



Operations Committee Meeting
Tuesday, February 2, 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 March 4, 2020 and N-29-20 issued on March 18, 2020 the Operations Committee 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 vis the following Zoom registration link: <https://zoom.us/j/99992916216?pwd=Z1p2VEFMNUhsSlVGYzRDZ1ZBL3poZz09> Meeting ID: 999 9291 6216 or by telephone 669-900-9128.

Members of the public wanting to address the Committee, 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

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. DISCUSSION / ACTION ITEMS

- 3.1. Collection System Rehabilitation and Replacement Project Update 3 - 21
[3.1 Collection System Rehabilitation & Replacement Project.pdf](#) 
[3.1 Attachment A - Board Presentation v5 012721.pdf](#) 
- 3.2. Influent Pump Station Rehabilitation Project Update 22 - 23
[3.2 Influent Pump Station Rehabilitation Project.pdf](#) 
[3.2 Attachment A - Bypass Plan.pdf](#) 
- 3.3. Reclaimed Water Project - Phase 1 Update 24 - 26
[3.3 Reclaimed Water Project - Phase I.pdf](#) 
[3.3 Attachment A - BODR Site Plan.pdf](#) 

4. FUTURE MEETING ITEMS

5. 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.



**Valley Sanitary District
Operations Committee
February 2, 2021**

TO: Operations Committee
FROM: Ron Buchwald, Engineering Services Manager
SUBJECT: Project Update: Collection System Rehabilitation & Replacement Project

<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 a project update and information regarding VSD’s Collection System Rehabilitation and Replacement Project. A PowerPoint presentation will be provided.

Strategic Plan Compliance

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

Fiscal Impact

The current fiscal year impact of this project is \$2,643,928 million as shown in the CIP budget. The total estimated construction cost of this project is \$57,520,000 to be spent over the next ten years. In total, this is a substantial and significant project and one of VSD’s largest.

Background

This project began in early 2018 and at that time was intended to be a 10-year project. This project has started slower than anticipated for several reasons. We have built a strong foundational program that we can build on over the next 10 years. We have also built a good team with the consultant. We are now just getting some smaller projects out for construction to get a better feel on how to continue to move forward with larger projects. We are also working through some difficult, challenging issues now so that we can tackle them in the future.

Recommendation

To continue to fund this important project by raising sewer rates and acquiring debt.

Attachments

Attachment A: PowerPoint presentation



VALLEY SANITARY DISTRICT COLLECTION SYSTEM INFRASTRUCTURE PROJECT

Board Operation Committee

February 2, 2021

AGENDA

- Program Background
- Total Program Costs
- Expenditures by Year
- Collection System by the Numbers
- Sewer Pipeline Condition
- Major Components of the Program
- Capital Improvement Projects
- Tracking Program Success



PROGRAM BACKGROUND



- Collection System Infrastructure Project Objectives:
 - Maintain excellence of service to rate payers
 - Maintaining a high standard of operations and maintenance
 - Forward thinking in planning for facility and operational needs
 - Achieving cost efficiency and effectiveness

TOTAL PROGRAM COSTS

PLANNING OPINION OF PROBABLE CONSTRUCTION COSTS

January 25, 2021

VALLEY SANITARY DISTRICT SEWER IMPROVEMENT SUMMARY OF COSTS

LOCATED IN CITY OF INDIO, CALIFORNIA

12 YEAR PROGRAM COST

Item	Item Description	LF	Item Total
1	Rehabilitation of Sewer Mains and Manholes (CIPP)	65,990	\$9,810,348
2	Point Repair	1,380	\$933,816
3	Realignment	18,389	\$13,728,559
4	Replacement In Place Sewer Mains and Manholes	11,125	\$4,575,600
5	Budgeted Not Yet CCTV'd / Assumed Repairs For Sewer Mains Not Inspected	20,127	\$8,052,930
6	Replace In Place Sewer Manholes Outside of Improvement of Mains	25	\$393,000
7	Inspections By Outside Forces	37,306	\$265,610
Sub-Total Construction Costs			\$37,759,863
Soft Costs:			
	Project Management (6%)		\$ 2,265,592
	Design / Survey / Geotech / Misc. (10%)		\$ 3,775,986
	CM / Inspection / Material Testing (10%)		\$ 3,775,986
Sub-Total Soft Costs			\$ 9,817,564
Total			\$ 47,577,427
Escalation (3.36% - 12 Year Distribution) Total			\$57,519,734



Harris & Associates



EXPENDITURES BY YEAR



VSD 12 Year Program - Forcasted Expenses By Year



	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Budgeted Annual Construction Cost	\$529,510	\$1,809,854	\$2,200,000	\$3,892,190	\$4,853,740	\$5,815,280	\$5,815,280	\$4,853,740	\$3,892,190	\$2,930,650	\$1,969,100	\$1,007,560	\$37,759,868
Annual Escalation Construction Cost	\$0			\$405,663	\$685,963	\$1,044,862	\$1,275,363	\$1,263,338	\$1,177,881	\$1,015,163	\$771,166	\$441,707	\$8,081,107
Forecasted Construction Cost	\$0	\$530,138	\$2,200,000										
Budgeted Annual Program Soft Cost	\$451,900	\$834,074	\$700,000	\$1,233,980	\$1,473,430	\$1,473,430	\$1,233,980	\$994,530	\$755,070	\$515,620	\$515,620	\$276,170	\$9,817,570
Annual Escalation Program Soft Cost	\$0			\$128,611	\$208,235	\$264,739	\$270,627	\$258,858	\$228,504	\$178,608	\$201,934	\$121,071	\$1,861,188
Actual Program Soft Cost	\$251,002	\$152,056											
Projected Program Soft Cost	\$0	\$242,682	\$700,000										
Total Annual Budgeted Cost	\$981,410	\$2,643,928	\$2,900,000	\$5,660,444	\$7,221,368	\$8,598,311	\$8,595,250	\$7,370,466	\$6,053,645	\$4,640,041	\$3,457,821	\$1,846,508	\$57,519,734
Total Program Cost (Actual + Projected)	\$251,002	\$924,876	\$2,900,000										

