

VALLEY CENTER MUNICIPAL WATER DISTRICT

Pipeline Replacement Program Initial Study - Mitigated Negative Declaration

Prepared by:



August 2020

TABLE OF CONTENTS

	Page
Initial Study	
1. Project title.....	1
2. Lead agency name and address	1
3. Contact person and phone number	1
4. Project location	1
5. Project sponsor’s name and address	1
6. General plan designation	1
7. Zoning.....	1
8. Description of project	1
9. Surrounding land uses and setting.....	7
10. Other public agencies whose approval is required	7
11. Native American Consultation	7
Environmental Factors Affected	8
Determination.....	9
Environmental Checklist.....	10
Discussion	
I. Aesthetics	10
II. Agricultural and Forest Resources	11
III. Air Quality	13
IV. Biological Resources	18
V. Cultural Resources.....	29
VI. Energy	37
VII. Geology and Soils	38
VIII. Greenhouse Gas Emissions	41
VIX. Hazards and Hazardous Materials	43
X. Hydrology and Water Quality	45
XI. Land Use and Planning.....	47
XII. Mineral Resources	48
XIII. Noise	48
XIV. Population and Housing.....	55

XV. Public Services.....	56
XVI. Recreation	56
XVII. Transportation/Traffic.....	57
XVIII. Tribal Cultural Resources	58
XIX. Utilities and Service Systems	60
XX. Wildfire	62
XXI. Mandatory Findings of Significance	63
References	65

List of Figures

Figure 1: Vicinity Map.....	2
Figure 2: Project Location Map	3

List of Tables

Table 1: SCAQMD Air Quality Significance Thresholds	14
Table 2: Estimated Maximum Construction Emissions	16
Table 3: Combined Annual Greenhouse Gas Emissions.....	42
Table 4: Typical Construction Equipment Noise Levels	52
Table 5: Typical Vibration Source Levels for Construction Equipment.....	54

Appendices

- Appendix A – Air Quality Technical Report
- Appendix B – Biological Resources Report
- Appendix C – Phase I Cultural Resources Assessment

INITIAL STUDY

1. Project title:

Valley Center Municipal Water District Pipeline Replacement Program

2. Lead agency name and address:

Valley Center Municipal Water District
29300 Valley Center Road
Valley Center, CA 92082

3. Contact person and phone number:

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Senior Engineer
Valley Center Municipal Water District
(760) 735 - 4556

4. Project location:

The proposed pipeline replacement program is comprised of 10 individual projects located throughout the Valley Center Municipal Water District service area (Figure 1). The pipelines proposed for replacement are shown in Figure 2 – Project Location Map.

5. Project sponsor's name and address:

Valley Center Municipal Water District
29300 Valley Center Road
Valley Center, CA 92082

6. General Plan designation:

Projects would occur in existing roadways and Valley Center Municipal Water District pipeline easements.

7. Zoning:

Project sites are existing public roadway corridors or pipeline easements

8. Description of project:

A pipeline replacement program has been initiated by the Valley Center Municipal Water District (VCMWD) to address infrastructure deficiencies that have contributed to an increase in

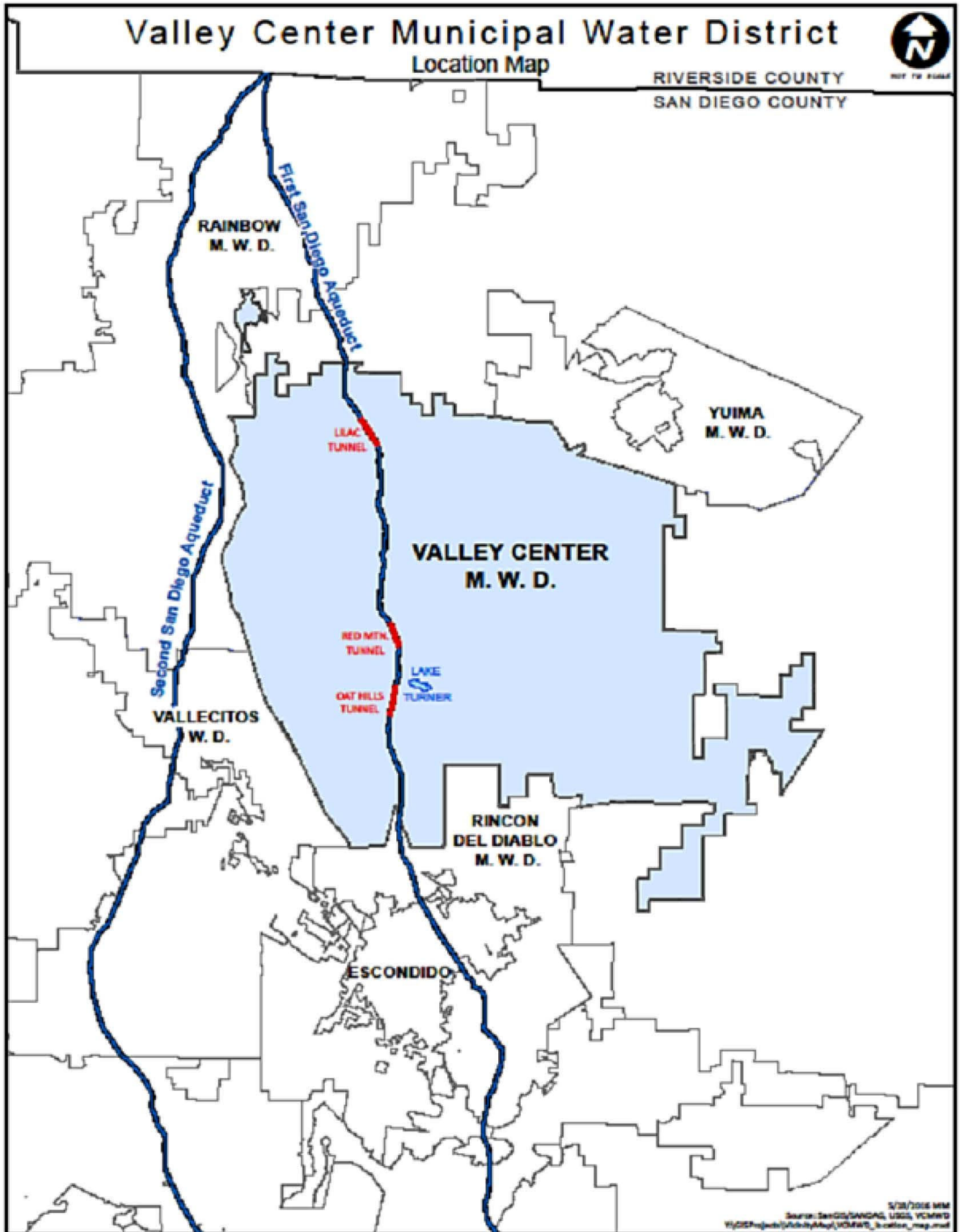


Figure 1—VCMWD Service Area

the number of pipe breaks and joint failures in recent years. Evidence indicates that aging tar-wrapped steel pipes are subject to root intrusion which exposes the steel and causes deterioration. Further, there are multiple locations where pipes have been longitudinally welded (rather than spiral welded). Both conditions increase the potential for pipe bursts and service interruptions. Many such events have occurred within the service area over the last several years. To address these and other deficiencies, the District has created a program to systematically replace or upgrade the infrastructure. The program identified and prioritized the individual projects based on observed physical pipeline deterioration as well as pipe material and age. The oldest tar-wrapped steel pipelines have the highest priority as they have historically had the highest rate of failure.

The following identifies and describes the proposed pipeline repair/replacement projects that are anticipated to be completed within the next 5 years. Unless otherwise noted, all construction would occur within or adjacent to existing road corridors or within disturbed alignments. The disturbance areas would be limited to the construction phase and all disturbed areas would be restored to preconstruction conditions. Typical excavation depth would range from 6-10 feet below existing grade. All materials and equipment would be staged within the active construction area, within disturbed areas located adjacent to the corridor or at existing VCMWD properties located in proximity to the construction area. The individual projects comprising the pipeline replacement program are described below:

Old Castle Road Pipeline (WSo15b) - This project would replace approximately 10,800 linear foot of 12-inch pipe within the existing improved Old Castle Road between Leisure Lane and the VCMWD Old Castle Pressure Relief Valve (PRV) located at Pamosa Lane. All improvements would require excavation within the existing disturbed road corridor, removal of the pipeline segment, installation of the new pipeline, placement of backfill and asphalt concrete pavement to restore the surface to preconstruction conditions.

Oat Hill Discharge Pipeline North (MW015a) - This project would replace approximately 2,100 LF of 12-inch pipe within an existing unpaved Grove Road corridor north of the Oat Hill Reservoir and Pump Station to Faircrest Way. Improvements would include connecting to existing 8-inch and 18-inch pipelines located south of the Oat Hill Reservoir and Pump Station and a 12-inch pipe connection at Faircrest Way. This segment has had a history of leaks which has caused damage to Old Grove Road. Old Grove Road is a dirt road used primarily by VCMWD for inspecting and maintaining pipelines and related infrastructure. All improvements would require excavation within the existing disturbed road corridor, removal of the pipeline segment, installation of the new pipeline, placement of backfill and asphalt concrete pavement to restore the surface to preconstruction conditions.

Lilac Pala Pump Station Discharge Pipeline (SG022) - This project would replace approximately 6,500 LF of 12-inch pipe within unimproved service road corridors between the Lilac Pala Pump Station and McNally Road to the north. The corridor is located east of Lilac Road. All construction would occur within existing disturbed unpaved service road corridors. This segment has experienced deterioration at the pipe joints which has caused multiple leaks

over the past several years. All improvements would require excavation within the existing disturbed unpaved road corridor, removal of the pipeline segment, installation of the new pipeline, placement of backfill to restore the dirt surface to preconstruction conditions.

Cole Grade Road Pipeline (CV011) - This project would replace approximately 6,600 LF of existing 14-inch pipe within the existing improved Cole Grade Road between Horse Creek Trail and Pauma Heights Road. Improvements would be constructed within the existing road corridor and occur prior to the proposed widening of Cole Grade Road. The pipeline has experienced multiple leaks in the past several years. All improvements would require excavation within the existing disturbed road corridor, removal of the pipeline segment, installation of the new pipeline, placement of backfill and asphalt concrete pavement to restore the surface to preconstruction conditions.

Alps Way Culvert Crossing Pipe Replacement (CV018a) - This project would replace approximately 330 LF of existing 16-inch pipe below two storm drain culverts within Alps Way, west of Cougar Pass Road, and realign approximately 100 LF of existing 8-inch waterline from outside the existing improved right of way to within Cougar Pass Road at Alps Way. These modifications are intended to allow the District to fully use the capacity of this pipeline. The flow rate within this segment is reduced to avoid a blowout similar to one that occurred and caused significant property damage. All improvements would require excavation within the existing disturbed road corridor, removal of the pipeline segment, installation of the new pipeline, placement of backfill and asphalt concrete pavement to restore the surface to preconstruction conditions.

