



Hidden Valley Lake Community Services District

Finance Committee Meeting

DATE: December 11, 2018
TIME: 12:30 pm
PLACE: Hidden Valley Lake CSD
Administration Office, GM Office
19400 Hartmann Road
Hidden Valley Lake, CA

- 1) CALL TO ORDER
- 2) PLEDGE OF ALLEGIANCE
- 3) ROLL CALL
- 4) APPROVAL OF AGENDA
- 5) DISCUSS: Clean Water State Revolving Fund application for I & I Remediation project, to include resolutions and fiscal sustainability plans.
- 6) PUBLIC COMMENT
- 7) COMMITTEE MEMBER COMMENT
- 8) ITEMS FOR NEXT AGENDA
- 9) ADJOURNMENT

Public records are available upon request. Board Packets are posted on our website at www.hvicsd.org/Meetings.

In compliance to the Americans with Disabilities Act, if you need special accommodations to participate in or attend the meeting please contact the District Office at 987-9201 at least 48 hours prior to the scheduled meeting.

Public shall be given the opportunity to comment on each agenda item before the Governing Board acts on that item, G.C. 54953.3. All other comments will be taken under Public Comment.

**ACTION OF
HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT**

DATE: December 11, 2018

AGENDA ITEM: DISCUSS: Clean Water State Revolving Fund application for I & I Remediation project, to include resolutions and fiscal sustainability plans.

RECOMMENDATIONS: Recommend the Board of Directors adopt Resolutions 2018-08, 2018-09, 2018-10, and the Fiscal Sustainability Plans for both Water and Sewer.

FINANCIAL IMPACT: I & I expenditures have already been identified in the five-year capital improvement plan. Over the course of the entire five years, the plan commits to \$425,000 dedicated to I & I Remediation. The potential approval of the I & I Remediation project, would add another \$425,000 towards this effort.

BACKGROUND:

The Division of Financial Assistance (DFA) for the Clean Water State Revolving Fund (CWSRF) changed its parameters for the application process in 2018. Applicants are now reviewed annually for eligibility for the upcoming fiscal year. The deadline for filing a complete application is now December 31st of each year.

Additional changes include a scoring system that weighs the relative urgency of the project against other applicants. The DFA CWSRF gives the highest points to a project that is considered a corrective action of some state violation. HVLCSO is able to provide proof that the I & I Remediation project is in response to a Central Valley Regional Water Quality Control Board (CVRWQCB) Notice of Violation on 4/12/2017.

Some parameters have stayed the same, such as the required board approved resolutions, and the board approved fiscal sustainability plans. The wording of these documents are advised to remain the same as the template provided by the DFA CWSRF. The following is an excerpt from the DFA CWSRF application instructions:

“F4 – **Reimbursement Resolution:** An adopted Reimbursement Resolution is required for review by the CWSRF tax attorney. The language may not vary from the language provided in the template. The Reimbursement Resolution should be a stand-alone resolution (not applicable if 100% grant/principal forgiveness funding).

F5 - **Authorizing Resolution/Ordinance:** This resolution or ordinance designates the Authorized Representative(s) for the project, who will have the authority to sign and submit the CWSRF application materials, certify compliance with applicable state and federal laws, execute the financial assistance agreement and amendments, and certify disbursement requests.

- To minimize the potential for problems, use the exact language in the template resolution.
- Enter the title of the Authorized Representative, NOT a person's name.
- Do not modify the words financing or financial assistance to other terms such as "loan", "grant", or "principal forgiveness". Use of these terms will create legal complications; the terms "financing" and "financial assistance" are broad enough to be applicable to all of the above.
- It is not necessary to specify the requested amount of financing. If you do specify an amount, to allow some flexibility, please specify the maximum anticipated amount of financing as follows: "Financial assistance shall not exceed \$850,000."

F6 – Rate Adoption Resolution: Attach a copy of the most recent board resolution, ordinance, or similar document, which approved the water rates currently in place.

F7 – Pledged Revenues and Fund(s) Resolution: Federal law requires applicants to establish a dedicated source of revenue for repayment. The financing agreement will identify the pledge revenue(s) and fund(s) (PRF). The majority of CWSRF applications for wastewater projects are secured with "the Wastewater Enterprise fund and Net Revenues thereof". If your CWSRF financing agreement will also be secured with other PRFs such as special assessments or a special tax, the template language will need to be modified accordingly. If you are uncertain as to the appropriate wording, a draft version may be submitted with the initial application. A reserve fund may also be required. This item is not required if the applicant is a Small DAC applying for one hundred percent grant/principal forgiveness funding.

REIMBURSEMENT RESOLUTION

RESOLUTION NO: 2018-08

WHEREAS, the Hidden Valley Lake Community Services District (the "Agency") desires to finance the costs of constructing and/or reconstructing certain public facilities and improvements relating to its water and wastewater system, including certain treatment facilities, pipelines and other infrastructure (the "Project"); and

WHEREAS, the Agency intends to finance the construction and/or reconstruction of the Project or portions of the Project with moneys ("Project Funds") provided by the State of California, acting by and through the State Water Resources Control Board (State Water Board); and

WHEREAS, the State Water Board may fund the Project Funds with proceeds from the sale of obligations the interest upon which is excluded from gross income for federal income tax purposes (the "Obligations"), and

WHEREAS, prior to either the issuance of the Obligations or the approval by the State Water Board of the Project Funds the Agency desires to incur certain capital expenditures (the "Expenditures") with respect to the Project from available moneys of the Agency; and

WHEREAS, the Agency has determined that those moneys to be advanced on and after the date hereof to pay the Expenditures are available only for a temporary period and it is necessary to reimburse the Agency for the Expenditures from the proceeds of the Obligations.

NOW, THEREFORE, THE AGENCY DOES HEREBY RESOLVE, ORDER AND DETERMINE AS FOLLOWS:

SECTION 1. The Agency hereby states its intention and reasonably expects to reimburse Expenditures paid prior to the issuance of the Obligations or the approval by the State Water Board of the Project Funds.

SECTION 2. The reasonably expected maximum principal amount of the Project Funds is not to exceed \$850,000.00.

SECTION 3. This resolution is being adopted no later than 60 days after the date on which the Agency will expend moneys for the construction portion of the Project costs to be reimbursed with Project Funds.

SECTION 4. Each Agency expenditure will be of a type properly chargeable to a capital account under general federal income tax principles.

SECTION 5. To the best of our knowledge, this Agency is not aware of the previous adoption of official intents by the Agency that have been made as a matter of course for the purpose of reimbursing expenditures and for which tax-exempt obligations have not been issued.

SECTION 6. This resolution is adopted as official intent of the Agency in order to comply with Treasury Regulation 1.150-2 and any other regulations of the Internal Revenue Service relating to the qualification for reimbursement of Project costs.

SECTION 7. All the recitals in this Resolution are true and correct and this Agency so finds, determines and represents.

AYES:

NOES:

ABSENT:

CERTIFICATION

I do hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the Board of Directors held on December 18, 2018

(Name, Signature, and Seal of the Clerk or Authorized Record Keeper of the Governing Board of the Agency)

AUTHORIZING RESOLUTION

RESOLUTION NO: 2018-09

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE HIDDEN VALLEY LAKE COMMUNITY SERVICES DISTRICT (the "Entity"), AS FOLLOWS:

The General Manager (the "Authorized Representative") or designee is hereby authorized and directed to sign and files, for and on behalf of the Entity, a Financial Assistance Application for a financing agreement from the State Water Resources Control Board for the planning, design, and construction of I &I Remediation (the "Project").

