



Board of Directors Regular Meeting
Tuesday, September 14, 2021 at 1:00 PM
Valley Sanitary District Board Room
45-500 Van Buren Street, Indio, CA 92201

*******SPECIAL NOTICE – VIA VIDEOCONFERENCE*******

Pursuant to the Governor’s Executive Order N-25-20 issued on March 4, 2020 and N-29-20 issued on March 18, 2020; the Board of Directors regular meeting will be conducted remotely through Zoom. **Members of the public wanting to participate in the open session of the meeting may do so via the following Zoom registration link:** <https://us06web.zoom.us/j/83857635381> Meeting ID: 838 5763 5381 Or by calling 253-215-8782. Members of the public wanting to address the Board, either during public comment or for a specific agenda item, or both, are requested to send an email notification no later than 12:30 p.m. on the day of the meeting to the Valley Sanitary District’s Clerk of the Board at hgould@valley-sanitary.org.

Page

1. CALL TO ORDER

- 1.1. Roll Call
- 1.2. Pledge of Allegiance
- 1.3. September Employee Anniversaries
 - Scott Graham, Wastewater Operator II - 31 years
 - Marin Gutierrez, Collection System Technician I - 2 years
- 1.4. New Employee Introduction
 - Carlos Acevedo, Collection System Technician I

2. PUBLIC COMMENT

This is the time set aside for public comment on any item not appearing on the




agenda. Please notify the Secretary in advance of the meeting if you wish to speak on a non-hearing item.

3. CONSENT CALENDAR

Consent calendar items are expected to be routine and noncontroversial, to be acted upon by the Board of Directors at one time, without discussion. If any Board member requests that an item be removed from the consent calendar, it will be removed so that it may be acted upon separately.

- 3.1. Approve August 24, 2021, Regular Meeting Minutes 5 - 8
[3.1 24 Aug 2021 Meeting Minutes.pdf](#) 
- 3.2. Approve Warrants for August 19 through September 8, 2021 9 - 10
[3.2 Warrants for August 19 to September 8, 2021.pdf](#) 
- 3.3. Quarterly Investment Report for Period Ending June 30, 2021 11 - 13
[3.3 Staff Report Qtrly Investment Report for June 30 2021.pdf](#) 
[3.3 Attachment A LAIF Qtrly Report June 30_Redacted.pdf](#) 
[3.3. Attachment B June 2021 Statement CALTRUST_Redacted.pdf](#) 
- 3.4. Cancel Regular Board Meeting on Tuesday, September 28, 2021 Due to Directors Attending the Special District Leadership Academy in South Lake Tahoe, CA 14
[3.4 Staff Report Cancel September 28 Meeting.pdf](#) 

4. NON-HEARING ITEMS

- 4.1. Authorize the General Manager to Execute a Contract with Borden Excavating, Inc. for the Abandonment of 5 Irrigation Laterals in an Amount Not to Exceed \$410,438 15 - 18
[4.1 Staff Report Contract Award Irrigation Lateral Abandonment.pdf](#) 
[4.1 Attachment A -Borden Proposal Irrigation Lateral Abandonments.pdf](#) 
[4.1 Attachment B - DCI Proposal Irrigation Lateral Abandonments.pdf](#) 
- 4.2. Authorize the General Manager to Apply for Financing Through the California Infrastructure and Economic 19 - 64

Development Bank (IBank) for the Training & Office Building and Laboratory Building

[4.2 Staff Report IBank Invitation To Apply.pdf](#) 

[4.2 Attachment A IBank-by-the-Numbers-1.7.2021.pdf](#) 

[4.2 Attachment B ISRF-Loan-Rate-Setting-Guidelines.pdf](#) 

[4.2 Attachment C Board-Approved-Final-ISRF-Criteria.pdf](#) 

[4.2 Attachment D FAQ.pdf](#) 

- 4.3. Authorize the General Manager to Enter into a Rental Agreement for a Modular Office Building for a 24-month Period for an Amount Not to Exceed \$30,000 65 - 70

[4.3 Staff Report Rental of Mobile Office Trailer.pdf](#) 

[4.3 Attachment A Modular Office Building Proposal.pdf](#) 

[4.3 Attachment B kva Distribution Transformer.pdf](#) 

- 4.4. Authorize the General Manager to Execute a Contract with Trimax to Update all Panel and Loop Drawings Related to the Programmable Logic Controller (PLC) and Supervisory Control and Data Acquisition (SCADA) System in an Amount Not to Exceed \$30,495 71 - 73

[4.4 Staff Report Trimax Electrical Work.pdf](#) 

[4.4 Attachment A Trimax Sales Quote.pdf](#) 

- 4.5. Wastewater COVID-19 Sampling Program Continuation 74 - 84

[4.5 Staff Report Influent Covid-19 Surveillance Program Continuation.pdf](#) 

[4.5 Attachment A Article.pdf](#) 

- 4.6. Discuss Year End Audit Progress for the Fiscal Year Ending June 30, 2021 85 - 148

[4.6 Staff Report Year End Audit Progress.pdf](#) 

[4.6 Attachment A Note 11 FY20 Financials.pdf](#) 

[4.6 Attachment B Original Valuation Report.pdf](#) 

[4.6 Attachment C Revised Valuation Report.pdf](#) 

5. GENERAL MANAGER'S ITEMS

General Manager's items not listed are for discussion only; no action will be taken without an urgency vote pursuant to State law.

5.1. Monthly General Manager's Report - July 2021 149 - 160


[5.1 Staff Report GM Report July.pdf](#) 

[5.1 Attachment A Admin Services Report July.pdf](#) 

[5.1 Attachment B NPDES report for July.pdf](#) 

[5.1 Attachment C Collection Services Report September.pdf](#) 

[5.1 Attachment D Development Services Report August 2021.pdf](#) 

[5.1 Attachment E Capital Improvement Program Update for August.pdf](#) 

6. COMMITTEE REPORTS

6.1. Budget & Finance Committee - September 7, 2021 Meeting Minutes 161 - 162

[6.1 7 Sep 2021 Meeting Minutes.pdf](#) 

7. DIRECTOR'S ITEMS

Director's items not listed are for discussion only; no action will be taken without an urgency vote pursuant to State law.

8. INFORMATIONAL ITEMS

9. ADJOURNMENT

Pursuant to the Brown Act, items may not be added to this agenda unless the Secretary to the Board has at least 72 hours advance notice prior to the time and date posted on this notice.

UNOFFICIAL UNTIL APPROVED

VALLEY SANITARY DISTRICT MINUTES OF REGULAR BOARD MEETING

August 24, 2021

Valley Sanitary District conducted this meeting in accordance with California Governor Newsom's Executive Orders N-29-20 and COVID-19 protocols.

A regular Board Meeting of the Governing Board of Valley Sanitary District (VSD) was held on Tuesday, August 24, 2021, at 45-500 Van Buren St., Indio, CA 92201.

1. **CALL TO ORDER**

President Sear called the meeting to order at 1:05 p.m.

1.1 Roll Call

Directors Present:

Debra Canero, Dennis Coleman, Mike Duran, Scott Sear, William Teague

Staff Present:

Beverli Marshall, General Manager, Holly Gould, Jeanette Juarez, Ron Buchwald, Anna Bell, Lorraine Shinnette, Ed Luna, Adrian Contreras, and Craig Hayes, Best Best & Krieger

1.2 Pledge of Allegiance

2. **PUBLIC COMMENT**

This is the time set aside for public comment on any item not appearing on the agenda. Please notify the Secretary in advance of the meeting if you wish to speak on a non-hearing item.

None.

3. **CONSENT CALENDAR**

3.1 Approve August 10, 2021, Regular Meeting Minutes

3.2 Approve Warrants for August 5 through August 18, 2021

3.3 Accept Monthly Financial Report for Period Ending July 31, 2021

3.4 Accept Credit Card Report for Period Ending July 31, 2021

ACTION TAKEN:

MOTION:

Director Teague made a motion to approve the consent calendar items as presented. Secretary Canero seconded the motion. Motion carried unanimously.

MINUTE ORDER NO. 2021-3128

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4. NON-HEARING ITEMS

- 4.1 Staff Presentation of Tri-State Conference Sessions – Lorraine Shinnette, Laboratory Technician I, and Eduardo Luna, Maintenance Technician I

Lorraine Shinnette, Laboratory Technician I, and Eduardo Luna, Maintenance Technician I, gave a presentation to the Board on their time at the Tri-State Conference they attended in August. Lorraine shared that her experience at the conference was not only useful in an individual manner but also District-wide because of the knowledge she gained and her opportunity to network with others in her field. Eduardo also came away from the conference with increased perspectives on how to attack preventive maintenance in terms of breaking it into levels. He also had the opportunity to network with experts in his field and was able to gain insight into some of the equipment we use at the District. Lorraine and Eduardo thanked the Directors for the opportunity to attend the conference.

- 4.2 Authorize the Purchase of a Hybrid Explorer LTD from Fiesta Ford in an Amount Not to Exceed \$64,000

This vehicle will serve multiple purposes for the District staff and the General Manager. The vehicle will serve as a transport vehicle for meetings, conferences, field trips, etc; since it can seat multiple individuals. The vehicle will also be outfitted with ancillary items (i.e., traffic control perimeter lighting, siren, and speakers) to serve as an emergency response vehicle during disaster events. Staff recommends the purchase of a 2021 Ford Explorer Hybrid LTD from Fiesta Ford in an amount not to exceed \$64,000. The price includes the purchase of the SUV and ancillary costs. Secretary Canero stated that she hopes to see this vehicle used in outreach for the District. Director Duran stated that he was not in support of this purchase at this time.

ACTION TAKEN:

MOTION:

Vice President Coleman made a motion to authorize the General Manager to purchase a Ford Hybrid Explorer LTD from Fiesta Ford in the amount not to exceed \$64,000. Director Teague seconded the motion. Motion carried by the following roll call vote:

AYES: Canero, Coleman, Sear, Teague

NOES: Duran

MINUTE ORDER NO. 2021-3129

- 4.3 Amend Contract with Carollo Engineers for the Sewer Siphon Replacement Project for Additional Potholing of Utilities Not to Exceed \$26,607

On April 28, 2020, the Board awarded Task Authorization No. 20-01 to Carollo Engineers for the final design of the replacement of the Westward Ho sewer siphon crossing at the Coachella Stormwater Channel. Carollo has prepared 95% design plans which VSD submitted to Indio Water Authority (IWA), Coachella Valley Water District (CVWD), and other entities for plan check review in June 2021. During IWA's review, they identified a water main in Westward Ho that is within the construction zone. IWA

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believes this line is an asbestos concrete pipe (ACP) but is not sure. IWA requires that all exposed sections of ACP pipe need to be removed and replaced with new cast iron pipe. Carollo and District staff would like to perform additional potholing to verify the location and material of the water main as well as three other utilities within the construction zone. Staff recommended amending the Carollo contract with Carollo Engineers, Inc. for the Sewer Siphon Replacement Project for additional potholing of utilities not to exceed \$26,607. By performing this work now, it could save potentially significant change order costs during construction.

ACTION TAKEN:

MOTION:

Secretary Canero made a motion to authorize the General Manager to execute a contract amendment with Carollo Engineers, Inc. for the Sewer Siphon Replacement Project for additional potholing of utilities not to exceed \$26,607. Director Teague seconded the motion. Motion carried by the following roll call vote:

AYES: Canero, Coleman, Duran, Sear, Teague

NOES: None

MINUTE ORDER. 2021-3130

- 4.4 Authorize General Manager to Execute a Contract with Earth Systems to Provide Geotechnical Services for the Office & Training and Laboratory Buildings in an Amount Not to Exceed \$9,950

SGH Architects is proceeding with the final design of both the Office & Training Building and Laboratory Building. Geotechnical services are needed to properly design the buildings to meet building code requirements. SGH solicited three (3) proposals from local geotechnical consultants. All three consultants provided comparable proposals with a price ranging from \$9,950 to \$12,627. Staff's recommendation is to use Earth Systems Pacific. Their proposal was the lowest price, they have provided geotechnical services for the District in the recent past, and are a local provider.

ACTION TAKEN:

MOTION:

Director Teague made a motion to authorize the General Manager to execute a contract with Earth Systems Pacific to Provide Geotechnical Services for the Office & Training and Laboratory Buildings in an amount not to exceed \$9,950. Director Duran seconded the motion. Motion carried by the following roll call vote:

AYES: Canero, Coleman, Duran, Sear, Teague

NOES: None

MINUTE ORDER NO. 2021-3131

- 4.5 Sewer Main Video Showing Example of a Sewer Main Before and After Rehabilitation

Ron Buchwald, Engineering Services Manager, and Adrian Contreras, Assistant Engineer, put together a video presentation of a rehabilitated sewer main. The rehabilitated sewer main was built in 1935 and is an 8-inch vitrified clay pipe (VCP). The location of the sewer main is along the interior property lines of several properties located between Deglet Noor Street and King Street just south of Miles Street. This location is near where the now-demolished El Morocco Motor Hotel was located. The video

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showed damage to the main and the concrete patches or plugs used to repair the damage. These types of repairs were common in the '50s, '60s, and '70s. The before video was taken in 2010. The after video of the main show the rehabilitation that took place in 2013. It shows the main looking smooth and free of damage.

5. GENERAL MANAGER'S ITEMS

Ms. Marshall stated that the CSDA Conference in Monterey is next week, and she will continue to send updates on the vaccinations and guidelines for the conference as she receives them. She will be attending the pre-conferences as a speaker for the, So You Want to be A GM presentation. She informed the Board of the AB1017, the Right to Restrooms Act, which would require public agencies to work with the homeless populations to notify the public of where their restrooms are located and make them available. Ms. Marshall also informed the Board that she had submitted her name for the Imperial Irrigation District (IID) advisory commission.

6. COMMITTEE REPORTS

None.

7. DIRECTOR'S ITEMS

The Directors that attended the CASA Conference reported that it was eye-opening. The importance of looking ahead and being prepared was an underlying theme. They learned about the importance of transparency and laws relating to COVID and Zoom. Director Coleman thanked Beverli for her presentation at the conference and stated she did a great job.

8. INFORMATIONAL ITEMS

8.1 August 26, 2021, is recognized as National Toilet Paper Day. The first toilet paper sold on a roll was on August 26, 1871. The average person in the US household flushes 80,000 sheets each year.

9. ADJOURNMENT

There being no further business to discuss, the meeting was adjourned at 2:52 p.m. The next regular Board meeting will be held on September 14, 2021.

Respectfully submitted,

Holly Gould, Clerk of the Board
Valley Sanitary District

DISBURSEMENTS
Approved at the Board Meeting of
September 14, 2021

39613	Downing Construction, Inc	*IPS rehab project progress payment #4 - June 2021	\$12,864.86
39613	Downing Construction, Inc	*IPS rehab project progress payment #4 - July 2021	\$27,007.52
39614	MidAmerica	Qtr 2 Admin/Platform Fee - 04/01/2021-06/30/2021	\$225.00
39615	Accountemps	Temporary Staffing for week ending 08/20/2021	\$802.47
39615	Accountemps	Temporary Staffing for week ending 08/27/2021	\$552.66
39616	Air & Hose Source, Inc.	D.O.T. compression NPT, coupler, hydrant wrench	\$229.46
39617	Aqua Staffing	Temporary Staffing for week ending 08/13/2021	\$3,546.00
39618	Beverli Marshall	Travel & training reimbursement - AWWA Conference	\$294.03
39618	Beverli Marshall	Travel & training reimbursement - CASA Conference	\$285.05
39619	Caltest Analytical Laboratory	Weekly (NPDES 2015-2020) testing	\$163.85
39619	Caltest Analytical Laboratory	Weekly (NPDES 2015-2020) samples	\$266.45
39619	Caltest Analytical Laboratory	Monthly Samples - 08/19/2021	\$1,047.35
39620	Cassidy Laughy	Travel Reimbursement - Tri-State Seminar	\$676.85
39621	Consolidated Electrical Distributors, Inc.	IND fuse	\$175.07
39622	Creative Juicez	2nd payment for logo services	\$1,450.00
39623	Denali Water Solutions	Biosolids hauling - July 2021	\$7,032.00
39624	Dennis Coleman	CASA conference reimbursement 8/10/2021-8/13/2021	\$338.58
39625	Desert Arc	Janitorial Services - July 2021	\$3,333.68
39625	Desert Arc	Replace Valve	\$250.00
39626	Eduardo Luna	Travel Reimbursement - Tri-State Seminar	\$550.37
39627	Facilities Protection Systems	Preventative maintenance 7/1/2021-6/30/2022	\$4,200.00
39628	Ferguson Enterprises #1350	PVC S80 pipe, strut clamp, couplers	\$42.09
39628	Ferguson Enterprises #1350	PVC S80 pipe, PVC adapters	\$39.21
39629	Franklin Truck Parts, Inc.	Oil filler cap	\$27.04
39630	Fulton Distributing Co.	Filters, liners, roll towels	\$303.46
39631	Grainger	Tool bags	\$202.39
39631	Grainger	Sports drink mix	\$27.02
39631	Grainger	Sports drink mix	\$133.53
39632	Grant Fournier	Tuition reimbursement for summer 2021 courses	\$312.00
39632	Grant Fournier	Tri-State seminar reimbursement 08/09/2021-08/12/2021	\$616.14
39633	Haaker Equipment Company	Y strainer	\$96.79
39634	Hach Company	Nitrate ionic	\$203.87
39635	Harris & Associates	PADM for collection system infr prog - ph. 2 - July 2021	\$25,977.50
39636	Healthy Futures, Inc.	Wellness services - August 2021	\$1,500.00
39637	Hector Guzman	Travel Reimbursement - Tri-State Seminar	\$562.26
39638	Indio Water Authority	EVRA Contribution 07/01/2021-06/30/2022	\$25,000.00
39639	Ivan Monroy	ECI Grade 2 certification exam fee reimbursement	\$195.00
39639	Ivan Monroy	Safety boot reimbursement	\$163.11
39640	Kaman Industrial Technologies	Gearbox	\$27.67
39640	Kaman Industrial Technologies	Gearbox oil seal	\$142.06
39641	Liebert Cassidy Whitmore	Employment Relations Consortium - 07/01/2021-06/30/2022	\$5,060.00
39642	Lorraine Shinnette	Travel Reimbursement - Tri-State Seminar	\$560.90
39643	Marin Gutierrez	Tri-State seminar reimbursement 08/09/2021-08/12/2021	\$589.50
39644	Masters Refreshment Services LLC	Water delivery - 08/23/2021	\$177.55
39645	McMaster-Carr Supply Co.	Mobil gear oil, 2 gallons	\$254.13
39646	Mike Duran	CASA conference reimbursement 08/10/2021-08/13/2021	\$360.90
39647	Municipal Resource Group, LLC	Training services - July 2021	\$3,050.00
39648	Nicholas Dean	Travel Reimbursement - Tri-State Seminar	\$568.30
39649	Plaza Towing	Heavy tow VSD to Westrux International	\$1,500.00
39650	Plumbers Depot Inc.	Repair to OZ 3 camera done 07/28/2021	\$1,665.26
39651	Polydyne, Inc.	Polymer delivery - 08/23/2021	\$3,624.31
39651	Polydyne, Inc.	Polymer delivery - 08/25/2021	\$7,248.62
39652	Praxair Distribution, Inc.	Cylinder rental - 07/20/2021-08/20/2021	\$140.90
39653	Rudy's Pest Control	Gopher control - 08/19/2021	\$106.96
39654	Scott Sear	CASA conference reimbursement 08/10/2021-08/13/2021	\$360.90
39655	Siemens Industry, Inc.	Ultrasonic hand programmer	\$82.65
39655	Siemens Industry, Inc.	Hydroranger 200	\$2,081.48
39656	Southern California Boiler, Inc.	Boiler maintenance contract - August 2021	\$1,004.99
39657	Southwest Plumbing, Inc.	Replace #1 and #2 springs; backflow parts, labor	\$390.00
39658	Staples Advantage	New charges - August 2021	\$287.83
39659	Thomas Scientific	Sodium hydroxide pellets	\$12.69
39659	Thomas Scientific	TSB tube, hazmat fee	\$80.92
39659	Thomas Scientific	Phosphate buffered water	\$70.58
39660	Tops 'N Barricades Inc.	Lime vests	\$64.11
39661	Underground Service Alert	Board Fee - September 2021	\$68.64
39661	Underground Service Alert	Dig alerts - September 2021	\$158.50
39662	United Refrigeration Inc.	V belt, evap cooler pad, pillow block sleeve	\$49.16
39663	United Way of the Desert	PR 08/06/2021 - 08/19/2021 PD 08/27/2021	\$20.00
39664	Univar Solutions	Sodium Hypochlorite - delivered 08/18/2021	\$6,591.33

39664 Univar Solutions	Sodium Bisulfite delivery - 08/21/2021	\$5,073.63
39665 USA Blue Book	Circular Chart Paper	\$223.38
39665 USA Blue Book	Sludge Judge	\$197.56
202108241 UPS	Shipping charges as of 08/09/2021	\$406.14
202108242 CalPERS Retirement	GASB-68 reporting services fee	\$700.00
202108251 Umpqua Bank	New charges - July 2021	\$28,210.40
202108252 Nationwide Retirement Solution	PR 07/23/2021 - 08/05/2021 PD 08/13/2021	\$1,375.00
202108261 Purchase Power	Refill postage machine - 08/12/2021	\$208.99
202108262 Cintas Corp	Uniforms, mats, towels, etc - 08/05/2021	\$618.02
202108262 Cintas Corp	Uniforms, mats, towels, etc - 08/12/2021	\$625.53
202108262 Cintas Corp	Uniforms, mats, towels, etc - 08/19/2021	\$706.20
202108262 Cintas Corp	Uniforms, mats, towels, etc - 08/26/2021	\$666.71
202108264 Standard Insurance Company	Life and disability insurance - September 2021	\$1,279.71
202108265 CalPERS Health	Health insurance - September 2021	\$40,627.86
202108266 Standard Insurance Company	Dental and vision insurance - September 2021	\$3,442.52
202108271 Paychex - Direct Deposit	PR 08/06/2021 - 08/19/2021 PD 08/27/2021	\$77,088.98
202108272 Paychex - Fee	PR 08/06/2021 - 08/19/2021 PD 08/27/2021	\$175.88
202108273 Paychex - Garnishment	PR 08/06/2021 - 08/19/2021 PD 08/27/2021	\$210.46
202108274 Paychex - Tax	PR 08/06/2021 - 08/19/2021 PD 08/27/2021	\$33,895.74
202108275 Vantage Point Transfer Agents - ICMA	PR 08/06/2021 - 08/19/2021 PD 08/27/2021	\$1,370.00
202108276 MassMutual	PR 08/06/2021 - 08/19/2021 PD 08/27/2021	\$10.00
202108277 Nationwide Retirement Solution	PR 08/06/2021 - 08/19/2021 PD 08/27/2021	\$1,375.00
202108278 CalPERS 457	PR 08/06/2021 - 08/19/2021 PD 08/27/2021	\$725.00
202108279 CalPERS Retirement	PR 08/06/2021 - 08/19/2021 PD 08/27/2021	\$18,604.71
202108301 Indio Water Authority	Hydrant water - July 2021	\$529.40
202108302 Basic	One time ARPA admin fee - 07/27/2021	\$150.00
202108303 Colonial Life	PR 07/23/2021 - 08/05/2021 PD 08/13/2021	\$794.43
202108303 Colonial Life	PR 08/06/2021 - 08/19/2021 PD 08/27/2021	\$794.43
202108311 Domino Solar LTD	Electricity - July 2021	\$9,706.52
202109021 Indio Water Authority	Water Service - July 2021	\$1,644.31
202109041 Verizon Wireless	Cell Service - August 2021	\$1,357.51
202109051 Burrtec Waste & Recycling Svcs	Trash service - September 2021	\$239.34
202109071 Imperial Irrigation District	Electricity - July 2021	\$48,110.61
202109100 CalPERS Retirement	PR 08/20/2021 - 09/02/2021 PD 09/10/2021	\$18,989.58
202109101 SPOK, Inc.	Pager service - September 2021	\$24.27
202109101 Burrtec Waste & Recycling Svcs	Grit removal - August 2021	\$2,018.06
202109102 Paychex - Direct Deposit	PR 08/20/2021 - 09/02/2021 PD 09/10/2021	\$73,435.12
202109103 Paychex - Fee	PR 08/20/2021 - 09/02/2021 PD 09/10/2021	\$175.88
202109104 Paychex - Garnishment	PR 08/20/2021 - 09/02/2021 PD 09/10/2021	\$789.80
202109105 Paychex - Tax	PR 08/20/2021 - 09/02/2021 PD 09/10/2021	\$34,750.58
202109106 Nationwide Retirement Solution	PR 08/20/2021 - 09/02/2021 PD 09/10/2021	\$1,375.00
202109107 MassMutual	PR 08/20/2021 - 09/02/2021 PD 09/10/2021	\$10.00
202109108 Vantage Point Transfer Agents - ICMA	PR 08/20/2021 - 09/02/2021 PD 09/10/2021	\$1,370.00
202109109 CalPERS 457	PR 08/20/2021 - 09/02/2021 PD 09/10/2021	\$725.00
202109131 Frontier Communications	Telephone service - September 2021	\$320.92
202109141 Time Warner Cable	Telephone service - September 2021	\$1,154.52
	TOTAL	\$573,376.20



**Valley Sanitary District
Board of Directors Meeting
September 14, 2021**

TO: Board of Directors
THROUGH: Beverli A. Marshall, General Manager
FROM: Jeanette Juarez, Business Services Manager
SUBJECT: Quarterly Investment Report for the Period Ending June 30, 2021

<input type="checkbox"/> Board Action	<input type="checkbox"/> New Budget Approval	<input type="checkbox"/> Contract Award
<input checked="" type="checkbox"/> Board Information	<input type="checkbox"/> Existing FY Approved Budget	<input type="checkbox"/> Closed Session

Executive Summary

The purpose of this report is to provide information regarding the District’s investments to the Board and the public.

Strategic Plan Compliance

This item complies with VSD Strategic Plan Objective 5: Long-Term Financial Strength.

Fiscal Impact

There is no fiscal impact from this report.

Background

The State of California Government Code section 53646(b) requires agencies to present to the Board of Directors a report of its investments on at least a quarterly basis. As of June 30, 2021, VSD had \$55.6 million invested in LAIF and \$1.09 million invested in CalTRUST.

Recommendation

Staff recommends that the Board review and accept the Quarterly Investments Report for the period ending June 30, 2021.

Attachments

- Attachment A: Quarterly LAIF Report for Period Ending June 30, 2021
- Attachment B: Quarterly CalTRUST Report for Period Ending June 30, 2021



BETTY T. YEE
California State Controller

LOCAL AGENCY INVESTMENT FUND
REMITTANCE ADVICE

Agency Name VALLEY SANITARY DISTRICT
Account Number [REDACTED]

As of 07/15/2021, your Local Agency Investment Fund account has been directly credited with the interest earned on your deposits for the quarter ending 06/30/2021.

Earnings Ratio		.00000897371743018
Interest Rate		0.33%
Dollar Day Total	\$	4,688,838,127.57
Quarter End Principal Balance	\$	55,594,550.33
Quarterly Interest Earned	\$	42,076.31



CalTRUST
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 Omaha, NE 68154-9150
 www.caltrust.org
 Email: CalTRUSTSupport@ultimusfundsolutions.com
 Fax: 402-963-9094
 Phone: 833-CALTRUST (225-8787)

Investment Account Summary

06/01/2021 through 06/30/2021

SUMMARY OF INVESTMENTS

Fund	Account Number	Total Shares Owned	Net Asset Value per Share on Jun 30 (\$)	Value on Jun 30 (\$)	Average Cost Amount (\$)	Cumulative Unrealized Gain/(Loss) (\$)
VALLEY SANITARY DISTRICT	[REDACTED]					
CalTRUST Medium Term Fund	[REDACTED]	106,730.942	10.26	1,095,059.46	1,078,591.64	16,467.82
Portfolios Total value as of 06/30/2021				1,095,059.46		

DETAIL OF TRANSACTION ACTIVITY

Activity Description	Activity Date	Amount (\$)	Amount in Shares	Balance in Shares	Price per Share (\$)	Balance (\$)	Average Cost Amt (\$)	Realized Gain/(Loss) (\$)
CalTRUST Medium Term Fund		VALLEY SANITARY DISTRICT						
		Account Number: [REDACTED]						
Beginning Balance	06/01/2021			106,697.344	10.27	1,095,781.72		
Accrual Income Div Reinvestment	06/30/2021	344.72	33.598	106,730.942	10.26	1,095,059.46	0.00	0.00
Unrealized Gain/(Loss)						(1,066.98)		
Closing Balance as of	Jun 30			106,730.942	10.26	1,095,059.46		

Please note that this information should not be construed as tax advice and it is recommended that you consult with a tax professional regarding your account.



**Valley Sanitary District
Board of Directors Meeting
September 14, 2021**

TO: Board of Directors
THROUGH: Beverli A. Marshall, General Manager
SUBJECT: **Cancel Board Meeting on Tuesday, September 28, 2021 Due to Directors Attending the Special District Leadership Academy in South Lake Tahoe, CA**

<input checked="" type="checkbox"/> Board Action	<input checked="" type="checkbox"/> New Budget Approval	<input type="checkbox"/> Contract Award
<input type="checkbox"/> Board Information	<input type="checkbox"/> Existing FY Approved Budget	<input type="checkbox"/> Closed Session

Executive Summary

The purpose of this report is for the Board to authorize the cancellation of this regularly scheduled meeting.

Strategic Plan Compliance

This item complies with VSD Strategic Plan Objective 6.6: Improve Governance.

Fiscal Impact

There is a nominal savings for cancelling this meeting.

Background

The regular board meetings are scheduled for the second and fourth Tuesday of every month at 1:00 P.M. President Sear, Secretary/Treasurer Canero, and Director Duran will be attending the Special District Leadership Academy in South Lake Tahoe, CA from September 26 through 29 and will not be able to participate in the Board meeting on September 28. While Vice President Coleman and Director Teague are available, this would not allow for a quorum at the meeting. There are no items identified by staff that need immediate attention and, if necessary, a special meeting could be called to address the item before the next regular meeting on October 12.

Recommendation

Staff recommends that the Board of Directors cancel the regular Board meeting scheduled for September 28, 2021.

Attachments

None



**Valley Sanitary District
Board of Directors Meeting
September 14, 2021**

TO: Board of Directors
THROUGH: Beverli A. Marshall, General Manager
FROM: Ronald Buchwald, Engineering Services Manager
SUBJECT: **Authorize the General Manager to Execute a Contract with Borden Excavating, Inc. for the Abandonment of 5 Irrigation Laterals in an Amount Not to Exceed \$10,438**

<input checked="" type="checkbox"/> Board Action	<input type="checkbox"/> New expenditure request	<input checked="" type="checkbox"/> Contract Award
<input type="checkbox"/> Board Information	<input checked="" type="checkbox"/> Existing FY Approved Budget	<input type="checkbox"/> Closed Session

Executive Summary

The purpose of this report is for the Board of Directors to review and discuss the proposal from Borden Excavating, Inc. for the Abandonment of 5 irrigation laterals that feed Tribal land.

Strategic Plan Compliance

This item complies with VSD Strategic Plan Objective 3: Excellent Facilities.

Fiscal Impact

The total cost of this proposal is \$10,438. This project is not included in the FY 2021/22 Capital Improvement Budget. However, staff proposes to use the contingency fund to pay for this project. The contingency fund has a total budget of \$100,000.00.

Background

There exist 5 irrigation laterals that connect to the pond return main that were used to irrigate 29 Palms Band of Mission Indians (BOMI) Tribal property as well as Cabazon BOMI Tribal property. VSD no longer irrigates either property. Regulations on use of secondary water for irrigation has made it impossible to use anymore. The five irrigation lines are active and end on Tribal Property. 29 Palms BOMI is currently developing their property with plans of constructing large warehouses. Staff is concerned that these laterals will be hit during construction with no ability to stop the secondary water from the ponds from flooding their property. Staff solicited proposals from two contractors who have done work for the district recently. Borden Excavating’s proposal came in the lowest at \$10,438.

Recommendation

Staff recommends that the Board of Directors authorize the General Manager to execute a contract with Borden Excavating, Inc. for the abandonment of 5 irrigation laterals in an amount not to exceed \$10,438.

Attachments

Attachment A: Borden Excavating's Proposal dated August 13, 2021.

Attachment B: Downing Construction's Proposal dated August 20, 2021



Project Name:

On-Call

Friday, August 13, 2021

Owner:

Valley San

NM-03

Work Performed:

Equipment	Qty	Hours	Idle YES/NO	Idle Rate	Operating Rate	Extended Amount
Truck Utility	1	12	No	3.85	29.60	\$ 355.20
Truck Pickup Foreman	1	12	No	3.40	26.15	\$ 313.80

Equipment Total \$ 669.00

Labor	Hours	Hourly Rate	Overtime Hours	Overtime Rate	Per Diem Rate	Extended Amount
Team Leader	12.0	77.68		86.70		\$ 932.16
Operator	12.0	77.68		86.70		\$ 932.16
Pipelayer	12.0	60.43		76.83		\$ 725.16
Laborer	12.0	57.78		72.85		\$ 693.36
		0		0	0	\$ -
		0		0	0	\$ -
		0		0	0	\$ -
		0		0	0	\$ -
		0		0	0	\$ -
		0		0	0	\$ -
		0		0	0	\$ -
		0		0	0	\$ -

Labor Burden & Workers Compensation 38.00% \$ 1,247.48

Labor Total \$ 4,530.32

Subcontractors / Owner Operator	Qty	Unit Cost	Amount
Western Rental	1.00	\$ 1,200.00	\$ 1,200.00
			\$ -
			\$ -
			\$ -

Subcontract Total: \$ 1,200.00

Materials:	Vender	Qty	Unit Price	Amount
Quick Crete		1.00	500.00	\$ 500.00
Robertsons		1.00	1000.00	\$ 1,000.00
Core & Main		7.00	420.00	\$ 2,940.00
			0	\$ -
			0	\$ -
			0	\$ -

Material Tax 7.75% \$ 344.10

Material Total \$ 4,784.10

Summary:

Description	Sub Totals	Mark-up	Extended	Total
Labor	\$ 4,530.32	15%	\$ 679.55	\$ 5,209.87
Equipment	\$ 669.00	15%	\$ 100.35	\$ 769.35
Material	\$ 4,784.10	15%	\$ 717.62	\$ 5,501.72
Subcontractors	\$ 1,200.00	5%	\$ 60.00	\$ 1,260.00

Company Overhead 5.00% \$ 637.05

General Liability Insurance 0.00% \$ -

Payment & Performance Bonds 0.00% \$ -

Report Total \$ 13,377.98

~~-\$2,940.00~~

New Total \$10,437.98 Page 17 of 162

Note: We reserve the right to supplement and/or correct report. Appropriate extensions requested.