Rock Hill Ranch Road Intertie (CV017a) - This project would connect an existing 8-inch steel pipe to an existing 6-inch steel pipe within Round Tree Road west of Queensbridge Road. These improvements will include 50 LF of 8-inch PVC pipe, valves and appurtenances to connect Rock Hill Ranch Road pipe to pipe located in Queensbridge Road. The project would link two dead end lines and is intended to improve operational redundancy in an area of aging (circa 1958) pipelines. The improvements would be constructed within existing road right of way. All improvements would require excavation within the existing disturbed road corridor, removal of the pipeline segment, installation of the new pipeline, placement of backfill and asphalt concrete pavement to restore the surface to preconstruction conditions.

Fruitvale Road Valves (CV012a) - This project would remove and replace approximately 9,400 LF of 8-inch pipeline, valves and appurtenances within the existing improved Fruitvale Road corridor between Cole Grade Road, east to Sunset Road. The project is intended to improve operational redundancy and minimize customer service interruptions during planned or emergency shutdowns. All improvements would occur within the existing road corridor and disturbed pipeline alignment. All improvements would require excavation within the existing disturbed road corridor, removal of the pipeline segment, installation of the new pipeline, placement of backfill and asphalt concrete pavement to restore the surface to preconstruction conditions.

Hell Hole Creek Joint Repair (PD016) - This project would install wrapper plates on all joints within a 5,300 linear foot section of 8-inch steel line located within the existing graded Hell Creek Road from Santee Road north to the terminus. This road serves the northern portion of the VCMWD Paradise Service Zone. Currently, there is no mortar coating remaining on joints which leads to joint failure and has caused major damage to a private roadway. All work would occur within the existing disturbed pipeline alignment. The improvements would be constructed within existing road right of way. All improvements would require excavation within the existing disturbed road corridor, removal of the pipeline segment, installation of the new pipeline, placement of backfill and asphalt concrete pavement to restore the surface to preconstruction conditions.

Gordon Hill Road Pipeline Replacement (DW001) - This project involves relocating/ replacing a 4,700 linear foot section of 12-inch tar wrapped steel pipe with 12 inch PVC pipe along Gordon Hill Road between Old Castle Road and Welk Road. Approximately 1,200 feet would be relocated from side lot easements and placed in the existing improved roadway corridor. This is a high-pressure pipeline located within private property. Pipe failure would result in significant damage to private assets. Steep terrain and private improvements make it difficult to access and maintain this pipeline segment in its current location. The existing pipeline would be separated from the water distribution system and abandoned in place.

The remaining pipeline segment would be removed and replaced in-place within the existing improved Gordon Hill Road corridor. The improvements would be constructed within the existing road right of way. The improvements would require excavation within the existing disturbed road corridor, removal of the pipeline segment, installation of the new pipeline, placement of backfill and asphalt concrete pavement to restore the surface to preconstruction conditions.

Lilac Road Pipeline Replacement (CV050) - Replace approximately 6,000 linear foot of existing 6-inch Asbestos Concrete pipe within Lilac Road between Hideaway Lake Road and Betsworth Road with an 8-inch PVC pipe. The existing pipeline would be separated from the water distribution system and abandoned in place. The new pipeline would be installed within the existing improved Lilac Road corridor. The improvements would require excavation within the existing disturbed road corridor, removal of the pipeline segment, installation of the new pipeline, placement of backfill and asphalt concrete pavement to restore the surface to preconstruction conditions.

Construction of the 10 projects comprising the pipeline replacement program is expected to begin in fall 2020 and occur over a five-year period as design work is completed for each individual segment. All construction would occur Monday-Friday from 7:00 a.m. to 5:00 p.m. No holiday or weekend work would occur.

9. Surrounding Land Uses and Setting

The individual project sites are located throughout the Valley Center service area as depicted in Figure 2. Open space, large single-family lots, agricultural and equestrian operations and related uses associated with a rural residential environment are the dominant land use in Valley Center. All projects would occur within existing pipeline alignments which are located within/along roadways and/or within existing pipeline easements.

10. Other public agencies whose approval is required:

Depending on the scope of the individual project and resources present within the disturbance area, the following permits may be required.

California Department of Fish and Wildlife Streambed Alteration Agreement;
San Diego Regional Water Quality Control Board Section 401 Water Quality Certification; and
U.S. Army Corps of Engineers Section 404 Nationwide Permit.

No other permits or approvals from agencies other than VCMWD would be required.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun is there a plan for consultation?

A Phase I Cultural Resources Report was prepared for the proposed project. As part of the process, a Sacred Lands File (SLF) search was conducted by the Native American Heritage Commission. Tribal representatives identified as part of the SLF search were noticed during preparation of the Phase I Cultural Resources Report. Responses are provided as part of the Phase I Cultural Resources Report (Appendix C). VCMWD has performed outreach per AB 52. Letters to Native American Tribes requesting consultation were sent on May 28, 2020. The results are summarized in Section XVIII, Tribal Cultural Resources.

ENVIRONMENTAL FACTORS AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is “Potentially Significant” or “Potentially Significant Unless Mitigation Incorporated” as indicated by the checklist on the following pages.

- | | | |
|--|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forest Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION:

On the basis of 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 revisions in the project have been made by or agreed to by the project proponent. 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.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Printed Name

ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
I. <u>AESTHETICS</u> – would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public view 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) The Valley Center Community Plan (amended August 2014), which includes the project area, provides planning and policy guidance for development within the Valley Center community. No specific visual features are noted in the community plan; however, policy guidance references preservation of environmentally significant and/or sensitive resources such as undisturbed steep canyons/slopes, oak woodlands, archaeological sites and ecologically sensitive areas.

Views throughout Valley Center are dominated by large single-family lots, agricultural and equestrian operations and related uses associated with a rural residential environment as well as mature vegetation dominated by various native and ornamental species. The pipeline segments are all located below ground within existing roadway corridors and easements. The

presence of construction equipment would temporarily change views during construction activities. Post-construction, existing views would be unchanged. **No impact** to scenic vistas would occur.

b) There are two designated scenic highways in San Diego County as defined in the Scenic Highway Element of the San Diego General Plan (1986). The nearest state designated scenic highway to the study area is the segment of State Route 78 (SR-78) within the Anza-Borrego Desert Park approximately 26 miles southeast of Valley Center. The pipeline alignments are located in varied topography and some are located in proximity to mature native trees, stream beds and other natural features. None are located in proximity to historic structures, rock outcroppings or other visually prominent features. **No impact** to these resources would occur as a result of the proposed project.

c) As referenced, the project sites are located in varied visual environments. The presence of construction equipment and materials would temporarily change views; however, as discussed, the alignments do not have any distinctive visual characteristics, and like the existing infrastructure, the new pipeline segments would not be visible. Thus, implementation of the pipe replacement program would not substantially degrade the visual character of the site or surrounding areas. At completion, the existing views would be restored. Impacts would be **less than significant**.

d) The proposed project would replace pipeline segments within existing corridors. No sources of light and glare are associated with the project. **No impacts** would occur under this threshold.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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II. AGRICULTURE AND FOREST RESOURCES -- Would the project:

a) Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as				

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
II. <u>AGRICULTURE AND FOREST RESOURCES</u> -- Would the project:				
defined in Public Resources Code Section 12220(g), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Portions of the program area are designated for agricultural use. However, all work would occur within existing easements located along road corridors and/or in areas where existing pipelines are located. While program improvements may occur in proximity to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, this designation would not be affected by project improvements. **No impact** would occur under this threshold.

b) Implementation of the proposed project would have no effect on existing or future land use. The Williamson Act designation if applicable to lands affected by the project would not change with implementation of the project. **No impact** would occur under this threshold.

c-e) No land within Valley Center is used for timber production; however, commercial agriculture operations are prevalent throughout the area. The project would not conflict with any zoning designations designed to preserve timber or agricultural resources. **No impact** would occur under this threshold.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
III. <u>AIR QUALITY</u> -- Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Information within this section was obtained from the *Valley Center Municipal Water District Pipeline Replacement Program Air Quality Study* (Birdseye Planning Group, 2019) (Appendix A).

a) According to South Coast Air Quality Management District (SCAQMD) Guidelines, to be consistent with the Air Quality Management Plan (AQMP), a project must conform to the local General Plan and must not result in or contribute to an exceedance of the County’s projected population growth forecast. The proposed project does not include residential development that would result in population growth in excess of forecasts for San Diego County. The project would not conflict with the San Diego General Plan or Valley Center Community Plan.

The Regional Air Quality Strategy (RAQS) is based on information from the California Air Resources Board and San Diego Association of Governments (SANDAG), including projected growth in the County, mobile, area and all other source emissions to project future emissions and determine from that the strategies necessary for the reduction of stationary source emissions through regulatory controls. Projects that propose development that is consistent with the growth anticipated by the general plan is consistent with the AQMP and RAQS. The proposed project would not add housing or increase employment; therefore, the proposed project would be consistent with the Air Quality Management Plan and RAQS. **No impact** would occur under this threshold.

b) A significant adverse air quality impact may occur when a project individually or cumulatively interferes with progress toward the attainment of the ozone standard by generating emissions that equal or exceed the established long-term quantitative thresholds for pollutants or exceed a state or federal ambient air quality standard for any criteria pollutant.

The San Diego APCD does not provide quantitative thresholds for determining the significance of construction or mobile source-related impacts. However, the district does specify Air Quality Impact Analysis trigger levels for new or modified stationary sources (APCD Rules 20.2 and 20.3). If these incremental levels for stationary sources are exceeded, an impact analysis must be performed for the proposed new or modified source. Although these trigger levels do not generally apply to mobile sources or general land development projects, for comparative purposes these levels may be used to evaluate the increased emissions which would be discharged to the San Diego Air Basin from proposed land development projects. The thresholds shown in Table 1 are recommended for projects occurring within unincorporated San Diego County (County of San Diego, March 2007).

Table 1
Daily Emission Thresholds

Pollutant	Daily Emission Thresholds (lbs/day)
Carbon Monoxide (CO)	550
Nitrogen Oxides (NO _x)	250
Particulate Matter 10 (PM ₁₀)	100
Particulate Matter 2.5 (PM _{2.5})	55*
Sulfur Oxides (SO _x)	250
Volatile Organic Compounds/Reactive Organic Gases	75**

* EPA "Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards" published September 8, 2005. Also used by the SCAQMD.

** Threshold for VOCs based on the threshold of significance for VOCs from the South Coast Air Quality Management District for the Coachella Valley.