COLLECTION SYSTEM BY THE NUMBERS

COLLECTION SYSTEM INVENTORY:

- Sewer Pipeline – 1,332,487 Linear feet
- Manholes - 4,910 each

COLLECTION SYSTEM AGE			
Pipe Age	Current % of System	In 5 years	In 10 years
50-75 years	24% (Prior to 1971) (1.7% over 75-yr)	27% (Prior to 1976)	37% (Prior to 1981)
50 years to 25 years	32% (1971 to 1996)	37% (1976 to 2001)	63% (1981 to 2006)

Typical Lifespan of Sewer

- Clay pipe: 75+ years (maintenance much higher due to its brittle nature)
- PVC pipe: 100 years before requiring replacement
- Cured-In-Place-Liner: 50+ years and perform as well or better than original sewer piping materials



MAJOR COMPONENTS OF THE PROGRAM

- INSPECTION
- ASSESSMENT
- PRIORITIZATION
- DESIGN
- CONSTRUCTION



MAJOR COMPONENTS OF THE PROGRAM (CONT'D)

INSPECTION (10-year cycle)

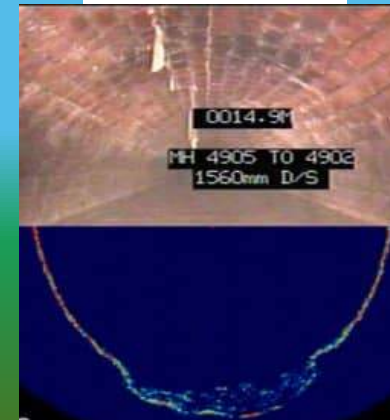
- CCTV'd Sewer Pipeline – 1,095,948 linear feet (82%) (2008-2020)
 - Inspect approximately 120,000 lineal feet per year
- Non-CCTV'd Sewer Pipeline – 236,539 linear feet (18%)



CCTV Inspection



Sonar CCTV Inspection



MAJOR COMPONENTS OF THE PROGRAM (CONT'D)

INSPECTION SEWER PIPELINE CONDITION



Sewer Pipeline (QRS) Grading CCTV Table*

Quick Rating Structural (QRS) Grading	Linear Foot of VSD CCTV'd Sewer Pipeline (LF)*	Percentage of VSD Sewer Pipeline Inspected
5	17,402	1.4%
4	71,277	5.3%
3	61,912	4.6%
1/2	219,335	16.5%
No Defect found	726,022	54.4%
Pending Values	236,539	17.8%
Total=	1,332,487	100.0%

QRS Rating

- 5 – Most significant defect grade
- 4 – Significant defect grade
- 3 – Moderate defect grade
- 2 – Minor to moderate defect grade
- 1 - Minor defect grade

MAJOR COMPONENTS OF THE PROGRAM (CONT'D)

INSPECTION MANHOLE CONDITION



Inspected Condition of VSD Sewer Manholes (Includes Trough, Bench or Wall)	Quantity (Each)	Percentage of VSD Sewer Manhole Inspected
3 (Poor)	35	0.8%
2 (Fair)	125	3.0%
1 (Good)	3,807	90.9%
0 (Manholes not accessible due to easement challenges)	220	5.3%
Total=	4,910	

MAJOR COMPONENTS OF THE PROGRAM (CONT'D)

ASSESSMENT

Proposed Rehabilitation Methods

- Point Repair
- Cured In Place Pipe
- Realignment of sewer mains
- Replacement of sewer mains in place
- Manhole rehabilitation