**Valley Sanitary District
Board of Directors Meeting
September 14, 2021**

TO: Board of Directors

THROUGH: Beverli A. Marshall, General Manager

FROM: Jeanette Juarez, Business Services Manager

SUBJECT: **Authorize the General Manager to Apply for Financing Through the California Infrastructure and Economic Development Bank (IBank) for the Training & Office Building and Laboratory Building**

<input checked="" type="checkbox"/> Board Action	<input type="checkbox"/> New Budget Approval	<input type="checkbox"/> Contract Award
<input type="checkbox"/> Board Information	<input type="checkbox"/> Existing FY Approved Budget	<input type="checkbox"/> Closed Session

Executive Summary

The purpose of this report is to provide information to the Board of Directors to review and approve IBank’s invitation to apply for financing.

Strategic Plan Compliance

This item complies with VSD Strategic Plan Objective 5.1: Align long-term financial planning with strategic priorities.

Fiscal Impact

There is no fiscal impact from this report.

Background

IBank has completed its review of the audited financial statements and other materials provided in connection with the financing requested by the District for the Training and Office Building and Laboratory Building Project. IBank has extended the District an invitation to apply for financing under IBank’s Infrastructure State Revolving Fund Program (“ISRF Program”).

Once the application is submitted, IBank will complete its review and underwriting of the Requested Financing generally within 90 days of receipt of the District’s completed ISRF financing application.

The 10-year Capital Improvement Program (CIP) has various projects that require funding. The loans from IBank will assist in funding the following two (2) projects:

1. Laboratory Building

2. Training and Office Building

The estimated cost for both projects is \$16.5 million. The District will request \$15 million in financing from IBank and use \$1.5 million from sewer rates as match funding. The financing costs were included in the Fiscal Year 2020/21 rate study as a planning strategy to meet long term needs while maintain affordability to customers. This is the first in a series of projects that will require financing as is presented in the CIP and rate study.

Recommendation

Recommend that the Board of Directors to authorize the General Manager to apply for financing IBank for the Training & Office Building and Laboratory Building.

Attachments

- Attachment A: IBank by the Numbers
- Attachment B: ISRF Loan Rate Setting Guidelines
- Attachment C: IBank Board Approved Final ISRF Criteria
- Attachment D: FAQ'a IBank

IBANK BY THE NUMBERS



California Infrastructure and Economic Development Bank

IBank's Mission

To provide financial assistance to support infrastructure and economic development in California.

Infrastructure and Economic Expansion

IBank financings and related activities account more than **\$43 billion** of infrastructure and economic development activity that promotes a healthy climate for jobs, contributes to a strong economy, and improves the quality of life for Californians.

DIRECT LENDING: IBank has financed more than **\$814 million** in low-cost Infrastructure State Revolving Fund (ISRF) loans to state and local governmental entities for infrastructure and economic expansion projects since 1999 and nearly **\$300 million** since 2015.

BOND FINANCINGS: IBank has been involved with tax-exempt and taxable bond issuances for infrastructure projects, economic development activity and more in an amount exceeding **\$40 billion -- including more than \$2 billion** in bond financing for green and clean water projects throughout the state of California. Nearly **\$8 billion** of bond issuances have been facilitated by IBank since 2015.

Small Business Finance Center

SMALL BUSINESS LOAN GUARANTEE PROGRAM: With more than **\$1.9 billion** from **20,500** loan guarantees since the early 2000s, IBank's Small Business Finance Center has supported more than **\$3.2 billion** of loans for California entrepreneurs, including **\$1 billion** in loan guarantees alone since 2015.

JUMP START DIRECT LOANS AND DISASTER RELIEF: IBank has made **\$449,000** in Jump Start microloans to **49** low-wealth entrepreneurs in low-wealth communities and provided **1,500 hours** of technical assistance to **485** small businesses in these communities. IBank has guaranteed more than **\$48 million** in disaster relief loans to small businesses since the COVID-19 health and economic crisis.

Job Creation

IBank has helped create or retain more than **462,000 jobs** in California communities through its combined programs: more than **23,000 jobs** in ISRF, more than **41,000 jobs** in Bond financing projects and nearly **398,000 jobs** with Small Business Finance Center Projects.

California Infrastructure State Revolving Fund

Interest Rate Setting Guidelines

The ISRF Interest Rate Setting Guidelines provide for the rate setting methodology for the ISRF program that is designed to achieve a number of goals:

- 1) Mitigate the risks of lending to lower creditworthy Borrowers by including risk-based factors in the interest rate setting methodology,
- 2) Increase the attractiveness of the Infrastructure State Revolving Fund Program to higher-rated credits, thereby improving the over-all loan portfolio risk profile,
- 3) Allow subsidies to be provided to all Borrowers, yet simultaneously allow the I-Bank to achieve its mission with respect to promoting employment opportunities and assisting “low-wealth” areas of the State by making additional subsidies available to Borrowers in communities with high unemployment and/or low median household incomes,
- 4) Ensure long term ISRF viability by setting interest rates in a manner that covers the I-Bank’s cost of funding loans, easily adjusts to changing market and economic conditions and satisfies tax compliance requirements,
- 5) Achieve goals 1-4 in a manner that is based on publicly available pricing data and is transparent to the Borrowers and prospective applicants.

Introduction/Background:

The California Infrastructure and Economic Development Bank (I-Bank), through its Infrastructure State Revolving Fund Program (“ISRF” or the “Program”) has historically offered a one size fits all interest rate pegged at 67% of a generic A rated municipal bond with an equivalent term [weighted average life] to the Loan. This approach, while simple to apply, attractive to lower rated Borrowers, and reasonably well correlated to pre-2008 Treasury/Muni interest rate differentials has, over time, resulted in an excessive and arbitrary assignment of subsidies and has potentially endangered the long term viability of the Program by requiring greater dedication of Program revenues to cover Bond debt service, leaving less available to meet annual operating costs of the I-Bank and the ISRF Program. Moreover, the volatility of post-2008 credit spreads as well as Treasury/Muni spreads indicates that a static approach is not sustainable if both marketability and solvency are to be maintained.

Unlike many of the country’s other State Revolving Fund Programs (SRF Program), which are limited to offering loans to water & sewer agencies, the I-Bank offers loans to a broad range of municipal Borrowers and certain nonprofit organizations secured by a

variety of pledges. Broadly, the quality of these pledges can be described as Strong, Good, and Adequate. Consequently, the I-Bank is faced with a much wider range of credit spreads than the typical SRF Program.

Proposed Methodology:

I-Bank's proposed methodology is a three step process.

Step 1 Determine the quality of the Security Pledge to select the appropriate proxy MMD scale to use.

- 1) MMD GO scales will be the entry point for Strong Pledge Loans,
- 2) MMD Revenue Bond Scales will be the entry point for Good Pledge Loans, and
- 3) MMD COP scales be used as the entry point for Adequate Pledge Loans.

Step 2 Use Published Letter Category Ratings for the pledged revenue stream to determine the Base (Market Price) Spread from the MMD AAA GO Scale applicable to the Borrower. Unrated and/or Below Investment Grade Borrowers would be assigned a spread equal to 105% of the Baa/BBB Spread (by maturity) within each category determined in Step 1.

Step 3 Apply subsidies to the spread determined in Steps 1 & 2 subject to certain limits:

- 1) General Subsidy applicable to All Borrowers equal to 15% of the applicable spread
- 2) Median Household Income Subsidy available on a sliding percentage scale to Borrowers that meet certain thresholds compared to the State Average Median Household Income (weighted)
- 3) Unemployment Rate Subsidy available on a sliding percentage scale to Borrowers that meet certain thresholds compared to the State Average Unemployment Rate (weighted)
- 4) Additional Subsidies as determined desirable by the Board & I-Bank Management (weighted)
- 5) Total Subsidies applicable to any Loan would be limited to the equivalent of a 2 letter category credit upgrade and 1 Security Pledge upgrade. In no event would a Borrower qualify for rates less than the MMD AAA GO (spread ≥ 0 except as outlined below in 6).
- 6) Upper limits on Loan Rates would be governed by Tax Law limitations on the portfolio yield.
- 7) If additional assistance is needed during construction, a stepped down coupon approach may be considered (x years at a discounted stepped down coupon

rate, reverting to normal coupons at $x+1$); provided Borrowers agree to longer restrictions on pre-payments.

By applying this methodology under these Guidelines, individual Loans would be structured using the adjusted scale derived from above. This will offer an incentive to better rated credits to utilize the ISRF Program, since they can reap the same benefits of a sloping yield curve as they would through a public offering at better rates.

Appendix A (attached) provides additional details on the Subsidy calculations, as well as several examples of how the methodology would be applied to different Borrowers.

APPENDIX A

Base Proxy Interest Rate and Spread Tables

Hypothetical as of November 14, 2013

MMD Base Rates (AAA GO) & Spreads		1.05					ALL RATES as of: 11/14/2013									
GO (Stongest Pledge)						Revenue (Strong Pledge)					Lease/COP (Weak Revenue Pledge)					
Year	Spread to MMD AAA GO					Spread to MMD AAA GO					Spread to MMD AAA GO					
	AAA	AA	A	BBB	NR/<IG	AAA	AA	A	BBB	NR/<IG	AAA	AA	A	BBB	NR/<IG	
1	0.17	0.02	0.16	0.68	0.71	0.03	0.05	0.19	0.71	0.75	0.25	0.27	0.41	0.93	0.98	
2	0.33	0.03	0.22	0.93	0.98	0.04	0.07	0.26	0.97	1.02	0.38	0.41	0.6	1.31	1.38	
3	0.5	0.07	0.24	1.09	1.14	0.05	0.12	0.29	1.14	1.20	0.4	0.47	0.64	1.49	1.56	
4	0.78	0.09	0.31	1.13	1.19	0.07	0.16	0.38	1.2	1.26	0.48	0.57	0.79	1.61	1.69	
5	1.16	0.11	0.45	1.18	1.24	0.08	0.19	0.53	1.26	1.32	0.5	0.61	0.95	1.68	1.76	
6	1.52	0.14	0.58	1.31	1.38	0.09	0.23	0.67	1.4	1.47	0.5	0.64	1.08	1.81	1.90	
7	1.9	0.19	0.66	1.37	1.44	0.1	0.29	0.76	1.47	1.54	0.5	0.69	1.16	1.87	1.96	
8	2.22	0.21	0.74	1.48	1.55	0.1	0.31	0.84	1.58	1.66	0.5	0.71	1.24	1.98	2.08	
9	2.42	0.23	0.78	1.52	1.60	0.1	0.33	0.88	1.62	1.70	0.5	0.73	1.28	2.02	2.12	
10	2.61	0.24	0.8	1.53	1.61	0.1	0.34	0.9	1.63	1.71	0.5	0.74	1.3	2.03	2.13	
11	2.77	0.25	0.81	1.55	1.63	0.1	0.35	0.91	1.65	1.73	0.5	0.75	1.31	2.05	2.15	
12	2.91	0.25	0.81	1.57	1.65	0.1	0.35	0.91	1.67	1.75	0.5	0.75	1.31	2.07	2.17	
13	3.06	0.25	0.81	1.57	1.65	0.1	0.35	0.91	1.67	1.75	0.5	0.75	1.31	2.07	2.17	
14	3.21	0.25	0.81	1.57	1.65	0.1	0.35	0.91	1.67	1.75	0.5	0.75	1.31	2.07	2.17	
15	3.34	0.25	0.81	1.57	1.65	0.1	0.35	0.91	1.67	1.75	0.5	0.75	1.31	2.07	2.17	
16	3.46	0.25	0.81	1.56	1.64	0.1	0.35	0.91	1.66	1.74	0.5	0.75	1.31	2.06	2.16	
17	3.57	0.25	0.81	1.53	1.61	0.09	0.34	0.9	1.62	1.70	0.49	0.74	1.3	2.02	2.12	
18	3.66	0.25	0.81	1.5	1.58	0.09	0.34	0.9	1.59	1.67	0.49	0.74	1.3	1.99	2.09	
19	3.75	0.24	0.81	1.46	1.53	0.08	0.32	0.89	1.54	1.62	0.48	0.72	1.29	1.94	2.04	
20	3.81	0.24	0.81	1.43	1.50	0.08	0.32	0.89	1.51	1.59	0.48	0.72	1.29	1.91	2.01	
21	3.87	0.24	0.8	1.4	1.47	0.06	0.3	0.86	1.46	1.53	0.48	0.72	1.28	1.88	1.97	
22	3.92	0.24	0.8	1.37	1.44	0.06	0.3	0.86	1.43	1.50	0.48	0.72	1.28	1.85	1.94	
23	3.97	0.24	0.78	1.36	1.43	0.06	0.3	0.84	1.42	1.49	0.48	0.72	1.26	1.84	1.93	
24	4.01	0.24	0.77	1.32	1.39	0.06	0.3	0.83	1.38	1.45	0.48	0.72	1.25	1.8	1.89	
25	4.04	0.23	0.76	1.32	1.39	0.06	0.29	0.82	1.38	1.45	0.48	0.71	1.24	1.8	1.89	
26	4.07	0.23	0.75	1.3	1.37	0.05	0.28	0.8	1.35	1.42	0.48	0.71	1.23	1.78	1.87	
27	4.09	0.23	0.74	1.29	1.35	0.05	0.28	0.79	1.34	1.41	0.48	0.71	1.22	1.77	1.86	
28	4.11	0.22	0.73	1.28	1.34	0.05	0.27	0.78	1.33	1.40	0.48	0.7	1.21	1.76	1.85	
29	4.12	0.22	0.73	1.28	1.34	0.05	0.27	0.78	1.33	1.40	0.48	0.7	1.21	1.76	1.85	
30	4.13	0.22	0.73	1.28	1.34	0.05	0.27	0.78	1.33	1.40	0.48	0.7	1.21	1.76	1.85	

Using these rates/spreads three hypothetical Borrowers would be assigned Base Spreads as follows:

Scenario 1.

An A rated Borrower seeking a loan secured by Water/Sewer Municipal Utility Revenues would complete Steps 1 & 2 and be assigned a starting scale based on spreads indicated in the A column of the Revenue (Strong Pledge) section (19 bps – 91 bps). After application of the General Subsidy (15% of the Base Spread) the revised Spreads would equal (16 bps – 77 bps).

Scenario 2.

A BBB rated Borrower seeking a loan secured by an annual appropriation lease on a city owned police/fire station would complete Steps 1 & 2 and be assigned a starting scale

based on spreads indicated in the BBB column of the Lease/COP (Good Pledge) section (93 bps – 207 bps). After application of the General Subsidy (15% of the Base Spread) the revised Spreads would equal (79 bps – 176 bps).

Scenario 3.

An unrated/Below Investment Grade Borrower seeking a loan secured by an annual appropriation lease on a city owned office building would complete Steps 1 & 2 and be assigned a starting scale based on spreads indicated in the NR/<IG column of the Lease/COP (Adequate Pledge) section (98 bps – 217 bps). After application of the General Subsidy (15% of the Base Spread) the revised Spreads would equal (83 bps – 184 bps).

All three Borrowers qualify for the General Subsidy of 15%, so preliminary spread adjustments would be as indicated above. In addition to providing assistance to lower rated or unrated Borrowers, this General Subsidy will help to attract stronger rated credits within each letter category by equalizing base rates (A+ vs A- Borrowers)

General Subsidy:

General Subsidy	Subsidy (% of “Spread”)
All Borrowers	15%

MHI Adjustments: (weighted)*

Median Household Income vs. State Average	Subsidy (% of “Spread”)
>= State Average MHI	0%
< 75% of State Average MHI	30%
< 50% of State Average MHI	40%
< 25% of State Average MHI	50%

Unemployment Rate Adjustments: (weighted)*

Unemployment Rate vs. State Average	Subsidy (% of “Spread”)
<= State Average Unemployment Rate	0%
> 115% of State Average Unemployment Rate	30%
> 125% of State Average Unemployment Rate	40%
> 135% of State Average Unemployment Rate	50%

Economic Disaster/Other Circumstance Approved by Board Action Adjustments: (weighted or add-on)**

Qualifies under Criteria	Subsidy (% of “Spread”)
Yes	25%
No	0%

* Weights would sum up to 100% with emphasis based on Board/I-Bank goals and the total number of Subsidy Categories. In the examples provided, a 50/50 weighting is assumed for MHI and Unemployment.

** This category could either be weighted (as described above), or it could be an additional subsidy that would have the effect of allowing the all-in rate adjustment to exceed the “Spread to MMD”.

Examples:

The following Charts show the Range of Possible Interest Rates Achievable by the three hypothetical Borrowers described earlier. Minimum Subsidies indicates the Scale that could be achieved solely by applying the General (15%) Subsidy, whereas Maximum Subsidies indicates that the Borrower qualified for and received the maximum subsidies (subject to limitation) available for Low MHI and High Unemployment, as well as the Subsidy for being in an Economic Disaster Area (as an add-on).



CALIFORNIA INFRASTRUCTURE AND ECONOMIC DEVELOPMENT BANK

CRITERIA, PRIORITIES, AND GUIDELINES

**FOR THE SELECTION OF PROJECTS FOR FINANCING
UNDER**

**THE INFRASTRUCTURE STATE REVOLVING FUND (ISRF)
PROGRAM**

Date Effective: February 23, 2016

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**CALIFORNIA INFRASTRUCTURE AND ECONOMIC DEVELOPMENT BANK
(IBank)**

**CRITERIA, PRIORITIES, AND GUIDELINES FOR THE SELECTION OF
PROJECTS FOR FINANCING UNDER
THE INFRASTRUCTURE STATE REVOLVING FUND (ISRF) PROGRAM**

Date Adopted: February 23, 2016

I. ELIGIBILITY CRITERIA

A. Introduction

The California Infrastructure and Economic Development Bank (“IBank”) was created to serve a variety of public purposes including providing an accessible low-cost financing option to eligible borrowers for a wide range of infrastructure projects. To meet this important public purpose, the IBank developed its Infrastructure State Revolving Fund (“ISRF Program”). ISRF Program financing is available in amounts from \$50,000 to \$25,000,000, with terms of up to 30 years. The interest rate for each financing¹ is set at the time the financing is approved. Applications are accepted on a continuous basis.

To leverage the assets within the ISRF Program, the IBank, from time-to-time, issues Infrastructure State Revolving Fund Revenue Bonds (“ISRF Program Bonds”) secured by ISRF Program financings (“ISRF Financing” or “Financing”) and other assets under the ISRF Program.

¹ “Financing” is used generically in this document to refer to various forms of limited obligation financings.

B. Authority

The eligibility criteria and other program requirements for the Infrastructure State Revolving Fund Program (“ISRF Program”) set forth in these “Amended and Restated Criteria, Priorities, and Guidelines for the Selection of Projects for Financing Under the Infrastructure State Revolving Fund Program” (the “Criteria”) are based on the provisions of Chapters 1-2 of Division 1 of Title 6.7 of the Government Code of the State of California, commencing with Section 63000 (the “IBank Act”) as of the date of the adoption of the Criteria.

Subsequent to the date of the adoption of the Criteria, whenever provisions of the IBank Act are changed such that specific provisions of the Criteria are inconsistent with the applicable provisions of the IBank Act, the requirements of the IBank Act shall govern.

The IBank Board periodically reviews, modifies, and adopts the Criteria as policy and authorizes the Executive Director to maintain, disclose, and circulate the guidelines and procedures detailed in Exhibit A for the benefit of potential applicants, borrowers, and the general public.

C. Applicants

Applicants must meet one of the following definitions:

For Infrastructure Projects:

For projects that fall in categories 1 through 16, under the section titled “Projects” below (“Infrastructure Projects”), the borrower may be any subdivision of a local or state government, including departments, agencies, commissions, cities, counties, non-profit corporations formed on behalf of an applicant, special districts, assessment districts, and joint powers authorities within the state or any combination of these subdivisions that makes application to the IBank for financial assistance in connection with a project in a manner prescribed by IBank. Such borrower is considered a “Sponsor” for purposes of these Criteria.

In addition, for those projects in categories 1 through 16 below, an eligible borrower may be any company, corporation, association, state or municipal governmental entity, partnership, firm, or other entity or group of entities, provided that for a borrower, other than a state or municipal governmental entity, such borrower is organized as a public benefit tax exempt not for profit entity and is, engaged in business or operations within the state; and provided further, that, for the purpose of implementing a project, in categories 1 through 16, such entity applies for financing from the IBank in conjunction with a Sponsor.

For Economic Expansion Projects:

For projects that fall in categories 17 and 18, under the section titled “Projects” below (“Economic Expansion Projects”) that facilitate any of the environmental,

economic, and social goals enumerated in The Governor’s Environmental Goals and Policy Report, as more particularly identified in Section III D of the Criteria, the borrower may be any person, company, corporation, association, state or municipal governmental entity, partnership, firm, or other entity or group of entities, provided that such borrower is organized as a public benefit tax exempt not for profit entity and is engaged in business or operations within the state and provided further, that, for the purpose of implementing an Economic Expansion Project, such entity applies for financing from the IBank in conjunction with a Sponsor.

D. Projects

“Project” generally means designing, acquiring, planning, permitting, entitling, constructing, improving, extending, restoring, financing, and generally developing facilities within the state and would include real and personal property, structures, conveyances, equipment, thoroughfares, buildings and supporting components thereof, excluding any housing, directly related to providing any of the following:

INFRASTRUCTURE PROJECTS

1. City Streets including any street, avenue, boulevard, road, parkway, drive, or other way that is one of the following: An existing municipal roadway; or the project is shown upon a plat approved pursuant to law and includes the land between the street lines, whether improved or unimproved, and may comprise pavement, bridges, shoulders, gutters, curbs, guardrails, sidewalks, parking areas, benches, fountains, plantings, lighting systems, and other areas within the street lines, as well as equipment and facilities used in the cleaning, grading, clearance, maintenance, and upkeep thereof.
2. County Highways including any county highway as defined in Section 25 of the Streets and Highways Code, that includes the land between the highway lines, whether improved or unimproved, and may comprise pavement, bridges, shoulders, gutters, curbs, guardrails, sidewalks, parking areas, benches, fountains, plantings, lighting systems, and other areas within the street lines, as well as equipment and facilities used in the cleaning, grading, clearance, maintenance, and upkeep thereof.
3. Drainage, Water Supply, and Flood Control including but not limited to ditches, canals, levees, pumps, dams, conduits, pipes, storm sewers, and dikes necessary to keep or direct water away from people, equipment, buildings, and other protected areas as may be established by lawful authority, as well as the acquisition, improvement, maintenance, and management of flood plain areas and all equipment used in the maintenance and operation of the foregoing.

4. Educational Facilities including libraries, child care facilities, including, but not limited to, day care facilities and employment training facilities. Also including facilities for laboratories, administration centers, student service buildings, athletic complexes and public parking facilities.
5. Environmental Mitigation Measures including required construction or modification of public infrastructure, and purchase and installation of pollution control and noise abatement equipment.
6. Parks and Recreational Facilities including local parks, recreational property and equipment, parkways and property.
7. Port Facilities including airports, landports, waterports, railports, docks, harbors, ports of entry, piers, ships, small boat harbors and marinas, and any other facilities, additions, or improvements in connection therewith, that transport goods or persons.
8. Power and Communications including facilities for the transmission or distribution of electrical energy, natural gas, and telephone and telecommunications services as well energy conservation measures. Also including facilities for the generation or storage of electrical energy as well as for energy conservation measures.
9. Public Transit including air and rail transport, airports, guideways, vehicles, rights-of-way, passenger stations, maintenance and storage yards, and related structures, including, public parking facilities, equipment used to provide or enhance transportation by bus, rail, ferry, or other conveyance, either publicly or privately owned, that provides to the public general or special service on a regular and continuing basis.
10. Sewage Collection and Treatment including pipes, pumps, and conduits that collect wastewater from residential, manufacturing, and commercial establishments, the equipment, structures, and facilities used in treating wastewater to reduce or eliminate impurities or contaminants, and the facilities used in disposing of or transporting, remaining sludge, as well as all equipment used in the maintenance and operation of the foregoing. Also including facilities for the recycling of or facilitating the alternative use of remaining sludge and for maintenance and operation of such facilities.
11. Solid Waste Collection and Disposal including vehicles, vehicle-compatible waste receptacles, transfer stations, recycling centers, sanitary landfills, and waste conversion facilities necessary to remove solid waste, except that which

is hazardous as defined by law, from its point of origin. Also including equipment in connection with the foregoing.

12. Water Treatment and Distribution including facilities in which water is purified and otherwise treated to meet residential, manufacturing, or commercial purposes and the conduits, pipes, and pumps that transport it to places of use.
13. Defense Conversion including but not limited to, facilities necessary for successfully converting military bases consistent with an adopted base reuse plan.
14. Public Safety Facilities including but not limited to, police stations, fire stations, court buildings, jails, juvenile halls, and juvenile detention facilities.
15. State Highways including any state highway as described in Chapter 2 (commencing with Section 230) of Division 1 of the Streets and Highways Code, and the related components necessary for safe operation of the highway.
16. Military Infrastructure including but not limited to facilities on or near a military installation that enhance the military operations and mission of one or more military installations in this state. To be eligible for funding the project shall be endorsed by the Office of Planning and Research. "Military installation" means any facility under the jurisdiction of the Department of Defense, as defined in paragraph (1) of subsection (e) of Section 2687 of Title 10 of the United States Code.
17. Goods movement-related infrastructure including port facilities, roads, rail, and other facilities and projects that move goods, energy and information.

ECONOMIC EXPANSION PROJECTS:

18. Industrial, Utility and Commercial: including, but not limited to, facilities that are used for industrial, utility or commercial goods movement purposes and any parts or combination thereof and all facilities or infrastructure necessary or desirable in connection therewith.
19. Educational, Cultural and Social: including, but not limited to, facilities that are used for cultural, recreational, research, community, or educational purposes as well as service enterprise facilities and social welfare facilities and any parts or combination thereof and all facilities or infrastructure necessary or desirable in connection therewith.

E. Costs

Eligible costs for financing include:

1. All or any part of the cost of construction, renovation, and acquisition of all lands, structures, real or personal property.
2. Rights, rights of way, franchises, licenses, easements, and interests acquired or used for a project.
3. The cost of demolishing or removing any buildings or structures on land so acquired, including the cost of acquiring any lands to which the buildings or structures may be moved.
4. The cost of all machinery, equipment and financing charges.
5. Interest prior to, during, and for a period after, completion of construction, renovation, or acquisition, as determined by the IBank.
6. Provisions for working capital.
7. Reserves for principal and interest and for extensions, enlargements, additions, replacement, renovations, and improvements.
8. The cost of architectural, engineering, financial and legal services, plans, specifications, estimates, administrative expenses.
9. Other expenses necessary or incidental to determining the feasibility of any project or incidental to the construction, acquisition, or financing of any project.

II. THE FINANCING APPLICATION

A. Readiness and Feasibility

Applicant must demonstrate project readiness and feasibility to complete construction within 2 years after the IBank's financing approval. In this context, "complete a project" the portion of the project financed by the IBank must meet construction contract specifications for completeness and / or ability to operate. In addition, project must meet "feasibility" requirements set forth below:

1. Permits

Applicant must provide evidence that it has applied for and/or received all permits or approvals, if appropriate for the type of financing being considered, necessary for the construction of the project.

2. Source of Financing Repayment

Eligible sources of financing repayment include, without limitation, the following:

- a. Water or Sewer Enterprise/Special Fund. Projects that will be part of a revenue-producing water or sewer enterprise system may be financed with a financing that is payable with revenues from the water or sewer enterprise/special fund.
- b. Other Enterprise/Special Fund. Other revenue producing enterprise systems such as ports, airports, solid waste systems, bridges, and parking facilities may be eligible if the proposed project and repayment stream are acceptable to the IBank.
- c. General Fund Lease. ISRF Financings secured by leases of Borrower assets.
- d. Land Secured. ISRF Financings repaid with property taxes or property-related assessments.
- e. Voter-approved General Fund debt or other voter-approved debt secured by full faith and credit (general obligation).
- f. Other sources of repayment and/or alternative financing structures may be considered by the IBank at its discretion.

3. Project Funds

The IBank will require all project funding sources, other than the IBank's financing, to be identified at the time of application and committed prior to financing approval by the IBank. The IBank may also require additional reviews and evaluations of project feasibility and potential risks.

4. Prevailing Wages and Contractor Pre-Qualification.

Projects financed with IBank funds will be required to comply with Chapter 1 (commencing with Section 1720) of Part 7 of Division 2 of the Labor Code, including the payment of prevailing wages.

All borrowers that receive IBank financing above \$2 million, and that are also the entity awarding the construction contract, must pre-qualify contractors bidding on the IBank financed project using the model pre-qualification questionnaire approved by the Department of Industrial Relations (“DIR”) pursuant to AB 574 (Chapter 972 of the Statutes of 1999). The model questionnaire can be obtained from DIR’s website at: <http://www.dir.ca.gov/prequal.htm>

5. Business Relocation

ISRF financing shall not be used to facilitate the relocation of a private sector business from one political jurisdiction of the State to another without substantial justification deemed acceptable by the IBank. Examples of justifications include, without limitation, (i) completion of the project is necessary to prevent relocation of substantial business operations outside the State; or (2) the needs of the private sector business cannot be accomplished within the current location.

III. APPLICATION PROCESS

A. Financing Application

Applications will be accepted on a continuous basis. However, during any period where application deadlines have been imposed by the IBank, applicants must submit complete Financing Applications by an announced application deadline date in order for such applications to be considered.

The board approved form of ISRF Program Financing Application, found on the IBank’s website, requires detailed information and documentation about the applicant and the project in order to enable the IBank to determine if the application complies with the IBank’s Criteria including its creditworthiness and underwriting criteria.

Prospective applicants are encouraged to contact IBank staff to schedule a pre-application meeting to discuss the Criteria and the Program.

B. Final Financing Approval

The Board of Directors of the California Infrastructure and Economic Development Bank (“IBank Board of Directors”) is authorized to make financing and other decisions at any of its meetings in accordance with and pursuant to the IBank Act and as otherwise provided by law.

C. Application/Financing Process Assistance

IBank staff is available to and does provide applicants with assistance in the process of completing the Financing Application.

D. The State Environmental Goals and Policy Report and Coordination with Growth Management Strategies

For Infrastructure Projects, prior to submitting the financing request to the IBank Board of Directors for approval, the governing body or bodies of the applicant shall determine, by resolution, certified to the IBank, that in approving the project, the governing body considered (i) the impact of the project on California's land resources and the need to preserve such resources; (ii) whether the project is economically or socially desirable, (iii) whether the project is consistent with, and in furtherance of The State Environmental Goals and Policy Report, and (iv) if applicable, whether the project is consistent with SB 375 (Steinberg – 2008) or SB 732 (Steinberg–2008).

E. Capital and Infrastructure Project Planning Report.

If the applicant is a state agency, board, commission, or department, the IBank shall consider, as appropriate, the manner in which the project reflects the goals of the Capital and Infrastructure Project Planning Report, prepared by the Director of Finance, in its selection of projects.

F. Prioritizing Projects

If the immediate financing needs of projects to be selected for IBank financing exceed the lending capacity of the ISRF Program, the IBank will give priority to Infrastructure Projects over Economic Expansion Projects. Further, at such times, as between Infrastructure Projects, the IBank will give priority to Infrastructure Projects located in, or adjacent to or directly affecting, areas with high unemployment rates, low median family income, declining or slow growth in labor force employment, or high poverty rates.

G. Applicant Resolution

Prior to submitting the financing request for approval to the IBank Board of Directors, pursuant to Government Code Section 63041(a), the governing body or bodies of the Sponsor shall find, by resolution, certified to the IBank, each of the following:

1. The project facilitates effective and efficient use of existing and future public resources so as to promote economic development and conservation of natural resources. The project develops and enhances public infrastructure in a manner that will attract, create, and sustain long-term employment opportunities.

2. The project is consistent with the general plan of both the city and county, or only the county for projects in unincorporated areas in which the project is located.
3. The proposed financing is appropriate for the specific project.
4. The project is consistent with the criteria, priorities, and guidelines for the selection of projects adopted by the IBank pursuant to Government Code Section 63040.
5. In accordance with section III (D) above, the governing body of the applicant considered (i) the impact of the project on California's land resources and the need to preserve such resources; (ii) whether the project is economically or socially desirable; and (iii) whether the project is consistent with, and in furtherance of The State Environmental Goals and Policy Report.

IV. FINANCING TERMS AND LIMITATIONS

A. Financing Amount

ISRF Financings will be available in amounts ranging from \$50,000 to \$25 million per applicant. Larger ISRF Financings may be approved by IBank subject to lending capacity and other factors including collateral and credit quality/review.

B. Interest Rate

The interest rate on ISRF Financings will be based on a combination of the Interest Rate Benchmark and Interest Rate Adjustments.

The Interest Rate Benchmark will be based on the Thompson's Municipal Market Data Index. The Interest Rate Benchmark determination is detailed in a separate document titled "ISRF Program Interest Rate Setting Methodology" and is available on the IBank's website.

Generally, Interest Rate Adjustments will cause the interest rate on ISRF Financings to be below the Interest Rate Benchmark. Interest Rate Adjustments will be based on the following factors dependent upon the repayment source:

1. Applicant Structure/Organization
2. Local Fiscal Capacity—As measured by median household income, debt per user/ household, and applicable taxes/charges/fees as a % of median household income.
3. Security/Repayment Pledge—As measured by credit rating/review and lien position of the ISRF Financing as senior, parity, or subordinated.

4. The term of the ISRF Financing
5. Other Terms and Conditions of the ISRF Financing—Includes frequency of repayment, repayment provisions, and, as applicable, reserves and coverage.
6. IBank Staff Review and Analysis—In accordance with the guidelines and procedures detailed within Exhibit A.
7. Interest rate setting methodology, including the Interest Rate Benchmark determination, is detailed in a separate document titled “ISRF Program Interest Rate Setting Methodology” and is available on the IBank’s website.