Construction Emissions

Project construction would generate temporary air pollutant emissions. These impacts are associated with fugitive dust (PM₁₀ and PM_{2.5}) from soil disturbance and exhaust emissions (NO_x and CO) from heavy construction vehicles. For the purpose of estimating emissions, each project was modeled individually assuming the projects are constructed consecutively over the five-year construction period. Daily emissions were quantified assuming that 0.5 acres would be disturbed daily, and a total of 11 worker and haul trips would occur daily. As noted, construction would generally consist of excavating a trench, installation of the new pipeline, removal of the existing pipeline, placement of backfill and asphalt concrete where needed to restore paved road surfaces. This scenario was modeled as the worst case and is intended to represent the construction for each project identified.

Site preparation and excavation would involve the greatest concentration of heavy equipment use and the highest potential for fugitive dust emissions. The project would be required to

comply with SDAPCD Rules 52 and 54 which identify measures to reduce fugitive dust and is required to be implemented at all construction sites located within the SDAB. Therefore, the following conditions, which are required to reduce fugitive dust in compliance with SDAPCD Rules 52 and 54, were included in CalEEMod for site preparation and grading phases of construction.

1. **Minimization of Disturbance.** Construction contractors should minimize the area disturbed by clearing, grading, earth moving, or excavation operations to prevent excessive amounts of dust.
2. **Soil Treatment.** Construction contractors should treat all graded and excavated material, exposed soil areas and active portions of the construction site, including unpaved on-site roadways to minimize fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and at least twice daily, preferably in the late morning and after work is done for the day. Note – it was assumed watering would occur three times daily for modeling purposes.
3. **Soil Stabilization.** Construction contractors should monitor all graded and/or excavated inactive areas of the construction site at least weekly for dust stabilization. Soil stabilization methods, such as water and roll compaction, and environmentally safe dust control materials shall be applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until landscape growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust.
4. **No Grading During High Winds.** Construction contractors should stop all clearing, grading, earth moving, and excavation operations during periods of high winds (20 miles per hour or greater, as measured continuously over a one-hour period).
5. **Street Sweeping.** Construction contractors should sweep all on-site driveways and adjacent streets and roads at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

Construction is assumed to begin in early 2020 and continue over a five-year period through 2025 as individual projects are implemented. It is unknown at this time how the construction would be sequenced; thus, for modeling purposes, it was assumed all projects would be constructed over a one-year period occurring in 2020 to conservatively estimate emissions.

Estimated daily emissions are shown in Table 2. These are estimates based on an assumption that approximately 5,000 square feet of area would be disturbed on any given day for demolition, site preparation, grading and paving activities. Construction of the proposed project would not exceed the SDAPCD regional construction emission thresholds for daily

emissions. The project would not generate trips at completion of each segment. Thus, the project construction would not conflict with the SIP, RAQS or AQMP, violate an air quality standard or contribute to an existing or projected violation, result in a cumulatively considerable increase in ozone or particulate matter emissions or expose receptors to substantial pollutant concentrations (thresholds b-c). This impact would be **less than significant**.

**Table 2
 Estimated Maximum Daily Construction Emissions**

Construction Phase	Maximum Emissions (lbs/day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2020 Maximum lbs/day	0.9	8.4	7.9	0.01	1.3	0.8
SDAPCD/County of San Diego Thresholds	75	250	550	250	100	55
Threshold Exceeded	No	No	No	No	No	No
2020 tons per year	0.12	1.09	1.02	0.0013	0.17	0.10
SDAPCD/County of San Diego Thresholds	15	40	100	40	15	No standard
Threshold Exceeded	No	No	No	No	No	No

See Appendix for CalEEMod ver. 2016.3.2 computer model output. Summer emissions shown.

Operational Emissions

Upon completion, the new infrastructure would convey potable water as part of the existing delivery system. No operational emissions would be associated with the proposed project.

c) Sensitive receptors within the project area are primarily single-family residences. The nearest receivers are approximately 50 feet from road corridors though distances vary considerably throughout the project area. As shown in Table 2, project construction would not exceed SDAPCD pollutant thresholds. Further, project operation would not generate pollutants. The project would operate unsupervised and require periodic site visits for inspection and maintenance. This would not increase from what occurs under existing conditions.

Construction Related Toxic Air Contaminants

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. According to South Coast Air Quality Management District (SCAQMD) methodology, health effects from carcinogenic air toxics are usually described in terms of “individual cancer risk”. The California Office of Environmental Health Hazard Assessment (OEHHA) health risk guidance states that a residential receptor should be evaluated based on a 30-year exposure period. “Individual Cancer Risk” is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Given the short-term construction schedule and the fact that each project would be constructed at various locations throughout the VCMWD services area, the

proposed project would not result in a long-term (i.e., 30 or 70 year) exposure to a substantial source of toxic air contaminant emissions; and thus, would not be exposed to the related individual cancer risk. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the proposed project.

Carbon Monoxide – CO Hotspots

As previously discussed, carbon monoxide is a colorless, odorless, poisonous gas that may be found in high concentrations near areas of high traffic volumes. CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. The SDAB is in attainment of state and federal CO standards. The 1110 Beardsley Street monitoring site is the closest station to the project site that provides CO data. The maximum 8-hour average CO level recorded in 2012 (the last year data were recorded) was 1.81 parts per million (ppm). Concentrations are below the 9-ppm state and federal 8-hour standard. Although CO is not a regional air quality concern in the SDAB, elevated CO levels can occur at or near intersections that experience severe traffic congestion. A localized air quality impact is considered significant if the additional CO emissions resulting from the project create a “hot spot” where the California 1-hour standard of 20.0 ppm or the 8-hour standard of 9 ppm is exceeded. This can occur at severely congested intersections during cold winter temperatures. Screening for possible elevated CO levels is recommended for severely congested intersections experiencing levels of service E or F with project traffic where a significant project traffic impact may occur. Whether a potential for CO hotspots exists and merits a quantitative evaluation is based on the University of California Davis CO Protocol defined in the *Transportation Project-Level Carbon Monoxide Protocol Revised December 1997 UCD-ITS-RR-97*. Section 4.7 of the protocol provides specific criteria for performing a screening level CO review for projects within a CO attainment area. Specifically, project-related traffic that would worsen the LOS at intersections operating at LOS E or F, would be subject to a detailed evaluation. If that would not occur, no further review is necessary.

The proposed project may require periodic lane closures where construction would occur within existing road segments. Post-construction, the project would not affect traffic flow on affected corridors. The project is not expected to cause or contribute to operating conditions that would generate CO conditions that state or federal standards. Based on these findings, receptors would not be exposed to substantial pollutant concentrations (threshold d) related to CO hotspots. No further evaluation with respect to CO hotspots is required. Impacts under this threshold would be **less than significant**.

d) The proposed project would generate odors from construction (i.e., diesel exhaust, asphalt). The project would construct various pipeline replacement projects. The project would not construct uses that generate odors. Construction odors would be temporary and would not exceed SDAPCD impact thresholds; thus, short-term odors are not expected to be significant. Impacts related to odors would be **less than significant**.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IV. <u>BIOLOGICAL RESOURCES</u> --				
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Potentially Significant Less than Significant Impact	No Impact
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IV. BIOLOGICAL RESOURCES --

Would the project:

- 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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Information provided herein was obtained from the Biological Analysis for the *Valley Center Municipal Water District Master Plan Capital Improvement Plan*, May 2020, prepared by Tierra Data, Inc., and provided herein as Appendix B.

a) Tierra Data Inc. (TDI) performed in-house database searches for sensitive species detected in the immediate vicinity of all sites prior to site surveys. TDI accessed the California Natural Diversity Database maintained by the California Department of Fish and Wildlife, and the USFWS Carlsbad Field Office database for sensitive species in San Diego County to identify any species or species locations that could be directly or indirectly impacted by the project. Each project site/alignment, and a 300-foot buffer, were then evaluated during three field days in January and February 2019. The purpose of the site analyses and visits was to determine if any sensitive biological resources, including sensitive vegetation communities or species, and regulated wetlands, would be affected by the proposed project. Biological characteristics of each project area are summarized below:

Old Castle Road Pipeline Replacement (WS015b)

The natural habitats adjacent to Old Castle Road are considered sensitive by USFWS and CDFW and include Southern Sycamore-Alder Riparian Woodland (SSARW), Southern Arroyo Willow Riparian Forest (SAWRF), and Southern Riparian Woodland (SRW) and uplands (Coastal Sage Scrub [CSS], Coast Live Oak Woodland [CLOW]). No species of conservation concern were observed during the survey; however, resource database searches indicate that the federally and state endangered Least Bell’s Vireo (LBVI; *Vireo bellii pusillus*) can breed along Moosa Canyon Creek (main and south forks) in and around the project study area. CSS is the habitat of the federally threatened and California Species of Special Concern (SSC) coastal California gnatcatcher (CAGN; *Polioptila californica californica*); however, databases show no detections along the alignment in the east but does show locations on the slopes of hills in the west. The location is the eastern-most area of the species’ range and the very open vegetation on steep slopes is not typically occupied by the species. Additionally, there are records of SSC Western mastiff bat (*Eumops perotis Californicus*), San Diego desert woodrat (*Neotoma lepida intermedia*),

and Dulzura pocket mouse (*Chaetodipus californicus femoralis*) in the vicinity of the eastern end of the alignment at Pamoosa Lane.

Only one sensitive plant species, summer holly has, been detected in the vicinity of this project but not proximal to it. The drainages crossing the alignment under Old Castle Road are likely jurisdictional under the CWA to the U.S. Army Corps of Engineers (USACE) and CFG code to CDFW.

Oat Hill Pump Station Discharge Pipeline North (MW015a)

The natural habitats adjacent to the MW015a alignment that are considered sensitive by USFWS and CDFW include the Southern Oak Live Oak Riparian Forest (SCLORF), Southern Riparian Woodland (SRW), Southern Mixed Chaparral (SMC) and CLOW. No habitats or species of high conservation concern were observed during the survey, and no records of any sensitive animal species in the vicinity were found on natural history databases. The delicate clarkia (*Clarkia delicata*) has been detected relatively close to the site. This species is found in openings or at the edge of woodlands or chaparral stands and could be in the chaparral close to the south of the alignment or along the riparian corridor that runs through the middle of the alignment.

The drainage crossing under the MW015a alignment may carry water that is jurisdictional under the CWA to the USACE and CFG code to CDFW.

Gordon Hill Pipeline Replacement (DW001)

Biologists identified one individual of summer holly in the SOC shortly after the 2,500-foot mark. This is considered a rare, threatened, or endangered species in California (and elsewhere). This individual was located approximately 25 to 30 feet away from and 10 to 15 feet downslope of the alignment. Natural resource database check show that the CDFW summer holly habitat in the database ends at least 800 feet south of the identified individual but is adjacent to SOC habitat on the west side of the alignment.

LBVI breeding habitat, likely along lower Moosa Creek is marked as occurring in all but the very southeast of the alignment but is again unlikely to breed along the alignment itself. CAGN is identified in the vicinity of the southern half of the alignment (Figure 3) with detections occurring in the dedicated open space and slopes to the south. Presence of CAGN could affect this project's timing of implementation.