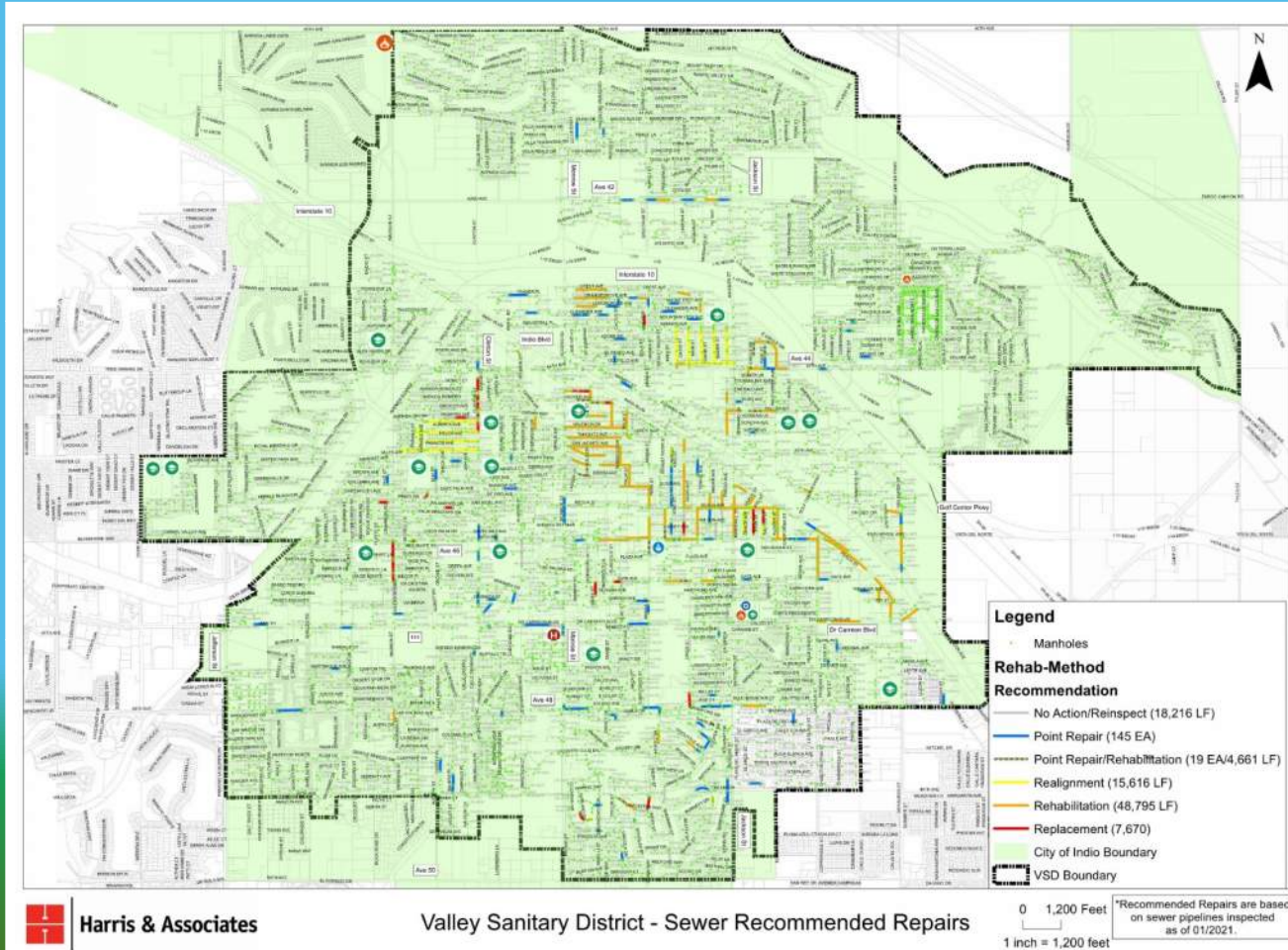
Pipe Bursting



MAJOR COMPONENTS OF THE PROGRAM (CONT'D)



