Sarah A. Deslauriers (Con't)

gas emissions for existing plant operations as well as emissions estimates for the solids treatment alternatives.

- Project engineer for the City of Tacoma's Digester Optimization Visioning Project estimating greenhouse gas emissions for existing plant operations as well as emissions estimates for the solids treatment alternatives.

- Project engineer for the South Orange County Wastewater Authority's Coastal Treatment Plant Export Sludge System Replacement Environmental Impact Report Alternative Analysis estimating greenhouse gas emissions from the four solids treatment alternatives considered.

- Project engineer for West County Wastewater District Master Plan estimating greenhouse gas emissions for the solids and liquids treatment alternatives, as well as to determine CARB reporting requirements.

Integrated Water and Wastewater Master Planning

- Project engineer providing regulatory review for the Union Sanitary District Solids System Capacity Assessment. Included identifying current and potential future regulations that must be addressed in future project implementation.

- Engineer for the Central Contra Costa Sanitary District Comprehensive Wastewater Master Plan in Martinez, CA. Led the effort to evaluate the state of research on global climate change and its potential to affect the plant site, specifically in terms of changes in precipitation patterns and sea level rise. Led the documentation of existing and potential future water, air, and solids regulations that drive the development of project alternatives to maintain regulatory compliance and future reliability of wastewater treatment services. Also leading the effort to evaluate the state of research on global climate change and its potential to affect the plant site, specifically in terms of changes in sea level rise and extreme precipitation events, and identified potential flood protection measures.

- Engineer for the City of Oxnard, California, Integrated Water Resources Master Plan. This project involved using the latest in integrated systems analysis and optimization techniques to establish a utility infrastructure road map that will improve performance, minimize costs, and set the long-term direction of Oxnard's water, wastewater (including recycled water), and storm water utilities for years to come. Led the biosolids options analysis (considering process modification, improvement, or replacement of treatment and end use/disposal) as part of the planning effort to reduce overall risk, satisfy treatment plant and City goals, and assess potential co-benefits of each alternative to contribute toward state goals set to reduce greenhouse gas emissions. Also led the effort to evaluate the state of research on global climate change and its potential to affect the plant site, specifically in terms of changes in sea level rise, and identified potential flood protection measures.

- Engineer for the triple bottom line analysis of the Water Research Foundation Project #4494 "Management Strategies for Compounds of Emerging Concern." This $400,000-project evaluated different management strategies watershed planners and agencies can employ to reduce the risk of CECs in their watershed for ecosystems and human health. A triple-bottom-line approach was developed to balance costs and benefits of watershed wide strategies, looking at point and non-point contamination sources. This research was supported by national and international water, wastewater and reuse agencies, regulators, and decision makers.

- Engineer for the Riverside Public Utilities' Integrated Water Management Plan for the City of Riverside, CA. Led the effort to determine the current state of research on global climate change and its potential to affect the City's groundwater supply, specifically in terms of changes in precipitation patterns, runoff, imported water transfers, evaporation, and demand. Using a basin-scale groundwater screening tool, this study evaluated the effects of future climate variability on the City's groundwater supply.

Sarah A. Deslauriers (Con't)

• Engineer for the Sewer System Master Plan for the San Francisco Public Utilities Commission (SFPUC), California. Responsible for reviewing current research on global climate change and package ("scalping")plants and presenting the material in technical memorandums to support the master planning decision process. Also integrated decision analysis with engineering analysis to create an integrated project approach addressing relevant benefits and costs for project alternative comparison and prioritization. Specific tasks included:

- Reviewed current and ongoing research in global climate change with respect to projected changes in relative sea levels and precipitation patterns/events, and evaluated the impacts of those to the City and County of San Francisco.

- Reviewed current "scalping" plant technology, with special focus on the MBR process. This included an evaluation of the feasibility (e.g., footprint, operation and maintenance, and cost) of implementing this technology throughout the City and County of San Francisco.

- Applied decision analysis (using Criterium Decision Plus software) to organize the Sewer System Master Plan's goals, objectives, and evaluation criteria to evaluate and prioritize the project alternatives in an efficient, transparent process based on the best available information.

• Engineer for the triple bottom line analysis of the liquids and solids treatment alternatives for Napa Sanitation District's Master Plan using the pairwise comparison approach to gain consensus of stakeholders. The decision making process took into account the treatment plant levels of service across environmental, social, and economic categories.

• Engineer for the San José/Santa Clara Water Pollution Control Plant Master Plan for the City of San José, California. The plant serves a population of approximately 1.3 million with a capacity of 167 mgd. The master planning process included all treatment operations. The goals for the master plan included flexibility for plant uses, regulatory compliance, worker and community safety, habitat protection and restoration, good neighbor policies, economic opportunities/public value, and continued land management. Specific tasks included:

- Reviewing current and ongoing research in global climate change with respect to projected changes in relative sea levels and evaluating the impacts of those to the City of San José.

- Applying decision analysis (using Criterium Decision Plus software) to organize the Master Plan's goals, objectives, and evaluation criteria to evaluate and prioritize the project alternatives in an efficient, transparent process based on the best available information and involving multiple advisory groups.

• Engineer for the design and construction of OPTIMO®, a facilities cost and flow optimization model for Inland Empire Utilities Agency (IEUA), Chino Hills, California. Gathered background information for IEUA's interconnected wastewater treatment plants to layout the physical structure of the model. Assisted in the testing of the Phase I model and worked on the construction (programming) of the beta and working version of OPTIMO® using EPA's Storm Water Management Model (SWMM) software and the Extend Simulation Software.

• Engineer for the Water Supply Planning Study for the City of Santa Barbara, California. This study evaluated the City's overall water supply program in terms of potential new water management strategies, optimization of delivery schedules from various supply sources, and enhancement of supply reliability. Lead the effort to determine the current state of research on global climate change and its potential to affect the City's water supply, specifically in terms of changes in precipitation patterns, irrigation demand, and sea level rise.

• Engineer for South San Francisco/San Bruno Water Quality Control Plant's Facility Plan Update to evaluate the current state of research on global climate change and its potential to affect the plant site, specifically in terms of changes in precipitation patterns and sea level rise. The Facility Plan Update was commissioned to develop a capital improvements plan addressing

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discharge permit compliance, critical reliability and rehabilitation, and green energy opportunities.

- Project engineer responsible for performing the Treatment Wetlands Feasibility Study and projecting climate change impacts as part of the Santa Clara River Estuary Special Studies Project. Carollo was hired by the City of Ventura to develop three studies required by their NPDES permit to support a finding of enhancement as required by the enclosed bays and estuaries policy for their discharges into the estuary. The three studies include a Sub-watershed Assessment Study, a Reuse Market/Feasibility Study, and a Treatment Wetlands Feasibility Study. Project includes multiple stakeholder workshops with regulatory, resource agencies, non-governmental organizations and other interested parties.

- Project engineer responsible for assisting the Project Managers with each task included in the 50-year Long Range Facilities Plan (LRFP) for the Regional Water Quality Control Plant of the City of Palo Alto, California. The LRFP included all onsite treatment operations and the project tasks included an existing facilities assessment; characterization of existing wastewater, biosolids, and recycled water streams, as well as of the regulatory and environmental settings; identification and evaluation of project alternatives; coordination with concurrent projects that may affect the LRFP; and assisting the City with the public outreach materials throughout the project.

Alternative Funding

- Engineer supporting the digester gas utilization evaluation project for the City of Porterville, California. The project involved identifying alternative funding sources for potential digester gas utilization systems including scrubbing the gas to natural gas quality, injection into the natural gas pipeline or use as compressed natural gas (CNG) to offset transportation fuel, or using the gas within various types of cogeneration technologies.

- Engineer supporting the Plum Creek Water Reclamation Authority, Colorado, Wastewater Utility Update. Project included a plant-wide energy consumption and energy reduction analysis, as well as a utility plan for future solids treatment, and identifying alternative funding options for digester gas utilization options.

Financial Planning/Rate Studies

- Project engineer for the City of Sacramento Department of Utilities Consulting Engineer's Bond Feasibility Study. Developed separate engineering and financial feasibility reports to be included within the official statements for the water and wastewater bond issuances.

- Project manager for the Sacramento Regional County Sanitation District and the Sacramento Area Sewerage District Impact Fee and Rate Study. Coordinated active working model sessions and updated the Revenue Programs to determine each District's rates based on newly adopted methodologies and functional allocation. Incorporated functionality to evaluate phased rate structure adjustments. Ongoing services to maintain the Revenue Programs.

Asset Management

- Engineer for the San Francisco Public Utilities Commission's (SFPUC) Collection System Asset Management Program (CSAMP) to analyze the age and failure characteristics of the sewer system piping and create a method to prioritize asset rehabilitation or replacement. The project is looking into opportunities to more effectively utilize available funding by working cooperatively with the SFPUC Water Enterprise and the Department of Public Works Paving Program to plan and implement joint projects.

- Engineer for the Independent Evaluator Services Project for the City of Stockton, California's Regional Wastewater Control Facility (RWCF) and remote water, wastewater and storm water facilities operated by OMI\Thames Water Stockton. Developed an asset inventory consisting of more than 1,400 assets (located at the RWCF and among the 140 remote facilities), coordinated the team and effort of 14 professionals to assess the condition of the assets, populated Carollo's Water/Wastewater Asset Manager software with

the field notes and assessment rankings, estimated the replacement costs of the facilities, and produced the Final Summary Report.

- Engineer for the Asset Condition Assessment Study of the Water Pollution Control Plant (WPCP) in the City of Sunnyvale, California. This study was conducted as part of an asset management plan to ensure their assets are meeting prescribed level-of-service goals, to decrease the costs and risks associated with plant operation, and to prepare and plan for the future more effectively. As part of the condition assessment, Carollo conducted a risk assessment of the above- and below-ground infrastructure at the WPCP. Those assets with the highest risk of failure were tested to determine their existing condition. Prepared the replacement costs associated with each asset.

- Engineer for the City of Oceanside, California, survey of several clients to review their use of software management systems (e.g., geographical information systems, computer maintenance management systems, supervisory control and data acquisition systems, and laboratory information systems) and help the City of Oceanside determine which would complement their water and wastewater treatment systems.

Water and Air Quality Monitoring and Laboratory Analysis

- Engineer for the USEPA/AWWA Research Foundation Project 3004, Advanced Water Treatment of Estuarine Water Supplies for Improving Water Quality. The goal of this project was to fill knowledge gaps with respect to treatment of estuarine supplies using existing and advanced technologies (GAC, PAC, MIEX® resin, membranes), as well as disinfectant combinations including chlorine, chloramines, chlorine dioxide, ozone, and UV disinfection. The study included pilot testing of pre-oxidation with chlorine dioxide and intermediate ozonation followed by several final disinfection alternatives. Ms. Deslauriers participated in laboratory analysis and managed data collected for more than 30 constituents over a seven-month period.

- Graduate research for the University of Michigan's Air Quality Laboratory in the School of Public Health. Research investigated the industrial sources, transport, and fate of atmospheric pollutants impacting human and ecological health. Pollutants examined included mercury (elemental and reactive gaseous), several criteria air pollutants, and particulate matter (PM-2.5 and PM-10). Experience required knowledge of acid-cleaning procedures for sampling media; filter-weighing using a microbalance in a class 100 cleanroom; denuder and quartz particulate filter preparation; periodic two-week field intensive campaigns; and data organization, analysis and presentation.

Life Cycle Assessment

- Research associate at the University of Michigan's (U-M) Center for Sustainable Systems responsible for developing a model to support an annual sustainability report as defined by the U-M Environmental Task Force. Based on the principles of life cycle assessment (LCA) and sustainability, specific environmental indicators were selected and defined for U-M. The categories of environmental indicators included energy consumption by University buildings and transportation, water use, land use, air and water emissions, material use, and solid waste. Ms. Deslauriers managed the collection and analysis of data quantifying the environmental indicators for use as input into the model, and helped produced U-M's first annual sustainability report.

- Independent graduate research for U-M's Center for Sustainable Systems. Research included data collection and analysis of energy, chemical, and gas consumption within liquids and solid treatment processes of Michigan's Detroit, Wyandotte, and Ypsilanti wastewater treatment plants. Results were presented at the 2005 Borchardt Conference: A Seminar on Advancements in Water and Wastewater Treatment February 2005. Research also included a preliminary analysis of U.S. wastewater treatment systems using LCA to analyze energy, chemical, and gas consumption. Results were presented at the 4th National Council for Science

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and the Environment Conference in Washington D.C., January 2004.

Internal Projects

- Engineer for the design and construction of a greenhouse gas emissions inventory model for water and wastewater facilities reporting and planning.
- Engineer for the design and construction of Treatment Alternatives Analyzer (TA2®), a facilities cost and flow optimization model for water and wastewater facilities planning.
- Engineer for the design and construction of an automated cost estimating model for water and wastewater facilities planning.

Publications/Presentations

Rauch-Williams, T., J. E. Drewes, E. Dickenson, S. Snyder, S. Bieber, and S. Deslauriers. " Management of CEC's in Watersheds Water Research Foundation Project #4494." Proceedings of the 30th Annual WateReuse Symposium, Seattle, Washington, September 13-16, 2015.

Deslauriers, S., and Babson, D. "Opportunities for Biogas Derived Biofuels under the Renewable Fuel Standard." Presentation at the Water Environment Federation's Technical Exhibition & Conference 2014, New Orleans, LA, September 27 – October 1, 2014.

Deslauriers, S. "Biogas to Transportation Fuel: Climate Change and Potential Project Funding." Presentation at the Water Environment Federation's Technical Exhibition & Conference 2014, New Orleans, LA, September 27 – October 1, 2014.

Deslauriers, S., and Martin, M. "Incorporating Sustainability into Decision Making: Case Studies that Explore Relevance and Effectiveness." Presentation at the Water Environment Federation's Technical Exhibition & Conference 2014, New Orleans, LA, September 27 – October 1, 2014.

Deslauriers, S. "BEArs and POTWs: Which Biosolids, Energy, and Air policies can benefit Publicly Owned Treatment Works(POTWs)?" Invited to present at the Central Valley Clean Water Association Annual Conference, Sacramento, CA, May 15, 2014.

Deslauriers, S., and Kepke, J. "Tri-TAC/CASA Air, Land & Water Regulatory Updates." Invited to present at the 86th California Water Environment Association Annual Conference, Santa Clara, CA, April 29 – May 2, 2014.