The CDFW WL Belding's orange-throated whiptail is also likely to occur along the first few hundred feet of the alignment based on natural resource database records while the CDFW WL Coronado skink (*Plestiodon skiltonianus interparietalis*), also found nearby according to the CNDDDB, is less likely because of its affinity for moist habitats. No potential WoUS or CDFW streambeds cross this alignment.

Cougar Pass/Alps Way Culvert Crossing Pipeline Replacement (CV018a)

The natural habitats adjacent to the Alps Way Culvert Crossing Pipeline Replacement alignment that are considered sensitive by USFWS and CDFW include the Southern Riparian Woodland (SRW), Disturbed Wetland (DW), and SOC. Biologists did not observe any sensitive

species; however, natural history database searches indicate that the entire area around the alignment is within an area that has records of summer holly.

Lilac Pala Pump Station Discharge Pipeline (SG022)

The natural habitats along and adjacent to the alignment that are considered sensitive by USFWS and CDFW include the riparian habitats SCLORF and Mule Fat Scrub (MFS) as well as upland CSS and CLOW habitats. Natural history database searches did not identify any additional records of species of high conservation concern.

The alignment crosses three 24-inch corrugated metal pipes (CMPs) and an open 5-foot wide channel which may carry water. This channel would be considered jurisdictional and under the permitting authority of the USACE, Regional Water Quality Control Board and CDFW.

Cole Grade Road Pipeline Replacement (CV011)

The natural habitats adjacent to the Cole Grade Pipeline Replacement alignment that are considered sensitive by USFWS and CDFW include the upland habitats of Coastal Sage Chaparral Transition (CSCT), CSS and CLOW. Biologists observed two sensitive plant species in or adjacent to the CSS encountered near the southern end of the alignment. San Diego County viguiera was found 70 feet from the southern end of the alignment on the west side of Coal Grade Road. This plant has limited distribution and may have been planted along the roadway intentionally given its history as a planted flower and location. It is also adjacent to natural habitat. Within the CSS and near the ephemeral drainage, biologists also observed Ashy Spike Moss, a limited distribution plant. No records of special interest species in the area were found on natural history databases.

The alignment crosses a 36-inch CMP which may carry water that is jurisdictional and under the permitting authority of the USACE, Regional Water Quality Control Board and CDFW.

Rock Hill Ranch Road Intertie (CV017a)

The natural habitats in the Rock Hill Ranch Road Intertie alignment study area considered sensitive by USFWS and CDFW include the wetland habitat of SRW made up of sycamore trees adjacent to a drainage ditch in the field near the project location. Biologists observed a likely raptor nest in a Eucalyptus tree (*Eucalyptus* sp.) immediately adjacent to the proposed project area. It was approximately the size of a red-shouldered hawk (*Buteo lineatus*) nest and multiple red-shouldered hawks were observed flying and calling in the area during the site visit. However, the nest did not appear to be active during the site visit and was likely in some need of repair. No other sensitive species were observed or found on natural history database searches near this alignment

Fruitvale Road Valves (CV012a)

The natural habitats adjacent to the Fruitvale Road Pipeline Replacement alignment that are considered sensitive by USFWS and CDFW include two SCLORF riparian habitat corridors connected by CMPs under the road as well as the CSS immediately west of Cole Grade Road, and SMC east of Mactan Road and the eastern terminus of the alignment.

A Belding's orange-throated whiptail in the CSS west of Cole Grade Road and two raptor nest in eucalyptus trees were observed along the alignment. One, approximately 100 feet south of the alignment 1,000 feet east of Pleasant Knoll Lane appeared unused but could be occupied in future years. A second, just east of Mactan Road, was 500 feet north of Fruitvale Road and contained chicks. Some of the larger oak trees away from the road could also support raptor nests. No records of any sensitive species in the vicinity were found on natural history databases.

The alignment crosses two 36" pipes, a 48' CMP, plus other smaller pipes which may carry water that is jurisdictional under the CWA to the USACE and CFG code to CDFW.

Hell Hole Creek Pipe Joint Repair (PD016)

The natural habitats adjacent to the Hell Hole Creek Pipe Joint Repair alignment that are considered sensitive by USFWS and CDFW include the riparian Southern Arroyo Willow Riparian Forest, and upland CSCT, SMC and CLOW. Biologists did not observe any habitats or species of high conservation concern during the survey. However, natural history database searches revealed records of California gnatcatcher (*Poliophtila californica*) breeding at the southern end of the project area.

The alignment crosses a 12-inch and 18-inch CMP which may carry water that is jurisdictional and under the permitting authority of the USACE, Regional Water Quality Control Board and CDFW. Hell Creek is a jurisdictional resource.

CV050 Lilac Road Pipeline Upsize

Two Engelmann oaks grow adjacent to the west side of Lilac Road along this alignment. There are also Engelmann oaks in surrounding lands, none of which would be affected. The Torrey pines have clearly been planted along the roadside. Most of the native habitat patches within the survey area that are proximal to the road and alignment are too small or disturbed to support sensitive species. High quality habitats away from the alignment (Keys Creek County Preserve) could support Coast Horned Lizard (*Phrynosoma blainvillii*; SSC) and potentially other sensitive species, though none are likely to be listed as endangered or threatened under the federal ESA and/or CESA.

Critical Habitat

Designated Critical Habitat (DCH) occurs for one species through which an alignment runs (USFWS 2019b). DCH for CAGN occurs in the alignment in the very western portion of the alignment for Old Castle Road Phase 2 (WSo15b) and Gordon Hill (DW001) (USFWS 2015). The southern end of the Gordon Hill project is along an easement within a dedicated and protected open space associated with the adjacent Lawrence Welk Resort. DCH for three other species occurs within 3 miles of some of the sites. The San Luis Rey River Valley arcs around the north of the Valley Center community and contains DCH for 4 species. To the north and west along the San Luis Rey River is DCH for the CAGN on slopes above the river, and within the river, for the federal listed as endangered arroyo toad (*Anaxyrus californicus*) and the federal and state

listed endangered southwestern willow flycatcher (*Empidonax traillii extimus*) and LBVI. To the north east, the river supports DCH for the arroyo toad and southwestern willow flycatcher.

Direct Effects

Vegetation Communities

While most alignments are in DEV (roads) or DH adjacent (within ROWs) and no direct effects would occur, in some alignments, habitat has grown over the alignment and effects would occur from accessing the pipelines or appurtenances. The southern portion of the Gordon Hill alignment is within a narrow easement with limited working widths that could result in effects on adjacent CSS and SMC.

The Lilac Pala Pump Station Discharge Pipeline alignment does not follow roads for a significant portion of its alignment and passes through CSS and Open Coast Live Oak Woodland (O-CLOW) in the south, SCLORF in its middle section and some CSS in the north where no road is evident. Effects appear to be unavoidable to replace this water line. Direct effects would occur to CSS and to O-CLOW-D.

At Hell Creek, all but one short section is within Hell Creek Road. In the south, where Hell Creek Road curves around a knoll, the alignment remains straight and passes through DH and then down a slope through CSCT before reentering the road. Direct effects would occur to CSCT.

Sensitive Plants

No federal or state listed species were detected on any of the alignments, but four other sensitive plant species were detected within the study areas. One summer holly was detected on the Gordon Hill alignment, but it was more than 20 feet downslope of Gordon Hill Road and should not be affected.

Engelmann oak trees were detected at the Lilac Road alignment adjacent to and within 300-feet of Lilac Road. This species has a low sensitivity ranking which means that effects would not be significant and would be offset by restoration of the area to include the species if effects cannot be avoided.

San Diego County viguiera and ashy spike-moss were detected at Cole Grade Road but were in habitat adjacent to the road. Further south, the species was also found immediately east of Cole Grade Road at Fruitvale Road. The species was likely in the plant mix that restored a fill slope during past improvements to Cole Grade Road. Neither locations are likely to be affected by the replacement of the water line in the roadways. Any effect would not be significant because of their low CRPR ranking. No other sensitive plant species were detected and none are expected to be affected.

Sensitive Animals

No federal or state listed species or otherwise sensitive animals were detected along the alignments during surveys other than a Belding's orange-throated whiptail (CDFW WL) east of Cole Grade Road and Fruitvale Road, though LBVI and CAGN could use habitat proximal to two alignments (Old Castle and Gordon Hill). As two alignments pass through some suitable habitat that could support listed species there might be a direct or indirect effect to those species if they occur within said habitat without avoidance measures. Most other sensitive species have a relatively low sensitivity rating. Further, because the alignments are long and narrow and are within areas of adjacent habitat, species would be able to move through the area; thus, temporary impacts would not be significant. Thus, impacts would be **less than significant**.

Migratory Birds

The Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711) is an international treaty that makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Sections 3503, 3503.5, and 3800 of the California Department of Fish and Wildlife Code prohibit the take, possession, or destruction of birds, their nests, or eggs. The MBTA requires that project-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle (February 1 through August 31). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) or loss of habitat upon which the birds depend could be considered "take" and constitute a violation of the MBTA.

Migratory birds include common, sensitive and listed species. As referenced, trees and shrubbery suitable for nesting by birds protected by the Migratory Bird Treaty Act are present on and adjacent to the project site. Because potential habitat is present within the proposed area of potential effect and project construction may occur within the nesting cycle, potentially significant impacts to migratory bird species may occur.

The following mitigation measures are recommended to reduce or avoid potentially significant and/or adverse impacts to biological resources during construction of the proposed pipeline replacement projects that comprise the VCMWD pipeline replacement program.

Mitigation Measure BIO-1: While the work is expected to be mostly within roadways or adjacent disturbed habitat, general avoidance of impacts to sensitive areas and resources can be achieved by installing Environmentally Sensitive Area fencing where these areas occur within or along work areas. These areas can be identified through implementation of preconstruction surveys of each alignment by a qualified biologist.

Mitigation Measure BIO-2: If cutting of branches or excavation under the canopy of an oak or other native tree is required, impacts would be avoided by consulting an arborist to advise on safely working under the canopy or within the rootzones of such trees.

Mitigation Measure BIO-3: Avoidance of direct impacts to native nesting birds is required by the MBTA and CFG code and would most easily be mitigated by working outside of the bird-breeding season. Raptors breed between January 15th and September 15th, though no raptor were identified during the surveys. Songbirds breed between March 1st and August 31st. If work must occur during the breeding season, the project area and buffer must be verified by a qualified biologist within three days before starting work to ensure no bird nests covered under the MBTA would be directly or indirectly impacted.

Specific implementation requirements for BIO-1, BIO-2 and BIO-3 as applicable to each pipeline replacement project are provided in Table 6 of the Biological Analysis (Appendix B). This information is incorporated by reference herein and will be reviewed during design and construction planning for each individual project to ensure applicable mitigation measures are implemented. With implementation of BIO-1, BIO-2 and BIO-3, impacts to sensitive plant and animal species would be avoided or reduced to **less than significant**.

