**DUE TO THE COVID-19 STATE OF EMERGENCY AND PURSUANT TO WAIVERS TO CERTAIN BROWN ACT PROVISIONS UNDER THE GOVERNOR'S EXECUTIVE ORDERS, THIS MEETING IS BEING CONDUCTED VIA TELECONFERENCE AND THERE WILL BE NO PHYSICAL LOCATION FROM WHICH MEMBERS OF THE COMMITTEE OR PUBLIC MAY PARTICIPATE**

**MEMBERS OF THE COMMITTEE AND PUBLIC ARE TO PARTICIPATE IN THE COMMITTEE MEETING BY GOING TO https://us02web.zoom.us/j/83409890232 OR BY CALLING 1-669-900-6833 or 1-346-248-7799 or 1- 253-215-8782 or 1-301-715-8592 or 1-312-626-6799 or 1-929-205-6099 (WEBINAR/MEETING ID: 834 0989 0232).**

MEMBERS OF THE PUBLIC WISHING TO ADDRESS THE COMMITTEE UNDER PUBLIC COMMENT OR ON A SPECIFIC AGENDA ITEM MAY SUBMIT WRITTEN COMMENTS TO OUR BOARD SECRETARY BY EMAIL AT DWASHBURN@RAINBOWMWD.COM OR BY MAIL TO 3707 OLD HIGHWAY 395, FALLBROOK, CA 92028. ALL PUBLIC COMMENTS RECEIVED **AT LEAST ONE HOUR IN ADVANCE OF THE MEETING** WILL BE READ TO THE COMMITTEE DURING THE APPROPRIATE PORTION OF THE MEETING. THESE PUBLIC COMMENT PROCEDURES SUPERSEDE THE DISTRICT'S STANDARD PUBLIC COMMENT POLICIES AND PROCEDURES TO THE CONTRARY.

# ENGINEERING AND OPERATIONS COMMITTEE MEETING

**RAINBOW MUNICIPAL WATER DISTRICT**
**Wednesday, November 4, 2020**
**Engineering and Operations Committee Meeting - Time: 3:00 p.m.**

| | | |
|---|---|---|
| **District Office** | **3707 Old Highway 395** | **Fallbrook, CA 92028** |

Notice is hereby given that the Engineering and Operations Committee will be holding a regular meeting beginning at 3:00 p.m. on Wednesday, November 4, 2020.

## AGENDA

1. **CALL TO ORDER**

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL: Flint Nelson (Chair) _____ Mick Ratican (Vice Chair) ____**

   **Members:** Helene Brazier_____ Robert Marnett _____

   **Alternates:** Tracy Largent _____

4. **INSTRUCTIONS TO ALLOW PUBLIC COMMENT ON AGENDA ITEMS FROM THOSE ATTENDING THIS MEETING VIA TELECONFERENCE OR VIDEO CONFERENCE**

   ***CHAIR TO READ ALOUD*** *- "If at any point, anyone would like to ask a question or make a comment and have joined this meeting with their computer, they can click on the "Raise Hand" button located at the bottom of the screen. We will be alerted that they would like to speak. When called upon, please unmute the microphone and ask the question or make comments in no more than three minutes.*

   *Those who have joined by dialing a number on their telephone, will need to press *6 to unmute themselves and then *9 to alert us that they would like to speak.*

   *A slight pause will also be offered at the conclusion of each agenda item discussion to allow public members an opportunity to make comments or ask questions."*

**5. SEATING OF ALTERNATES**

**6. ADDITIONS/DELETIONS/AMENDMENTS TO THE AGENDA (Government Code §54954.2)**

**7. PUBLIC COMMENT RELATING TO ITEMS NOT ON THE AGENDA (Limit 3 Minutes)**

***8. APPROVAL OF MINUTES**
**A.** October 7, 2020

**9. GENERAL MANAGER COMMENTS**

**10. DISTRICT ENGINEER COMMENTS**

**11. OPERATIONS MANAGER COMMENTS**

**12. COMMITTEE MEMBER COMMENTS**

**13. BOARD ACTION UPDATES**

***14. THOROUGHBRED LIFT STATION/FORCE MAIN DRAFT INITIAL STUDY MITIGATED NEGATIVE DECLARATION REVIEW**

**15. WSUP PROJECT UPDATE**

**16. AS-NEEDED REQUEST FOR PROPOSAL FOR PROJECT MANAGEMENT ON VARIOUS PROJECTS THROUGHOUT THE DISTRICT**

***17. AS-NEEDED SERVICES EXPENDITURES SUMMARY**

**18. POSSIBLE REFUNDING OF BACKFLOW TESTING CHARGES**

***19. CIP STRATEGIC PLAN DISCUSSION AND REVIEW OF DRAFT PLAN**

**20. LIST OF SUGGESTED AGENDA ITEMS FOR THE NEXT SCHEDULED ENGINEERING AND OPERATIONS COMMITTEE MEETING**

**21. ADJOURNMENT**

**ATTEST TO POSTING:**

FOR: Carl Rindfleisch
Secretary of the Board

10/29/20 @ 1:00 p.m.
Date and Time of Posting
Outside Display Cases

**MINUTES OF THE ENGINEERING AND OPERATIONS COMMITTEE MEETING OF THE RAINBOW MUNICIPAL WATER DISTRICT OCTOBER 7, 2020**

1. **CALL TO ORDER –** The Engineering and Operations Committee Meeting of the Rainbow Municipal Water District on October 7, 2020 was called to order by Chairperson Nelson at 3:00 p.m. in the Board Room of the District, 3707 Old Highway 395, Fallbrook, CA 92028. Chairperson Nelson, presiding.

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL:**

**Present:** Member Marnett, Member Nelson, Member Ratican, Alternate Largent *(via conference video)*.

**Also Present:** General Manager Kennedy, Executive Assistant Washburn, Information and Technology Specialist Espino.

**Absent:** Member Brazier, District Services Representative Holtz, Project Manager Tamimi.

**Present via Teleconference or Video:**

Operations Manager Gutierrez, Acting District Engineer Williams, Associate Engineer Powers, Engineering Technician Rubio, Information and Technology Manager Khattab, Construction and Maintenance Supervisor Lagunas.

Three members of the public were present via teleconference or video teleconference.

4. **INSTRUCTIONS TO ALLOW PUBLIC COMMENT ON AGENDA ITEMS FROM THOSE ATTENDING THIS MEETING VIA TELECONFERENCE OR VIDEO CONFERENCE**

Mr. Nelson read aloud the instructions for those attending the meeting via teleconference or video conference.

5. **SEATING OF ALTERNATES**

Ms. Largent was seated as an alternate.

6. **ADDITIONS/DELETIONS/AMENDMENTS TO THE AGENDA (Government Code §54954.2)**

There were no changes to the agenda.

7. **PUBLIC COMMENT RELATING TO ITEMS NOT ON THE AGENDA (Limit 3 Minutes)**

There were no comments.

**8. GENERAL MANAGER COMMENTS**

There were no comments.

**9. DISTRICT ENGINEER COMMENTS**

There were no comments.

**10. OPERATIONS MANAGER COMMENTS**

There were no comments.

**11. COMMITTEE MEMBER COMMENTS**

Mr. Marnett asked whether the water charges on his tax bill would no longer appear should RMWD detach from SDCWA. Mr. Kennedy explained some of these should drop off; however, these were still under discussion as part of the detachment process.

Mr. Nelson mentioned two topics with which he has concern. He said the first item was his having a hard time understanding what is transpiring with the CIP and not having received a completed document showing how the pieces the committee does receive fall into the overall program. He noted being of assistance to the District was challenging where the CIP is involved. He suggested having a graphic presentation of the CIP showing when projects will start so the committee members may be effective for the District. Mr. Williams stated staff was in the process of putting something together they will be ready to share at the November Engineering and Operations committee meeting.

Mr. Nelson stated his other concern was related to the funding for the water and wastewater CIP in addition to the costs associated with the Water Service Upgrade Project (WSUP) program. Mr. Kennedy explained staff has held discussions regarding this same concern and were in the process of aligning the budgets and projects. Mr. Flint clarified his point was more about having enough manpower to support the projects the committee approves but also whether adding manpower would be a great idea. He said he is having a hard time understanding pushing $6 million in CIP projects and the WSUP program with the current level of manpower; therefore, he suggested the District commit to meeting these goals and adding to the staff levels if necessary. Mr. Ratican suggested this be on the next committee agenda for further discussion.

Discussion ensued.

**12. BOARD ACTION UPDATES**

Mr. Kennedy reported the Board approved the Water Service Upgrade Project Change Order noting some of the details included in that change order. He noted the Board also approved the Morro Reservoir Mixing Option which will be up and running by the end of winter.

***13. APPROVAL OF MINUTES**

**A.** September 2, 2020

***Motion:***

***To approve the minutes.***

***Action: Approve, Moved by Member Ratican, Seconded by Member Marnett.***

***Vote: Motion carried by unanimous roll call vote (summary: Ayes = 4).***

***Ayes: Member Marnett, Member Nelson, Member Ratican, Alternate Largent.***

***Absent: Member Brazier.***

Mr. Nelson asked for approval of minutes ahead of the staff and committee member comment items.

## 14. NORTH RIVER ROAD SEWER ENHANCEMENTS

Mr. Gutierrez stated over the last several weeks SCW finished the remaining point repairs on North River Road as well as all the pavement. He said the project has now moved into Phase II. He said once the video inspection is complete, the lining process will begin. He noted Phase II is expected to be completed by the end of November and Phase III should start in January.

Mr. Ratican asked if the lining of the manholes was part of a separate contract. Mr. Gutierrez said it would go out as a separate contract as part of Phase III.

Discussion ensued.

Mr. Gutierrez recalled the committee wanted to see the specifications and how those will be sent out over the upcoming week.

## 15. WATER SERVICE UPGRADE PROJECT (WSUP) UPDATE

Mr. Kennedy recapped the action taken by the Board at their September meeting.

Mr. Gutierrez reported the project was nearly 25% complete. He noted 100 boxes have been backfilled. He mentioned there was a little increase in high usage complaints for which staff goes to meet with the customers to explain the recent meter exchanges and possibly hot weather may be impacting their usage.

Mr. Ratican said he would like to see a schedule when steps in this project will be caught up. He specifically noted in his neighborhood there are twenty holes that have not been filled in and how on his lot the hole was so deep flagging was put into place but because it has been there so long it has since disappeared. He suggested it was getting to the point where the District is not looking very good due to these types of issues.

Mr. Nelson added Mr. Ratican was pointing this out as an indication that the District has areas that have not been backfilled for three months and recommended the District follow through completion of the meters first replaced as opposed to moving forward on the most convenient.

Mr. Williams explained the Change Order recently approved by the Board was part of the process of getting the oldest replaced meters backfilled first.

Mr. Ratican pointed out it was in conversations with his neighbors who have expressed their displeasure of having holes around their meters which was a poor reflection on the District. Mr. Kennedy assured staff will get the contractor to reprioritize this portion of the project.

Mr. Kennedy mentioned the postcards that will be sent out to the customers regarding the meter exchanges as well as introduce the Flume device to those customers who have not already installed them to their meters.

**16. OLIVE HILL CONSTRUCTION PROJECT UPDATES**

Mr. Williams reported the Olive Hill project is complete and how the Notice of Completion will be presented to the Board at their December meeting for consideration. He noted the day the valves were turned on the RMWD system operators recorded an immediate 500gpm increase going into the Morro Zone which is a huge benefit to the District.

***17. PROFESSIONAL SERVICES AGREEMENT WITH PALOMAR BACKFLOW TESTING THROUGHOUT THE DISTRICT**

Mr. Kennedy provided some background on the backflow testing situation in terms of how it has fallen behind for various reasons. He said considering this situation and to avoid falling behind for a second year, staff was proposing entering a contract with Palomar Backflow Testing to ensure by December 31, 2020 all backflow devices have been tested.

Mr. Gutierrez stated this appears to be a one-time scenario and professional services should not be necessary once the WSUP project is completed.

Mr. Marnett stated in 2018 there were approximately 1,000 backflow devices that were not tested; however, all the 4,400 customers billed for this testing. He said the customers should be credited for the incomplete work for which they were charged. He recommended staff find a means of working out crediting these accounts and getting it done. Mr. Kennedy said he would look into this matter further with the assistance of Legal Counsel and the Board.

Mr. Nelson asked for clarification that this contract will cover approximately 1,800 backflow tests at $75.00 per test and utilizing Palomar Backflow Testing would assist in catching up on all the testing as well as possibly getting a head start on the 2021 tests. Mr. Kennedy confirmed this was true. Discussion ensued regarding the term of the contract meeting the District's needs.

***Motion:***

***To approve Option 1 – To recommend the Board approve the PSA with Palomar Backflow in the amount not to exceed $140,000 for backflow testing services.***

***Action: Approve, Moved by Member Ratican, Seconded by Member Marnett.***

***Vote: Motion carried by unanimous roll call vote (summary: Yes = 4).***

***Yes: Alternate Largent, Member Marnett, Member Nelson, Member Ratican.***

**18. CFD FOR PARDEE**

Mr. Kennedy explained the funding from the developers was important and upon entering an agreement with Pardee earlier this year for the annexation of 800+ home development into RMWD, it included an agreement RMWD would form a Community Facilities District (CFD) for them to pay their capacity fees through the bond proceeds of the CFD. He pointed out RMWD did not anticipate receiving this revenue in FY20 but is forecasted for FY21. He stated approximately 3-4 weeks ago, Pardee's Bond Council sent RMWD an agreement to form the CFD and acquisition of facilities agreement. He said within this agreement, Pardee indicated they were not going to issue the full amount, but rather RMWD would receive half the agreed upon sewer capacity fees as part of this bond issuance. He noted although he was confident Pardee will do as much bonded indebtedness as physically possible through their ability to sell the homes, RMWD's current annexation

agreement did not contemplate two tranches of the bonds and how the mechanisms within that for RMWD to compel Pardee to issue the debt, was not very strong in terms of recovering the remaining money if somehow happens and the second round of debt is not issued outside of a Breach of Contract which was much more difficult to enforce. He noted as of yesterday afternoon, an agreement was reached between the two parties in which Pardee agrees to do the second round of financing when they reach a stipulated construction milestone. He pointed out should the stipulated milestone not be reach, Pardee will pay RMWD 100% of its money on March 1, 2024 drop dead deadline. He mentioned an amendment to the Annexation Agreement, Acquisition Agreement as well as the resolution required to form the CFD will go to the Board on October 27, 2020 for consideration.

Mr. Ratican asked if the number of pads was their lender's requirement as opposed to a legal acquirement. Mr. Kennedy explained it was a requirement to issue the debt through a CFD, there must be a 4-1 ratio value in the land.

Mr. Nelson inquired as to whether there was a capital project in the budget for the work RMWD was going to do using these collected funds. Mr. Kennedy explained these funds are inarticulately included in the budget; however, staff now has the accurate information which will be provided to this committee in November.

Mr. Ratican asked if this CFD was strictly to reimburse RMWD for facilities it was building for their project. Mr. Kennedy clarified it was Pardee's wastewater capacity fees to pay for the infrastructure needed for them to access the District's trunk system. Mr. Ratican inquired as to whether RMWD would be obligated in this agreement to build these offsite facilities. Mr. Kennedy clarified RMWD was not obligated in the agreement to build them; however, the facilities do need to be built for Horse Ranch Creek.

**19. SANEXEN – AQUA PIPE LINING PROJECT**

Mr. Williams provided information related to this project. He said utilizing the current pipe on a pressurized potable water main was not a common practice on the west coast. He stated in light of this information, staff has been in discussions with two separate companies who claim they are able to perform the necessary work on a steel-coated pipe; therefore, staff was working with both companies in preparation for a pilot project to be conducted at the District headquarters. He mentioned discussions were held with the both companies regarding some of staff's concerns and how assurance was given the work could be done by both.

Mr. Williams noted this was going to the Board in October for consideration.

Discussion ensued.

**20. AS-NEEDED SERVICES EXPENDITURES SUMMARY**

Mr. Nelson inquired as to the cancelled Dudek contract being listed on the summary. Mr. Kennedy confirmed this item should be zero.

Mr. Williams pointed out the two new columns added at the recommendation of the committee. He explained the Harris & Associates inspection services was per an assignment letter to cover any lapse in the District Inspector's availability.

Mr. Kennedy mentioned staff was continuing to broaden the net to capture additional as-needed engineering services after which proposals will be brought to this committee for review and discussion.

Discussion ensued.

**21. LIST OF SUGGESTED AGENDA ITEMS FOR THE NEXT SCHEDULED ENGINEERING AND OPERATIONS COMMITTEE MEETING**

It was noted the North River Road sewer enhancements, an update on WSUP, an as-needed Request for Proposal, possible refunds of backflow testing charges, and a CIP plan should be on the next committee agenda.

**22. ADJOURNMENT**

***The meeting was adjourned by Chairperson Nelson.***

The meeting adjourned at 4:44 p.m.

**Flint Nelson, Committee Chairperson**

**Dawn M. Washburn, Board Secretary**

# Rainbow Municipal Water District Lift Station No. 1 Replacement Project

## Draft Initial Study and Mitigated Negative Declaration

Prepared for:

**Rainbow Municipal Water District**
3707 Old Highway 395
Fallbrook, CA 92028

Prepared by:
**HELIX Environmental Planning, Inc.**
7578 El Cajon Boulevard, Suite 200
La Mesa, CA 91942

October 2020 | KJC-19

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# 1.0 INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared in accordance with relevant provisions of the California Environmental Quality Act (CEQA) of 1970, as amended, and the CEQA Guidelines, as revised. This IS/MND evaluates the environmental effects of the Lift Station No. 1 Replacement Project (proposed project). The project site is located within the Rainbow Municipal Water District (District) service area) near the center of the unincorporated community of Bonsall in the County of San Diego. The District is the lead agency for the proposed project. The IS/MND includes the following components:

- A Draft MND and the formal findings made by the District that the project would not result in significant effects on the environment, as identified in the IS Checklist.
- A detailed Project Description.
- The CEQA IS Checklist, which provides standards to evaluate the potential for significant environmental impacts from the proposed project, is adapted from Appendix G of the CEQA Guidelines. The project is evaluated in 20 environmental issue categories to determine whether the project's environmental impacts would be significant in any category. Brief discussions are provided that further substantiate the project's anticipated environmental impacts in each category.

Because the proposed project fits into the definition of a "project" under Public Resources Code Section 21065 requiring discretionary approval by the District and because it could result in a significant effect on the environment, the project is subject to CEQA review. The IS Checklist was prepared to determine the appropriate environmental document to satisfy CEQA requirements: an Environmental Impact Report, an MND, or a Negative Declaration. The analysis in this IS Checklist supports the conclusion that the project would not result in significant environmental impacts with the incorporation of mitigation measures; therefore, an MND has been prepared.

This IS/MND will be circulated for 30 days for public and agency review, during which time individuals and agencies may submit comments on the adequacy of the environmental review. Following the public review period, the District will consider any comments received on the IS/MND when deciding whether to adopt the MND.

# 2.0 PROJECT DESCRIPTION

## 2.1 Project

Lift Station No. 1 Replacement Project

## 2.2 Lead Agency

Rainbow Municipal Water District

## 2.3 Contact Person and Phone

Chad Williams, Acting District Engineer
Rainbow Municipal Water District
(760) 728-1178 ext. 144

## 2.4 Project Location

The proposed project is generally located in the unincorporated community of Bonsall, west of Interstate 15 and approximately 12 miles inland from the Pacific Ocean in northwest San Diego County, California (Figure 1, *Regional Location Map*). More specifically, the project alignment is located along Old River Road, Golf Club Drive, Camino Del Rey, and a segment of State Route (SR) 76 from where it intersects with Camino Del Rey/Olive Hill Road to approximately 0.25 mile north of where it meets South Mission Road (Figure 2, *Project Alignment*).