Deslauriers, S. "Air Regulatory Update: California Wastewater Climate Change Group." Invited to present at the Bay Area Clean Water Agencies Annual Meeting, San Leandro, CA, January 30, 2014.

Holmes, L., Deslauriers, S., and Gillette, R. "The City of Palo Alto is Applying Sustainability to Develop a 50-Year Plan for Solids Handling." Paper presented at the 86th Annual Water Environment Federation Technical Exhibition and Conference, Chicago, IL, October 5-9, 2013.

Holmes, L., Deslauriers, S., and Gillette, R. "What Will the Wastewater Industry Look Like in the Next 50 Years?" Invited speaker at the California Water Environment Association San Francisco Bay Section, San Francisco, CA, December 6, 2012.

Deslauriers, S. "Wastewater Treatment of the Future." Invited speaker at the Pacific Northwest Clean Water Association Northwest Section Annual Meeting. Lake Stevens, WA, September 12, 2012.

Deslauriers, S. and Lanigan, R. "Water Resources Planning Strategies in a Changing Climate." Poster presented at the 2012 Sustainable Water Management Conference. Portland, OR, March 18-21, 2012.

Holmes, L., Deslauriers, S., and Gillette, R. "Wastewater Treatment in 2062: What Does That Look Like?" Presentation at the Pacific Northwest Clean Water Association Annual Conference and Exhibition. Building Professional Excellence in Water Quality, Vancouver, WA, September 18-21, 2011.

Deslauriers, S. and Holmes, L. "Climate Change: What Does it Mean for Your WWTP?" Presentation at the Pacific Northwest Clean Water

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Association Annual Conference and Exhibition. Building Professional Excellence in Water Quality, Vancouver, WA, September 18-21, 2011.

Reardon, R., Deslauriers, S., Samstag, R., and Baumberger, L. "Incorporating Sustainability Considerations into Wastewater Treatment Process Selection for Nutrient Removal." Florida Water Resources Journal, December 2010.

Deslauriers, S. "Climate Change: Where Will Your Water Come from in 20 Years?" Paper presented at the American Water Works Association Annual Conference and Exhibition, Chicago, IL, June 20-24, 2010; and Water Quality Technology Conference, Savannah, GA, November 15-16, 2010.

Deslauriers, S., Holmes, L., McDonald, S., and Loiacono, J. "Planning Strategy in a Changing Climate." In Climate Change and Water: International Perspectives on Mitigation and Adaptation, editors J. Smith, C. Howe, and J. Henderson, 205-214, American Water Works Association and International Water Association, 2010.

Deslauriers, S., and Holmes, L. "Greenhouse Gas Emissions as a Basis for Project Alternative Comparison." Paper and Poster presented at the Water Environment Federation's Technical Exhibition and Conference, Orlando, FL, October 10-14, 2009.

Holmes, L., Reardon, R., Deslauriers, S., Poust, S., and Samstag, R. "Incorporating Sustainability Considerations Into Process Selection for Biological Nutrient Removal." Paper presented at the Water Environment Federation Annual Exhibition and Conference, Orlando, FL. October 10-14, 2009.

Apgar, D, Andrews, N., Deslauriers, S., Kerr, D, Lorenz, S., O'Connor, C., and Porter, R. "Water Environment Federation Technical Practice Update: Protocols for Measuring and Estimating Greenhouse Gas Emissions from Wastewater Sources." Presented to the Water Environment Federation Sustainability Community of Practice, October 2009.

Deslauriers, S., Holmes, L., Lechowicz, A., McDonald, H.S., Clinton, T., and Loiacono, J. "Better Safe Than Sorry, Preparing for the Potential Impacts of Global Warming." Public Works Magazine, August 1, 2009.

Deslauriers, S., Holmes, L., Carella, L., and Waddell, J. "Got Gas? How to Inventory your Greenhouse Gas Emissions." Paper presented at the California Water Environment Association 81st Annual Conference, Palm Springs, CA, April 28-May 1, 2009.

Deslauriers, S. and McDonald, S. "Decision Analysis: A Systematic, Analytical, and Transparent Process for Making Optimal Decisions." Presentation at the California Association of Sanitation Agencies Mid-Year Conference, Indian Wells, California, January 21-24, 2009.

Deslauriers, S. and McDonald, S. "Applying Decision Theory to Utility Master Planning." Presentation at the Water Environment Federation's Annual Conference WEFTEC 2008, McCormick Place Chicago, Illinois, October 18-22, 2008.

Deslauriers, S. and McDonald, S. "Sustainability: Decision-making and Sustainability Criteria." Presentation at the Pacific Northwest Clean Water Association Spring Mini-Conference. Practical Sustainability for Water and Wastewater Facilities, Coeur d'Alene, Idaho. May 8-9, 2008.

Deslauriers, S., Loiacono, J., Holmes, L., and McDonald, S. "Planning Strategy in a Changing Climate." Paper presented at the Utility Management Conference 2008 jointly sponsored by the American Water Works Association and the Water Environment Federation. Tomorrow's Water, Today's Solutions, Tampa, Florida. February 24-27, 2008.

Deslauriers, S., Loiacono, J., Gleick, P.H., and McDonald, S. "The Effects of Global Climate Change on California's Water and Wastewater Industry." Paper presented at the California Water Environment Association Annual Conference, Ontario, California. April 17-20, 2007.

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Deslauriers, S., Kanzaki, M., and Bulkley, J. "Energy Utilization: Wastewater Treatment Facilities." Paper presented at the Borchardt Conference: A Seminar on Advancements in Water and Wastewater Treatment. University of Michigan, Ann Arbor. February 24, 2005.

- Deslauriers, S., Kanzaki, M., Kumar, A., Keoleian, G., and Bulkley, J. "Life Cycle Assessment as a Decision Support Tool in the Water Industry." Poster presented at the 4th National Council for Science and the Environment Conference. Water for a Sustainable and Secure Future. Washington D.C. January 29-30, 2004.

Victor Valley Wastewater Reclamation Authority

Financial and Cash Report

February 2017

Victor Valley Wastewater Reclamation Authority
CASH AND RESERVE SUMMARY
February 28, 2017

G/L Account	Description	Balance	
1010	DCB Checking Account	$ 250,000	
1010	CBB Checking Account	1,000,000	
1016	CBB Sweep Account	650,946	
1017	CBB Money Market Account	6,652	
1075	Cal TRUST by Wells Fargo	3,051,322	
1070	LAIF	1,519,116	$65 mil Max
	Total Cash	$ 6,478,036	

Reserves:	Current Balance	Restricted	Assigned	Not Assigned
Targeted Capital Reserve	$ -	$	$	$ -
O&M Reserve: 10% of Prior Year Budgeted Operating Expenses	-		1,081,523	
R&R Reserve: 1% of Land Improvements/Plants/Interceptors PY CAFR	1,070,006		1,670,006	
Reserve for SRF Payments (P& I) - Operating	2,707,580	2,707,580		
Reserve for SRF Payments (P& I) - Capital	2,359,174	2,359,174		
Available for O&M	341,276	-		
Total Cash	$ 6,478,036	$ 5,066,754	$ 2,751,529	$ -

Note 1: ACCUMULATION FOR SRF LOAN PAYMENTS:

	9.5 MGD, 11.0 MGD, NAVI, Phase III-A	Upper Narrows Replacement	Nanticoke Bypass	Sub-Regional Apple Valley	Sub-Regional Hesperia	Total
Reserve for SRF Payments (P& I) - Operating	$ 782,104	259,235	178,764	587,653	899,824	2,707,580
Reserve for SRF Payments (P& I) - Capital	1,348,576	-	59,588	375,713	575,297	2,359,174
	$ 2,130,680	259,235	238,352	963,366	1,475,121	5,066,754
		2,389,915				

Note 2: PROJECTS AND FUNDING:

a. Construction and Change Orders for Sub-Regional Plants	Bureau of Reclamation - Title 16 Grant	Dept. of Water Resources - Proposition 84 Grant	SWRCB SRF Loan - Hesperia	SWRCB SRF Loan - Apple Valley	SWRCB - Proposition One Grant - A.V.	SWRCB - Water Recycling Prop 13 Grant - A.V.	Total
Completion (or Termination) Dates	05/31/16	12/31/17	06/30/17	06/30/17	06/30/17	03/31/17	
Agreement Amounts	$ 3,242,523	$ 3,000,000	$ 35,442,795	$ 22,537,632	$ 8,135,648	$ 4,000,000	$ 76,358,598
Claimed	(3,242,523)	(3,000,000)	(22,685,833)	(13,074,092)	(5,013,483)	(2,710,366)	(49,726,297)
Grant and Loan Balance Remaining	$ -	$ -	$ 12,756,962	$ 9,463,540	$ 3,122,165	$ 1,289,634	$ 26,632,301

b. Planning and Design for Sub-Regional Plants	Bureau of Reclamation - Title 16 Grant	Dept. of Water Resources - Proposition 84 Grant	SWRCB SRF Loan - Hesperia	SWRCB SRF Loan - Apple Valley	SWRCB - Proposition One Grant - A.V.	SWRCB - Water Recycling Prop 13 Grant - A.V.	Total
Completion (or Termination) Dates	05/31/16	not applicable	06/30/17	06/30/17	06/30/17	not applicable	
Agreement Amounts	$ 1,607,477	$ -	$ 5,107,160	$ 4,535,127	$ 1,046,193	$ -	$ 12,295,957
Claimed	(1,607,477)	-	(5,107,160)	(4,449,477)	(561,064)	-	(11,725,178)
Grant and Loan Balance Remaining	$ -	$ -	$ -	$ 132,272	485,129	$ -	$ 570,779

c. Upper Narrows Emergency			
*FEMA/Cal OES PW 1136 Revised Grant Limit - Completion 12/27/15		$	7,954,740
Eligible Cost Incurred 12/26/10 - 11/06/16			(7,750,326)
Grant Balance Remaining		$	204,414
Funding Received or To Be Received:			
FEMA (Claims x .90 x .7500)	$ 5,231,470		
Cal OES (Claims x .90 x .1875)	1,307,868	$	6,539,338
VVWRA Share:			
VVWRA (Claims x .0625)	484,395		484,395
10% Retention to Be Received upon Completion:			
(Claim - VVWRA portion) x .10	726,593		726,593
		$	7,750,326

d. Upper Narrows Replacement			
*FEMA/Cal OES PW 828 Grant Limit - Completion 12/27/15		$	33,124,002
Eligible Costs Incurred 04/01/11 - 08/31/16			(33,124,002)
Grant Balance Remaining		$	-
Funding Received or Expected to Receive:			
FEMA (Claims x .90 x .7500)	$ 22,358,701		
Cal OES (Claims x .90 x .1875)	5,589,675	$	27,948,377
VVWRA Share:			
VVWRA (Claims x .0625)	2,070,250		2,070,250
10% Retention to Be Received upon Completion:			
(Claim - VVWRA portion) x .10	3,105,375		3,105,375
		$	33,124,002 -

* SRF Loan		Incurred	Claimed	Remaining
	Construction	1,655,130	(1,655,130)	-
	Change Orders	1,825,000	(1,825,000)	-
	Soft Costs	806,250	(806,250)	-
		4,286,380	(4,286,380)	-

Victor Valley Wastewater Reclamation Authority
Flow Study
For the Month Ended January 31, 2017

Measured by ADS	**Percentage of Total %**	**January Monthly MG**
VSD 1 (less North Apple Valley)	5.7866%	20.5140
VSD 2	13.6367%	48.3430
VSD 3	25.8190%	91.5300
VSD 4	7.1090%	25.2020
VSD 5	0.4223%	1.4970
VSD 6	6.3045%	22.3500
VSD Total	**59.0781%**	**209.4360**
Apple Valley 01	10.7660%	38.1660
Apple Valley 02	5.8228%	20.6420
Apple Valley North	0.0832%	0.2950
Apple Total	**16.6720%**	**59.1030**
Hesperia	**18.3797%**	**65.1570**
CSA 64 SVL	5.0177%	17.7880
CSA 42 Oro Grande	0.8526%	3.0220
CSA Total	**5.8703%**	**20.8100**
Total Apportioned Flow	**100.0000%**	**354.5060**
Mojave Narrows Regional Park		0.1000
Total Study Flow		**354.6060**

Subregional Water Reclamation Plant Projects
2/28/2017
Hesperia

Costs Incurred Up to 2/28/2017	Expended to Date	Contract Amount	Total Remaining
Planning/Design/Construction Management			
Planning	879,877	624,264	(255,613)
(Carollo/HDR) Design	3,106,096	3,580,792	474,696
(MWH) Construction Management	1,723,477	1,479,914	(243,563)
(Carollo/HDR) Engineering Services During Construction	1,108,327	1,687,052	578,725
Sub-Total	6,817,777	7,372,022	554,245
Construction			
Construction	27,436,516	33,220,000	5,783,484
	Expended to Date	Contract Amount	
Change Order (Contingency)		**SRF Loan**	**Lyles**
Planning/Design/Construction Management	-	1,111,398	-
Construction - Cascade Drilling	463,231	383,334	-
Construction - Lyles	64,525	728,063	500,000
Sub-Total	527,756	2,222,795	500,000
Total	**34,782,049**	**43,314,817**	**8,532,768**

Eligible for Reimbursements	Claimed	Contract Amount	Total Remaining
Title 16	2,445,244	2,460,369	15,125
Proposition 84-HES Construction Cost	2,227,586	1,512,522	(715,064)
Total Grants	4,672,830	3,972,891	(699,939)
% of Total Project		*9%*	
SRF-HES Planning/Design/Construction Management	5,107,160	7,329,955	2,222,795
SRF-HES Construction Cost	25,002,059	33,220,000	8,217,941
Total	**34,782,049**	**44,522,846**	**9,740,797**

Claims Made as of 2/28/2017	Requested	Contract Amount	Total Remaining
Title 16	2,445,244	2,460,369	15,125
Proposition 84-HES Construction Cost	2,227,586	1,512,522	(715,064)
Total Grants	4,672,830	3,972,891	(699,939)
SRF-HES Planning/Design/Construction Management	5,107,160	7,329,955	2,222,795
SRF-HES Construction Cost	22,685,833	33,220,000	10,534,167
Total	**32,465,823**	**44,522,846**	**12,057,023**