ASSESSMENT



Harris & Associates

Valley Sanitary District - Sewer Recommended Repairs



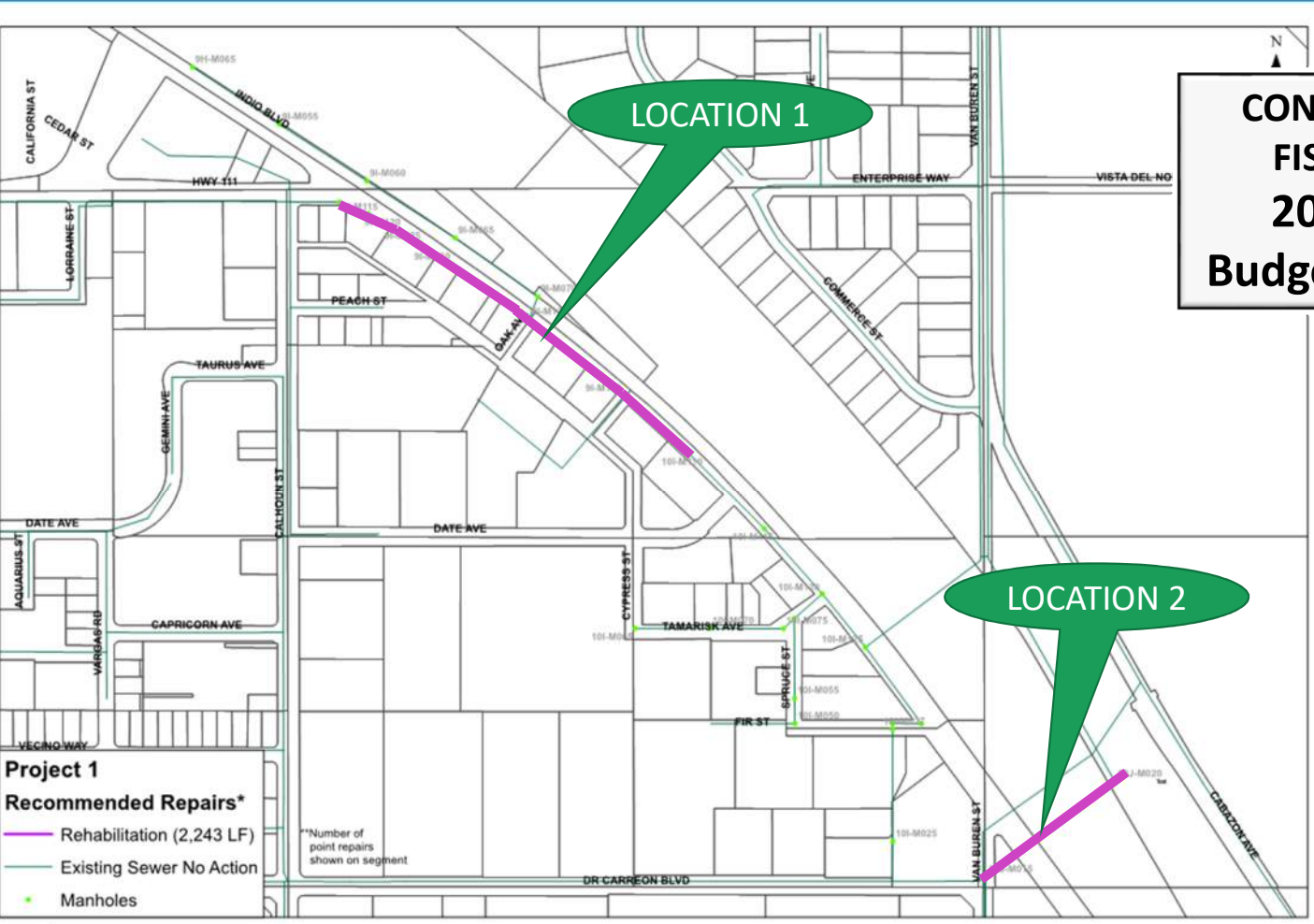
VSD

CAPITAL IMPROVEMENT PROJECTS

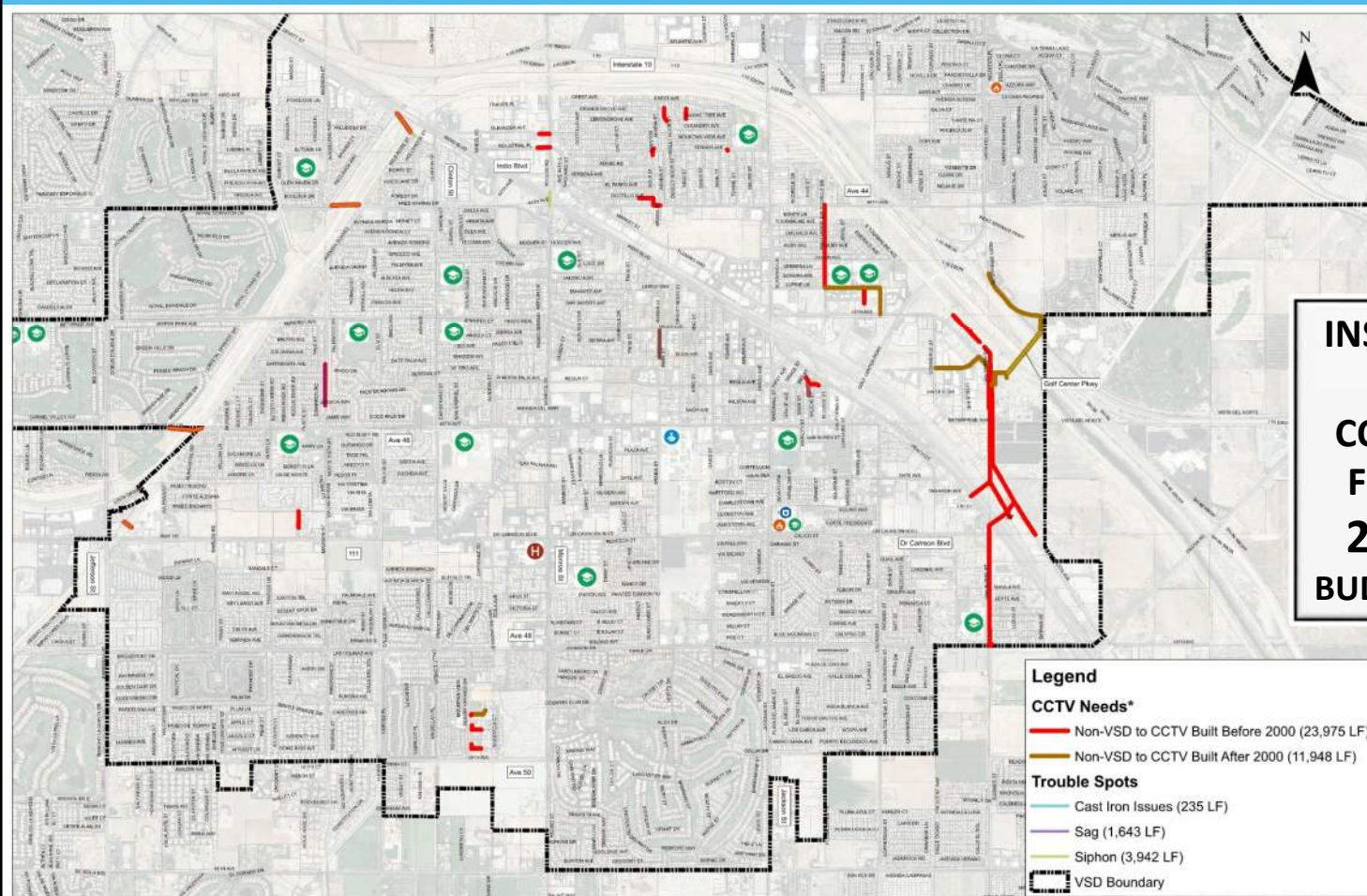
CAPITAL IMPROVEMENT PROJECTS (CONT'D)