## 2.5 Applicant

Rainbow Municipal Water District

## 2.6 General Plan Designations

Public Agency Lands, Public/Semi-Public Facilities, General Commercial, Village Residential (VR-7.3), Semi-Rural Residential (SR-10), Rural Lands (RL-40), Public Agency Lands, and Open Space (Recreational)

## 2.7 Zoning

Commercial and Office, Open Space, Agricultural, Rural Residential, Residential - Variable

## 2.8 Project Description

Background

The District provides water distribution and wastewater collection to the unincorporated communities of Rainbow and Bonsall, and portions of Pala, Fallbrook and the city of Vista in northern inland San Diego County. The District service area, which covers approximately 82 square miles, is responsible for providing sewer service to approximately 2,500 households and businesses within its service area mainly along the SR 76 corridor. The District's service area comprises a primarily gravity flow system of collection pipes, six lift stations, and 10.5 miles of transmission main. All wastewater collected within the District is transmitted to the San Luis Rey Wastewater Treatment Plant (SLRWTP), which is owned and operated by the City of Oceanside and located at 3950 North River Road in Oceanside, CA. The District owns, through contract with the City of Oceanside, capacity to treat 1.5 million gallons of sewage per day at the SLRWTP. The District does not currently provide its own wastewater treatment of any kind; however, the District maintains the pipelines and pumping equipment within the District to the connection (outfall) to the City of Oceanside.

The proposed project would involve improvements to facilities associated with the District's existing Lift Station No. 1 (LS1) (Figure 2). LS1 would be retained in place and protected during construction of adjacent facilities. The proposed project includes two new lift stations (Thoroughbred LS and Schoolhouse LS), and the installation of seven segments of new sewer main to replace existing sewer

main; each of these project components is described further below, following a brief description of the District's existing facilities associated with LS1.

Existing Facilities

LS1 is located along Old River Road near the intersection with Golf Club Drive in the unincorporated community of Bonsall (Figure 2). LS1 is fed by two existing primary gravity sewer lines: the Northwest (LS1-NW) Interceptor and the Northeast (LS1-NE) Interceptor. The LS1-NW Interceptor lies along SR 76, where multiple sewer lines collect to it. The LS1-NW Interceptor then turns southeast and flows parallel to Camino Del Rey under the San Luis Rey River (River) through an inverted siphon, then along, but to the west of, Old River Road in the vicinity of Bonsall Elementary School to Moosa Creek where it meets and combines with the LS1-NE Interceptor. The LS1-NE Interceptor runs through the old San Luis Rey Downs Golf Course east of Bonsall Elementary School before combining with LS1-NW just west of Old River Road.

Once the two interceptors combine, the flows pass below Moosa Creek by gravity to the existing LS1. LS1 pumps through a relatively short force main, which discharges into a gravity sewer line located in Old River Road. Flows then travel almost 7,500 feet in a southwesterly direction to the District's existing Lift Station 2 (LS2) (Figure 2).

Proposed Project

The existing LS1 and associated sewer system is undersized for current and predicted future flows which, in combination with its current condition, requires replacement. To address the capacity problem and avoid the installation of a replacement inverted siphon across the River, the District proposes to split the flows associated with existing LS1 into two new lift stations—one for each of the two primary interceptors (LS1-NW and LS1-NE) described above. This would be accomplished by constructing two new lift stations, one on each side of the River: Thoroughbred LS on the northwest side and Schoolhouse LS on the southeast side (Figure 2). Each lift station would provide partial replacement of existing LS1. Following implementation of Phase 1 of the proposed project (described in detail below), the combination of Thoroughbred LS and Schoolhouse LS would fully replace existing LS1.

*Thoroughbred Lift Station*

Thoroughbred LS would be installed within Assessor's Parcel Number (APN) 126-452-01-00, which is located at the southwestern corner of the intersection of SR 76 and Thoroughbred Lane (Figure 2). Thoroughbred LS is designed with a rated capacity of approximately 2,000 gallons per minute (gpm) and includes the following primary components:

- Four (two duty and two standby) 50-horsepower (HP) submersible wastewater pumps housed in an acoustic enclosure inside the lift station structure.
- Two 10-foot diameter precast concrete wet wells.
- One approximately 400,000-gallon emergency/operational storage basin.
- One 175-kilowatt (kW) standby generator, housed in a building.
- A 6-foot concrete masonry unit (CMU) wall to fully enclose the site.

*Schoolhouse Lift Station*

Schoolhouse LS would be installed within Lot 25 of the new Golf Green Estates Development along Old River Road (Figure 2). Schoolhouse LS is designed with a rated capacity of approximately 550 gpm and includes the following primary components:

- Two (one duty and one standby) 10-HP submersible wastewater pumps
- One 12-foot diameter precast concrete wet well
- One approximately 100,000-gallon emergency storage basin
- One 50-kW standby generator, housed in an acoustic enclosure and surrounded by a sound attenuating wall.
- An existing 6-foot concrete masonry unit (CMU) wall currently surrounds half of the site; the proposed project would complete the wall to fully enclose the site.

*New/Replacement Sewer Mains*

The project would install a total of approximately 21,000 linear feet (LF) of new sewer main to replace existing sewer main of a similar length. New sewer main would be installed within roadways and existing trenches as much as possible Details of each new/replacement sewer main are as follows:

- LS2 Gravity Main. Approximately 7,800 LF of new 20- to 21-inch polyvinyl chloride (PVC) would parallel the existing LS2 gravity main that runs southwest towards LS2 along Old River Road. The replacement LS2 Gravity Main would be installed in Old River Road.

- Golf Club Drive Gravity Main. The existing 6-inch and 8-inch sewer main along Golf Club Drive near the intersection with Old River Road would be replaced with approximately 500 LF of new 8-inch PVC gravity main in the same trench, where possible, within Golf Club Drive. The replacement Golf Club Drive Gravity Main would convey wastewater from residences to a new manhole where the new Thoroughbred Force Main would also discharge.

- Schoolhouse Force Main. A force main of approximately 650 LF of new 6- to 14-inch PVC and ductile iron (DI) would be installed in a northeasterly direction from the proposed Schoolhouse LS location to a trench in Old River Road where it would discharge into a new manhole at the upstream end of the LS2 Gravity Main to convey the wastewater to LS2. The Schoolhouse Force Main would be attached to the side of the bridge where Old River Road crosses Moosa Creek. The 6-inch force main would combine with the 12-inch Thoroughbred Force Main after entering the street (Old River Road) and become a 14-inch combined force main.

- LS1-NE Gravity Main. Approximately 3,900 LF of 14-inch PVC would be installed along Camino Del Rey and Old River Road from a point of diversion of the existing LS1-NE Interceptor on the north end of the old San Luis Rey Downs Golf Course to the proposed Schoolhouse LS. This new gravity main alignment would replace the existing LS1-NE to the south of the point of diversion. Once the replacement LS1-NE is operational, the existing LS1-NE alignment that runs east of the school would be disconnected and abandoned in place.

- Thoroughbred Force Main. A force main of approximately 3,700 LF of new 10- to 12-inch PVC and DI would be installed from the Thoroughbred LS to where it would combine with the Schoolhouse Force Main near Schoolhouse LS and become a 14-inch combined force main in Old

River Road, prior to discharging into the manhole at the junction of Golf Club Drive and Old River Road. The force main would convey wastewater in a southerly direction to just west of SR 76, then in a southeasterly direction along Camino Del Rey. The Thoroughbred Force Main would be installed using trenchless methods (e.g., slip lining, cured-in-place pipe lining, or other trenchless methods) where it would cross the intersection of Olive Hill Road/Camino Del Rey and SR 76. The Thoroughbred Force Main would be attached to the side of the bridge where Camino Del Rey crosses the River, and then would continue in a southerly direction within Old River Road.

- Olive Hill Gravity Main. The existing 8-inch sewer main along Olive Hill Road connects to the LS1-NW interceptor at the intersection of Olive Hill Road/Camino Del Rey and SR 76. The Olive Hill Gravity Main would be rerouted prior to connecting to the LS1-NW interceptor and would convey wastewater in a northerly direction just west of and parallel to SR 76 to the Thoroughbred LS. Approximately 1,000 LF of new 8-inch PVC gravity main would be installed. The gravity main would include a trenchless crossing (e.g., microtunneling, open shield tunneling, or other trenchless methods) under an existing concrete storm channel.

- LS1-NW Gravity Main. Approximately 3,000 LF of 18-inch PVC would be installed along a segment of SR 76 from the proposed Thoroughbred LS to approximately 0.25 mile north of South Mission Road. This new gravity main alignment would replace the existing 12-inch LS1-NW pipeline to the north of the Thoroughbred Lane, and the existing LS1-NW south of Thoroughbred Lane to and east of Olive Hill Road would be abandoned in place. The gravity main would include a trenchless crossing (e.g., microtunneling, open shield tunneling, or other trenchless methods) under Ostrich Farms Creek, approximately 550 feet south of South Mission Road.

*Construction Phasing*

The project would be implemented in three phases. Phase 1 is anticipated to begin in August 2021 and construction would take approximately 12 months. Phase 1 would include construction of the Thoroughbred LS, installation of the Thoroughbred Force Main from the Thoroughbred LS to the existing manhole that the LS1 Force Main currently discharges to, the installation of the replacement LS1-NW gravity main north of the Thoroughbred LS, and the installation of the new gravity main from Olive Hill Road to Thoroughbred LS.

Phase 2 would include installing a new parallel gravity main alongside the existing LS2 gravity main and replacing the Golf Club Drive gravity sewer mains south of Moosa Creek. .

Phase 3 would include the construction of the Schoolhouse LS, installation of the Schoolhouse Force Main from the Schoolhouse LS to the intersection with the Thoroughbred Force Main in Old River Road, and installation of the replacement LS1-NW gravity main. After both the Thoroughbred LS and the Schoolhouse LS are fully operational, the existing LS1 would be removed from service and demolished.

Project Design Features

The proposed project includes a number of design features that have been built into the project to avoid or minimize environmental impacts. The District is responsible for working with the construction

contractor to ensure each project design feature is implemented and carried out at the appropriate time. The following features were assumed in the analysis:

*Air Quality*

- To reduce the effects to sensitive receptors, the project would comply with all applicable San Diego Air Pollution Control District (SDAPCD) Rules and Regulations, including Rule 55 related to fugitive dust emissions during construction, as a matter of project design. Rule 55 requires the following:

    1. No person shall engage in construction or demolition activity in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period; and

    2. Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall be minimized by the use of any of the equally effective trackout/carry-out and erosion control measures listed in Rule 55 that apply to the project or operation. These measures include: track-out grates or gravel beds at each egress point; wheel-washing at each egress during muddy conditions; soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; watering for dust control; and using secured tarps or cargo covering, watering, or treating of transported material for outbound transport trucks. Erosion control measures must be removed at the conclusion of each workday when active operations cease, or every 24 hours for continuous operations.

- Diesel emissions control measures would be implemented during project construction as a matter of project design; such measures require the construction fleet to use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and utilize California Air Resources Board (CARB)/U.S. Environmental Protection Agency (USEPA) Engine Certification Tier 3, or other equivalent methods approved by CARB.

*Biological Resources*

- As a matter of project design and following installation of the LS1-NE main, the trenched area at the northeastern end of the alignment (off Camino del Rey in the former golf course) would be returned to its pre-impact contours and revegetated with a native seed mix appropriate to the surrounding area.

- Where the proposed alignment crosses Moosa Creek and the San Luis Rey River, new sewer main would be suspended from existing bridges. In the northern portion of the alignment, sewer main would be installed across drainages between Olive Hill Road and the Thoroughbred LS and between the Thoroughbred LS and South Mission Road using trenchless methods (e.g., microtunneling, open shield tunneling, or other trenchless methods ). Launching and receiving pits for trenchless methods would be dug in disturbed areas within the ROW. By implementing this precaution as a matter of project design, impacts to non-wetland waters of the U.S. or waters of the State would be avoided.

- Impacts to non-wetland waters (seasonal drainage channels and streambed) along Old River Road would be avoided by employing construction fencing and flagging where the waters meet

Old River Road (as shown on Figures 5 and 6 of the project Biological Resources Letter Report [BLR]). By implementing this precaution as a matter of project design, impacts to non-wetland waters of the U.S. or waters of the State would be avoided.

- Impacts to sensitive vegetation communities would be avoided by employing construction fencing and flagging where such communities occur adjacent to the impact area (as shown on Figures 7a through 7d of the project BLR). By implementing this precaution as a matter of project design, impacts to sensitive vegetation communities would be avoided.

*Hazards and Hazardous Materials*

- As a matter of project design, the construction contractor would be required to prepare and comply with a traffic control plan which would include measures to minimize effects related to lane closures and ensure safe passage of evacuees or emergency response vehicles.

*Hydrology and Water Quality*

- A Storm Water Pollution Prevention Plan (SWPPP) would be prepared and implemented by the District and construction contractor. The SWPPP would include specific best management practices (BMPs) to avoid or reduce potential impacts related to the use and potential discharge of construction-related hazardous materials.

- During project construction, site design, source control, and treatment control BMPs would be implemented to prevent construction-related runoff (containing sediments, oil and grease, etc.) from entering the existing storm drain system. BMPs usually include a variety of measures to prevent discharge from entering the storm drain system, such as sandbags, silt fences, or tarps blocking the drains.

- BMPs prescribed in the SWPPP also would minimize on- and off-site erosion and drainage alteration impacts through implementation of temporary sediment control measures.

- Roadways would be returned to their original elevation and contours following completion of construction, thereby returning the storm drain collection system to its original state.

*Transportation and Traffic*

- The construction contractor would be required to prepare and implement a construction traffic control plan as a matter of project design to avoid significant construction-related impacts to nearby streets and intersections. The traffic control plan should include ingress and egress to and from the project site, as well as designated haul routes and use of flag persons.

- Trenchless methods (e.g., slip lining, cured-in-place pipe lining, or other trenchless methods) would be used to install sewer main below the intersection of Camino Del Rey and SR 76.

## 2.9 Surrounding Land Uses and Project Setting

The location of the proposed project is within the unincorporated community of Bonsall. Bonsall is a rural community in the foothills of the Peninsular Mountain Range in northern San Diego County. Local

topography is characterized by hills, valleys, and the River corridor adjacent to SR 76. Development in the area is predominantly low density, estate-type residential, with commercial activity centered in the Mission Road/Olive Hill Road and SR 76 area. The Bonsall Elementary School is located east of the intersection of Old River Road and Camino Del Rey. Land uses in the area also include agriculture and equestrian facilities.

As described above and shown on Figure 2, the proposed project involves improvements to sewer facilities located along SR 76, Camino Del Rey, Old River Road, and Golf Club Drive. The existing LS2 is located at the intersection of Old River Road and Little Gopher Canyon Road. The project proposes replacement of existing gravity main from LS2 to Golf Club Drive within the right-of way of Old River Road, which is surrounded by open space and agricultural land uses. Approximately 0.4 mile north of where Old River Road passes Dentro De Lomas Road, Old River Road bisects small residential subdivision as it approaches Golf Club Drive. Old River Road then turns 90 degrees northwest and continues towards Camino Del Rey. Disturbed land west of Old River Road in this area contains the site for the proposed Schoolhouse LS and an area where a future residential development is currently under construction (Golf Green Estates). On the east side of Old River Road across from the proposed Schoolhouse LS site is the North County Fire Protection District Station 5, and further north is the Bonsall Elementary School campus. Land that was formerly the San Luis Rey Downs golf course is located throughout the northeastern portion of the project area.

From Old River Road, Camino Del Rey crosses the River and connects to SR 76 at a signalized intersection. There is a gas station and a commercial/retail center near the site for the proposed Thoroughbred LS at the northeastern corner of this intersection between where Olive Hill Road continues westward and where Thoroughbred Lane intersects SR 76. A small residential development of approximately 80 homes lies to the west of SR 76, northwest of the proposed Thoroughbred LS and roughly 285 feet from the proposed replacement gravity main.

## 2.10 Other Required Agency Approvals

The District is both the project proponent and the Lead Agency under CEQA. In its role as Lead Agency, the District is responsible for ensuring the adequacy of this IS/MND. Internal review and approvals would be handled by District staff.

Encroachment permits from the County of San Diego and Caltrans would be required for work within roadway and bridge rights-of-way.

## 2.11 Consultation with California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Pursuant to Public Resources Code Section (PRC) 21080.3.1

In August of 2016, 28 local tribal groups and individuals were contacted based on recommendations from the Native American Heritage Commission (NAHC). A record search of the Sacred Lands file held by the NAHC returned with negative results.

Four tribes (the Pala Band of Mission Indians, the San Luis Rey Band of Mission Indians, the Rincon Band of Luiseno Indians, and the Viejas Band of Kumeyaay Indians) responded indicating that the project may be within their Traditional Use Areas and/or requested that the District include them in further correspondence about the project. The Viejas Tribe requested that a Kumeyaay cultural monitor and the

San Luis Rey Band Tribe requested that a Lusieño Native American cultural monitor be present during ground disturbing activities.

A formal consultation with the San Luis Rey Tribe of Mission Indians was held on November 5, 2018, and with the Pala Tribe on October 28, 2020, during which District staff provided an overview of the proposed project. Staff also indicated that this IS/MND requires that a Native American monitor shall be present during construction of the project as indicated by mitigation measure **CUL-1**. The District has also initiated consultation with the Rincon Band of Mission Indians, La Jolla Band of Luiseño Indians, San Pasqual Band of Mission Indians, and the Pauma Band of Luiseño Indians.

## 2.12 Summary of Environmental Factors Potentially Affected

A summary of the environmental factors potentially affected by this project, consisting of Potentially Significant Impact Unless Mitigated, include:

| | | |
|---|---|---|
| ☐ Aesthetics | ☐ Greenhouse Gas Emissions | ☐ Public Services |
| ☐ Agriculture & Forestry Resources | ☒ Hazards/Hazardous Materials | ☐ Recreation |
| ☐ Air Quality | ☐ Hydrology/Water Quality | ☐ Transportation |
| ☒ Biological Resources | ☐ Land Use & Planning | ☒ Tribal Cultural Resources |
| ☒ Cultural Resources | ☐ Mineral Resources | ☒ Utilities/Service Systems |
| ☐ Energy | ☒ Noise | ☒ Wildfire |
| ☐ Geology/Soils | ☐ Population & Housing | ☒ Mandatory Findings of Significance |

# 3.0 ENVIRONMENTAL CHECKLIST

This section analyzes the potential environmental impacts which may result from the proposed project. For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and answers are provided according to the analysis undertaken as part of the Initial Study. The analysis considers the project's short-term impacts (i.e., construction-related), and its operational or day-to-day impacts. For each question, there are four possible responses. They include:

1. *No Impact*. Future development arising from the project's implementation will not have any measurable environmental impact on the environment and no additional analysis is required.

2. *Less Than Significant Impact*. The development associated with project implementation will have the potential to impact the environment; these impacts, however, will be less than the levels or thresholds that are considered significant, and no additional analysis is required.

3. *Potentially Significant Unless Mitigated*. The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the project's physical or operational characteristics can reduce these impacts to levels that are less than significant.