This Authorized Representative, or his/her designee, is designated to provide the assurances, certifications, and commitments required for the financial assistance application, including executing a financial assistance agreement from the State Water Resources Control Board and any amendments of changes thereto.

The Authorized Representative, or his/her designee, is designated to represent the Entity in carrying out the Entity's responsibilities under the financing agreement, including certifying disbursement requests on behalf of the Entity and compliance with applicable state and federal laws.

CERTIFICATION

I do hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the Board of Directors held on December 18, 2018

(Name, Signature, and Seal of the Clerk or Authorized Record Keeper of the Governing Board of the Agency)

PLEGGED REVENUES AND FUND(S) RESOLUTION

RESOLUTION NO: 2018-10

BE IT RESOLVED, the Hidden Valley Lake Community Services District (the "Entity") hereby dedicates and pledges the Wastewater Enterprise fund and Net Revenues thereof to payment of any and all Clean Water State Revolving Fund and/or Water Recycling Funding Program financing for I & I Remediation – 43618 (the "Project"). The Entity commits to collecting such revenues and maintaining such funds(s) throughout the term of such financing and until the Entity has satisfied its repayment obligation thereunder unless modification or change is approved in writing by the State Water Resources Control Board. So long as the financing agreement(s) are outstanding, the Entity's pledge hereunder shall constitute a lien in favor of the State Water Resources Control Board on the foregoing fund(s) and revenue(s) without any further action necessary. So long as the financing agreement(s) are outstanding, the Entity commits to maintaining the fund(s) and revenue(s) at levels sufficient to meet its obligations under the financing agreement(s).

CERTIFICATION

I do hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the Board of Directors held on December 18, 2018.

(Name, Signature, and Seal of the Clerk or Authorized Record Keeper of the Governing Board of the Agency)



Hidden Valley Lake Community Services District

Fiscal Sustainability Plan

Treatment Operations

Contents

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Inventory of critical assets (Clean Water Act, 603(d)(1)(i)(I))

The Hidden Valley Lake Community Services District's (HVLCS D) Sewer System Management Plan (SSMP)¹ describes the wastewater collection system as follows;

“The wastewater collection system consists of approximately 15 miles of gravity mains ranging from 4 to 18 inches in diameter, 8 pumping stations, and 1.5 miles of forced main.² Collected wastewater is discharged to the Hidden Valley Lake Community Services District Regional Water Reclamation Facility (RWRF), an advanced treatment plant located off of Grange Road, south of Putah Creek.³ The RWRF treats an average dry weather flow of 0.350 million gallons-per-day (MDG) and is capable of treating a peak flow of 0.894 MGD.⁴

Raw wastewater is treated with a series of processes including mechanical screening, extended aeration and activated sludge, clarification, direct filtration, and chemical addition processes. After providing tertiary level treatment, the RWRF discharges treated effluent to a 412 acre-foot, clay-lined storage pond where it is held for golf course irrigation via 1.5 miles of reclaimed water transmission pipe. The storage pond is sized to hold effluent from the RWRF plus flows from a 1 in 100-year recurrence interval wet weather event.⁵ The following sections address each SSMP element required under SWRCB Order No. 2006-0003-DWQ and SWRCB Order No. WQ 2013-0058-EXEC.”

A visual representation of wastewater treatment and wastewater collection are represented by Figures 1 & 2, resp.

¹ <https://www.hvlcsd.org/files/6d430b4c1/SSMP+Final+Draft+April+2018.pdf>

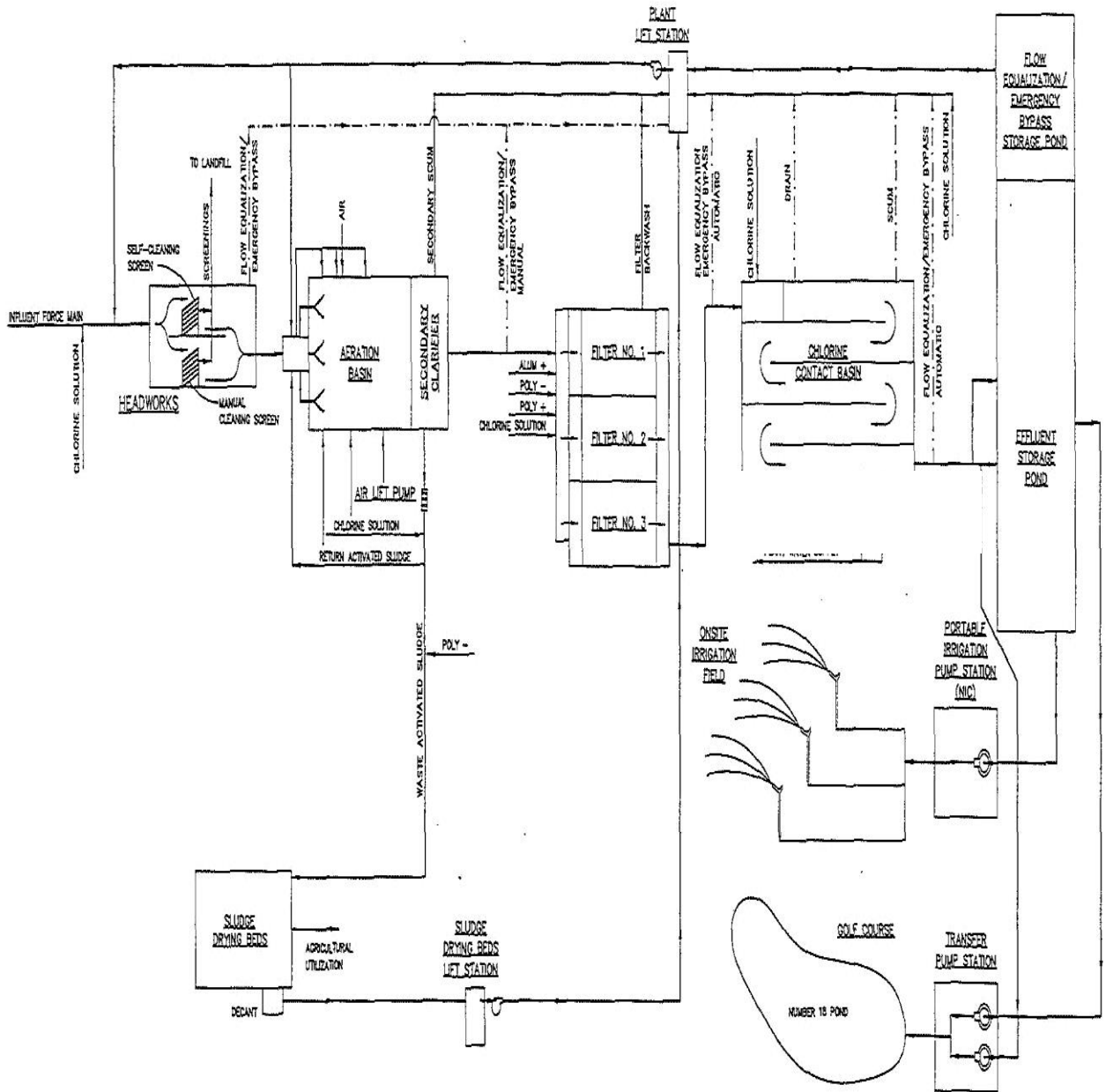
² Hidden Valley Lake Community Services District Sewer System Management Plan, 2011

³ Coyote Valley Concept Infrastructure Plan, 2007

⁴ Hidden Valley Lake Community Services District Water Reclamation Facilities Operations and Maintenance Manual, 1996

⁵ Ibid.