Subregional Water Reclamation Plant Projects
2/28/2017

Apple Valley

Costs Incurred Up to 2/28/2017	Expended to Date	Contract Amount	Total Remaining
Planning/Design/Construction Management			
Planning	1,264,910	970,271	(294,639)
(Carollo/HDR) Design	2,552,681	3,117,326	564,645
(MWH) Construction Management	1,442,483	1,455,410	12,927
(Carollo/HDR) Engineering Services During Construction	1,379,033	1,610,418	231,385
Sub-Total	6,639,107	7,153,425	514,318
Construction			
Construction	23,743,101	32,670,000	8,926,899
	Expended to	Contract Amount	
Change Order (Contingency)	Date	SRF Loan	Lyles
Planning/Design/Construction Management	-	1,001,640	-
Construction - Cascade Drilling	252,951	376,986	-
Construction - Lyles	274,291	624,654	500,000
Sub-Total	527,242	2,003,280	500,000
Total	**30,909,450**	**42,326,705**	**11,944,497**

Eligible for Reimbursements	Claimed	Contract Amount	Total Remaining
Title 16	2,404,756	2,419,631	14,875
Proposition 13 - Recycling Grant	2,710,366	4,000,000	1,289,634
Proposition 84-AV Construction Cost	772,414	1,487,478	715,064
Proposition 01-AV Planning/Design/Construction Management	561,064	1,046,193	485,129
Proposition 01-AV Construction Cost	5,013,483	8,135,648	3,122,165
Total Grants	11,462,083	17,088,950	5,626,867
% of Total Project		*39%*	
SRF-AV Planning/Design/Construction Management	4,449,477	4,535,127	85,650
SRF-AV Construction Cost	14,997,890	22,537,632	7,539,742
Total	**30,909,450**	**44,161,709**	**13,252,259**

Claims Made as of 2/28/2017	Requested	Contract Amount	Total Remaining
Title 16	2,404,756	2,419,631	14,875
Proposition 13 - Recycling Grant	2,710,366	4,000,000	1,289,634
Proposition 84-AV Construction Cost	772,414	1,487,478	715,064
Proposition 01-AV Planning/Design/Construction Management	561,064	1,046,193	485,129
Proposition 01-AV Construction Cost	5,013,483	8,135,648	3,122,165
Total Grants	11,462,083	17,088,950	5,626,867
SRF-AV Planning/Design/Construction Management	4,449,477	4,535,127 *	85,650
SRF-AV Construction Cost	13,074,092	22,537,632	9,463,540
Total	**28,985,652**	**44,161,709**	**15,176,057**

*Note: Proposition 01 grant of $9.2M reduces AV SRF loan to $4.5M.

Nanticoke Interceptor

2/28/2017

Costs Incurred Up to 2/28/2017	Expended to Date	Contract Amount	Total Remaining
Planning/Design/Construction Management			
Planning		342,397	342,397
Design		101,524	101,524
Construction Management	263,903	407,373	143,470
Engineering Services During Construction			-
Sub-Total	263,903	851,294	587,391
Construction			
Construction - Christensen Brothers GE Inc.	2,726,705	3,207,896	481,191
	Expended to Date	Contract Amount	
Change Order (Contingency)		**SRF Loan**	
Planning/Design/Construction Management			-
Construction	302,268	400,000	97,732
Sub-Total	302,268	400,000	97,732
Total	**3,292,876**	**4,459,190**	**1,166,314**

Eligible for Reimbursements	Claimed	Contract Amount	Total Remaining
SRF-Planning/Design/Construction Management	263,903	851,294	587,391
SRF-Construction Cost	3,028,973	3,607,896	578,923
Total	**3,292,876**	**4,459,190**	**1,166,314**

Claims Made as of 2/28/2017	Requested	Contract Amount	Total Remaining
SRF-Planning/Design/Construction Management	263,903	851,294	587,391
SRF-Construction Cost	3,028,973	3,607,896	578,923
Total	**3,292,876**	**4,459,190**	**1,166,314**

VVWRA
Upper Narrows Interceptor and Emergency Projects
2/28/2017

Upper Narrows Interceptor and Emergency Projects
2/28/2017

Upper Narrows Interceptor (E004)

Planning/Design/Construction Management	Expended to Date	Contract Amount	Total Remaining
Planning	449,368	277,990	(171,378)
(Tetra Tech) Design	737,952	783,481	45,529
(URS/AECOM) Construction Management	1,497,717	993,673	(504,044)
(TetraTech) Engineering Services During Construction	531,269	348,290	(182,979)
Total	3,216,306	2,403,434	(812,872)
Construction			
Construction - J.W. Fowler	26,136,908	26,482,075	345,167
Construction - AV Construction	1,659,152	863,371	(795,781)
Contingency	Expended to Date	Contract Amount	
(Tetra Tech) Design	-	-	-
(URS/AECOM) Construction Management	271,346	325,612	54,266
(TetraTech) Engineering Services During Construction	-	-	-
Construction - J.W. Fowler	3,536,620	3,536,620	
Construction - AV Construction	214,287	214,287	-
Total	35,034,619	33,825,399	(1,209,220)

Claimed to Date			
FEMA/CalOES	27,948,377	29,811,603	1,863,226
FEMA/CalOES 10% Retention	3,105,375	3,312,400	207,025
UNR SRF Loan	3,515,952		
Total	34,569,704	33,124,003	2,070,251

Upper Narrows Emergency (E003)

Spent to Date 2/28/2017

Planning/Design/Construction Management	Expended to Date
Materials	811,401
Rented Equipment	3,088,746
Contracts	3,944,403
Force Account OT	42,805
Force Equipment	274,341
Total	8,161,696

Received to Date	
FEMA/CalOES	6,539,338
FEMA/CalOES 10% Retention	726,593
Total Grants to Date	7,265,931
VVWRA 6.25% Unreimburseable Cost	484,395
Total	7,750,326

Victor Valley Wastewater Reclamation Authority
Statement of Net Position
February 28, 2017

Assets and Deferred Outflows of Resources		2017
Current assets:		
Cash and cash equivalents	$	11,635,443
Interest receivable		4,117
Accounts receivable		2,603,274
Receivable from FEMA Grants		4,813,626
Accounts receivable - Other		7,583
Allowance for Doubtful Accounts		(48,990)
Materials and supplies inventory		86,516
Prepaid expenses and other deposits		232,457
Total current assets		19,334,026
Fixed assets:		
Capital assets not being depreciated		82,168,576
Capital assets being depreciated		86,656,489
Total capital assets		168,825,065
Total assets		188,159,091
Deferred outflows of resources		
Deferred outflows of resources - pension	$	1,160,894
Total		**189,319,985**

Liabilities, Deferred Inflows of Resources, and Net Position		
Current liabilities:		
Accounts payable and accrued expenses	$	381,821
Accrued interest on long-term debt		52,498
Long-term liabilities - due within one year:		
Compensated absences		48,647
Loans payables		1,831,033
Other payables		4,697,292
Total current liabilities		7,011,291
Non-current liabilities:		
Long-term liabilities - due in more than one year:		
Compensated absences		268,652
Other post employment benefits payable		1,332,084
Loans payable		67,810,599
Net Pension Liability		4,169,063
Other payables		24,518
Total non-current liabilities:		73,604,916
Total liabilities		80,616,207
Deferred inflows of resources		
Deferred inflows of resources - pension		441,731
Net position:		
Net position as of 6/30/16		125,121,717
Restricted for SRF loan covenant		2,649,149
Decrease in net position FY 17		(19,249,585)
Total net position	$	108,262,047
Total		**189,319,985**

Victor Valley Wastewater Reclamation Authority
Revenues and Expenses
Operations and Maintenance
For the Month Ended February 28, 2017

	Actual February 2017	YTD Actual FY 16-17	YTD Budget FY 16-17	APPROVED BUDGET FY 16-17
Revenues				
User Charges	$ 966,570	$ 8,371,860	$ 8,512,400	$ 12,768,600
Sludge Flow Charge	17,142	93,729	73,333	110,000
High Strength Waste Surcharges	-	16,007	13,333	20,000
ADM FOG Tipping Fee Revenue	20,425	146,191		
Septage Receiving Facility Charges	47,237	406,399	333,333	500,000
Reclaimed Water Sales	976	26,109	40,000	60,000
Potable Well Water Sales	48	424	333	500
Leased Property Income	50	400	400	600
Interest	-	-	-	-
Pretreatment Fees	6,100	36,979	30,000	45,000
Finance Charge	-	-	-	-
Sale of Assets, Scrap, & Misc Income	297	2,140	-	-
Total Revenues	$ 1,058,845	$ 9,100,238	$ 9,003,133	$ 13,504,700
Other Financing Sources				
SRF Loan Proceeds	-	-	-	-
Total Other Financing Sources	$ -	$ -	$ -	$ -
Total Revenues and Other Financing Sources	**$ 1,058,845**	**$ 9,100,238**	**$ 9,003,133**	**$ 13,504,700**
Expenses				
Personnel	$ 330,684	$ 3,137,018	$ 3,311,807	$ 4,967,711
Maintenance	51,770	767,820	1,222,523	1,833,784
Operations	71,100	958,637	2,127,287	3,190,930
Administrative	46,883	1,071,983	1,371,888	2,057,832
Construction	-	94,469	-	-
Total Expenses	$ 500,437	$ 6,029,927	$ 8,033,505	$ 12,050,257
Emergency Operating Expense				
Total Maintenance	$ -	$ 68,907	$ 44,667	$ 67,000
Total Operations	-	47	55,333	83,000
FEMA OPERATING EXPENSES	-	68,954	100,000	150,000
FEMA/Cal-EMA Grants	-	-	(610,316)	(915,474)
Total Emergency Operating Expense	$ -	$ 68,954	$ (510,316)	$ (765,474)
Revenues over Expenses before Debt Service and Transfers	**$ 558,408**	**$ 3,001,357**	**$ 1,479,945**	**$ 2,219,917**
Debt Service				
SRF Principal	$ -	$ 114,582	$ 465,167	$ 697,751
SRF Interest	-	40,715	229,059	343,588
Total Debt Service	$ -	$ 155,297	$ 694,226	$ 1,041,339
Fund Transfer Out				
Inter-fund loan payment to Capital	1,748	14,592	-	-
Total Fund Transfer Out	$ 1,748	$ 14,592	$ -	$ -
Excess Revenues Over Expenses	$ 556,660	$ 2,831,468	$ 785,719	$ 1,178,578

Victor Valley Wastewater Reclamation Authority
Revenues and Expenditures
Repairs and Replacement
For the Month Ended February 28, 2017

	Actual February 2017	YTD Actual FY 16-17	YTD Budget FY 16-17	APPROVED BUDGET FY 16-17
Revenues				
R&R Revenues	$ -	$ -	$ -	$ -
Total Revenues	$ -	$ -	$ -	$ -
Other Financing Sources				
SRF Loan Proceeds	$ -	$ -	$ -	$ -
Total Revenues and Other Financing Sources	$ -	$ -	$ -	$ -
Capital Expenses				
Personnel	$ -	$ -	$ -	$ -
Maintenance	70,016	394,215	538,800	808,200
Operations	-	-	13,800	20,700
Administrative	-	-	-	-
Construction	-	49,226	-	-
Total Capital Expenses	$ 70,016	$ 443,441	$ 552,600	$ 828,900
Revenues over Expenses before Debt Service and Transfers	$ (70,016)	$ (443,441)	$ (552,600)	$ (828,900)
Debt Service				
SRF Principal	$ -	$ -	$ -	$ -
SRF Interest	-	-	-	-
Total Debt Service	$ -	$ -	$ -	$ -
Fund Transfer In				
Interfund Loan Payment from O&M	$ -	$ -	$ -	$ -
Total Fund Transfer In	$ -	$ -	$ -	$ -
Excess Revenues Over Expenses	$ (70,016)	$ (443,441)	$ (552,600)	$ (828,900)

Victor Valley Wastewater Reclamation Authority
Revenues and Expenditures
Capital
For the Month Ended February 28, 2017

	Actual February 2017	YTD Actual FY 16-17	YTD Budget FY 16-17	APPROVED BUDGET FY 16-17
Revenues				
Connection Fees	$ 50,200	$ 587,780	$ 466,667	$ 700,000
Title 16 Grant - Subregional	-	-	-	-
Grant- Water Recycling	-	854,032	844,667	1,267,000
Sale of Assets, Scrap, & Misc Income	-	-	-	-
Interest	4,697	28,417	6,667	10,000
Proposition 1 Grant	-	1,911,849	2,333,333	3,500,000
Propostition 84 Grant	-	-	-	-
LAIF FMV Adjustment	-	-	-	-
Grant - FEMA/Cal-EMA	-	978,765	3,002,267	4,503,400
Total Revenues	$ 54,897	$ 4,360,843	$ 6,653,600	$ 9,980,400
Other Financing Sources				
SRF Loan Proceeds	$ 2,120,139	$ 23,812,291	$ 29,833,427	$ 44,750,140
Total Revenues and Other Financing Sources	$ **2,175,036**	$ **28,173,134**	$ **36,487,027**	$ **54,730,540**
Capital Expenses				
Personnel	$ -	$ -	$ 266,985	$ 400,477
Maintenance	-	163	-	-
Operations	-	12,068	114	171
Administrative	-	19,474	-	-
Construction	819,408	20,645,766	32,074,235	48,111,352
Total Capital Expenses	$ 819,408	$ 20,677,471	$ 32,341,333	$ 48,512,000
Revenues over Expenses before Debt Service and Transfers	$ 1,355,628	$ 7,495,663	$ 4,145,693	$ 6,218,540
Debt Service				
SRF Principal	$ 211,877	$ 440,779	$ 751,973	$ 1,127,959
SRF Interest	46,274	71,024	147,078	220,617
Total Debt Service	$ 258,151	$ 511,803	$ 899,051	$ 1,348,576
Fund Transfer In				
Interfund Loan Payment from O&M	$ 1,748	$ 14,592	$ -	$ -
Total Fund Transfer In	$ 1,748	$ 14,592	$ -	$ -
Excess Revenues Over Expenses	$ 1,099,225	$ 6,998,452	$ 3,246,643	$ 4,869,964

VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY

SRF LOAN SUMMARY

February 28, 2017

	Existing 9.5 MGD Capital Improvements	Existing 11 MGD Expansion	Existing North Apple Valley Interceptor	Existing Phase IIIA Regulatory Upgrades	In Progress UN Replacement Project	In Progress Nanticoke Pump Station Bypass	In Progress Hesperia Subregional	In Progress Apple Valley Subregional	Total Agreed SRF Loans
SRF LOANS									
Original Amount Financed	$ 4,069,859.00	$ 11,430,726.00	$ 4,084,688.00	$ 18,581,561.00	$ 4,286,380.00	$ 4,459,190.00	$ 40,658,809.92	$ 27,129,023.47	$ 114,700,237.39
SRF Interest Rate (fixed)	2.60%	* 0.00%	2.50%	2.70%	1.90%	1.90%	1.00%	1.00%	Varies
Local Match Amount	-	1,905,159.00	-	-	-	-	-	-	1,905,159.00
Principal Forgiveness	n/a	n/a	n/a	**3,000,000.00**	n/a	n/a	n/a	n/a	3,000,000.00
SRF Amount Borrowed	4,069,859.00	9,525,567.00	4,084,688.00	15,717,667.66	4,286,380.00	4,459,190.00	40,658,809.92	27,129,023.47	109,931,185.05
Annual Payment Amount	265,049.56	579,869.96	258,151.05	1,027,609.73	259,234.79	238,350.61	1,574,511.25	1,050,520.94	5,253,297.89
Annual Payment Due Date	September 15	April 3	February 13	June 30	December 31	30-Jun	June 30	June 30	Varies
Loan Term (years)	20	20	20	20	20	20	30	30	Varies
Years remaining	4	6	8	17	19	20	30	30	Varies
DEBT SERVICE									
Loan Outstanding Balance	**755,525.18**	**3,479,219.78**	**1,639,101.83**	**13,208,992.89**	**4,182,082.93**	**4,459,190.00**	**40,658,809.92**	**27,129,023.47**	**95,511,946.00**
Principal Paid to Date	3,314,333.82	7,951,506.22	2,445,586.17	2,508,674.77	104,297.07	-	-	-	16,324,398.05
Interest Paid to Date	1,134,570.35	-	910,377.48	1,543,989.02	39,603.00	-	-	-	3,628,539.85
First Payment Date	Sept. 15, 2000	April 3, 2003	Feb. 13, 2005	June 30, 2013	Dec. 31, 2016	Jun 30, 2018	February 28 2019	February 28 2019	Varies
Final Payment Date	Sept. 15, 2019	April 3, 2022	Feb. 13, 2024	June 30, 2032	Dec. 31, 2035	Jun. 30, 2037	February 28, 2048	February 28, 2048	Varies
Effective interest rate	2.544%	1.707%	2.499%	2.700%	1.900%	1.900%	1.00%	1.00%	Varies

* An imputed interest rate is 1.707% per annum.

Victor Valley Wastewater Reclamation Authority

Operations and Maintenance Report

February 2017

Victor Valley Wastewater Reclamation Authority
Operations and Maintenance Report
February 2017

TO: Logan Olds, General Manager

FROM: Operations & Maintenance Staff

SUBJECT: OPERATIONS/MAINTENANCE REPORT

DATE: March 3, 2017

The following information details the operation of the Victor Valley Wastewater Reclamation Authority Facility. Included in this report is pertinent information regarding flows, process control information, process sampling, permit requirements, operations activities, and facility maintenance activities. This report is based on O&M activities for February 2017.

	Total	Average
Effluent to Mojave	194.616	6.9506
Effluent to Ponds	98.07	3.5028

		Limit
Biochemical Oxygen Demand (BOD)		10 mg/l
Effluent to Mojave	2.8	
Percent Removal	99.40%	

		Limit
Total Suspended Solids (TSS)		10 mg/l
Effluent to Mojave	<2.0	
Percent Removal	>99.68	

		Limit
Turbidity		2.0 ntu
30 Day Average	0.61	

Major Operations Activities

Headworks

The Headworks area operated as intended throughout the months with normal equipment maintenance performed on a weekly basis.

Primary Treatment

Overall removal efficiency of the primary clarifiers was <54.27% removal of influent BOD and 78.34% removal of TSS. Typical operating parameters are 25 to 35 percent removal of BOD and 50 to 60 percent removal of TSS. The primary sludge concentration averaged 3.47% total solids at 79,995 gallons per day.

Primary clarifiers #1, #2 ,#3, #4, #5 and #6 are currently online and continue to treat all incoming flow. Primaries #7 and #8 remained offline for the month. With two clarifiers off line, the remaining 6 primary clarifiers are capable of treating peak flows up to 23 MGD.

The digester gas conditioning system remains online. The system will prevent premature wear and tear on engines #2 & #3 by removing siloxanes by the addition of ferric chloride. The system increases fuel pressure to the blower gas system, allowing for more output from the blower engine. Digester #4 and 5 gas is mixed and sent to the gas conditioning system. This all but eliminates the use of Natural gas to run engines #2 and #3.

Staff continues to add ADM/ Grease to Daft #3 from Primaries and truck deliveries where it is the then feed it to Digesters #4 and #5. This operation is assisting in additional grease removal from the primary clarifiers and increased gas production in the anaerobic digesters.

Secondary Process

Secondary Clarifiers #1 thru #6 are currently offline, not needed at this time.

Aeration basins #1 thru 12 have been retrofitted with the new Aquarius diffusers and are currently performing very well reducing the RPM's on the Piller blower. Currently basins #1-6 and 7-12 are online.

Piller #1 is supplying air to basins #1-6, mixed liquor channel and aerated grit chamber. Waukesha Blower # 5 is online and is supplying AB's #7-12.

Staff continues to monitor the solids under aeration and SVI to compare against the SRT Master Control Program. The SRT Master program is performing well. The secondary process has been performing well as a result of the SRT Master Control Program. Weekly Nitrogen studies performed by VVWRA staff produced results below regulatory requirements.

Thioguard was not used during the month.

Secondary turbidity averaged 2.27 (NTU) during the month of February 2017
The 30 minute settleometer test averaged 205.7mL/L.
The average "pop time" of the MLSS was >99min.

Percolation Ponds

South percolation ponds #7, #8, #10, #11, #12 and #13 were used and rotated during the month.

All Percolation Pond freeboard level requirements have been met during the month. All ponds are being rotated on a daily basis.

Percolation Pond #6 remains off line and drained to minimal levels. No flow seepage has been observed.

The north percolation ponds were used sparingly during the month.

Tertiary Filters

Aqua Diamond Filters #1 and #2 were utilized for the month of February. Filter Effluent average Turbidity of 0.69 NTU.

Solids

Digester #1 was drained on 8/19/16 and is offline . Digester #2 and #3 remain off line, drained and clean.

Staff has been operating Digester #4 and #5 at predetermined sludge levels which is controlled by the SCADA system.

VVWRA received 510,624gallons of ADM (Anaerobically Digestible Material) and FOG (Fats Oil and Grease). Total is comprised of 459,026 gallons of ADM and 51,598 gallons of FOG.

A Total 24,017,502 cf/day of gas was created by digesters #4 and 5 for the month of February 2017. That is an average gas production of 857,768cf/day.
Digester #4 averaged 453,161cf/day.
Digester #5 averaged 404,607cf/day.

Digester Volatile Acid/Alkalinity averaged 0.016 for the month.

Ultra Violet Disinfection (UV)

The UV system is currently operating via two channel mode since 12/22/2017.

Monthly UV intensity probe and flow meter calibration checks were performed.

Permit Continuous Monitoring Requirements and Permit Violations

All permit required, continuous monitoring equipment was on-line, in calibration and working properly during the month.

Date of last reportable incident: March 10, 2015
Days since last reportable incident: 716 days

Discharge Sampling

All required samples during the month of February 2017 were collected and processed as scheduled.

Miscellaneous

Apple Valley Pump Station wet well was cleaned out twice in February 2017. Grease removed was transferred to facility scum wet well. AVPS grease continues to be pumped to the anaerobic Digesters #4 and #5.

Maintenance Activities

CMMS Work Order Activity

VVWRA KPI Report

3/3/2017
7:08 AM

2/1/2017 - 2/28/2017

KPI	Count	Percent
Planned Work Total	167	
Planned Work Completed	158	94.61%
Planned Work Completed On-Time	139	83.23%
Planned Work Incomplete	9	5.39%
Planned Work Completed Late	21	12.57%
Total Work Completed	453	
Reactive Work Completed	66	14.57%
PM Work Completed	292	64.46%

Safety

1. Monthly Vehicle Safety Inspections completed.
2. Monthly gas tech monitor inspections completed.

3. Eyewash safety showers inspected.
4. Monthly SCBA inspections.
5. Hazardous storage area inspection.
6. Spill kit inspections.
7. Hazwoper Refresher.

Preliminary Process

1. Aqua Guard pre-treatment screen inspected and serviced.
2. Headwork's Conveyor Belt Lube & Inspect.
3. Barscreen Maintenance complete.
4. Septage EQ Basin cleaning.
5. Septage EQ pump repack.
6. Septage Auger replacement.

Primary Process

1. All PH and conductivity probes cleaned and calibrated.
2. Influent PH and conductivity probe calibrations complete.
3. Primary sludge grinder replacement.
4. Primary sludge motor starter replacement.

Secondary Process

1. Piller blowers 1 & 6 weekly inspections complete.
2. Service Air compressors inspection and service completed.

3. Waukesha engines inspections.
4. Piller #1and #6 Filters Replacement.
5. Piller #6 Piller repaired guide vane on the compressor.
6. Piller #6 discharge check valve replacement.

Tertiary

1. Monthly gear box and platform drive wheel service complete
2. Filter #1 & #2 monthly platform gear box PM's comp
3. Filter #1 & #2 monthly backwash wasting pumps oil checks complete
4. Aqua diamond #1 piping rubber coupling replacement.
5. All PH and conductivity probes cleaned and calibrated
6. Perc Pond #3 pump rebuild pump installed.

Ultra Violet Disinfection (UV)

1. PH and conductivity probes cleaned and calibrated
2. UVT probe calibrated
3. UV blower service completed.

Treatment Disposal

1. DAFT #1 and #2 Air Compressors 1&2 PM services complete.

2. DAFT #1 lube

3. Sludge lagoon transfer pumps repack.

Miscellaneous Plant

1. Serviced AHU for Blower Buildings completed.

Plant Equipment

G/CHP 1&2

1. Monthly UREA refill completed CHP #1 & #2
2. CHP1&2 differential pressure readings taken within normal range, Gas DP pressure collected within normal range
3. Monthly gas samples collected.
4. CHP 1&2 Source test completed.
5. CHP 1&2 spark plug replacement.
6. CHP #2 Oil change completed.

Gas Conditioning Skid

1. Blowers #1 & #2 inspections complete.

2. Monthly gas sampling collected.
3. H2S Vessel #1 media replacement.

OGPS

1. Monthly Gen Test completed
2. Pumps pulled and inspected drag

AVPS

1. Grease pump out.
2. OTOE PS Emergency temporary pump installed.

OFFROAD EQUIPMENT

1. Brown Bear weekly PM's completed.
2. JCB front loader weekly PM's complete.
3. Brown Bear alternator replacement.

FLEET

1. Monthly fleet inspections completed pumps, vehicles, hose reel trailer, light towers.
2. Partial Fleet vehicle smog inspections completed.

Victor Valley Wastewater Reclamation Authority

Environmental Compliance Department Report

February 2017

VVWRA Environmental Compliance Department
Industrial Pretreatment Program

I. Interceptors Operation and Maintenance:

1. **Interceptors cleaning & CCTV:**
   - ✓ 13182ft of the South Apple Valley Interceptor was cleaned in February 2017
2. **Interceptors Inspections:**

The following interceptors were visually inspected for signs of damage, vandalism and evidence of sanitary sewer overflows:

- ✓ South Apple Valley & North Apple Valley.
- ✓ Schedule 1, 2, 3 & 4
- ✓ UNE Bypass HDPE pipe
- ✓ Hesperia I Ave and Santa Fe.
- ✓ CSA 64
- ✓ Adelanto

3. **Damage and repair summary:**
   - ✓ No Damage reported
4. **Sanitary sewer overflows (SSO) summary:**
   - ✓ Date of last reportable SSO: November 18th 2016
5. **Interceptors maintenance budget remaining:**
   - ✓ The fiscal year 2016-2017 Interceptor sewer maintenance amount remaining for sewer cleaning and inspection services is $84860.63
6. **Dig Alert Underground tickets processed:**
   - ✓ A total of Seventy-Five (75) USA Tickets were received and processed in February 2017.
7. **Flow monitoring Studies:**
   - ✓ A flow monitoring study by ADS Environmental is continuing.

II. Industrial pretreatment Activities:

1. **New Business Questionnaires and permits applications evaluated:**
   - ✓ Seven (7) New Business Questionnaires were processed in the month of February 2017.
   - ✓ Zero (0) New Business Inspections were conducted in the month of February 2017.
2. **New permits issued:**
   - ✓ Zero (0) New Class III permits were issued in the month of February 2017.
3. **Permit renewals issued:**
   - ✓ Thirty (30) Class III permit renewals were issued in the month of February 2017.
4. **Work Orders:**
   - ✓ 62 Work Orders were completed in February 2017
5. **Monthly revenues collected and invoices issued:**
   - ✓ Revenues: $4,100
   - ✓ Invoiced: $6,100
6. **Lucity CMMS Software implementation:**
   - ✓ The implementation of Lucity CMMS software for the industrial pretreatment program and the operations and maintenance of interceptors including GIS is ongoing.

III. Industrial Pretreatment Activities (continued)

1. **Current enforcement actions:**

✓ Zero (0) Notice of Violation was issued in February 2017.

2. **Current active industrial pretreatment permits:**

✓ The current number of VVWRA's industrial wastewater discharge permits is 430, they are comprised as follows:

1	Class I	Categorical Industrial User
10	Class II	Non-Categorical Significant Industrial User
409	Class III	Non-Significant Industrial User
2	Class IV	Zero Discharge Industrial User
9	Class V	Sanitary Waste Haulers

✓ The permitted establishments include:

317	Eating Establishments
4	Water Processing
17	Automotive
22	Car Wash/Truck Wash/Bus Wash
21	Grocery Store
14	Industrial
3	Photo Processing
3	Hospital
1	Prison
3	School
9	Waste Haulers

✓ Permitted businesses are distributed among member entities as follows: 172 in Victorville, 116 in Apple Valley, 119 in Hesperia and 1 in Oro Grande.