Indirect Effects

Indirect effects include decreased surface water quality, construction noise, colonization of non-native plant species, and human and pet intrusion into habitat. Indirect effects can occur to vegetation communities. This can impact their use by listed or sensitive species including raptors and nesting birds.

While every effort will be made to limit indirect effects by restricting activity to developed or disturbed areas and limiting construction to daylight hours. However, construction noise will occur with the use of heavy equipment during clearing, excavating, and installation of the pipeline segments. Noise is typically only considered a concern when sound levels reach an hourly average of 60 A-weighted decibels (dBA) in areas impacted by listed species.

As referenced, no federal or state listed species were detected and none are expected to occur in habitat adjacent to the alignments; thus, no indirect effects are expected to listed species. Indirect effects from noise on species with SSC status (coast horned lizard, orange-throated whiptail, Bell's sage sparrow, southern California rufous-crowned sparrow) would not be expected to substantially reduce the number, or restrict the range, of these species to a level affecting the species' population stability in the region. As a result, there would be no substantial effect on these species and no mitigation is required. However, the following measures are recommended to avoid or minimize indirect effects during construction:

1. For each project, a qualified biologist shall conduct a training session for all project personnel prior to proposed activities. At a minimum, the training shall include a description of any species of concern and its habitats, the general provisions of the protective laws, the need to adhere to the provisions of the laws, the penalties associated with violating the provisions of the laws, the general measures that are being implemented to conserve sensitive species as they relate to the project, and the access

routes to and from project site boundaries within which the project activities must be accomplished.

2. A water pollution and erosion control plan shall be developed that describes sediment and hazardous materials control, dewatering or diversion structures, fueling and equipment management practices, and other factors deemed necessary by reviewing agencies. Erosion control measures shall be monitored on a regularly scheduled basis, particularly during times of heavy rainfall. Corrective measures will be implemented in the event erosion control strategies are inadequate. Sediment/erosion control measures will be continued at the project site until the restoration efforts are successful at soil stabilization.

3. The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.

4. The upstream and downstream limits of project disturbance plus lateral limits of disturbance on either side of a stream shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work.

5. Projects should avoid the placement of equipment and personnel within a stream channel or on sand and gravel bars, banks, and adjacent upland habitats used by sensitive species.

6. Projects that cannot be conducted without placing equipment or personnel in sensitive habitats should be timed to avoid the breeding season of the sensitive species of concern.

7. When stream flows must be diverted, the diversions shall be conducted using sandbags or other methods requiring minimal instream impacts. Silt fencing or other sediment trapping materials shall be installed at the downstream end of construction activity to minimize the transport of sediments off-site. Settling ponds where sediment is collected shall be cleaned out in a manner that prevents the sediment from re-entering the stream. Care shall be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream.

8. Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. All necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. All project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, USFWS, CDFW, RWQCB, and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.

9. Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris material shall not be stockpiled within the stream channel or on its banks.

10. A qualified project biologist shall monitor construction activities throughout the duration of the projects to ensure that all practicable measures are being employed to avoid incidental disturbance of habitat and any sensitive species outside the project footprint. The project biologist should be empowered to halt work activity if necessary and to confer with staff from the District to ensure the proper implementation of species and habitat protection measures.

11. The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species. All restoration plans shall be prepared and implemented consistent with appropriate Restoration/Revegetation Guidelines.

12. Exotic species that prey upon or displace target species of concern should be permanently removed from the site.

13. To avoid attracting predators of sensitive species, the project sites shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s). Pets of project personnel shall not be allowed on-site where they may come into contact with any sensitive species.

14. Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. All employees shall be instructed that their activities are restricted to the construction areas.

15. Any habitat destroyed that is not in the identified project footprint shall be compensated at a minimum ratio of 5:1.

16. If dead or injured listed species are located, initial notification must be made within three working days, in writing, to the USFWS Division of Law Enforcement in Torrance, California and by telephone and in writing to the applicable jurisdiction, Carlsbad Field Office of the USFWS, and CDFW.

17. The USFWS and CDFW shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMPs.

18. Any planting stock to be brought onto the site for landscaping or ecological restoration shall first be inspected by a qualified pest inspector to ensure it is free of pest species that could invade natural areas, including but not limited to Argentine ants, fire ants, and other insect pests. Any planting stock found to be infested with such pests shall not be allowed on the project site or within 300 feet of natural habitats. The stock shall be quarantined, treated, or disposed of according to best management principles by qualified experts in a manner that precludes invasions into natural habitats.

19. All mitigation sites shall be conserved through fee title acquisition or conservation easement and shall be recorded shall be provided prior to land disturbance.

20. Any project landscaping shall not include species identified as an invasive non-native plant species as identified by the California Invasive Plant Council at <http://www.cal-ipc.org/paf/>.

Provided that the potential direct and indirect effects are identified and either avoided or minimized and mitigated, the projects would not have a significant effect on biological resources, including federal and state listed species that have potential to occur at the sites.

b and c) Potentially jurisdictional drainages cross the alignments either in conduits (CMPs or Concrete Pipes) under roads (at Old Castle Road, Oat Hill, Gordon Hill, Cougar Pass/Alps Way, Lilac Pala, Cole Grade, Fruitvale, Hell Creek, and Lilac Road), under bridges (Old Castle Road), or as open channels (Lilac Pala). Many are likely jurisdictional to the USACE, CDFW, and Regional Water Quality Control Board (RWQCB), and receive additional water from the agricultural operations so common in the project vicinities. The most significant drainages are under the bridge over Moosa Canyon Creek on which Old Castle Road is carried as well as the large pipes that carry South Fork Moosa Creek under Old Castle Road. If impacts to the pipes, the creek under the bridge, or the open channel cannot be avoided through design, then formal jurisdiction delineation and wetland permitting may be necessary. Implementation of Mitigation Measure BIO-4 would reduce potential impacts to jurisdictional features to **less than significant**.

Mitigation Measure BIO-4: The project alignment crosses potentially jurisdictional drainages. If any impacts to these drainages or others found during work are planned during the project, then jurisdictional delineation for potential WoUS or State will be required. This could result in permitting requirements for impacts to WoUS or CDFW wetlands from the USACE, RWQCB, and CDFW.

d) Wildlife movement corridors are areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetative cover provide corridors for wildlife movement. Wildlife movement corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetic traits between populations.

Corridors and Linkages in the Valley Center area are identified in the County of San Diego’s (County’s) North County Multiple Species Conservation Program Evaluation Model (County 2008). Only five of the ten alignments are within identified linkages and corridors (Old Castle, Gordon Hill, Oat Hill, Cougar Pass/Alps Way, and Hell Creek Road). The alignments are located mostly in or adjacent to existing roads where impacts to wildlife corridors and linkages would not be significant. Only the Oat Hill alignment is not fully within a road or ROW; however, the section of the alignment outside the unpaved access road are mostly cleared and developed private parcels. It is unlikely that the proposed Projects would cause any permanent impacts to the function of these wildlife corridors or linkages. Impacts would be **less than significant** under this threshold.

e-f) No Habitat Conservation Plans or Natural Community Conservation Plans are applicable to the project area. Potential impacts to trees and vegetation communities are describe above. Impacts can be avoided or reduced to less than significant with implementation of BIO-1, BIO-2, BIO-3 and BIO-4. However, **no impact** to thresholds e-f would result from project implementation.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
V. <u>CULTURAL RESOURCES</u> --				
would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following information is based in part on the results of a *Phase I Cultural Resource Assessment for the Valley Center Pipeline Replacement Program*, May 2020, prepared by Anza Resource Consultants, Inc., (Anza) and included herein as Appendix C.

a) The cultural resource records search, Native American scoping, and pedestrian survey performed for the project identified cultural resources within or adjacent to the direct project Area of Potential Effect (APE) for three of the 10 projects: Old Castle Road Pipeline Phase II,

Cole Grade Road Pipeline, and Fruitvale Road Pipeline Replacement. No cultural resources were identified within or adjacent to the remaining project corridors. This is addressed in greater detail below under threshold b.

Based on the results of the Phase I Cultural Resources Report, no historic properties occur within proximity to the project sites. One historic resource (37-036877) is located within or adjacent to the Cole Grade Road APE; however, it does not qualify as a historic property. **No impact** to historic properties would occur as a result of program implementation.

b) The following identifies the Area of Potential Effects (APE), summarizes research findings, results of the pedestrian survey recommendations to address cultural resources located within or in proximity to the APE.

Area of Potential Effect

The area of potential effects (APE) of an undertaking is defined in 36 CFR 800.16(d) as the “geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties if any such property exists.” The APE is three-dimensional (depth, length, width) and include all areas directly and indirectly affected by the proposed construction. The proposed pipeline improvements are located within or adjacent to existing road corridors or within disturbed easements.

Effects would be limited to the construction phase and all disturbed areas would be restored to preconstruction conditions. Material and equipment would be staged within the active construction area, within disturbed areas located adjacent to the corridor or at existing VCMWD properties. Some existing pipes will be abandoned in place and new pipelines installed to minimize disturbance to sensitive habitat. The location of these projects is collectively referred to as the direct or project APE, except where identified by specific project name under this program. The indirect APE includes adjacent or nearby properties that may be indirectly affected (e.g., visual change to historic district, vibrational impacts to unreinforced adobe structures) by the proposed project. Because these projects involve upgrading or replacing existing buried pipelines and there are no adobe or other vibrationally sensitive historic properties adjacent to the direct APE, the indirect APE is identical to the direct APE for these projects. The direct APE includes the entire linear alignments or valve replacement locations and the depth of the APE is expected to be between six to ten feet below the ground surface.

Record Search Findings

Anza conducted a search of cultural resource records housed at the California Historical Resources Information System (CHRIS), South Coastal Information Center (SCIC) located at San Diego State University on January 16, 2019 (Appendix A). The search was conducted to identify all previous cultural resources work and previously recorded cultural resources within a one-mile radius of the project site. The CHRIS search included a review of the NRHP, CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the

Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic USGS 7.5-, 15-, and 30-minute quadrangle maps.

The SCIC records search identified 291 cultural resources studies that were conducted within a one-mile radius of the APE, 28 of which are mapped within portions of the APE. None of these studies covered the entirety of any single project APE. A total of 285 cultural resources were recorded within a one-mile radius of the project APE. Two of these resources are within the direct or indirect APE for the Cole Grade Road and Fruitvale Road Pipeline segments. Some of the resources are within one mile of multiple project APEs. The resources include prehistoric and protohistoric archaeological sites, as well as twentieth-century historic properties. The known resources within a one-mile radius of the APE are summarized for each segment as follows:

Old Castle Road Pipeline Replacement

There are 28 resources recorded within one mile of the Old Castle Road Pipeline segment. None of these resources is within the project APE; however, one (P-37-004542), a prehistoric bedrock milling site an artifact and ceramic deposit of 50 centimeters depth, is recorded adjacent to the south of the western segment. All 28 of the resources have a prehistoric/Native American component; six also have historic components. One (37-007836) is an artifact reburial site that is presumed important to Native Americans.