Figure 1.



NOTE:

1. GENERAL FLOW DIAGRAM INDICATES MAIN PROCESS FLOW. REFER TO PLANT PIPING FOR SECONDARY AND SUPPORT SYSTEMS.

FLOW DIAGRAM

FIGURE 2-1
GENERAL FLOW DIAGRAM

03/24/97
fig2-1.dwg

WINZLER & KELLY
CONSULTING ENGINEERS

Figure 2



Evaluation of asset condition & performance (Clean Water Act, 603(d)(1)(i)(II))

Ongoing evaluation of assets is conducted by monitoring equipment performance via SCADA, as well as adherence to the Maintenance Schedule and Checklist.⁶

The evaluation of assets had led to certain Capital Improvement projects as outlined in HVLCD's Risk Management Plan (RMP), and the Inflow & Infiltration Assessment. Figure 3 is an excerpt from the RMP itemizing improvement opportunities, and figure 4 reveals the results of an entire wet weather season of data collection and analysis.

Figure 3

2.6 Planned Changes to Improve Safety

[Reference CalARP Regulation 19 CCR 2745.3(f)]

The following recommendations were identified during the Process Hazard Analysis (PHA) discussed in Section 5.2 of this RMP and fully documented in Appendix D to improve the safety of the chlorination system. Please refer to each footnote to cross-reference the items identified in the the PHA:

1. An evaluation will be conducted to explore the feasibility of using sodium hypochlorite as a substitute for chlorine gas. (Expected completion by fall of 2018.)²
2. Fuel tanks will be relocated a safe distance from the chlorine cylinders. (Expected completion by fall of 2019).³
3. The prevention of chlorine gas releases from the chlorination system is dependent on the proper operation of the chlorinator valve that is attached to the one-ton cylinders. As an integrated component of the one-ton cylinders, the District uses a reliable chlorine gas vendor that supplies cylinders that are in good condition. Once delivered, proper cylinder handling becomes the responsibility of the District. Proper cylinder handling procedures are documented, and are required training for all field personnel.⁴
4. Components of the chlorination system are maintained and inspected on a regular basis according to manufacturer recommendations and procedures. (Ongoing maintenance requirement.)⁵

⁶ Appendix A

5. The feasibility of updating the ventilation in the chlorine cylinder room will be examined (Spring 2019).
6. Maintenance of the leak detectors is performed according to manufacturer's recommendations. (Ongoing maintenance requirement.)⁶
7. At the assembly area identified in the ERP, access to the existing water line will be added. This will provide first responder personnel the ability to administer first aid if necessary (expected completion by Spring 2019)⁷
8. Accessibility to emergency personnel will be improved with signage on Glider port road, and a Knox box at the gate to the Glider port (expected completion by June 2018).⁸
9. The feasibility of installing additional chlorine leak detectors around the perimeter of the chlorination area will be evaluated. The additional external detectors could provide data on the chlorine plume if chlorine gas were to escape the chlorine storage area. (Expected completion by June 2019.)⁹
10. For contractors that will be working on or near the chlorine system or for vendors providing chlorine gas, their contracts require them to take the necessary precautions to prevent accidents that could result in a chlorine release and also require training of their employees on appropriate actions to take in the event of a chlorine alarm or release. This training may need to be provided by the District. Contractor safety procedures are listed in Section 5.12 of this RMP. (Ongoing.)¹⁰
11. Install seismic hold-down straps on 1-ton chlorine cylinders¹¹

7 CONCLUSION

Figure 4

Flow data analysis conducted during the 2017-2018 Wet Weather Assessment revealed half of the water being treated at the WWTP is GWI and RDI rather than wastewater. The previous sections in this document demonstrated how the District arrived at this conclusion; based on past experience and the execution of a wet weather plan.

The temporary flow monitor data suggests that The District can make the most impact by applying repairs to the Lift Station 6 Flow Monitoring Area and the Lift Station 2 Flow Monitoring Area. The Lift Station 6 Flow Monitoring Area was found to have the highest rate of total I/I; this was to be expected, as this area contains the oldest pipes out of all of the flow monitoring areas. These results help to characterize the extent and severity of I/I within the whole system, as well as within each flow monitoring area.

To the extent it has been financially feasible, HVLCS D has affected positive change in our wastewater collection system by taking immediate mitigative actions. The District has sealed cleanouts in identified I/I areas (refer to Appendix 8.6), along with the implementation of a manhole lid replacement project for prioritized manholes. Since March, HVLCS D has replaced four manhole lids.

Rate Study plans are anticipated to be completed with a rate change target for January 2019; at which point repairs on Lift Station 6 Monitoring Area will take place based on the mid year budget review. Depending on the anticipated Rate Study, repairs will also take place throughout Lift Station 2 Monitoring Area during the 2019 / 2020 fiscal year

The District has also established a longer term plan in the reduction of I/I within the collection system. This plan includes more studies focused throughout the collection system; Specifically, CCTV of Lift Station 2 Flow Monitoring Area, additional upstream/downstream flow

monitoring, nighttime reconnaissance activities, and the continuation of the manhole lid replacement project. The District expects to use capital funding for Flow Monitoring, and CCTV activities while operational funding will be used for the Manhole Lid Replacement project.

Certification of Water & Energy Conservation (Clean Water Act, 603(d)(1)(i)(III))

Sewer pipe repair in the identified areas of the I/I Assessment will achieve a level of efficiency and water conservation by reducing the flow to the wastewater treatment system, and allowing stormwater to naturally recharge the Coyote Valley aquifer.

Maintenance/Repair Plan with Funding (Clean Water Act, 603(d)(1)(i)(IV))

A five year CIP has been developed to address these improvement opportunities, and is currently incorporated into a Rate Study that HVLCS D has commissioned from a third party.⁷

Figure 6

⁷ Appendix B

Appendix A – Maintenance Schedule and Checklist



Hidden Valley Lake Community Services District

WWTP Daily/Weekly Inspections

WW Rounds, Field Operations

Contents

Daily – Outside Inspection	2
Daily - Data Collection.....	3
Pump hours.....	3
Flows	3
Ponds.....	3
Blowers	4
Generator.....	4
Chlorine tanks	4
Turbidity.....	4
Solids test.....	4
Misc.....	5
Weekly – Data Collection.....	5
Solids test.....	5
Misc.....	7

Wastewater Inspection

Daily – Outside Inspection

Effluent pond – Check for berm seepage, pond height gauge

EQ Basin levels – Appropriateness

Transfer pumps – Pump operation, Flow meter operation, Bearing oil level, Wildlife

Geo tube level in sludge beds

W3 (400s), Sample (500s), Cl2 mixer – Pump operation, Runtime, Visual, Sight and Sound of mechanics

Headworks – Screen rake & bar screen cleanliness, trash can, operational, Visual, Sight and Sound of mechanics. Clean stop gates after each use.

Aeration Basin – Influent flow from junction box, diffuser functionality, chains secure, appropriate color. Clean stop gates after each use.

Clarifier – Airlift, sludge rate, motor functionality. Check sonar for depth, any algae growth. Floating sludge, algae growth on weir.