**CONSTRUCTION
FISCAL YEAR
2020-2021
Budget \$265,000**



CAPITAL IMPROVEMENT PROJECTS (CONT'D)



**INSPECTION BY
OUTSIDE
CONTRACTOR
FISCAL YEAR
2020-2021
BUDGET \$265,000**

- Legend**
- CCTV Needs***
- Non-VSD to CCTV Built Before 2000 (23,975 LF)
 - Non-VSD to CCTV Built After 2000 (11,948 LF)
- Trouble Spots**
- Cast Iron Issues (235 LF)
 - Sag (1,643 LF)
 - Siphon (3,942 LF)
 - VSD Boundary

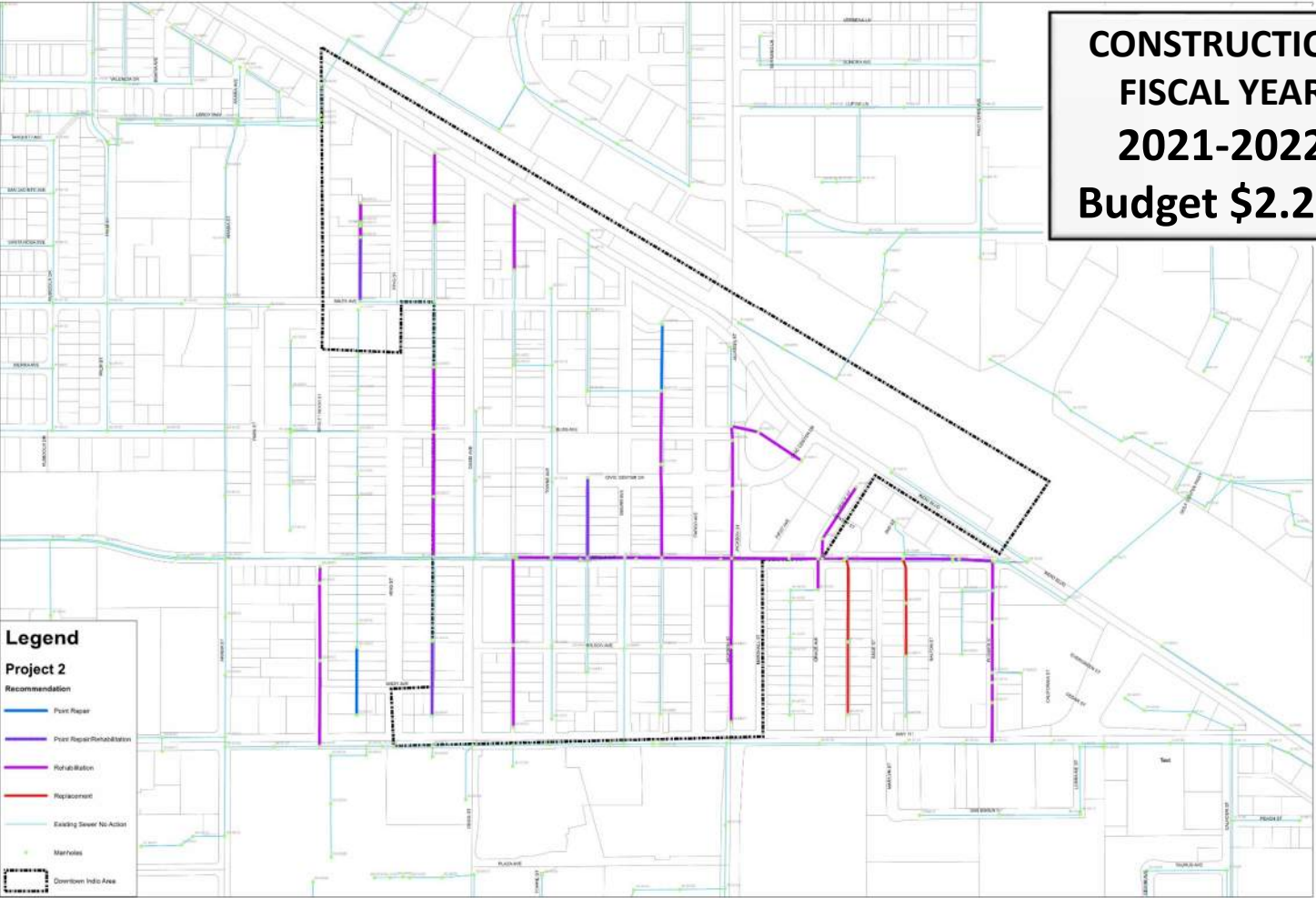
0 1,000 Feet
1 inch = 1,000 feet
06/18/2018

*CCTV Needs is based on no historical CCTV data provided by VSD on 06/05/2018.