4. *Potentially Significant Impact*. Future implementation will have impacts that are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

## 3.1 Aesthetics

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ■ | ☐ |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ☐ | ☐ | ☐ | ■ |
| c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | ☐ | ☐ | ■ | ☐ |
| d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? | ☐ | ☐ | ■ | ☐ |

a. *Have a substantial adverse effect on a scenic vista?* ***Less Than Significant Impact***. The San Marcos Mountains, located approximately five miles southeast of the proposed project, are an important

visual landmark for the community of Bonsall (County of San Diego [County] 2011a). Old River Road is a County-designated scenic road for the rural mountain views it provides (County 2011b). Additionally, the River and Moosa Creek are considered valuable visual resources for the scenic riparian woodland habitat that they support (County 2011b). Although the project area contains numerous visual resources, project-related effects on scenic vistas would be both minimal and temporary as they would only occur during construction. Upon completion of construction, the proposed pipelines would be underground and would have no impact on scenic vistas. The proposed lift stations would be small above-ground structures located near existing residential and commercial structures. The proposed lift stations would not obstruct views; therefore, the proposed project would result in less than significant impacts to scenic vistas.

b. *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?* ***No Impact****.* SR 76 is listed as an Eligible State Scenic Highway–Not Officially Designated on the California Scenic Highway Mapping System website (Caltrans 2016). As described above in Response 3.1a, there are numerous scenic resources within the project area; however, impacts to visual resources would be minimal and temporary and confined to construction activities. Additionally, the majority of the proposed project would be placed underground within the ROW of non-highway roads. The proposed lift stations would be small above-ground structures immediately adjacent to an area planned for residential development (Schoolhouse LS) and an area of existing residential and commercial development (Thoroughbred LS). Implementation of the proposed project would not damage surrounding trees or rock outcroppings. The proposed project would have no impact on scenic resources within a State-designated scenic highway.

c. *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?* ***Less Than Significant Impact***. The existing visual quality of the site is considered high due to the scenic rural landscape. During the construction period, the presence of construction vehicles, equipment, and staging area(s) would result in short-term visual effects to the project site and its surroundings. Due to the short-term nature of these potential effects, however, impacts related to existing visual character or quality of the site and surrounding areas would be less than significant during construction. Upon project completion, all materials associated with construction would be removed and the roads and surrounding areas would be restored to their original condition. As stated under 3.1a above, the proposed lift stations would be small above-ground structures adjacent to existing and planned development and would not degrade visual character or quality of public views of the site and its surroundings. Therefore, impacts related to existing visual character or quality of the site and surrounding areas would remain less than significant upon project completion.

d. *Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?* ***Less Than Significant Impact***. The proposed project involves underground pipelines that would not be visible and would not require any associated lighting. The proposed lift stations would be small above-ground structures, and any associated security lighting would be shielded and aimed downward so as not to shine or produce glare for adjacent street traffic or surrounding land uses. Project construction would primarily occur during daylight hours, during which time no lighting would be required. Night work may be required to minimize effects on motorized traffic for some

segments of the proposed project, which would require appropriate lighting; however, this would be a temporary impact and, therefore, would be less than significant.

## 3.2 Agriculture and Forestry Resources

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as depicted on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency? | ☐ | ☐ | ☐ | ■ |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act Contract? | ☐ | ☐ | ☐ | ■ |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | ☐ | ☐ | ☐ | ■ |
| d. Result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ■ |
| e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ■ |

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as depicted on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency? **No Impact**. Designated land uses within the project area do include agricultural uses (CDC 2012); however, project implementation would not result in conversion of existing farmland to non-agricultural uses. Therefore, the project would not affect an agricultural resource area and would have no impacts to designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

b. *Conflict with existing zoning for agricultural use, or a Williamson Act Contract?* ***No Impact***. There are no Williamson Act Contracts in the project area (CDC 2013). Implementation of the project would involve improvements to sewer facilities such as underground pipelines and would not result in conflicts with existing zoning for agricultural use. No associated impacts would occur.

c. *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?* ***No Impact***. The project site is not designated or zoned for forest land, timberland, or timberland zoned Timberland Production. Therefore, implementation of the project would not conflict with existing zoning for such lands, and no impact would occur.

d. *Result in the loss of forest land or conversion of forest land to non-forest use?* ***No Impact***. As previously stated, the project site is not located in an area designated as forest land. Accordingly, project implementation would not convert forest land to non-forest use, and no impact would occur.

e. *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?* ***No Impact***. There are no agricultural operations or timberland production operations within the project site or vicinity. The project does not propose changes that could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. No impact would occur.

## 3.3 Air Quality

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ☐ | ■ |
| b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | ☐ | ☐ | ■ | ☐ |
| c. Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ■ | ☐ |
| d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | ☐ | ☐ | ■ | ☐ |

The following discussion is based on air emissions calculations and modeling prepared by HELIX Environmental Planning, Inc. (HELIX 2020a). The output worksheets are included as Appendix A to this IS/MND.

a. *Conflict with or obstruct implementation of the applicable air quality plan?* ***No Impact***. The SDAPCD is the government agency that regulates sources of air pollution within the County. Currently, the San Diego Air Basin is in "non-attainment" status for criteria pollutants ozone ($O_3$), 10-micrometer or less particulate matter ($PM_{10}$), and 2.5-micrometer or less particulate matter ($PM_{2.5}$). The SDAPCD developed a Regional Air Quality Strategy (RAQS), the applicable air quality plan, to provide control measures to achieve attainment status for these criteria pollutants. The RAQS relies on information from the CARB and the San Diego Association of Governments (SANDAG), including mobile and area source emissions and information regarding projecting growth in the County, to project future emissions and then determine strategies necessary for the reduction of emissions through regulatory controls. The CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and the County. Projects that propose development that are consistent with the growth anticipated by the general plans are therefore consistent with the RAQS.

The project would not result in a significant air quality impact from operational activity, as described further in Item 3.3b. Moreover, as discussed in Item 3.14a, under *Population and Housing*, the proposed project does not include growth-generating components. As such, the proposed project is consistent with the General Plan and would be consistent with the RAQS. No impact would occur.

b. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?* ***Less Than Significant Impact.*** Air quality is defined by ambient air concentrations of six specific pollutants identified by the USEPA to be of concern with respect to health and welfare of the general public. These pollutants include ozone, carbon monoxide (CO), nitrogen dioxide, $PM_{10}$, $PM_{2.5}$, sulfur dioxide, and lead. The primary source of air pollutants generated by the proposed project would be emissions associated with temporary construction activities.

Construction

Construction of the proposed project would result in temporary increases in air pollutant and dust emissions generated primarily from construction equipment exhaust, earth disturbance/excavation, construction worker vehicle trips, and heavy-duty truck trips. Construction emissions were calculated using the South Coast Air Quality Control District's California Emissions Estimator Model (CalEEMod) emissions inventory model. Detailed construction emissions assumptions and CalEEMod inputs and outputs are provided in Appendix A.

Table 1, *Estimated Maximum Daily Construction Emissions*, provides a summary of the daily construction emission estimates by construction phase. The maximum daily emissions are provided for each individual phase, as well as a total amount of emissions that assumes that all three phases would overlap concurrently.

Screening thresholds established by the SDAPCD have been used based on SDAPCD Rules 20.2 and 20.3 Air Quality Impact Analysis (AQIA) trigger levels for new or modified stationary sources to determine significance for air emissions impacts. According to Rules 20.2 and 20.3, if these incremental levels are exceeded, an AQIA must be conducted to demonstrate that the project would not cause or contribute to a violation of an air quality standard. For CEQA purposes, these screening-level thresholds can be used to demonstrate that a project's emissions would not result in a significant impact to air quality. Because the AQIA thresholds do not address reactive organic gases (ROG), the screening-level for ROG used in this analysis has been adopted from the County's Guidelines for Determining Significance. For $PM_{2.5}$, the USEPA's "Final Clean Air Rule to Implement the Fine Particle National Ambient Air Quality Standards" recommends a significance threshold of 10 tons per year, which equates to 55 pounds per day. The screening level thresholds are included in Table 1.

**Table 1**
**ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS**
**(pounds/day)**

| Emission Source | ROG | $NO_X$ | CO | $SO_X$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| Phase 1 | 4 | 46 | 31 | <1 | 6 | 3 |
| Phase 2 | 4 | 46 | 31 | <1 | 6 | 3 |
| Phase 3 | 4 | 46 | 31 | <1 | 6 | 3 |
| **Maximum Daily Emissions** | **12** | **140** | **94** | **<1** | **18** | **10** |
| Screening Level Threshold | 75 | 250 | 550 | 250 | 100 | 55 |
| **Exceeds Threshold?** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** |

Note: The results represent the maximum daily mitigated on- and off-site emissions for each phase, rounded to the nearest whole number (see Appendix A).
ROG = reactive organic gases; $NO_X$ = nitrogen oxides; CO = carbon monoxide; $SO_X$ = sulfur oxides; $PM_{10}$ = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As shown in the table, none of the criteria pollutant emissions would exceed the respective screening thresholds. Thus, construction-related air quality impacts would be less than significant.

Sensitive receptors, including adjacent residents within the subdivisions along portions of Old River Road and Golf Club Drive, would be exposed to particulate matter (fugitive dust) emissions during the construction period. This would be a temporary construction impact, which would exist on a short-term basis during, and would cease upon completion of, construction. To reduce the effects to sensitive receptors, the project would comply with all applicable SDAPCD Rules and Regulations, including Rule 55 related to fugitive dust emissions, as a matter of project design. Rule 55 requires the following:

1. No person shall engage in construction or demolition activity in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period; and

2. Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall be minimized by the use of any of the equally effective trackout/carry-out and erosion control measures listed in Rule 55 that apply to the project or operation. These measures include: track-out grates or gravel beds at each egress point; wheel-washing at each egress during muddy conditions; soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; watering for dust control; and using secured tarps or cargo covering, watering, or treating of transported material for outbound transport trucks. Erosion control measures must be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations.

Operations

Following the construction of the project, activities on site would be limited to routine maintenance of the operational wastewater facilities. The electricity usage of the lift station pumps is not expected to result in the generation of criteria air pollutants; it would, however, be expected to generate greenhouse gas (GHG) emissions (see Section 3.8).

The two standby generators at the two lift stations are assumed to run approximately 15 minutes per month for maintenance and testing purposes, as well as when normal power supply is lost. The results of the CalEEMod calculations for project operations can be found in Appendix A. Criteria pollutant emissions would be less than one pound per day and would not exceed their respective screening thresholds. Thus, operations-related air quality impacts would be less than significant.

Based on the foregoing, criteria pollutant emissions impacts from project construction and operations would be less than significant.

c. *Expose sensitive receptors to substantial pollutant concentrations?* ***Less Than Significant Impact***. Sensitive populations (i.e., children, senior citizens, and acutely or chronically ill people) are more susceptible to the effects of air pollution than are the general population. Sensitive receptors along the project alignment include single-family residences, Bonsall Community Church, and Bonsall Elementary School. As discussed above in 3.3b, the project would not generate substantial concentrations of criteria pollutants. Diesel exhaust particulate matter would be emitted from heavy equipment used during project construction, however. Diesel exhaust particulate matter in California is known to contain carcinogenic compounds. The risks associated with carcinogenic effects are typically evaluated based on a lifetime of chronic exposure (i.e., 24 hours per day, 365 days per year for 70 years). Because emissions of diesel exhaust would be temporary and short-term, construction of the project would not result in long-term chronic lifetime exposure to diesel exhaust from heavy equipment. In addition, diesel emissions control measures would be implemented during project construction as project design features that would require the construction fleet to use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters CARB/USEPA Engine Certification Tier 3 equipment, or other equivalent methods approved by CARB. Therefore, air quality impacts related to the exposure of sensitive receptors to substantial pollutant concentrations would be less than significant.

d. *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?* ***Less Than Significant Impact***. The proposed project would install replacement wastewater infrastructure components, a use that is not likely to generate nuisance odors, as all equipment but the proposed Schoolhouse LS and Thoroughbred LS would be located underground. Each proposed lift station would be equipped with an odor control system designed to neutralize hydrogen sulfide and other odors. Diesel exhaust from construction vehicles may create odors noticeable at residences adjacent to the project site; however, the diesel exhaust odors would be temporary, occurring for relatively short periods of time. Associated impacts would be less than significant.

## 3.4 Biological Resources

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | ☐ | ■ | ☐ | ☐ |

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | ☐ | ☐ | ■ | ☐ |
| c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☐ | ■ |
| d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | ☐ | ☐ | ■ | ☐ |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☐ | ■ |
| f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ☐ | ■ |

A BLR for the project was prepared by HELIX (2020b) to document the biological conditions within the project study area, identify the potential for sensitive resources to occur within the study area, and evaluate the potential for project impacts. The results and conclusions of the survey and report are summarized herein, and the report is included as Appendix B to this IS/MND.

a. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?* ***Potentially Significant Unless Mitigated****.*

Plant Species

Special-status plant species are those listed as federally threatened or endangered by the U.S. Fish and Wildlife Service (USFWS); State listed as threatened or endangered or considered sensitive by the California Department of Fish and Wildlife (CDFW); and/or, are California Native Plant Society (CNPS) List 1A, 1B, or 2 species, as recognized in the CNPS' Inventory of Rare and Endangered Vascular Plants of California and consistent with the CEQA Guidelines. A search of the USFWS, California Natural Diversity Database (CNDDB), and CNPS species records reported in the project vicinity did not result in any point records for sensitive plant species on or immediately adjacent to the project alignment. A total of 38 sensitive plant species reported in the project vicinity were analyzed for their potential to occur. Of these, only a single species was determined to have a high potential to occur within the study area: Robinson's peppergrass (*Lepidium virginicum* var. *robinsonii*), an herbaceous annual plant. No special status plant species were observed in the study area during the September 2014, July and August 2016, and October 2017 general biological surveys conducted for the project. A focused plant survey was conducted by HELIX in May 2020 for San

Diego Ambrosia (*Ambrosia pumila*). No plants were found. The majority of the project alignment is characterized by developed land within and immediately adjacent to Old River Road, Camino del Rey, and Golf Club Drive, and disturbed land associated with the former golf course. However, areas of Diegan coastal sage scrub, which is where Robinson's peppergrass tends to occur, are located on the east side of Old River Road adjacent to but outside of the alignment (i.e., outside of the project impact area; refer to BLR Figures 7a through 7d). No impacts to Diegan coastal sage scrub would occur as a result of the project; as such, significant impacts to sensitive plant species, specifically Robinson's peppergrass, would not occur.

Animal Species

Special-status animal species are those listed as threatened or endangered, proposed for listing, or candidates for listing by the USFWS and considered sensitive animals by the CDFW. A search of the USFWS and CNDDB species records reported in the project vicinity did not result in any point records for sensitive animal species on or immediately adjacent to the project alignment. A total of 47 sensitive animal species reported in the project vicinity were analyzed for their potential to occur. Of these, five species were determined to have a high potential to occur within the study area: Cooper's hawk (*Accipiter cooperi*), yellow-breasted chat (*Icteria virens*), coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), and San Diego black-tailed jackrabbit *(Lepus californicus bennettii*). As described above, the majority of the project alignment is characterized by developed and disturbed land, with areas of sensitive habitat including Diegan coastal sage scrub, mule fat scrub, southern cottonwood-willow riparian forest, and southern willow scrub generally occurring to the east and west of Old River Road, primarily south of the former golf course (refer to BLR Figures 4a-4d and 7a-7d)). Suitable avian habitat along Old River Road occurs off site and outside of the proposed sewer main alignment (riparian habitat and coastal sage scrub); suitable habitat for San Diego black-tailed jackrabbit occurs east of Old River Road, in both sensitive (non-native grassland) and disturbed areas. While direct impacts to Diegan coastal sage scrub, mule fat scrub, southern cottonwood-willow riparian forest, and southern willow scrub would not occur as a result of the project, temporary indirect noise impacts resulting from construction activities could affect the avian species that occupy those habitats during their respective breeding seasons: coastal California gnatcatcher (February 15 through August 31); raptors (January 15 through July 15); or least Bell's vireo and yellow-breasted chat (March 15 through September 15). Potentially significant impacts would occur if noise from construction resulted in these species failing to breed or abandoning a nest.

Indirect noise impacts could occur along Old River Road south of the former San Luis Rey Downs Golf Club, where the proposed sewer main alignment is adjacent to southern cottonwood-willow riparian forest, southern willow scrub and Diegan coastal sage scrub. Noise in excess of an hourly average ($L_{EQ}$) of 60 A-weighted decibels (dBA) could disrupt nesting activities in habitat that occurs within 500 feet of work areas and that falls within the 60 dBA $L_{EQ}$ noise contour. Construction-generated noise during periods outside of the breeding seasons for each respective species would not be considered a significant impact.

While one acre of non-native grassland, one of the habitats suitable for San Diego black-tailed jack rabbit, would be directly impacted by project construction, it would be a temporary impact associated with trenching for the proposed segment of LS1-NE gravity main that would occur in the off-road area within the former golf course (Figure 2). As a matter of project design, the trenched area would be returned to its pre-impact contours and revegetated with a native seed mix

appropriate to the surrounding area following installation of the LS1-NE main. Based on implementation of this design measure, associated temporary impacts would be less than significant and mitigation would not be required.

Nesting Birds

The project site contains trees and shrubs that provide suitable nesting habitat for common birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFG Code). Construction of the proposed project could result in the removal or trimming of trees and other vegetation or general construction near nests during the general bird nesting season (January 15 through September 15) and, therefore, could result in impacts to nesting birds in violation of the MBTA and CFG Code. Direct impacts could occur as a result of removal of vegetation supporting an active nest. Impacts would be considered significant.

Implementation of Mitigation Measure **BIO-1** would reduce potential impacts to nesting birds to below a level of significance. Implementation of Mitigation Measure **BIO-2** would reduce potential noise-related indirect impacts to coastal California gnatcatcher, least Bell's vireo, yellow-breasted chat, and Cooper's hawk to below a level of significance.

**BIO-1** **Pre-Construction Nesting Bird Survey and Avoidance**. Project activities requiring the removal and/or trimming of vegetation suitable for nesting birds shall occur outside of the general bird breeding season (February 15 through August 31). If the activities cannot avoid the general bird breeding season, a qualified biologist shall be retained to conduct a pre-activity nesting bird survey within 7 days prior to the activities to confirm the presence or absence of active bird nests. If no active bird nests are found by the qualified biologist, then the activities shall proceed with the reassurance that no violation to the MBTA and CFG Code would occur. If an active bird nest is found by the qualified biologist, then vegetation removal and/or trimming activities at the nest location shall not be allowed to occur until the qualified biologist has determined that the nest is no longer active.

**BIO-2** **Pre-Construction Sensitive Bird Surveys and Noise Attenuation**. No construction activities shall occur between January 15 and September 15 in areas adjacent to southern willow scrub, southern cottonwood-willow riparian forest or Diegan coastal sage scrub until the following conditions have been met:

A. A qualified biologist shall survey areas that would be subject to construction noise levels exceeding 60 dBA $L_{EQ}$ for the presence of the coastal California gnatcatcher, least Bell's vireo, yellow-breasted chat and Cooper's hawk. Surveys for the species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service within the breeding season prior to the commencement of construction. If any of these species are present, then the following conditions must be met:

   If operation of construction equipment occurs during the breeding seasons for the coastal California gnatcatcher (February 15 through August 31), nesting raptors (January 15 through July 15), or least Bell's vireo (March 15 through September 15), pre-construction survey(s) shall be conducted by a qualified biologist as appropriate to determine whether these species occur within the areas potentially impacted by

noise. An analysis showing that either: (1) noise generated by construction activities would not exceed 60 dBA $L_{EQ}$ at the edge of occupied habitat, or (2) existing ambient noise levels already exceed 60 dBA $L_{EQ}$ must be completed by a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) at least two weeks prior to the commencement of construction activities. Prior to the commencement of any construction activities, areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; or

At least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dBA $L_{EQ}$ at the edge of habitat occupied by the listed species. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dBA $L_{EQ}$. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16).

*Construction noise monitoring shall continue at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA $L_{EQ}$ or to the ambient noise level if it already exceeds 60 dBA $L_{EQ}$. If not, other measures shall be implemented in consultation with the biologist and the USFWS and CDFW, as necessary, to reduce noise levels to below 60 dBA $L_{EQ}$ or to the ambient noise level if it already exceeds 60 dBA $L_{EQ}$. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

B. If the listed species are not detected during the survey, no noise mitigation measures would be necessary.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? **Less Than Significant Impact**. No permanent impacts to sensitive vegetation communities would result from the project, which occurs almost entirely within existing roads and disturbed lands (Figure 2; see also BLR Figures 7a through 7d in Appendix B). As shown in Table 2, the project would not permanently impact sensitive natural communities. The only impact to a sensitive vegetation community consists of 1.0 acre of temporary impacts to non-native grassland within the former golf course. These temporary impacts would result from trenching for installation of a portion of the replacement gravity main LS1-NE, after which the area would be returned to its pre-impact contours following construction and revegetated with a native seed mix appropriate to the surrounding area. The re-contouring and revegetation would be done as a matter of project design, as described above and in the Project Description of this IS/MND. No mitigation is required for this temporary impact, and no permanent impacts would occur.