Filters – Airlift, water traps functionality. Verify appropriateness of headloss.

CL2 Contact basin – Clarity, verify functionality of perforated pipe to flash mixer. Take coliform sample, include residual & turbidity for reference.

Windsack intact

Solar inverter functionality

Chlorine container room – Check chlorine container levels, scale, regulator, heater for functionality. Check for room cleanliness, free of combustible materials, free of unnecessary objects, no overhead storage, no standing water, and covers & caps are secure. Check and calibrate Foxcroft FX-1502 Guardian II as needed. Check functionality of Crane lift

Chlorine feed rooms – Flow functionality. Clean strainer, turbidimeter & feed line. Maintain buffer solution in chlorine analyzer.

SCADA – Check Interface for functionality of all controls.

Blower room – Check for weights, air compressors, and motor functionality with Visual, Sight and Sounds of mechanics.

Circle charts – Change out

Daily - Data Collection

Pump hours

FLR SCR MFS-100
SLG RK SR-200
SMP Pump SP-503
W3 Wtr P P-400
PT Wtr P-800
PT Wtr P-801
SLG BWT P P-700
SLG BWT P P-701
SMP P SP-502
SMO O SP-501
SMO O SP-500
TRSF P P-600
TRSF P P-601
Station 1 Pump 1
Station 1 Pump 2

Flows

Pond Effluent
CL2 Basin Influent
CL2 Basin Effluent
Headworks Influent
800 Pump Totalizer
Headworks Totalizer
Clarifier Max flow
WAS Flow
Filter Flow

Ponds

Effluent Pond height

Effluent Pond pH

Blowers

Air Comp #1

Air Comp #2

Blower #1

Blower #2

Blower #3

Number of blowers

Generator

Hours

Volt/Amps

Fuel

Chlorine tanks

Tank 1

Tank 2

Daily Dose

Turbidity

Sec. Eff Turb

Final Eff Turb

Solids test

DO Mg/L (AB)

Temp (AB)

ORP MV (AB)

NO3 (AB)

NO2 (AB)

ORP RAS

ORP Clar

NO3 (Clarifier)

NO2 (Clarifier)

DO Mg/L (Filter)
ORP Mg/L (Filter)
CL2 Mg/L (Filter)
Cl2 Mg/L (CL2 Basin)
ORP MV (CL2 Basin)

Misc.

Temperature
Rain
pH (AB)
SB Feet
RAS Valve position
WOX @ min.
Step Feed (AB)
pH RAS
pH Clar
pH (Filter)
Backwash PSI (Filter)
Headloss (Filter)
CL2 Detention time
CL2 Analyzer Residual

Weekly – Data Collection

Solids test

TSS ML
MLSS ML 10
MLVSS ML
RAS ML
CLAR. Eff ML
Filter Eff ML

CL2 Eff ML
BOD Mg/L
COD Mg/L (Headworks)
COD Mg/L (AB)
SS Mg/L
pH (Headworks)
Alk Mg/L (Headworks)
Nitrate Mg/L
Nitrite Mg/L
ORP MV (Headworks)
NH3 Mg/L (Headworks)
Sulfide Mg/L
MLSS Mg/L
NH3 (Clarifier)
Solids under Air
VSS Mg/L
NH3 Mg/L (AB)
FM Ratio
MCRT days
Alk Mg/L (AB)
TSS Mg/L (Clarifier)
SVI Mg/L (Clarifier)
RAS Mg/L
TSS Mg/L (Filter)
Alk Mg/L (Filter)
DO (CL2 Basin)
TSS/SS (CL2 Basin)
Alk (CL2 Basin)
pH (CL2 Basin)

Nitrate (CL2 Basin)

Nitrite (CL2 Basin)

NH3 (CL2 Basin)

Misc.

Settleometer

SD Feet

ALK RAS

ALK Clar

Predicted Waste Rate Time (min)

Sludge Age/SRT 1

Sludge Age/SRT 2

PROCESS	EQUIPMENT	MAINTENANCE SCHEDULE	MAINTENANCE PROCEDURE	VENDOR/STAFF	LOCATION	MAINTENANCE DATE	NAME
HEADWORKS	Mechanical Screen	6 months	Check the conveyor chain and snap rings				
HEADWORKS	Mechanical Screen Gear Reducer	6 months	Drain and replace oil in upper and lower sections				
HEADWORKS	Mechanical Screen Side Seals	6 months	Check for wear				
HEADWORKS	Mechanical Screen Main Channel	6 months	Remove sand, gravel, debris				
HEADWORKS	Mechanical Screen	Annual	Check wear on roller and chain plates				
HEADWORKS	Mechanical Screen	Annual	Check wear on guide rails				
AERATION BASIN	Diffusers and Hoses	6 months	Lift diffuser assembly and examine the hose and diffuser socks for tears.				
AERATION BASIN	Electronic Butterfly Valves Gear Reducer	6 months	Drain and Replace Oil				
BLOWERS	Gear House	3 months	Change Oil				
BLOWERS	Cartridge Filter	3 months	Inspect & Change				
BLOWERS	Electric Starters	6 months	Inspect & Clean				
FILTERS	Airlift pump	Annual	Remove the airlift pump for inspection and cleaning. Change oil, air filter and belts.				
CHLORINATION SYSTEM	Contact basin	Annual	Clean basin with trash pump				
CHLORINATION SYSTEM	Chlorinators	Annual	Maintenance, calibration, replacement as needed				
CHLORINATION SYSTEM	Chlorine sensor (FoxCrot)	Annual	Maintenance, calibration, replacement as needed. Test with a known concentration of chlorine.				
CHLORINATION SYSTEM	Chlorine analyzers	Annual	Maintenance, calibration, replacement as needed				
CHLORINATION SYSTEM	Mixer Motor gear drive	5 years	Lubricate with special lithium oil				
EQ/EMERGENCY OVERFLOW BASIN	Rubber Check Valves	6 Months	Operate and Inspect in the Under drain System				
EQ/EMERGENCY OVERFLOW BASIN	Basin	Annual	Clean out sludge				
WWTP Lift Stations	600, 700, 800 pumps (6 total)	Annual	Overhaul/Replace one pump per year				
Transfer Pump Station	Motor Bearings	3 months	Lubricate				
STANDBY GENERATOR	Generator	Annual	Change Oil, Lubricate Gears				
Compliance Audit	RMP Section 5.8; Appendix K	3 years					

TRAINING	TRAINING SCHEDULE	OPERATOR	Date
Operations & Maintenance	Annual		
Hazard Communication Program	Annual		
Emergency Response Plan	Annual		
Respiratory Protection Plan	Annual		
Cylinder Handling	Annual		