Victor Valley Wastewater Reclamation Authority

Environmental Compliance Department

Septage/FOG/ADM Monthly Report

February 2017

1. Septage/FOG/ADM receiving invoices and payments monthly report:

Payments and Invoices period: February 1st thru February 28th – Septage rate per Gallon: $ 0.0936
FOG/ADM rate per Gallon: $ 0.04

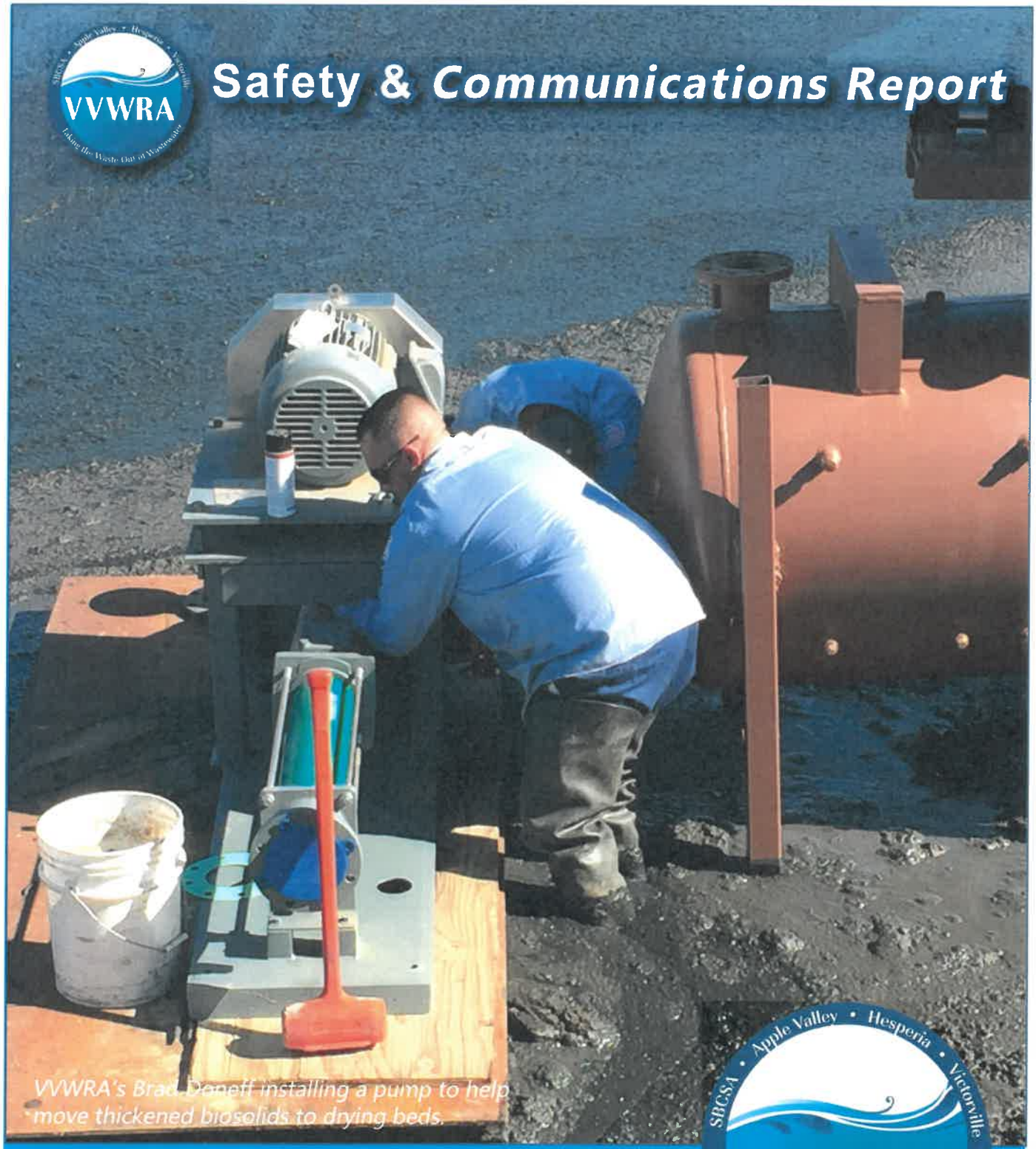
Receiving invoices

ID No	Septage Hauler	Invoice Date	Total Gallons	Invoice Amount
ABS000	Absolute Pumping	2/28/2017	48,000	$4,043.52
ALP000	Alpha Omega Septic Service	2/28/2017	150,798	$13,131.89
BUR000	Burns Septic	2/28/2017	104,000	$8,985.60
HON001	Honest Johns Septic Service, Inc	2/28/2017	62,150	$5,459.59
ROT001	T.R. Stewart Corp. dba Roto Rooter	2/28/2017	89,984	$7,606.12
USA000	USA Septic	2/28/2017	59,400	$5,260.32
ALP000	Alpha Omega Septic Service (Nutro)	2/28/2017	94,124	$3,351.56
COW000	Co-West Commodities	2/28/2017	180,000	$6,200.00
LIQ000	Liquid Environmental Solutions of CA	2/28/2017	0	$0
SMC000	SMC Grease Specialist, Inc.	2/28/2017	236,500	$8,140.00
WES004	West Valley MRF, LLC Burrtec Waste Industries, Inc.	2/28/2017	0	$0
Grand Totals			**1,024,956**	**$62,178.60**

Septage/FOG/ADM receiving payments:

ID No	Business Name	Payments Received
ABS000	Absolute Pumping	$2,920.32
ALP000	Alpha Omega Septic Service	$10,933.98
BUR000	Burns Septic	$19,833.84
HON001	Honest Johns Septic Service, Inc	$5,880.51
ROT001	T.R. Stewart Corp. dba Roto Rooter	$10,775.50
USA000	USA Septic	$8,040.24
ALP000	Alpha Omega Septic Service (Nutro)	$0
COW000	Co-West Commodities	$6,400.00
LIQ000	Liquid Environmental Solutions of CA	$0
SMC000	SMC Grease Specialist, Inc.	$10,340.00
WES004	West Valley MRF, LLC Burrtec Waste Industries, Inc.	$0
Grand Total		**$75,124.39**

Safety & Communications Report



VVWRA's Brad Deneff installing a pump to help move thickened biosolids to drying beds.

SBCSA • Apple Valley • Hesperia • Victorville

VVWRA

Taking the Waste Out of Wastewater

February 2016

Safety

STAFF SAFETY TAILGATE/ORIENTATION

- Feb. 2--Heimlich maneuver (choking prevention)

- Feb. 16--Accident Prevention

- Feb. 23--Hand Safety

Safety

Safety Policy Reviews/ Revisions

- CUPA CERS Business Plan
- Emergency Action Plan review

Safety Events/ Training

- Hazwoper Annual refresher
- CAL OSHA 30 hour training
- Crane test refresher

Unsafe Conditions Reported/Resolved

Date of last reportable illness/injury:
Dec 11th, 2014

Days since last reportable illness/injury:
806 Days

Safety

NEXT MONTH'S SCHEDULE OF STAFF TRAINING/SAFETY EVENTS :

- Safety Tailgates will be conducted at the Thursday weekly staff briefings.
- Safety Tailgates will be conducted at the monthly Administrative staff meetings.

Communications

ACTIVITIES

- Continued work on updating new web-site including work on internal pages

GRANICUS

- Maintained current website and social media sites including Facebook & Twitter.

LIKE US ON facebook

MEDIA COVERAGE

- Auditors: Victor Valley wastewater agency mismanaged $32 million in emergency funds--Daily Press 2-6-17

DAILY PRESS VVDailyPress.com

- High desert water treatment authority mismanaged millions in federal funds, audit says--Los Angeles Times 2-6-17

Los Angeles Times

- Audit Dings VVWRA Over Lackadaisical Stewardship of FEMA Repair Funds--San Bernardino County Sentinel 2-12-17

San Bernardino County Sentinel

- With scathing VVWRA audit, High Desert ratepayers could be losers--Daily Press 2-9-17

DAILY PRESS VVDailyPress.com

- A routine call, then a biting audit for VVWRA "I almost pooped a brick"--Daily Press 2-13-17

DAILY PRESS VVDailyPress.com

- WWEMA: A new paradigm for funding--Water Online 2-16-17

Water Online

DAILY PRESS

Auditors: Victor Valley wastewater agency mismanaged $32 million in emergency funds

Monday
Posted Feb 6, 2017 at 5:45 PM
Updated Feb 7, 2017 at 9:17 PM

The damning report is a major jolt to the authority and to its four-member joint powers authority — consisting of representatives from Apple Valley, Hesperia, Victorville and the county — which act as its governing board.

By **Shea Johnson**
Staff Writer
Follow

VICTORVILLE — The Victor Valley Wastewater Reclamation Authority did not properly manage nearly $32 million in FEMA grant funds for its major pipeline replacement project, an audit by the U.S. Department of Homeland Security's Office of the Inspector General (OIG) has found.

In determining that the authority did not comply with federal regulations in awarding or administering a total of $31.7 million in three contracts reviewed by the OIG pertaining to the Upper Narrows Pipeline Replacement Project, **the report published Jan. 24 concluded that FEMA "had no assurance that these costs were reasonable or that the Authority selected the most qualified contractors."**

High desert water treatment authority mismanaged millions in federal funds, audit says

A view of the 15 Freeway to the north through Hesperia and Victorville. (Glenn Koenig / Los Angeles Times)

By **Paloma Esquivel**

FEBRUARY 7, 2017, 4:00 AM

A wastewater treatment authority that serves large parts of the high desert, including Victorville, Hesperia and Apple Valley, mismanaged millions of dollars in federal emergency management funds, a U.S. audit has found.

The Victor Valley Water Reclamation Authority, which received the funds after major flooding six years ago led to a ruptured pipeline, did not comply with numerous federal regulations on Federal Emergency Management Agency contracts worth $31.7 million, according to the report by the Office of Inspector General of the Department of Homeland Security.

or gross mismanagement occurred."

The inspector general's office also found that the authority and one of its main contractors misled FEMA to fund more expensive repairs than necessary. That resulted in millions in federal funds awarded to the agency, the report says.

The office promised to present findings on that issue in another report.

David Wylie, a spokesman for the water reclamation authority known as VVWRA, said that officials were "disappointed" by the report and that the agency had "responded in detail to the concerns raised by" the inspector general.

The authority has previously undergone "a lengthy audit process and [provided] substantial legal authority and documentation as to why VVWRA believes that the findings" are incorrect, Wylie said.

According to the current audit, the authority repeatedly accepted, without verification, contractors' own assessments of costs and need for funds. One contractor's numerous modifications led the original price of its contract to triple from about $410,000 to $1.3 million, the report says.

The authority also failed to properly follow policy for how contractors should be selected, analyze bids to ensure reasonable costs and impose price ceilings on contractors.

Because the agency did not follow numerous rules meant to ensure that federal grant money is used properly, "FEMA has no assurance that these costs were reasonable," the report says.

The money was awarded to the authority to repair a pipeline that was washed out by the Mojave River in major floods in late 2010. The rupture sent 42 million gallons of sewage spilling into the river, officials said.

The pipeline project was completed last year.

The audit isn't the first sign of trouble at the agency.

In April of last year, the city of Victorville gave official notice that it would be leaving the authority because of what it said was "poor management of funds," said city spokeswoman Sue Jones.

However, the agreement requires 30 years' notice before participation can be terminated. So the city remains part of the authority.

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Twitter @palomaesquivel

Zika virus is here to stay. Here's how California is preparing for that new reality

S.F. deputy charged with giving gun to felon whom she had relationship with in jail, prosecutors say

Decades after deadly arson fire at Westlake apartment complex, LAPD announces arrests and possible motive

This article is related to: FEMA

San Bernardino • County Sentinel
News of Note from Around the Largest County in the Lower 48 States

Audit Dings VVWRA Over Lackadaisical Stewardship Of FEMA Repair Funds

Posted on February 12, 2017 by Venturi

The Victor Valley Wastewater Reclamation Authority misspent, improperly accounted for, misapplied or mismanaged $31.7 million in federal funds put at its disposal to complete the Upper Narrows Pipeline Replacement Project, justifying a further examination of the joint authority's books and performance, according to an audit completed last month.

The Office of the Inspector General with the U.S. Department of Homeland Security took exception with how the authority, which counts as its participants Apple Valley, Hesperia, Victorville and San Bernardino County, failed to carry out adequate cost/price analyses of bid proposals and did not apply the rigors of its own procurement policy or federal requirements regarding ensuring contractor performance in its rush to complete the project.

Completion costs on the project totaled $42 million by its July 2016 completion date. The project was necessitated, officials said, after winter storms in December 2010 washed out and ruptured a portion of a 29-year-old sewer line in the Mojave River, and roughly 42 million gallons of sewage was spilled into the river. The project permanently replaced a temporary pipeline installed after the storm-precipitated pipe rupture.

While the project was completed and appears to have achieved its stated goal, according to the audit the authority did not follow a federal mandate that accompanied the provision of the money. The federal government requires that records be kept cataloging the performance criteria of a project's contractors, what material procurements took place and what the rationales for those purchases were. Constant change orders, the documentation of and authorization for which were lacking, substantially increased the project cost.

The Office of the Inspector General has recommended that the Federal Emergency Management Agency, through which the funding was applied, and the State of California catalog the $31.7 million as "costs ineligible for funding." While the Federal Emergency Management Agency and state officials have previously indicated concern pertaining to the issues taken up by the Office of the Inspector General, they have not yet made official acceptance of the totality of the audit's findings. The report issued last

month was focused primarily on issues relating to contracting and accounting, while calling for further inquiry into what was termed "misleading information the authority provided to the Federal Emergency Management Agency to develop the scope of work" involved in the project. There has yet to be any documentation of the "misleading information" alluded to. If the Federal Emergency Management Agency accepts the audit's findings in their totality, the Victor Valley Wastewater Reclamation Authority – or rather its taxpaying participants consisting of water ratepayers in Victorville, Apple Valley, Hesperia and unincorporated county areas served by the authority – would be required to reimburse the full $31.7 million. Before the Federal Emergency Management Agency makes its determination, however, the Victor Valley Wastewater Reclamation Authority is due to provide to the Federal Emergency Management Agency its own comprehensive and final documentation of the project's contracting and payment records, along with explanation of any points in mitigation it can make with regard to the audit's conclusions. The Federal Emergency Management Agency would have the option of requiring full, partial or no restitution based on its analysis of the competing contentions. An appeals process would follow the Federal Emergency Management Agency's determination.

There has been a degree of tension between the Victor Valley Wastewater Reclamation Authority and one of the governmental entities under the aegis of which it is constituted, that being Victorville. That tension revolves around the authority's use of the funding available to it. While the Victor Valley Wastewater Reclamation Authority is a joint powers agency, the four governmental entities that are involved in it do not participate equally on a financial level. Victorville's contribution accounts for a whopping 70 percent of the authority's normal operating budget, which accounts for the extreme sensitivity its officials have over what they have sometimes seen as profligate spending.