**Table 2**
**IMPACTS TO SENSITIVE VEGETATION COMMUNITIES**

| Vegetation Community | Existing | Impact* |
|---|---|---|
| Mule fat scrub | 0.02 | 0 |
| Southern cottonwood-willow riparian forest | 25.3 | 0 |
| Southern willow scrub | 0.66 | 0 |
| Diegan coastal sage scrub | 15.0 | 0 |
| Non-native grassland / extensive agriculture | 19.4 | 1.0 |
| **TOTAL** | **60.5** | **1.0** |

*All impacts are temporary

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? **No Impact**. Potentially jurisdictional resources in the study area include wetland and non-wetland waters of the U.S./State subject to U.S. Army Corps of Engineers (USACE)/Regional Water Quality Control Board (RWQCB) jurisdiction, and riparian habitat and streambed subject to CDFW jurisdiction only (refer to Table 2 in the BLR contained in Appendix B). No impacts to jurisdictional wetlands or waterways would result from the project. The project would avoid ground disturbance in Moosa Creek and the River by using existing bridge structures to support the proposed pipeline above-ground (refer to BLR Figures 7a and 7b). Impacts to non-wetland waters (seasonal drainage channels and streambed) along Old River Road would be avoided by employing construction fencing and flagging where the waters meet Old River Road (refer to BLR Figures 5 and 6). The proposed alignment adjacent to SR 76, in the northern portion of the project, would be installed using trenchless methods (i.e microtunneling, open shield tunneling, or other trenchless methods) where the alignment would cross existing drainages between Olive Hill Road and the Thoroughbred LS site and between the Thoroughbred LS site and South Mission Road (Figure 7a). Launching and receiving pits for trenchless methods would be dug in disturbed areas within the ROW. By implementing this precaution as a matter of project design, impacts to non-wetland waters of the U.S. or waters of the State would be avoided. No related impacts would occur.

d. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?* ***Less Than Significant Impact****.* Moosa Creek and the River both function as wildlife corridors in the project vicinity. As described above, however, the majority of the alignment is within existing roadways, which do not contribute to wildlife corridor functions or nursery sites. The existing roadways already act as a barrier to wildlife movement between upland and riparian areas, and project construction within the roadways would not further inhibit wildlife movement, particularly since most movement is expected to follow existing creek corridors. A small segment of the replacement gravity main LS1-NE would occur within non-native grassland; however, this area is parallel to existing residential development to the north, and relatively expansive areas of abandoned golf course to the south, which connect to Moosa Creek (Figure 2). Temporary trenching in this small area would not result in placement of barriers to wildlife movement along the creek or within the former golf course, and wildlife would continue to be able to move through the area. Potential impacts on wildlife corridors and nursery sites would be less than significant. No mitigation is required.

e. *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?* ***No Impact****.* As described in the BLR (HELIX 2020b), the project would not conflict with any local policies or ordinances protecting biological resources. No related impact would occur.

f. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?* ***No Impact****.* As described in the BLR (HELIX 2020b), the project alignment is not located within the boundaries of any adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the project would not conflict with any adopted conservation plans, and no impact would occur.

## 3.5 Cultural Resources

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of CEQA? | ☐ | ☐ | ■ | ☐ |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of CEQA? | ☐ | ■ | ☐ | ☐ |
| c. Disturb any human remains, including those interred outside of formal cemeteries? | ☐ | ☐ | ■ | ☐ |

A Cultural Resources Survey for the project was prepared by ASM Affiliates (2016 and updated in 2018) to document the existing cultural resources within the project study area and evaluate the potential for project impacts. The conclusions of the survey and report are summarized below, and the report is included as Appendix C to this IS/MND.

a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of CEQA? **Less than Significant Impact**. The majority of the project area has been previously developed or disturbed and is currently covered with asphalt. As described in the Cultural Resources Survey Letter Report for the project (ASM Affiliates 2018; included as Appendix C to this IS/MND), there are identified historical resources within a 0.5-mile radius of the proposed project; however, there are no known historical resources within the project's Area of Potential Effects (APE). As such, impacts to historical resources would not occur.

b. *Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of CEQA?* ***Potentially Significant Unless Mitigated***. As discussed in Response 3.5a, the project site is located within an area that has been previously disturbed. No archaeological resources have been identified within the APE; however, there are 19 identified cultural resources within a 0.5-mile radius of the project area (refer to Table 2 in Appendix C; ASM 2018). In particular, the project's survey area is adjacent to archaeological sites SDI-674/8663 near a portion of the existing alignment to be abandoned in place. Since no ground disturbance would take place in the vicinity of SDI-674/8663, this site would not be impacted by the proposed project. No new cultural

resources were identified during the field survey conducted by ASM in October 2017; however, due to the extensive prehistoric uses of the area, the proximity of proposed ground disturbance to a possible prehistoric village location, and the associated increased potential for unknown subsurface archaeological resources to exist in the alluvial soils near the River and Moosa Creek, impacts to archaeological resources are potentially significant. Implementation of mitigation measures **CUL-1** and **CUL-2** would reduce potential archaeological resource impacts to below a level of significance.

**CUL-1** **Construction Monitoring for Cultural Resources.** A qualified Archaeologist and Native American monitor shall be present during grading, trenching, and subsurface disturbance and shall document such activity on a standardized form. Daily logs shall be kept by all monitors, and a monitoring report be prepared at the conclusion of each phase of monitoring. A record of activity shall be sent to the District.

**CUL-2** **Unanticipated Discovery of Cultural Materials.** In the event that cultural resource(s) are unearthed during ground disturbing activities, the archeological monitor and tribal monitor shall have the authority to temporarily halt or redirect ground disturbing activities away from the vicinity of these unanticipated discoveries so that they may be evaluated. The District, the project archaeologist, and a tribal representative shall assess the significance of such cultural resource(s) and, if the cultural resource(s) is determined to be culturally significant, they shall meet to confer regarding the appropriate treatment for the cultural resource(s). Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation. The archaeologist and the tribal representative shall make recommendations to the District on the measures that will be implemented to protect the newly discovered cultural resource(s), including but not limited to, avoidance in place, excavation, relocation, and further evaluation of the discoveries in accordance with CEQA. No further ground disturbance shall occur in the area of the discovery until the District approves the measures to protect the significant cultural resource(s).

c. *Disturb any human remains, including those interred outside of formal cemeteries?* ***Less Than Significant Impact****.* There are no known grave sites within the project limits, and the potential for encountering human remains during construction activities is considered low, since grading and excavation activities would occur within a previously disturbed area. In the unlikely event that human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of any human remains find immediately. If the remains are determined to be prehistoric, the Coroner would notify the Native American Heritage Commission (NAHC), which would determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery, and shall complete the inspection within 24 of notification by the NAHC. The MLD would have the opportunity to make recommendations to the NAHC on the disposition of the remains. Accordingly, impacts would be less than significant.

## 3.6 Energy

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation? | ☐ | ☐ | ■ | ☐ |
| b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | ☐ | ☐ | ☐ | ■ |

a. *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?* ***Less than Significant Impact.*** Energy used for construction would primarily consist of fuels in the form of diesel and gasoline for the operation of construction equipment and construction worker vehicles. While construction activities would consume petroleum-based fuels, consumption of such resources would be temporary and would cease upon the completion of construction. The petroleum consumed during project construction would be typical of similar construction projects and would not require the use of new petroleum resources beyond what are typically consumed in California. Based on these considerations, construction of the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources.

Energy usage during operation of the proposed project would be limited to the energy needs of the Thoroughbred LS and Schoolhouse LS submersible wastewater pumps. Schoolhouse LS would require four (two duty and two standby) 50-HP submersible wastewater pumps. The Thoroughbred LS would require two (one duty and one standby) 10-HP submersible wastewater pumps. In addition, each lift station would include one standby generator housed in an acoustic enclosure inside the lift station structure. The Thoroughbred LS would include one 175-kW standby generator and the Schoolhouse LS would include one 50-kW standby generator. Of the included equipment, the pumps would require the most energy use (electrical). Each new lift station would provide partial replacement of the existing LS1 to accommodate future flows with equipment serving the same function for the District in different locations. Therefore, the project is not anticipated to result in a substantial increase in energy use. Project operations would not use energy in a wasteful, inefficient, or unnecessary manner. Implementation of the project would not result in a substantial increase in demand of local or regional energy supplies compared to existing conditions, and impacts would be less than significant.

b. *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?* ***No Impact.*** The project would be built and operated in accordance with existing, applicable regulations. Construction equipment would be maintained to allow for continuous energy-efficient operations. Furthermore, the project would not result in a substantial increase in energy use. Accordingly, the project would not conflict with State or local plans related to energy, and no impacts would occur.

## 3.7 Geology and Soils

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:<br>(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (Refer to Division of Mines and Geology Special Publication 42)?; or, (ii) strong seismic ground shaking?; or,<br>(iii) seismic-related ground failure, including liquefaction?; or,<br>(iv) landslides? | ☐ | ☐ | ■ | ☐ |
| b. Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ■ | ☐ |
| c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | ☐ | ☐ | ■ | ☐ |
| d. Be located on expansive soil, as defined in Table 18-1-B of the 1994 Uniform Building Code (UBC), creating substantial risks to life or property? | ☐ | ☐ | ■ | ☐ |
| e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | ☐ | ☐ | ☐ | ■ |
| f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ■ | ☐ | ☐ |

a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (Refer to Division of Mines and Geology Special Publication 42)?* ***No Impact****.* The closest known active fault is the Newport-Inglewood–Rose Canyon fault zone located off-shore approximately 12 miles southwest of the site. The site is not located in an Alquist-Priolo Earthquake Fault Zone. No active faults are known to underlie or project towards the site. Additionally, the project does not propose any structures intended for human use or occupancy. No impact would occur.

ii) *Strong seismic ground shaking?* ***Less Than Significant Impact****.* The project site is located within the seismically active southern California region. Active faults in the County include segments within the San Jacinto, Elsinore, and Rose Canyon fault zones. Active faults are those faults which have had surface displacement within Holocene times (about the last 11,000 years). Near-

Source Shaking Zones have been mapped by the County where velocity effects need to be considered in the design of buildings within a specified distance of an active fault. The proposed project is approximately 10 miles from the closest Near-Source Shaking Zone, which occurs along the Elsinore fault zone east of the community of Pala (County 2007).

The proposed project proposes replacement of existing underground sewage pipelines and construction of new lift stations in previously disturbed areas. The proposed project does not include the development of any above-ground structures that would pose a threat during an earthquake event. Engineering and construction of the proposed project would be required to be in conformance with the International Code Council (ICC) International Building Code (IBC, formerly the Uniform Building Code; 2006) and related California Building Code (CBC; California Building Standards Commission 2010), and other applicable standards. Conformance with standard engineering practices and design criteria would reduce the effects of seismic ground shaking to less than significant levels.

iii) *Seismic-related ground failure, including liquefaction?* ***Less Than Significant Impact****.* Liquefaction is the temporary loss of cohesion in saturated, granular soils when the pore water pressure in the soil becomes equal to the confining pressure. Liquefaction generally occurs as a "quicksand" type of ground failure caused by strong ground shaking. The primary factors influencing liquefaction potential include groundwater, soil type, relative density of the sandy soils, confining pressure, and the intensity and duration of ground shaking. The proposed project is located in a primary area for potential liquefaction hazard (County 2007). Regional building standards, however, require sewer pipelines to be installed with specific bedding and fill materials to protect the pipeline from potential damage (Drawing Number SP-2 in Regional Standards Committee 2009). Based on these considerations, impacts related to liquefaction would be less than significant.

iv) *Landslides?* ***Less Than Significant Impact****.* The project site is not located within an area identified as susceptible to landslides (County 2007). Project construction would occur within the ROW in previously disturbed roadways and easements, as well as within a former golf course and adjacent disturbed areas. Following construction, the project site would be returned to its original condition. The potential for the proposed project to expose people or structures to landslides is negligible, and related impacts would be less than significant.

b. *Result in substantial soil erosion or the loss of topsoil?* ***Less Than Significant Impact****.* Trenching and earthwork activities during construction of the proposed project would displace soils and temporarily increase the potential for soils to be subject to wind and water erosion. As required by the Clean Water Act, the District would obtain permit coverage under the National Pollutant Discharge Elimination System (NPDES) and State Water Resources Control Board (SWRCB) with implementation of an effective SWPPP for project construction, since the Project's area of ground disturbance is greater than one acre. With implementation of a SWPPP that incorporates sediment control and erosion control measures, impacts from soil erosion and topsoil loss would be less than significant.

c. *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?* ***Less Than Significant Impact****.* Refer to Response 3.7a, above, regarding soil instability related to seismic effects. No water extractions or similar practices that are typically

associated with project-related subsidence effects are proposed. In addition, surface material that would be disrupted/displaced would be balanced and re-compacted on-site during project construction, to the extent practicable. Adherence to standard engineering practices would result in less than significant impacts related to subsidence of the land.

d. *Be located on expansive soil, as defined in Table 18-1-B of the 1994 Uniform Building Code (UBC), creating substantial risks to life or property?* ***Less Than Significant Impact****.* The majority of soils that underlay the project site have a low to moderate potential for shrinking and swelling. An approximately 0.5-mile stretch of Old River Road, where the alignment runs between Little Gopher Canyon Road and Dentro De Lomas Road, is underlain with Las Posas stony fine sandy loam, a potentially expansive soil. As described above, however, the proposed replacement pipeline would be installed in an existing trench with imported bedding material and fill. Further, adherence to standard engineering practices contained within the IBC[1] and CBC would reduce any potential impacts to less than significant levels.

e. *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?* ***No Impact****.* The proposed project does not include the implementation of septic tanks or alternative wastewater disposal systems. No impact would occur.

f. *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?* ***Potentially Significant Impact Unless Mitigation***. The project site is underlain with young alluvial floodplain deposits. Based on its relatively young age and high-energy depositional history, younger alluvium is considered unlikely to produce unique fossil remains and is assigned a low paleontological resource sensitivity (Demeré and Walsh 1994). Ground-disturbing activities associated with the proposed project would occur in previously graded and disturbed areas and would be limited to relatively shallow depths. This greatly reduces the potential for encountering intact paleontological resources. The potential still exists, however, for paleontological resources to be encountered during ground-disturbing activities. If such resources were encountered, impacts would be potentially significant. Implementation of mitigation measure **GEO-1** would reduce potential paleontological resource impacts to below a level of significance:

**GEO-1** **Unanticipated Discovery of Paleontological Materials** In the unlikely event that potentially significant paleontological materials (e.g., fossils) are encountered during construction of the project, all work shall be halted in the vicinity of the paleontological discovery until a qualified paleontologist can visit the site of discovery, assess the significance of the paleontological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of paleontological materials that might be discovered during excavation shall be in accordance with applicable laws and regulations.

[1] Table 18-1-B of the 1994 UBC has been replaced by Section 1802.3.2 of the IBC as the industry standard for defining expansive soils.

## 3.8 Greenhouse Gas Emissions

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☐ | ☐ | ■ | ☐ |
| b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | ☐ | ☐ | ☐ | ■ |

The following discussion is based on GHG emissions calculations and modeling prepared by HELIX (2020a). Detailed construction emissions assumptions and model inputs and outputs are provided in Appendix A.

a. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?* ***Less Than Significant Impact***. Global climate change refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), ozone, and certain hydro-fluorocarbons. These gases, known as GHGs, allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere. Greenhouse gases are emitted by both natural processes and human activities. The accumulation of GHGs in the atmosphere regulates the Earth's temperature. Emissions of GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect and contributing to what is termed "global warming," the trend of warming of the Earth's climate from anthropogenic activities. Global climate change impacts are by nature cumulative; direct impacts cannot be evaluated because the impacts themselves are global rather than localized impacts.

   California Health and Safety Code Section 38505(g) defines GHGs to include the following compounds: $CO_2$, $CH_4$, $N_2O$, ozone, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. As individual GHGs have varying heat-trapping properties and atmospheric lifetimes, GHG emissions are converted to carbon dioxide equivalent ($CO_2e$) units for comparison. The $CO_2e$ is a consistent methodology for comparing GHG emissions because it normalizes various GHG emissions to a consistent measure.[2] The most common GHGs related to the project are those primarily related to energy usage: $CO_2$, $CH_4$, and $N_2O$.

   Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, set the state-wide goal to reduce GHG emissions to 1990 levels by 2020. In January 2008, the California Air Pollution Control Officers Association prepared a white paper entitled "CEQA & Climate Change," which developed a

[2] The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere and is expressed as a function of how much warming would be caused by the same mass of $CO_2$. For instance, $CH_4$ has a global warming potential of 21, meaning that 1 gram of $CH_4$ traps the same amount of heat as 21 grams of $CO_2$. $N_2O$ has a global warming potential of 310.

900-metric ton (MT) screening to determine whether further analysis was needed to assess whether a residential or commercial project would hinder the statewide attainment of GHG emissions reduction goals described in AB 32. Senate Bill (SB) 32 was passed as a follow up to AB 32 and extended the reduction target to 40 percent below 1990 levels by 2030. For projects that would be developed after 2020, this goal is proportionally reduced to 813 MT $CO_2e$.

Modeling was conducted that showed project GHG emissions would not exceed this screening threshold, using CalEEMod. The calculations included estimated emissions from construction as well as emissions associated with operation (electricity usage related to the lift stations and diesel usage related to monthly testing of the backup generators). It is standard practice to include construction emissions (amortized over a typical duration of 20 years) when analyzing GHG emissions. Project operations are assumed to begin in 2021. Detailed construction emissions assumptions and CalEEMod inputs and outputs are provided in Appendix A. Table 3, *Estimated GHG Emissions*, provides a summary of the total annual GHG emissions generated by the project.

**Table 3**
**ESTIMATED GHG EMISSIONS**

| Emission Source | Emissions (MT $CO_2e$) |
|---|---|
| Area | <1 |
| Energy | 333 |
| Mobile | 0 |
| Waste | 0 |
| Water | 0 |
| Offroad - Generator | <1 |
| Amortized Construction | 65 |
| **TOTAL** | **400** |
| Screening Level Threshold | **813** |
| Exceeds Threshold? | **No** |

Refer to Appendix A for full modeling results.
MT = metric tons; $CO^2e$ = carbon dioxide equivalent

As shown in Table 3, most of the project emissions are from the energy use related to the electric pumps for the proposed lift stations. As shown above, the total annual GHG emissions generated by the project would be approximately 400 MT $CO_2e$, which is below the screening threshold of 813 MT $CO_2e$ per year. Impacts would be less than significant.

b. *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?* ***No Impact***. As discussed in Response 3.8a, the proposed project would not result in significant GHG emissions. The project would not result in emissions that would adversely affect state-wide attainment of GHG emission reduction goals as described in AB 32 and SB 32. Emissions would therefore have a less than cumulatively considerable contribution to global climate change impacts, and the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. No impact would occur.