CAPITAL IMPROVEMENT PROJECTS (CONT'D)



**CONSTRUCTION
FISCAL YEAR
2021-2022
Budget \$2.2 M**

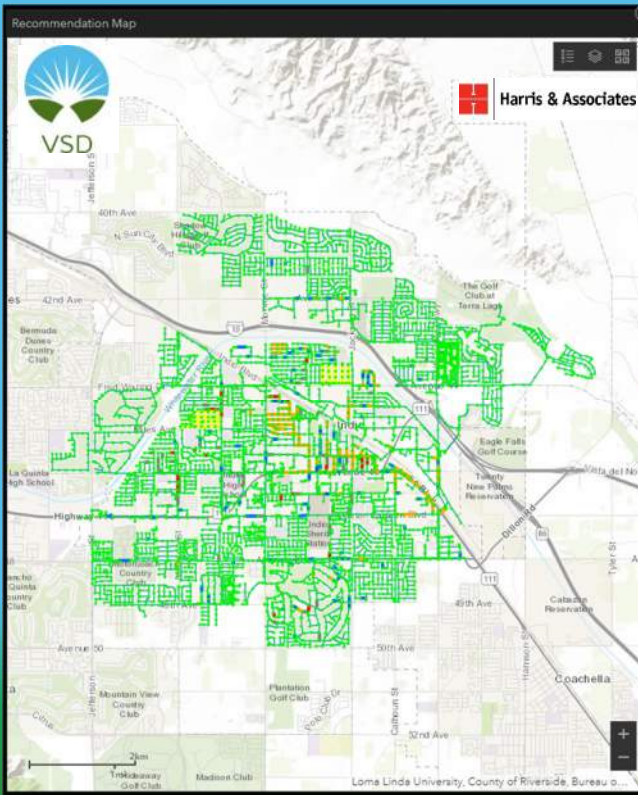


Legend
Project 2
Recommendation

- Patch Repair
- Patch Repair/Rehabilitation
- Rehabilitation
- Replacement
- Existing Sewer - No Action
- Manholes
- Downtown Indio Area

*Recommended Repairs are based on sewer pipelines inspected as of 01/2021.

TRACKING PROGRAM SUCCESS



Total Feet of Pipeline Inspected
5/9/2008 - 8/6/2020



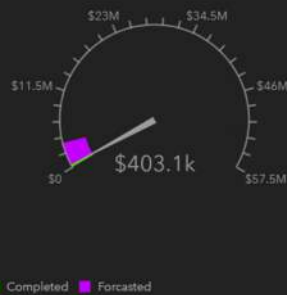
Point Repairs Completed



Lineal feet of Pipe Rehabilitation Completed



Total Program Budget

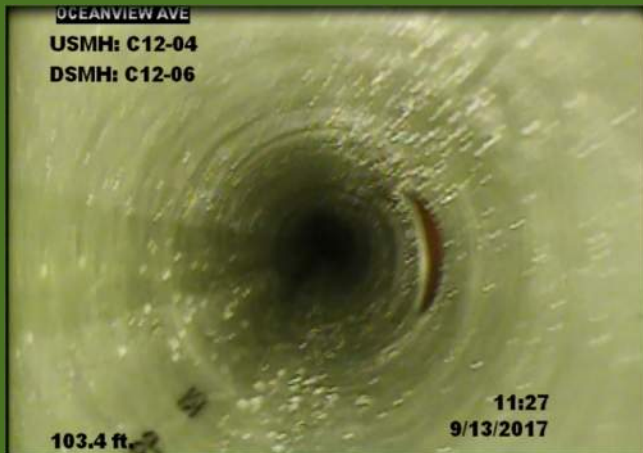


Lineal feet of Pipe Replacement Completed



Lineal feet of Pipe Realignment Completed





THANK YOU

Valley Sanitary District



**Valley Sanitary District
Operations Committee
February 2, 2021**

TO: Operations Committee
FROM: Ron Buchwald, Engineering Services Manager
SUBJECT: Project Update: Influent Pump Station Rehabilitation Project

<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 a project update and information regarding VSD’s Influent Pump Station Rehabilitation Project.

Strategic Plan Compliance

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

Fiscal Impact

The current fiscal year impact of this project is \$1.2 million as shown in the CIP budget. This should produce 60% design plans and a guaranteed maximum price (GMP) to construct. The total estimate price is \$2,600,000.