C. Amortization

The ISRF Financing term will not exceed the lesser of the project's useful life or 30 years. However, borrowers may choose shorter maturities. Repayment of the ISRF Financing will be targeted to begin within one year of ISRF Financing origination. As required, interest payments can be made from capitalized interest included in the ISRF Financing amount or other sources identified by the borrower as documented in the ISRF Financing agreement. ISRF Financings will generally be amortized on a level repayment basis, but other amortization structures may be required or approved by IBank as appropriate in a given case.

D. Prepayment

The IBank has issued and expects to continue to issue ISRF Program Bonds to fund portions of the ISRF Program. Borrowers may be permitted to prepay their ISRF Financings in whole or in part with the prior written consent of the IBank and such prepayments may be subject to prepayment premiums and other restrictions in accordance with requirements of the Program Bonds or as otherwise required by the IBank.

E. ISRF Financing and Amendment Fees

For ISRF Financings with a principal amount equal to or greater than \$250,000, a one-time origination fee of the greater of ten thousand dollars (\$10,000.00) or 1.00% of the original ISRF Financing amount will be paid as a condition of closing. For ISRF Financings with a principal amount less than \$250,000, the one-time origination fee may be reduced or waived, at the IBank’s discretion. The origination fee may be financed as part of the ISRF Financing. A servicing fee of 0.30% of the outstanding balance will be payable annually, in arrears. An amendment fee will be charged as appropriate for each amendment to the ISRF Financing documents.

F. Funding Limits

Not more than fifteen percent (15%) of the financings approved by the IBank in a given fiscal year, that utilize State funds, may be expended upon Educational Facilities, Environmental Mitigation Measures, and Parks and Recreational Facilities.

Exhibit A—Credit Underwriting Guidelines and Procedures

CALIFORNIA INFRASTRUCTURE AND ECONOMIC DEVELOPMENT BANK

INFRASTRUCTURE STATE REVOLVING FUND PROGRAM

CREDIT UNDERWRITING

Guidelines and Procedures

Introduction

The ISRF Program's credit underwriting guidelines and procedures outlined below represents the general requirements for the listed repayment sources. To adequately address the unique credit features of a particular ISRF Financing, and to provide sufficient security for the ISRF Program, additional covenants, credit enhancement, or security may be required by the IBank. Additional security may include: (1) a covenant for a debt service reserve fund at the borrower level, (2) a provision for additional security during the construction or start-up phase of a project, or (3) stricter financial covenants for borrowers with limited historical coverage or dependence on a concentrated source of revenues. IBank staff will discuss the need for such covenants with the applicant during the underwriting process and such covenants will become part of any ISRF Financing agreement entered into between the borrower and the IBank.

Alternate sources of ISRF Financing repayment or financing structures may be considered by the IBank on a project-by-project basis.

No uncured bond/loan/debt defaults may exist at the time the ISRF Financing is approved or funded. Additionally, prior cured defaults may be grounds to not approve a request, depending on circumstances.

General Quantitative Analysis

I. ISRF Financings secured solely or primarily by a revenue pledge

A. Evaluate Repayment Ability:

1. Determine the amount of revenue available for pledging from the revenue source.
2. Verify that the purpose of the financing can be secured by the proposed revenue source.
3. Evaluate the historical receipt of revenues from the proposed revenue source.
4. Evaluate the historical expenses and transfers paid from the proposed revenue source.
5. Determine amount and pledge status of any outstanding debt or other proposed debt secured or to be secured by the proposed revenue source.
6. Calculate the amount of cash flow available for debt service and the debt service coverage ratio.
7. If the amount of cash flow available for debt service is insufficient to demonstrate repayment ability for the requested ISRF Program financing plus existing and other proposed debt, determine if the borrower has cash available in an amount sufficient to establish a rate stabilization fund and/or debt service reserve fund.

B. Determine impact of the financing on the operating and other funds:

1. Measure revenue from pledged source against total operating budget.
2. Determine the effect on the operating budget from use of the specific revenue for financing purposes.
3. Determine impact of borrowing on fund balances and projected cash flow.

II. For ISRF Financings with a general fund financing structure

A. Evaluate general fund revenues:

1. Determine the sources of and the likely recurrence of the general fund revenues.
2. Verify that the purpose of the financing is consistent with a general obligation pledge.

B. Impact of financing on operating and other funds:

1. Determine if the financed project will result in an increase in annual operating costs to the borrower.
2. Determine impact of the financing on general fund balances and projected cash flow.

III. In addition to financial viability, IBank will review the legal and structural feasibility of borrowers formed through a joint powers agreement or inter-governmental agreement (collectively, “JPA”)

A. Legal Review of Agreements:

1. Review agreements for consistency.
2. Determine the life of the JPA and consistency with requested financing term.
3. Confirm that agreements allow JPA to enter into financing.

B. Evaluation of public support including, as applicable, governing body or voter authorization.

IV. For All Borrowers

A. Completeness of Application

1. Ensure that ISRF Financing application is complete, including attachments and exhibits.
2. Ascertain that governing body of borrower has approved ISRF Financing application.
3. Confirm that:
 - a. Applicant is an eligible borrower.
 - b. Project is an eligible project.

- c. Proposed source of repayment is appropriate for request financing.
- d. Repayment ability from the proposed source.
- e. Determine the impact of the financing on fund balances and operations.

B. Evaluation of Capital Planning and Financial Condition

- 1. Inquire of borrower whether or not borrower has other unmet capital needs.
- 2. Review at least the previous five years' audited financial statements.
- 3. Conduct financial analysis of borrower's general credit
 - a. Perform analysis of financial statements using criteria appropriate for analysis of municipal credits or private credits, as the case may be.
 - b. Review any official statements or prospectus used in conjunction with the issuance of bonds.
 - c. Conduct discussions with the borrower's financial advisor/underwriter to assist in the evaluation of financial conditions.
 - d. Review reports of bond rating agencies where applicable.
 - e. Review existing property tax rates and general obligation bonding capacity, as applicable for public entity borrowers.
 - f. Existing indebtedness, secured and unsecured
 - g. Cash flow projections, as appropriate

C. Evaluate Economic/Demographic Trends

- 1. Examine population trends
- 2. Examine assessed value trends

D. Legal Review to Evaluate Applicable Legal Authority

- 1. State law
- 2. Federal tax law

E. Meet with Management and Conduct Site Visit of Project

1. Determine management's understanding of all obligations, terms, and conditions of the ISRF Financing
2. Determine management's readiness and ability to assume responsibility for the timely repayment of the ISRF Financing.
3. Visit project site to determine viability of the project and to identify other potential obstacles or restrictions.

V. Priority of Liens

A. Where applicable for the type of financing sought, the IBank will, in general, insist on a senior lien position from borrowers on parity (*pari passu*) with other senior lien debt, if any, secured by the same source of funds. The IBank may consider exceptions to this policy if one or more of the following conditions are met:

1. An additional source, or sources, of revenue are pledged that provide sufficient additional security to the IBank.
2. The borrower has outstanding subordinate lien debt rated with an investment grade rating.
3. The borrower has outstanding senior lien debt that has been rated no lower than the third highest rating category.

VI. ISRF Financing Eligibility Determination and Staff Recommendation to the IBank Board

A. The IBank staff will provide its analysis, including its credit analysis, and make a recommendation to the IBank Board for ISRF Financing consideration, including:

1. ISRF Financing amount
2. Interest Rate Adjustments
3. ISRF Financing terms and conditions

B. If IBank staff does not recommend approving an ISRF Financing, staff will provide its reasoning to the applicant.

- C. The IBank Board has the authority to waive or amend credit standards as necessary to accommodate complex or unusual transactions.

UNDERWRITING GUIDELINES FOR SPECIFIC TYPES OF BORROWERS

ENTERPRISE FUND SECURED FINANCINGS

General Credit Review

IBank will review the historical operations of the enterprise including, but not limited to, revenue collection, expenses, transfers-in and transfers-out, debt issuance and debt service ability, and capital spending. Future revenues, expenses, transfers-in and transfers-out, debt issuance and debt service ability, and the system's capital plan may also be reviewed.

Analysis will include review of historical rate increases, compliance with Proposition 218, and comparison of rates to similar systems in the region. Documents for debt outstanding at the time of application to IBank will also be reviewed.

Water systems shall provide information as to the current and future expectations of the stability of their water supply.

**Net Revenues
and
Adjustments**

Net revenues, for the purposes of determining debt service coverage and setting rates and charges, shall be calculated to include recurring system revenues and excluding extraordinary items. IBank may consider connection fees, and transfers-in and transfers-out, in the calculation of net revenues on a case by case basis.

Adopted rate increases or system expansion may be used to adjust revenues. Such revenue adjustments must be supported by a report prepared by a qualified, independent consultant, such as a rate consultant or other consultant acceptable to IBank. For IBank to consider a consultant's report, the report must include, at a minimum, the consultant's calculations and a clear and concise narrative supporting the calculations. IBank will thoroughly review the consultant's report to ensure the narrative and calculations support each other. IBank may discount the consultant's calculations if deemed warranted at IBank's sole and absolute discretion before considering any adjustments in the debt service coverage calculations.

System expansions shall only be included in the calculation of net revenues for purposes of determining the debt service coverage ratio to the extent that if such expansion does not occur, system rates and charges for existing ratepayers would not need to be increased by more than twenty percent cumulatively to maintain the debt service coverage required by IBank.

Rate stabilization fund balances currently maintained by the system may be included in the coverage calculation for purposes of setting current year rates and charges and determining coverage.

The system also **may establish** a rate stabilization fund to meet the required debt service coverage. In such case, the applicant/borrower must provide a copy of a resolution directing the establishment for such fund and evidence that the fund has been established.

System Requirement

The system's top ten ratepayers must not provide more than 50% of the system's total annual operating revenues.

No single ratepayer may provide more than 15% of the system's total annual operating revenues.

The system's governing board must be empowered to establish and enact rates and charges to ensure sufficient revenue for expenses and debt payments, without the approval of any other governing body. However, where another entity holds such power (for example, a city council), a binding agreement by such entity may be acceptable to IBank.

Sewer systems must have a mandatory hook-up ordinance in effect at the time of IBank financing approval.

Debt Service Requirements

The applicant's revenues must exceed 100% of projected debt service by a margin that is appropriate for the applicant's overall credit strength.

Financing Covenants

Rates and Charges Covenant: The system's governing board must covenant to maintain the required debt service coverage ratio.

Standard covenants appropriate for the particular borrower and similar enterprise fund secured debt will be included in the financing agreement.

GENERAL FUND LEASE SECURED DEBT

(Financings secured by leases of borrower assets)

General Credit Review

IBank will review the source and diversity of the revenue streams supporting the general fund and the level of historical receipt of such streams. Additionally, IBank will review the historical availability of fund balances, taxpayer concentration, outstanding capital lease and debt service obligations, and any other significant liabilities.

The applicant shall provide a written statement that the project undertaken and the lease of the subject facility are not the subject of any litigation or material controversy.

Structuring Requirements

The project budget for each lease financing must include a construction contingency in an amount deemed reasonable to cover the amount of cost over-runs.

Non-asset transfer project budgets must include capitalized interest sized to fully cover debt service payable during the estimated construction period plus six months.

Asset transfer projects require the applicant to pledge one or more unencumbered real property(ies) owned by the applicant that are acceptable to IBank as the subject(s) (leased asset(s)) of the financing agreement. The fair market value of the leased asset(s) must be supported by a complete appraisal report prepared by an independent MAI appraiser or by another valuation method acceptable to IBank. The **fair market value** must be equal to or greater than the amount of the IBank financing and the **annual fair market rental value** must be equal to or greater than the maximum annual debt service payments due under the financing agreement throughout the term of the financing.

**Debt Service
Requirements**

Total debt service obligations, inclusive of IBank’s financing, of the general fund must not exceed 15% of total general fund revenue.

Fund must demonstrate the ability to service the proposed financing.

**Lease
Covenants**

Leased asset(s) must not be the subject of any litigation or material controversy.

Construction contracts must be fixed-price. Contractor must obtain payment and performance bonds, builder’s risk insurance, and liability and worker’s compensation insurance.

CLTA or ALTA Title Insurance is also required.

Rental Interruption Insurance is required for a period of at least six months beyond the period required to rebuild the leased facility.

Payment Covenant: The applicant must covenant to budget and appropriate funds sufficient to make annual financing payments.

Standard covenants appropriate for the particular applicant and for similar general fund financings will be included in the financing agreement.

LAND SECURED DEBT

(Financings repaid with property taxes or property-related assessments)

General Credit Review

IBank will review the stability and history of the district's and the county's property tax collections, the diversity of the district's tax payers, and over-lapping debt.

Value and Liens

Value for each assessed parcel can be either assessed value supported by the county's tax assessor's roll or appraised value supported by an appraisal report prepared by an independent MAI appraiser.

"Lien" includes all assessment liens and special taxes on the assessed parcels.

District Requirements

The district-wide value-to-lien ratio must be at least 3:1.

The individual value-to-lien ratio of no more than 20% of the assessed parcels may be less than 3:1.

The top ten taxpayers' aggregate assessment or special tax obligation may not exceed 50% of total assessment or special taxes.

No single taxpayer's obligation may exceed 15% of the total assessment or special taxes.

Property tax delinquencies and defaults within the district must not be materially above the countywide average.

Debt Service Requirement

Mello-Roos financings must have a special tax formula that produces maximum special tax revenues at least equal to 105% of projected debt service on the proposed financing.

Financing Covenants

Standard Covenants appropriate for the particular applicant and similar land secured financings will be included in the Financing agreement.

ALL OTHER FINANCINGS TO GOVERNMENTAL BORROWERS

(Financings repaid from other sources or secured by other collateral)

**General
Credit Review**

IBank will review historical operations of the entity on the basis of standards appropriate for the type of entity, the service, or amenity provided. The review will include, but is not limited to, revenue collection, expenses, transfers-in and transfers-out, debt issuance and repayment ability, and capital spending. Future revenues, expenses, transfers-in and transfers-out, debt issuance and repayment ability, and the entity's capital plan may also be reviewed.

**Debt Service
Requirement**

The applicant's revenues must exceed 100% of projected debt service by a margin that is appropriate for the applicant's overall credit strength.

**Financing
Covenants**

Standard covenants appropriate for the particular applicant and similar financings will be included in the financing agreement.

FINANCINGS TO NON-PROFIT BORROWERS

General Credit Review

In addition to underwriting guidelines applicable to the repayment source/revenues, IBank will rely upon structured and private finance criteria, as well as other applicable procedures, to review and analyze: (1) the legal structure of non-profit applicants; (2) the governing body and authority of non-profit applicants; (3) material “obligated persons” affiliated with projects and non-profit applicants; (4) relationships between non-profit applicants and “obligated persons;” (5) the technical, managerial, and financial capability of non-profit applicants to fulfill obligations to “Sponsors” (governments affiliated with the project) to construct/acquire and complete the project; (6) the technical, managerial, and financial capability of non-profit applicants to fulfill obligations to “Sponsors” to operate, manage, and maintain projects after construction; (7) management contracts between “Sponsors” and non-profit applicants; (8) validity and enforceability of pledged repayment sources/revenues; (9) existing and proposed obligations of non-profit applicants; (10) the essentiality, feasibility, sustainability, marketability, and appraised value of property, structures, or other fixed assets financed by or securing the Financing; (11) the validity, enforceability, and accessibility for IBank to control the operations or sale of property, structures, or other fixed assets financed by or securing the financings.

Value

The appraised value of the property, structures, and other fixed assets financed by or securing the financing must exceed 100% of projected debt service by a margin appropriate to similar structured/private financings.

The appraisal must be prepared by an independent MAI appraiser.

Debt Service Requirements

The applicant’s revenues must exceed 100% of projected debt service by a margin appropriate to similarly structured private financings.

Financing Covenants

Standard covenants appropriate for non-profit applicants and similar financings will be included in the financing agreement.



ISRF Loan Criteria

The California Infrastructure and Economic Development Bank (“IBank”) was created to serve a variety of public purposes including providing an accessible low-cost financing option to eligible borrowers for a wide range of infrastructure projects. To meet this important public purpose, the IBank developed its Infrastructure State Revolving Fund (“ISRF Program”). ISRF Program financing is available in amounts from \$50,000 to \$25,000,000, with terms of up to 30 years. The interest rate for each financing is set at the time the financing is approved. Applications are accepted on a continuous basis.

The eligibility criteria and other program requirements for the Infrastructure State Revolving Fund Program (“ISRF Program”) set forth in the “Amended and Restated Criteria, Priorities, and Guidelines for the Selection of Projects for Financing Under the Infrastructure State Revolving Fund Program” (the “Criteria”) are based on the provisions of Chapters 1-2 of Division 1 of Title 6.7 of the Government Code of the State of California, commencing with Section 63000 (the “IBank Act”) as of the date of the adoption of the Criteria.

Subsequent to the date of the adoption of the Criteria, whenever provisions of the IBank Act are changed such that specific provisions of the Criteria are inconsistent with the applicable provisions of the IBank Act, the requirements of the IBank Act shall govern.

The criteria guidelines in full can be accessed [here](#).

Applicants must meet one of the following definitions:

For Infrastructure Projects:

For projects that fall in categories 1 through 16, under the section titled “Projects” below (“Infrastructure Projects”), the borrower may be any subdivision of a local or state government, including departments, agencies, commissions, cities, counties, non-profit corporations formed on behalf of an applicant, special districts, assessment districts, and joint powers authorities within the state or any combination of these subdivisions that makes application to the IBank for financial assistance in connection with a project in a manner prescribed by IBank. See published [Criteria](#) here.

In addition, for those projects in categories 1 through 16 below, an eligible borrower may be any company, corporation, association, state or municipal governmental entity, partnership, firm, or other entity or group of entities, provided that for a borrower, other than a state or municipal governmental entity, such borrower is organized as a public benefit tax exempt not for profit entity and is, engaged in business or operations within the state; and provided further, that, for the purpose of implementing a project, in categories 1 through 16, such entity applies for financing from the IBank in conjunction with a Sponsor.

For Economic Expansion Projects:

For projects that fall in categories 17 and 18, under the section titled “Projects” below (“Economic Expansion Projects”) that facilitate any of the environmental, economic, and social goals enumerated in The Governor’s Environmental Goals and Policy Report, as more particularly identified in Section III D of the [Criteria](#), the borrower may be any person, company, corporation, association, state or municipal governmental entity, partnership, firm, or other entity or group of entities, provided that such borrower is organized as a public benefit tax exempt not for profit entity and is engaged in business or operations within the state and provided further, that, for the purpose of implementing an Economic Expansion Project, such entity applies for financing from the IBank in conjunction with a Sponsor.

Projects

“Project” generally means designing, acquiring, planning, permitting, entitling, constructing, improving, extending, restoring, financing, and generally developing facilities within the state and would include real and personal property, structures, conveyances, equipment, thoroughfares, buildings and supporting components thereof, excluding any housing, directly related to providing any of the following:

Infrastructure Projects:

1. City Streets including any street, avenue, boulevard, road, parkway, drive, or other way that is one of the following: An existing municipal roadway; or the project is shown upon a plat approved pursuant to law and includes the land between the street lines, whether improved or unimproved, and may comprise pavement, bridges, shoulders, gutters, curbs, guardrails, sidewalks, parking areas, benches, fountains, plantings, lighting systems, and other areas within the street lines, as well as equipment and facilities used in the cleaning, grading, clearance, maintenance, and upkeep thereof.

2. County Highways including any county highway as defined in Section 25 of the Streets and Highways Code, that includes the land between the highway lines, whether improved or unimproved, and may comprise pavement, bridges, shoulders, gutters, curbs, guardrails, sidewalks, parking areas, benches, fountains, plantings, lighting systems, and other areas within the street lines, as well as equipment and facilities used in the cleaning, grading, clearance, maintenance, and upkeep thereof.
3. Drainage, Water Supply, and Flood Control including but not limited to ditches, canals, levees, pumps, dams, conduits, pipes, storm sewers, and dikes necessary to keep or direct water away from people, equipment, buildings, and other protected areas as may be established by lawful authority, as well as the acquisition, improvement, maintenance, and management of flood plain areas and all equipment used in the maintenance and operation of the foregoing.
4. Educational Facilities including libraries, childcare facilities, including, but not limited to, day care facilities and employment training facilities. Also including facilities for laboratories, administration centers, student service buildings, athletic complexes and public parking facilities.
5. Environmental Mitigation Measures including required construction or modification of public infrastructure, and purchase and installation of pollution control and noise abatement equipment.
6. Parks and Recreational Facilities including local parks, recreational property and equipment, parkways and property.
7. Port Facilities including airports, land ports, water ports, rail ports, docks, harbors, ports of entry, piers, ships, small boat harbors and marinas, and any other facilities, additions, or improvements in connection therewith, that transport goods or persons.
8. Power and Communications including facilities for the transmission or distribution of electrical energy, natural gas, and telephone and telecommunications services as well energy conservation measures. Also including facilities for the generation or storage of electrical energy as well as for energy conservation measures.
9. Public Transit including air and rail transport, airports, guideways, vehicles, rights-of-way, passenger stations, maintenance and storage yards, and related structures, including, public parking facilities, equipment used to provide or enhance transportation by bus, rail, ferry, or other conveyance, either publicly or privately owned, that provides to the public general or special service on a regular and continuing basis.
10. Sewage Collection and Treatment including pipes, pumps, and conduits that collect wastewater from residential, manufacturing, and commercial establishments, the equipment, structures, and facilities used in treating wastewater to reduce or eliminate impurities or contaminants, and the facilities used in disposing of or transporting, remaining sludge, as well as all equipment used in the maintenance and operation of the foregoing. Also including facilities for the recycling of or facilitating the alternative use of remaining sludge and for maintenance and operation of such facilities.
11. Solid Waste Collection and Disposal including vehicles, vehicle-compatible waste receptacles, transfer stations, recycling centers, sanitary landfills, and waste conversion facilities necessary to remove solid waste, except that which is hazardous as defined by law, from its point of origin. Also including equipment in connection with the foregoing.
12. Water Treatment and Distribution including facilities in which water is purified and otherwise treated to meet residential, manufacturing, or commercial purposes and the conduits, pipes, and pumps that transport it to places of use.
13. Defense Conversion including but not limited to, facilities necessary for successfully converting military bases consistent with an adopted base reuse plan.
14. Public Safety Facilities including but not limited to, police stations, fire stations, court buildings, jails, juvenile halls, and juvenile detention facilities.
15. State Highways including any state highway as described in [Chapter 2](#) (commencing with Section 230) of Division 1 of the Streets and Highways Code, and the related components necessary for safe operation of the highway.
16. Military Infrastructure including but not limited to facilities on or near a military installation that enhance the military operations and mission of one or more military installations in this state. To be eligible for funding the project shall be endorsed by the Office of Planning and Research. "Military installation" means any facility under the jurisdiction of the Department of Defense, as defined in paragraph (1) of subsection (e) of Section 2687 of Title 10 of the United States Code.
17. Goods movement-related infrastructure including port facilities, roads, rail, and other facilities and projects that move goods, energy and information.

Economic Expansion Projects:

18. Industrial, Utility and Commercial: including, but not limited to, facilities that are used for industrial, utility or commercial goods movement purposes and any parts or combination thereof and all facilities or infrastructure necessary or desirable in connection therewith.
19. Educational, Cultural and Social: including, but not limited to, facilities that are used for cultural, recreational, research, community, or educational purposes as well as service enterprise facilities and social welfare facilities and any parts or combination thereof and all facilities or infrastructure necessary or desirable in connection therewith.

View our most recent loan financing

The Infrastructure State Revolving Fund (ISRF) has helped finance projects that are vital to communities throughout the state of California including wastewater treatment plant construction and upgrades, city and county street and highway improvements, educational and cultural facilities and so much more. ISRF financing has made a positive impact throughout the state with these and many other projects.

[Read More](#)

View our most recent loan financing

We'd like to recognize and spotlight these amazing companies who have benefited from the loan financing program. Pellentesque tempor, orci non fringilla consetetur, orci lacus feugiat sapien.

[Read More](#)

Frequently Asked Questions

Infrastructure State Revolving Fund Program (ISRF)

Q: How long does it take to secure ISRF or CLEEN financing?

A: There is a preliminary process, once invited to apply, the typical time to be prepared to request financing from the IBank Board of Directors is 60-90 days. The Board meets monthly.

Q: What kind of interest rates are charged for ISRF financing?

A: IBank uses a proprietary interest rate method to ensure borrowers have the best chance to receive below-market interest rates

Q: What are subsidies based on?

A: Eligible subsidies are based on the unemployment rate and the median household income for ISRF loans and the air quality index for CLEEN financing.

Q: What are the ISRF application periods for each year?

A: ISRF applications are continuously accepted.

Q: Can the origination fee be financed?

A: Yes, the origination fee can be included in the loan amount. (The origination fee is calculated on the total amount borrowed including the origination fee.)

Q: When do you start paying back the loan? Immediately or after project completion?

A: IBank collects two payments a year; February is an interest only payment while August is interest, principal, and the annual fee. The date of funding will determine which payment will be the first payment collected.

Q: Can the debt be refinanced with another loan from IBank in the future should interest rates go down?

A: This is situational. IBank typically does not allow for a refinance of debt unless there is an additional project connected with the transaction and refinancing the debt improves the cash flow of the transaction.

Q: How often can we request reimbursement?

A: There is no limit to reimbursement requests. However due to the amount of documentation required for each submission, we prefer if requests are made no more than once a month.

Q: Is the debt callable?

A: No, it is not.

Q: Does IBank have the capacity to make ISRF loans?

A: Yes, IBank has the funds to make ISRF loans. We are proactive and issue bonds before all funds are used in order to have available funds to current and future borrowers.

Q: What stage should the project be in order to secure ISRF financing?

A: Projects ideally would be shovel-ready and need funds in six or 12 months.

Q: Is technical assistance offered for the ISRF application process?

A: Yes, IBank not only offers technical support for the application process, but loan officers throughout the application and approval process

Q: What is the origination fee for the borrowed amount?

A: The origination fee is 1.00% of the borrowed amount.

Q: Are the project funds provided all at once or are they disbursed over a period of time?

A: IBank will disburse 100% of the funds to a third party bank (currently third party or trustee bank) at the time of funding.

Q: Is the payback period 30 years?

A: We cannot do a longer term than the useful life of the project. IBank can do a maximum loan term of 30 years. When establishing an amortization schedule, it is possible that the date the loan funds may create a situation for a requested 30-year term will be amortized as 29 years. This would occur if the first payment required is the February payment. If the first payment is the August payment, the 30-year request will have a 30-year amortization schedule.

Q: How quickly will requested reimbursement funds be paid?

A: Recently reimbursements are averaging five days for approval after receipt of all required documentation. A borrower may submit one request or many. However, if the reimbursement requested is for a construction contract that has not been completed, IBank is required to withhold 5% on each invoice submitted until such time as the project and/or component is complete and a notice of completion has been recorded.

Q: How will the debt service payments be structured?

A: Payments are made twice a year. We have a principal, interest and annual fee payment in August and an interest only payment in February

Q: Is repayment based on funds used or funds used plus available?

A: Interest accrues on the entire loan amount when the financing agreement is executed.

Contact the IBank Loan Origination Team

ISRF Program Manager: **Lina Benedict**

E-mail us, [HERE](#)

Office: 1325 J Street, Suite 1300, Sacramento, CA 95814

Mailing: P.O. Box 2830, Sacramento, CA 95812-2830

Contact the IBank Loan Origination Team

ISRF Program Manager: **Lina Benedict**

E-mail us, [HERE](#)

Telephone: **(916) 341-6600**

Office: 1325 J Street, Suite 1300, Sacramento, CA 95814

Mailing: P.O. Box 2830, Sacramento, CA 95812-2830

Related links: [Infrastructure Loans](#) | [CLEEN Program](#) | [Loan Eligibility](#) | [Projects Financed by IBank Loans](#) | [ISRF and CLEEN Financing Documents](#)



Infrastructure Loans

The Infrastructure State Revolving Fund (ISRF) Program is authorized to directly provide low-cost public financing to state and local government entities, including Municipalities, Universities, Schools and Hospitals (MUSH borrowers) and to nonprofit organizations sponsored by public agencies for a wide variety of public infrastructure and economic expansion projects.

ISRF financing is available in amounts ranging from \$50,000 to \$25 million with loan terms for the useful life of the project up to a maximum of 30 years.

A few examples of ISRF financed projects include water and wastewater treatment plant upgrades or construction, venue or airport construction or street repair and upgrades.

Eligible applicants must be located in California and include any subdivision of a local government, including cities, counties, special districts, assessment districts, joint powers authorities and nonprofit organizations sponsored by a government entity.

View our most recent loan financing

The Infrastructure State Revolving Fund (ISRF) has helped finance projects that are vital to communities throughout the state of California including wastewater treatment plant construction and upgrades, city and county street and highway improvements, educational and cultural facilities and so much more. ISRF financing has made a positive impact throughout the state with these and many other projects.

[Read More](#)

View our most recent loan financing

We'd like to recognize and spotlight these amazing companies who have benefited from the loan financing program. Pellentesque tempor, orci non fringilla consectetur, orci lacus feugiat sapien.

[Read More](#)

Frequently Asked Questions

Infrastructure State Revolving Fund Program (ISRF)

Q: What kind of interest rates are charged for ISRF financing?

A: IBank uses a proprietary interest rate method to ensure borrowers have the best chance to receive below-market interest rates

Q: What are subsidies based on?

A: Eligible subsidies are based on the unemployment rate and the median household income.

Q: Can housing be financed through the ISRF program?

A: No. While ISRF financing is available for many types of projects, housing is not allowed per our legislative statute.

Q: What are the ISRF application periods for each year?

A: ISRF applications are continuously accepted.

Q: Is technical assistance offered for the ISRF application process?

A: Yes, IBank not only offers technical support for the application process, but legal assistance and loan officers throughout the application and approval process.

Q: Is there a matching fund requirement?

A: No, there is not a matching fund requirement, and ISRF financing may serve as matching funds for other financing.

Contact the IBank Loan Origination Team

ISRF Program Manager: **Lina Benedict**

E-mail us, [HERE](#)

Office: **1325 J Street, Suite 1300, Sacramento, CA 95814**

Mailing: **P.O. Box 2830, Sacramento, CA 95812-2830**

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Related links: [ISRF Loan Eligibility](#) | [ISRF Loan Criteria](#) | [Projects Financed by IBank Loans](#) | [Application and Financing Documents](#) | [CLEEN Program](#)



**Valley Sanitary District
Board of Directors Meeting
September 14, 2021**

TO: Board of Directors

THROUGH: Beverli A. Marshall, General Manager

FROM: Tino Tijerina, Facilities Electrical / Maintenance Supervisor

SUBJECT: Authorize the General Manager to Enter Into a Rental Agreement for a 12x60 Mobile Modular Office Building in an Annual Amount Not to Exceed \$25,000

<input checked="" type="checkbox"/> Board Action	<input checked="" type="checkbox"/> New Budget Approval	<input type="checkbox"/> Contract Award
<input type="checkbox"/> Board Information	<input type="checkbox"/> Existing FY Approved Budget	<input type="checkbox"/> Closed Session

Executive Summary

The purpose of this report is for the Board to discuss the need to rent a mobile modular office building to provide temporary offices during construction of the new building.

Strategic Plan Compliance

This item complies with VSD Strategic Plan Objective 1.3: Improve training and professional development.

Fiscal Impact

This expense is included in the adopted Comprehensive Budget for FY2021/22. Ancillary costs may include transformer, concrete, furniture and small appliances.

Expense Break Down

Annual Rental - 12 Months x \$652.72	\$7,833
Charges upon delivery	\$6,718
1. Security Deposit (\$2,800)	
2. Set-up, delivery, permits, prevailing wage	
Electrical Transformer	\$1,760
Concrete Pad	\$1,000
Furniture, file cabinets	\$4,500
	Total = \$21,811

Background

Staff requests that the Board authorize the rental of a 12 x 60 mobile modular office building to provide temporary offices for maintenance staff until completion of the new proposed training facility. Due to location of the supplier being the nearest and most cost saving in transportation fees, this is a sole source procurement. Upon completion of the new training facility and relocation of staff, the rental agreement of the modular office building will terminate.

Recommendation

Staff recommends that the Board of Directors authorize the General Manager to enter into a rental agreement for a 12 x 60 mobile modular office building for a 24-month period for a total amount not to exceed \$30,000 (including tax and delivery).

Attachments

Attachment A: Modular office building proposal – Mobile Modular Management Corp
Attachment B: 37.5 kva Distribution Transformer – Consolidated Electrical Dist.



Mobile Modular Management Corporation
 11450 Mission Blvd.
 Mira Loma, CA 91752
 Phone: (951) 360-6600
 Fax: (951) 360-6622
 www.mobilemodular.com

Lease Quotation and Agreement
 Quotation Number: 396937
 Customer PO/Ref:
 Date of Quote: 08/26/2021
 Term: 24 Months

Sign up for the Easy Lease Option (see end of document for details)

Customer Information	Site Information	Mobile Modular Contact
Valley Sanitary District 45500 Van Buren Street Indio, CA 92201 Ed Luna eluna@valley-sanitary.com Phone: (760) 808-1620	Valley Sanitary District 45500 Van Buren Street Indio, CA 92201	Questions? Contact: Brandy Sacci Brandy.Sacci@mobilemodular.com Direct Phone: (951) 360-6600 Fax: (951) 360-6622

Product Information	Qty	Monthly Rent	Extended Monthly Rent	Taxable
Office, 12x60 HCD (Item1613)	1	\$573.10	\$573.10	Y
<i>2 Offices. Smaller Front Office. Size excludes 3' towbar.</i>				
Charges Upon Delivery	Qty	Charge Each	Total One Time	Taxable
Office, 12x60 HCD (Item1613)				
Block and Level Building (A3) (PW)	1	\$264.00	\$264.00	N
<i>Prevailing WageCert. Payroll</i>				
Delivery Haulage 12 wide	1	\$737.00	\$737.00	N
Delivery Haulage Permit 12 wide	1	\$220.00	\$220.00	N
Install Foundation, Tiedown (Blv) (PW)	20	\$124.00	\$2,480.00	Y
<i>Prevailing WageCert. Payroll</i>			<u>\$3,701.00</u>	
Security Deposit	1	\$2,800.00	\$2,800.00	N
			<u>Total \$ 6,501.00</u>	
Charges Upon Return	Qty	Charge Each	Total One Time	Taxable
Office, 12x60 HCD (Item1613)				
Prepare Equipment For Removal (A3) (PW)	1	\$220.00	\$220.00	N
<i>Prevailing WageCert. Payroll</i>				
Removal, Tiedown (PW)	20	\$53.00	\$1,060.00	N
<i>Prevailing WageCert. Payroll</i>				
Return Haulage 12 wide	1	\$737.00	\$737.00	N
Return Haulage Permit 12 wide	1	\$220.00	\$220.00	N
			<u>\$2,237.00</u>	
			<u>Total \$2,237.00</u>	
Total Estimated Charges				
			Subtotal of Monthly Rent	\$573.10
			Personal Property Expense	\$27.10
			Taxes on Monthly Charges	\$52.52
			Total Monthly Charges (including tax)	\$652.72 X (2:
			Charges Upon Delivery (including tax)	\$6,718.00
			Charges Upon Return (including tax)	\$2,237.00
			Total One Time Charges (including tax)	\$8,955.00

Special Notes

Thank you for contacting Mobile Modular.
 Mobile Modular is a division of McGrath RentCorp.
 396937, 08-26-2021 07:23 AM prod

Lease Quotation and Agreement

Quotation Number: 396937

Customer PO/Ref:

Date of Quote: 08/26/2021

Term: 24 Months



Delivery Date:

Delivery date will not be confirmed until Mobile Modular receives and approves the signed Agreement and all credit conditions have been met.