## 3.9 Hazards and Hazardous Materials

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☐ | ☐ | ■ | ☐ |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☐ | ■ | ☐ | ☐ |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ■ | ☐ |
| d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☐ | ☐ | ■ |
| e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | ☐ | ☐ | ☐ | ■ |
| f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ■ | ☐ |
| g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | ☐ | ☐ | ☐ | ■ |

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? **Less Than Significant Impact**. Small amounts of potentially hazardous materials (e.g. fuel, lubricants, and solvents) may be used during construction activities. The transport, use, and disposal of hazardous materials during the temporary, short-term construction period would be conducted in accordance with applicable local, state, and federal laws. Operation of the proposed lift station and sewer main project would not require or result in the transport, use, or disposal of potentially hazardous materials. Therefore, related impacts would be less than significant.

b. *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?* ***Potentially Significant Unless Mitigated***. The proposed project is not anticipated to result in a release of hazardous materials into the environment. During the temporary, short-term construction period, however, there is the possibility of accidental release of hazardous substances such as spilling of hydraulic fluid or diesel fuel associated with construction equipment maintenance. The level of risk associated with the accidental release of these hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials. The construction contractor would be required to use standard construction controls and safety procedures to avoid

or minimize the potential for accidental release of such substances into the environment. In addition, the District has standards in place to control potential sewage spills that could occur as a result of accidental release or leaks of sewage during project construction or operation. Even with the presence of such standards, accidental conditions such as sewer pipe rupture or lift station failure could result in potential impacts related to spills and exposure of the public and environment to associated health hazards. Such impacts would be potentially significant. Implementation of mitigation measure HAZ-1 would reduce this potential impact to below a level of significance.

**HAZ-1** **Sewage Lift Station Safety Features.** The proposed Schoolhouse LS and Thoroughbred LS shall incorporate standard safety features, including an emergency generator on site in case of electrical failure, and sufficient sewage detainment capacity in the event of generator and/or pump mechanism failure to allow time for repair and/or emergency conveyance of the sewage. Additionally, a Sewer System Management Plan shall be implemented that includes monitoring protocol and contingency measures in the event of emergency leaks or spills.

c. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?* ***Less Than Significant Impact.*** Bonsall Elementary School is located 0.10 mile east of the project site on Old River Road (Figure 2). As described in Responses 3.9a and 3.9b, however, the small volume, low concentration, and short-term presence of any potentially hazardous materials during the construction period, coupled with standard control and safety procedures and adherence to applicable regulations, would result in a less than significant impact related to the release of hazardous emissions or materials near the school.

d. *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?* ***No Impact***. The SWRCB GeoTracker database and the California Department of Toxic Substances Control (DTSC) EnviroStor database provide information on hazardous materials sites. The project site is not listed as a hazardous materials site on either of these databases. The hazardous materials site closest to the proposed project listed in the EnviroStor database is a School Investigation site in Fallbrook where a Phase I Environmental Site Investigation was approved in August 2016 with a No Action determination (DTSC 2016). The GeoTracker database identified three former cleanup sites near the project site. Two are located near the intersection of Camino del Rey and Camino Del Cielo, approximately 500 feet northeast of the proposed project. Cleanup activities were completed, and the cases were closed in October 1996 and February 1989 (SWRCB 2017). The third former cleanup site is located at the gas station on the corner of Camino Del Rey and SR 76. Cleanup activities were completed and the case was closed in January 2007 (SWRCB 2017). There are no active cleanup sites mapped in the near vicinity of or within the project site; therefore, no impacts related to hazardous materials sites would occur.

e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?* ***No Impact***. The nearest airport is the Camp Pendleton Air Terminal, which is located approximately seven miles west of the project. The Oceanside Municipal Airport is approximately 10 miles southwest from the project. The project does not propose features that would result in a safety hazard or excessive noise for people residing or working in the project area. No related impacts would occur.

f. *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?* ***Less Than Significant Impact.*** Construction of the proposed project would temporarily block portions (e.g., up to one lane at a time) of Old River Road, Camino Del Rey, and Golf Club Drive. As a matter of project design, the contractor would be required to prepare and comply with a traffic control plan which would include measures to minimize effects related to lane closures and ensure safe passage of evacuees or emergency response vehicles. Impacts would therefore be reduced to less than significant.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? ***No Impact***. The project would not expose people or structures to a significant risk of wildland fires because the project does not propose structures that would be at risk for fire damage or buildings meant for human occupancy. No related impacts would occur.

## 3.10 Hydrology and Water Quality

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? | ☐ | ☐ | ■ | ☐ |
| b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | ☐ | ☐ | ☐ | ■ |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) impede or redirect flood flows? | ☐ | ☐ | ■ | ☐ |
| d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | ☐ | ☐ | ☐ | ■ |
| e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ☐ | ☐ | ■ |

a. *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?* ***Less Than Significant Impact****.* The project site is located within the RWQCB San Diego Region Basin Plan. Under Section 402 of the Clean Water Act, the RWQCB issues NPDES permits to regulate discharges to "waters of the nation," which include rivers, lakes, and their tributary waters. Waste discharges include discharges of stormwater and construction-related discharges. Potential impacts related to water quality could occur during trenching and construction when the potential for erosion, siltation, sedimentation, and accidental

release of hazardous materials into on-site drainages would be the greatest. Implementation of a SWPPP would be required under the NPDES Construction General Permit (NPDES No. CAS000002, SWRCB Order No. 2009-0009-DWQ; as amended by Order No. 2010-0014-DWQ and Order No. 2012-0014-DWQ), administered by the RWQCB. The SWPPP would include specific BMPs to avoid or reduce potential impacts related to the use and potential discharge of construction-related hazardous materials. The construction contractor would be required to comply with the NPDES and SWPPP requirements regarding the implementation of BMPs during construction. Compliance with these requirements would ensure that the proposed project would have a less than significant impact on water quality standards and waste discharge requirements. Furthermore, the proposed project would not require the use of or otherwise substantially impair groundwater quality or interfere with groundwater recharge.

b. *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?* ***No Impact****.* The proposed lift station and sewer main project would not require the use of, or otherwise substantially interfere with, groundwater supplies or recharge. No impacts would occur.

c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

   i) *Result in substantial erosion or siltation on- or off-site?* ***Less Than Significant Impact.*** Existing surfaces—the majority of which are paved—within the disturbance area would be temporarily removed during trenching and installation phases of the proposed project. Removal of impermeable surfaces would be limited to sections of the alignment being worked on at any given time. Following construction, the trench would be back-filled and surfaces would be repaved and/or returned to their existing condition. Drainage patterns may change temporarily during construction; however, required BMPs prescribed in the SWPPP would minimize on- and off-site erosion through temporary sediment control measures. Conformance with required BMPs would reduce potential impacts related to erosion and siltation during construction to less than significant. The proposed lift stations and related appurtenances would be contained within the parcel and would not be large enough to substantially alter the existing drainage pattern of the surrounding area. Related operational effects would be negligible and, therefore, less than significant.

   ii) *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?* ***Less Than Significant Impact.*** The proposed project would only minorly increase permanent impermeable surfaces that could contribute to increased surface runoff. Drainage patterns would potentially be affected temporarily by construction activities; however, as described above in 3.9c, the SWPPP would require implementation of specific BMPs to reduce drainage alteration impacts to less than significant, and no associated flooding would occur.

   iii) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?* ***Less Than Significant Impact****.* The proposed project would result in a negligible increase in new impermeable surfaces associated with the proposed lift stations and, therefore, would not have the capacity to create or contribute runoff water which would exceed the capacity of existing or

planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Additionally, the contractor would comply with NPDES and SWPPP requirements and implement erosion and sedimentation control measures to minimize on- and off-site erosion, as discussed in Response 3.10a. Impacts would be less than significant.

iv) *Impede or redirect flood flows?* ***Less Than Significant Impact.*** According to the Flood Insurance Rate Map (FIRM) No. 06073C0488G and FIRM No. 06073C0490G, the project site is located within Zone AE. This designation describes an area within the channel of a stream as well as any adjacent floodplains. This zone is within the 100-year floodplain that is subject to inundation by a one-percent-annual-chance flood event. Although the project site is located within the 100-year floodplain as designated by the Federal Emergency Management Agency, the project would not impede or redirect flood flows through construction of buried sewer mains and two small, above-grade lift stations. No related impacts would occur.

*d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?* ***No Impact****.* There are no anticipated impacts to the proposed project from seiche, tsunami, or mudflow, as no topographical features or water bodies capable of producing such events occur within the project site vicinity.

e. *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?* ***No Impact****.* Refer to Responses 3.10a and 3.10c; based on implementation of appropriate BMPs as part of (and in conformance with) the applicable NPDES guidelines, water quality impacts would be less than significant. Furthermore, the proposed project would not require the use of groundwater. No related impacts would occur.

## 3.11 Land Use and Planning

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Physically divide an established community? | ☐ | ☐ | ☐ | ■ |
| b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ■ | ☐ | ☐ |

a. *Physically divide an established community?* ***No Impact****.* The sewer main component of the project is proposed to be constructed (buried) within the existing ROW in Old River Road, Camino Del Rey, and Golf Club Drive, as well as in an off-road area within the former San Luis Rey Downs golf course and in an access road and off-road area west of SR 76. The proposed Schoolhouse LS would be constructed within a small footprint on a single lot at the edge of the Golf Green Estates, a new residential subdivision planned off of Old River Road north of Moosa Creek. The proposed Thoroughbred LS would be constructed in a disturbed area near the intersection of Thoroughbred Land and SR-76. The project would not have an impact on the physical arrangement of an established community; therefore, no impacts are anticipated to occur.

b. *Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?* ***Potentially Significant unless Mitigated****.* The proposed project would not change the current land use in the project area and is consistent with the Bonsall Community Plan's (2011) designation for the project site, and with the County Zoning Map (County 2016) designation of the same area. The project would potentially conflict with local ordinances related to noise control, but these impacts would be reduced to less than significant with the implementation of mitigation measures **NOI-1** and **NOI-2**. See Section 3.13 for additional discussion.

## 3.12 Mineral Resources

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | ☐ | ☐ | ■ | ☐ |
| b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | ☐ | ☐ | ■ | ☐ |

a. *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?* ***Less Than Significant Impact****.* According to the County (2008), the project site is within Aggregate Resource Sector B, which is zoned as MRZ-2 and meets the State Mining and Geology Board's guidelines as eligible to be designated of regional or statewide significance. Mineral resource deposits of sand and gravel have been mapped throughout the project site (County 2008); however, the project does not propose a land use that would preclude mineral extraction, nor would it permanently restrict road access to MRZ-2 areas for potential future mining operations. The proposed project is consistent with the Bonsall Community Plan (2011) and the County General Plan (2011), with respect to the protection of mineral resources. Therefore, impacts to mineral resources would be considered less than significant.

b. *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?* ***Less Than Significant Impact****.* Refer to Response 3.12a, above. Impacts would be less than significant.

## 3.13 Noise

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project result in: | | | | |
| a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of | ☐ | ■ | ☐ | ☐ |

| | | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|---|
| | standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | | | | |
| b. | Generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ■ | ☐ |
| c. | For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ■ |

The following discussion was informed by construction noise modeling prepared for the project by HELIX (2016). Detailed Construction Noise Modeling Outputs are contained within Appendix D to this IS/MND.

Fundamentals of Sound and Environmental Noise

Noise can be defined as unwanted sound. Sound (and therefore noise) consists of energy waves that people receive and interpret. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Sound intensity or acoustic energy is measured in decibels (dB) that are weighted to correct for the relative frequency response of the human ear. Unlike linear units (inches or pounds), dB are measured on a logarithmic scale, representing points on a sharply rising curve.

Since dBs are logarithmic units, sound pressure levels cannot be added or subtracted by ordinary arithmetic means. As a general rule, doubling the traffic volume on a street or the speed of the traffic will increase the traffic noise level by three dBA.[3] Conversely, halving the traffic volume or speed will reduce the traffic noise level by 3 dBA. A 3-dBA change in sound is the level where humans generally notice a barely perceptible change in sound and a 5-dBA change is generally readily perceptible. A 10-dBA change is generally considered substantial.

The predominant rating scales for human communities are the Noise Equivalent ($L_{EQ}$), and the Community Noise Equivalent Level (CNEL), both of which are based on dBA. The $L_{EQ}$ is the total sound energy of time-varying noise over a sample period. The CNEL is the average equivalent A-weighted sound level during a 24-hour day, obtained after addition of 5 dBA to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after addition of 10 dBA to sound levels in the night from 10:00 p.m. to 7:00 a.m. CNEL is utilized for describing ambient noise levels because they account for all noise sources over an extended period of time and account for the heightened sensitivity of people to noise during the night.

[3] To account for the range of sound that human hearing perceives, a modified scale is utilized known as the A-weighted decibel, dBA. Sound intensity or acoustic energy is measured in dBs that are weighted to correct for the relative frequency response of the human ear. For example, an A-weighted noise level includes a de-emphasis on high frequencies of sound that are heard by a dog's ear but not by a human's ear.

Sensitive Noise Receptors

Noise-sensitive land uses (NSLUs) are land uses that may be subject to stress and/or interference from excessive noise. NSLUs in the project vicinity include an elementary school, a church, residences, and sensitive habitat adjacent to the project alignment within the River corridor. The sensitive habitat may be used for nesting by federally protected avian species, such as least Bell's vireo (see Section 3.4, *Biological Resources*).

Regulatory Framework

The District has not established noise limits for its projects. For the purposes of this analysis, the County noise guidelines are used to assess potential noise impacts. Noise limits for construction activities and general exterior noise generation are described in Sections 36.401 through 36.423 of the County Municipal Code (the noise ordinance). It is unlawful for any person to cause or allow the creation of any noise to the extent that the one-hour average sound level at any point on or beyond the boundaries of the property exceeds the sound level limits found in Table 36.404 of the noise ordinance. For the zones neighboring the project alignment, the exterior one-hour average limit is 50 dBA between 7:00 a.m. to 10:00 p.m. and 45 dBA between 10:00 p.m. and 7:00 a.m.

Sections 36.408 through 36.411 of the Municipal Code establish noise limitations for construction activities. Except for emergency work, it is unlawful for any person to operate or cause to be operated, construction equipment between 7:00 p.m. and 7:00 a.m., or that exceeds an average sound level of 75 dB for an 8-hour period, when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

Regarding federally listed biological species, guidelines produced by the USFWS recommend that project noise be limited to a one-hour average of 60 dBA or, if the existing ambient noise level is above 60 dBA, noise levels should not increase the ambient noise level by more than 3 dBA at the edge of occupied habitat during the avian species breeding season.

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? **Potentially Significant Unless Mitigated**.

   Short-term Construction Impacts

   Construction of the project would potentially result in temporary increases in noise levels from operation of the construction equipment. Construction activities could temporarily produce elevated short-term noise levels that would potentially impact NSLUs.

   Construction of the lift stations would require the use of a cement truck and boom for foundation pouring. These two pieces of equipment used in conjunction would generate 75 dBA at approximately 125 feet distance (assuming the equipment would be used for 40 percent of an 8-hour construction day). See Appendix D, Construction Noise Modeling Outputs, for construction equipment calculations. The nearest existing NSLUs to the Schoolhouse LS are residences and Bonsall Elementary School (refer to Figure 2). Following buildout of neighboring developments, future NSLUs may be as close as 45 feet from the Schoolhouse LS. The nearest NSLUs to the Thoroughbred LS are existing residences at a distance of approximately 110 feet. Assuming that construction would be conducted for 8 hours in a given day, construction noise may exceed the

8-hour 75-dBA $L_{EQ}$ noise limit for nearby NSLUs. Implementation of mitigation measures **NOI-1** would reduce lift station construction noise impacts to below a level of significance.

During pipeline trenching and pipeline replacement, an excavator would move along the pipeline route digging the trench and loading the materials into a dump truck. Trenching would occur within the following distances to NSLUs: 50 feet to single-family residences along Old River Road, 50 feet to Bonsall Community Church, 100 feet to classrooms at Bonsall Elementary School, 50 feet to residences south of Camino Del Rey, and 25 feet to sensitive habitat along the River.

An excavator, dump truck, pump, and loader would generate 75 dBA at approximately 100 feet. This assumes operation of the dump truck, loader, and excavator for 40 percent of an 8-hour construction day, and a pump operating 100 percent of an 8-hour day. Trenching activities would therefore exceed the 75-dBA noise limit for nearby NSLUs including residences, the church, and classrooms at Bonsall Elementary School. Implementation of mitigation measure **NOI-1** would reduce construction impacts to below a level of significance.

The project could possibly require nighttime construction. An excavator, dump truck, pump, and loader would generate a noise level of 80.9 dBA at 50 feet. If an exception to nighttime construction restrictions were granted by the District, construction noise would exceed the nighttime property boundary noise limits of 45 dBA in neighboring zones, and impacts would be significant.

Long-term Operation Impacts

As noted in the Project Description, the project would result in the installation of a new lift stations. The Schoolhouse LS would be within Lot 25 of the new Golf Green Estates Development along Old River Road, and Thoroughbred LS would be located at the southwestern corner of SR 76 and Thoroughbred Lane. Although the proposed lift stations would replace an existing station to the southeast (Figure 2), they would generate noise levels that may affect neighboring uses differently than the existing facility due to size and change in physical location.

The new Schoolhouse LS would require the addition of two 10-HP submersible wastewater pumps, and one 50-kW standby generator to be used in case of power failure. The nearest property lines to the Schoolhouse LS site are approximately 70 feet to the west and 45 feet to the south. The Schoolhouse LS site is partially encompassed by an existing 6-foot concrete masonry unit (CMU) perimeter wall, and the project would construct the wall on the remaining portion of the site. Single-family residences are currently under construction adjacent to the southwest of the site.

The new Thoroughbred LS would require the addition of four 50-HP submersible wastewater pumps, and one 175-kW standby generator. The nearest property line to the Thoroughbred LS site is approximately 110 feet.

The pumps at both lift stations would be in constant operation. Because the pumps would be located within enclosed structures, operational noise is not expected be audible at nearby property lines and were therefore not analyzed.

The emergency generators would require periodic 15-minute tests that would occur monthly during daytime hours. Because of the proximity of the Schoolhouse LS to future NSLUs, noise levels from this 15-minute test were analyzed at nearby property lines. During a 15-minute generator test, noise levels at property lines nearest to the Schoolhouse LS generator may be between 47.8 dBA $L_{EQ}$

(15-minute) and 54.1 dBA $L_{EQ}$ (15-minute), depending on the manufacturer.[4] Noise levels may exceed the 50-dBA exterior daytime and the 45-dBA exterior nighttime limits at the property line nearest to future residential uses. Mitigation measure **NOI-2** would call for the design of the proposed lift station sites to comply with the County daytime and nighttime limits, reducing impacts to below a level of significance.

Implementation of mitigation measures **NOI-1** and **NOI-2** would be required to reduce impacts to below a level of significance.

**NOI-1** **General Construction Noise Reduction Limits.** Noise levels from project-related demolition, grading, and construction activities shall be reduced to 75 dBA (8-hour average).

If work is to occur at night between 7:00 p.m. and 7:00 a.m. within 300 feet of occupied residences, noise from construction activities shall be reduced to 75 dBA (1-hour average).

The District shall employ measures to reduce construction/demolition noise including, but not be limited to, the following:

- Construction equipment shall be properly outfitted and maintained with manufacturer-recommended noise-reduction devices.
- Diesel equipment shall be operated with closed engine doors and equipped with factory-recommended mufflers.
- Mobile or fixed "package" equipment (e.g., arc-welders and air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.
- Electrically powered equipment shall be used instead of pneumatic or internal-combustion powered equipment, where feasible.
- Unnecessary idling of internal combustion engines (e.g., in excess of 5 minutes) shall be prohibited.
- Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise sensitive receptors.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.
- No project-related public address or music system shall be audible at any adjacent sensitive receptor.
- Any truck or equipment equipped with back-up alarm moving within 300 feet of a noise-sensitive land use (residence, school, or church) should have the normal back-

[4] Two generators were modeled for this analysis: a typical generator and a generator with noise-attenuation design features.

up alarm disengaged and safety provided by lights and flagman or broad-spectrum noise backup alarm (as appropriate for conditions) used in compliance with the Occupational Safety and Health Administration safety guidelines.

- Temporary sound barriers or sound blankets shall be installed between construction operations and adjacent noise-sensitive receptors. The project Contractor shall construct a 12-foot high temporary noise barrier meeting the specifications listed below (or of a Sound Transmission Class [STC] 19 rating or better) to attenuate noise.

- The District shall notify residences within 300 feet of the project's disturbance area in writing within one week of any construction activity. The notification shall describe the activities anticipated, provide dates and hours, and provide contact information with a description of a complaint and response procedure.