Oat Hill Discharge Pipeline North

There are 21 resources recorded within one mile of the Oat Hill Discharge Pipeline North APE. None of these resources is within the project APE. Twenty of the resources are prehistoric/Native American in origin; one is a historic rock wall.

Lilac Pala Pump Station Discharge Pipeline

There are 23 resources recorded within one mile of the Lilac Pala Pump Station Discharge Pipeline APE. None of these resources is within the project APE; however, one (37-032118), a historic period concrete water basin, is located approximately 5 meters from the pipeline, downslope to the west. Of the 23, 12 are of prehistoric/Native American in origin; 11 are historic period resources, six of which are associated with the Rancho Lilac Historic District.

Cole Grade Road Pipeline

There are 42 resources recorded within one mile of the Cole Grade Road Pipeline APE. One of the resources (37-036877), a historic period concrete headwall and steel pipe is within the project APE; however, this resource was previously determined ineligible for CRHR or NRHP listing. Of the total, 33 are prehistoric/Native American in origin, five are historic period resources, and four are multicomponent sites possessing prehistoric and historic components.

Alps Way Culvert Crossing Pipe Replacement

There are 12 resources recorded within one mile of the Alps Way Culvert Crossing Pipe Replacement APE. None of the resources is within the project APE. Nine of the resources are

prehistoric/Native American in origin, two are historic period resources, and one is a series of stacked rock walls of indeterminate cultural affiliation.

Rock Hill Ranch Road Intertie

There are 27 resources recorded within one mile of the Rock Hill Ranch Road Intertie APE. None of the resources is within the project APE. Twenty-one (21) of the resources are prehistoric/Native American in origin; six are historic period resources.

Fruitvale Road Valves

There are 32 resources recorded within one mile of the Fruitvale Road Pipeline APE (Table 9). One of the resources (37-036874), a historic period concrete retaining wall or tall curb is within the project APE. Resource 37-036874 has been previously recommended not eligible for CRHR or NRHP listing. Two additional resources, 37-000259 and 37-000260, are recorded adjacent to the south and north of the APE respectively. Resource 37-000259 is a complex of bedrock milling features outside the Fruitvale Road right-of-way (APE) within a private residence. Resource 37-000260 is a bedrock milling feature outside the Fruitvale Road right-of-way (APE). The site record (M. Connolly 2017) states "...numerous disturbances have destroyed any portion of the site that extended beyond the residence containing the bedrock milling features." Twenty-eight (28) of the resources are prehistoric/Native American in origin; four are historic period resources.

Hell Hole Creek Joint Repair

There are 20 resources recorded within one mile of the Hell Hole Creek Joint Repair APE. None of these resources is within or adjacent to the project APE. Nineteen (19) of the resources are prehistoric/Native American in origin; one is historic period.

Gordon Hill Road

There are 12 resources recorded within one mile of the Gordon Hill Road Phase I APE. None of these resources is within or adjacent to the project APE. All 12 of the resources have prehistoric/Native American components; two also possess historic components.

Lilac Road Pipeline Upsize

There are 73 resources recorded within one mile of the Lilac Road Pipeline Upsize APE. None of these resources is within or adjacent to the project APE. Most of the resources have prehistoric/Native American bedrock milling components indicating intensive use of bedrock outcrops in the vicinity, particularly near water courses.

Native American Scoping

Anza requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission on January 10, 2019. The NAHC sent a response on January 15, 2019, stating that a search of the SLF was completed with positive results. The NAHC also provided a list of 32 Native American contacts that may have knowledge regarding Native American cultural resources within or near the APE. The NAHC specifically recommended that the "Kwaaymii Laguna Band of Mission Indians, Pala Band of Mission Indians, Pechanga Band of Mission

Indians, Rincon Band of Luiseno Indians, San Luis Rey Band of Mission Indians, and the San Pasqual Band of Diegueno Mission Indians” be contacted.

Anza prepared and mailed letters dated January 29, 2019, to the 32 Native American contacts describing the projects and asking if they had knowledge regarding cultural resources of Native American origin within or near the project APEs. The following summarizes the Tribal responses.

The Agua Caliente Band of Cahuilla Indians responded via email on February 4, 2019, stating that the project is “not within the Tribe’s Traditional Use Area” and deferred to tribes closer to the project site.

The Campo Band of Mission Indians (Campo) responded on February 7, 2019, that the project is within an area that “has a rich history for the Kumeyaay people” and Campo requested that a qualified Kumeyaay monitor be present for future surveys and ground disturbing activities. Campo also requested copies of any cultural resources surveys that have been completed.

The Rincon Band of Luiseño Indians (Rincon) responded via email on February 15, 2019, stating that the project site is “within the Traditional Use Area of the Luiseño people and is also within Rincon’s area of specific Historic interest.” Rincon further stated they are aware of archaeological sites and Luiseño place names in proximity to the project site. Rincon recommends a cultural resources records search at SCIC, archaeological and Luiseño tribal monitoring of project related ground disturbing activities, preparation of a treatment plan to address unanticipated discoveries, including human remains, and Luiseño tribal monitoring of any archaeological testing or excavation.

The Pauma Band of Luiseno Indians (Pauma) responded via email on March 5, 2019, and stated they believe there are cultural sites located close to four or five of the project sites. Pauma recommends construction monitoring for ground disturbance of any previously undisturbed areas and ground disturbance for any disturbed areas that were not monitored during original (existing) pipeline construction.

The Viejas Band of Kumeyaay Indians (Viejas) responded in a letter dated March 11, 2019, stating that the project site has “cultural significance or ties to the Kumeyaay Nation” and recommending San Pasqual Band of Mission Indians (San Pasqual) be contacted for additional information. Additionally, Viejas requested that “All NEPA/CEQA/NAGPRA [Native American Graves Protection and Repatriation Act] be followed, as appropriate” and that San Pasqual be immediately notified of any changes to project plans or inadvertent discoveries [of Native American resources].

No additional responses were received as of April 15, 2019.

Pedestrian Survey Results

Pedestrian and windshield surveys of the project APEs were conducted on January 31, February 6, April 1, and April 2, 2019. An additional survey was conducted April 16, 2020. The unpaved APEs were surveyed using transects spaced 5 to 10 meters apart and oriented parallel to the linear alignments. Paved alignments were surveyed by windshield, with stops at resources previously recorded near or within alignments. All exposed ground surface were examined for artifacts (e.g., flaked stone tools and tool manufacture debris, ground stone tools, ceramic sherds, fire-affected rock), ecofacts (marine shell, bone), soil discoloration that could indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramic sherds, cut bone). Ground disturbances such as burrows and drainages were visually inspected.

Existing conditions within the project APEs varied greatly and are summarized individually as follows:

Old Castle Road Pipeline Replacement (WS015b) - This APE comprises two segments and is entirely paved. All work would occur in the paved roadway. A windshield survey was conducted on February 6, 2019 and revisited on April 2, 2019. Because the APE is paved, ground visibility is zero percent and no resources were observed within the APE.

Resource P-37-00788, a prehistoric rock art and habitation site north of the APE, was recorded as “totally destroyed in road widening operation - blasted” prior to 1960. It was alternately described and mapped as adjacent to the north side of Old Castle Road or as much as 200 meters north of the road. It was verbally described in the site record as “north side of road, north side of Moosa Creek.” No evidence of this resource was observed within or adjacent to the APE during the survey.

Resource P-37-004542, a prehistoric habitation site with bedrock milling and a lithic and ceramic artifact deposit was recorded on the south side of the APE near the intersection of Old Castle Road and Indian Hill Road. No evidence of the site was observed within the paved APE. A portion of the site just south of the APE was inspected and one lithic artifact was observed despite dense vegetation that severely limited visibility.

Oat Hill Discharge Pipeline North (MW015a) - The Oat Hill APE is unpaved and mostly within a dirt road (Grove Road). Ground visibility was fair to good within the APE (70 to 100 percent) and sediments at the north end were primarily orange-red with decomposed granite, more medium brown in the middle lower elevations, and orange-brown again at the south end. One segment lacks a road but follows a fence line between properties. Much of the easement/alignment shows evidence of previous cut or fill, including a fill segment over culverts across a drainage. Anza conducted pedestrian survey of the entire APE on February 6, 2019 with negative results (i.e., no archaeological or historic built resources were observed within or adjacent to the APE).

Lilac Pala Pump Station Discharge Pipeline (SG022) - The Lilac Pala APE is unpaved and partially within dirt roads. The south end of the alignment is very steep, transitioning to a more gradual valley and hills through the midsection before regaining elevation at the north end. Ground visibility was highly variable including good to excellent within roads (90 to 100 percent) and very poor (zero to 20 percent) in areas of native vegetation and in riparian zones. segment lacks a road but follows a fence line between properties. Much of the easement/alignment bears evidence of previous cut or fill, though small portions are thoroughly overgrown. Anza conducted pedestrian survey of the entire APE on January 31, 2019 with negative results (i.e., no archaeological or historic built resources were observed within the APE). Historic built resource P-37-032118 – a concrete water basin – was relocated approximately five meters west of downslope of the APE. The basin does not appear to be eligible for NRHP or CRHR listing and the proposed project would not affect it.

Cole Grade Road Pipeline (CV011) - This APE is entirely paved, and windshield survey was conducted on April 2, 2019. Because the APE is paved, ground visibility is zero percent and no resources were observed within the APE. Historic built resource P-37-036877, a concrete culvert, is recorded within the APE; however, this resource was evaluated for CRHR eligibility in 2017 and recommended not eligible for CRHR listing.

Alps Way Culvert Crossing Pipe Replacement (CV018a) - This APE is approximately 60 percent paved with the remaining 40 percent dirt road. Pedestrian survey of the APE was conducted on April 2, 2019. Ground visibility is zero percent within the paved portion of the APE and 100 percent in the dirt road portion. No resources were observed within or adjacent to the APE.

Rock Hill Ranch Road Intertie (CV017a) - This APE is unpaved with approximately 30 percent bare dirt (100 percent ground visibility) and 70 percent non-native grass (10 to 20 percent ground visibility). Sediments in the bare portion of the APE were medium brown sandy silt. Pedestrian survey of the APE was conducted on April 2, 2019. No resources were observed within or adjacent to the APE.

Fruitvale Road Pipeline Replacement (CV012a) - This APE is entirely paved, and windshield survey was conducted on April 2, 2019. Because the APE is paved, ground visibility is zero percent and no resources were observed within the APE. Prehistoric bedrock milling resource P-37-000260 is recorded adjacent and north of the east end of the APE. P-37-000260 is behind a fence outside the road and would not be affected by the project. Prehistoric bedrock milling resources P-37-000259 and P-37-0010814 are recorded near but outside (5 and 10 meters, respectively) the APE and would not be affected by the project, which would occur entirely within the Fruitvale Road easement.