General: Customer's site must be dry, compacted, level and accessible by normal truck delivery. Pricing does not include any clearing or grading of sites, obstruction removal, site or final building clean up, any asphalt transitions, dolly, crane, forklift, electrical or plumbing connections, window coverings, furniture, casework, appliances, doorstops, phone or data lines, gutters, downspouts or tie-in, temporary power, temporary fencing, traffic control, flagmen, soil and/or pull test, custom engineering, fees associated with inspections, city or county submittals and/or use permits, security screens, door bars and any item not specifically listed as being included.

Stairs: Mobile Modular will provide standard 30" fixed height, one-piece metal stairs are at no additional charge. Securing stairs to the modular, adjusting stairs to the threshold of the doorway, adjusting the treads, landing or handrails to meet local, state or federal requirements are the sole responsibility of the Customer.

Tie-downs: Quantity and price may vary based on seismic source factor and site conditions. Patch and repair of site after removal is not included and is the responsibility of the Customer. Alternative non-penetrating seismic system is available for an additional charge. Wet-stamped engineering available for an additional charge.

Floor Plans

Office, 12x60 HCD (Item 1613)



All drawings and specifications are nominal.

Additional Information

- Quote is valid for 30 days.
- A minimum cleaning charge per floor will apply for modular buildings.
- Customer's site must be dry, compacted, level and accessible by normal truck delivery. Costs to dolly, crane, forklift, etc. will be paid by customer. Unless noted, prices do not include permits, ramp removal, stairs, foundation systems, foundation system removal, temporary power, skirting, skirting removal, engineering, taxes or utility hookups.
- Subject to equipment availability. Unless noted, equipment and related furnishings, finishes, accessories and appliances provided are previously leased and materials, dimensions, and specifications vary. Detailed specifications may be available upon request.
- For lease transactions, Mobile Modular reserves the right to substitute equal or better equipment prior to delivery without notice.
- This transaction is subject to prior credit approval and all terms, conditions, and attachments of MMMC's standard contract.
- Security deposit and payment in advance may be required.
- Rent will be billed in advance every 30 calendar days.
- **Sales Tax will be calculated based on the tax rate at the time of invoicing.**
- **Unless otherwise noted, prices do not include prevailing wages, Davis-Bacon wages, or other special or certified wages.**

Thank you for contacting Mobile Modular.

Mobile Modular is a division of McGrath RentCorp.

396937, 08-26-2021 07:23 AM prod

Lease Quotation and Agreement

Quotation Number: 396937
Customer PO/Ref: _____
Date of Quote: 08/26/2021
Term: 24 Months



Mobile Modular Easy Lease, Sign Me Up!

Getting your modular building on its way has never been easier... and faster. With Mobile Modular Easy Lease you can convert your Lease Quotation directly into a Lease Agreement by signing below. **It's as easy as 1, 2, 3, 4.** Once we receive your signed Easy Lease option, we'll finalize your building details and get your project on its way.

1. Review and acknowledge agreement.

This Quotation is subject to Mobile Modular Management Corporation, a California corporation, herein known as lessor (the "Lessor") credit approval of Customer, herein known as lessee (the "Lessee"). Lessor does not warrant that the equipment meets any local or state code not specifically listed herein. Equipment is subject to availability. By signing below, customer accepts the terms of this quotation including prices and specifications, and instructs Lessor to make appropriate arrangements for the preparation and delivery of the Equipment identified herein, and agrees that such signature constitutes customer's acceptance of and agreement to the Lessor's Lease. Such lease, and customer's agreement thereto, is subject to Lessor's standard terms and conditions located on the Lessor's web site at (www.mobilemodular.com/contractterms) which are incorporated by reference herein. Customer may request a copy of the terms and conditions from Lessor. If customer has previously executed a master agreement with Lessor, those terms and conditions shall govern the transaction. Such terms and conditions are incorporated as if fully set forth herein. No alterations, additions, exceptions, or changes to any Quotation or Agreement made by Lessee shall be effective against Lessor, whether made hereon, contained in any printed form of Lease or elsewhere, unless accepted in writing by Lessor. Any customer purchase order or other customer-provided document purporting to replace, supersede or supplement the terms and conditions of the Lessor's Lease shall carry no force or effect except as an instrument of billing.

Lessor:
Mobile Modular Management Corporation

Lessee:
Valley Sanitary District

By: _____
Name: _____
Title: _____
Date: _____

Signature: _____
Print Name: _____
Title: _____
Date: _____

2. Request your delivery date.

Requested delivery date: _____

Please note: For modular buildings, as a "rule of thumb" allow one day per module to accommodate for set up after delivery. We will attempt to meet your desired date. However, the date is subject to change based on equipment availability and readiness and must be confirmed by a Mobile Modular representative.

3. Insurance value.

Prior to the scheduled delivery, please send, or have your insurance company send, a certificate of insurance referencing the Quotation number shown above. We require General Liability coverage in the amount of 1,000,000.00 per occurrence listing Mobile Modular Management Corporation as an additional insured and Property coverage for the value of the leased unit(s) listing Mobile Modular Management Corporation as loss payee.

Item & Description	Qty	Item Code	Insurance Value
Office, 12x60 HCD (Item1613)	1	1613	\$31,350.00

4. Tell us how you would like to pay.

- Bill me on approved credit (you will be sent an invoice for payment as charges are incurred)
- Credit card payment (a representative will contact you to obtain the credit card information for billing)

CONSOLIDATED ELECTRICAL DIST.
42-936 MADISON STREET, UNIT B

INDIO CA 92201 USA
TEL: (760)342-1935 FAX: (760)568-3199
CONTACT: TERRY

QUOTE FOR: VALLEY SANITARY DISTRICT
ACCT: PR-70117 VALLEY SANITARY DISTRICT

45500 VAN BUREN ST
INDIO, CA 92201
TEL: (760)347-2356

QUOTATION		PAGE
QUOTE #	DATE	1
1003255	08/23/2021	
REV #	REV DATE	
4	08/23/2021	
QUOTE EXPIRES	PREPARED BY	
08/30/2021	TERRY	
SLS	INSLIS	
0516	0516	
FOB	FREIGHT	
SHIPPING POINT	PREPAID	

CUST PO #
JOB NAME

LN	QTY	PRODUCT CODE	DESCRIPTION	PRICE	PER	EXT AMT
01	1	ACME TP530193S	37.5KVVA DIST TFMR	1619.00	E	1619.00
02	*	*** 3 IN LOS ANGELES				

MDSE: 1619.00 *
TAX: 141.66
TOTAL: 1760.66 **

PLEASE NOTE: This is not an offer to contract, but merely a quotation of current prices for your convenience and information. Orders based on this quotation are subject to your acceptance of the terms and conditions located at sales.our-terms.com, which we may change from time to time without prior notice. We make no representation with respect to compliance with job specifications.



**Valley Sanitary District
Board of Directors Meeting
September 14, 2021**

TO: Board of Directors

THROUGH: Beverli A. Marshall, General Manager

FROM: Tino Tijerina, Maintenance/Electrical Supervisor

SUBJECT: **Authorize the General Manager to Execute a Contract with Trimax to Update All Panel and Loop Drawings Related to the Programmable Logic Controller (PLC) and Supervisory Control and Data Acquisition (SCADA) System in an Amount Not to Exceed \$30,495.**

<input checked="" type="checkbox"/> Board Action	<input type="checkbox"/> Contract Award	<input type="checkbox"/> Contract Award
<input type="checkbox"/> Board Information	<input checked="" type="checkbox"/> Existing FY Approved Budget	<input type="checkbox"/> Closed Session

Executive Summary

The purpose of this report is for the Board to discuss the need to approve Trimax to update all panel and loop drawings related to the PLC and SCADA System.

Strategic Plan Compliance

This item complies with VSD Strategic Plan Objective 3.2: Increase use of technology to lower costs and improve reliability.

Fiscal Impact

This expense is included in the adopted Comprehensive Budget for FY2021/22.

Background

Trimax is the sole SCADA integrator for the District. Trimax has upgraded various equipment controls and added programming to the PLC and SCADA system that have improved the performance of the plant process. Staff requests that the Board authorize Trimax to upgrade the panel and loop drawings.

Recommendation

Staff recommends that the Board of Directors authorize the General Manager to contract Trimax to upgrade all panel and loop drawings related to the PLC and SCADA system in an amount not to exceed \$30,495 (including tax and delivery).

Attachments

Attachment A: Trimax sales quotation

SALES QUOTATION

To: Valley Sanitary District
Attn: Tino Tejerina
RE: Update Drawings

Quote Date: 08/20/2021
Quote No.: E-13056
Bid Date: 08/20/2021

Thank you for your continued interest in Trimax products, services, and solutions. We are pleased to quote the following scope of work pertaining to the above-referenced project. Only the materials/services listed in the below scope are quoted.

SCOPE OF SERVICES

Item	Qty	Description
1	Lot	Update all panel and loop drawings: <ul style="list-style-type: none"> • PLC 460 • PLC 600 • Operation Building • Digester • Primary • Grit • Headworks • Single Line Drawings

TOTAL (including applicable sales tax): \$30,495.00

CLARIFICATIONS

- Unless otherwise indicated by the Scope of Work above, quote is to **furnish only** and does not include any trade labor, trade work, construction work, site improvement, contractor services, or any trade installation services. Any trade labor and/or related trade work shall be performed by others/contractor.
- Unless otherwise indicated by the Scope of Work above, the following is **not** included within this quotation:
 - Software Licenses
 - Conduit, field wire, tubing, or basic trade installation materials (brackets, screws, bolts, j-box, stanchions, pull-box, etc.)
 - Instrumentation mounting components, brackets, stanchions, sunshields, etc.
 - Local control stations and/or field mounted disconnects.
 - Instrumentation, devices, components, or equipment not specifically identified in the above quotation.
 - Antenna tower and/or mast
 - Stilling wells

- Spare Parts
- Demolition and Salvage
- Seismic Calculations
- Raceway Systems Drawings
- Fiber optic patch panels, cable, splicing or terminations.
- Networking infrastructure or architecture modifications to existing facilities.
- Any 3rd party testing, harmonic testing/analysis, protective device coordination study, short-circuit analysis, or Arc-Flash Risk Assessment (AFRA) services.
- Electrical interconnection diagrams for equipment not furnished by Trimax.
- ISA process control loop diagrams.
- Signal loop diagrams for equipment not furnished by Trimax.

PROVISIONS

- Quote is firm for 60 days unless otherwise stated.
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- Interest will be applied to all past due invoices.
- All merchandise sold is subject to lien laws.
- Final retention to be paid within 10 days after the project notice of completion.

Please feel free to contact us at (972) 672-1855 to discuss any questions or comments you may have regarding this quotation.

Sincerely,



Kathy Sexton

TRIMAX, A TESCO CONTROLS COMPANY



**Valley Sanitary District
Board of Directors Meeting
September 14, 2021**

TO: Board of Directors

THRU: Beverli A. Marshall, General Manager

SUBJECT: Wastewater COVID-19 Surveillance Program Continuation

<input type="checkbox"/> Board Action	<input type="checkbox"/> New expenditure request	<input type="checkbox"/> Contract Award
<input checked="" type="checkbox"/> Board Information	<input type="checkbox"/> Existing FY Approved Budget	<input type="checkbox"/> Closed Session

Executive Summary

The purpose of this report is to inform the Board of VSD’s continued participation in the HHS-Protect Wastewater COVID-19 Surveillance Program.

Strategic Plan Compliance

This item complies with VSD Strategic Plan Objective 4: Increase Community Understanding and Support.

Fiscal Impact

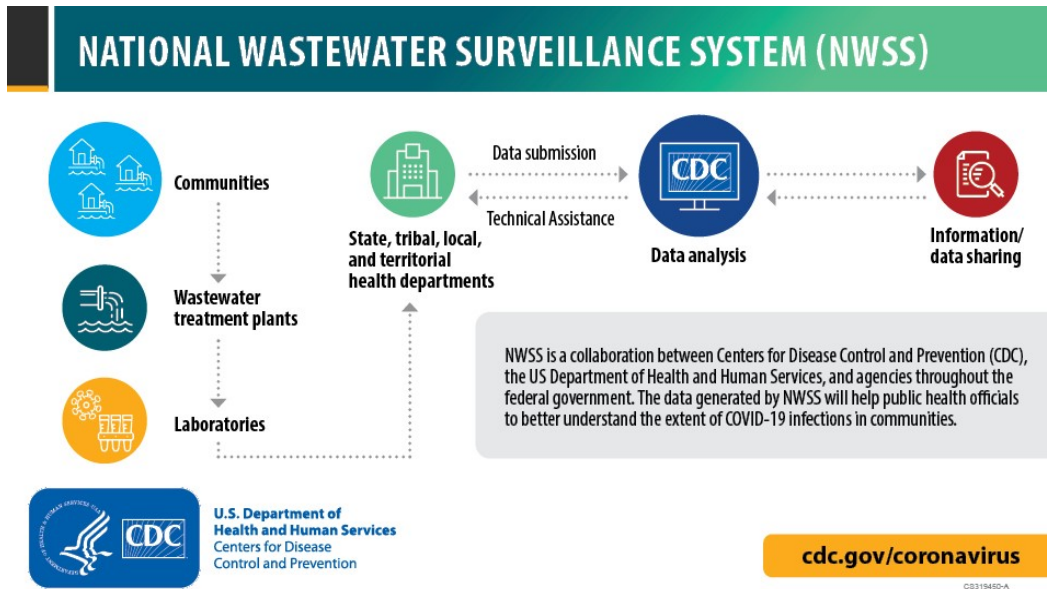
The cost is \$300 per test to participate in the program. If the District tests once each week for the remainder of the fiscal year, the total fiscal impact is \$7,000. Staff has submitted a grant request to the City of Indio for \$15,000, which would allow the District to resume sampling two times per week.

Background

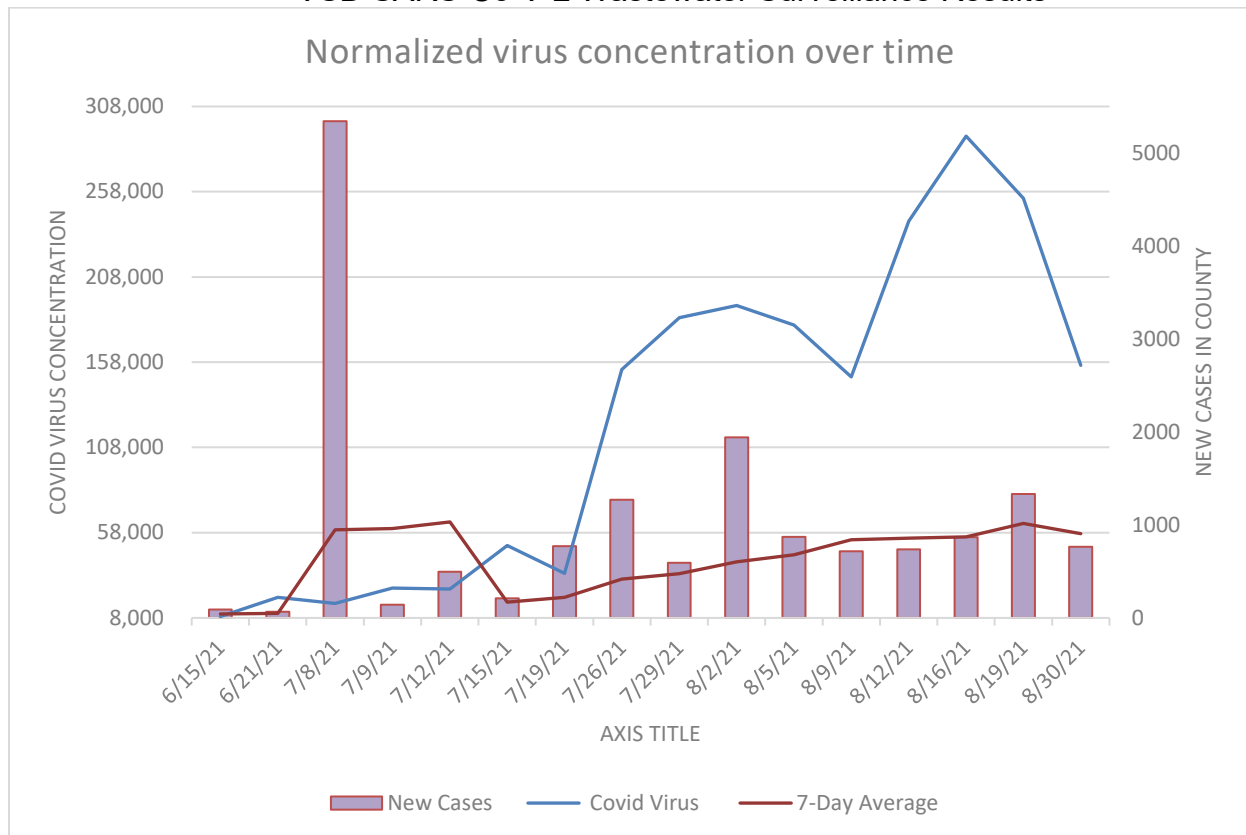
In May 2021, BioBot Analytics was selected by the US Department of Health and Human Services (HHS) to establish a national disease surveillance program, using wastewater epidemiology. The 12-week program utilizes samples from 320 wastewater treatment plants, covering 100 million people across 50 states. Since patient testing is limited, research has shown that the virus is shed in the stools of patients and make its way into the sewers. By analyzing wastewater influent samples, the presence of infected individuals and estimate of number of cases can be determined.

In June 2021, VSD was selected to participate in the 12-week wastewater COVID-19 surveillance program with Biobot. Laboratory staff collect two (2) weekly wastewater influent composite samples which are sent to BioBot for analysis. They isolate the genetic signature of SARS-CoV-2 and analyze the amount of the virus present. Then utilizing the samples collected, they estimate the prevalence of COVID-19 in the population.

The District's participation in the program is contributing to a nationwide wastewater monitoring system to trend analysis and provide early warning detection. Continued participation in the program ensures that Indio's data is included and provide critical information in tracking and understanding the COVID-19 virus transmission patterns.



VSD SARS-Co-V-2 Wastewater Surveillance Results



Attachments:

Attachment A: SARS-Co-V-2 Wastewater Surveillance for Public Health Action

SARS-CoV-2 Wastewater Surveillance for Public Health Action

Jill S. McClary-Gutierrez,¹ Mia C. Mattioli, Perrine Marcenac, Andrea I. Silverman, Alexandria B. Boehm, Kyle Bibby, Michael Balliet, Francis L. de los Reyes III, Daniel Gerrity, John F. Griffith, Patricia A. Holden, Dimitrios Katehis, Greg Kester, Nathan LaCross, Erin K. Lipp, Jonathan Meiman, Rachel T. Noble, Dominique Brossard, Sandra L. McLellan

Wastewater surveillance for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has garnered extensive public attention during the coronavirus disease pandemic as a proposed complement to existing disease surveillance systems. Over the past year, methods for detection and quantification of SARS-CoV-2 viral RNA in untreated sewage have advanced, and concentrations in wastewater have been shown to correlate with trends in reported cases. Despite the promise of wastewater surveillance, for these measurements to translate into useful public health tools, bridging the communication and knowledge gaps between researchers and public health responders is needed. We describe the key uses, barriers, and applicability of SARS-CoV-2 wastewater surveillance for supporting public health decisions and actions, including establishing ethics consideration for monitoring. Although wastewater surveillance to assess community infections is not a new idea, the coronavirus disease pandemic might be the initiating event to make this emerging public health tool a sustainable nationwide surveillance system, provided that these barriers are addressed.

Wastewater surveillance for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is rapidly evolving as a public health tool that holds both promise and challenges (1–3). In concept, a sewer system contains biological waste from the human population it serves. Biological constituents, including pathogens, enter the sewer system through feces, urine, saliva, and other excreta, and the pathogen concentrations represent input from the human population served by the network of pipes within the sewershed. Given that SARS-CoV-2 RNA is shed in feces of persons with asymptomatic and symptomatic infections (4,5), the potential for coronavirus disease (COVID-19) community-level surveillance through wastewater has garnered much attention since the first report of detection of SARS-CoV-2 RNA in wastewater in March 2020 (6).

SARS-CoV-2 wastewater surveillance could be an important complement to existing public health surveillance for the COVID-19 response because it has

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and Management, Santa Barbara, California, USA (P.A. Holden); New York City Department of Environmental Protection, New York, New York, USA (D. Katehis); California Association of Sanitation Agencies, Sacramento, California, USA (G. Kester); Utah Department of Health, Salt Lake City, Utah, USA (N. LaCross); University of Georgia Department of Environmental Health Science, Athens, Georgia, USA (E.K. Lipp); Wisconsin Department of Health Services, Madison, Wisconsin, USA (J. Meiman); University of North Carolina at Chapel Hill Institute of Marine Sciences, Morehead City, North Carolina, USA (R.T. Noble); University of Wisconsin–Madison Department of Life Sciences Communication, Madison (D. Brossard); University of Wisconsin–Madison Morgridge Institute for Research, Madison (D. Brossard)

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the ability to provide information on infection trends in newly reported cases in a community without being influenced by availability of and access to clinical testing resources or data on healthcare-seeking behavior (1,2,7). However, practical and technologic challenges to implementing and interpreting this new surveillance tool need to be addressed. Precisely measuring levels of virus in a complicated wastewater matrix requires specialized equipment and expertise, and quality-control and quality-assurance procedures distinct from clinical testing are necessary for precise molecular quantification (8).

During the pandemic, the science and engineering research communities and commercial laboratories have made a tremendous effort to develop SARS-CoV-2 RNA detection and quantification methods for wastewater surveillance (9–11). As a result of these concerted efforts, SARS-CoV-2 RNA concentrations are now being measured in many wastewater systems globally, and the data are showing wastewater viral RNA concentration trends are correlated with trends in new cases reported days to weeks later, depending on reporting lags (6,12–14). Some public health managers are already integrating these data into their COVID-19 response decision-making processes (L.B. Stadler et al., unpub. data,).

Despite the technologic advances, barriers remain to using wastewater surveillance data to inform public health decisions. Of note, there is a communication gap between the laboratories that quantify SARS-CoV-2 RNA in wastewater and the public health practitioners tasked with incorporating wastewater data into existing surveillance frameworks, which includes reported COVID-19 cases, hospitalizations, and deaths. Bridging the gap between research groups generating wastewater surveillance data and the public health sector might help to harness the long-term potential of SARS-CoV-2 wastewater surveillance as a tool for public health disease surveillance and decision-making.

In an effort to bridge this identified gap, the Sloan Foundation supported a group of academic investigators to convene an interdisciplinary expert group with the objective of facilitating conversations around the opportunities, limitations, and challenges in using SARS-CoV-2 wastewater data in public health action. The perspective we will describe was formed from a group of environmental microbiology, engineering, wastewater, and public health experts, as well as from opinions shared during 3 focus group discussions with officials from 10 state and local public health agencies. Common definitions of wastewater surveillance terminology are provided in the Appendix.

Interdisciplinary Focus Group Discussions

An interdisciplinary group of experts in environmental virology, environmental microbiology, wastewater engineering, and public health was brought together by authors S.L.M., A.B.B., A.I.S., K.B., and D.B. to discuss barriers, best practices, and data use by public health and to develop this article. The group, consisting of the authors, represented experts from 10 academic or research institutions, 2 wastewater agencies, 1 city environmental department, and public health practitioners from 1 county and 2 state health departments that had already begun to develop or implement wastewater surveillance programs in their jurisdictions as part of their COVID-19 response. Together, this group represented a cross section of US institutions involved in SARS-CoV-2 wastewater research. Expertise in life science communication was also represented. The research members of the group met weekly or biweekly from July 2020 through September 2020 to discuss technical aspects of wastewater surveillance, followed by meetings of the entire group to discuss barriers and data use by public health entities.

In November 2020, this interdisciplinary expert group further convened 3 focus groups to better understand current perspectives of public health responders on the barriers to using SARS-CoV-2 wastewater surveillance data and how wastewater data could support local public health decisions during the rapidly evolving pandemic. We recruited participants through the authors' professional networks or from suggestions of those who were initially contacted. Divided into 3 separate virtual meetings, the focus groups included expert group members; officials from 2 additional wastewater utilities; and officials from 1 city, 1 district, 3 county, and 3 state public health departments from urban and rural communities. Moreover, epidemiologic and laboratory lead staff from the Centers for Disease Control and Prevention's National Wastewater Surveillance System (NWSS; National Center for Emerging and Zoonotic Infectious Diseases, Division of Foodborne, Waterborne, and Environmental Diseases) participated in the focus groups. Focus group participants were provided with premeeting materials that posed questions on 3 general areas: current use and expectations of wastewater surveillance for SARS-CoV-2; 2 concerns, questions, and confidence surrounding the tool; and long-term applications. Because of the sensitivity of response-related data and resulting public health action for COVID-19, focus groups were not recorded to enable open discussion of data interpretation and challenges. Expert group members summarized

and reviewed attendee responses without the use of analytical software. The University of Wisconsin–Milwaukee Institutional Review Board review of this project and granted it Category 2 exempt status (approval no. 21.132). We obtained informed consent from all focus group attendees.

On the basis of the results of the expert group discussions and the focus groups, we determined the major barriers identified by public health officials for implementing and using data from wastewater-based infectious disease surveillance programs (Table 1). We also highlight methodologic best practices for wastewater researchers and testers to facilitate use of wastewater data by public health officials. Finally, we point toward critical actions needed by both wastewater surveillance method developers and program implementers to effectively incorporate wastewater surveillance into the COVID-19 public health response.

Barrier 1: Wastewater Surveillance as New Data Source

As a new data source, most public health agencies are not yet comfortable interpreting wastewater data. During focus group discussions, over half of public health representative focus group participants highlighted in their discussion that personnel and resources are stretched well past capacity, resulting in a limited ability to incorporate new and unfamiliar metrics into the workload, especially without demonstration of their value in decision making. Unlike case counts or hospitalizations that have a relationship to disease in the community, wastewater surveillance data are presented as concentrations of SARS-CoV-2 gene copies per volume of wastewater (commonly expressed as per liter of sewage or per gram of solids), which might be difficult for persons unfamiliar with

the measurement to contextualize, leading to challenges in interpreting the data and results. Reporting wastewater data can be even further complicated because, to compare across time and space, the wastewater data are often normalized by total daily wastewater flow (expressed as SARS-CoV-2 gene copies per day) or by the concentration of a human-specific gut microbe (15). Our focus groups identified several additional reasons for the hesitation in using wastewater data for public health responses, which can be grouped into 2 main categories.

Uncharacterized Sources of Uncertainty and Variability

Many factors can influence SARS-CoV-2 RNA concentrations measured in wastewater, such as sampling location, sampling methods (e.g., grab versus flow-weighted composite samples), sewer transit time, addition of industrial waste or stormwater to the sewer, wastewater flow rates, and fecal shedding rates. These factors are being investigated in research studies, and their effects on SARS-CoV-2 RNA concentrations are still being defined; therefore, the degree of natural variability and acceptable uncertainty in the data are not fully known for wastewater surveillance. A recent meta-analysis of published reports summarized and quantified the variability associated with several factors, including fecal shedding, sewer transit, sampling, storage, and analyses (16).

Lack of Methodologic Standardization

Public health laboratories are accustomed to testing samples by using highly standardized methods with defined levels of uncertainty. The variability in SARS-CoV-2 RNA wastewater measurements introduced when concentrating the virus from a large volume or

Table 1. Summary of barriers, best practices, and future needs for public health agencies using wastewater surveillance data for public health action

Barrier	Recommended best practices	Future needs (key strategy areas)
Many public health agencies are not yet comfortable interpreting wastewater data	<ul style="list-style-type: none"> • Communicate results interpretation alongside data limitations and known variability sources • Collaborate with laboratories, wastewater utilities, environmental health departments, and communications experts 	Evaluation of wastewater data variability and uncertainty sources in a variety of systems (research)
Public health agencies want to see wastewater data in their own communities to gain confidence in utility	<ul style="list-style-type: none"> • Provide case studies from community applications and perspectives • Perform retrospective analyses on existing datasets 	Documentation of wastewater surveillance use cases for adoption in different communities and infrastructure systems (research and communication)
New knowledge and investment needed to sustain wastewater surveillance systems	<ul style="list-style-type: none"> • Co-develop programs and methods with scientific experts and government agencies • Share methods and experiences across research, wastewater, and public health 	Investment in physical laboratory capacity, personnel, and interagency collaboration frameworks (organizational structures and policy)
Ethics of wastewater surveillance data sharing and use not yet established	<ul style="list-style-type: none"> • Evaluate sample anonymity • Engage the public in collection and data use 	Development of ethical wastewater data use standards for surveillance and research (policy and research)

during RNA extraction or RNA quantification is still being investigated as part of methodologic evaluations (17–19). In addition, no single standard method exists for concentrating and measuring SARS-CoV-2 RNA from wastewater. In fact, a single method might not be appropriate for all wastewater sources, because wastewater composition varies across locations or for all phases in the epidemic, given the differing applications and data needs (20). For example, concentration of viral RNA might not have been needed at some locations during times of high COVID-19 prevalence but is likely needed at times when prevalence is low and fewer persons are shedding viruses. Each method might be associated with different levels of uncertainty and variability that must be defined using appropriate preanalytical and analytical method controls and replication.

Delineating sources of data uncertainty, defining variability in measurement, and standardizing methods represent important avenues of inquiry for research (2). Further, more information is needed on the rate of fecal shedding of infected persons (both symptomatic and asymptomatic) during the course of disease or carriage. In the meantime, strategies exist that can be adopted for communicating results across the many different entities that are generating and evaluating SARS-CoV-2 wastewater data. First, results should be coupled with explanations of data limitations and known sources of variability, which can help assimilate the results into decision-making as public health agencies become more accustomed to the data. In addition, close collaborations between groups generating wastewater data and public health agencies, wastewater utilities, and experts in communication and data visualization are needed to ensure that findings are appropriately communicated to data end-users to prevent false assumptions and underinterpretation or overinterpretation. Environmental health departments might be good liaisons between different wastewater surveillance partners because, even though they might not be organized within the public health department, they often have both extensive public health and wastewater knowledge.

Barrier 2: Application and Utility of Wastewater Surveillance in Communities

Public health agencies want to see SARS-CoV-2 wastewater data in their own communities to gain confidence in its application and utility at different scales and under different scenarios. Multiple applications for wastewater surveillance exist, and each has a complex set of considerations and limitations that will affect practitioners' confidence for using data in public

health decisions. In addition, every community has unique infrastructure, demographics, and public health capacity and challenges that will inevitably influence how measurements of SARS-CoV-2 RNA in wastewater can be used. Public health agencies beginning wastewater surveillance programs should consider the type of information that would be most useful for their response needs and design sampling at the appropriate scale. When asked what would increase confidence in using wastewater surveillance data, several focus group participants reported substantial benefit from seeing the data in action in their own communities, enabling them to gain a greater understanding of the data and its potential value. Wastewater data can be collected at 3 different scales (21), and the experts group identified considerations for each scale.

Wastewater Treatment Plant

Wastewater sampling routinely occurs at wastewater treatment plants for permit compliance requirements, so additional sampling at the plant is usually straightforward. Wastewater treatment plants can serve sewersheds containing thousands to millions of people, depending on their size, and measurements of SARS-CoV-2 RNA in wastewater collected at the plant can provide insight into infection burdens in the sewershed population. Several cities are now reporting correlations between SARS-CoV-2 concentrations at wastewater treatment plants and diagnosed COVID-19 cases in the sewershed service area (7,9,14,22–24).

Subsewershed

Depending on the data needs of a wastewater surveillance effort, sampling smaller geographic areas within a community might be needed. Wastewater can be samples from the pipe network that moves waste from households and businesses to the wastewater plant, thus isolating a subsewershed population. Collecting samples from within the pipe network is complicated by various factors, including lack of adequate maps and challenging access to manholes. Depending on the wastewater infrastructure design and equipment resources, sampling at the subsewershed scale can be resource-intensive, and appropriate sampling schemes for the approach presently lack validation.

Facility-level

Information on COVID-19 infections of persons working and living in individual facilities can potentially be obtained by testing wastewater from the

facilities (e.g., hospitals, skilled nursing facilities, schools, or universities) (25). Drawings of facilities' plumbing will be necessary to identify potential sampling locations, and intermittent use of water within the facilities will result in intermittent flow in the plumbing, which can challenge sampling efforts (26). Given the smaller population being sampled, wastewater testing might give a false-negative result when cases are present because of difficulty in obtaining a representative sample, inconsistent (or absent) viral shedding in feces by infected persons, or low sensitivity in the method (J. Crowe et al., unpub. data,). Although evidence exists of wastewater testing being implemented at the building-level at >200 universities globally (C.C. Naughton et al., unpub. data,), the details of only a few are available in the literature. Available case studies demonstrate differing usage of wastewater data; some evaluated wastewater data as a confirmatory measure alongside clinical surveillance testing (27; K. Reeves et al., unpub. data,) and others used wastewater detections to trigger surge testing at specific residences or campus-wide (26,28; S.A. Travis et al., unpub. data, <https://doi.org/10.1101/2021.03.02.21252746>) . An analysis of programs at 25 universities revealed that, in addition to technical feasibility, consideration of interpretation and communication of data

and follow-up actions were important (29). The most successful uses appear to have integrated wastewater testing with clinical testing and contact-tracing responses; however, as more information becomes available, critically evaluating these applications for their long-term utility and cost-effectiveness will be important. In some cases, routine screening of persons might allow for more immediate isolation of cases and contract-tracing.