Background

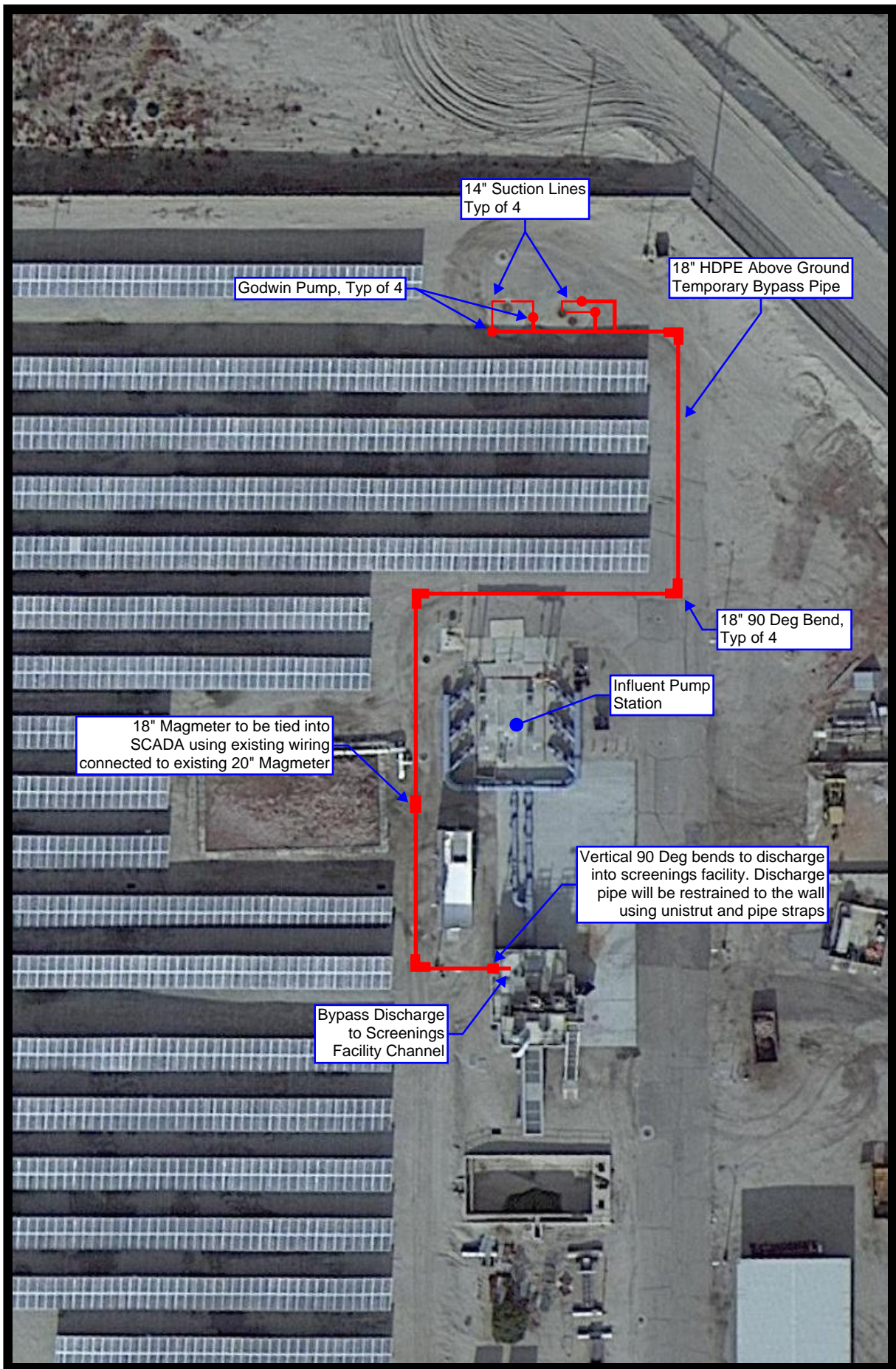
The influent pump station is showing significant signs of deterioration. Internal piping is losing their protective coating, the coating covering the walls is starting to show signs of failure, and gates sealing each pump bay are leaking. VSD has awarded the Design/Build project to Downing Construction and Dudek Engineering. This project consists of installing sewer main by-pass to fully inspect the influent pump station to determine the necessary repairs. The initial design and construction estimate will then be completed. A final award by the Board will then allow this project to continue to construction. The repairs are necessary to keep the influent pump station working properly. Postponing the repairs will cause permanent damage to the structure and/or cause a complete failure of the pump station.

Recommendation

To continue to fund this important project.

Attachments

Attachment A: By-pass plan diagram





**Valley Sanitary District
Operations Committee
February 2, 2021**

TO: Operations Committee

FROM: Ron Buchwald, Engineering Services Manager

SUBJECT: Project Update: Reclaimed Water Project – Phase I

<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 a project update and information regarding VSD’s Reclaimed Water Project Phase I.

Strategic Plan Compliance

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

Fiscal Impact

The current fiscal impact of this project is \$2.2 million which will produce 60% design plans. In fiscal year 2021/22, Staff will request from the Board the authorization to award the completion of design and construction of this project estimated to be about \$46 to \$50 million.

Background

The Reclaimed Water Project Phase I is the initial project of three phases that will allow VSD to be able to produce reclaimed water. This is a significant project that will replace and improve some treatment structures and provide redundancy for other treatment structures so that we can eventually decommission the ponds (Phase II) which will provide the needed area to construct additional treatment systems to meet upcoming regulatory requirements and to be able to produce reclaimed water (Phase III). Phase I is expected to be completed by early 2025.

Staff, along with the Design/Build team, have made progress towards the 30% design milestone. The team has determined ways to save money by eliminating the sludge holding tank by using the second digester as a holding tank. However, we have also determined that we will need to retain the north cell (pond) and build a small pump station in order to treat the effluent from the belt filter press which is high in ammonia.

Operation staff have been significantly involved in this project which has provided tremendous value in creating a well thought out initial design (they are part of the

reason that a sludge holding tank was determined to be not needed). However, this has also created a burden on staff as they need to find time to be involved in this project as well as do their everyday job duties.