Hell Hole Creek Joint Repair (PD016) - This APE is entirely within the graded but unpaved HellCreek Road and pedestrian survey was conducted on April 2, 2019. Because the APE is

unpaved, ground visibility was 100 percent and sediments within the APE were primarily tan sand over orangish clay. No resources were observed within the APE.

Gordon Hill Road (DW001a) - This APE from north to south is approximately 80 percent paved within the Gordon Hill Road corridor, five percent dirt road within a private avocado orchard, seven percent dirt trail, and eight percent paved path. Windshield and pedestrian survey were conducted on February 6, 2019. Ground visibility within the paved portions was zero percent, 50 percent in the avocado grove because of mulch and plant material on the ground, and 90 to 100 percent within the unpaved trail. No resources were observed within the APE.

Lilac Road Pipeline Replacement (DW001a) - This APE is entirely paved, and windshield survey was conducted on April 2, 2019. Because the APE is paved, ground visibility is zero percent and no resources were observed within the APE. No previously recorded resources were identified within or adjacent to the APE during the records search.

The cultural resource records search, Native American scoping, and pedestrian survey identified cultural resources within or adjacent to the direct project APE for three of the 10 projects: Old Castle Road Pipeline, Cole Grade Road Pipeline, and Fruitvale Road Pipeline Replacement. No cultural resources were identified within or adjacent to the remaining project locations.

Based on the information presented herein, implementation of the proposed pipeline replacement program would not have significant or adverse impacts to known or observed cultural resources within the APE. However, should previously undiscovered resources be discovered during construction, implementation of Mitigation Measures CUL-1 and CUL-2 below would reduce potential impacts to **less than significant**.

Mitigation Measure CUL-1. If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under Section 106, additional work such as data recovery excavation may be warranted.

Mitigation Measure CUL-2. The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California 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. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of

notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

c) The potential for encountering human remains at the project site is low. No known burial sites have been identified on the site or in the vicinity. However, should human remains be encountered during project construction, implementation of Mitigation Measure CUL-2 would reduce potential impacts to **less than significant**.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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VI. ENERGY – would the project:

a) Result in potentially significant adverse impact due to wasteful, inefficient, consumption of energy resources during project construction or operation?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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a) Project construction would utilize common methods for site preparation, grading and installation of all infrastructure. Techniques are not expected to be wasteful or otherwise result in inefficient use of fuels or other sources of energy. A **less than significant** impact would under this threshold.

b) The project would make improvements to existing water supply infrastructure. Construction would utilize heavy equipment that meets CARB requirements for energy efficiency and emission reduction. As discussed in Section VIII, *Greenhouse Gas*, the project would not conflict with a state or local plan regarding renewable energy or energy efficiency. **No impact** would under this threshold.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VII. <u>GEOLOGY AND SOILS</u> –				
would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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VII. GEOLOGY AND SOILS –

would the project:

- f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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a (i-ii) The nearest active fault is the Elsinore Fault Zone located north of the VCMWD service area. This fault is part of the San Andreas Fault system that extends approximately 650 miles from Baja California north terminating off the Pacific coast north of the San Francisco area (San Diego County General Plan Draft EIR, 2007). The project sites are not located within the boundaries of an Earthquake Fault Zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act of 1972 (California Department of Conservation, website visited September 2019). There are no known active or potentially active faults traversing the project sites and the risk of ground rupture resulting from fault displacement beneath the site is low.

During the life of the proposed improvements, the property will likely experience similar moderate to occasionally high ground shaking from known faults, as well as some background shaking from other seismically active areas of the Southern California region. However, the project would be designed and constructed to incorporate methods to address seismic concerns related to pipeline safety per the current California Building Code (CBC). Design and construction methods would address issues related to potential ground shaking. Impacts would be **less than significant**.

a (iii) Liquefaction typically occurs within the upper 50 feet of the surface, when saturated, loose, fine- to medium-grained soils (sand and silt) are present. Earthquake shaking suddenly increases pressure in the water that fills the pores between soil grains, causing the soil to lose strength and behave as a liquid. When liquefaction occurs, the strength of the soil decreases, reducing the ability of the underlying soil to support foundations for buildings and other structures. The type of geologic process that created a soil deposit has a strong influence on its liquefaction susceptibility. Saturated soils that have been created by sedimentation in rivers and lakes can be very susceptible to liquefaction.

Groundwater levels throughout the project area are unknown; however, they likely vary based on proximity to natural drainages. The majority of all work would occur within compact fill located within or adjacent to roadways. The remainder would occur in previously disturbed areas within existing easements. All pipes are located with 6-10 feet of the surface. No deep excavation would be required; thus, the potential for encountering groundwater and related

impacts associated with liquefaction at the subject site is considered low. Impacts would be **less than significant**.

a (iv) Many of the pipeline segments are located on flat terrain; however, others are located in areas where the terrain and slopes vary. All work would occur in subsurface trenches which would then be restored to existing conditions at completion. Risks related to landslides would be no greater than under existing conditions. No pipeline improvements would be affected by landslides that may occur in the area. Impacts related to landslides would be **less than significant**.

b) As noted, the topography varies and multiple project sites are located in areas where slopes occur. Multiple projects in the pipeline replacement program would cumulatively disturb more than one acre; thus, the program would be subject to State Water Resources Control Board General Construction Permit during construction to minimize soil erosion. For additional information, see Section IX, *Hydrology and Water Quality*. With implementation of Best Management Practices (BMPs) specified in the Stormwater Pollution Prevention Plan (SWPPP) prepared for the project, soil erosion hazard impacts would be **less than significant**.

c, d) Land subsidence is defined as the sinking or settling of land to a lower level. Causes can include: (1) earth movements; (2) lowering of ground water level; (3) removal of underlying supporting materials by mining or solution of solids, either artificially or from natural causes; (4) compaction caused by wetting (hydro-compaction); (5) oxidation of organic matter in soils; or (6) added load on the land surface. Subsidence is not common within the service area and has not contributed to the failure of existing pipelines. The actual load on underlying soils is minimal as the weight is distributed along the length of the pipeline rather than at specific points. Construction methods, including the subsurface treatment of the pipeline trench would minimize the potential for subsidence to occur. The potential for subsidence at the project sites are considered low. Therefore, impacts would be **less than significant**.

e) The proposed program would not generate wastewater. No connection to a sewer line or septic system would occur with the project. **No impact** would occur under this threshold.

f) Construction of the project would not impact, either directly or indirectly, any known unique paleontological resource or unique geologic features. Given the construction history and depth of previous disturbance in the construction area site, the potential for locating undiscovered paleontological or geological resources is remote. However, with implementation of mitigation measure CUL-1, a **less than significant** impact to paleontological resources would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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VIII. GREENHOUSE GAS EMISSIONS-

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Gases that trap heat in the atmosphere are often referred to as greenhouse gases (GHGs), analogous to the way in which a greenhouse retains heat. Common GHG include water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O_x), fluorinated gases, and ozone. GHGs are emitted by both natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing associated with agricultural practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than CO₂, include fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFC), and sulfur hexafluoride (SF₆). The accumulation of GHGs in the atmosphere regulates the earth’s temperature. Without the natural heat trapping effect of GHGs, Earth’s surface would be about 34° C (61° F) cooler. However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations (Cal EPA, 2006).

Pursuant to the requirements of SB 97, the *CEQA Guidelines* were amended to include feasible mitigation of GHG emissions and analysis of the effects of GHG emissions. The adopted *CEQA Guidelines* provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

Individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to climate change; therefore, the issue of climate change typically involves an analysis of whether a project’s contribution towards an impact is cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15355).

Potential GHG impacts are evaluated per the County of San Diego recommended/preferred option threshold for all land use types of 900 metric tons CO₂E per year. GHG emissions associated with the project’s construction period were estimated using the CalEEMod computer program. CalEEMod input parameters and output files are shown in Appendix A.

a) Construction activities would generate greenhouse gas (GHG) emissions associated with equipment operation. Project-related construction emissions are spread over a five-year construction period. Daily construction emissions are estimated to generate a total of 10 metric tons of CO₂E. Assuming 260 construction days per year, program implementation would generate 2,600 MT annually and 13,000 MT over a five-year implementation cycle. Emissions associated with the construction period were estimated based on the projected maximum amount of equipment that would be used onsite at one time. The SCAQMD has recommended amortizing construction-related emissions over a 30-year period. Amortized over 30 years, the project would generate 433 metric tons of CO₂E per year as shown in Table 3 below. Post-construction, the project would not generate any operational GHG emissions greater than what is generated by the existing operations.

Cumulatively, the estimated emissions would not exceed 900 MT CO₂E annually; and thus, would not require mitigation measures to reduce emissions. GHG emissions would be **less than significant**.

Table 3
Combined Annual Greenhouse Gas Emissions

Emission Source	Annual Emissions (CO₂E)
Construction	433 metric tons
Operational	
Energy	N/A
Solid Waste	N/A
Water	N/A
Mobile	N/A
Total	433 metric tons

See Appendix A for CalEEMod software program output

b) The proposed program would replace existing pipeline segments within the VCMWD service area. As discussed, the project would not exceed the thresholds of significance established for the evaluation of individual projects for GHG emissions. With respect to consistency with plans or policies related to GHG emissions, the County of San Diego has an approved Climate Action Plan (February 2018). The Valley Center Community Plan (amended 2014) does not have specific suggestions for reducing GHG emissions. However, the only GHG emissions associated with the project are related to construction. As noted, the project would not generate post-construction GHG emissions. The project will not impede or delay local or statewide initiatives to reduce GHG emissions. Impacts would be **less than significant**.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. <u>HAZARDS AND HAZARDOUS MATERIALS</u> - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous material 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures, either	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Potentially Significant Less than Significant Impact	No Impact
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IX. HAZARDS AND HAZARDOUS MATERIALS - Would the project:

directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

a-c) The proposed project would not require the use or storage of hazardous materials during construction or operation. The program would replace deficient pipeline segments and make related improvements. It does not include manufacturing or other activities that would involve the routine use, handling, storage, or transport of hazardous materials in proximity to a school facility or other sensitive properties. However, it is possible that hazardous materials would be located on-site during construction. This would include fuel, lubricants and other chemicals used for equipment operation and maintenance. These would not be used or stored in quantities that would create a public health hazard. A **less than significant** impact would occur under this threshold.

d) Based on a review of available databases listing known hazard sites (Geotracker, Envirostor), there is no evidence of a hazardous environmental conditions in proximity to the project sites. **No impact** would occur.

e) Blackinton Airport, a private use airport, is located along Old Castle Road east of improvements occurring along this roadway. The airport is not located adjacent to or in proximity to any of pipeline segments comprising the project. Project improvements are all subsurface. No above-ground improvements would occur and none of the improvements are located within the Blackinton Airport land use boundary or within 2 miles of a public use airport in proximity to a private airstrip. **No impact** would occur.

g) The proposed project may require temporary lane closures during construction along roadway corridors; however, traffic control plans would be implemented as needed to ensure construction activities would not obstruct emergency vehicle access, evacuation routes or otherwise impair evacuation during emergencies. **No impact** would occur.

h) The project sites are located in the Moderate to Very High Fire Hazard Severity Zone as designated in maps prepared by the California Department of Forestry and Fire Protection (San Diego County, 2007). All improvements would be subsurface; thus, the project does not involve development that would be at risk to wildfire. **No impact** would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. <u>HYDROLOGY AND WATER QUALITY</u> – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 surveys, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface water runoff which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) Otherwise impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. <u>HYDROLOGY AND WATER QUALITY</u> – Would the project:				
d) In flood hazard, tsunami or seiche risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a, c-f) The program would implement 10 separate pipeline replacement and/or infrastructure improvement projects to improve water delivery system reliability. On-site drainage would be temporarily modified as individual projects are constructed. The projects will not create new impervious surface or otherwise modify existing drainage. Precipitation will continue to infiltrate through soil where improvements occur in unpaved areas. The volume or location of road runoff will not change where projects are installed within existing roadways.