Appendix B – Capital Improvement Plan

Category	Item/Project	Cost Year 1	Cost Year 2	Cost Year 3	Cost Year 4	Costs Year 5	
Wastewater	CS Line replacement	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00	
Water	CCTV	\$ 15,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	
Split	Dump Truck		\$ 150,000.00				
Split	Construction Truck	\$ 85,000.00					
Water	Vacc Truck	\$ 335,000.00					
Split	SCADA replacement	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	
Wastewater	Backhoe						
Split	IT Updgrades	\$ 50,000.00	\$ 20,000.00	\$ 10,000.00	\$ 20,000.00	\$ 20,000.00	
Wastewater	Manhole rehab	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	
Wastewater	Pump replacement/Overhaul	\$ 22,500.00	\$ 22,500.00	\$ 22,500.00	\$ 22,500.00	\$ 22,500.00	
Water	Water Plant VFDs	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00	
Wastewater	Sample stations	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	
Water	Well	\$ 728,400.00	\$ 728,400.00	\$ 728,400.00	\$ 728,400.00	\$ 728,400.00	
Water	Tanks	\$ 979,800.00	\$ 979,800.00	\$ 979,800.00	\$ 979,800.00	\$ 979,800.00	
Water	DS Line replacement	\$ 541,800.00	\$ 541,800.00	\$ 541,800.00	\$ 541,800.00	\$ 541,800.00	
Water	Generators	\$ 434,400.00	\$ 434,400.00	\$ 434,400.00	\$ 434,400.00	\$ 434,400.00	
Water	Hydrants	\$ 748,400.00	\$ 748,400.00	\$ 748,400.00	\$ 748,400.00	\$ 748,400.00	
Stormwater	Tideflex	\$ 131,600.00	\$ 131,600.00	\$ 131,600.00	\$ 131,600.00	\$ 131,600.00	
		\$ 4,265,900.00	\$ 3,980,900.00	\$ 3,820,900.00	\$ 3,830,900.00	\$ 3,830,900.00	\$ 19,729,500.00



Hidden Valley Lake Community Services District

Fiscal Sustainability Plan

Drinking Water Operations

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Inventory of critical assets (Clean Water Act, 603(d)(1)(i)(I))

The Hidden Valley Lake Community Services District's (HVLCS D) potable water system is described in the Coyote Valley Concept Infrastructure Plan¹ as follows;

“[Water supply] is obtained through three domestic wells on the south side of Putah Creek, East of Highway 29. The current system is broken down into seven distinct pressure zones, which is supplied by approximately 165,000 feet of pipe (ranging from 4-12” in diameter). There are 2479 service connections, 2440 residential connections, and 39 commercial connections².

The District's existing pumping facilities consist of four booster pump stations:

Water Treatment Plant Booster Pumps

- *Zone 1: Three 490-gpm pumps*
- *Zone 4: Two 380-gpm pumps*

Greenridge Booster Station

- *Two 415-gpm pumps used to booster water from Zone 1 to Tank 9*

Tank 9/Eagle Rock Booster Station

- *Three 1380-gpm pumps used to booster water form Tank 9 to the Little Peak Tank*

The District currently maintains six storage reservoirs totaling 2 MG.

Tank 1a - .15MG

Tank 1b - .2MG

Tank 1c - .5MG

Tank 4a - .5MG

Tank 4b - .15MG

Tank 9 - .15MG

Little Peak Tank - .5MG”

A visual representation of the HVLCS D Water System Schematic and Pressure Zones are represented by Figures 1 and 2 resp.

¹ Coyote Valley concept Infrastructure Plan, 2007

² Connection information as of 8/31/2018

Figure 1

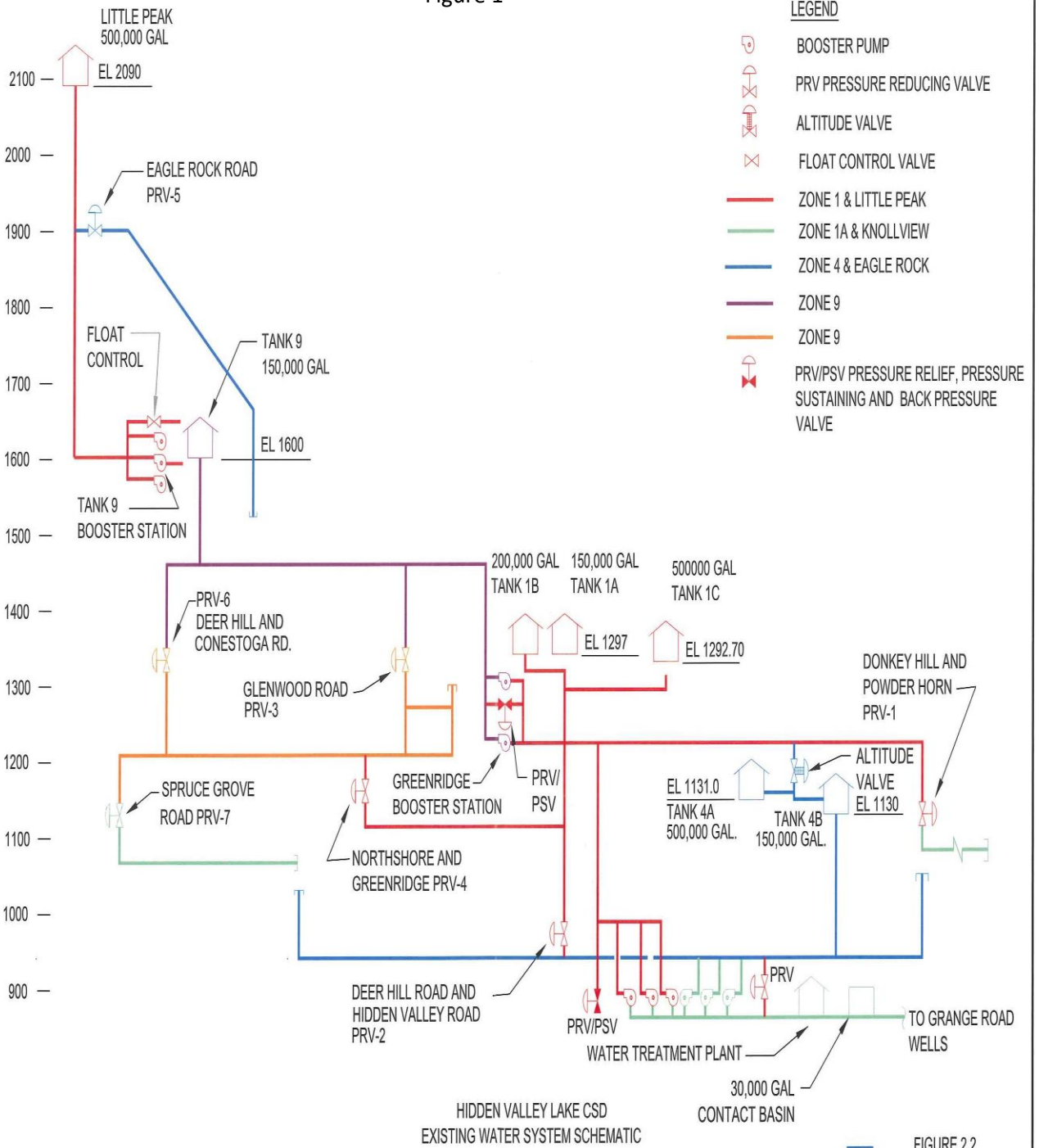
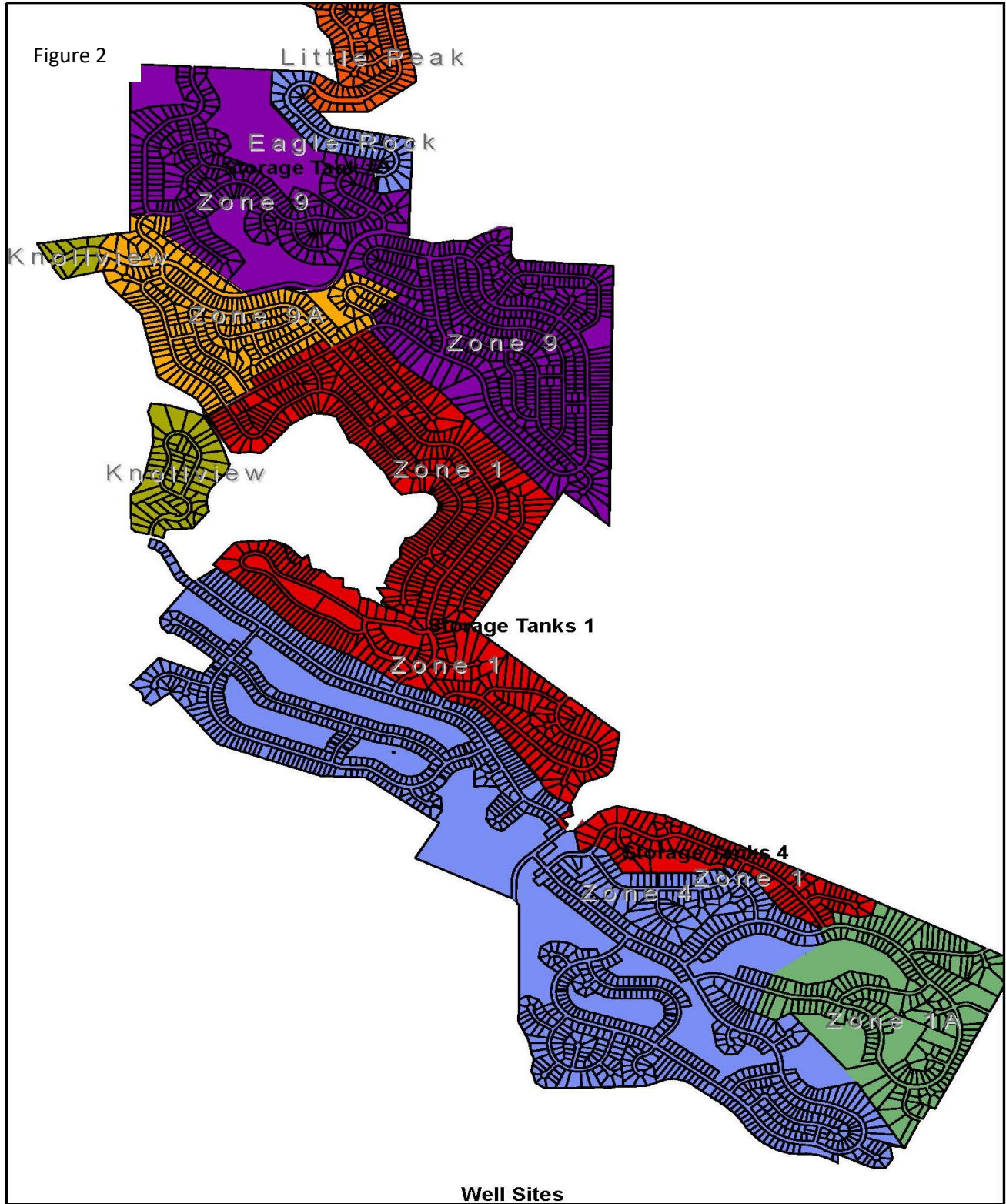