We should note that across the United States, 80% of the population is served by a piped sewage network, whereas the remaining use cesspools or septic systems (30). Little evidence exists supporting the utility of sewage surveillance in onsite sanitation systems.

Although the importance of seeing the application of wastewater SARS-CoV-2 data in public health practitioners' own communities cannot be overstated, providing clear case examples of other community applications and perspectives across different jurisdictions and areas is recommended to improve confidence in these novel surveillance data. As the field of wastewater surveillance advances, a growing body of literature describes examples of use cases (9,22,24,31). In addition, retrospective analyses and peer-reviewed reporting of case studies should be encouraged as a means of increasing decision-making confidence for future

Table 2. Examples of how SARS-CoV-2 wastewater data have been used by public health departments to support their COVID-19 response, United States*

Location	Description
Santa Clara County, California	The County of Santa Clara Emergency Operations Center and Public Health Department engaged in early evaluation of wastewater surveillance for SARS-CoV-2 in partnership with Stanford University researchers. A monitoring approach was developed to analyze SARS-CoV-2 RNA in settled solids at all 4 wastewater treatment plants in the county, accounting for >95% of the county's total estimated population of 2 million. The county has observed trends in measured SARS-CoV-2 RNA from solids to generally track with positive COVID-19 case data. Evaluation is ongoing to understand what public health actions might be implemented in response.
Utah	Utah's SARS-CoV-2 wastewater monitoring program began with in March 2020 as a collaboration between the Utah Department of Environmental Quality, Utah Department of Health, and 4 academic laboratories, which extended to wastewater facilities statewide by July 2020. The wastewater surveillance data have been used to help direct mobile testing teams to areas with low prevalence of clinical testing, determine where to send mask-wearing compliance observers, and assist the interpretation of other surveillance data. Consistently decreasing SARS-CoV-2 RNA concentrations in wastewater supported the conclusion that the observed declining case rates were real. Utah developed a public dashboard (https://wastewatervirus.utah.gov).
Wisconsin	The Wisconsin Department of Health Services initiated a statewide SARS-CoV-2 wastewater testing program in collaboration with the Wisconsin State Laboratory of Hygiene and the University of Wisconsin–Milwaukee. This program has monitored SARS-CoV-2 RNA concentrations in samples collected from 70 municipal wastewater treatment plants that cover 50% of the state population. Sample collection for select locations began in August 2020 and captured the pre-Thanksgiving surge in COVID-19 cases in northeastern Wisconsin. Local health departments have used these data to confirm health trends identified through clinical testing, particularly in rural areas of the state with limited testing access. Data are publicly available (https://www.dhs.wisconsin.gov/covid-19/wastewater.htm).

*Examples were provided by public health practitioners from the expert group. A detailed description of these activities is provided in the Appendix.. COVID-19, coronavirus disease; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2.

related scenarios. Some communities have been generating wastewater SARS-CoV-2 datasets since early in the pandemic, giving them the ability to perform retrospective analysis to demonstrate whether SARS-CoV-2 wastewater data effectively captured reported case trends, filled gaps in case trends in areas with more limited clinical testing, or both. Public health implementers from the expert group provided specific examples of how wastewater data were used to support their COVID-19 response (Table 2; Appendix).

Barrier 3: Lack of Institutional Knowledge and Resources

New institutional knowledge, organizational leadership, and investment in resources and personnel are needed to sustain wastewater surveillance systems. Current efforts to monitor wastewater for SARS-CoV-2 have developed in an ad hoc manner during an active pandemic. The environmental virology equipment required for sample processing are not typically available in public health or wastewater laboratories. Thus, many research laboratories initially conducted the laboratory analysis for current surveillance programs. However, this approach will likely not be sustainable and instead necessitates transfer of these functions to municipal, public health, or commercial laboratories.

Research laboratories and public health agencies that were early adopters of this technology can assist in this transition by partnering with local laboratories and promoting data and methods sharing across the research, wastewater, and public health sectors. Transferring technical knowledge between researchers and laboratories implementing these methods will ideally occur early during program implementation. As an example, in establishing their SARS-CoV-2 wastewater monitoring program, the New York City (NYC) Department of Environmental Protection engaged academic partners at New York University, Queens College, and Queensborough Community College (both in New York, New York, USA). All methodologic development work for this program occurred in NYC Department of Environmental Protection's own laboratory, with academic partners and NYC laboratory analysts working side-by-side in methodologic optimization and implementation. This collaboration enabled multidirectional workforce capacity building and exchange of technical information, ultimately resulting in an ongoing and self-sufficient wastewater monitoring program in NYC. These types of stakeholder relationships can aid widespread implementation in the county and state.

Early in the pandemic, in many municipalities, no organizational structure or identified agency existed to address wastewater surveillance. Because of the multidisciplinary nature of wastewater surveillance, multiple partners have a critical role. However, active working relationships across wastewater and public health agencies rarely exist. Although municipal wastewater agencies are actively engaged in public health disease prevention by treating wastewater, they often are not engaged in infectious disease response efforts. Central to our discussions with public health and wastewater practitioners was an overwhelming desire for an improved organizational structure between the various stakeholders needed to conduct a wastewater surveillance program. In particular, new organizational leadership is needed to improve the efficiency of wastewater surveillance program implementation.

In response to the COVID-19 pandemic, researchers partnered with wastewater and public health agencies to launch current wastewater surveillance efforts. Because of the many stakeholders involved in these efforts, co-development of programs and methods across various experts and agencies is needed to ensure efficient and successful development. Furthermore, as research continues to advance, sharing of methods and experiences between researchers and new partners in infectious disease response can identify needs, enable knowledge transfer, and build longer term relationships to promote partner-driven research. Investments in physical laboratory capacity, personnel, and inter-agency collaboration frameworks to build this new institutional knowledge into public health surveillance frameworks for future epidemics can ensure that these partnerships are valuable in the long term. The Centers for Disease Control and Prevention is taking a leadership role by forming the NWSS and developing national data reporting standards and analytics systems, as well as supporting state, local, and territorial capacity building necessary to ensure a sustainable and efficient public health surveillance system (32) (Appendix).

Barrier 4: Ethics Considerations

The ethics of wastewater surveillance data collection, sharing, and use are not yet established. Wastewater SARS-CoV-2 RNA concentration data collected in appropriately large sewersheds are not individually identifiable, but concerns over stigma or privacy might occur if collecting samples from a sufficiently small population or specific community,

when persons might be identified through deductive disclosure (2,20). Some public health agencies and wastewater utilities are therefore hesitant to use wastewater surveillance data because of a lack of clarity over privacy, confidentiality, regulatory, and ethics issues and concerns. Within our own focus groups, one third of participants voiced these concerns. Public health agencies are entrusted to protect the broader public and therefore must ensure that their efforts are not inadvertently leaving out or inappropriately targeting certain demographic groups because of infrastructure access or design constraints. In contrast to healthcare data, environmental monitoring data are typically not considered a protected data type, and this disconnect represents an additional challenge to integrating wastewater data into public health data streams. As genomic sequencing approaches are applied to wastewater surveillance to evaluate emerging SARS-CoV-2 variants (33), methods that inventory the total genetic signal, such as metagenomics, also have the potential to contain identifiable personal genetic information. Data reporting standards could require excluding human genetic information and wastewater sample location information.

Previous applications of wastewater surveillance for evaluating illicit drug use or poliovirus circulation have raised similar data concerns, primarily determining that samples should be collected from sufficiently large populations to ensure sample anonymity (34). However, adopting wastewater surveillance for SARS-CoV-2 has occurred under unique emergency circumstances where higher resolution surveillance data was critical to the response, leading to new ethics challenges that have not been previously considered or resolved. Efforts are underway by both the research and governmental communities to evaluate the ethics and privacy limitations for wastewater surveillance data. As these efforts continue, researchers and practitioners should consider ethics use of wastewater surveillance data by evaluating sample anonymity on a case-by-case basis and engaging the public in sample collection and data use efforts. Although ensuring the ethical use of these data is paramount, wastewater surveillance data might be uniquely able to address some of the inadvertent biases of other public health surveillance systems that depend on healthcare access and health-seeking behaviors.

Conclusions

SARS-CoV-2 wastewater data have added value as a biologically independent, passive source of data that public health agencies can take advantage of for the

COVID-19 pandemic response. As research on wastewater testing for SARS-CoV-2 continues, the methods used to generate and analyze these data are evolving and are undergoing rigorous evaluation, which will reduce the uncertainties associated with this new data source. For widespread adoption as a public health tool, 2-way communication and knowledge co-development might ensure that wastewater data have clear value in addressing public health needs, are simple to integrate into other surveillance and health systems, and are used for public health decisions and actions. The field of wastewater surveillance is rapidly evolving, and continued reporting of use cases in the peer-reviewed literature will play an important role in validating this approach.

As the pandemic moves to a new phase because of vaccine availability, wastewater surveillance might be useful for identifying areas in a community where SARS-CoV-2 viral shedding is not declining and thus could be targeted for increased vaccination efforts (35). Further, many wastewater surveillance programs are shifting focus to tracking variants through wastewater (33,36,37) to complement sequencing clinical samples. The COVID-19 pandemic might be the motivating event for creating a sustainable structure to support wastewater surveillance as a unique approach for community-level health monitoring purposes. Investments in resources and personnel can create and sustain a robust wastewater surveillance system for public health emergencies and maintain relationships among stakeholders involved in wastewater surveillance programs. Such investments will continue to build institutional knowledge to support integrating wastewater data into surveillance frameworks for public health actions.

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Dr. McLellan is a professor in the School of Freshwater Sciences at the University of Wisconsin–Milwaukee. Her primary research interests are in bacterial genetics and environmental microbiology.

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**Valley Sanitary District
Board of Directors Meeting
September 14, 2021**

TO: Board of Directors
THROUGH: Beverli A. Marshall, General Manager
FROM: Jeanette Juarez, Business Services Manager
SUBJECT: Year End Audit Progress for The Fiscal Year Ending June 30, 2021

<input type="checkbox"/> Board Action	<input type="checkbox"/> New Budget Approval	<input type="checkbox"/> Contract Award
<input checked="" type="checkbox"/> Board Information	<input checked="" type="checkbox"/> Existing FY Approved Budget	<input type="checkbox"/> Closed Session

Executive Summary

The purpose of this report is to provide an update to the Board of Directors regarding the progress of the year-end audit for the fiscal year ending June 30, 2021.

Strategic Plan Compliance

This item complies with VSD Strategic Plan Goal 6: Improve Planning, Administration and Governance.

Fiscal Impact

There is no fiscal impact from this report.

Background

All special districts are required to file annual audits with the County Auditor and the State Controller within nine (9) months of the end of the fiscal year or years under examination. The State Controller’s Office provides written information regarding the audit requirements for special districts.

This year the District contracted Davis Farr LLP as the independent auditing firm. The auditors were onsite completing their field work from August 24 -26, 2021. The auditors estimate to have financials ready for review by September 10, 2021.

The Business Services Manager has met with the auditing Partner assigned to this engagement, Jonathan Foster, to review auditor identified entries. The auditor identified entries are as follows:

- I. Other Postemployment Benefits (OPEB) prior period adjustment (Material and will be required to be reported)
 - a. Will communicate with prior auditor to confirm

- II. Additional payroll accrual entry (not material)
- III. Reclassification of certain payables as prepaid expenses (not material)

Following the results of the entries it was determined by the auditor that a prior period adjustment will have to be executed for the OPEB implied subsidy liability that was not included in the FY20 financial statements. It was determined that the previous auditors used an earlier version of the actuarial valuation report to calculate the entry for the OPEB liability instead of an updated report (Attachment B and C). The auditor will include a statement disclosing that a previously issued financial statement(s) has been restated for the correction of a material misstatement in the respective period and a reference to the note(s) to the financial statements that discusses the restatement. The adjustment is a noncash adjustment and will not impact cash flow. However, this adjustment will change the net position. The engagement partner will provide the information to the Board once the financials are complete and approved.

The year-end audit is on schedule and will be ready to be submitted to the Board for review and acceptance by November 9, 2021.

Recommendation

Staff recommends that the Board of Directors receive this report for information.

Attachments

- Attachment A: Note 11 Annual Report Fiscal Year 2019/20
- Attachment B: Original Valuation Report Issued May 12, 2020
- Attachment C: Revised Valuation Report Issued August 24, 2020
- Attachment D: Auditor Provided Journal Entry GASB 75

Valley Sanitary District
Notes to the Basic Financial Statements (Continued)
For the Years Ended June 30, 2020 and 2019

Note 11 - Other Postemployment Benefits (Continued)

Change in the Net OPEB Liability

	2020		
	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Balance at June 30, 2018 (measurement date)	\$ 265,685	\$ 130,433	\$ 135,252
Changes recognized for the measurement period:			
Service Cost	9,264	-	9,264
Interest on total OPEB liability	18,677	-	18,677
Difference between expected and actual experience	34,535	-	34,535
Difference in benefit payment	116	-	116
Employer contributions	-	14,136	(14,136)
Employee contributions	-	-	-
Actual investment income	-	8,063	(8,063)
Administrative expenses	-	(28)	28
Benefit payments	(7,126)	(7,126)	-
Net change during measurement period 2018-2019	55,466	15,045	40,421
Balance at June 30, 2019 (Measurement Date)	\$ 321,151	\$ 145,478	\$ 175,673

	2019		
	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Rolled back balance at June 30, 2017	\$ 245,539	\$ 115,488	\$ 130,051
Changes recognized for the measurement period:			
Service Cost	9,016	-	9,016
Interest on total OPEB liability	17,288	-	17,288
Employer contributions	-	27,960	(27,960)
Employee contributions	-	-	-
Actual investment income	-	8,919	(8,919)
Administrative expenses	-	(193)	193
Benefit payments	(6,158)	(6,158)	-
Other	-	(15,583)	15,583
Net change during measurement period 2017-2018	20,146	14,945	5,201
Balance at June 30, 2018 (Measurement Date)	\$ 265,685	\$ 130,433	\$ 135,252

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability of the District, as well as what the District's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.0 percent) or 1-percentage-point higher (8.0 percent) than the current discount rate:

Measurement Date	Net OPEB Liability		
	Discount Rate	Current Discount	Discount Rate
	- 1% (6.00%)	Rate (7.00%)	+ 1% (8.00%)
June 30, 2019	\$ 222,163	\$ 175,673	\$ 137,581
June 30, 2018	175,099	135,252	102,812

**Valley Sanitary District
Actuarial Study of
Retiree Health Liabilities Under GASB 74/75
Valuation Date: June 30, 2019
Measurement Date: June 30, 2019**

*Prepared by:
Total Compensation Systems, Inc.*

Date: May 12, 2020

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**Valley Sanitary District
Actuarial Study of Retiree Health Liabilities**

PART I: EXECUTIVE SUMMARY

A. Introduction

Valley Sanitary District engaged Total Compensation Systems, Inc. (TCS) to analyze liabilities associated with its current retiree health program as of June 30, 2019 (the measurement date). The numbers in this report are based on the assumption that they will first be used to determine accounting entries for the fiscal year ending June 30, 2020. If the report will first be used for a different fiscal year, the numbers may need to be adjusted accordingly.

This report does not reflect any cash benefits paid unless the retiree is required to provide proof that the cash benefits are used to reimburse the retiree's cost of health benefits. Costs and liabilities attributable to cash benefits paid to retirees are reportable under applicable Governmental Accounting Standards Board (GASB) Standards.

This actuarial study is intended to serve the following purposes:

- To provide information to enable Valley Sanitary District to manage the costs and liabilities associated with its retiree health benefits.
- To provide information to enable Valley Sanitary District to communicate the financial implications of retiree health benefits to internal financial staff, the Board, employee groups and other affected parties.
- To provide information needed to comply with Governmental Accounting Standards Board Accounting Standards 74 and 75 related to "other postemployment benefits" (OPEB's).

Because this report was prepared in compliance with GASB 74 and 75, Valley Sanitary District should not use this report for any other purpose without discussion with TCS. This means that any discussions with employee groups, governing Boards, etc. should be restricted to the implications of GASB 74 and 75 compliance.

This actuarial report includes several estimates for Valley Sanitary District's retiree health program. In addition to the tables included in this report, we also performed cash flow adequacy tests as required under Actuarial Standard of Practice 6 (ASOP 6). Our cash flow adequacy testing covers a twenty-year period. We would be happy to make this cash flow adequacy test available to Valley Sanitary District in spreadsheet format upon request.

We calculated the following estimates separately for active employees and retirees. We estimated the following:

- the total liability created. (The actuarial present value of projected benefit payments or APVPBP)
- ten years of projected benefit payments.
- the "total OPEB liability (TOL)." (The TOL is the portion of the APVPBP attributable to employees' service prior to the measurement date.)
- the "net OPEB liability" (NOL). For plans funded through a trust, this represents the unfunded portion of the liability.

Total Compensation Systems, Inc.

- the service cost (SC). This is the value of OPEB benefits earned for one year of service.
- deferred inflows and outflows of resources attributable to the OPEB plan.
- “OPEB expense.” This is the amount recognized in accrual basis financial statements as the current period expense in addition to contributions. The OPEB expense includes service cost, interest and certain changes in the OPEB liability, adjusted to reflect deferred inflows and outflows.
- Amounts to support financial statement Note Disclosures and Required Supplementary Information (RSI) schedules.

We summarized the data used to perform this study in Appendix A. No effort was made to verify this information beyond brief tests for reasonableness and consistency.

All cost and liability figures contained in this study are estimates of future results. Future results can vary dramatically and the accuracy of estimates contained in this report depends on the actuarial assumptions used. Service costs and liabilities could easily vary by 10 - 20% or more from estimates contained in this report.

B. General Findings

We estimate the "pay-as-you-go" cost of providing retiree health benefits in the year beginning July 1, 2019 to be \$10,310 (see Section IV.A.). The “pay-as-you-go” cost is the cost of benefits for current retirees.

For current employees, the value of benefits "accrued" in the year beginning July 1, 2019 (the service cost) is \$9,156. This service cost would increase each year based on covered payroll. Had Valley Sanitary District begun accruing retiree health benefits when each current employee and retiree was hired, a liability would have accumulated. We estimate the amount that would have accumulated to be \$321,151. This amount is called the "Total OPEB Liability" (TOL). Valley Sanitary District has set aside funds to cover retiree health liabilities in a GASB 75 qualifying trust. The Fiduciary Net Position of this trust at June 30, 2019 was \$145,478. This leaves a Net OPEB Liability (NOL) of \$175,673.

Based on the information we were provided, the OPEB Expense for the fiscal year ending June 30, 2020 is \$21,447.

We based all of the above estimates on participants as of July, 2019. Over time, liabilities and cash flow will vary based on the number and demographic characteristics of employees and retirees.

Total Compensation Systems, Inc.

C. Description of Retiree Benefits

Following is a description of the current retiree benefit plan:

	<u>All Employees</u>
Benefit types provided	Medical only
Duration of Benefits	Lifetime
Required Service	5 years
Minimum Age	50
Dependent Coverage	Yes
District Contribution %	100%
District Cap	PEMHCA Minimum*

*This amount will increase as provided in California Government Code Section 22892

D. Recommendations

It is outside the scope of this report to make specific recommendations of actions Valley Sanitary District should take to manage the liability created by the current retiree health program. Total Compensation Systems, Inc. can assist in identifying and evaluating options once this report has been studied. The following recommendations are intended only to allow the District to get more information from this and future studies. Because we have not conducted a comprehensive administrative audit of Valley Sanitary District's practices, it is possible that Valley Sanitary District is already complying with some or all of our recommendations.

- We recommend that Valley Sanitary District maintain an inventory of all benefits and services provided to retirees – whether contractually or not and whether retiree-paid or not. For each, Valley Sanitary District should determine whether the benefit is material and subject to GASB 74 and/or 75.
- Under GASB 75, it is important to isolate the cost of retiree health benefits. Valley Sanitary District should have all premiums, claims and expenses for retirees separated from active employee premiums, claims, expenses, etc. To the extent any retiree benefits are made available to retirees over the age of 65 – *even on a retiree-pay-all basis* – all premiums, claims and expenses for post-65 retiree coverage should be segregated from those for pre-65 coverage. Furthermore, Valley Sanitary District should arrange for the rates or prices of all retiree benefits to be set on what is expected to be a self-sustaining basis.
- Valley Sanitary District should establish a way of designating employees as eligible or ineligible for future OPEB benefits. Ineligible employees can include those in ineligible job classes; those hired after a designated date restricting eligibility; those who, due to their age at hire cannot qualify for District-paid OPEB benefits; employees who exceed the termination age for OPEB benefits, etc.
- Several assumptions were made in estimating costs and liabilities under Valley Sanitary District's retiree health program. Further studies may be desired to validate any assumptions where there is any doubt that the assumption is appropriate. (See Appendices B and C for a list of assumptions and concerns.) For example, Valley Sanitary District should maintain a retiree database that includes – in addition to date of birth, gender and employee classification – retirement date and (if applicable) dependent date of birth, relationship and gender. It will also be helpful for Valley Sanitary District to maintain employment

Total Compensation Systems, Inc.

termination information – namely, the number of OPEB-eligible employees in each employee class that terminate employment each year for reasons other than death, disability or retirement.

E. Certification

The actuarial information in this report is intended solely to assist Valley Sanitary District in complying with Governmental Accounting Standards Board Accounting Statements 74 and 75 and, unless otherwise stated, fully and fairly discloses actuarial information required for compliance. Nothing in this report should be construed as an accounting opinion, accounting advice or legal advice. TCS recommends that third parties retain their own actuary or other qualified professionals when reviewing this report. TCS's work is prepared solely for the use and benefit of Valley Sanitary District. Release of this report may be subject to provisions of the Agreement between Valley Sanitary District and TCS. No third party recipient of this report product should rely on the report for any purpose other than accounting compliance. Any other use of this report is unauthorized without first consulting with TCS.

This report is for fiscal year July 1, 2019 to June 30, 2020, using a measurement date of June 30, 2019. The calculations in this report have been made based on our understanding of plan provisions and actual practice at the time we were provided the required information. We relied on information provided by Valley Sanitary District. Much or all of this information was unaudited at the time of our evaluation. We reviewed the information provided for reasonableness, but this review should not be viewed as fulfilling any audit requirements. Information we relied on is listed in Appendix A.

All costs, liabilities, and other estimates are based on actuarial assumptions and methods that comply with all applicable Actuarial Standards of Practice (ASOPs). Each assumption is deemed to be reasonable by itself, taking into account plan experience and reasonable future expectations.

This report contains estimates of the Plan's financial condition only as of a single date. It cannot predict the Plan's future condition nor guarantee its future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. Determining results using alternative assumptions (except for the alternate discount and trend rates shown in this report) is outside the scope of our engagement.

Future actuarial measurements may differ significantly from those presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the measurement methodology (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. We were not asked to perform analyses to estimate the potential range of such future measurements.

The signing actuary is independent of Valley Sanitary District and any plan sponsor. TCS does not intend to benefit from and assumes no duty or liability to other parties who receive this report. TCS is not aware of any relationship that would impair the objectivity of the opinion.

On the basis of the foregoing, I hereby certify that, to the best of my knowledge and belief, this report is complete and has been prepared in accordance with generally accepted actuarial principles and practices and all applicable Actuarial Standards of Practice. My experience and continuing education are consistent with the requirements described for actuaries under the Qualification Standards of the American Academy of Actuaries.

Total Compensation Systems, Inc.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Geoffrey L. Kischuk". The signature is fluid and cursive, with the first name being the most prominent.

Geoffrey L. Kischuk
Actuary
Total Compensation Systems, Inc.
(805) 496-1700

PART II: BACKGROUND

A. Summary

Accounting principles provide that the cost of retiree benefits should be “accrued” over employees' working lifetime. For this reason, the Governmental Accounting Standards Board (GASB) issued in June of 2015 Accounting Standards 74 and 75 for retiree health benefits. These standards apply to all public employers that pay any part of the cost of retiree health benefits for current or future retirees (including early retirees), whether they pay directly or indirectly (via an “implicit rate subsidy”).

B. Actuarial Accrual

To actuarially accrue retiree health benefits requires determining the amount to expense each year so that the liability accumulated at retirement is, on average, sufficient (with interest) to cover all retiree health expenditures without the need for additional expenses. There are many different ways to determine the annual accrual amount. The calculation method used is called an “actuarial cost method.”

The actuarial cost method mandated by GASB 75 is the “entry age actuarial cost method”. Under this method, there are two components of actuarial cost – a “service cost” (SC) and the “Total OPEB Liability” (TOL). GASB 75 allows certain changes in the TOL to be deferred (i.e. deferred inflows and outflows of resources).

The service cost can be thought of as the value of the benefit earned each year if benefits are accrued during the working lifetime of employees. Under the entry age actuarial cost method, the actuary determines the annual amount needing to be expensed from hire until retirement to fully accrue the cost of retiree health benefits. This amount is the service cost. Under GASB 75, the service cost is calculated to be a level percentage of each employee’s projected pay.

The service cost is determined using several key assumptions:

- The current *cost of retiree health benefits* (often varying by age, Medicare status and/or dependent coverage). The higher the current cost of retiree benefits, the higher the service cost.
- The “*trend*” rate at which retiree health benefits are expected to increase over time. A higher trend rate increases the service cost. A “cap” on District contributions can reduce trend to zero once the cap is reached thereby dramatically reducing service costs.
- *Mortality rates* varying by age and sex. (Unisex mortality rates are not often used as individual OPEB benefits do not depend on the mortality table used.) If employees die prior to retirement, past contributions are available to fund benefits for employees who live to retirement. After retirement, death results in benefit termination or reduction. Although higher mortality rates reduce service costs, the mortality assumption is not likely to vary from employer to employer.
- *Employment termination rates* have the same effect as mortality inasmuch as higher termination rates reduce service costs. Employment termination can vary considerably between public agencies.
- The *service requirement* reflects years of service required to earn full or partial retiree benefits. While a longer service requirement reduces costs, cost reductions are not usually substantial unless the service period exceeds 20 years of service.

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- **Retirement rates** determine what proportion of employees retire at each age (assuming employees reach the requisite length of service). Retirement rates often vary by employee classification and implicitly reflect the minimum retirement age required for eligibility. Retirement rates also depend on the amount of pension benefits available. Higher retirement rates increase service costs but, except for differences in minimum retirement age, retirement rates tend to be consistent between public agencies for each employee type.
- **Participation rates** indicate what proportion of retirees are expected to elect retiree health benefits if a significant retiree contribution is required. Higher participation rates increase costs.
- The **discount rate** estimates investment earnings for assets earmarked to cover retiree health benefit liabilities. The discount rate depends on the nature of underlying assets for funded plans. The rate used for a funded plan is the real rate of return expected for plan assets plus the long term inflation assumption. For an unfunded plan, the discount rate is based on an index of 20 year General Obligation municipal bonds. For partially funded plans, the discount rate is a blend of the funded and unfunded rates.

The assumptions listed above are not exhaustive, but are the most common assumptions used in actuarial cost calculations. If all actuarial assumptions are exactly met and an employer expensed the service cost every year for all past and current employees and retirees, a sizeable liability would have accumulated (after adding interest and subtracting retiree benefit costs). The liability that would have accumulated is called the Total OPEB Liability (TOL). The excess of TOL over the value of plan assets is called the Net OPEB Liability (NOL). Under GASB 74 and 75, in order for assets to count toward offsetting the TOL, the assets have to be held in an irrevocable trust that is safe from creditors and can only be used to provide OPEB benefits to eligible participants.

The total OPEB liability (TOL) can arise in several ways - e.g., as a result of plan changes or changes in actuarial assumptions. TOL can also arise from actuarial gains and losses. Actuarial gains and losses result from differences between actuarial assumptions and actual plan experience.

Under GASB 74 and 75, a portion of actuarial gains and losses can be deferred as follows:

- Investment gains and losses can be deferred five years
- Experience gains and losses can be deferred over the expected average remaining service lives (EARSL) of plan participants. In calculating the EARSL, terminated employees (primarily retirees) are considered to have a working lifetime of zero. This often makes the EARSL quite short.
- Liability changes resulting from changes in economic and demographic assumptions are also deferred based on the EARSL.
- Liability changes resulting from plan changes, for example, cannot be deferred.

PART III: LIABILITIES AND COSTS FOR RETIREE BENEFITS

A. Introduction.

We calculated the actuarial present value of projected benefit payments (APVPBP) separately for each participant. We determined eligibility for retiree benefits based on information supplied by Valley Sanitary District. We then selected assumptions for the factors discussed in the above Section that, based on plan provisions and our training and experience, represent our best prediction of future plan experience. For each participant, we applied the appropriate factors based on the participant's age, sex, length of service, and employee classification.

We summarized actuarial assumptions used for this study in Appendix C.

B. Liability for Retiree Benefits.

For each participant, we projected future premium costs using an assumed trend rate (see Appendix C). To the extent Valley Sanitary District uses contribution caps, the influence of the trend factor is further reduced. We multiplied each year's benefit payments by the probability that benefits will be paid; i.e. based on the probability that the participant is living, has not terminated employment, has retired and remains eligible. The probability that benefit will be paid is zero if the participant is not eligible. The participant is not eligible if s/he has not met minimum service, minimum age or, if applicable, maximum age requirements.

The product of each year's benefit payments and the probability the benefit will be paid equals the expected cost for that year. We discounted the expected cost for each year to the measurement date June 30, 2019 at 7% interest. Finally, we multiplied the above discounted expected cost figures by the probability that the retiree would elect coverage. A retiree may not elect to be covered if retiree health coverage is available less expensively from another source (e.g. Medicare risk contract) or the retiree is covered under a spouse's plan.

For any *current retirees*, the approach used was similar. The major difference is that the probability of payment for current retirees depends only on mortality and age restrictions (i.e. for retired employees the probability of being retired and of not being terminated are always both 1.0000).

We added the actuarial present value of projected benefit payments (APVPBP) for each participant to get the total APVPBP for all participants. The APVPBP is the estimated present value of all future retiree health benefits for all **current** participants. The APVPBP is the amount on June 30, 2019 that, if all actuarial assumptions are exactly right, would be sufficient to expense all promised benefits until the last participant dies or reaches the maximum eligibility age.

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Actuarial Present Value of Projected Benefit Payments at June 30, 2019

<i>All Participants</i>	
Active: Pre-65	\$65,093
Post-65	\$165,587
Subtotal	\$230,680
Retiree: Pre-65	\$22,459
Post-65	\$144,088
Subtotal	\$166,547
Grand Total	\$397,227
Subtotal Pre-65	\$87,552
Subtotal Post-65	\$309,675

The APVPBP should be accrued over the working lifetime of employees. At any time much of it has not been "earned" by employees. The APVPBP is used to develop expense and liability figures. To do so, the APVPBP is divided into two parts: the portions attributable to service rendered prior to the measurement date (the past service liability or Total OPEB Liability (TOL) under GASB 74 and 75) and to service after the measurement date but prior to retirement (the future service liability).

The past service and future service liabilities are each accrued in a different way. We will start with the future service liability which is funded by the service cost.

C. Cost to Prefund Retiree Benefits

1. Service Cost

The average hire age for eligible employees is 35. To accrue the liability by retirement, the District would accrue the retiree liability over a period of about 26 years (assuming an average retirement age of 61). We applied an "entry age" actuarial cost method to determine funding rates for active employees. The table below summarizes the calculated service cost.

Service Cost Year Beginning July 1, 2019

<i>All Participants</i>	
# of Employees	28
Per Capita Service Cost	
Pre-65 Benefit	\$85
Post-65 Benefit	\$242
First Year Service Cost	
Pre-65 Benefit	\$2,380
Post-65 Benefit	\$6,776
Total	\$9,156

Accruing retiree health benefit costs using service costs levels out the cost of retiree health benefits over time and more fairly reflects the value of benefits "earned" each year by employees. This service cost would increase each year based on covered payroll.

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2. Total OPEB Liability (TOL) and Net OPEB Liability (NOL)

If actuarial assumptions are borne out by experience, the District will fully accrue retiree benefits by expensing an amount each year that equals the service cost. If no accruals had taken place in the past, there would be a shortfall of many years' accruals, accumulated interest and forfeitures for terminated or deceased employees. This shortfall is called the Total OPEB Liability. We calculated the Total OPEB Liability (TOL) as the APVPBP minus the present value of future service costs. To the extent that benefits are funded through a GASB 74 qualifying trust, the trust's Fiduciary Net Position (FNP) is subtracted to get the NOL. The FNP is the value of assets adjusted for any applicable payables and receivables.

Total OPEB Liability (TOL) and Net OPEB Liability (NOL) as of June 30, 2019

<i>All Participants</i>	
Active: Pre-65	\$45,318
Active: Post-65	\$109,286
Subtotal	\$154,604
Retiree: Pre-65	\$22,459
Retiree: Post-65	\$144,088
Subtotal	\$166,547
Subtotal: Pre-65	\$67,777
Subtotal: Post-65	\$253,374
Total OPEB Liability (TOL)	\$321,151
Fiduciary Net Position as of June 30, 2019	\$145,478
Net OPEB Liability (NOL)	\$175,673

The following table shows the reconciliation of the June 30, 2018 Net OPEB Liability (NOL) in the prior valuation to the June 30, 2019 NOL.