- The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process for the affected resident shall be established prior to construction commencement to allow for resolution of noise problems that cannot be immediately solved by the site supervisor.

**NOI-2** **Lift Station Operational Noise Limit.** Ultimate design of the lift stations shall strive to reduce noise levels from operation of two 10-HP submersible wastewater pumps and one 50-kW standby generator at the Schoolhouse LS site and four 50-HP submersible wastewater pumps and one 175-kW standby generator at the Thoroughbred LS site. Noise generated by operation of the lift stations shall strive to not exceed a daytime exterior one-hour noise level limit of 50 dBA $L_{EQ}$ or the nighttime exterior one-hour noise level limit of 45 dBA $L_{EQ}$ at the nearest property line.

Measures to ensure this noise limit may include installing equipment below ground, surrounding any above-ground equipment in a noise-attenuating enclosure, and/or purchasing a generator with sound attenuation features. If an enclosure is used, the plot plans shall show its location and specify its material as 8-foot masonry or 8-inch concrete masonry unit block walls. Any access door (metal or wood) shall face the interior of the permit site and away from the nearest property line. Any cracks or openings in the enclosure walls shall be caulked or filled on the interior façade or side facing the equipment. The center of the generator set shall be located no farther than 5 feet from the enclosure wall nearest to the affected property line. Any wood doors shall be solid core, at least 1¾ inches thick, and equipped with seals and a threshold sweep.

With the possibility of working as close as 25 feet from sensitive habitat, construction equipment noise on the pipeline segments would generate noise levels over 60 dBA $L_{EQ}$ within sensitive habitat of the River corridor. At these distances, noise levels could be as high as 88.8 dBA $L_{EQ}$. Therefore, impacts to nearby sensitive habitat would be potentially significant. Implementation of mitigation measures **BIO-1** and **BIO-2** would reduce potential impacts on nesting birds to below a level of significance.

The term "substantial increase" in permanent noise is generally considered to be 10 dBA above current levels. However, an increase of 3 dBA is the smallest change that would be perceptible by

humans, and this differential is often conservatively used to determine the significance of an impact. An increase of this magnitude would typically be caused by a doubling of traffic. Transportation noise sources for the project would be associated with intermittent vehicular trips by District employees for maintenance of the facility. However, project facilities would not increase the number of maintenance trips typically required compared to existing conditions. Implementation of mitigation measures **NOI-1** and **NOI-2** would ensure that ambient noise levels in the project vicinity would not be in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

b. Generation of excessive groundborne vibration or groundborne noise levels? **Less Than Significant Impact**. The construction and demolition activities required for the proposed replacement sewer mains and lift station are not anticipated to generate excessive groundborne vibrations or noise levels. No pile driving is anticipated to be necessary as part of project construction; the loudest source of potential vibration from project construction would be the potential use of a vibratory roller, which may be used to achieve soil compaction as part of foundation construction for the proposed lift station.

   No vibration-sensitive land uses (i.e., land uses where equipment or operations would be disrupted by excessive vibration) are located within 200 feet of the project alignment. Therefore, construction vibration would not affect vibration-sensitive land uses. Excessive levels of groundborne vibration of either a regular or an intermittent nature can result in annoyance to residential uses. The potential use of a vibratory roller for project construction, however, would not occur frequently during construction. As there is a relatively limited need for this piece of equipment during construction, it would likely be used very briefly and would affect an individual location for only a matter of minutes during a pass-by. Due to the temporary nature of construction activities and the infrequent potential use of a vibratory roller, impacts related to vibration are considered less than significant.

c. *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?* ***No Impact***. The nearest airports to the project area are Fallbrook Community Airpark, located approximately 5 miles to the north, and Marine Corps Air Station Camp Pendleton, located about 7.5 miles to the west. The project site is not located within noise impact zones for either airport. Therefore, there would be no impact associated with aircraft noise.

## 3.14 Population and Housing

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | ☐ | ☐ | ☐ | ■ |
| b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ■ |

a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? **No Impact**. The proposed project does not include any new homes or businesses, thus will not directly induce population growth. The project does not propose to substantially increase capital infrastructure or add new capacity intended to indirectly support new growth. Proposed improvements to wastewater facilities are intended to compensate for an existing deficit in system capacity. Therefore, the proposed project would not indirectly induce growth.

b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? **No Impact**. The proposed project would not require the removal of existing housing, and therefore, would not necessitate the construction of replacement housing elsewhere. No impact would occur.

## 3.15 Public Services

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: | | | | |
| 1) Fire protection? | ☐ | ☐ | ☐ | ■ |
| 2) Police protection? | ☐ | ☐ | ☐ | ■ |
| 3) Schools? | ☐ | ☐ | ☐ | ■ |
| 4) Parks? | ☐ | ☐ | ☐ | ■ |
| 5) Other public facilities? | ☐ | ☐ | ☐ | ■ |

1) *Fire Protection?* ***No Impact***. Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities. Construction and operation of the proposed project would generate no additional demand for increased public services, as it would involve improvements to the existing sewer system. During construction, fire protection may be required, but these would be short-term demands and would not require increases in the level of public service offered or affect response times. No impact would occur.

2) *Police Protection?* ***No Impact***. There are no significant impacts related to police protection or service anticipated with implementation of the proposed project, for the same reasons described in Response 3.15(1).

3) *Schools?* ***No Impact***. The project does not propose new housing and would not directly or indirectly induce population growth such that there would be an increase in demand for school services.

Therefore, implementation of the proposed project would not result in the need for construction of additional school facilities. No impact would occur.

4) *Parks?* ***No Impact***. Implementation of the proposed project would not affect existing park facilities or increase the demand for additional recreational facilities. Therefore, no impacts to parks are anticipated as a result of this project.

5) *Other Public Facilities?* ***No Impact***. No impacts to other public facilities are anticipated to occur with project implementation.

## 3.16 Recreation

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated? | ☐ | ☐ | ☐ | ■ |
| b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? | ☐ | ☐ | ☐ | ■ |

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated? **No Impact**. Implementation of the proposed project would not generate an increase in demand on existing public or private parks or other recreational facilities that would either result in or accelerate physical deterioration of these facilities. No impact would occur.

b. *Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?* ***No Impact***. The proposed project does not include recreational facilities or require the construction or expansion of recreational facilities. No impact would occur.

## 3.17 Transportation

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? | ☐ | ☐ | ■ | ☐ |
| b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | ☐ | ☐ | ☐ | ■ |

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| c. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ☐ | ■ |
| d. Result in inadequate emergency access? | ☐ | ☐ | ■ | ☐ |

a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? ***Less Than Significant Impact***. No long-term increase in traffic generation would occur as a result of the proposed project, as only minimal maintenance activity is anticipated for project operations. Project construction activities would temporarily contribute to additional vehicle trips on the local circulation system. Short-term construction traffic impacts would result from hauling demolition material away from the project site, importing/exporting fill to/from the site, delivering construction materials and supplies to the site, and transporting construction personnel to and from the site. It is assumed that primary access for construction traffic would be from SR 76. Construction would occur over an approximately 10-to-12-month span.

During peak hauling periods associated with transporting waste material off site and bringing building materials to the site, there is the potential for significant impacts to roadway segments and intersections along Old River Road and Camino Del Rey. As discussed in Section 2.8 *Project Description*, the project contractor would be required to prepare and implement a construction traffic control plan as a matter of project design to avoid significant construction-related impacts to nearby streets and intersections. The traffic control plan should include ingress and egress to and from the project site, as well as designated haul routes and use of flag persons. Many of the relatively narrow roadway segments within the project area would be subject to temporary lane closures during pipeline trenching and construction; however, most closures would maintain one lane of travel at all times, with a flag person(s) ensuring safe passage of vehicles approaching and passing through such areas. If road closures would be necessary, they would last for no more than a few days on the affected road segment, and alternate routes/detours would be established to accommodate diverted traffic. Driveway closures would be kept to a minimum, with blockages likely occurring for no more than a few hours at a time. Residents would be notified well in advance of impending closures or blockages related to project construction.

Furthermore, the proposed project is not anticipated to affect public transit, bicycle, or pedestrian facilities. Based on these considerations, impacts to traffic during the construction and operation of the project would be less than significant, and the project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

b. *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?* ***No Impact***. Refer to Response 3.17a, above. Since the proposed project would generate a short-term increase in construction traffic and no increase in traffic associated with operation, the project would not conflict with *CEQA Guidelines section 15064.3, subdivision (b)*. No impact would occur.

c. *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? **No Impact***. The sewer system improvements associated with the proposed project would not include the construction of hazards (e.g., sharp curves or dangerous intersections), and would not result in incompatible uses with the surrounding developed area. Therefore, no impacts regarding design features or incompatible uses would occur.

d. *Result in inadequate emergency access? **Less Than Significant Impact***. Adequate emergency access would be maintained at all times during construction of the proposed project, as ensured by implementation of the traffic control plan described in Response 3.17a. Specifically, lane closures and/or blockages would be temporary and safe passage of vehicles approaching and passing through the area would be ensured by measures in the traffic control plan, including use of a flag person(s). Upon completion of the construction phases, the affected roadways and surrounding areas would be returned to their original condition. Associated impacts would be less than significant. Refer also to Response 3.9g.

## 3.18 Tribal Cultural Resources

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project cause a substantial adverse change in the significance of a Tribal Cultural Resource (TCR), defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | | | | |
| a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | ☐ | ■ | ☐ | ☐ |
| b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | ☐ | ■ | ☐ | ☐ |

***Discussion***

a. Would the project cause a substantial adverse change in the significance of a TCR that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

b. Would the project cause a substantial adverse change in the significance of a TCR that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

The following discussion addresses questions XVII(a) and (b).

Assembly Bill (AB) 52, effective July 1, 2015, introduced the Tribal Cultural Resource (TCR) as a class of cultural resource and additional considerations relating to Native American consultation into CEQA. A TCR may be considered significant if included in a local or state register of historical resources; determined by the lead agency to be significant pursuant to criteria set forth in Public Resources Code §5024.1; is a geographically defined cultural landscape that meets one or more of these criteria; is a historical resource described in Public Resources Code §21084.1, a unique archaeological resources described in Public Resources Code §21083.2; or is a non-unique archaeological resource if it conforms with the above criteria.

ASM contacted the NAHC for a Sacred Land File (SLF) search of the project site and for a list of consultant tribes with traditional lands or cultural places within the project site. A response was received on August 16, 2016, stating that a search of the SLF "was completed for the USGS quadrangle information provided with negative results." It was noted that the absence of specific site information does not mean there are no Native American cultural resources within the project area. On August 16, 2016, 28 local tribal groups and individuals were contacted based on recommendations from the Native American Heritage Commission (NAHC).

Four tribes (the Pala Band of Mission Indians, the San Luis Rey Band of Mission Indians, the Rincon Band of Luiseno Indians, and the Viejas Band of Kumeyaay Indians) responded indicating that the project may be within their Traditional Use Areas and/or requested that the District include them in further correspondence about the project. The Viejas Tribe requested that a Kumeyaay cultural monitor and the San Luis Rey Band Tribe requested that a Lusieño Native American cultural monitor be present during ground disturbing activities.

A formal consultation with the San Luis Rey Tribe of Mission Indians was held on November 5, 2018, and with the Pala Tribe on October 28, 2020, during which District staff provided an overview of the proposed project. Staff also indicated that this IS/MND requires that a Native American monitor shall be present during construction of the project as indicated by mitigation measure **CUL-1**. The District has also initiated consultation with the Rincon Band of Mission Indians, La Jolla Band of Luiseno Indians, San Pasqual Band of Mission Indians, and the Pauma Band of Luiseno Indians.

Implementation of mitigation measures **CUL-1** and **CUL-2** would reduce potential impacts to TCRs to a less than significant level.

## 3.19 Utilities and Service Systems

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | ☐ | ☐ | ■ | ☐ |

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? | ☐ | ☐ | ■ | ☐ |
| c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ☐ | ■ |
| d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | ☐ | ☐ | ■ | ☐ |
| e. Comply with federal, state, and local statutes and regulations related to solid waste? | ☐ | ☐ | ■ | ☐ |

a. *Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?* **Less Than Significant Impact**. The proposed project does not involve the construction of habitable structures that would generate water, electricity, or natural gas demand or require telecommunications facilities or wastewater storage and treatment facilities. The proposed replacement sewer mains and lift stations have been designed in response to existing wastewater demands and would not result in the construction or expansion of new water or wastewater treatment facilities or expansion of existing facilities. No permanent staffing requirements would be associated with the new lift stations, therefore demand for wastewater services would not increase due to implementation of the project. While the proposed lift stations would require electricity to operate the submersible wastewater pumps, the electricity demand would be minimal and not require the construction or relocation of new facilities. Impacts would be less than significant.

b. *Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?* **Less Than Significant Impact**. The proposed project does not involve the construction of habitable structures that could generate water demand. Impacts associated with water supplies would be less than significant.

c. *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?* **No Impact**. As described in 3.17a, above, the proposed project is designed to meet existing wastewater demands and would not generate new wastewater flows. The proposed replacement sewer mains and lift stations have been designed in response to existing wastewater demands and would not result in the construction or expansion of new water or wastewater treatment facilities or expansion of existing facilities. Demand for wastewater services would not increase due to implementation of the infrastructure replacement project and there would be no impact related to wastewater treatment capacity at the SLRWTP.

d. *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?* **Less Than Significant Impact**. While project construction would generate a limited amount of solid waste, the total volume would be minimal and impacts to landfills would be temporary and negligible. Excavated soil from trenching activities would be temporarily stockpiled and reused as appropriate. The remaining excess excavation material, along with any asphalt and concrete waste resulting from the demolition of existing roadways, would be hauled off site and disposed of at an appropriate facility. The proposed project does not include construction of businesses or residences that would require ongoing solid waste disposal services, and the proposed lift stations would not include restroom facilities. Sufficient landfill capacity exists to serve the project; therefore, impacts would be less than significant.

e. *Comply with federal, state, and local statutes and regulations related to solid waste?* ***Less Than Significant Impact***. The proposed project would comply with applicable, federal, state, and local statutes and regulations related to solid waste, including Title 14, Article 5.9 of the California Code of Regulations, which specifies regulatory requirements for the disposal of construction and demolition debris (CalRecycle 2016). Impacts would be less than significant.

## 3.20 Wildfire

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: | | | | |
| a. Substantially impair an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ■ | ☐ |
| b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | ☐ | ■ | ☐ | ☐ |
| c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | ☐ | ☐ | ☐ | ■ |
| d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | ☐ | ☐ | ☐ | ■ |

The California Department of Forestry and Fire Protection (CALFIRE) has mapped areas of significant fire hazards in the County through their Fire and Resource Assessment Program (FRAP). These maps place areas of the County into different Fire Hazard Severity Zones (FHSZ) based upon fuels, terrain, weather, and other relevant factors. The FRAP divides areas of significant fire hazard into two designations: State Responsibility Areas (SRA), which are areas where CALFIRE is responsible for wildfire protection, and Local Responsibility Areas (LRA), where local fire protection agencies are responsible for wildfire protection. The majority of the unincorporated area of the County is SRA lands. The FHSZs are divided

into three levels of fire hazard severity: Moderate, High, and Very High. The majority of the County is in the High and Very High FHSZ. According to the maps prepared for the project area by CALFIRE, the project includes components that are within High and Very High FHSZs (CALFIRE 2020).

a. S*ubstantially impair an adopted emergency response plan or emergency evacuation plan?* ***Less than Significant Impact.*** The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. During construction, portions of the existing roadways, including Old River Road, Camino Del Rey, and Golf Club Drive, would be closed (e.g., up to one lane at a time). However, access would be maintained, and the project would utilize appropriate traffic control measures to ensure continued emergency response and evacuation access. As a matter of project design, the contractor would be required to prepare and comply with a traffic control plan which would include measures to minimize effects related to lane closures and ensure safe passage of evacuees or emergency response vehicles. Operation of the proposed project would not result in an increase in demand for emergency services, which could affect emergency response plan implementation. Therefore, emergency-related impacts would be less than significant.

b. *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?* **Potentially Significant Unless Mitigated.** The proposed project would not introduce permanent occupants. In addition, maintenance or construction workers would not be present for extended periods of time and would therefore not be exposed to substantial pollutants from wildfires that may occur in nearby areas. However, as discussed above, the project locations are within High and Very High FHSZs. To minimize the risk of losses resulting from wildfire, the following fire prevention strategies outlined in mitigation measure **FIRE-1** would be implemented during project construction.

   Implementation of mitigation measure **FIRE-1** would be required to reduce impacts to below a level of significance.

   **FIRE-1** **Fire Safety Plan**. The following fire prevention strategies would be implemented during project construction:

   - Construction within areas of dense foliage during dry conditions will be avoided, when feasible.
   - In cases where avoidance is not feasible, brush fire prevention and management practices will be incorporated. Specifics of the brush management program will be incorporated into project construction documents.

c. *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?* **No Impact.** The project includes the replacement of sewer mains and lift stations, which would not exacerbate fire risk or result in temporary or ongoing impacts to the environment. No impacts would occur.

d. *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?* ***No Impact.*** The project site is not located within an area identified as susceptible to landslides (County 2007).

Project construction would occur within the ROW in previously disturbed roadways and easements, as well as within a former golf course and adjacent disturbed areas. Due to the location of the project and topography of the surrounding area, flooding from runoff is not anticipated to affect the project site. Therefore, the project would not expose people or structures to significant risks associated with runoff, post-fire slope instability, or drainage changes, and impacts would be less than significant.

## 3.21 Mandatory Findings of Significance

| | Potentially Significant | Potentially Significant Unless Mit. | Less Than Significant | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? | ☐ | ■ | ☐ | ☐ |
| b. Does the project have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means the project's incremental effects are considerable when compared to the past, present, and future effects of other projects)? | ☐ | ☐ | ■ | ☐ |
| c. Does the project have environmental effects which will have substantial adverse effects on human beings, directly or indirectly? | ☐ | ■ | ☐ | ☐ |

a. *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?* **Potentially Significant Unless Mitigated**. As described in Section 3.4, Biological Resources, the removal or trimming of trees and other vegetation within the project site during the general bird nesting season has the potential to result in impacts to nesting birds in violation of the MBTA and CFG Code. Implementation of mitigation measure **BIO-1** would reduce potentially significant, temporary construction impacts to nesting birds to below a level of significance. No impacts to nesting birds are anticipated once the sewer mains and lift stations have been constructed. Project construction also has the potential to impact sensitive avian species including Cooper's hawk, coastal California gnatcatcher, least Bell's vireo, and yellow-breasted chat if construction activities were to take place adjacent to suitable habitat during the species' respective breeding seasons. Implementation of mitigation measure **BIO-2** would reduce potentially significant, temporary construction impacts to Cooper's hawk, coastal California gnatcatcher, least Bell's vireo, and yellow-breasted chat to below a level of significance. The project would not reduce the habitat of a fish or wildlife species, as no sensitive habitat would be permanently removed. One acre of non-native grassland, which provides suitable habitat for San Diego black-tailed jackrabbit, would be temporarily removed during trenching in the former golf course; however, as a matter of

project design, the trenched area would be returned to its pre-construction contours and revegetated with an appropriate native seed mix following completion of construction. No mitigation would be required for this temporary impact. The project would not cause a wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. Refer to Section 4.4 for further discussion of these issue areas.