The Victor Valley Wastewater Reclamation Authority's revenue, which is based on how much wastewater flow it receives and processes, had been reduced as a consequence of a 22-percent reduction in flow to the wastewater treatment plant since 2010, just before the mishap with the Upper Narrows Pipeline. Some of this is attributable to the drought conditions that persisted over that time frame. This was exacerbated by the City of Victorville's diversion of about a million gallons of wastewater flow per day, which had previously been processed by the authority's plant, to the city's own plant, resulting in the loss of revenue to the authority of roughly $900,000 per year thereafter. Victorville officials, beginning in 2015 and continuing into 2016, were critical of the Victor Valley Wastewater Reclamation Authority's stewardship of public funds. In 2015, Victorville City Councilman Jim Kennedy, who is a member of the Victor Valley Wastewater Reclamation Authority' board, said the authority was being too cavalier in the way it was spending money. Kennedy criticized the Victor Valley Wastewater Reclamation Authority's management team for not keeping a tighter rein on vendor and contractor performance, expressing discontent with the fashion in which the authority was allowing costs on the Upper Narrow's Pipeline replacement effort to escalate and then addressing the cost overruns by doing change orders, of which, Kennedy said, "There are so many you can't keep up with them."

Kennedy's then-council colleague Ryan McEachron lamented the Victor Valley Wastewater Reclamation Authority's "reckless spending."

Since 2015, the authority's revenue has decreased by more than $4 million. In the last week of July and first week of August 2016, the Victor Valley Wastewater Reclamation Authority initiated a restructuring effort, laying off 13 workers, or 28 percent of its workforce.

There have been suggestions that as the authority was struggling with its recent financial challenges, it has on occasion robbed Peter to pay Paul, moving funds from accounts intended for one purpose to cover shortfalls in the monetary allotments for other programs, and engaged in deliberately dodgy or sloppy bookkeeping to keep that managerial sleight of hand on the down low. This might account for some of the discrepancies noted in the audit.

While Apple Valley and Hesperia officials have not condoned, exactly, the authority's project management practices, spending or accounting, there is indication those municipalities believe that Victorville has gone too far in its dissension and has failed to live up to its commitments in terms of utilizing the service Victor Valley Wastewater Reclamation Authority provides, which has created an unnecessary fiscal crisis at the authority.

The improperly managed $31.7 million alluded to in the audit was that paid out for construction, construction management and engineering on the project.

David Wylie, the spokesman for the Victor Valley Wastewater Reclamation Authority's spokesman, said, "The Victor Valley Wastewater Reclamation Authority has received the preliminary recommendations by the Office of the Inspector General in connection with its audit of the project to rebuild the Victor Valley Wastewater Reclamation Authority's pipeline which was washed out by the Mojave River during a flood on December 26, 2010. The pipeline dated back to 1982 and was originally built in the Mojave River. As a result of the rupture, 42 million gallons of sewage were spilled into the Mojave River. Several options were considered to replace the pipeline and, after extensive engineering studies, it was determined that the most efficient, cost effective and environmentally friendly option was to tunnel under the Mojave River and avoid another potential spill. The Victor Valley Wastewater Reclamation Authority is disappointed by the current Office of the Inspector General's recommendations, in part because the Office of the Inspector General seems to have issued its recommendations without reviewing Victor Valley Wastewater Reclamation Authority's response to previous comments and questions by the Office of the Inspector General almost a year ago. Indeed, the Victor Valley Wastewater Reclamation Authority has previously responded in detail to the concerns raised by the Office of the Inspector General, undertaking a lengthy audit process and providing substantial legal authority and documentation as to why the Victor Valley Wastewater Reclamation Authority believes that the findings by the Office of the Inspector General are incorrect. In its current findings, the Office of the Inspector General has primarily focused on a single engineering contract worth approximately $1.3 million dollars out of a Federal Emergency Management Agency-funded emergency project worth over $30 million dollars. It is worth noting that throughout this project, the Victor Valley Wastewater Reclamation Authority reported to the California Office of Emergency Services, which was the agency that worked closely with Federal Emergency Management Agency in granting and administering the Federal Emergency Management Agency funds for this project. The Victor Valley Wastewater Reclamation Authority is nevertheless prepared to keep working closely with Federal Emergency Management Agency and the California Office

of Emergency Services in reviewing the Office of the Inspector General's recommendations and addressing them."

Don Holland, the policy advisor to Supervisor Robert Lovingood, in whose First District the Victor Valley Wastewater Reclamation Authority functions, told the Sentinel, "Supervisor Lovingood has no comment."

Posted in Uncategorized | Leave a reply

DAILY PRESS

With scathing VVWRA audit, High Desert ratepayers could be losers

Thursday
Posted Feb 9, 2017 at 4:13 PM
Updated Feb 9, 2017 at 4:29 PM

Asked to consider the worst-case scenario, Logan Olds said it would be at least 2.5 years before the agency would have to face the unenviable task of repaying $31.7 million because there were "three major steps" before that circumstance could rear its ugly head.

By **Shea Johnson**
Staff Writer
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Editor's note: This is the first in a series of follow-up stories on the audit of the Victor Valley Wastewater Reclamation Authority. Early next week, an article will focus on the agency's steps during the project process and its shock over the audit's unexpected findings.

VICTORVILLE — Of the four recommendations made by federal auditors in their scathing yet fiercely disputed report against a local wastewater agency, one stands out more than the others.

In finding that the **Victor Valley Wastewater Reclamation Authority mismanaged $31.7 million in Federal Emergency Management Agency grant funds** for a major pipeline replacement project, auditors recommended that FEMA disallow the funds as "ineligible costs."

DAILY PRESS

A routine call, then a biting audit for VVWRA

Monday
Posted Feb 13, 2017 at 4:15 PM
Updated Feb 13, 2017 at 4:37 PM

In March, OIG appeared prepared to move forward with findings that the authority's accounting and expenses were "generally acceptable," records show.

By **Shea Johnson**
Staff Writer

Editor's note: This is the latest in a series of follow-up stories on the audit of the Victor Valley Wastewater Reclamation Authority.

VICTORVILLE — Six months before federal auditors submitted a draft report to the local wastewater agency, **calling into question its handling of $32 million in emergency funds**, the two sides participated in a teleconference.

At that point, the Department of Homeland Security's Office of the Inspector General had completed 95 percent of its report, and officials were reviewing a draft outline with Logan Olds, the general manager of Victor Valley Wastewater Reclamation Authority.

The briefing, conducted on March 17, was focused on the authority's contract procurements for its major pipeline replacement project and acted as a final notice to VVWRA to provide all documents related to the OIG's ongoing audit as it neared conclusion, according to records reviewed by the Daily Press.

Eight months since beginning the process, auditors still had questions over an engineering contract, the far smaller of three agreements it reviewed for the Upper Narrows Pipeline Replacement Project, and particularly how the authority might have incurred at least $1.28 million in ineligible contract costs.

But they appeared prepared, nevertheless, to move forward with findings that the authority's accounting and expenses were "generally acceptable," records show.

"I think the only part (of the report) that you haven't seen which is important is the — the overall conclusion," Devin Polster, an audit manager with OIG, said during the teleconference, "that the authority did generally comply with federal regulations and FEMA guidelines in accounting for and extending grant funds."

The sides then discussed any lingering questions, the authority's efforts to submit any outstanding documents and the framework for the remaining parts of the audit process. It included sending the report through different leadership channels and potentially subsequent "slight modifications" that might alter the organization of grammar in the report and other minutiae.

By July, however, the authority had not heard from OIG, according to emails reviewed by this newspaper, and was told that a senior auditor had been assigned to assist finishing the report to supplement one auditor who retired and another who had been on an extended leave.

Six months after the teleconference, on Sept. 26, Olds received an email announcing the draft audit had been completed. Its title shocked Olds and other VVWRA officials: "The Victor Valley Wastewater Reclamation Authority in

Victorville, California, Did Not Properly Account for and Expend $31.7 Million in FEMA Grant Funds."

It would ultimately be published in similar sentiment in late January.

"I almost pooped a brick," Olds said in a Thursday interview at the Daily Press.

He shared his bafflement in an Oct. 14 email to David Rogers, a disaster assistance programs specialist with the California Office of Emergency Services, saying that the authority was "unpleasantly surprised by the tone and substance" of the report, which came "at complete odds with the previous discussions" with OIG.

The OIG's public affairs office did not respond to an email Monday seeking an explanation on why the draft and final audit reports appeared to deviate so much from the tenor of the teleconference several months before.

But the authority now finds itself suddenly on the defensive and reeling from the audit's conclusions, that it mismanaged $31.7 million in construction, construction management and engineering contracts for the pipeline replacement project declared "functionally finished" last summer.

A subsequent OIG recommendation to the Federal Emergency Management Agency — to disallow $31.7 million in emergency grants — will be decided by FEMA no later than July 31.

Being forced to repay those funds for the project, which permanently replaced temporary pipeline installed after severe storms in December 2010 ruptured a three-decade-old sewer line in the Mojave River, **would almost certainly lead to rate increases for customers in Victorville, Apple Valley, Hesperia and the unincorporated county areas served by VVWRA**, although Olds said that predicament is at least 2 1/2 years away.

Since the Daily Press first revealed the audit's findings a week ago, authority officials have adamantly defended their management of federal funds, batting away claims that they didn't appropriately account for contract costs, follow the authority's own procurement policies or maintain sufficient related records.

Olds said that the OIG never incorporated into the report documents provided to it, although federal auditors say records they received were largely already on hand.

A follow-up report by OIG is expected to target "misleading information the Authority provided to FEMA to develop the scope of work" for the project.

Piero Dallarda, an attorney with Best Best & Krieger, which provides legal counsel to VVWRA, said VVWRA was waiting for more specifics before it can identify who, exactly, the OIG is accusing of wrongdoing — whether it be the authority's finance department, administrators or others.

Olds said he has no problem with the audit's findings being publicized since it might, he suggested, shed light on the "gross injustice" now faced by the authority.

Two days after the audit was published Jan. 24, an independent auditor retained by the authority since 2010 presented the VVWRA board with its own findings for fiscal year 2015-16: The authority was compliant with federal grant regulations for that year. The report didn't cover the grants in question, which were awarded years earlier.

But Olds was quick to point out that no issues have been raised by the auditor in seven years.

*Shea Johnson can be reached at 760-955-5368 or **SJohnson@VVDailyPress.com**. Follow him on Twitter at **@DP_Shea**.*

Water Online

Guest Column | February 16, 2017

WWEMA Window: A New Paradigm For Funding

By Bill Decker

Every four years, the American Society of Civil Engineers (ASCE) releases a new report card on the state of our nation's infrastructure, and their 2013 grade for both water and wastewater was a "D". That report estimated that the infrastructure needed $3.6 trillion in investment by 2020. I do not look for a significant movement in our current grade for either water or wastewater with the 2017 report when it is released this year, because the funding at the level required to significantly change our infrastructure has not been made except at a few local utilities.

While there are some municipalities that have passed rate increases to fund modernization, for the most part our water rates are among the cheapest in the developed world. Albert Einstein said that "We cannot solve our problems with the same thinking we used when we created them." I submit that our problem in the industry is not purely a lack of public funding, but our mentality is that we cannot raise rates and must depend on more central funding to modernize and maintain the infrastructure that we already have. This is a paradigm that we need to break through.

I believe that every municipality wants to modernize and maintain their infrastructure, but the truth is that federal, state, and local funding has not been adequate for decades. Largely due to decisions in the past, every government entity has more demands for funding than can be met – and in today's sharply polarized political landscape, even great ideas struggle to gain bipartisan support. Because our water infrastructure is largely out of sight, it often lacks the public support for funding until a crisis brings it back into focus for both government officials and the public. But like the many water main breaks that occasional make the news, these crises soon fade due to the incessant political noise, tweets, and two-second sound bites. The solution to our industry funding gap is unfortunately not going to come from the federal or state government until politicians resolve to work together for the common good rather than for the advancement of one party's political agenda. The solution needs to largely come from our local municipalities and the industry working together.

First, as an industry we need to become active locally to raise the awareness of the state of our infrastructure and the investment required. As one congressman famously remarked, "You don't get the funding because you don't have the votes." Our industry supports every other industry and without water our entire economy would quickly grind to a halt. In essence, every other industry should advocate for investment within the water industry.

But the solution is not purely dependent on public funding. Manufacturers have products that they are trying to bring to the market to lower the operational cost of treating water and wastewater, as well as decreasing the lifecycle cost. However, we collectively find the process to be overly long and unduly difficult due to the labyrinth of regulations that vary from state to state and the reluctance from virtually every utility to try a technology until someone within their state is already using it. We have created technology clusters, forums, focus groups, as well as programs associated with numerous trade associations in an effort to break through this resistance to new technologies with limited but growing success.

An old maxim states "necessity is the mother of invention," and in this regard the necessity for increased funding may have already been the mother of a new solution. I believe that we are on the forefront of a new movement in the industry that is a type of public-private partnership in conjunction with the effort to become energy-neutral.

Reading various trade journals, I am encouraged by the work at Victor Valley Water Reclamation District. General Manager Logan Olds champions the use of their state-of-the-art "biogas to energy program," which they have developed through a novel pilot approach. He stated that by 2016, the plant would produce 73 percent of its own energy. Long term, they could supply energy back to the grid. Imagine a world where every city became an energy exporter instead of an energy consumer through their water treatment facilities. This would radically shift the landscape for both the water industry and the power industry.

Another case is DC Water, where general manager George Hawkins recently announced the creation of Blue Drop, a nonprofit organization with the "goal of marketing products and services that DC Water has already developed." Under this type of organization, utilities are able to expedite development of new technologies for water treatment in conjunction with manufacturers as well as possibly other agencies such as academic institutions. They could then jointly own intellectual property that they could then license to other municipalities. This type of peer-to-peer marketing is not completely new to our industry, but this could result in a partnership where manufacturers could test their equipment at a plant that

had a vested interest in the mutual success. This new way of thinking could unleash improvements in the plant in a quicker fashion which benefits both the plant and the manufacturer. It also allows other utilities to learn from work at organizations like DC Water without investing in some of the research, again allowing them to save money on future piloting.