	<i>TOL</i>	<i>FNP</i>	<i>NOL</i>
Balance at June 30, 2018	\$265,685	\$130,433	\$135,252
Service Cost	\$9,264	\$0	\$9,264
Interest on Total OPEB Liability	\$18,677	\$0	\$18,677
Expected Investment Income	\$0	\$9,375	(\$9,375)
Administrative Expenses	\$0	(\$28)	\$28
Employee Contributions	\$0	\$0	\$0
Employer Contributions to Trust	\$0	\$7,010	(\$7,010)
Employer Contributions as Benefit Payments	\$0	\$7,126	(\$7,126)
Actual Benefit Payments from Trust	\$0	\$0	\$0
Actual Benefit Payments from Employer	(\$7,126)	(\$7,126)	\$0
Expected Minus Actual Benefit Payments*	\$116	\$0	\$116
Expected Balance at June 30, 2019	\$286,616	\$146,790	\$139,826
Experience Gains/Losses	\$34,535	\$0	\$34,535
Changes in Assumptions	\$0	\$0	\$0
Changes in Benefit Terms	\$0	\$0	\$0
Investment Gains/Losses	\$0	(\$1,312)	\$1,312
Other	\$0	\$0	\$0
Net Change during 2018-19	\$55,466	\$15,045	\$40,421
Actual Balance at June 30, 2019**	\$321,151	\$145,478	\$175,673

* Deferrable as an Experience Gain or Loss.

** May include a slight rounding error.

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3. OPEB Expense

Changes in the NOL arising from certain sources are recognized on a deferred basis. The deferral history for Valley Sanitary District is shown in Appendix F. The following table summarizes the beginning and ending balances for each deferral item. The current year expense reflects the change in deferral balances for the measurement year.

Deferred Inflow/Outflow Balances Fiscal Year Ending June 30, 2020

	<i>Beginning Balance</i>	<i>Newly Created</i>	<i>Recognition</i>	<i>Ending Balance</i>
Experience Gains/Losses	\$0	\$34,651	(\$2,606)	\$32,045
Assumption Changes	\$0	\$0	\$0	\$0
Investment Gains/Losses	(\$63)	\$1,312	(\$247)	\$1,002
Deferred Balances	(\$63)	\$35,963	(\$2,853)	\$33,047

The following table shows the reconciliation between the change in the NOL and the OPEB expense.

Preliminary OPEB Expense Fiscal Year Ending June 30, 2020

	<i>Beginning Net Position</i>	<i>Ending Net Position</i>	<i>Change</i>
Net OPEB Liability (NOL)	\$135,252	\$175,673	\$40,421
Deferred Balances	(\$63)	\$33,047	\$33,110
Change in Net Position	\$135,315	\$142,626	\$7,311
Employer Contributions			\$14,136
Other			\$0
OPEB Expense			\$21,447

Under GASB 74 and 75, OPEB expense includes service cost, interest cost, and change in TOL due to plan changes; all adjusted for deferred inflows and outflows.

OPEB Expense Fiscal Year Ending June 30, 2020

	<i>Total</i>
Service Cost	\$9,264
Interest on Total OPEB Liability (TOL)	\$18,677
Employee Contributions	\$0
Recognized Experience Gains/Losses	\$2,606
Recognized Assumption Changes	\$0
Expected Investment Income	(\$9,375)
Recognized Investment Gains/Losses	\$247
Contributions After Measurement Date (Prior Year)	\$0
Contributions After Measurement Date (Current Year)	\$0
Changes in Benefit Terms	\$0
Administrative Expense	\$28
OPEB Expense*	\$21,447

* May include a slight rounding error.

The above OPEB expense does not include \$14,136 in employer contributions.

4. Adjustments

The above OPEB expense includes all deferred inflows and outflows except any contributions after the measurement date. Contributions from July 1, 2019 to June 30, 2020 minus prior contributions after the measurement date of \$14,136 should also be reflected in OPEB expense. June 30, 2020 deferred outflows should include contributions from July 1, 2019 to June 30, 2020.

PART IV: "PAY AS YOU GO" FUNDING OF RETIREE BENEFITS

We used the actuarial assumptions shown in Appendix C to project the District's ten year retiree benefit outlay. Because these cost estimates reflect average assumptions applied to a relatively small number of participants, estimates for individual years are certtain to be *in*accurate. However, these estimates show the size of cash outflow.

The following table shows a projection of annual amounts needed to pay the District's share of retiree health costs.

<i>Year Beginning</i>	
<i>July 1</i>	<i>All Participants</i>
2019	\$10,310
2020	\$11,040
2021	\$12,208
2022	\$13,479
2023	\$14,832
2024	\$16,342
2025	\$17,793
2026	\$19,411
2027	\$21,007
2028	\$22,795

PART V: RECOMMENDATIONS FOR FUTURE VALUATIONS

To effectively manage benefit costs, an employer must periodically examine the existing liability for retiree benefits as well as future annual expected premium costs. GASB 74/75 require annual valuations. Every other year, the valuation requirement can be met by doing a “roll-forward” valuation. However, a full valuation may be required or preferred under certain circumstances.

Following are examples of actions that could trigger a new valuation.

- An employer should perform a valuation whenever the employer considers or puts in place an early retirement incentive program.
- An employer should perform a valuation whenever the employer adopts a retiree benefit plan for some or all employees.
- An employer should perform a valuation whenever the employer considers or implements changes to retiree benefit provisions or eligibility requirements.
- An employer should perform a valuation whenever the employer introduces or changes retiree contributions.
- An employer should perform a valuation whenever the employer forms a qualifying trust or changes its investment policy.
- An employer should perform a valuation whenever the employer adds or terminates a group of participants that constitutes a significant part of the covered group.

We recommend Valley Sanitary District take the following actions to ease future valuations.

- We have used our training, experience and information available to us to establish the actuarial assumptions used in this valuation. We have no information to indicate that any of the assumptions do not reasonably reflect future plan experience. However, the District should review the actuarial assumptions in Appendix C carefully. If the District has any reason to believe that any of these assumptions do not reasonably represent the expected future experience of the retiree health plan, the District should engage in discussions or perform analyses to determine the best estimate of the assumption in question.

PART VI: APPENDICES

APPENDIX A: MATERIALS USED FOR THIS STUDY

We relied on the following materials to complete this study.

- We used paper reports and digital files containing participant demographic data from the District personnel records.
- We used relevant sections of collective bargaining agreements provided by the District.

APPENDIX B: EFFECT OF ASSUMPTIONS USED IN CALCULATIONS

While we believe the estimates in this study are reasonable overall, it was necessary for us to use assumptions which inevitably introduce errors. We believe that the errors caused by our assumptions will not materially affect study results. If the District wants more refined estimates for decision-making, we recommend additional investigation.

APPENDIX C: ACTUARIAL ASSUMPTIONS AND METHODS

Following is a summary of actuarial assumptions and methods used in this study. The District should carefully review these assumptions and methods to make sure they reflect the District's assessment of its underlying experience. It is important for Valley Sanitary District to understand that the appropriateness of all selected actuarial assumptions and methods are Valley Sanitary District's responsibility. Unless otherwise disclosed in this report, TCS believes that all methods and assumptions are within a reasonable range based on the provisions of GASB 74 and 75, applicable actuarial standards of practice, Valley Sanitary District's actual historical experience, and TCS's judgment based on experience and training.

ACTUARIAL METHODS AND ASSUMPTIONS:

ACTUARIAL COST METHOD: GASB 74 and 75 require use of the entry age actuarial cost method.

Entry age is based on the age at hire for eligible employees. The attribution period is determined as the difference between the expected retirement age and the age at hire. The APVPBP and present value of future service costs are determined on a participant by participant basis and then aggregated.

To the extent that different benefit formulas apply to different employees of the same class, the service cost is based on the benefit plan applicable to the most recently hired employees (including future hires if a new benefit formula has been agreed to and communicated to employees). This greatly simplifies administration and accounting; as well as resulting in the correct service cost for new hires.

SUBSTANTIVE PLAN: As required under GASB 74 and 75, we based the valuation on the substantive plan. The formulation of the substantive plan was based on a review of written plan documents as well as historical information provided by Valley Sanitary District regarding practices with respect to employer and employee contributions and other relevant factors.

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ECONOMIC ASSUMPTIONS:

Economic assumptions are set under the guidance of Actuarial Standard of Practice 27 (ASOP 27). Among other things, ASOP 27 provides that economic assumptions should reflect a consistent underlying rate of general inflation. For that reason, we show our assumed long-term inflation rate below.

INFLATION: We assumed 2.75% per year used for pension purposes. Actuarial standards require using the same rate for OPEB that is used for pension.

INVESTMENT RETURN / DISCOUNT RATE: We assumed 7% per year net of expenses. This is based on assumed long-term return on employer assets. We used the “Building Block Method”. (See Appendix E, Paragraph 53 for more information). Our assessment of long-term returns for employer assets is based on long-term historical returns for surplus funds invested pursuant to California Government Code Sections 53601 et seq.

TREND: We assumed 4% per year. Our long-term trend assumption is based on the conclusion that, while medical trend will continue to be cyclical, the average increase over time cannot continue to outstrip general inflation by a wide margin. Trend increases in excess of general inflation result in dramatic increases in unemployment, the number of uninsured and the number of underinsured. These effects are nearing a tipping point which will inevitably result in fundamental changes in health care finance and/or delivery which will bring increases in health care costs more closely in line with general inflation. We do not believe it is reasonable to project historical trend vs. inflation differences several decades into the future.

PAYROLL INCREASE: We assumed 2.75% per year. Since benefits do not depend on salary (as they do for pensions), using an aggregate payroll assumption for the purpose of calculating the service cost results in a negligible error.

FIDUCIARY NET POSITION (FNP): The following table shows the beginning and ending FNP numbers that were provided by Valley Sanitary District.

Fiduciary Net Position as of June 30, 2019

	<u>06/30/2018</u>	<u>06/30/2019</u>
Cash and Equivalents	\$0	\$0
Contributions Receivable	\$6,158	\$7,010
Total Investments	\$124,275	\$138,468
Capital Assets	\$0	\$0
Total Assets	\$130,433	\$145,478
Benefits Payable	\$0	\$0
Fiduciary Net Position	\$130,433	\$145,478

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NON-ECONOMIC ASSUMPTIONS:

Economic assumptions are set under the guidance of Actuarial Standard of Practice 35 (ASOP 35). See Appendix E, Paragraph 52 for more information.

MORTALITY

<i>Participant Type</i>	<i>Mortality Tables</i>
Miscellaneous	2014 CalPERS Active Mortality for Miscellaneous Employees

RETIREMENT RATES

<i>Employee Type</i>	<i>Retirement Rate Tables</i>
All Participants	Hired < 1/1/2013: 2009 CalPERS 2.5% @55 Rates for Miscellaneous Employees Hired > 12/31/2012: 2009 CalPERS 2.0% @60 Rates for Miscellaneous Employees adjusted to reflect minimum retirement age of 52

SERVICE REQUIREMENT

<i>Employee Type</i>	<i>Service Requirement Tables</i>
Miscellaneous	100% at 5 Years of Service

COSTS FOR RETIREE COVERAGE

Actuarial Standard of Practice 6 (ASOP 6) provides that, as a general rule, retiree costs should be based on actual claim costs or age-adjusted premiums. This is true even for many medical plans that are commonly considered to be “community-rated.” However, ASOP 6 contains a provision – specifically section 3.7.7(c) – that allows use of unadjusted premiums in certain circumstances.

It is my opinion that the section 3.7.7(c)(4) exception allows use of unadjusted premium for PEMHCA agencies if certain conditions are met. Following are the criteria we applied to Valley Sanitary District to determine that it is reasonable to assume that Valley Sanitary District’s future participation in PEMHCA is likely and that the CalPERS medical program as well as its premium structure are sustainable. (We also have an extensive white paper on this subject that provides a basis for our rationale entirely within the context of ASOP 6. We will make this white paper available upon request.)

- **Plan qualifies as a “pooled health plan.”** ASOP 6 defines a “pooled health plan” as one in which premiums are based at least in part on the claims experience of groups other than the one being valued.” Since CalPERS rates are the same for all employers in each region, rates are clearly based on the experience of many groups.
- **Rates not based to any extent on the agency’s claim experience.** As mentioned above, rates are the same for all participating employers regardless of claim experience or size.
- **Rates not based to any extent on the agency’s demographics.** As mentioned above, rates are the same for all participating employers regardless of demographics.
- **No refunds or charges based on the agency’s claim experience or demographics.** The terms of operation of the CalPERS program are set by statute and there is no provision for any refunds and charges that vary from employer to employer for any reason. The only charges are uniform administrative charges.
- **Plan in existence 20 or more years.** Enabling legislation to allow “contracting agencies” to participate in the CalPERS program was passed in 1967. The CalPERS medical plan has been successfully operating for almost 50 years. As far back as we can obtain records, the rating structure has been

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consistent, with the only difference having been a move to regional rating which is unrelated to age-adjusted rating.

- **No recent large increases or decreases in the number of participating plans or enrollment.** The CalPERS medical plan has shown remarkably stable enrollment. In the past 10 years, there has been small growth in the number of employers in most years – with the maximum being a little over 2% and a very small decrease in one year. Average year over year growth in the number of employers over the last 10 years has been about 0.75% per year. Groups have been consistently leaving the CalPERS medical plan while other groups have been joining with no disruption to its stability.
- **Agency is not expecting to leave plan in foreseeable future.** The District does not plan to leave CalPERS at present.
- **No indication the plan will be discontinued.** We are unaware of anything that would cause the CalPERS medical plan to cease or to significantly change its operation in a way that would affect this determination.
- **The agency does not represent a large part of the pool.** The District is in the CalPERS Other Southern California region. Based on the information we have, the District constitutes no more than 0.1% of the Other Southern California pool. In our opinion, this is not enough for the District to have a measurable effect on the rates or viability of the Other Southern California pool.

Retiree liabilities are based on actual retiree costs. Liabilities for active participants are based on the first year costs shown below. Subsequent years' costs are based on first year costs adjusted for trend and limited by any District contribution caps.

<i>Participant Type</i>	<i>Future Retirees Pre-65</i>	<i>Future Retirees Post-65</i>
All Participants	\$1,650	\$1,650

PARTICIPATION RATES

<i>Employee Type</i>	<i><65 Non-Medicare Participation %</i>	<i>65+ Medicare Participation %</i>
Miscellaneous	60%	60%

TURNOVER

<i>Employee Type</i>	<i>Turnover Rate Tables</i>
Miscellaneous	2009 CalPERS Turnover for Miscellaneous Employees

SPOUSE PREVALENCE

To the extent not provided and when needed to calculate benefit liabilities, 80% of retirees assumed to be married at retirement. After retirement, the percentage married is adjusted to reflect mortality.

SPOUSE AGES

To the extent spouse dates of birth are not provided and when needed to calculate benefit liabilities, female spouse assumed to be three years younger than male.

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APPENDIX D: DISTRIBUTION OF ELIGIBLE PARTICIPANTS BY AGE

ELIGIBLE ACTIVE EMPLOYEES

<i>Age</i>	<i>All Participants</i>
Under 25	0
25-29	4
30-34	1
35-39	4
40-44	6
45-49	3
50-54	6
55-59	2
60-64	2
65 and older	0
Total	28

ELIGIBLE RETIREES

<i>Age</i>	<i>All Participants</i>
Under 50	0
50-54	0
55-59	1
60-64	4
65-69	1
70-74	0
75-79	0
80-84	0
85-89	0
90 and older	0
Total	6

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APPENDIX E: GASB 74/75 ACCOUNTING ENTRIES AND DISCLOSURES

This report does not necessarily include the entire accounting values. As mentioned earlier, there are certain deferred items that are employer-specific. The District should consult with its auditor if there are any questions about what, if any, adjustments may be appropriate.

GASB 74/75 include a large number of items that should be included in the Note Disclosures and Required Supplementary Information (RSI) Schedules. Many of these items are outside the scope of the actuarial valuation. However, following is information to assist the District in complying with GASB 74/75 disclosure requirements:

Paragraph 50: **Information about the OPEB Plan**

Most of the information about the OPEB plan should be supplied by Valley Sanitary District. Following is information to help fulfill Paragraph 50 reporting requirements.

50.c: Following is a table of plan participants

	Number of Participants
Inactive Employees Currently Receiving Benefit Payments	6
Inactive Employees Entitled to But Not Yet Receiving Benefit Payments*	0
Participating Active Employees	28
Total Number of participants	34

*We were not provided with information about any terminated, vested employees

Paragraph 51: **Significant Assumptions and Other Inputs**

Shown in Appendix C.

Paragraph 52: **Information Related to Assumptions and Other Inputs**

The following information is intended to assist Valley Sanitary District in complying with the requirements of Paragraph 52.

52.b: Mortality Assumptions Following are the tables the mortality assumptions are based upon. Inasmuch as these tables are based on appropriate populations, and that these tables are used for pension purposes, we believe these tables to be the most appropriate for the valuation.

Mortality Table Disclosure	2014 CalPERS Active Mortality for Miscellaneous Employees The mortality assumptions are based on the 2014 CalPERS Active Mortality for Miscellaneous Employees table created by CalPERS. CalPERS periodically studies mortality for participating agencies and establishes mortality tables that are modified versions of commonly used tables. This table incorporates mortality projection as deemed appropriate based on CalPERS analysis.
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Mortality Table	2014 CalPERS Retiree Mortality for Miscellaneous Employees
Disclosure	The mortality assumptions are based on the 2014 CalPERS Retiree Mortality for Miscellaneous Employees table created by CalPERS. CalPERS periodically studies mortality for participating agencies and establishes mortality tables that are modified versions of commonly used tables. This table incorporates mortality projection as deemed appropriate based on CalPERS analysis.

52.c: Experience Studies Following are the tables the retirement and turnover assumptions are based upon. Inasmuch as these tables are based on appropriate populations, and that these tables are used for pension purposes, we believe these tables to be the most appropriate for the valuation.

Retirement Tables

Retirement Table	2009 CalPERS 2.0% @60 Rates for Miscellaneous Employees
Disclosure	The retirement assumptions are based on the 2009 CalPERS 2.0% @60 Rates for Miscellaneous Employees table created by CalPERS. CalPERS periodically studies the experience for participating agencies and establishes tables that are appropriate for each pool.

Retirement Table	2009 CalPERS 2.5% @55 Rates for Miscellaneous Employees
Disclosure	The retirement assumptions are based on the 2009 CalPERS 2.5% @55 Rates for Miscellaneous Employees table created by CalPERS. CalPERS periodically studies the experience for participating agencies and establishes tables that are appropriate for each pool.

Turnover Tables

Turnover Table	2009 CalPERS Turnover for Miscellaneous Employees
Disclosure	The turnover assumptions are based on the 2009 CalPERS Turnover for Miscellaneous Employees table created by CalPERS. CalPERS periodically studies the experience for participating agencies and establishes tables that are appropriate for each pool.

For other assumptions, we use actual plan provisions and plan data.

52.d: The alternative measurement method was not used in this valuation.

52.e: NOL using alternative trend assumptions The following table shows the Net OPEB Liability with a healthcare cost trend rate 1% higher and 1% lower than assumed in the valuation.

	Trend 1% Lower	Valuation Trend	Trend 1% Higher
Net OPEB Liability	\$136,740	\$175,673	\$221,697

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Paragraph 53: **Discount Rate**

The following information is intended to assist Valley Sanitary District to comply with Paragraph 53 requirements.

53.a: A discount rate of 7% was used in the valuation.

53.b: We assumed that all contributions are from the employer.

53.c: We used historic 32 year real rates of return for each asset class along with our assumed long-term inflation assumption to set the discount rate. We offset the expected investment return by investment expenses of 25 basis points.

53.d: The interest assumption does not reflect a municipal bond rate.

53.e: Not applicable.

53.f: Following is the assumed asset allocation and assumed rate of return for each.
CERBT - Strategy 1

Asset Class	Percentage of Portfolio	Assumed Gross Return
US Large Cap	43.0000	7.7950
US Small Cap	23.0000	7.7950
Long-Term Corporate Bonds	12.0000	5.2950
Long-Term Government Bonds	6.0000	4.5000
Treasury Inflation Protected Securities (TIPS)	5.0000	7.7950
US Real Estate	8.0000	7.7950
All Commodities	3.0000	7.7950

We looked at rolling periods of time for all asset classes in combination to appropriately reflect correlation between asset classes. That means that the average returns for any asset class don't necessarily reflect the averages over time individually, but reflect the return for the asset class for the portfolio average. We used geometric means.

53.g: The following table shows the Net OPEB liability with a discount rate 1% higher and 1% lower than assumed in the valuation.

	Discount Rate 1% Lower	Valuation Discount Rate	Discount Rate 1% Higher
Net OPEB Liability	\$222,163	\$175,673	\$137,581

Paragraph 55: **Changes in the Net OPEB Liability**

Please see reconciliation on page 10.

Paragraph 56: **Additional Net OPEB Liability Information**

The following information is intended to assist Valley Sanitary District to comply with Paragraph 56 requirements.

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56.a: The valuation date is June 30, 2019.

The measurement date is June 30, 2019.

56.b: We are not aware of a special funding arrangement.

56.c: There were no assumption changes since the prior measurement date.

56.d: There were no changes in benefit terms since the prior measurement date.

56.e: Not applicable

56.f: To be determined by the employer

56.g: To be determined by the employer

56.h: Other than contributions after the measurement, all deferred inflow and outflow balances are shown in Appendix F

56.i: Future recognition of deferred inflows and outflows is shown in Appendix F

Paragraph 57:

Required Supplementary Information

57.a: Please see reconciliation on page 10. Please see the notes for Paragraph 244 below for more information.

57.b: These items are provided on page 10 for the current valuation, except for covered payroll, which should be determined based on appropriate methods.

57.c: We have not been asked to calculate an actuarially determined contribution amount. We assume the District contributes on an ad hoc basis, but in an amount sufficient to fully fund the obligation over a period not to exceed 32 years.

57.d: We are not aware that there are any statutorily or contractually established contribution requirements.

Paragraph 58:

Actuarially Determined Contributions

We have not been asked to calculate an actuarially determined contribution amount. We assume the District contributes on an ad hoc basis, but in an amount sufficient to fully fund the obligation over a period not to exceed 32 years.

Paragraph 244:

Transition Option

Prior periods were not restated due to the fact that prior valuations were not rerun in accordance with GASB 75. It was determined that the time and expense necessary to rerun prior valuations and to restate prior financial statements was not justified.

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APPENDIX F: DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES

EXPERIENCE GAINS AND LOSSES

Increase (Decrease) in OPEB Expense Arising from the Recognition of Effects of Experience Gains and Losses (Measurement Periods)											
Measurement Period	Experience Gain/Loss	Original Recognition Period (Years)	Amounts Recognized in OPEB Expense through 2018	2019	Amounts to be Recognized in OPEB Expense after 2019	2020	2021	2022	2023	2024	Thereafter
2018-19	\$34,651	13.3	\$0	\$2,606	\$32,045	\$2,606	\$2,606	\$2,606	\$2,606	\$2,606	\$19,015
Net Increase (Decrease) in OPEB Expense			\$0	\$2,606	\$32,045	\$2,606	\$2,606	\$2,606	\$2,606	\$2,606	\$19,015

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CHANGES OF ASSUMPTIONS

Increase (Decrease) in OPEB Expense Arising from the Recognition of Effects of Changes of Assumptions (Measurement Periods)

Measurement Period	Changes of Assumptions	Original Recognition Period (Years)	Amounts Recognized in OPEB Expense through 2018	2019	Amounts to be Recognized in OPEB Expense after 2019	2020	2021	2022	2023	2024	Thereafter
2018-19	\$0	0	\$0	\$0	\$0						
Net Increase (Decrease) in OPEB Expense			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

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INVESTMENT GAINS AND LOSSES

Increase (Decrease) in OPEB Expense Arising from the Recognition of Effects of Investment Gains and Losses (Measurement Periods)

Measurement Period	Investment Gain/Loss	Original Recognition Period (Years)	Amounts Recognized in OPEB Expense through 2018	2019	Amounts to be Recognized in OPEB Expense after 2019	2020	2021	2022	2023	2024	Thereafter
2017-18	(\$79)	5	(\$16)	(\$16)	(\$47)	(\$16)	(\$16)	(\$15)			
2018-19	\$1,312	5	\$0	\$263	\$1,049	\$263	\$263	\$263	\$260		
Net Increase (Decrease) in OPEB Expense			(\$16)	\$247	\$1,002	\$247	\$247	\$248	\$260	\$0	\$0

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APPENDIX G: GLOSSARY OF RETIREE HEALTH VALUATION TERMS

Note: The following definitions are intended to help a *non*-actuary understand concepts related to retiree health valuations. Therefore, the definitions may not be actuarially accurate.

<u>Actuarial Cost Method:</u>	A mathematical model for allocating OPEB costs by year of service. The only actuarial cost method allowed under GASB 74/75 is the entry age actuarial cost method.
<u>Actuarial Present Value of Projected Benefit Payments:</u>	The projected amount of all OPEB benefits to be paid to current and future retirees discounted back to the valuation or measurement date.
<u>Deferred Inflows/Outflows of Resources:</u>	A portion of certain items that can be deferred to future periods or that weren't reflected in the valuation. The former includes investment gains/losses, actuarial gains/losses, and gains/losses due to changes in actuarial assumptions or methods. The latter includes contributions made to a trust subsequent to the measurement date but before the statement date.
<u>Discount Rate:</u>	Assumed investment return net of all investment expenses. Generally, a higher assumed interest rate leads to lower service costs and total OPEB liability.
<u>Fiduciary Net Position:</u>	Net assets (liability) of a qualifying OPEB "plan" (i.e. qualifying irrevocable trust or equivalent arrangement).
<u>Implicit Rate Subsidy:</u>	The estimated amount by which retiree rates are understated in situations where, for rating purposes, retirees are combined with active employees and the employer is expected, in the long run, to pay the underlying cost of retiree benefits.
<u>Measurement Date:</u>	The date at which assets and liabilities are determined in order to estimate TOL and NOL.
<u>Mortality Rate:</u>	Assumed proportion of people who die each year. Mortality rates always vary by age and often by sex. A mortality table should always be selected that is based on a similar "population" to the one being studied.
<u>Net OPEB Liability (NOL):</u>	The Total OPEB Liability minus the Fiduciary Net Position.
<u>OPEB Benefits:</u>	Other Post Employment Benefits. Generally, medical, dental, prescription drug, life, long-term care or other postemployment benefits that are not pension benefits.
<u>OPEB Expense:</u>	This is the amount employers must recognize as an expense each year. The annual OPEB expense is equal to the Service Cost plus interest on the Total OPEB Liability (TOL) plus change in TOL due to plan changes minus projected investment income; all adjusted to reflect deferred inflows and outflows of resources.
<u>Participation Rate:</u>	The proportion of retirees who elect to receive retiree benefits. A lower

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participation rate results in lower service cost and a TOL. The participation rate often is related to retiree contributions.

<u>Retirement Rate:</u>	The proportion of active employees who retire each year. Retirement rates are usually based on age and/or length of service. (Retirement rates can be used in conjunction with the service requirement to reflect both age and length of service). The more likely employees are to retire early, the higher service costs and actuarial accrued liability will be.
<u>Service Cost:</u>	The annual dollar value of the “earned” portion of retiree health benefits if retiree health benefits are to be fully accrued at retirement.
<u>Service Requirement:</u>	The proportion of retiree benefits payable under the OPEB plan, based on length of service and, sometimes, age. A shorter service requirement increases service costs and TOL.
<u>Total OPEB Liability (TOL):</u>	The amount of the actuarial present value of projected benefit payments attributable to participants’ past service based on the actuarial cost method used.
<u>Trend Rate:</u>	The rate at which the employer’s share of the cost of retiree benefits is expected to increase over time. The trend rate usually varies by type of benefit (e.g. medical, dental, vision, etc.) and may vary over time. A higher trend rate results in higher service costs and TOL.
<u>Turnover Rate:</u>	The rate at which employees cease employment due to reasons other than death, disability or retirement. Turnover rates usually vary based on length of service and may vary by other factors. Higher turnover rates reduce service costs and TOL.
<u>Valuation Date:</u>	The date as of which the OPEB obligation is determined by means of an actuarial valuation. Under GASB 74 and 75, the valuation date does not have to coincide with the statement date, but can’t be more than 30 months prior.

**Valley Sanitary District
Actuarial Study of
Retiree Health Liabilities Under GASB 74/75
Valuation Date: June 30, 2019
Measurement Date: June 30, 2019**

*Prepared by:
Total Compensation Systems, Inc.*

Date: August 24, 2020

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**Valley Sanitary District
Actuarial Study of Retiree Health Liabilities**

PART I: EXECUTIVE SUMMARY

A. Introduction

Valley Sanitary District engaged Total Compensation Systems, Inc. (TCS) to analyze liabilities associated with its current retiree health program as of June 30, 2019 (the measurement date). The numbers in this report are based on the assumption that they will first be used to determine accounting entries for the fiscal year ending June 30, 2020. If the report will first be used for a different fiscal year, the numbers may need to be adjusted accordingly.

This report does not reflect any cash benefits paid unless the retiree is required to provide proof that the cash benefits are used to reimburse the retiree's cost of health benefits. Costs and liabilities attributable to cash benefits paid to retirees are reportable under applicable Governmental Accounting Standards Board (GASB) Standards.

This actuarial study is intended to serve the following purposes:

- To provide information to enable Valley Sanitary District to manage the costs and liabilities associated with its retiree health benefits.
- To provide information to enable Valley Sanitary District to communicate the financial implications of retiree health benefits to internal financial staff, the Board, employee groups and other affected parties.
- To provide information needed to comply with Governmental Accounting Standards Board Accounting Standards 74 and 75 related to "other postemployment benefits" (OPEB's).

Because this report was prepared in compliance with GASB 74 and 75, Valley Sanitary District should not use this report for any other purpose without discussion with TCS. This means that any discussions with employee groups, governing Boards, etc. should be restricted to the implications of GASB 74 and 75 compliance.

This actuarial report includes several estimates for Valley Sanitary District's retiree health program. In addition to the tables included in this report, we also performed cash flow adequacy tests as required under Actuarial Standard of Practice 6 (ASOP 6). Our cash flow adequacy testing covers a twenty-year period. We would be happy to make this cash flow adequacy test available to Valley Sanitary District in spreadsheet format upon request.

We calculated the following estimates separately for active employees and retirees. We estimated the following:

- the total liability created. (The actuarial present value of projected benefit payments or APVPBP)
- ten years of projected benefit payments.
- the "total OPEB liability (TOL)." (The TOL is the portion of the APVPBP attributable to employees' service prior to the measurement date.)
- the "net OPEB liability" (NOL). For plans funded through a trust, this represents the unfunded portion of the liability.

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- the service cost (SC). This is the value of OPEB benefits earned for one year of service.
- deferred inflows and outflows of resources attributable to the OPEB plan.
- “OPEB expense.” This is the amount recognized in accrual basis financial statements as the current period expense in addition to contributions. The OPEB expense includes service cost, interest and certain changes in the OPEB liability, adjusted to reflect deferred inflows and outflows.
- Amounts to support financial statement Note Disclosures and Required Supplementary Information (RSI) schedules.

We summarized the data used to perform this study in Appendix A. No effort was made to verify this information beyond brief tests for reasonableness and consistency.

All cost and liability figures contained in this study are estimates of future results. Future results can vary dramatically and the accuracy of estimates contained in this report depends on the actuarial assumptions used. Service costs and liabilities could easily vary by 10 - 20% or more from estimates contained in this report.

B. General Findings

We estimate the "pay-as-you-go" cost of providing retiree health benefits in the year beginning July 1, 2019 to be \$44,029 (see Section IV.A.). The “pay-as-you-go” cost is the cost of benefits for current retirees.

For current employees, the value of benefits "accrued" in the year beginning July 1, 2019 (the service cost) is \$24,584. This service cost would increase each year based on covered payroll. Had Valley Sanitary District begun accruing retiree health benefits when each current employee and retiree was hired, a liability would have accumulated. We estimate the amount that would have accumulated to be \$757,110. This amount is called the "Total OPEB Liability" (TOL). Valley Sanitary District has set aside funds to cover retiree health liabilities in a GASB 75 qualifying trust. The Fiduciary Net Position of this trust at June 30, 2019 was \$145,478. This leaves a Net OPEB Liability (NOL) of \$611,632.

Based on the information we were provided, the OPEB Expense for the fiscal year ending June 30, 2020 is \$54,226.

We based all of the above estimates on participants as of July, 2019. Over time, liabilities and cash flow will vary based on the number and demographic characteristics of employees and retirees.

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C. Description of Retiree Benefits

Following is a description of the current retiree benefit plan:

	<u>All Employees</u>
Benefit types provided	Medical only
Duration of Benefits	Lifetime
Required Service	5 years
Minimum Age	50
Dependent Coverage	Yes
District Contribution %	100%
District Cap	PEMHCA Minimum*

*This amount will increase as provided in California Government Code Section 22892

D. Recommendations

It is outside the scope of this report to make specific recommendations of actions Valley Sanitary District should take to manage the liability created by the current retiree health program. Total Compensation Systems, Inc. can assist in identifying and evaluating options once this report has been studied. The following recommendations are intended only to allow the District to get more information from this and future studies. Because we have not conducted a comprehensive administrative audit of Valley Sanitary District's practices, it is possible that Valley Sanitary District is already complying with some or all of our recommendations.

- We recommend that Valley Sanitary District maintain an inventory of all benefits and services provided to retirees – whether contractually or not and whether retiree-paid or not. For each, Valley Sanitary District should determine whether the benefit is material and subject to GASB 74 and/or 75.
- Under GASB 75, it is important to isolate the cost of retiree health benefits. Valley Sanitary District should have all premiums, claims and expenses for retirees separated from active employee premiums, claims, expenses, etc. To the extent any retiree benefits are made available to retirees over the age of 65 – *even on a retiree-pay-all basis* – all premiums, claims and expenses for post-65 retiree coverage should be segregated from those for pre-65 coverage. Furthermore, Valley Sanitary District should arrange for the rates or prices of all retiree benefits to be set on what is expected to be a self-sustaining basis.
- Valley Sanitary District should establish a way of designating employees as eligible or ineligible for future OPEB benefits. Ineligible employees can include those in ineligible job classes; those hired after a designated date restricting eligibility; those who, due to their age at hire cannot qualify for District-paid OPEB benefits; employees who exceed the termination age for OPEB benefits, etc.
- Several assumptions were made in estimating costs and liabilities under Valley Sanitary District's retiree health program. Further studies may be desired to validate any assumptions where there is any doubt that the assumption is appropriate. (See Appendices B and C for a list of assumptions and concerns.) For example, Valley Sanitary District should maintain a retiree database that includes – in addition to date of birth, gender and employee classification – retirement date and (if applicable) dependent date of birth, relationship and gender. It will also be helpful for Valley Sanitary District to maintain employment

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termination information – namely, the number of OPEB-eligible employees in each employee class that terminate employment each year for reasons other than death, disability or retirement.