As described in Section 3.5, *Cultural Resources*, no substantial adverse change in the significance of historical resources is anticipated to occur as a result of project implementation; thus, it would not eliminate important examples of the major periods of California history. The project has the potential to encounter buried archaeological and paleontological resources during excavation, which could result in significant impacts to important examples in California prehistory; implementation of mitigation measures **CUL-1**, **CUL-2**, and **GEO-1** would ensure that important examples of California prehistory are not eliminated and potential impacts during construction would be reduced to below a level of significance.

b. *Does the project have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means the project's incremental effects are considerable when compared to the past, present, and future effects of other projects)?* **Less Than Significant Impact**. Cumulative impacts are defined as two or more individual project effects that, when considered together or in concert with other projects, combine to result in a significant impact (CEQA Guidelines Section 15355). The proposed replacement lift station and sewer main project, which is almost exclusively limited to construction-related effects, would not result in impacts that are cumulatively considerable. No significant air or GHG emissions would occur, no sensitive habitat would be permanently removed, impacts to unknown buried cultural resources would be avoided through construction monitoring, and temporary noise effects would be limited through implementation of noise abatement measures.

c. *Does the project have environmental effects which will have substantial adverse effects on human beings, directly or indirectly?* **Potentially Significant Unless Mitigated**. With the adherence to regulatory codes, ordinances, regulations, standards, and guidelines for a number of issue areas addressed herein, in conjunction with the discussed mitigation measures for cultural resources, noise (**NOI-1** and **NOI-2**), and wildfire (**FIRE-1**), construction (and operation) of the proposed project would not result in a substantial adverse effect on human beings either directly or indirectly.

# 4.0 DETERMINATION AND PREPARERS

## 4.1 Determination

Based on this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

■ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described herein have been included in this project. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

## 4.2 De Minimis Fee Determination (Chapter 1706, Statutes of 1990-AB 3158)

☐ It is hereby found that this project involves no potential for any adverse effect, either individually or cumulatively, on wildlife resources and that a "Certificate of Fee Exemption" shall be prepared for this project.

■ It is hereby found that this project could potentially impact wildlife, individually or cumulatively, and therefore fees shall be paid to the County Clerk in accordance with Section 711.4(d) of the Fish and Game Code.

## 4.3 Environmental Determination

The initial study for this project has been reviewed and the environmental determination, contained in Section V. preceding, is hereby approved:

_____

Chad Williams, Acting District Engineer
Rainbow Municipal Water District

## 4.4 Report Preparers

***HELIX Environmental Planning, Inc.***

Joanne Dramko, AICP, Principal Planner, Project Manager
Brendan Sullivan, Environmental Planner
Jason Runyan, Noise Specialist
Victor Ortiz, Air Quality Specialist
Karl Osmundson, Principal Biologist
Stacie Wilson, RPA, Archeologist
Sean Bohac, GISP, GIS Specialist

# 5.0 REFERENCES


ASM Affiliates, Inc. (ASM)

2016 Cultural Resources Survey for the Rainbow Municipal Water District Lift Station #1 Replacement Project, Bonsall, San Diego County, California. October 19.

2018 Letter Report RE: Cultural Resources Study Augment for the Rainbow Municipal Water District Lift Station #1 Replacement Project, Bonsall, San Diego County, California. January 5.

California Building Standards Commission

2010 California Building Code.

California Department of Fire and Forestry (CAL FIRE)

2020 Fire Hazard Severity Zone Maps. Available at: https://www.fire.ca.gov/.

2006 Land Cover Map. Available at: http://frap.fire.ca.gov/data/frapgismaps/pdfs/fvegwhr13b_map.pdf.

California Department of Conservation (CDC)

2016 Geologic Map of the Oceanside Quadrangle. Accessed September 28, 2016. Available at: http://www.quake.ca.gov/gmaps/RGM/oceanside/oceanside.html.

2013 San Diego County Williamson Act Map. Available at: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/San_Diego_w_13_14_WA.pdf.

2012 San Diego County Important Farmland Map. Available at: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/sdg12_w.pdf.

California Department of Transportation (Caltrans)

2016 California Scenic Highway Mapping System, San Diego County. Accessed September 23, 2016. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/.

California Department of Toxic Substances Control

2016 EnviroStor Database. Accessed October 13, 2016. Available at: http://www.envirostor.dtsc.ca.gov/public/.

County of San Diego (County)

2016 Planning and Development Services Zoning and Property Information website. Accessed October 20, 2016. Available at: https://www.arcgis.com/home/webmap/viewer.html?webmap=f1b69ba9d3dd4940b8d1efcc9dac2ac4.

2011a Bonsall Community Plan. August 3. Available at: http://www.sandiegocounty.gov/content/dam/sdc/pds/docs/CP/Bonsall_CP.pdf.

County of San Diego (cont.)

2011b General Plan Update Final Environmental Impact Report. August. Available at: http://www.sandiegocounty.gov/content/dam/sdc/pds/gpupdate/docs/BOS_Aug2011/EIR/FEIR_0.00_Title.TOC_2011.pdf.

2009 San Diego County Code of Administrative Ordinances. Title 3, Division 6, Chapter 4. Noise Abatement and Control. January.

2008 Guidelines for Determining Significance–Mineral Resources. July 30. Available at: http://www.sandiegocounty.gov/dplu/docs/Mineral_Resources_Guidelines.pdf.

2007 Guidelines for Determining Significance–Geologic Hazards. July 30. Available at: http://www.sandiegocounty.gov/dplu/docs/Geologic_Hazards_Guidelines.pdf.

CalRecycle

2016 Regulations: Title 14, Natural Resources--Division 7, CIWMB, Chapter 3. Minimum Standards for Solid Waste Handling and Disposal. Accessed October 26, 2016. Available at: http://www.calrecycle.ca.gov/laws/regulations/title14/ch3a59a.htm.

Deméré, Thomas A. and Stephen L. Walsh

1994 Paleontological Resources–County of San Diego. Department of Paleontology, San Diego Natural History Museum.

Federal Emergency Management Agency (FEMA)

2014 A99 Designation, FEMA website. Available at: http://www.fema.gov/floodplain-management/zone-a99.

HELIX Environmental Planning, Inc. (HELIX)

2020a Air Quality and GHG Modeling Outputs. July 23.

2020b Biological Resources Letter Report. October 2020.

2016 Construction Noise Modeling Outputs. November 7.

International Conference of Building Officials

2006 International Building Code.

Larry Walker and Associates

2016 San Luis Rey River Watershed Management Area Water Quality Improvement Plan Provision B.2 Chapter. March. Available at: http://www.projectcleanwater.org/images/stories/Docs/San-Luis-Rey/WQIP/00%20SLR%20WQIP.March%202016.pdf.

Regional Standards Committee

2009 San Diego Area Regional Standard Drawings. August. Available at: http://www.sandiegocounty.gov/content/dam/sdc/dpw/DPW_STANDARDS/Old_Regional_Standard_Drawings/Regional_Standard_PDF/2009_RSD.pdf.

San Diego Air Pollution Control District (SDAPCD)

2012 SDAPCD Redesignation Request and Ozone Maintenance Plan for the 1997 National Ozone Standard. Available at: https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Air%20Quality%20Planning/8_Hour_O3_Maint-Plan.pdf

State Water Resources Control Board (SWRCB)

2017 GeoTracker Database. Accessed October 17, 2017. Available at: https://geotracker.waterboards.ca.gov/.

2016 Final 2012 California Integrated Report, Impaired Water Bodies website. Accessed October 17, 2016. Available at: http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2012.shtml?tab=map.

# 6.0 ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AB | Assembly Bill |
| APE | Area of Potential Effects |
| ASM | ASM Affiliates, Inc. |
| AQIA | Air Quality Impact Analysis |
| BLR | Biological Resources Letter Report |
| BMPs | best management practices |
| CalEEMod | California Emission Estimator Model |
| CALFIRE | California Department of Forestry and Fire Protection |
| Caltrans | California Department of Transportation |
| CARB | California Air Resources Board |
| CBC | California Building Code |
| CDC | California Department of Conservation |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CFG Code | California Fish and Game Code |
| $CH_4$ | methane |
| CNEL | community noise equivalent level |
| CNPS | California Native Plant Society |
| CO | carbon monoxide |
| $CO_2$ | carbon dioxide |
| $CO_2e$ | carbon dioxide equivalent |
| County | County of San Diego |
| CNDDB | California Natural Diversity Database |
| dB | decibels |
| dB(A) | A-weighted decibels |
| District | Rainbow Municipal Water District |
| DTSC | California Department of Toxic Substances Control |
| FHSZ | Fire Hazard Severity Zone |
| FIRM | Flood Insurance Rate Map |
| FRAP | Fire and Resource Assessment Program |
| GHGs | greenhouse gases |
| HELIX | HELIX Environmental Planning, Inc. |
| HP | horsepower |
| IBC | International Building Code |
| ICC | International Code Council |
| IS/MND | Initial Study/Mitigated Negative Declaration |

| | |
|---|---|
| kW | kilowatt |
| kWh | kilowatt hour |
| | |
| $L_{EQ}$ | noise equivalent |
| LF | linear feet |
| LRA | Local Responsibility Area |
| LS | Lift Station |
| | |
| MBTA | Migratory Bird Treaty Act |
| MLD | Most Likely Descendant |
| MT | metric ton |
| | |
| $N_2O$ | nitrous oxide |
| NAHC | Native American Heritage Commission |
| NPDES | National Pollutant Discharge Elimination System |
| NSLU | noise-sensitive land use |
| | |
| $O_3$ | Ozone |
| | |
| $PM_{10}$ | particulate matter less than 10 microns in diameter |
| $PM_{2.5}$ | particulate matter less than 2.5 microns in diameter |
| PVC | Polyvinyl Chloride |
| | |
| RAQS | Regional Air Quality Strategy |
| River | San Luis Rey River |
| ROW | right-of-way |
| RWQCB | Regional Water Quality Control Board |
| | |
| SANDAG | San Diego Association of Governments |
| SB | Senate Bill |
| SDAPCD | San Diego Air Pollution Control District |
| SLRWTP | San Luis Rey Wastewater Treatment Plant |
| SRA | State Responsibility Area |
| SR | State Route |
| STC | Sound Transmission Class |
| SWPPP | Storm Water Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |
| | |
| USFWS | U.S. Fish and Wildlife Service |
| USEPA | U.S. Environmental Protection Agency |
| USGS | U.S. Geological Survey |

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# AS-NEEDED CONTRACT EXPENDITURES REPORT
## NOVEMBER 2020

| CONT # | EXP DATE | TITLE | CONSULTANT | FUND SOURCE | ASSIGNMENT LETTERS | STATUS | ASSIGNMENT DATES | DESCRIPTION | AUTHORIZED AMOUNT | NOT TO EXCEED AMOUNT | INVOICED TO DATE | CURRENT BALANCE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18-16 | 8/29/2021 | As-Needed Land Surveying Services | Johnson-Frank & Associates, Inc. | NON-CIP | 2019-01 | Closed | 5/14/2019 | Topography - Dentro De Lomas Road repair. | | $ 5,115.40 | $ 5,115.40 | |
| | | | | NON-CIP | 2019-02 | Closed | 8/6/2019 | Easement review - McDowell / Mead | | $ 4,100.00 | $ 1,404.25 | |
| | | | | | 2020-03 | Open | 9/19/2020 | Survey & Reset Monument Los Alisos Lane | | $ 6,079.00 | $ - | |
| | | | | | | | | | | | | |
| | | | | | | | | | $ 50,000.00 | $ 9,215.40 | $ 6,519.65 | $ 43,480.35 |
| 18-14 | 8/29/2021 | As-Needed Land Surveying Services | KDM Meridian, Inc. | NON-CIP | 2018-01 | Closed | 9/11/2018 | Stake easement on Morro Hills due to 20" watermain failure. | | $ 7,280.00 | $ 7,278.75 | |
| | | Change Order 01 for $50K | | CIP | 2019-02 | Closed | 1/9/2019 | RMWD "Base Map" to perform in-house design of proposed water facilities on Via Ararat. | | $ 5,800.00 | $ 5,800.00 | |
| | | | | CIP | 2019-03 | Cancelled | --- | Assignment Cancelled - 4 PTR Plottable Easements | | $ - | $ - | |
| | | | | CIP | 2019-04 | Closed | 4/24/2019 | Stake easement on Gird Road for construction project. | | $ 5,400.00 | $ 5,400.00 | |
| | | | | CIP | 2019-05 | Closed | 6/18/2019 | Legal and Plat for Campbell - Via Ararat | | $ 1,195.00 | $ 1,195.00 | |
| | | | | NON-CIP | 2019-06 | Closed | 10/24/2019 | Stake easement on Via Oeste Drive and Laketree Drive | | $ 10,900.00 | $ 7,725.00 | |
| | | | | CIP | 2019-07 | Open | 11/8/2019 | Easements for new PS on W. Lilac/Via Ararat | | $ 4,100.00 | $ 1,100.00 | |
| | | | | NON-CIP | 2020-08 | Closed | 4/6/2020 | Linda Vista Drive - Mainline Break | | $ 5,563.00 | $ 5,562.50 | |
| | | | | CIP | 2020-09 | Open | 4/6/2020 | Gird Road - Winery easement anlysis and exhibit | | $ 7,680.00 | $ 6,900.00 | |
| | | | | CIP | 2020-10 | Open | 9/1/2020 | Additional Gird Road - Winery easement analysis and new exhibit | | $ 5,320.00 | $ - | |
| | | | | | | | | | | | | |
| | | | | | | | | | $ 100,000.00 | $ 53,238.00 | $ 40,961.25 | $ 59,038.75 |
| 18-15 | 8/29/2021 | As-Needed Land Surveying Services | Right-of-Way Engineering, Inc. | NON-CIP | 2019-00A | Closed | 5/15/2019 | Title Reports, Legals & Plats - Los Sicomoros | | $ 7,705.00 | $ 7,705.00 | |
| | | Change Order 01 for $50K | | NON-CIP | 2019-00B | Closed | 6/18/2019 | Adams Property Easement - Ranger Road | | $ 1,885.00 | $ 1,885.00 | |
| | | | | CIP | 2019-00C | Closed | 6/30/2019 | Pardee Easement - North River | | $ 2,875.00 | $ 2,875.00 | |
| | | | | NON-CIP | 2019-01 | Closed | 6/19/2019 | Easement Survey - Grove View Road | | $ 4,220.00 | $ 3,285.00 | |
| | | | | CIP | 2019-02 | Closed | 10/3/2019 | Easement Survey - Pala Mesa/Tecalote/Fire Rd/Pala Lake | | $ 15,640.00 | $ 15,451.30 | |
| | | | | CIP | 2019-03 | Closed | 11/6/2019 | Easement Survey - Moosa Creek Pump Station. Restake and reconfigure easement authorized additional $525. | | $ 5,410.00 | $ 5,675.20 | |
| | | | | CIP | 2020-04 | Open | 2/19/2020 | Lemonwood Easement Location | | $ 5,370.00 | $ 4,390.00 | |
| | | | | CIP | 2020-05 | Open | 6/9/2020 | Easement Survey - Hutton Pump Station | | $ 5,687.50 | $ 3,790.00 | |
| | | | | CIP | 2020-06 | Open | 7/30/2020 | Easement Survey - Rainbow Heights Rd - Calfire Camp Site | | $ 5,756.00 | $ - | |
| | | | | CIP | 2020-07 | Open | 8/26/2020 | Easement Survey - RHR - Calfire Camp Site Additional Services | | $ 2,276.00 | $ - | |
| | | | | CIP | 2020-08 | Open | 10/19/2020 | Easement Survey - Rancho Del Caballo | | $ 1,620.00 | $ - | |
| | | | | | | | | | | | | |
| | | | | | | | | | $ 100,000.00 | $ 58,444.50 | $ 45,056.50 | $ 54,943.50 |
| 19-16 | 6/25/2022 | As-Needed Civil Engineering Services | Dudek | Both | 2019-01 | Open | 12/18/2019 | PRS and other Schematic Design/Drafting Services | | $ 10,000.00 | $ 7,527.50 | |
| | | | | CIP | 2020-02 | Closed | 8/5/2020 | Design of Hutton Pump Station Site - Assignment Cancelled | | $ 1,787.50 | $ 1,787.50 | |
| | | | | | | | | | | | | |
| | | | | | | | | | $ 150,000.00 | $ 11,787.50 | $ 9,315.00 | $ 140,685.00 |
| | | | | | | | | | | | | |
| 19-17 | 7/01/2022 | As-Needed Civil Engineering Services | Omnis Consulting, Inc. | NON-CIP | 2019-01 | Closed | 7/16/2019 | PS&E Pavement Repair - Dentro De Lomas | | $ 8,890.00 | $ 8,890.00 | |
| | | Change Order 01 for $150K | | CIP | 2019-02 | Closed | 8/1/2019 | Olive Hill Estates Transmission Water Main | | $ 73,700.00 | $ 73,700.00 | |
| | | | | CIP | 2019-03 | Closed | 10/14/2019 | Vista Valley Retaining Wall Design | | $ 23,495.00 | $ 23,040.67 | |
| | | | | CIP | 2019-04 | Closed | 12/3/2019 | Sarah Ann to Gird Road Force Main Replacement | | $ 22,790.00 | $ 22,790.00 | |
| | | | | CIP | 2020-05 | Closed | 3/24/2020 | Gird Road Water Main Upsize | | $ 21,120.00 | $ 21,120.00 | |
| | | | | CIP | 2020-06 | Open | 8/5/2020 | Caltrans Encroachment Permit Renewal | | $ 6,410.00 | $ - | |
| | | | | NON-CIP | 2020-07 | Open | 10/14/2020 | Standard Drawing - CAD Updates | | $ 4,400.00 | $ - | |
| | | | | | | | | | | | | |
| | | | | | | | | | $ 300,000.00 | $ 160,805.00 | $ 149,540.67 | $ 150,459.33 |
| 19-18 | 6/25/2022 | As-Needed Civil Engineering Services | HydroScience Engineers, Inc. | CIP | 2019-01 | Open | 12/18/2019 | Live Oak Park Road Bridge Crossing | | $ 42,020.00 | $ 27,145.00 | |
| | | | | | | | | | $ 150,000.00 | $ 42,020.00 | $ 27,145.00 | $ 122,855.00 |