FIGURE 2.2





Evaluation of asset condition & performance (Clean Water Act, 603(d)(1)(i)(II))

Ongoing evaluation of assets is conducted by monitoring equipment performance via SCADA, performing daily rounds, completing monthly well drawdown tasks, and responding to trouble calls.

Figure 3 is the SCADA interface that reports real-time performance and functionality of assets. Figure 4 is the form used to record daily data from water assets. Figure 5 is the form used to record monthly data of well performance.

Print

Login



2/11/2018

11:58:42 AM

None

Figure 3

HIDDEN VALLEY LAKE CSD

MAIN

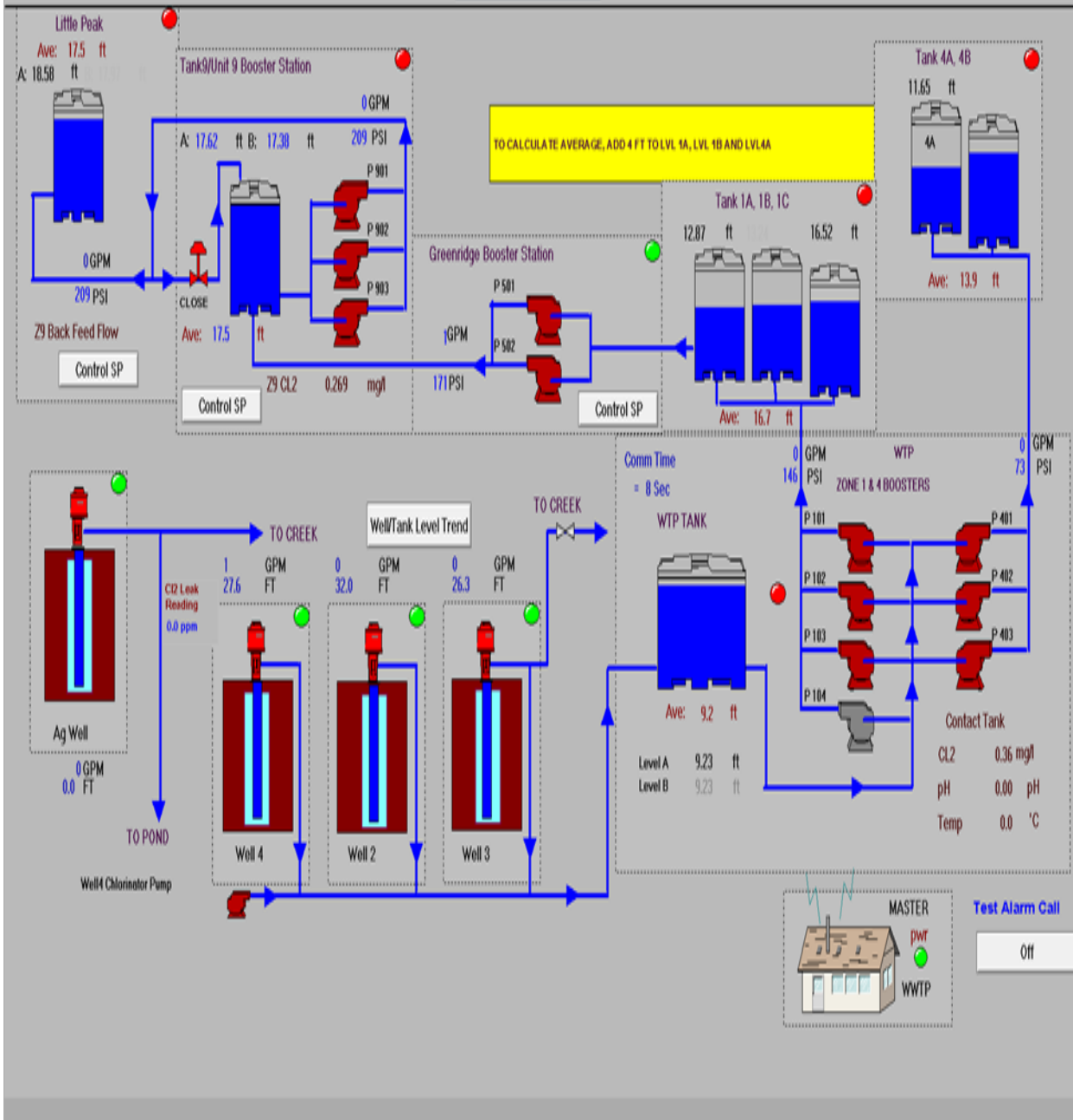


Figure 4

The screenshot shows a 'Daily' data entry window with the following sections:

- Well 4:** Flow Meter, Hours, Tank1 CL2, Tank 2 CL2, Booster pump Flow Meter, Observations, save & exit.
- Well 2, Well 3, AG Well:** timestamp, Flow Meter, Hours, AG Well, Reclaim pond, Putah creek, Observations, save & exit.
- Sewer (Lift Station 1 & 2):** timestamp, Pump 1 Hrs, Pump 2 Hrs, Generator hrs, observations, save & exit.
- Water Plant:** timestamp, Weather (Rain), Tem, PH, Zone 1 (Flow Meter, PSI, CL2 Resid), Zone 4 (Flow Meter, PSI, CL2 Resid), Tank Level, Observations, save & exit.
- Tuesday DPDs (Contact Tank):** please log into Tuesday DPDs, analyzer value, CL actual, Low Zone, High Zone, Calibration?, save & exit.
- Greenridge and Unit 9:** timestamp, Greenridge (Flow Meter, PSI), Unit 9 (Flow Meter, PSI, CL2 Resid, Tank level), Backfeed (Flow Meter), Little Peak (Tank level), Observations, save & exit.
- Tuesday DPDs (Lake level):** Lake level (in inches), Above/Below overflow, Greenridge CL Actual, Unit 9 CL Actual, LP CL Actual, LP level, save & exit.
- Sewer (Lift Stations 3-7, Hardester's):** timestamp, Pump 1/2 hours, generator hrs, Chemical, Pump Speed, Tank Level, observations, save & exit.
- Tuesday DPDs (Tank 4):** CL Actual, 4-A level, 4-b level, Observations, save & exit.
- Tuesday DPDs (Tank 1):** CL Actual, 1-A level, 1-b level, 1-c level, Observations, save & exit.
- Buttons:** Flood Control, Go To Wednesday Tasks, Exit.

Figure 5



Static

Monitoring Well Static Levels

Treatment plant

Feet inches

1

2

3

Grange Road Well Easement American Rock Well

Feet inches Feet inches

A A

B B

spyglass #7 Well Luchetti Well

Feet inches Feet inches

A A

B B

#18th Tee Well

Feet inches

1

Lake

HVL level

Below Overflow above overflow

inches

Pump Test

Monthly pump test

Well 3

static level Feet inches GPM

Drawdown Recovery

Feet inches Feet inches

1 min 1 min

3 min 3 min

5 min 5 min

10 min 10 min

15 min 15 min

30 min 30 min

fLOWMETER READ START

fLOWMETER READ FINISH :

HOUR METER READ

HOUR METER READ FINISH

Well 2

static level Feet inches GPM

Drawdown Recovery

Feet inches Feet inches

1 min 1 min

3 min 3 min

5 min 5 min

10 min 10 min

15 min 15 min

30 min 30 min

fLOWMETER READ START

fLOWMETER READ FINISH :

HOUR METER READ

HOUR METER READ FINISH

Well 4

static level Feet inches GPM

Drawdown Recovery

Feet inches Feet inches

1 min 1 min

3 min 3 min

5 min 5 min

10 min 10 min

15 min 15 min

30 min 30 min

fLOWMETER READ START

fLOWMETER READ FINISH :

HOUR METER READ

HOUR METER READ FINISH

AG Well

static level Feet inches GPM

Drawdown Recovery

Feet inches Feet inches

1 min 1 min

3 min 3 min

5 min 5 min

10 min 10 min

15 min 15 min

30 min 30 min

fLOWMETER READ START

fLOWMETER READ FINISH :

HOUR METER READ

HOUR METER READ FINISH

Certification of Water & Energy Conservation (Clean Water Act, 603(d)(1)(i)(III))

In the geologically diverse area of Hidden Valley Lake, any measure of water efficiency or water resiliency will inherently conserve water & energy. Booster pump stations deliver water from an elevation of 900MSL to as high as 2000MSL. When there is better storage or delivery of water, less water is used and less energy is consumed. The desired output then is that the booster stations will not be pumping as much water, and therefore not using as much electricity.

Hidden Valley Lake Community Services District hereby certifies that the Fiscal Sustainability Plan for Drinking Water Operations will include water and energy conservation efforts as part of this plan.

Maintenance/Repair Plan with Funding (Clean Water Act, 603(d)(1)(i)(IV))

The evaluation of assets has led to certain Capital Improvement projects as outlined in HVLCSD's Five year CIP³. In concert with a consulting firm commissioned to develop a Rate Study analysis, HVLCSD has an immediate, mid, and long-term plan for funding. Depending on the results of the analysis, HVLCSD is likely to implement rate increases through the Proposition 218 process over the mid and long term.

The day to day operational expenses are budgeted for each fiscal year. The water maintenance and repair line items are in place to fund the immediate needs.

A Local Hazard Mitigation Plan (LHMP) is currently in the planning phase, and will also help the District move forward to protect its assets against disasters precipitated by climate change. The following is an excerpt from the Hazard Identification section of the LHMP.

1. *“Climate change – Weather systems worldwide are changing, and have significant impacts locally. Extreme weather has increased in the number of occurrences, and severity. Severe storms, floods, droughts, heat waves, and the likelihood of wildfire are increasing, and impact the people and ecosystems. Specific mitigation action plans for the following listed hazards are expected to improve HVLCSD's resilience and recovery from climate change.”*

³ Appendix A

Appendix A – Capital Improvement Plan

Category	Item/Project	Cost Year 1	Cost Year 2	Cost Year 3	Cost Year 4	Costs Year 5	
Wastewater	CS Line replacement	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00	
Water	CCTV	\$ 15,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	
Split	Dump Truck		\$ 150,000.00				
Split	Construction Truck	\$ 85,000.00					
Water	Vacc Truck	\$ 335,000.00					
Split	SCADA replacement	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	
Wastewater	Backhoe						
Split	IT Upgrades	\$ 50,000.00	\$ 20,000.00	\$ 10,000.00	\$ 20,000.00	\$ 20,000.00	
Wastewater	Manhole rehab	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	
Wastewater	Pump replacement/Overhaul	\$ 22,500.00	\$ 22,500.00	\$ 22,500.00	\$ 22,500.00	\$ 22,500.00	
Water	Water Plant VFDs	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00	
Wastewater	Sample stations	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	
Water	Well	\$ 728,400.00	\$ 728,400.00	\$ 728,400.00	\$ 728,400.00	\$ 728,400.00	
Water	Tanks	\$ 979,800.00	\$ 979,800.00	\$ 979,800.00	\$ 979,800.00	\$ 979,800.00	
Water	DS Line replacement	\$ 541,800.00	\$ 541,800.00	\$ 541,800.00	\$ 541,800.00	\$ 541,800.00	
Water	Generators	\$ 434,400.00	\$ 434,400.00	\$ 434,400.00	\$ 434,400.00	\$ 434,400.00	
Water	Hydrants	\$ 748,400.00	\$ 748,400.00	\$ 748,400.00	\$ 748,400.00	\$ 748,400.00	
Stormwater	Tidflex	\$ 131,600.00	\$ 131,600.00	\$ 131,600.00	\$ 131,600.00	\$ 131,600.00	
		\$ 4,265,900.00	\$ 3,980,900.00	\$ 3,820,900.00	\$ 3,830,900.00	\$ 3,830,900.00	\$ 19,729,500.00