E. Certification

The actuarial information in this report is intended solely to assist Valley Sanitary District in complying with Governmental Accounting Standards Board Accounting Statements 74 and 75 and, unless otherwise stated, fully and fairly discloses actuarial information required for compliance. Nothing in this report should be construed as an accounting opinion, accounting advice or legal advice. TCS recommends that third parties retain their own actuary or other qualified professionals when reviewing this report. TCS's work is prepared solely for the use and benefit of Valley Sanitary District. Release of this report may be subject to provisions of the Agreement between Valley Sanitary District and TCS. No third party recipient of this report product should rely on the report for any purpose other than accounting compliance. Any other use of this report is unauthorized without first consulting with TCS.

This report is for fiscal year July 1, 2019 to June 30, 2020, using a measurement date of June 30, 2019. The calculations in this report have been made based on our understanding of plan provisions and actual practice at the time we were provided the required information. We relied on information provided by Valley Sanitary District. Much or all of this information was unaudited at the time of our evaluation. We reviewed the information provided for reasonableness, but this review should not be viewed as fulfilling any audit requirements. Information we relied on is listed in Appendix A.

All costs, liabilities, and other estimates are based on actuarial assumptions and methods that comply with all applicable Actuarial Standards of Practice (ASOPs). Each assumption is deemed to be reasonable by itself, taking into account plan experience and reasonable future expectations.

This report contains estimates of the Plan's financial condition only as of a single date. It cannot predict the Plan's future condition nor guarantee its future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. Determining results using alternative assumptions (except for the alternate discount and trend rates shown in this report) is outside the scope of our engagement.

Future actuarial measurements may differ significantly from those presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the measurement methodology (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. We were not asked to perform analyses to estimate the potential range of such future measurements.

The signing actuary is independent of Valley Sanitary District and any plan sponsor. TCS does not intend to benefit from and assumes no duty or liability to other parties who receive this report. TCS is not aware of any relationship that would impair the objectivity of the opinion.

On the basis of the foregoing, I hereby certify that, to the best of my knowledge and belief, this report is complete and has been prepared in accordance with generally accepted actuarial principles and practices and all applicable Actuarial Standards of Practice. I meet the Qualifications Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Total Compensation Systems, Inc.

Respectfully submitted,



Will Kane, FSA, EA
Actuary
Total Compensation Systems, Inc.
(805) 496-1700

PART II: BACKGROUND

A. Summary

Accounting principles provide that the cost of retiree benefits should be “accrued” over employees' working lifetime. For this reason, the Governmental Accounting Standards Board (GASB) issued in June of 2015 Accounting Standards 74 and 75 for retiree health benefits. These standards apply to all public employers that pay any part of the cost of retiree health benefits for current or future retirees (including early retirees), whether they pay directly or indirectly (via an “implicit rate subsidy”).

B. Actuarial Accrual

To actuarially accrue retiree health benefits requires determining the amount to expense each year so that the liability accumulated at retirement is, on average, sufficient (with interest) to cover all retiree health expenditures without the need for additional expenses. There are many different ways to determine the annual accrual amount. The calculation method used is called an “actuarial cost method.”

The actuarial cost method mandated by GASB 75 is the “entry age actuarial cost method”. Under this method, there are two components of actuarial cost – a “service cost” (SC) and the “Total OPEB Liability” (TOL). GASB 75 allows certain changes in the TOL to be deferred (i.e. deferred inflows and outflows of resources).

The service cost can be thought of as the value of the benefit earned each year if benefits are accrued during the working lifetime of employees. Under the entry age actuarial cost method, the actuary determines the annual amount needing to be expensed from hire until retirement to fully accrue the cost of retiree health benefits. This amount is the service cost. Under GASB 75, the service cost is calculated to be a level percentage of each employee’s projected pay.

The service cost is determined using several key assumptions:

- The current ***cost of retiree health benefits*** (often varying by age, Medicare status and/or dependent coverage). The higher the current cost of retiree benefits, the higher the service cost.
- The ***“trend” rate*** at which retiree health benefits are expected to increase over time. A higher trend rate increases the service cost. A “cap” on District contributions can reduce trend to zero once the cap is reached thereby dramatically reducing service costs.
- ***Mortality rates*** varying by age and sex. (Unisex mortality rates are not often used as individual OPEB benefits do not depend on the mortality table used.) If employees die prior to retirement, past contributions are available to fund benefits for employees who live to retirement. After retirement, death results in benefit termination or reduction. Although higher mortality rates reduce service costs, the mortality assumption is not likely to vary from employer to employer.
- ***Employment termination rates*** have the same effect as mortality inasmuch as higher termination rates reduce service costs. Employment termination can vary considerably between public agencies.
- The ***service requirement*** reflects years of service required to earn full or partial retiree benefits. While a longer service requirement reduces costs, cost reductions are not usually substantial unless the service period exceeds 20 years of service.

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- **Retirement rates** determine what proportion of employees retire at each age (assuming employees reach the requisite length of service). Retirement rates often vary by employee classification and implicitly reflect the minimum retirement age required for eligibility. Retirement rates also depend on the amount of pension benefits available. Higher retirement rates increase service costs but, except for differences in minimum retirement age, retirement rates tend to be consistent between public agencies for each employee type.
- **Participation rates** indicate what proportion of retirees are expected to elect retiree health benefits if a significant retiree contribution is required. Higher participation rates increase costs.
- The **discount rate** estimates investment earnings for assets earmarked to cover retiree health benefit liabilities. The discount rate depends on the nature of underlying assets for funded plans. The rate used for a funded plan is the real rate of return expected for plan assets plus the long term inflation assumption. For an unfunded plan, the discount rate is based on an index of 20 year General Obligation municipal bonds. For partially funded plans, the discount rate is a blend of the funded and unfunded rates.

The assumptions listed above are not exhaustive, but are the most common assumptions used in actuarial cost calculations. If all actuarial assumptions are exactly met and an employer expensed the service cost every year for all past and current employees and retirees, a sizeable liability would have accumulated (after adding interest and subtracting retiree benefit costs). The liability that would have accumulated is called the Total OPEB Liability (TOL). The excess of TOL over the value of plan assets is called the Net OPEB Liability (NOL). Under GASB 74 and 75, in order for assets to count toward offsetting the TOL, the assets have to be held in an irrevocable trust that is safe from creditors and can only be used to provide OPEB benefits to eligible participants.

The total OPEB liability (TOL) can arise in several ways - e.g., as a result of plan changes or changes in actuarial assumptions. TOL can also arise from actuarial gains and losses. Actuarial gains and losses result from differences between actuarial assumptions and actual plan experience.

Under GASB 74 and 75, a portion of actuarial gains and losses can be deferred as follows:

- Investment gains and losses can be deferred five years
- Experience gains and losses can be deferred over the expected average remaining service lives (EARSL) of plan participants. In calculating the EARSL, terminated employees (primarily retirees) are considered to have a working lifetime of zero. This often makes the EARSL quite short.
- Liability changes resulting from changes in economic and demographic assumptions are also deferred based on the EARSL.
- Liability changes resulting from plan changes, for example, cannot be deferred.

PART III: LIABILITIES AND COSTS FOR RETIREE BENEFITS

A. Introduction.

We calculated the actuarial present value of projected benefit payments (APVPBP) separately for each participant. We determined eligibility for retiree benefits based on information supplied by Valley Sanitary District. We then selected assumptions for the factors discussed in the above Section that, based on plan provisions and our training and experience, represent our best prediction of future plan experience. For each participant, we applied the appropriate factors based on the participant's age, sex, length of service, and employee classification.

We summarized actuarial assumptions used for this study in Appendix C.

B. Liability for Retiree Benefits.

For each participant, we projected future premium costs using an assumed trend rate (see Appendix C). To the extent Valley Sanitary District uses contribution caps, the influence of the trend factor is further reduced. We multiplied each year's benefit payments by the probability that benefits will be paid; i.e. based on the probability that the participant is living, has not terminated employment, has retired and remains eligible. The probability that benefit will be paid is zero if the participant is not eligible. The participant is not eligible if s/he has not met minimum service, minimum age or, if applicable, maximum age requirements.

The product of each year's benefit payments and the probability the benefit will be paid equals the expected cost for that year. We discounted the expected cost for each year to the measurement date June 30, 2019 at 7% interest. Finally, we multiplied the above discounted expected cost figures by the probability that the retiree would elect coverage. A retiree may not elect to be covered if retiree health coverage is available less expensively from another source (e.g. Medicare risk contract) or the retiree is covered under a spouse's plan.

For any *current retirees*, the approach used was similar. The major difference is that the probability of payment for current retirees depends only on mortality and age restrictions (i.e. for retired employees the probability of being retired and of not being terminated are always both 1.0000).

We added the actuarial present value of projected benefit payments (APVPBP) for each participant to get the total APVPBP for all participants. The APVPBP is the estimated present value of all future retiree health benefits for all **current** participants. The APVPBP is the amount on June 30, 2019 that, if all actuarial assumptions are exactly right, would be sufficient to expense all promised benefits until the last participant dies or reaches the maximum eligibility age.

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Actuarial Present Value of Projected Benefit Payments at June 30, 2019

<i>All Participants</i>	
Active: Pre-65	\$485,180
Post-65	\$165,587
Subtotal	\$650,767
Retiree: Pre-65	\$166,227
Post-65	\$144,088
Subtotal	\$310,315
Grand Total	\$961,082
Subtotal Pre-65	\$651,407
Subtotal Post-65	\$309,675

The APVPBP should be accrued over the working lifetime of employees. At any time much of it has not been "earned" by employees. The APVPBP is used to develop expense and liability figures. To do so, the APVPBP is divided into two parts: the portions attributable to service rendered prior to the measurement date (the past service liability or Total OPEB Liability (TOL) under GASB 74 and 75) and to service after the measurement date but prior to retirement (the future service liability).

The past service and future service liabilities are each accrued in a different way. We will start with the future service liability which is funded by the service cost.

C. Cost to Prefund Retiree Benefits

1. Service Cost

The average hire age for eligible employees is 35. To accrue the liability by retirement, the District would accrue the retiree liability over a period of about 26 years (assuming an average retirement age of 61). We applied an "entry age" actuarial cost method to determine funding rates for active employees. The table below summarizes the calculated service cost.

Service Cost Year Beginning July 1, 2019

<i>All Participants</i>	
# of Employees	28
Per Capita Service Cost	
Pre-65 Benefit	\$636
Post-65 Benefit	\$242
First Year Service Cost	
Pre-65 Benefit	\$17,808
Post-65 Benefit	\$6,776
Total	\$24,584

Accruing retiree health benefit costs using service costs levels out the cost of retiree health benefits over time and more fairly reflects the value of benefits "earned" each year by employees. This service cost would increase each year based on covered payroll.

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2. Total OPEB Liability (TOL) and Net OPEB Liability (NOL)

If actuarial assumptions are borne out by experience, the District will fully accrue retiree benefits by expensing an amount each year that equals the service cost. If no accruals had taken place in the past, there would be a shortfall of many years' accruals, accumulated interest and forfeitures for terminated or deceased employees. This shortfall is called the Total OPEB Liability. We calculated the Total OPEB Liability (TOL) as the APVPBP minus the present value of future service costs. To the extent that benefits are funded through a GASB 74 qualifying trust, the trust's Fiduciary Net Position (FNP) is subtracted to get the NOL. The FNP is the value of assets adjusted for any applicable payables and receivables.

Total OPEB Liability (TOL) and Net OPEB Liability (NOL) as of June 30, 2019

<i>All Participants</i>	
Active: Pre-65	\$337,428
Active: Post-65	\$109,367
Subtotal	\$446,795
Retiree: Pre-65	\$166,227
Retiree: Post-65	\$144,088
Subtotal	\$310,315
Subtotal: Pre-65	\$503,655
Subtotal: Post-65	\$253,455
Total OPEB Liability (TOL)	\$757,110
Fiduciary Net Position as of June 30, 2019	\$145,478
Net OPEB Liability (NOL)	\$611,632

The following table shows the reconciliation of the June 30, 2018 Net OPEB Liability (NOL) in the prior valuation to the June 30, 2019 NOL.

	<i>TOL</i>	<i>FNP</i>	<i>NOL</i>
Balance at June 30, 2018	\$265,685	\$130,433	\$135,252
Service Cost	\$9,264	\$0	\$9,264
Interest on Total OPEB Liability	\$18,677	\$0	\$18,677
Expected Investment Income	\$0	\$9,375	(\$9,375)
Administrative Expenses	\$0	(\$28)	\$28
Employee Contributions	\$0	\$0	\$0
Employer Contributions to Trust	\$0	\$7,010	(\$7,010)
Employer Contributions as Benefit Payments	\$0	\$7,126	(\$7,126)
Actual Benefit Payments from Trust	\$0	\$0	\$0
Actual Benefit Payments from Employer	(\$7,126)	(\$7,126)	\$0
Expected Minus Actual Benefit Payments*	\$116	\$0	\$116
Expected Balance at June 30, 2019	\$286,616	\$146,790	\$139,826
Experience (Gains)/Losses	\$34,873	\$0	\$34,873
Changes in Assumptions	\$435,621	\$0	\$435,621
Changes in Benefit Terms	\$0	\$0	\$0
Investment Gains/(Losses)	\$0	(\$1,312)	\$1,312
Other	\$0	\$0	\$0
Net Change during 2018-19	\$491,425	\$15,045	\$476,380
Actual Balance at June 30, 2019**	\$757,110	\$145,478	\$611,632

* Deferrable as an Experience Gain or Loss.

** May include a slight rounding error.

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3. OPEB Expense

Changes in the NOL arising from certain sources are recognized on a deferred basis. The deferral history for Valley Sanitary District is shown in Appendix F. The following table summarizes the beginning and ending balances for each deferral item. The current year expense reflects the change in deferral balances for the measurement year.

Deferred Inflow/Outflow Balances Fiscal Year Ending June 30, 2020

	<i>Beginning Balance</i>	<i>Newly Created</i>	<i>Recognition</i>	<i>Ending Balance</i>
Experience (Gains)/Losses	\$0	\$34,989	(\$2,631)	\$32,358
Assumption Changes	\$0	\$435,621	(\$32,754)	\$402,867
Investment (Gains)/Losses	(\$63)	\$1,312	(\$247)	\$1,002
Deferred Balances	(\$63)	\$471,922	(\$35,632)	\$436,227

The following table shows the reconciliation between the change in the NOL and the OPEB expense.

Preliminary OPEB Expense Fiscal Year Ending June 30, 2020

	<i>Beginning Net Position</i>	<i>Ending Net Position</i>	<i>Change</i>
Net OPEB Liability (NOL)	\$135,252	\$611,632	\$476,380
Deferred Balances	(\$63)	\$436,227	\$436,290
Change in Net Position	\$135,315	\$175,405	\$40,090
Employer Contributions			\$14,136
Other			\$0
OPEB Expense			\$54,226

Under GASB 74 and 75, OPEB expense includes service cost, interest cost, and change in TOL due to plan changes; all adjusted for deferred inflows and outflows.

OPEB Expense Fiscal Year Ending June 30, 2020

	<i>Total</i>
Service Cost	\$9,264
Interest on Total OPEB Liability (TOL)	\$18,677
Employee Contributions	\$0
Recognized Experience (Gains)/Losses	\$2,631
Recognized Assumption Changes	\$32,754
Expected Investment Income	(\$9,375)
Recognized Investment (Gains)/Losses	\$247
Contributions After Measurement Date (Prior Year)	\$0
Contributions After Measurement Date (Current Year)	\$0
Changes in Benefit Terms	\$0
Administrative Expense	\$28
OPEB Expense*	\$54,226

* May include a slight rounding error.

The above OPEB expense does not include \$14,136 in employer contributions.

4. Adjustments

The above OPEB expense includes all deferred inflows and outflows except any contributions after the measurement date. Contributions from July 1, 2019 to June 30, 2020 minus prior contributions after the measurement date of \$14,136 should also be reflected in OPEB expense. June 30, 2020 deferred outflows should include contributions from July 1, 2019 to June 30, 2020.

PART IV: "PAY AS YOU GO" FUNDING OF RETIREE BENEFITS

We used the actuarial assumptions shown in Appendix C to project the District's ten year retiree benefit outlay, including any implicit rate subsidy. Because these cost estimates reflect average assumptions applied to a relatively small number of participants, estimates for individual years are **certain** to be *in*accurate. However, these estimates show the size of cash outflow.

The following table shows a projection of annual amounts needed to pay the District's share of retiree health costs, including any implicit rate subsidy.

<i>Year Beginning</i>	
<i>July 1</i>	<i>All Participants</i>
2019	\$44,029
2020	\$47,825
2021	\$43,534
2022	\$50,989
2023	\$44,229
2024	\$52,723
2025	\$60,845
2026	\$65,792
2027	\$74,760
2028	\$71,216

PART V: RECOMMENDATIONS FOR FUTURE VALUATIONS

To effectively manage benefit costs, an employer must periodically examine the existing liability for retiree benefits as well as future annual expected premium costs. GASB 74/75 require annual valuations. Every other year, the valuation requirement can be met by doing a “roll-forward” valuation. However, a full valuation may be required or preferred under certain circumstances.

Following are examples of actions that could trigger a new valuation.

- An employer should perform a valuation whenever the employer considers or puts in place an early retirement incentive program.
- An employer should perform a valuation whenever the employer adopts a retiree benefit plan for some or all employees.
- An employer should perform a valuation whenever the employer considers or implements changes to retiree benefit provisions or eligibility requirements.
- An employer should perform a valuation whenever the employer introduces or changes retiree contributions.
- An employer should perform a valuation whenever the employer forms a qualifying trust or changes its investment policy.
- An employer should perform a valuation whenever the employer adds or terminates a group of participants that constitutes a significant part of the covered group.

We recommend Valley Sanitary District take the following actions to ease future valuations.

- We have used our training, experience and information available to us to establish the actuarial assumptions used in this valuation. We have no information to indicate that any of the assumptions do not reasonably reflect future plan experience. However, the District should review the actuarial assumptions in Appendix C carefully. If the District has any reason to believe that any of these assumptions do not reasonably represent the expected future experience of the retiree health plan, the District should engage in discussions or perform analyses to determine the best estimate of the assumption in question.

PART VI: APPENDICES

APPENDIX A: MATERIALS USED FOR THIS STUDY

We relied on the following materials to complete this study.

- We used paper reports and digital files containing participant demographic data from the District personnel records.
- We used relevant sections of collective bargaining agreements provided by the District.

APPENDIX B: EFFECT OF ASSUMPTIONS USED IN CALCULATIONS

While we believe the estimates in this study are reasonable overall, it was necessary for us to use assumptions which inevitably introduce errors. We believe that the errors caused by our assumptions will not materially affect study results. If the District wants more refined estimates for decision-making, we recommend additional investigation.

APPENDIX C: ACTUARIAL ASSUMPTIONS AND METHODS

Following is a summary of actuarial assumptions and methods used in this study. The District should carefully review these assumptions and methods to make sure they reflect the District's assessment of its underlying experience. It is important for Valley Sanitary District to understand that the appropriateness of all selected actuarial assumptions and methods are Valley Sanitary District's responsibility. Unless otherwise disclosed in this report, TCS believes that all methods and assumptions are within a reasonable range based on the provisions of GASB 74 and 75, applicable actuarial standards of practice, Valley Sanitary District's actual historical experience, and TCS's judgment based on experience and training.

ACTUARIAL METHODS AND ASSUMPTIONS:

ACTUARIAL COST METHOD: GASB 74 and 75 require use of the entry age actuarial cost method.

Entry age is based on the age at hire for eligible employees. The attribution period is determined as the difference between the expected retirement age and the age at hire. The APVPBP and present value of future service costs are determined on a participant by participant basis and then aggregated.

To the extent that different benefit formulas apply to different employees of the same class, the service cost is based on the benefit plan applicable to the most recently hired employees (including future hires if a new benefit formula has been agreed to and communicated to employees). This greatly simplifies administration and accounting; as well as resulting in the correct service cost for new hires.

SUBSTANTIVE PLAN: As required under GASB 74 and 75, we based the valuation on the substantive plan. The formulation of the substantive plan was based on a review of written plan documents as well as historical information provided by Valley Sanitary District regarding practices with respect to employer and employee contributions and other relevant factors.

IMPLICIT RATE SUBSIDY: GASB 74 and 75 require use of claims costs or age-adjusted premiums approximating claims costs to determine the plan's liability. However, GASB 74 and 75 defer to Actuarial Standards of Practice (ASOPs) to guide how those age-adjusted premiums should be calculated and when exceptions may be warranted. Adjusting premiums for age creates what is commonly referred to as an Implicit Subsidy and is reflected as part of the plan's liability.

ASOP 6 provides an exception for pooled health plans such as the CalPERS medical plan. In cases where the premium structure is sustainable over the measurement period even if some groups or active participants cease to participate, the pooled health plan's premium may be used without regard to adjustments for age. In this case, there would be no implicit subsidy included as part of the plan's liability.

While we believe it is proper to utilize this exception for PEMHCA agencies, the more common approach amongst other actuaries in California is to include an implicit subsidy as part of the liability. At the request of Valley Sanitary District, we have reflected age-adjusted premiums in the calculation of the actuarial values presented in this report.

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ECONOMIC ASSUMPTIONS:

Economic assumptions are set under the guidance of Actuarial Standard of Practice 27 (ASOP 27). Among other things, ASOP 27 provides that economic assumptions should reflect a consistent underlying rate of general inflation. For that reason, we show our assumed long-term inflation rate below.

INFLATION: We assumed 2.75% per year used for pension purposes. Actuarial standards require using the same rate for OPEB that is used for pension.

INVESTMENT RETURN / DISCOUNT RATE: We assumed 7% per year net of expenses. This is based on assumed long-term return on employer assets. We used the “Building Block Method”. (See Appendix E, Paragraph 53 for more information). Our assessment of long-term returns for employer assets is based on long-term historical returns for surplus funds invested pursuant to California Government Code Sections 53601 et seq.

TREND: We assumed 4% per year. Our long-term trend assumption is based on the conclusion that, while medical trend will continue to be cyclical, the average increase over time cannot continue to outstrip general inflation by a wide margin. Trend increases in excess of general inflation result in dramatic increases in unemployment, the number of uninsured and the number of underinsured. These effects are nearing a tipping point which will inevitably result in fundamental changes in health care finance and/or delivery which will bring increases in health care costs more closely in line with general inflation. We do not believe it is reasonable to project historical trend vs. inflation differences several decades into the future.

PAYROLL INCREASE: We assumed 2.75% per year. Since benefits do not depend on salary (as they do for pensions), using an aggregate payroll assumption for the purpose of calculating the service cost results in a negligible error.

FIDUCIARY NET POSITION (FNP): The following table shows the beginning and ending FNP numbers that were provided by Valley Sanitary District.

Fiduciary Net Position as of June 30, 2019

	<u>06/30/2018</u>	<u>06/30/2019</u>
Cash and Equivalents	\$0	\$0
Contributions Receivable	\$6,158	\$7,010
Total Investments	\$124,275	\$138,468
Capital Assets	\$0	\$0
Total Assets	<u>\$130,433</u>	<u>\$145,478</u>
Benefits Payable	<u>\$0</u>	<u>\$0</u>
Fiduciary Net Position	<u>\$130,433</u>	<u>\$145,478</u>

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NON-ECONOMIC ASSUMPTIONS:

Economic assumptions are set under the guidance of Actuarial Standard of Practice 35 (ASOP 35). See Appendix E, Paragraph 52 for more information.

MORTALITY

<i>Participant Type</i>	<i>Mortality Tables</i>
Miscellaneous	2014 CalPERS Active Mortality for Miscellaneous Employees

RETIREMENT RATES

<i>Employee Type</i>	<i>Retirement Rate Tables</i>
All Participants	Hired < 1/1/2013: 2009 CalPERS 2.5% @55 Rates for Miscellaneous Employees Hired > 12/31/2012: 2009 CalPERS 2.0% @60 Rates for Miscellaneous Employees adjusted to reflect minimum retirement age of 52

SERVICE REQUIREMENT

<i>Employee Type</i>	<i>Service Requirement Tables</i>
Miscellaneous	100% at 5 Years of Service

COSTS FOR RETIREE COVERAGE

Retiree liabilities are based on actual retiree premium plus an implicit rate subsidy of 97.7% of non-Medicare medical premium. Liabilities for active participants are based on the first year costs shown below, which include the implicit rate subsidy. Subsequent years' costs are based on first year costs adjusted for trend and limited by any District contribution caps.

Retiree liabilities are based on actual retiree costs. Liabilities for active participants are based on the first year costs shown below. Subsequent years' costs are based on first year costs adjusted for trend and limited by any District contribution caps.

<i>Participant Type</i>	<i>Future Retirees Pre-65</i>	<i>Future Retirees Post-65</i>
All Participants	PEMHCA Minimum: \$1,650 Implied Rate Subsidy: \$10,562	PEMHCA Minimum: \$1,650

PARTICIPATION RATES

<i>Employee Type</i>	<i><65 Non-Medicare Participation %</i>	<i>65+ Medicare Participation %</i>
Miscellaneous	60%	60%

TURNOVER

<i>Employee Type</i>	<i>Turnover Rate Tables</i>
Miscellaneous	2009 CalPERS Turnover for Miscellaneous Employees

SPOUSE PREVALENCE

To the extent not provided and when needed to calculate benefit liabilities, 80% of retirees assumed to be married at retirement. After retirement, the percentage married is adjusted to reflect mortality.

SPOUSE AGES

To the extent spouse dates of birth are not provided and when needed to calculate benefit liabilities, female spouse assumed to be three years younger than male.

AGING FACTORS

The aging factors used were based on information provided by CalPERS labeled: CalPERS Health Plan (PEMHCA) Implicit Subsidy Data for Calendar Year 2017.

APPENDIX D: DISTRIBUTION OF ELIGIBLE PARTICIPANTS BY AGE

ELIGIBLE ACTIVE EMPLOYEES

<i>Age</i>	<i>All Participants</i>
Under 25	0
25-29	4
30-34	1
35-39	4
40-44	6
45-49	3
50-54	6
55-59	2
60-64	2
65 and older	0
Total	28

ELIGIBLE RETIREES

<i>Age</i>	<i>All Participants</i>
Under 50	0
50-54	0
55-59	1
60-64	4
65-69	1
70-74	0
75-79	0
80-84	0
85-89	0
90 and older	0
Total	6

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APPENDIX E: GASB 74/75 ACCOUNTING ENTRIES AND DISCLOSURES

This report does not necessarily include the entire accounting values. As mentioned earlier, there are certain deferred items that are employer-specific. The District should consult with its auditor if there are any questions about what, if any, adjustments may be appropriate.

GASB 74/75 include a large number of items that should be included in the Note Disclosures and Required Supplementary Information (RSI) Schedules. Many of these items are outside the scope of the actuarial valuation. However, following is information to assist the District in complying with GASB 74/75 disclosure requirements:

Paragraph 50: **Information about the OPEB Plan**

Most of the information about the OPEB plan should be supplied by Valley Sanitary District. Following is information to help fulfill Paragraph 50 reporting requirements.

50.c: Following is a table of plan participants

	Number of Participants
Inactive Employees Currently Receiving Benefit Payments	6
Inactive Employees Entitled to But Not Yet Receiving Benefit Payments*	0
Participating Active Employees	28
Total Number of participants	34

*We were not provided with information about any terminated, vested employees

Paragraph 51: **Significant Assumptions and Other Inputs**

Shown in Appendix C.

Paragraph 52: **Information Related to Assumptions and Other Inputs**

The following information is intended to assist Valley Sanitary District in complying with the requirements of Paragraph 52.

52.b: Mortality Assumptions Following are the tables the mortality assumptions are based upon. Inasmuch as these tables are based on appropriate populations, and that these tables are used for pension purposes, we believe these tables to be the most appropriate for the valuation.

Mortality Table Disclosure	2014 CalPERS Active Mortality for Miscellaneous Employees The mortality assumptions are based on the 2014 CalPERS Active Mortality for Miscellaneous Employees table created by CalPERS. CalPERS periodically studies mortality for participating agencies and establishes mortality tables that are modified versions of commonly used tables. This table incorporates mortality projection as deemed appropriate based on CalPERS analysis.
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Mortality Table	2014 CalPERS Retiree Mortality for Miscellaneous Employees
Disclosure	The mortality assumptions are based on the 2014 CalPERS Retiree Mortality for Miscellaneous Employees table created by CalPERS. CalPERS periodically studies mortality for participating agencies and establishes mortality tables that are modified versions of commonly used tables. This table incorporates mortality projection as deemed appropriate based on CalPERS analysis.

52.c: Experience Studies Following are the tables the retirement and turnover assumptions are based upon. Inasmuch as these tables are based on appropriate populations, and that these tables are used for pension purposes, we believe these tables to be the most appropriate for the valuation.

Retirement Tables

Retirement Table	2009 CalPERS 2.0% @60 Rates for Miscellaneous Employees
Disclosure	The retirement assumptions are based on the 2009 CalPERS 2.0% @60 Rates for Miscellaneous Employees table created by CalPERS. CalPERS periodically studies the experience for participating agencies and establishes tables that are appropriate for each pool.

Retirement Table	2009 CalPERS 2.5% @55 Rates for Miscellaneous Employees
Disclosure	The retirement assumptions are based on the 2009 CalPERS 2.5% @55 Rates for Miscellaneous Employees table created by CalPERS. CalPERS periodically studies the experience for participating agencies and establishes tables that are appropriate for each pool.

Turnover Tables

Turnover Table	2009 CalPERS Turnover for Miscellaneous Employees
Disclosure	The turnover assumptions are based on the 2009 CalPERS Turnover for Miscellaneous Employees table created by CalPERS. CalPERS periodically studies the experience for participating agencies and establishes tables that are appropriate for each pool.

For other assumptions, we use actual plan provisions and plan data.

52.d: The alternative measurement method was not used in this valuation.

52.e: NOL using alternative trend assumptions The following table shows the Net OPEB Liability with a healthcare cost trend rate 1% higher and 1% lower than assumed in the valuation.

	Trend 1% Lower	Valuation Trend	Trend 1% Higher
Net OPEB Liability	\$546,526	\$611,632	\$684,696

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Paragraph 53: **Discount Rate**

The following information is intended to assist Valley Sanitary District to comply with Paragraph 53 requirements.

53.a: A discount rate of 7% was used in the valuation.

53.b: We assumed that all contributions are from the employer.

53.c: We used historic 26 year real rates of return for each asset class along with our assumed long-term inflation assumption to set the discount rate. We offset the expected investment return by investment expenses of 25 basis points.

53.d: The interest assumption does not reflect a municipal bond rate.

53.e: Not applicable.

53.f: Following is the assumed asset allocation and assumed rate of return for each.
CERBT - Strategy 1

Asset Class	Percentage of Portfolio	Assumed Gross Return
All Equities	59.0000	7.7950
All Fixed Income	25.0000	4.5000
Real Estate Investment Trusts	8.0000	7.5000
All Commodities	3.0000	7.7950
Treasury Inflation Protected Securities (TIPS)	5.0000	3.2500

We looked at rolling periods of time for all asset classes in combination to appropriately reflect correlation between asset classes. That means that the average returns for any asset class don't necessarily reflect the averages over time individually, but reflect the return for the asset class for the portfolio average. We used geometric means.

53.g: The following table shows the Net OPEB liability with a discount rate 1% higher and 1% lower than assumed in the valuation.

	Discount Rate 1% Lower	Valuation Discount Rate	Discount Rate 1% Higher
Net OPEB Liability	\$686,999	\$611,632	\$546,871

Paragraph 55: **Changes in the Net OPEB Liability**

Please see reconciliation on page 10.

Paragraph 56: **Additional Net OPEB Liability Information**

The following information is intended to assist Valley Sanitary District to comply with Paragraph 56 requirements.

56.a: The valuation date is June 30, 2019.

The measurement date is June 30, 2019.

56 b: We are not aware of a special funding arrangement.

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56.c: The liabilities also reflect an implicit rate subsidy for Pre-Medicare retirees.

56.d: There were no changes in benefit terms since the prior measurement date.

56.e: Not applicable

56.f: To be determined by the employer

56.g: To be determined by the employer

56.h: Other than contributions after the measurement, all deferred inflow and outflow balances are shown in Appendix F

56.i: Future recognition of deferred inflows and outflows is shown in Appendix F

Paragraph 57:

Required Supplementary Information

57.a: Please see reconciliation on page 10. Please see the notes for Paragraph 244 below for more information.

57.b: These items are provided on page 10 for the current valuation, except for covered payroll, which should be determined based on appropriate methods.

57.c: We have not been asked to calculate an actuarially determined contribution amount. We assume the District contributes on an ad hoc basis, but in an amount sufficient to fully fund the obligation over a period not to exceed 26 years.

57.d: We are not aware that there are any statutorily or contractually established contribution requirements.

Paragraph 58:

Actuarially Determined Contributions

We have not been asked to calculate an actuarially determined contribution amount. We assume the District contributes on an ad hoc basis, but in an amount sufficient to fully fund the obligation over a period not to exceed 26 years.

Paragraph 244:

Transition Option

Prior periods were not restated due to the fact that prior valuations were not rerun in accordance with GASB 75. It was determined that the time and expense necessary to rerun prior valuations and to restate prior financial statements was not justified.