Neither of these programs alone will solve the shortage of funding in the industry, but they are a start to an alternative source of funding. Programs like these that team the best talent from the manufacturing community along with engineers and utilities working together to develop energy-neutral plants and diversified revenue streams will change our dependence on public funding. We all need to take an active role in our industry and I commend general managers Olds and Hawkins for their leadership in the industry.

Bill Decker is Vice President and General Manager, Equipment and Services Group, for Aqua-Aerobic Systems Inc. (a Metawater Company) in Loves Park, IL. He is a member of the Water and Wastewater Equipment Manufacturers Association's Board of Directors and is Vice Chair of its Marketing and Member Services Committee. For more information about WWEMA, go to www.wwema.org.

Image credit: "Money_014," Barta IV © 2013, used under an Attribution 2.0 Generic license: https://creativecommons.org/licenses/by/2.0/

DAILY PRESS

Apple Valley will return $798K to Wastewater Fund after Prop 218 settlement

Wednesday
Posted Feb 15, 2017 at 8:39 PM
Updated Feb 15, 2017 at 9:14 PM

By _____
Staff Writer

Follow

APPLE VALLEY — A lawsuit filed last year alleging town officials violated Proposition 218 by illegally transferring nearly $7 million from its Wastewater to its General Fund to bankroll expenses unrelated to sewer service has been settled.

The suit — filed March 28, 2016, by town resident Christina Lopez-Burton — also claimed Prop 218 violations related to flawed sewer rate increases that exceeded the cost of providing service, disproportionate rates among customers and failure to provide proper notice of rate increases.

Per the settlement, the town will pay Lopez-Burton's attorney fees totaling $75,000 and transfer $798,000 into a reserve account within the Wastewater Fund for capital improvement projects to the sewer system.

The town will also conduct a periodic wastewater rate study — Lopez-Burton alleged a study had not been done in "at least two decades" — to develop user fees and charges, as well as reset the monthly wastewater rate for some 22,000 customers to $31.43 from the current $35.04.

The reset is effective March 1, according to the settlement.

In March 2013, according to the suit, the Town Council approved raising the sewer rate by more than 15 percent. Then, in June 2014, another approval raised the rate by a total of 48 percent through Fiscal Year 2018-19.

The increases came after Victor Valley Wastewater Reclamation Authority, which treats the town's wastewater, increased treatment costs by 14.9 percent in 2012, according to the suit.

Town attorneys told the Daily Press on Wednesday the town was "simply imposing the charges set forth by VVWRA," but the suit alleged violations due to the lack of a rate study.

An additional term stipulated the Council's announcement of the settlement, which was made by Mayor Scott Nassif during Tuesday's regular meeting following closed session.

"The Town Council, in order to avoid costs and expenses of protracted litigation, has unanimously approved a settlement agreement resolving (the lawsuit)," Nassif said before stating the terms.

According to the suit, the town's alleged illegal transfer of wastewater funds began in FY 2012-13 when officials moved $1,668,538 to the General Fund.

That was followed by a $1,563,943 transfer in 2013-14, an estimated $1,707,400 in 2014-15 and a budgeted $1,896,510 for 2015-16.

Town officials said the transfers were justified as they represented reimbursement of expenses the General Fund incurred on behalf of the "wastewater enterprise," court documents show.

Lopez-Burton's suit, however, stated that "many of the reimbursements do not make sense."

Eric Benink — Lopez-Burton's attorney — said the transfers were made, in part, to supplement the Parks & Recreation and the Apple Valley Golf Course funds.

"Returning some of these funds was important because they were never supposed to be used for these General Fund purposes," Benink told the Daily Press.

In FY 2015-16 — by way of example, according to the suit — a transfer totaling $1,072,660 was made to the Parks & Recreation Fund while $349,968 went into the Golf Course Fund.

"Neither the Parks and Recreation Department nor the Town's golf course support wastewater operations," the suit read. "These transfers violate (Prop 218)."

Attorneys for the town declined to comment on the allegations, but Thomas Rice called the Council's unanimous approval of the settlement a show of the town "taking the high road" in order to "move forward."

"Even if we're successful," Rice said, "the town would be spending far more should (the case) go to trial."

The town now has 10 days to pay the attorney fees and may deduct payment from the transfer amount, according to the settlement.

The transfer itself must be made no later than June 30, and two declarations must be provided to Benink within five days of the transfer, the settlement shows.

For her part, Lopez-Burton must file a request for dismissal of the suit within two court days.

Matthew Cabe can be reached at _____ *or at 760-951-6254. Follow him on Twitter* _____.

DAILY PRESS

Auditors: Victor Valley wastewater agency mismanaged $32 million in emergency funds

Tuesday
Posted Feb 14, 2017 at 11:10 AM

The damning report is a major jolt to the authority and to its four-member joint powers authority — consisting of representatives from Apple Valley, Hesperia, Victorville and the county — which act as its governing board.

By Shea Johnson Staff Reports

VICTORVILLE — The Victor Valley Wastewater Reclamation Authority did not properly manage nearly $32 million in FEMA grant funds for its major pipeline replacement project, an audit by the U.S. Department of Homeland Security's Office of the Inspector General (OIG) has found.

In determining that the authority did not comply with federal regulations in awarding or administering a total of $31.7 million in three contracts reviewed by the OIG pertaining to the Upper Narrows Pipeline Replacement Project, **the report published Jan. 24 concluded that FEMA "had no assurance that these costs were reasonable or that the Authority selected the most qualified contractors."**

Federal investigators are recommending that FEMA and the state of California should, as a result, disallow the $31.7 million as "ineligible costs" and seek to figure out whether the authority committed any other regulatory or ethical violations or acts of gross mismanagement.

The damning report is a major jolt to the authority and to its four-member joint powers authority — consisting of representatives from Apple Valley, Hesperia, Victorville and the county — which act as its governing board. But it also could strengthen the position long held by the city of Victorville, a JPA member, that the authority's spending and management had become too financially risky.

"VVWRA is disappointed by the current OIG's recommendations," spokesman David Wylie said in a statement Monday, "in part because the OIG seems to have issued its recommendations without reviewing VVWRA's response to previous comments and questions by the OIG almost a year ago."

Wylie said the authority had responded in detail, undertaken its own audit and provided "substantial legal authority and documentation" to make its case as to why the findings were inaccurate.

The $42-million pipeline replacement project in question was declared "functionally finished" in July. It permanently replaced a temporary pipeline installed after severe storms in December 2010 washed out and ruptured a portion of nearly 30-year-old sewer line in the Mojave River, spilling 42 million gallons of sewage into the river in the process.

Auditors found that VVWRA failed on several fronts with respect to emergency funds used on the project, an ambitious and complex effort that had been marred by delays and several change orders ultimately bumping up its hefty price tag.

VVWRA did not perform cost/price analyses of bid proposals; follow its own procurement policy; include all mandatory federal provisions in contracts documenting rights and responsibilities of parties; nor did it maintain records sufficient to detail the significant history of its procurements or appropriately account for contract costs, among other indiscretions, the audit found.

FEMA and state officials have agreed with the OIG's findings. The report focused on contracting and accounting practices, and a follow-up report is expected to target "misleading information the Authority provided to FEMA to develop the scope of work" for the project.

Wylie said that auditors only focused on a single engineer contract worth roughly $1.3 million, however, in drawing their conclusions. He added that VVWRA had regularly reported to the California Office of Emergency Services

throughout the project's lifecycle.

"VVWRA is nevertheless prepared to keep working closely with FEMA and Cal OES," Wylie said, "in reviewing OIG's recommendations and addressing them."

But the audit would appear to give teeth to the city of Victorville's concerns that project spending had spiraled out of control. Councilman Jim Kennedy has said he routinely became the lone dissenter among JPA members on costly and frequent change orders. It's that argument that, in part, led the city to announce plans in April to entirely pull back from the JPA, a move that will ultimately take 30 years per terms of the agreement.

Wastewater diversion

In a sign of dissatisfaction of its relationship with VVWRA, Victorville has been diverting millions of gallons of wastewater flow to its own plant for two years. The situation has seemingly deepened a rift over finances between the city, the authority and other JPA members.

Wylie has said that the city's diversion — roughly a million gallons a day since January 2015 — had cost the authority over $1.2 million by April 2016. He could not provide updated figures Monday.

He previously described any tumult as an issue between board members, declining to specifically comment on an advisory opinion issued last month by an appellate court judge that concluded Victorville's diversion was tantamount to a breach of contract.

"We are not at liberty to discuss these issues as member entities are working to resolve their differences," he said.

But city spokeswoman Sue Jones confirmed Monday that Victorville was "preparing to physically send all of our flows to VVWRA's regional plant," a reversal for now that would be in accordance with the advisory opinion sought by VVWRA and all JPA members.

Jones said the city disagreed with the opinion and was preparing follow-up questions to gain more clarity.

Its wastewater diversion, however, has been in direct response to bearing more than 70 percent of the authority's costs, Jones said, while maintaining equal decision-making power, effectively placing disproportionate burden on Victorville taxpayers for projects even outside the city.

County spokesman David Wert deferred questions to VVWRA, while the Town of Apple Valley did not provide comment.

But Hesperia city spokeswoman Rachel Molina, speaking generally, said the city has long believed that Victorville is in breach of contract and that other member entities feel similarly.

The diversion of flow and withholding of connection fees, which are paid to maintain and increase capacity at authority plants, has presented "a significant strain on the JPA's finances," Molina said, adding that further threats to the JPA's finances could affect planned openings of sub-regional recycled water facilities in Hesperia and Apple Valley.

Jones concluded that Victorville officials were "very hopeful" they could resolve issues with other JPA members, including negotiating an amicable solution that benefits the JPA, "but not at the expense of the residents of Victorville."

*Shea Johnson can be reached at 760-955-5368 or **SJohnson@VVDailyPress.com**. Follow him on Twitter at **@DP_Shea**.*

Such an action, outside of acting as an overwhelming concurrence by FEMA of the audit's findings, would guarantee that the burden of repaying those millions of dollars would then fall on ratepayers in Victorville, Apple Valley, Hesperia and unincorporated county areas served by the wastewater agency.

The city of Victorville, which funds far more of the agency than any of its three joint powers authority partners, would be struck the hardest.

"The full ramifications of the OIG report and what it means for VVWRA are to be determined as FEMA decides any enforcement actions," city spokeswoman Sue Jones said. "Presumably, any repayment of funds would be split in the same manner as all funding at VVWRA, meaning Victorville would be responsible for 70 percent."

That share would be tantamount to roughly $22 million for the city alone. Jones said that the city anticipates VVWRA will raise its rates if it's forced to repay the millions of dollars being questioned.

"In turn," she said, "this would mean a rate increase for Victorville residents' sewer fees."

FEMA is expected to decide by July 31 on the recommendation, made by the Department of Homeland Security's Office of the Inspector General, which conducted the audit and published its findings late last month.

If FEMA were to disagree with the OIG's conclusions, however, the situation would be resolved by this summer without any consequence if not for a public relations blemish to the authority.

VVWRA General Manager Logan Olds on Thursday reiterated his strong defense of the agency and again pushed back against the audit's conclusions, saying that VVWRA worked closely with FEMA and the California Office of Emergency Services throughout the project, which broke ground in March 2014.

Asked to consider the worst-case scenario, Olds said it would be at least 2 1/2 years before the agency would have to face the unenviable task of repaying $31.7 million because there were "three major steps" before that circumstance could rear its ugly head.

For one, the agency is meticulously preparing a close-out document to present to FEMA that is required as the project nears its official completion. And if FEMA chooses to accept the audit's findings, there are two layers of appeal afforded to VVWRA that could end with the agency in court.

Olds insisted he wasn't relying on blind optimism, but instead the agency would ensure its close-out document met FEMA standards. Piero Dallarda, the agency's legal counsel, however, said officials will "prepare for the worst."

But Victorville City Councilman Jim Kennedy, who has represented the city on the VVWRA board for six years — five as the primary member — and has been critical of the agency's spending, said Tuesday that he expected the issue will be resolved without a staggering financial implication.

"I believe when the dust settles on that OIG audit, they will not ask VVWRA to refund $32 million," he said during the Victorville City Council meeting. "I think they had legitimate concerns of some change orders, but overall the project was huge. It's finished, it's completed, it accomplished its objective."

The $42 million Upper Narrows Pipeline Replacement Project, declared "functionally finished" in July, permanently replaced a portion of temporary pipeline installed after severe storms in December 2010 washed out and ruptured a portion of nearly 30-year-old sewer line in the Mojave River.

The incident caused 42 million gallons of sewage to spill into the river. Faced with a whopping $420 million fine by state regulators, the agency's promise to build out a project ensuring such an incident would not re-occur reduced the fine to $94,000, Olds said.

In its audit published Jan. 24, the OIG concluded that VVWRA improperly managed $31.7 million in three contracts for the project, including agreements for construction, construction management and engineering.

A follow-up report is expected to target "misleading information the Authority provided to FEMA to develop the scope of work" for the project.

Olds, who has noted how technically complex the project had been while facing several unforeseen hurdles, said the agency had submitted appropriate documentation and focused on transparency throughout the project.

"This isn't just an affront to me," he said. "This is an affront to every single person who ever worked on the Upper Narrows."

Shea Johnson can be reached at 760-955-5368 or ***SJohnson@VVDailyPress.com****. Follow him on Twitter at* ***@DP_Shea****.*

VVWRA SAFETY TAILGATE SIGN-IN

Date: Thursday, February 2, 2017

Training Topic: Choking

PLEASE SIGN BELOW AT YOUR NAME

NAME	SIGNATURE
Alton Anderson	
Bobby Hesse	
Brad Adams	
Brad Doneff	
Bruce Correla	
Chuck Trammel	
Daniel Enriquez	
Eugene Davis	
Gilbert Perez	
Johnny Bustos	
Johnny Wastewater	
Keith Lueken	
Kyle Regis	
Latif Laari	
Logan Olds	
Marcos Avila	
Mauricio Marin	
Miguel Mendoza	
Mike Koncur	
Mike Tarango	

Moises Castro

Patrick Shields

Johnny Wastewater

Phayean McZeal

Richard Swatzell

Robert Townsend

Ryan Love

Salvador Carlos

David Wylie

Mr. Dingle

Others:

Safety+Health
The Official Magazine of the NSC Congress & Expo

Know how to treat a choking incident

January 18, 2017

A choking incident can occur anywhere – including the weekly staff meeting or at someone's desk. If you saw a co-worker choking, would you be ready to help?