GENERAL INFORMATION PACKAGE

I. TYPE OF ASSISTANCE REQUESTED			
Amount of Assistance Requested: \$			
Proposed Security: <input type="checkbox"/> Wastewater revenues and fund <input type="checkbox"/> Water revenues and fund <input type="checkbox"/> Other:			
Project Type(s): <input type="checkbox"/> Wastewater <input type="checkbox"/> Water Recycling <input type="checkbox"/> Estuary <input type="checkbox"/> Nonpoint Source			
II. APPLICANT INFORMATION			
Applicant Name:			
Street Address:	City:	State:	Zip+4 Code:
Applicant Type: <input type="checkbox"/> Public <input type="checkbox"/> Indian Tribe <input type="checkbox"/> Nonprofit <input type="checkbox"/> Other: Specify _____			
County:		Charter City/County: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Mailing Address:	City:	State:	Zip+4 Code:
Congressional District(s):			
State Senate District(s):			
State Assembly District(s):			
Data Universal Numbering System (DUNS) No.:		Federal Tax ID No.:	
Regional Water Board where the project will take place: <input type="checkbox"/> 1 (North Coast) <input type="checkbox"/> 2 (San Francisco Bay) <input type="checkbox"/> 3 (Central Coast) <input type="checkbox"/> 4 (Los Angeles) <input type="checkbox"/> 5 (Central Valley) <input type="checkbox"/> 6 (Lahontan) <input type="checkbox"/> 7 (Colorado River) <input type="checkbox"/> 8 (Santa Ana) <input type="checkbox"/> 9 (San Diego)			
Authorized Representative Name, Title:			
Phone No.: ()		Email Address:	
Contact Person Name:			
Phone No.: ()		Email Address:	
Local Counsel Name:			
Phone No.: ()		Email Address:	
III. PROJECT INFORMATION AND PROPOSED SCHEDULES			
Project Description: <i>(Enter a brief description of the project)</i>			
Project Title:			
Project Location Street Address:	City:	State:	Zip+4 Code:
NPDES Permit or WDR Order No. (if applicable):			
Current Year Estimated Population Served:			

State Use Only	
CWSRF Project #	
Project Manager	
Date Received	

		Estimated or Actual Date
Estimated Project Schedule:	Complete Construction Application	_____
	1) General Information Package	_____
	2) Technical Package	_____
	3) Environmental Package	_____
	4) Financial Security Package	_____
	Complete Project Plans and Specifications	_____
	Advertise Bids	_____
	Issue Notice to Proceed	_____
	Complete Construction	_____

Consultation with Other Agencies

Please list other Federal and State agencies that have been involved in this project (e.g. planning, CEQA/NEPA consultation, funding, etc.), their contact information if known, and estimated dates for resolution of any issues.

Partnering Agencies

Please list all other agencies that have an interest in this project. Provide contact information if known.

Potential CWSRF Flags Worksheet – Although not required, it is recommended that you complete and attach the [Potential CWSRF Flags Worksheet](#) to the General Information Package.

IV. ESTIMATED PROJECT CAPITAL COSTS AND FUNDING SUMMARY

<u>Cost Classification</u>	<u>Total Project Costs</u>	<u>Other Funding</u>	<u>Requested Financing</u>
A. Facilities Planning (a)	\$ _____	\$ _____	\$ _____
B. Facilities Design (a)	\$ _____	\$ _____	\$ _____
C. Construction Management (a)	\$ _____	\$ _____	\$ _____
D. Value Engineering (a)	\$ _____	\$ _____	\$ _____
E. Administration (a)	\$ _____	\$ _____	\$ _____
F. Facilities Construction Total	\$ _____	\$ _____	\$ _____
G. Contingency	\$ _____	\$ _____	\$ _____
H. Pre-Purchase Material/Equipment	\$ _____	\$ _____	\$ _____
I. Land and Right-of-Way	\$ _____	\$ _____	\$ _____
J. Other Costs	\$ _____	\$ _____	\$ _____
<i>Explain:</i> _____			
K. Total Project Costs	\$ _____	\$ _____	\$ _____
<i>(a) Soft costs may be provided for planning, design, value engineering, construction management, and administration costs.</i>			
Portion of the Total Project Costs that will serve existing facilities and/or existing communities			\$ _____
Portion of the Total Project Costs that will serve new development			\$ _____

V. TECHNICAL SPONSORSHIP

If the Division were to set up a technical sponsorship program, would you be interested in providing in-kind technical assistance to another CWSRF applicant in exchange for special financing? Note that checking "Yes" in no way obligates you to participate in this potential program or guarantees that this incentive will be available or offered.

- Yes No

If Yes, please indicate the areas where you would be willing to provide assistance:

- Assistance in completing a funding application
- Assistance in writing a facilities plan/project report
- Assistance in developing a Capital Improvement Plan
- Assistance in conducting a water or energy audit
- Assistance in building Operations & Maintenance capacity
- Other: Specify _____

VI. SUSTAINABILITY

A project that supports or incorporates one or more of the following sustainability goals receives one priority point for each area addressed.

Label the requested documents as Attachment G1, G2, G3, etc.

<input type="checkbox"/>	The project supports infill development or results in the reuse or redevelopment of land in an area presently served by transit, streets, water, sewer and other essential services. G1 – Provide a map highlighting the infill or redevelopment areas.
<input type="checkbox"/>	The applicant maintains a Capital Improvement Plan, an Asset Management Plan, or has performed a full-cost pricing analysis, or the project incorporates climate change adaption. G2 – Provide copies or links to these plan or analysis.
<input type="checkbox"/>	The project protects environmental or agricultural resources such as farm, range and forest lands; wetlands and wildlife habitats; recreational lands such as parks, trails, and greenbelts; or landscapes with locally unique features or areas identified by the state as deserving special protection. G3 – Provide a map highlighting the areas that will be protected.
<input type="checkbox"/>	The project is cited in one or more regional environmental management plans. G4 – Provide copies or links to these plans.
<input type="checkbox"/>	The project incorporates wastewater or storm water/urban runoff recycling, water conservation, energy conservation, low impact development, or reduced use of other vital resources. G5 – Explain the reason for the energy savings and the expected energy savings.
<input type="checkbox"/>	The project uses low-impact treatment for lower lifecycle operating costs through reduced energy, chemical, or other inputs. G6 – Explain the reason(s) for the reduced operating costs.

CERTIFICATION AND SIGNATURE OF AUTHORIZED REPRESENTATIVE

To the best of my knowledge and belief, I certify that I am authorized to submit this application; the information provided in this application is true and correct; the documentation has been duly authorized by the governing body of the applicant; and the entity possesses the legal authority to apply for the financing and enter into a financing agreement with the State Water Resources Control Board and to finance and construct the proposed facilities.

Name of Authorized Representative: _____ Title: _____

Signature of Authorized Representative: _____ Date: _____

HOW DID YOU HEAR ABOUT THE CWSRF PROGRAM?

- California Financing Coordinating Committee (CFCC) Funding Fair Colleague State Water Board Letter
- Conference/Trade Show/Workshop (Specify): _____ Employer/Employee
- Consultant Internet Publication Other (Specify): _____