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APPENDIX F: DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES

EXPERIENCE GAINS AND LOSSES

Measurement Period	Experience (Gain)/Loss	Original Recognition Period (Years)	Increase (Decrease) in OPEB Expense Arising from the Recognition of Effects of Experience Gains and Losses (Measurement Periods)								
			Amounts Recognized in OPEB Expense through 2018	2019	Amounts to be Recognized in OPEB Expense after 2019	2020	2021	2022	2023	2024	Thereafter
2018-19	\$34,989	13.3	\$0	\$2,631	\$32,358	\$2,631	\$2,631	\$2,631	\$2,631	\$2,631	\$19,203
Net Increase (Decrease) in OPEB Expense			\$0	\$2,631	\$32,358	\$2,631	\$2,631	\$2,631	\$2,631	\$2,631	\$19,203

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CHANGES OF ASSUMPTIONS

Increase (Decrease) in OPEB Expense Arising from the Recognition of Effects of Changes of Assumptions (Measurement Periods)

Measurement Period	Changes of Assumptions	Original Recognition Period (Years)	Amounts Recognized in OPEB Expense through 2018	2019	Amounts to be Recognized in OPEB Expense after 2019	2020	2021	2022	2023	2024	Thereafter
2018-19	\$435,621	13.3	\$0	\$32,754	\$402,867	\$32,754	\$32,754	\$32,754	\$32,754	\$32,754	\$239,097
Net Increase (Decrease) in OPEB Expense			\$0	\$32,754	\$402,867	\$32,754	\$32,754	\$32,754	\$32,754	\$32,754	\$239,097

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INVESTMENT GAINS AND LOSSES

Increase (Decrease) in OPEB Expense Arising from the Recognition of Effects of Investment Gains and Losses (Measurement Periods)

Measurement Period	Investment (Gain)/Loss	Original Recognition Period (Years)	Amounts Recognized in OPEB Expense through 2018	2019	Amounts to be Recognized in OPEB Expense after 2019	2020	2021	2022	2023	2024	Thereafter
2017-18	(\$79)	5	(\$16)	(\$16)	(\$47)	(\$16)	(\$16)	(\$15)			
2018-19	\$1,312	5	\$0	\$263	\$1,049	\$263	\$263	\$263	\$260		
Net Increase (Decrease) in OPEB Expense			(\$16)	\$247	\$1,002	\$247	\$247	\$248	\$260	\$0	\$0

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APPENDIX G: GLOSSARY OF RETIREE HEALTH VALUATION TERMS

Note: The following definitions are intended to help a *non*-actuary understand concepts related to retiree health valuations. Therefore, the definitions may not be actuarially accurate.

<u>Actuarial Cost Method:</u>	A mathematical model for allocating OPEB costs by year of service. The only actuarial cost method allowed under GASB 74/75 is the entry age actuarial cost method.
<u>Actuarial Present Value of Projected Benefit Payments:</u>	The projected amount of all OPEB benefits to be paid to current and future retirees discounted back to the valuation or measurement date.
<u>Deferred Inflows/Outflows of Resources:</u>	A portion of certain items that can be deferred to future periods or that weren't reflected in the valuation. The former includes investment gains/losses, actuarial gains/losses, and gains/losses due to changes in actuarial assumptions or methods. The latter includes contributions made to a trust subsequent to the measurement date but before the statement date.
<u>Discount Rate:</u>	Assumed investment return net of all investment expenses. Generally, a higher assumed interest rate leads to lower service costs and total OPEB liability.
<u>Fiduciary Net Position:</u>	Net assets (liability) of a qualifying OPEB "plan" (i.e. qualifying irrevocable trust or equivalent arrangement).
<u>Implicit Rate Subsidy:</u>	The estimated amount by which retiree rates are understated in situations where, for rating purposes, retirees are combined with active employees and the employer is expected, in the long run, to pay the underlying cost of retiree benefits.
<u>Measurement Date:</u>	The date at which assets and liabilities are determined in order to estimate TOL and NOL.
<u>Mortality Rate:</u>	Assumed proportion of people who die each year. Mortality rates always vary by age and often by sex. A mortality table should always be selected that is based on a similar "population" to the one being studied.
<u>Net OPEB Liability (NOL):</u>	The Total OPEB Liability minus the Fiduciary Net Position.
<u>OPEB Benefits:</u>	Other Post Employment Benefits. Generally, medical, dental, prescription drug, life, long-term care or other postemployment benefits that are not pension benefits.
<u>OPEB Expense:</u>	This is the amount employers must recognize as an expense each year. The annual OPEB expense is equal to the Service Cost plus interest on the Total OPEB Liability (TOL) plus change in TOL due to plan changes minus projected investment income; all adjusted to reflect deferred inflows and outflows of resources.
<u>Participation Rate:</u>	The proportion of retirees who elect to receive retiree benefits. A lower

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participation rate results in lower service cost and a TOL. The participation rate often is related to retiree contributions.

<u>Retirement Rate:</u>	The proportion of active employees who retire each year. Retirement rates are usually based on age and/or length of service. (Retirement rates can be used in conjunction with the service requirement to reflect both age and length of service). The more likely employees are to retire early, the higher service costs and actuarial accrued liability will be.
<u>Service Cost:</u>	The annual dollar value of the “earned” portion of retiree health benefits if retiree health benefits are to be fully accrued at retirement.
<u>Service Requirement:</u>	The proportion of retiree benefits payable under the OPEB plan, based on length of service and, sometimes, age. A shorter service requirement increases service costs and TOL.
<u>Total OPEB Liability (TOL):</u>	The amount of the actuarial present value of projected benefit payments attributable to participants’ past service based on the actuarial cost method used.
<u>Trend Rate:</u>	The rate at which the employer’s share of the cost of retiree benefits is expected to increase over time. The trend rate usually varies by type of benefit (e.g. medical, dental, vision, etc.) and may vary over time. A higher trend rate results in higher service costs and TOL.
<u>Turnover Rate:</u>	The rate at which employees cease employment due to reasons other than death, disability or retirement. Turnover rates usually vary based on length of service and may vary by other factors. Higher turnover rates reduce service costs and TOL.
<u>Valuation Date:</u>	The date as of which the OPEB obligation is determined by means of an actuarial valuation. Under GASB 74 and 75, the valuation date does not have to coincide with the statement date, but can’t be more than 30 months prior.



**Valley Sanitary District
Board of Directors Meeting
September 7, 2021**

TO: Board of Directors

THROUGH: Beverli A. Marshall, General Manager

SUBJECT: **Monthly General Managers Report – July 2021**

<input type="checkbox"/> Board Action	<input type="checkbox"/> New Budget Approval	<input type="checkbox"/> Contract Award
<input checked="" type="checkbox"/> Board Information	<input type="checkbox"/> Existing FY Approved Budget	<input type="checkbox"/> Closed Session

Executive Summary

The purpose of this report is to keep the Board and the public informed on VSD’s day-to-day operations.

Strategic Plan Compliance

The recommendation complies with the VSD Strategic Plan Goal 6: Improve Planning, Administration, and Governance.

Fiscal Impact

There is no fiscal impact from this report.

Background

The following data represents the activities and metrics for the month of July 2021.

Administrative Services

- Submitted the tax roll information to Riverside County
- Continued audit preparation for the fiscal year ending June 30, 2021
- Conducted Collection Technician second round interviews
- Conducted Facility Operations Manager first round interviews
- Posted HR Specialist Position
- Coordinated Open Enrollment with Building Blocks for employee benefits set for September 14, 2021.
- Continue software conversion with Caselle.

Operations & Maintenance

- Staff installed Biosolids scale at Belt-press station to improve rate of acceptable hauling loads to reduce fees for too light of loads.
- Maintenance staff serviced all Influent pumps as part of Preventative Maintenance rotation plan

- SWRCB confirmed two violations on the NPDES permit reporting for June 2021 due to two samples exceeding holding time requirements from a communication error with the contract laboratory. Staff has continued researching Dissolved air flotation (DAF) unit technology and having zoom meetings with other agencies to be better informed for the Recycled Water – Phase I project.

Development Services

- The tenant improvement has begun on the Dairy Queen at the corner of Ave 44 and Indio Blvd. within The Candi Plaza.
- The tenant improvement has begun on the Mochi Donut shop at the corner of Jefferson St and Fred Waring, next to Subway.
- Construction has begun on the Chandi Plaza at the southwest corner of Indio Blvd. and Avenue 44. This project will include a convenience store with fueling station, carwash, restaurant, and retail suites.
- Construction has begun on the AutoZone distribution warehouse near the intersection of Ave. 42 and Jackson St. This project includes a warehouse expansion to the existing AutoZone auto parts store that will serve as a distribution warehouse for the other AutoZone stores in the surrounding area.

Collection Services

- No-Spill report for the month of August will be submitted to the California Integrated Water Quality System, as required in the Waste Discharge Requirements Monitoring and Reporting Program.
- Field Vector crew is currently working in Requa and Monroe.
- CCTV Inspection work is currently being conducted in Monroe and Oleander.

Capital Improvement Program

- The Preliminary Design Report for the replacement of the sewer siphon at Westward Ho Drive is complete. This is a FEMA funded project to replace the damaged sewer siphon from the February 2019 storm. The design is in progress. Staff and the consultant had a preliminary meeting with CVWD regarding requirements for crossing the channel. Staff reviewed the 50% design plans and the updated project cost schedule. Staff reviewed the 90% design plans and specifications and submitted comments for correction. Staff is finishing their review of the submitted 95% set of plans and specifications. Staff has met with both the City of Indio and La Quinta, and both have no revisions or concerns. Staff sent plans to CVWD and IWA for review and VSD received comments back from both agencies for incorporation. Carollo will be performing additional potholing to verify IWA and other utilities. *Update: Carollo has made the necessary corrections listed by CVWD and IWA. VSD will resubmit plans to both agencies for review once the additional potholing at Westward Ho Drive is complete.*
- Staff is continuing to work with Harris and Associates on the Collections System Rehabilitation and Maintenance project. The first rehabilitation project on Indio Blvd. is complete. This was a good first project and lessons were learned on how to better the process for the next project. The CCTV inspection of special sewer mains is complete. Staff just received the

finished CCTV videos and will begin the process of reviewing them. Harris is currently developing plans for the downtown Indio rehabilitation and repair project. This is being done to rehabilitate and replace deficient sewer mains in the streets and allies of the downtown area. The 50% plans for the Downtown Indio Rehabilitation project have been reviewed and comments have been returned to Harris for revision. All CCTV cleaning and inspection has been completed and staff have met with the contractor to review the project report. *Update: Harris and VSD staff have reviewed the CCTV video taken by National Plant Services with no issues observed. The remaining retention will be paid to the contractor and the project will be closed. Harris has submitted the 90% design plans and VSD is currently reviewing them.*

- VSD has chosen SGH Architects as the architectural firm for the preliminary design of a new single-story training/office building and new laboratory building. Staff has selected a new location for the training/office building that will allow the single-story building with minimal demolition. The architect has completed the schematic design and cost estimate for both the training/office building and laboratory building. An onsite survey was conducted on July 7th. *Update: SGH Architects is continuing with final design of both the Office & Training and Laboratory Buildings and has provided an updated floor plan for the office building. SGH is working with VSD staff on refining the laboratory layout and floor plan.*
- VSD is currently working with Stantec, who is acting as an Owner's Representative, on the repair and rehabilitation of the Influent Pump Station. The Request for Proposal (RFP) was released on August 28, 2020 and was closed on September 28, 2020. The Board awarded the project to the DCI / Dudek team, and a pre-construction meeting was held on December 4th, 2020. The DCI / Dudek has developed a preliminary bypass plan for the initial inspection and shutdown of the influent pump station structure. The preliminary bypass and inspection were completed from February 22nd to February 26th. VSD has chosen the valves and gates that will be used for this project based on Dudek / DCI and Stantec's recommendations. *Update: Dudek has submitted the Basis of Design Report which Stantec and VSD staff have reviewed. Dudek has also submitted the 30% design plans which Stantec and VSD are currently reviewing. Dudek and VSD are coordinating the ordering and purchasing of long, lead items.*
- Staff is working on implementing an asset management system for the treatment plant using Lucity web software. VSD is currently working on building out the Lucity Web system with the help of a Lucity implementor. The latest session of virtual training from the implementor was completed on August 25, 2020. Staff has finished the installation of Lucity Mobile and is pursuing the implementation of plant wide Wi-Fi that will allow access to the asset management system from a mobile device anywhere in the plant facility. Training videos for VSD staff training have been recorded. *Update: Operations and maintenance staff will begin to review the training videos and once they have been trained, use the system to create and complete work orders. Maintenance staff is also working on updating asset information and populating the system with scheduled work orders.*

Recommendation

Staff recommends that the Board receive the Manager's Report for activities during the month of July.

Attachments

- Attachment A: Administrative Services Report for July
- Attachment B: Monthly NPDES Report for July
- Attachment C: Collection System Report for July
- Attachment D: Development Services Report for July
- Attachment E: Capital Improvement Program Update for July

Administrative Services - Task Summary 2021

Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total To Date
Active litigation filed	-	-	-	-	-	-	-						-
Board meeting	3	2	2	3	2	2	2						16
Budget/Finance Committee meeting	1	1	2	-	1	-	1						6
Operations Committee meeting	-	1	1	1	-	1	-						3
Employee anniversaries	-	5	1	-	5	3	3						17
Employee promotions	1	-	-	-	-	-	-						1
Facebook postings	1	-	4	2	11	9	5						32
Insurance claims initiated	-	-	1	-	1	-	-						2
Lost time work incidents	-	-	1	-	-	-	-						1
Media coverage items	-	-	-	-	-	-	-						-
New hires	-	-	-	1	-	-	2						3
Press release	-	-	-	-	-	-	-						-
Public records request	-	-	-	1	-	-	1						2
Resignations	-	-	-	1	1	-	1						3
Retirements	-	-	-	1	-	-	-						1

Report Name: Monthly

July 2021	Plant Influent		ASP Effluent			Pond Effluent		
	CBOD (mg/L)	TSS (mg/L)	Monthly Average Flow (MGD)	CBOD (mg/L)	TSS (mg/L)	Monthly Average Pond Effluent Flow (MGD)	CBOD	TSS
1	288	244		5.44	3			
2								
3								
4								
5								
6								
7								
8	269	290		7.49	4.7			
9								
10								
11								
12								
13								
14								
15	391	358		7.53	4.3			
16								
17								
18								
19								
20								
21								
22	331	272		9.56	3.9			
23								
24								
25								
26								
27								
28								
29	246	254		8.49	2.8			
30								
31			6.04			0.000		
Average	305	284	6.04	7.70	3.7	0.000		
Minimum	246	244	6.04	5.44	2.8	0.000		
Maximum	391	358	6.04	9.56	4.7	0.000		
Exceedences	0	0	0	0	0	0	0	0

Permit LIMITS	25	30	40.0	49.0
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Laboratory	Collected (# of Samples)	369
	Analyzed (# of Tests)	729

Total Plant Discharge (Outfall) Grab								
EColi (MPN/100ml)	Oil and Grease (mg/L)	Copper (ug/L)	Di(2-ethylhexyl)phthalate (ug/L)	Cyanide (total) (ug/L)	Total Nitrogen (mg/L)	Ammonia (total, as N) (mg/L)	Nitrate (as N) (mg/L)	Nitrite (as N) (mg/L)
13.2	< 1.4	4.2	< 0.5	1.9	16	5.3	8.5	0.79
24.5								
120.1 48.1								
16.8								
31.6*	1.4	4.2	0.5	1.9	16	5.3	8.5	0.79
13.2	< 1.4	4.2	< 0.5	1.9	16	5.3	8.5	0.79
120.1	< 1.4	4.2	< 0.5	1.9	16	5.3	8.5	0.79
0	0	0	0	0	0	0	0	0

126	<0.01	25		5.9	9.0	4.3		
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Collection Services Task Summary Report for 2021

Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total To Date
Customer Service Calls	2	2	4	5	8	7	2	1					10
F.O.G. Inspection - Completed													-
F.O.G. Inspection - Fail													-
F.O.G. Inspection - Pass													-
Hot spot cleaning (total)*	26	-	-	36	-		26						26
Lift station inspection	19	19	19	23	23	23	19	16					58
Manhole inspection	157	125	216	163	154	161	117	93					371
Sewer line CCTV (feet)	0	0	32,428	28,289	16,224	3,888	19,739	6,470					30,097
Sewer line cleaning (feet)	58,522	50,400	70,368	68,722	52,573	59,063	65,193	30,295					154,551
SSO Response - Cat 1	0	0	0	0	0	0	0	0					0
SSO Response - Cat 2	0	0	0	0	0	0	0	0					0
SSO Response - Cat 3	0	0	1	0	0	0	0	0					0
USA Markings	37	33	55	31	53	69	79	54					202

*Note: Hot spot cleaning is performed quarterly



VALLEY SANITARY DISTRICT DEVELOPMENT SERVICES REPORT

14-Sep-21

Plan Check in Progress
Inspection in Progress
New Project

PROJECT NAME	STREET ADDRESS / CROSS STREET	CURRENT PROJECT STATUS	NEXT ACTION ITEM
7-Eleven Golf Center	44925 Golf Center/Avenue 45	Civil plans submitted for new 7-Eleven store approved. Arch. plans approved and returned to the applicant 10/26/20. Issued permit 3915 on 10/26/20.	Inspect work improvements as scheduled.
82490 Highway 111-Former Imperial Furniture	82490 Highway 111/Arabia Street	Plans submitted for remodeled suites. Plans approved and notified applicant 4/28/21.	Waiting for owner to process permit paperwork.
Abel Lupian Commercial Bldg.	45105 Commerce Street	Plans submitted for new commercial building. Completed 1st plan check and returned to the applicant 4/3/20.	Perform 2nd plan check upon plan resubmittal.
Add'l Dwelling Unit - Cebreros Residence	83181 Blue Mountain Court	Plans submitted for additional dwelling unit. Plans approved and notified applicant 3/3/21. Permitt 3967 7/26/2021	Inspect work improvements as scheduled.
Animal Samaritans - TI	42150 Jackson Street, Ste's 104-106	Plans submitted for building TI. Plans approved and returned to the applicant 2/4/2020. Issued permit 3874 on 2/28/2020.	Inspect work improvements as scheduled.
Arroyo Crossing	47555 Jefferson Steet/Highway 111	Civil plans submitted for new apartment complex.	Perform 2nd plan check upon plan resubmittal.
Autozone Jackson Street	41850 Jackson Street/aAvenue 42	Plans submitted for plan check. Sewer main relocation. Plans approved 1/21/21. Waiting for engineer to finalize easements docs. Permit 3954 issued 5/13/21.	Inspect work improvements as scheduled.
Bel Cielo - Tr 32425	West of Clinton South of Ave 44	Model homes. No plan check is required. Permit and Inspection fees need to be paid. Issued permit 3840 on 9/13/19.	Inspect work improvements as scheduled.
Buzzbox	42625 Jackson Street #112	Plans submitted existng building TI. Completed 1st plan check and returned to the City 2/22/19.	Perform 2nd plan check upon plan resubmittal.
Cardenas Single Family Dwelling (SFD)	82266 Stallone Drive	Plans submitted for new SFD. Plans approved, notified the applicant 6/16/20. Permit 3959 issued 6/7/21. Finald 8/26/21	No further action required
Carranza Residence -Additional Dwelling Unit	81-450 Palmyra Avenue	Plans submitted for additional dwelling unit. Plans approved and notified applicant 10/2/20. Issued permit 3907 on 10/5/20.	Inspect work improvements as scheduled.
Chandi Plaza	SW Corner of Indio Blvd/Avenue 44	Civil plans submitted for plan check. Plans approved and notified applicant 1/8/21. Permit 3948 issued 4/2/21.	Inspect work improvements as scheduled.
Chandi Plaza Building "B" Shell	81-971 Indio Blvd/Avenue 44	Plans submitted for plan check. Completed 1st check and returned to the applicant 10/13/20. Issued permit 3963 on 6/29/21.	Inspect work improvements as scheduled.
Chandi Plaza Building Restaurant Shell	81-977 Indio Blvd/Avenue 44	Plans submitted for plan check. Completed 1st plan check and returned to applicant 10/22/20. Issued permit 3964 on 6/29/21.	Inspect work improvements as scheduled.
Chandi Plaza Car Wash	81-983 Indio Blvd/Avenue 44	Plans submitted for plan check. Completed 1st plan check and returned to applicant 9/16/20. Permit 3965 on 6/29/21.	Inspect work improvements as scheduled.
Chandi Plaza Convenience Store	81-965 Indio Blvd/Avenue 44	Plans submitted for plan check. Completed 1st plan check and returned to applicant 9/16/20. Permit 3962 om 6/29/21	Inspect work improvements as scheduled.
Chavez Tenant Improvement	45330 Jackson St/Civic Center	Plans submitted for TI of existing building. Demolition of interior walls and facilities. Completed 4th plan check and returned to the City 6/25/18. Issued permit 3755 on 7/9/18.	Inspect work improvements as scheduled.
Citadel RV Storage-Phase 1	83667 Dr. Carreon Blvd/Calhoun Street	Plans submitted for construction of new RV storage facility. Plans approved and returned to the applicant 3/17/2020.	Waiting for owner to process permit paperwork.
COD Child Development Center	45524 Oasis Street	Plans submitted for child development center	In Queue
College of the Desert	45524 Oasis Street	Plans submitted for campus expansion Completed first plan check and returned to applicant 8/4/21.	Perform 2nd plan check upon plan resubmittal.
Corso Residence	49491 Braley Court	Plans submitted for single family residence. Plans approved and notified applicant 9/2/20. Permit 3931 issued 1/5/21	Inspect work improvements as scheduled.
Couthouse Bar & Grill	82910 Highway 111/Jackson Street	Plans submitted for new restaurant. Completed 1st plan check and returned to applicant 12/14/20.	Perform 2nd plan check upon plan resubmittal.
Demo Unlimited Storage Yard	83-845 Ave 45/Vam Buren St	Plans submitted for plan check. Completed 2nd plan check and returned to applicant 9/25/20. Plans approved and returned 10/13/2020	Waiting for owner to submit Bonds before drafting agreement
Destiny Church	80250 Highway 111/Jefferson Street	Plans submitted for plan check. Plans approved and notified applicant 7/12/21.	Waiting for owner to process permit paperwork.

PROJECT NAME	STREET ADDRESS / CROSS STREET	CURRENT PROJECT STATUS	NEXT ACTION ITEM
Donuts Bistro	82151 Avenue 42, Ste 104	Plans submitted for construction of new restaurant. Plans approved and returned to the City 8/28/19.	Waiting for owner to process permit paperwork.
El Pollo Loco	42223 Jackson Street/Showcase Parkway	Plans submitted for restaurant building. Completed first plan check and returned to applicant 8/5/21.	Waiting for owner to process permit paperwork.
EOS Fitness Ave 42 Gym	SWC of Spectrum Street & Avenue 42	Plans submitted for construction of new gym facility. Completed 2nd plan check and returned to the City 11/13/19.	Perform 3rd plan check upon plan resubmittal.
EOS Fitness Hwy 111	Highway/Jefferson Street	Plans submitted for construction of new gym facility. Plans approved and notified applicant 4/27/20.	Waiting for Development Agreement and Bonds before owner can process permit paperwork.
EOS Fitness Public Sewer Extension	SWC of Spectrum Street & Avenue 42	Plans approved and returned to the engineer 6/3/19. Bond and Development agreement in place. Waiting to receive recorded agreement.	Inspect work improvements as scheduled.
Fred Young (Villa Hermosa Apts Phase III)	83801 Dr. Carreon Blvd / West of Van Buren	Plans submitted for apts at Fred Young Farm Labor Dev. Plans approved and returned to the applicant 7/17/2019. Submitted revision to approved plans 9/16/20 Revised Plans approved 11/5/2020. Permit 3944 issued 3/23/21.	Inspect work improvements as scheduled.
Gallery at Indian Springs	Jefferson St/Westward Ho Drive	Civil plans submitted for plan check. Completed 1st plan check and returned to the Engineer 1/10/18. Completed 2nd plan check and returned to the Engineer 1/25/18. Plans approved 1/31/18.	Inspect work improvements as scheduled.
Gallery Homes Tract -Indian Palms	Monroe & Avenue 50	Gallery Homes has recently purchased the 106 lots. Staff has inspected the site and prepared a list of improvements that need to be made prior to issuing connection permits. Plans submitted for home plans. Reviewed 1st plan check and returned back to the city on 6/4/2014. 2nd plan check returned to city 7/7/14. Model plans approved and returned to the City 8/22/14. New homes currently under construction.	Inspect work improvements as scheduled.
Gallery Links - 3	Indian Palms Country Club - Monroe/Avenue 48	Plans submitted for installation of 5 sewer laterals for new SFD. Plans approved and returned to the applicant 4/13/20.	Inspect work improvements as scheduled.
Golden Corral Restaurant	Atlantic Ave/Caspian near Ave 42 and Jackson	Plans submitted for new restaurant building. Arch plans approved 6/12/20. Completed 1st plan check on civil plans and returned to the applicant 6/12/20.	Perform 3rd plan check upon plan resubmittal.
Hampton Inn Sewer Main Extension	North West Corner of Spectrum St and Atlantic Ave	Plans submitted for the extension of a public sewer main for Hampton Inn at Atlantic Ave. Plan check fees paid 7/11/18. Completed 2nd plan check and returned plans to the engineer 8/9/18. Plans approved and returned to engineer 8/27/18. Sewer Finaled 5/12/20.	Waiting for owner to submit Warranty Bond
Indian Palms 32	Cochran Drive & Garland Road	Civil plans submitted for public sewer for 32 unit condo complex. 2nd plan check complete. 9/1/21	Perform 3rd plan check upon plan resubmittal.
Indian Water RV Community Bldg.	47202 Jackson Street	Plans submitted for new community building. Completed 1st plan check and returned to applicant. 9/25/19. Issued permit 3873 on 2/26/2020.	Inspect work improvements as scheduled.
Indio Behavioral Health Hospital	81655 JFK Court	Civil plans submitted for new mental health facility. Completed 1st plan check and returned to the engineer 12/2/19. Plans approved 6/24/20. Issued permit 3900 on 8/29/20.	Inspect work improvements as scheduled.
Indio Juvenile Court	47671 Oasis St/ Ave 48	Plans submitted to demo existing juvenile court building and construct new building on the same site. Completed 1st plan check and returned to the City 2/23/16. Completed 2nd plan check and returned to the applicant 6/8/2020.	Perform 3rd plan check upon plan resubmittal.
Indio Marketplace	82227 Highway 111/Rubidoux	Plans submitted for mall TI	In Queue

Monthly Capital Improvement Project Update - September 2021

Project Title	Project Description	Current Status	Fiscal Year Budget	Total Spent to Date
Westward Ho Sewer Siphon Replacement Design and Construction	Due to the February 2019 rain event, the existing VSD sewer siphon that crosses the CVWD storm channel at Westward Ho Drive became exposed and was damaged. In order to prevent this from happening again in the future, Carollo Engineers is currently working with VSD on the final design of a new sewer that is to be constructed well below the new channel scour depth. The design being proposed would utilize horizontal directional drilling to create a new sewer siphon alignment under the channel and adjacent to the original siphon. Permit processing with at least CVWD and possibly other regulatory agencies may extend the design/permit period. Some or possibly all the project costs will be reimbursed by FEMA / CalOES.	Carollo has made the necessary corrections listed by CVWD and IWA. VSD will resubmit plans to both agencies for review once the additional potholing at Westward Ho Drive is complete.	\$2,562,063.00	\$0.00
Collections System Rehabilitation Projects	Harris & Associates is assisting the District in creating a 10-year rehabilitation and replacement program for the collections system. The purpose of this project is to repair, rehabilitate, replace and/or realign aging or defective pipelines and/or segments projected to reach capacity within the foreseeable future. Harris and the District have assigned a rating and priority to all of the pipes in the collection system and are splitting them up into projects for each fiscal year. The first project for this fiscal year will consist of the rehabilitation of approximately 2,300 feet of sewer located in Indio Boulevard and underneath the railroad near Cabazon Avenue using cured in place lining. The second project will consist of hiring a contractor to perform CCTV inspections of all pipes within the District that cannot be surveyed by collections staff due to high flows or pipe diameter. The third project is the downtown Indio rehabilitation and repair project. This project is being done to rehabilitate and replace deficient sewer mains in the streets and allies of the downtown area.	Harris and VSD staff have reviewed the CCTV video taken by National Plant Services with no issues observed. The remaining retention will be paid to the contractor and the project will be closed. Harris has submitted the 90% design plans and VSD is currently reviewing them.	\$2,900,000.00	\$25,977.50
Reclaimed Water Project Phase 1	The contract for this project was awarded to Schneider Electric / Stantec. The project design cost is \$2,200,000 and project schedule is approximately 460 days. Construction costs will be determined during the design phase and will be awarded to Schneider Electric / Stantec upon approval of the Board. The Reclaimed Water Project – Phase 1 will replace an aging and capacity restricting grit chamber and provide redundancy by adding a second digester and expanding the bar screens. This project will also include adding a biofilter, and a sludge thickener unit.	Schneider Electric has completed the 30% design plans and has submitted them to the District for review. Staff have provided comments for Schneider for incorporation. Schneider is working on the next design submittal.	\$2,200,000.00	\$0.00. Per the contract, no payment is due until the project reaches the 60% design phase at which time \$2.2 million will be due.
Influent Pump Station Rehabilitation	Stantec is assisting the District as an Owner's Representative and DCI / Dudek are acting as the design-build team for this project. The influent pump station structure is showing significant signs of deterioration. Proposed improvements to the pump station include: bypass of the pump station for inspection and repair, repair/replacement of leaking and broken gates, repair of interior concrete coating, installation of new valves for proper isolation/drainage, installation of a new jockey pump in the empty pump bay.	Dudek has submitted the Basis of Design Report which Stantec and VSD staff have reviewed. Dudek has also submitted the 30% design plans which Stantec and VSD are currently reviewing. Dudek and VSD are coordinating the ordering and purchasing of long, lead items.	\$3,634,476.00	\$27,007.52
New Training and Office Building and Laboratory Building	The District and SGH Architects are developing the initial design for a new office / training building that will be located to the west of the existing Operations building. The purpose of this new building is to provide space for new offices for collections and maintenance personnel as well as a training area for company events and meetings. Also as part of this project, VSD has contracted SGH to develop designs for a new laboratory building to replace the existing lab due to the current issues lab staff are experiencing with the layout and air filtering system.	SGH Architects is continuing with final design of both the Office & Training and Laboratory Buildings and has provided an updated floor plan for the office building. SGH is working with VSD staff on refining the laboratory layout and floor plan.	\$1,922,000.00	\$0.00
Additional Parking and Landscaping	The District is in need of additional parking for employees and customers. Staff proposes to remove the lawn at the front of the property and replace it with parking and drought tolerant landscaping.	A preliminary design of the Project has been completed. In queue for the next steps.	\$500,000.00	\$0.00

Monthly Capital Improvement Project Update - September 2021

Project Title	Project Description	Current Status	Fiscal Year Budget	Total Spent to Date
Steel WaterLine Replacement	The above ground, steel waterline adjacent to the aeration basins is old and prone to leaks, especially at the grooved joints, and has exceeded its useful life. The new steel waterline will have traditional joints that will provide a longer life. This project has been on the books for several years and has been a lower priority due to lack of leaks in recent years and the difficult nature of replacement. The project was awarded to Dudek who has begun the development of the project design and specifications.	Dudek has completed the 60% design plans and specifications which VSD staff is currently reviewing.	\$642,000.00	\$0.00

**VALLEY SANITARY DISTRICT
BUDGET & FINANCE COMMITTEE MEETING MINUTES**

September 7, 2021

Valley Sanitary District conducted this meeting in accordance with California Governor Newsom's Executive Orders N-29-20 and COVID-19 protocols.

A regular meeting of the Valley Sanitary District (VSD) Budget & Finance Committee was held via videoconference on Tuesday, September 7, 2021.

1. CALL TO ORDER

Chairman Dennis Coleman called the meeting to order at 1:05 p.m.

1.1 Roll Call

Directors Present:

Chairman Dennis Coleman

Committee Member Scott Sear

Staff Present:

Jeanette Juarez, Business Services Manager, and Holly Gould

1.2 Pledge of Allegiance

2. PUBLIC COMMENT

This is the time set aside for public comment on any item not appearing on the agenda. Please notify the Secretary in advance of the meeting if you wish to speak on a non-hearing item.

None.

3. DISCUSSION / ACTION ITEMS

3.1 Discussion Item Year End Audit Progress for the Fiscal Year Ending June 30, 2021

Jeanette Juarez, Business Services Manager, presented this item. This year the District contracted Davis Farr LLP as the independent auditing firm. The auditors were onsite completing their fieldwork from August 24 -26, 2021. The auditors estimate to have financials ready for review by September 10, 2021. Jeanette met with the auditing partner assigned to this engagement, Jonathan Foster, to review auditor identified entries. The auditor identified three (3) entries; Other Postemployment Benefits (OPEB) prior period adjustment (Material and will be required to be reported), additional payroll accrual entry (not material), and a reclassification of certain payables as prepaid expenses (not material). Following the results of the entries, it was determined by the auditor that a prior period adjustment will have to be executed for the OPEB implied subsidy liability that was not included in the FY20 financial statements. It was determined that the previous auditors used an earlier version of the

actuarial valuation report to calculate the entry for the OPEB liability instead of an updated report. The auditor will include a statement disclosing that a previously issued financial statement(s) has been restated for the correction of a material misstatement in the respective period and a reference to the note(s) to the financial statements that discuss the restatement. The adjustment is a non-cash adjustment and will not impact cash flow. This adjustment will change the net position. Director Coleman requested that staff discuss with Davis Farr LLP quality control so this type of oversight does not reoccur. A discussion took place on the complacency of the auditing firms and switching actuaries. The engagement partner will provide the information to the Budget & Finance Committee and the full Board once the financials are complete and approved.

3.2 Discussion Item The California Infrastructure and Economic Development Bank (IBank) Invitation to Apply for Financing

Jeanette Juarez, Business Services Manager, presented the item. She reported that IBank has completed its review of the audited financial statements and other materials provided in connection with the financing requested by the District for the Training and Office Building and Laboratory Building Project. IBank has extended the District an invitation to apply for financing under IBank's Infrastructure State Revolving Fund Program ("ISRF Program"). Once the application is submitted, IBank will complete its review and underwriting of the Requested Financing generally within 90 days of receipt of the District's completed ISRF financing application. The estimated cost for both projects is \$16.5M. The District will request \$15M in financing from IBank and uses local funds as match funding. The financing costs were included in the fiscal year 2020/21 rate study as a planning strategy to meet long-term needs while maintaining affordability to customers. This is the first in a series of projects that will require financing as is presented in the CIP and rate study. Jeanette will bring this item before the full Board as an action item. Director Sear suggested informing the full Board why staff decided to move forward with IBank as opposed to other banking institutions.

4. FUTURE MEETING ITEMS

Staff plans to have a presentation for the year end audit at the November committee meeting. They will also discuss the Request for Proposal (RFP) for the financial advisor services and update the committee on the progress of the new accounting system Caselle.

5. ADJOURNMENT

There being no further business to discuss, the meeting adjourned at 1:58 p.m. The next regular committee meeting will be held on November 2, 2021.

Respectfully submitted,

Holly Gould, Clerk of the Board
Valley Sanitary District