## AS-NEEDED CONTRACT EXPENDITURES REPORT
## NOVEMBER 2020

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19-19 | 6/25/2022 | As-Needed Real Estate Appraisal Services | Anderson & Brabant, Inc. | CIP | 2019-01 | Closed | 9/19/2019 | North River Rd Easement Appraisal | | $ 3,500.00 | $ 3,500.00 | |
| | | | | CIP | 2020-02 | Closed | 2/19/2020 | PRS Fire Road Appraisal | | $ 7,500.00 | $ 7,500.00 | |
| | | | | | | | | | $ 20,000.00 | $ 11,000.00 | $ 3,500.00 | $ 16,500.00 |
| 19-20 | 6/11/2022 | As-Needed Real Estate Appraisal Services | ARENS Group, Inc. | NON-CIP | 2019-01 | Closed | 7/15/2019 | Bonsall Reservoir Appraisal (to include rent value) | | $ 3,050.00 | $ 3,050.00 | |
| | | | | CIP | 2020-02 | Closed | 1/7/2020 | Moosa Creek Pump Station Easement Appraisal | | $ 5,350.00 | $ 6,542.50 | |
| | | | | CIP | 2020-03 | Closed | 1/7/2020 | Hutton Pump Station Easement Appraisal | | $ 3,400.00 | $ 3,400.00 | |
| | | | | | | | | | $ 20,000.00 | $ 11,800.00 | $ 12,992.50 | $ 7,007.50 |
| 19-39 | 11/13/2022 | As-Needed Geotechnical Services | Leighton Consulting, Inc. | CIP | 2020-01 | Open | 6/25/2020 | Rainbow Heights Pump Station geotechnical exploration | | $ 8,630.00 | $ 3,797.20 | |
| | | | | | | | | | | $ - | $ - | |
| | | | | | | | | | $ 100,000.00 | $ 8,630.00 | $ 3,797.20 | $ 96,202.80 |
| 19-40 | 11/1/2022 | As-Needed Geotechnical Services | Ninyo & Moore G.E.S. Consultants | NON-CIP | 2020-01 | Open | 3/26/2020 | Dentro De Lomas geotech observation and material testing | | $ 6,518.00 | $ 1,369.00 | |
| | | | | | 2020-02 | Open | 8/6/2020 | Vista Valley Villas PRS geotech observation and material testing. | | $ 10,235.00 | $ - | |
| | | | | | | | | | $ 100,000.00 | $ 16,753.00 | $ 1,369.00 | $ 98,631.00 |
| 19-41 | 11/20/2022 | As-Needed Geotechnical Services | ATLAS (SCST, LLC) | CIP | 2020-01 | Open | 7/7/2020 | Olive Hills Estates Trans. Main geotech observation/field test | | $ 36,619.00 | $ 17,535.00 | |
| | | | | | | | | | $ 100,000.00 | $ 36,619.00 | $ 17,535.00 | $ 82,465.00 |
| 20-01 | 1/28/2023 | As-Needed Construction Management & Insp. Services | Harris & Associates | CIP | 2020-01 | Open | 3/13/2020 | CM Support Services for the WSUP Project | | $ 100,000.00 | $ 99,972.50 | |
| | | | | CIP | 2020-02 | Open | 4/7/2020 | Constructability design review of PUP-1 | | $ 6,270.00 | $ 5,280.00 | |
| | | | | NON-CIP | 2020-03 | Open | 4/21/2020 | Sewer North River Road - Emergency Repair | | $ 11,000.00 | $ 4,389.33 | |
| | | | | CIP | 2020-04 | Open | 9/21/2020 | District Wide Inspection Services | | $ 20,000.00 | $ 330.00 | |
| | | | | | | | | | $ 150,000.00 | $ 137,270.00 | $ 109,971.83 | $ 40,028.17 |
| 20-02 | 1/28/2023 | As-Needed Construction Management & Insp. Services | Reilly Construction Mnmt. | | | | | | | $ - | $ - | |
| | | | | | | | | | | $ - | $ - | |
| | | | | | | | | | $ 150,000.00 | $ - | $ - | $ 150,000.00 |
| 20-03 | 2/25/2023 | As-Needed Environmental Services | Helix Envrionmental | CIP | 2020-01 | Open | 5/13/2020 | Pipeline Upgrade Project - Disney Lane - Cultural/ Biological Evals | | $ 9,148.00 | $ 5,804.56 | |
| | | | | CIP | 2020-02 | Open | 5/13/2020 | Pipeline Upgrade Project - Via Vera - Cultural/Biological Evals | | $ 9,155.00 | $ 4,446.37 | |
| | | | | CIP | 2020-03 | Open | 5/14/2020 | Pipeline Upgrade Project - Hutton Pump Station - Cultural/Biological Evals | | $ 13,209.00 | $ 6,793.54 | |
| | | | | CIP | 2020-04 | Open | 5/14/2020 | Pipeline Upgrade Project - Turner Pump Station - Cultural/Biological Evals | | $ 13,029.00 | $ 7,683.26 | |
| | | | | CIP | 2020-05 | Open | 7/16/2020 | North River Road Sewer Points Repair - Biological Survey | | $ 3,900.00 | $ 3,136.05 | |
| | | | | CIP | 2020-06 | Open | 9/10/2020 | Gopher Canyon Water Pipeline Impv. Project - CEQA IS/MND | | $ 34,695.00 | $ 19,960.50 | |
| | | | | | | | | | $ 100,000.00 | $ 83,136.00 | $ 47,824.28 | $ 52,175.72 |
| 20-04 | 2/25/2023 | As-Needed Environmental Services | Rincon Consultants | | | | | | | $ - | $ - | |
| | | | | | | | | | | $ - | $ - | |
| | | | | | | | | | $ 100,000.00 | $ - | $ - | $ 100,000.00 |
| 20-05 | 3/24/2023 | As-Needed Environmental Services | Michael Baker International | | | | | | | $ - | $ - | |
| | | | | | | | | | | $ - | $ - | |
| | | | | | | | | | $ 100,000.00 | $ - | $ - | $ 100,000.00 |

| Total Authorized | Total Encumbrance | Total Expended |
|---|---|---|
| $ 1,790,000 | $ 640,718 | $ 475,528 |

# Rainbow Municipal Water District
# Capital Improvement Program
# Strategic Plan

## Purpose

The purpose of this Strategic Plan is to communicate to all internal and external stakeholders the primary driving factors behind the RMWD CIP program. This information is intended to inform stakeholders about several key factors related to the program:

- Why are we performing a specific project?
- What priority should be applied to a specific project relative to others?
    - Imminent risk of failure
    - Consequence of failure
    - Reduction in operating expenses
    - System operational benefits
    - Capacity need
    - Timing related to other projects (County road realignments, development, etc.)
- What does each project consist of in terms of design, bid, and build processes?
- How much will each phase of the project cost and how does that fit into our CIP budget?
- When will this project begin each phase of the project and when will funding be needed?
- Who will lead each project and are the resources needed available to execute the project?

This plan will initially focus on identifying the Key Focus Areas for CIP projects. These focus areas will help answer the first question – why are we spending valuable ratepayer funds to do a proposed project? Every CIP project proposed by staff must be in alignment with one or more Key Focus Areas. This process should include a project description that clearly articulates what the project consists of and how this addresses the driving factors behind a Key Focus Area. The project description should also include answers to the remaining questions listed above.

This CIP Strategic Plan is separate and different than the District's primary Strategic Plan, and it serves to fit within the Key Focus Areas of Asset Management and Fiscal Responsibility as outlined in the primary Strategic Plan.

Strategic Focus Area One: Water Resources

Strategic Focus Area Two: Asset Management

Strategic Focus Area Three: Workforce Development

Strategic Focus Area Four: Fiscal Responsibility

Strategic Focus Area Five: Customer Service

Strategic Focus Area Six: Communication

# Key Focus Areas

As with most organizations like RMWD, there are multiple challenges that create the need for infrastructure investments. While some of these challenges require unique solutions to fit a specific need, other solutions can provide multiple benefits. The goal of any CIP project should be to provide solutions that have multiple benefits. This strategic approach will deliver the best return on investment for the ratepayer.

## Key Focus Area One – Water Pipeline Rehabilitation and Replacement

The District developed and maintains a comprehensive Condition Assessment Program that monitors the performance of pipelines within our water distribution network. This program developed a model that tracks several variables and uses a specially designed algorithm to assign a risk score to each segment. . The data to support the calculation of the risk score is continuously updated as new information is gathered during normal day to day operations. The success of this system is highly dependent on having quality data, so all staff members must focus on accurate record keeping and input of this information into the model. Failure to perform this simple task well can result in poor decision making for CIP projects.

As new data is collected, the model is recalibrated periodically – no less than once per year. The output of the model provides a list of the pipelines that show the highest risk for failure. It is critical to understand that just because a pipeline gets a high score from the model, it does not mean that it must be replaced. The scoring algorithm tracks multiple variables to determine a score, and some of those variables can be addressed using methods other than expensive pipeline replacement.

The Condition Assessment report showed that most pipeline failures are related to high system pressure and corrosive soil conditions. The replacement of a pipeline in these areas with a new pipeline of similar materials does not solve these problems – they just push them into the future. While the degraded state of a pipeline may require replacement, doing so without addressing the root cause of failure may put future generations of stewards of the system in the same place a few decades from now.

For these reasons, for each pipeline that is identified as a candidate for review due to the score received from the Condition Assessment model, a detailed review of the root cause for the high score must be completed. This root cause analysis should be the driver for the selection of a mitigation method and the least costly effective method must be identified separately for each case. It is likely that pressure reduction or corrosion protection may solve the matter – or at least extend the useful lifespan of a given pipeline for a few more decades.

**Pressure Management**

For pipelines whose risk score has a significant component related to elevated system pressure, the following questions should be answered:

- Can the system pressure be reduced using a PR station or other network alterations such as connecting to a different zone?
- Would reducing the pressure move the risk score to a lower priority tier?

- If the pressure is reduced or the network altered, would there be negative side effects such as increased dead ends, too low of pressure in high elevations, or system circulation impacts?

**Corrosion Management**

For pipelines whose risk score has a significant component related to corrosion, the following questions should be answered:

- After a thorough review of break history data, can the source of the corrosion be identified?
- If so, is the primary corrosion driver internal or external?
- If external:
    - Has the corrosion developed to a point where the pipeline wall thickness is degraded along the entire pipeline or just in areas where external coatings have failed?
    - Is the pipeline in question continuous – does it have any rubber gaskets or other connection features that would limit the ability for cathodic protection to pass from pipe segment to pipe segment?
    - Has a soil corrosivity analysis been performed in the area of the pipeline to support the design of a cathodic protection system?
- If internal:
    - Were the failures occurring at just welded joints or in other areas as well?
    - Were the failures related to service connections and other similar features where internal coatings were disturbed?
    - Has the corrosion degraded the pipe thickness from the inside in areas that were not part of a leak site?

There are several ways to address corrosion issues:

External:

- Installation of sacrificial anodes – only where corrosive soil conditions is limited to a short segment of line
- Installation of impressed current CP systems (may require bonding of joints)

Internal:

- Spot patching of welded joints using handholes
- Lining of internal surfaces with CIPP methods
- Pulling a new HDPE/PVC line through the existing line (slip lining)
- Pipe bursting with a new HDPE/PVC line
- Pipeline replacement through dig and replace methods

**Required Analysis**

For each project identified under this Key Focus Area to be included in a CIP project, staff must produce a report that details the factors that lead to the selected mitigation strategy. This report may be in the form of a flow chart.. This analysis should demonstrate that the selected mitigation strategy achieves the desired result at the lowest overall lifecycle cost of the affected asset.

## Key Focus Area Two – Wastewater System Upgrades/Expansion

The District conveys wastewater from its customers to the San Luis Rey Water Reclamation Plant in the City of Oceanside. The District owns ~12% of the capacity in the plant as well as capacity rights in conveyance systems owned and operated by the City of Oceanside. The point of separation is on North River Road at Stallion Drive in Oceanside. The District's system is a combination of gravity mains as well as some segments of force main. A total of six wastewater lift stations are owned and operated by the District currently. All CIP projects developed under this Key Focus area should be designed to ensure both adequate capacity of the conveyance system as well as proper operating condition of the various facilities.

**Wastewater System Capacity Expansion**

With new developments being constructed within the District, the main wastewater conveyance system that carries wastewater to the point of connection with the City of Oceanside requires capacity increases and lift station upgrades in certain areas of the system. Over the last ten years there have been numerous starts and stops to several developments that altered the planning scenarios used to deal with this issue. Not only did these changing development scenarios impact anticipated required capacity, they also changed the amount of funds available to complete the projects once designed.

With the formal transfer of the Pardee Meadowood development to RMWD from Valley Center MWD, the level of uncertainty has been diminished significantly. Working with Pardee's engineering team, the District's wastewater design engineering firm, and District staff, a multi-phase plan was developed to ensure that the conveyance system can safely move all flows to the point of connection at Stallion Drive under all operating conditions.

A key part of this plan is to operate the system so that we do not oversize gravity mains to meet diurnal peak demands. This reduces the capital cost of pipeline expansion but requires lift stations to be constructed in such a way that they can absorb diurnal peaks and use variable frequency drive pumps to set appropriate downstream flow rates according to capacity. The studies performed by the engineering teams indicate that significant capital cost reductions are possible with this method.

Another key component is the elimination of Inflow and Infiltration (I & I) throughout the system. During rain events flows in the wastewater system can increase from averages of 500-800 gpm to over 1000 gpm. By eliminating I &I to the greatest extent possible there will be reduction in wastewater water deliveries to Oceanside for treatment as well as the prevention of sanitary overflows which can have a significant impact to both the environment and the District. To date over 400 rain pans have been installed and only a small portion of the system has been lined.

Some examples of the specific project elements for this portion of Key Focus Area Two include:

- Upsize of gravity main from just east of Mission Road (just past the theater) to the new Thoroughbred Lift Station
- Construction the new Thoroughbred Lift Station
- Construction of Thoroughbred Force Main, a new force main to convey wastewater from Thoroughbred Lift Station to the existing gravity main on Old River Road just past the existing Lift Station 1

- Rehabilitation of the existing 15" gravity main on North River Road (partially complete as of the date of this plan)
- Reworking of gravity lines in the Moosa Creek crossing at Old River Road to get manholes out of the riverbed
- Construction of the Schoolhouse Lift station to replace Lift Station 1 (undersized and at the end of life cycle)
- Am I missing anything here? Construction of Olive Hill Road Gravity Main to Thoroughbred Lift Station

**Wastewater System Upgrades**

While other areas of the existing wastewater conveyance system generally do not have capacity constraints, from time to time certain infrastructure upgrades are required to maintain proper operating condition. Conditions within wastewater systems can be harsh, so even concrete can suffer from corrosion, leading to a need for rehabilitation. Examples of projects under this category include, but are not limited to:

- Lift Station Upgrades to include:
- A) Wet wells
- B)Pumps
- C) Flow monitoring devices
- Lift Station Emergency power installation/upgrades
- Infiltration and Inflow reduction projects: to include:
- A) CIPP lining of damaged gravity mains
- B) Manhole lining and rehabilitation
- System flow monitoring installations/upgrades

**Required Analysis**

For each project identified under this Key Focus Area to be included in a CIP project, staff must produce a report that details how the proposed project dovetails with the wastewater planning efforts mentioned above. In addition, the source of funding along with the timing of expenditures shall be identified and subsequently approved by the Finance Manager.

## Key Focus Area Three - Water System Storage Projects

The District's steel water storage tanks are maintained under a long-term maintenance contract with Suez which ensures they will not require additional CIP projects. However, our floating cover reservoirs and our concrete reservoir are not under such a contract. Maintaining these systems in optimal operating condition is vital to ensuring a reliable supply of high-quality water. Projects associated with this Key Focus Area include, but are not limited to:

- Floating Cover rehabilitation/replacement
- Residual management systems for reservoirs/tanks especially remote storage systems:

    - Mixing systems for reservoirs/tanks
    - Flow monitoring
    - CL2 residual monitoring
    - Supplemental chemical feed systems
- Safety/security installations/upgrades
- New Stairs, security cages, safety railing
    - Site Security Cameras
    - Electrical Transfer Switches
- SCADA and communications systems installations/upgrades
- Cleaning and maintaining concrete reservoirs and tanks

**Required Analysis**

For each project identified under this Key Focus Area to be included in a CIP project, staff must produce a report that details how the proposed project meets operational and water quality objectives. In addition, the source of funding along with the timing of expenditures shall be identified and subsequently approved by the Finance Manager.

## Key Focus Area Four – Water System Pump Stations

The District currently operates six permanent water pump stations and has sites for temporary pumping systems in several key locations. These pump stations move water to the higher elevations within our District and are vital for reliable water service in these areas. Many have very high lifts that create high system pressures at the stations which requires careful design, construction, and operation of the pump stations. Most pump stations are currently outdoor with no enclosures to protect equipment from weather or vandalism. Can the area be fed by another zone to reduce pumping frequency or can the pumped zone be reduced?

Many are also at or near the end of their design lifespans. Projects associated with this Key Focus Area include, but are not limited to:

- Pump station rehabilitation/replacement
- Relocation of pumping equipment and electrical panels into secure buildings
- Pump replacement
- Site Security enhancements
- SCADA and electrical upgrades
- Backup power systems
- Reconfiguration of distribution network to avoid pumping

**Required Analysis**

For each project identified under this Key Focus Area to be included in a CIP project, staff must produce a report that details how the proposed project meets operational and water quality objectives. In addition, the source of funding along with the timing of expenditures shall be identified and subsequently approved by the Finance Manager.

## Key Focus Area Five – District Headquarters Facility

The District has been in our current facility since 1974. While designed to be functional for that era, the headquarters facility now has many issues that make its replacement a priority. A lack of space (the majority of the staff in mobile trailers), too few bathrooms, no conference rooms, a poorly functioning board room, and poor compliance with ADA are just the tip of the iceberg. While District staff have made valiant efforts to keep the facility operating over the years, the Board has identified the replacement of the facility as being required to fulfill the mission of the District into the future.

The District is currently about midway through a project to identify the highest and best uses for the ~40 acres of land located in a prime location near Hwy 75 and I-15. While this has been our home for nearly 50 years, the development and sale of this land could provide a significant portion – or even all – of the funding needed to construct a new headquarters facility. This will be a multi-year process that will require a comprehensive market analysis, land use changes from the County of San Diego, and the identification of a development partner.

While this process is moving forward, certain projects become necessary to keep the facility in basic operating condition. While projects in this Key Focus area can be approved, it is imperative that staff analyze all options in order to minimize the installation of long-term assets that cannot be reused in a new facility. This is a challenging thing to accomplish, but every effort should be made to avoid the installation of a 20- or 30-year asset when we expect to demolish the facility in a fraction of those time frames.

Projects associated with this Key Focus Area include, but are not limited to:

- Replacement/Rehabilitation of HVAC systems
- Replacement/Rehabilitation of fencing, gates, and security systems
- Replacement/Upgrades to telecommunications equipment, networking, and IT systems
- Paving of existing parking areas

**Required Analysis**

For each project identified under this Key Focus Area to be included in a CIP project, staff must produce a report that details how the proposed project can either be reused in a new facility or is otherwise unavoidable. In addition, the source of funding along with the timing of expenditures shall be identified and subsequently approved by the Finance Manager.

## Key Focus Area Six – Wholesale Water Efficiency Projects

Since the resolution of a lawsuit brought by North County member agencies against the San Diego County Water Authority, the two northernmost districts, Rainbow MWD and the Fallbrook Public Utilities District, have not had to pay the SDCWA transportation charge on water delivered through our direct connections to the MWD Aqueduct system. Currently, that fee is over $160 per acre foot – a substantial sum. Over the last few years, the Districts System Operators have been shifting as much of our demands to those connections as possible. Now, about 60% of our water purchases come from these northerly MWD connections.

However, the transportation charge on the remaining 40% of the water amounts to about $1 Million per year – and that cost is going up every year. It is in the best interest of the District's ratepayers to move as much demand as possible onto our northerly MWD connections in order to provide the same water at a lower cost. The challenge is moving water from these connections – two on the east of I-15 and two on the west – into the southerly service area. A key east/west connector from the Rice Canyon Tank down to the Pardee development is currently in design and will be constructed as part of that project. This pipeline will greatly increase the amount of water that can be delivered from our connection 10 east of Rice Canyon Road into the main service area in Bonsall.

The District is separately pursuing a full detachment from SDCWA and should it be successful we will rely solely on these northerly MWD connections. Savings from detachment will be much larger – currently estimated at about $7 Million per year. This process will take a few more years to conclude and the outcome is far from certain at this point.

To be clear, projects related to this Key Focus Area were initially developed prior to any discussion about detachment and have independent utility for the District with or without detachment. The projects address issues about system networking (a requirement in our Administrative Code), dealing with aqueduct shutdowns (four in 2019 alone), and overall wholesale water costs (such as the Weese interconnect). Each project has separate, independent utility to the system and are not related other than being part of a Key Focus Area. Projects associated with this Key Focus Area include, but are not limited to:

- Installation of the Hutton Pump Station to replace the seasonal Line P Pump station
- Installation of the Turner Pump Station to replace the seasonal Moosa Pump station
- Construction of the Weese Interconnect pump station to replace the seasonal Gopher Pump station (in design)
- Construction of the Rice Canyon Pipeline
- Right sizing the undersized portion of the Gird Road pipeline ( in design)
- Installation of <1 mile of pipeline from Connection 8 to the Pala Mesa Tank area
- Replacement of the pipeline removed as part of the Olive Hill Estates development (complete)
- Connection to Oceanside at Morro Hills
- Update all interconnects with neighboring agencies

**Required Analysis**

For each project identified under this Key Focus Area to be included in a CIP project, staff must produce a report that details how the proposed project will allow the District to avoid current wholesale water costs. In addition, the source of funding along with the timing of expenditures shall be identified and subsequently approved by the Finance Manager.

## Project Communications

Staff intends for the reporting of any/all projects to follow a communication protocol. Elements to include may be, but are not limited to:

- Individual project description pages – similar to current but enhanced
- Project timing Gantt charts
- Staff resource capabilities as they relate to project timing
- Detailed cost studies that include the timing of costs
- Financing details