The universally understood sign for choking is when someone clutches their hands to their throat. However, if you suspect someone is choking and they're not giving this sign, Mayo Clinic recommends checking for these issues:

- Inability to speak
- Problems breathing or breathing noisily
- Inability to cough forcefully
- Skin, lips and nails turn are turning blue or dusky
- Loss of consciousness

If you encounter someone displaying any of these signs, move fast. "An airway obstruction is a life-threatening emergency because the victim is not getting oxygen," the National Safety Council states. If your workplace has an emergency response team, have someone alert them that assistance is needed. (Read more about workplace emergency response teams from OSHA.)

If the person is able to cough forcefully, encourage him or her to continue doing so to clear the food or object. But if the person can't cough, speak or breathe, immediate help is warranted. First, ask the person if he or she is choking. If he or she nods yes, ask for permission to help, and explain that you'll be administrating abdominal thrusts – also known as the Heimlich maneuver. Follow these steps to perform abdominal thrusts:

- Stand behind the choking person and place one leg between the victim's legs.
- Reach around the abdomen and find the navel. Then, place the thumb-side of your fist against the abdomen, just above the navel.
- Grasp your fist with your other hand and thrust inward and upward into the person's abdomen with quick, jerking motions. (If the choking person is pregnant or if you can't get your arms around him or her, provide chest thrusts from behind and avoid squeezing the choking person's ribs with your arms.)

- Continue to perform thrusts until the person expels the object or becomes unresponsive.
- Seek medical attention, even after choking stops.

Note: If a rescuer is alone with a conscious victim who is choking, the rescuer should continue to provide care until the object is expelled or the victim loses consciousness. If the person loses consciousness, the rescuer should ensure that 911 has been called. (If no one else is around to call, the rescuer should quickly make the 911 call themselves.)

Unresponsive?

If a choking victim becomes unresponsive, NSC says to lower the person to the ground, expose their chest and begin performing CPR. First, check inside the person's mouth for objects, and remove anything you find. Then you should:

- Place one hand on top of the other in the center of the chest.
- Compress the chest about 2 inches deep, 30 times, at a rate of at least 100 per minute while counting aloud.
- Tilt the head and lift the chin to open the airway.
- Give two rescue breaths, each lasting 1 second. (Look in the mouth each time you open it to give breaths, and remove any object you see.)
- Continue the cycle of two breaths and 30 compressions until the victim regains consciousness, an AED is brought to the scene or professional help arrives.

VVWRA SAFETY TAILGATE SIGN-IN

Date: Thursday, February 16, 2017

Training Topic: Accident Prevention

PLEASE SIGN BELOW AT YOUR NAME

NAME	SIGNATURE
Alton Anderson	
Bobby Hesse	
Brad Adams	
Brad Doneff	
Bruce Correia	
Chuck Trammel	
Daniel Enriquez	
Eugene Davis	
Gilbert Perez	
Johnny Bustos	
Johnny Wastewater	
Keith Lueken	
Kyle Regis	
Latif Laari	
Logan Olds	
Marcos Avila	
Mauricio Marin	
Miguel Mendoza	
Mike Koncur	
Mike Tarango	

Moises Castro

Patrick Shields

Johnny Wastewater

Phayean McZeal

Richard Swatzell

Robert Townsend

Ryan Love

Salvador Carlos

David Wylie

Mr. Dingle

Others: Travis Prine - Intern

GEMPLER'S® TAILGATE TRAINING TIP SHEET® – No. 104

Important Tips to Avoid Accidents

Editor's note: Our Tailgate Training Tip Sheets are available in Spanish at www.gemplers.com.

KEY POINTS:

- **Serious accidents can happen in a split second.**
- **It's risky to think that an accident can only happen to someone else.**
- **Rushing to get the job done is one common reason why accidents occur.**

Note to trainer: Follow this script or use it to help guide you through a 10- to 15-minute tailgate training session for your ag/hort workers. You may photocopy this sheet for your employees' personal use. However, it may not be published or sold.

Why do accidents occur?

- Accidents can happen in a split second, and can result in serious injury or death.
- Getting into an accident can also result in long term physical pain, emotional pain, reduced income, high medical bills, and the inability to perform your job.
- There are many reasons why accidents occur. Among them are:
  - carelessness, and not paying attention to the task at hand
  - recklessness
  - taking shortcuts because you're rushing to get the job done
  - being distracted – having your mind on other things
  - not getting enough sleep or taking adequate breaks
  - having an attitude that you've "always done it this way" or that accidents can "only happen to someone else"
  - not being adequately trained
  - stubbornness, including an unwillingness to ask for help
  - letting stress or other emotions interfere with your job
  - not using common sense
  - not thinking about safety **all** the time

Not paying attention can result in an accident.

Rushing to get the job done

- Being in too much of a hurry is a common reason why accidents occur.
- It's important that you take a few minutes before you begin a task to think about the potential hazards and how you can protect yourself.
- Then, tackle the task slowly and deliberately – the quality of your work will be better, and you'll get more done than if you suddenly wind up injured.

Being in too much of a hurry to get the job done can lead to an accident.

(Continued on back)

Important Tips to Avoid Accidents

Don't deal with stress by drinking alcohol or using drugs.

Stress can lead to accidents

- Accidents are also more likely to occur when you're under stress, whether it's due to problems at home, a death in the family, financial troubles, or other reasons.
- Stress is how your body reacts when increased demands are placed on it.
- Here are a few tips to help you avoid stress:
  - Make sure you have "balance" in your life. Don't work all the time – take some time away from work to have fun.
  - Learn to say "no." Don't take on more than you can handle.
  - Be willing to ask for help when you need it, and to tell your supervisor when there is something you don't understand.
  - Don't deal with stress by medicating yourself. Drinking alcohol or using drugs can make the situation even worse.

More accident prevention tips

1. **Practice safe work habits.** Don't operate hazardous machinery or equipment unless you have been properly trained. Pay close attention to our safety warning signs. And don't drive or operate equipment such as tractors or forklifts if you are overtired, ill, are feeling anxious, or if you have been using alcohol or other drugs.
2. **Don't engage in horseplay.** "Fooling around" on the job puts both you and your co-workers at risk of getting hurt.
3. **Be especially careful on the road.** Using a cell phone when driving, letting a passenger distract you, or keeping loose items under the seat or on the dashboard that can fall or roll around can lead to an accident.
4. **Get enough sleep.** This is important because fatigue is a common reason for accidents. Being overtired can result in not hearing important safety instructions and in slowed reaction time.
5. **Ask for help when you need it.** Don't take the attitude "I can do this all by myself." Times you may need help include when you are lifting heavy pots or other items, or when you come to work feeling a little "under the weather" or overtired.

Always ask for help when you need it.

Are there any questions?

Note to trainer: Take time to answer trainees' questions. Then review the **Avoiding Accidents Do's and Don'ts.**

AVOIDING ACCIDENTS DO'S AND DON'TS	
DO:	**DON'T:**
• Take time to think about safety before you start each task. • Pay close attention to safety warning signs and follow all safety instructions. • Watch out for your co-workers, and work together as a team.	• Engage in horseplay or other risky behavior at work. • Operate hazardous machinery or equipment if you are overtired or ill. • Forget to take breaks, and to slow down if you begin to feel fatigued.

VVWRA

Administration Meeting

Preventing Accidents

Date: Tuesday, February 21, 2016

NAME	SIGNATURE
Daniel Enriquez	
Toni Henning	
[illegible]	
Bruce L Correia	
Robert Coromina	
Kristi Castelli	
Kyle Parker	
David Wylie	

GEMPLER'S® TAILGATE TRAINING TIP SHEET® – NO. 104

Important Tips to Avoid Accidents

Editor's note: Our Tailgate Training Tip Sheets are available in Spanish at www.gemplers.com.

KEY POINTS:

- **Serious accidents can happen in a split second.**
- **It's risky to think that an accident can only happen to someone else.**
- **Rushing to get the job done is one common reason why accidents occur.**

Note to trainer: *Follow this script or use it to help guide you through a 10- to 15-minute tailgate training session for your ag/hort workers. You may photocopy this sheet for your employees' personal use. However, it may not be published or sold.*

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  - not getting enough sleep or taking adequate breaks
  - having an attitude that you've "always done it this way" or that accidents can "only happen to someone else"
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  - stubbornness, including an unwillingness to ask for help
  - letting stress or other emotions interfere with your job
  - not using common sense
  - not thinking about safety **all** the time

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- Then, tackle the task slowly and deliberately – the quality of your work will be better, and you'll get more done than if you suddenly wind up injured.

Being in too much of a hurry to get the job done can lead to an accident.

(Continued on back)

GEMPLER'S® TAILGATE TRAINING TIP SHEET® – NO. 104 *(CONTINUED)*

Important Tips to Avoid Accidents

Stress can lead to accidents

- Accidents are also more likely to occur when you're under stress, whether it's due to problems at home, a death in the family, financial troubles, or other reasons.
- Stress is how your body reacts when increased demands are placed on it.
- Here are a few tips to help you avoid stress:
  - Make sure you have "balance" in your life. Don't work all the time – take some time away from work to have fun.
  - Learn to say "no." Don't take on more than you can handle.
  - Be willing to ask for help when you need it, and to tell your supervisor when there is something you don't understand.
  - Don't deal with stress by medicating yourself. Drinking alcohol or using drugs can make the situation even worse.

Don't deal with stress by drinking alcohol or using drugs.

More accident prevention tips

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2. **Don't engage in horseplay.** "Fooling around" on the job puts both you and your co-workers at risk of getting hurt.
3. **Be especially careful on the road.** Using a cell phone when driving, letting a passenger distract you, or keeping loose items under the seat or on the dashboard that can fall or roll around can lead to an accident.
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5. **Ask for help when you need it.** Don't take the attitude "I can do this all by myself." Times you may need help include when you are lifting heavy pots or other items, or when you come to work feeling a little "under the weather" or overtired.

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AVOIDING ACCIDENTS DO'S AND DON'TS	
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VVWRA SAFETY TAILGATE SIGN-IN

Date: Thursday, February 23, 2017

Training Topic: Hand safety

PLEASE SIGN BELOW AT YOUR NAME

NAME	SIGNATURE
Alton Anderson	
Bobby Hesse	
Brad Adams	
Brad Doneff	
Bruce Correia	
Chuck Trammel	
Daniel Enriquez	
Eugene Davis	
Gilbert Perez	
Johnny Bustos	
Johnny Wastewater	
Keith Lueken	
Kyle Regis	
Latif Laari	
Logan Olds	
Marcos Avila	
Mauricio Marin	
Miguel Mendoza	
Mike Koncur	
Mike Tarango	

Moises Castro

Patrick Shields

Johnny Wastewater

Phayean McZeal

Richard Swatzell

Robert Townsend

Ryan Love

Salvador Carlos

David Wylie

Mr. Dingle

Others:

CHOOSE HAND SAFETY .ORG

TOOL BOX TALK: Protect Your Hands

Hand injuries are serious:

Protecting your fingers and hands is important for your work and quality of life. Work-related hand injuries are one of the leading reasons workers end up in the emergency room and miss work. Damage to the nerves in your fingers and hands, loss of a finger, a skin burn or allergic reaction, can negatively impact the quality of your work, your productivity – or worse – end your career and seriously detract from your quality of life. The cost of these types of injuries and illnesses to the construction industry is estimated in the hundreds of millions of dollars each year.

Causes of hand injuries:

How many times have you grabbed a sharp object, touched a hot surface, felt pain in your hand because of how you were gripping a tool or twisting your wrist, come close to getting your hand or finger caught or crushed, or had your skin come in contact with a chemical or caustic material? If you can think of even one time for any of these, it is one time too many. There are many hazards on construction sites that can result in a hand injury, including:

⇒ **Punctures, cuts or lacerations** – caused by contact with sharp, spiked or jagged edges on equipment, tools or materials.

⇒ **Crushed, fractures or amputations** – caused by contact with gears, belts, wheels and rollers, falling objects, and rings, gloves or clothing getting caught and putting your hand in harm's way.

⇒ **Strains, sprains, and other musculoskeletal injuries** – caused by using the wrong tool for the job, or one that is too big, small or heavy for your hand.

⇒ **Burns** – caused by direct contact with a hot surface or a chemical.

⇒ **Dermatitis and other skin disorders** – caused by direct contact with chemicals in products and materials.

Preventive measures

Follow the work practices and use the equipment and gloves provided by your employer. ***Gloves and safety procedures won't work if they're not used or followed.*** Be aware of the job tasks, equipment and materials that can create a risk for a hand injury or put your skin in contact with a chemical, and know the steps that should be taken to prevent exposures and injuries.

Specific –

- Always stay alert and focused on keeping your hands safe – not just at the start of work or a task.
- Keep guards on machinery and power tools in place – ***Don't*** *remove or reposition them.*
- Use tools and equipment designed for the work being performed and use them as instructed by your supervisor and/or the manufacturer.
- Don't put your hands or fingers near the moving parts of a power tool or equipment. Make sure machinery, equipment and power tools are completely off before you try replacing, cleaning or repairing parts – follow lock-out/tag-out procedures.
- Identify safety features on tools and equipment before you use them, such as emergency off switches.
- Check tools and equipment to make sure they are in proper working order before beginning a task.
- Keep hands and fingers away from sharp edges (blades, protruding nails, etc.). Never cut toward the palm of your hand.
- Select hand tools that are ergonomic for your hand (the right size, lowest weight, and have features such as grips, anti-vibration handles, handles angles that allow you to work without your wrist bent.)
- Wear gloves that fit your hand and are right for the work being performed – *not all gloves protect against all hazards.*
- Do not wear rings, other jewelry or lose articles of clothing that could get caught on a moving object.

Discussion questions

1. What tasks will be performed and which crafts and workers will perform each task?
2. Which tools, equipment, chemicals and materials create a potential risk for a hand injury (including skin disorders – dermatitis, chemical burn, etc.)?
3. For each potential hazard, what preventive measures can be taken.

Visit www.choosehandsafety.org to learn more about protecting your hands and wrists from MSDs and other hazards.

Research for this Tool Box Talk was funded by CPWR – The Center for Construction Research and Training, using grant U60 OH009762 from the National Institute of Occupational Safety and Health (NIOSH). The contents are solely the responsibility of the authors and do not necessarily represent the official views of NIOSH.

CHOOSE HAND SAFETY .ORG	TOOL BOX TALK: Protect Your Hands Attendance Sign in Sheet	Page 2

Date:

ATTENDEES

NAME		NAME