Recommendation

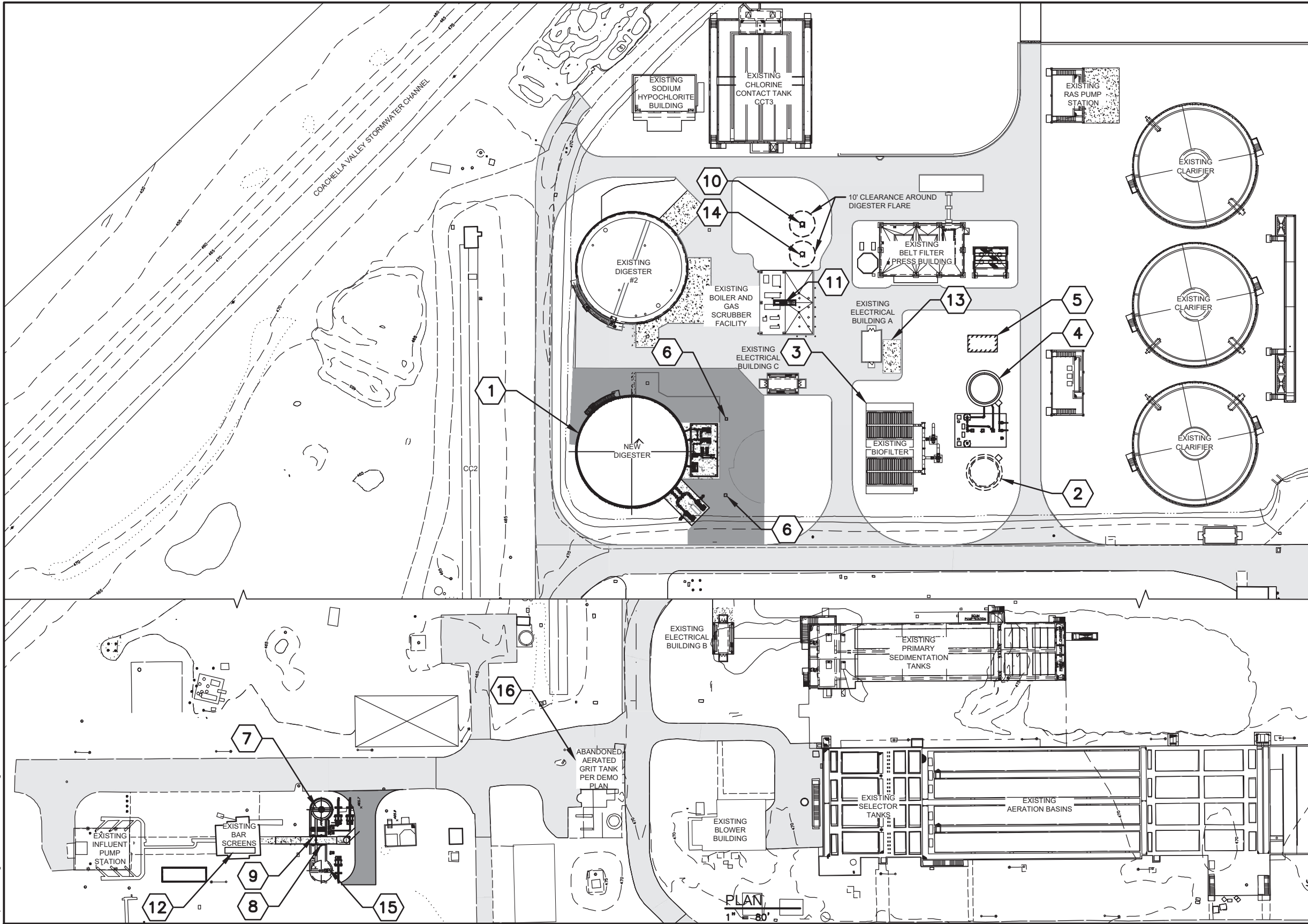
To continue to fund this important project by raising sewer rates and acquiring debt.

Attachments

Attachment A: 30% Site plan showing existing and proposed facilities

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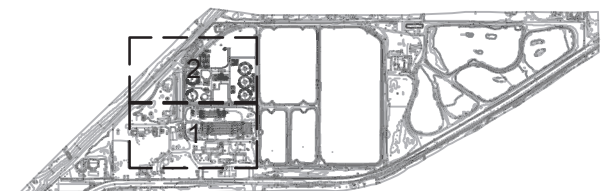
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KEYNOTES

- 1 NEW DIGESTER
- 2 FUTURE DISSOLVED AIR FLOTATION THICKENER (DAFT)
- 3 EXISTING BIOFILTER
- 4 NEW DAFT
- 5 PROPOSED DAFT ELECTRICAL BUILDING (20' X 10')
- 6 PROPOSED CATCH BASIN
- 7 NEW GRIT CHAMBER
- 8 NEW CONCRETE CHANNEL
- 9 BYPASS GATE
- 10 NEW DIGESTER GAS FLARE (5' X 5')
- 11 NEW BOILER
- 12 NEW BAR SCREEN
- 13 EXISTING GENERATOR PAD
- 14 EXISTING DIGESTER GAS FLARE
- 15 FUTURE GRIT CHAMBER
- 16 EXISTING AERATED GRIT TANK TO BE ABANDONED

NOTE: LAYDOWN AREAS WILL BE DETERMINED DURING DESIGN.



KEYMAP NO SCALE



LEGEND

	PROPOSED CONSTRUCTION		EXISTING AC PAVING
	EXISTING		PROPOSED CONCRETE
	PROPOSED AC PAVING		EXISTING CONCRETE

Client/Project
VALLEY SANITARY DISTRICT
 WATER RECLAMATION FACILITY IMPROVEMENTS

Project No. 184031335

Title SITE PLAN	
Revision	Date 2021.01.14
Reference Sheet	Figure No. 2-5



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