The project would replace existing pipelines and/or make related infrastructure improvements in the existing corridors. The projects would not modify on-site drainage or alter the course of an existing stream or river. With implementation of the construction SWPPP and related BMPs to address erosion control, on- or off-site erosion or siltation would not occur. The scope of improvements would not cause flooding on- or off-site. The project would not substantially degrade water quality or otherwise violate discharge standards. **No impact** would occur under these thresholds.

b) The program would replace existing pipeline segments and related infrastructure to improve potable water delivery system reliability. The project would have no effect on groundwater, increase demand for groundwater or otherwise affect groundwater recharge. **No impact** would occur under this threshold.

g, h) The various project sites are not located within a 100-year mapped flood zone as defined in the FEMA Flood Insurance Rate Maps that cover the Valley Center area. The project would not redirect on-site drainage patterns nor would it impede or redirect flood flows. As referenced, all runoff during construction would be managed consistent with the SWPPP and BMPs to avoid erosion and related sedimentation impacts to drainages adjacent to construction areas. The projects comprising the overall program would not expose people or structures to flood hazard from severe storm events. **No impact** would occur under this threshold.

i) The program would replace existing pipeline segments and/or improve related infrastructure. There are no surface reservoirs in proximity to the project areas that could cause inundation if a dam were to fail. **No impact** would occur under.

j) Seiches are oscillations of the surface of inland bodies of water that vary in period from a few minutes to several hours. Seismic excitations can induce such oscillations. Tsunamis are large sea waves produced by submarine earthquakes or volcanic eruptions. The project is located well inland from the Pacific Ocean and is not subject to tsunami hazard. The nearest inland body of water is Lake Hodges located approximately 12 miles southwest. Impacts from a seiche in Lake Hodges is not an issue of concern for the proposed project. The project sites vary in topography; however, the proposed improvements would not contribute to an increased risk for mudflow. **No impact** would occur under this threshold.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XI. LAND USE AND PLANNING --

Would the proposal:

a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) The proposed project would install new pipeline segments and/or repair existing infrastructure. As referenced, all improvements would occur within existing alignments along road corridors and/or within existing easements. The proposed project would not result in the construction of improvements that would physically divide an existing community or otherwise impact circulation on public roads surrounding the site. **No impact** would occur.

b) With implementation of mitigation measures to address potential impacts to Biological and Cultural Resources, the project would be consistent with state and federal regulatory programs in place to avoid or mitigate environmental impacts. The County of San Diego zoning code, General Plan and Valley Center Community Plan are not applicable to the scope of work required. There are no street trees located adjacent to the segments. As discussed in Section IV, Biological Resources, some vegetation clearing may be required to access the pipeline corridors. These are not considered land use impacts as defined under this threshold. **No impact** would occur under this threshold.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XII. <u>MINERAL RESOURCES</u> --				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a, b) The San Diego General Plan Draft EIR (2011) shows the improvement areas are not within a mapped Mineral Resource Zone (MRZ). The nearest location where known mineral resources are present is the San Luis Rey River floodplain located north of the site. None of the proposed project sites are in the San Luis Rey River floodplain. The proposed project would not require excavation of mineral resources or would construction result in the loss of availability of any known regional or local mineral resources. Therefore, **no impact** to mineral resources would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIII. <u>NOISE</u> – 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 standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XIII. NOISE – Would the project result in:

- 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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Noise levels (or volume) are generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels consistent with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dB, and a sound that is 10 dB less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dB greater than the reference sound to be judged as twice as loud. In general, a 3 dB change in community noise levels is noticeable, while 1-2 dB changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while those along arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

In addition to the instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (L_{eq}). The L_{eq} is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, L_{eq} is summed over a one-hour period.

The time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the daytime. Two commonly used noise metrics – the Day-Night average level (L_{dn}) and the Community Noise Equivalent Level (CNEL)

recognize this fact by weighting hourly L_{eq} over a 24-hour period. The L_{dn} is a 24-hour average noise level that adds 10 dB to actual nighttime (10:00 PM to 7:00 AM) noise levels to account for the greater sensitivity to noise during that time period. The CNEL is identical to the L_{dn} , except it also adds a 5-dB penalty for noise occurring during the evening (7:00 PM to 10:00 PM).

Vibration is sound radiated through the ground. The rumbling sound caused by the vibration of room surfaces is called ground borne noise. Ground borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors. Ground borne vibration related to human annoyance is generally related to velocity levels expressed in vibration decibels (VdB). However, construction related groundborne vibration in relation to its potential for building damage can also be measured in inches per second (in/sec) peak particle velocity (PPV) (Federal Transit Administration, May 2006). Based on the FTA's *Transit Noise and Vibration Impact Assessment* and the California Department of Transportation's 1992 *Transportation Related Earthborne Vibration, Technical Advisory*, vibration levels decrease by 6 VdB with every doubling of distance.

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Residences, hospitals, schools, guest lodging, libraries, and parks are most sensitive to noise intrusion; and therefore, have more stringent noise exposure standards than commercial or industrial uses that are not subject to impacts such as sleep disturbance. Sensitive land uses generally should not be subjected to noise levels that would be considered intrusive in character. Therefore, the location, hours of operation, type of use, and extent of development warrant close analysis in an effort to ensure that noise sensitive receptors are not substantially affected by noise.

Noise Standards

Federal Noise Policies. There are no federal noise requirements or regulations that apply directly to the project area. However, there are federal regulations that influence the audible landscape, especially for projects where federal funding is involved. For example, the FHWA requires abatement of highway traffic noise for highway projects through rules in the Code of Federal Regulations (23 CFR Part 772), the Federal Transit Administration (FTA), and Federal Railroad Administration (FRA). Each agency recommends thorough noise and vibration assessments through comprehensive guidelines for any highway, mass transit, or high-speed railroad projects that would pass by residential areas.

The U.S. Fish and Wildlife Service requires that noise be limited to a level not to exceed an hourly limit of 60 dBA L_{eq} or the average ambient noise, whichever is greater, at the edge of the habitat during the breeding season (i.e., February 1 through September 15) for each sensitive species potentially affected by construction and operation of a proposed project.

Federal Vibration Policies. The Federal Transit Administration (FTA) has published guidelines for assessing the impacts of groundborne vibration associated with construction activities, which have been applied by other jurisdictions to other types of projects. The FTA measure of

the threshold of architectural damage for non-engineered timber and mason buildings (e.g., residential units) is 0.2 in/sec PPV. The threshold of perception of vibration is 0.01 in/sec PPV (Federal Transit Administration, Office of Planning and the Environment, 2006).

State Noise Policies. Title 24, Section 3501 et. seq. of the California Code of Regulations codifies California Noise Insulation Standards. This code section uses the Community Noise Equivalency Level (CNEL) as its primary noise evaluation measurement. The CNEL measurement assesses noise variation during different times of the day for the purposes of averaging noise over a 24-hour period. Essentially, CNEL takes average sound levels at an observation point and adds a weighted penalty to those sounds that occur during the evening (+5 dBA) and nighttime hours (+10 dBA). An interior noise level of 45 dBA CNEL is often considered the desirable noise exposure level for single-family residential units. An exterior noise level of 65 dBA is generally considered an acceptable level for residential and other noise-sensitive land uses.

State Vibration Policies. There are no state standards for traffic-related vibrations. California Department of Transportation's (Caltrans) position is that highway traffic and construction vibrations generally pose no threat to buildings and structures. For continuous (or steady state) vibrations; however, Caltrans considers the architectural damage risk level to be somewhere between 0.2 and 2.0 inches/second (California Department of Transportation, 2002).

San Diego County Noise Policies. The San Diego County Regulatory Ordinances Section 36.404 limits noise levels in residential areas of the County to 50 dBA Leq (hourly average) from 7:00 a.m. to 10:00 p.m. and 45 dBA Leq from 10:00 a.m. to 7:00 a.m. Section 36.408 limits the use of construction equipment between the hours of 7:00 and 7:00 p.m. Monday through Saturday. No commercial construction is allowed on Sundays or holidays.

a) **Construction Noise.** Temporary, construction-related noise would occur during construction of the proposed project. The noise levels associated with the operation of common construction equipment are shown in Table 4. The noise levels are provided for reference purposes; not all equipment shown would be used for the proposed project. Noise levels are expected to occur within the ranges shown.

Construction of the proposed improvements may utilize, dozers, tractors, loaders, trucks and a variety of other types of equipment as individual phases of the construction process progress. Noise levels associated with the equipment commonly used will range from 80 to 88 dBA at 50 feet from the source. A doubling of sound energy yields an increase of three decibels, so multiple pieces of equipment operating together may cause relatively small but noticeable increases in noise levels above that associated with one piece of equipment. Assuming two pieces of construction equipment, each producing a noise level of 88 dBA, are operating at one time on the site, the worst-case combined noise level during the site preparation phase of construction is an estimated 91 dBA at a distance of 50 feet from the active construction area.

**Table 4
 Typical Construction Equipment Noise Levels**

Type of Equipment	Range of Maximum Sound Levels Measured (dBA at 50 feet)	Maximum Sound Levels for Analysis (dBA at 50 feet)
Pile Driver 12,000 to 18,000 ft-lb/blow	81-96	93
Rock Drills	83-99	96
Jack Hammers	75-85	82
Pneumatic Tools	78-88	85
Pumps	74-84	80
Scrapers	83-91	87
Haul Trucks	83-94	88
Cranes	79-86	82
Portable Generators	71-87	80
Rollers	75-82	80
Dozers	77-90	85
Tractors	77-82	80
Front-End Loaders	77-90	86
Hydraulic Backhoe	81-90	86
Hydraulic Excavators	81-90	86
Graders	79-89	86
Air Compressors	76-89	86
Trucks	81-87	86
Trencher	73-80	80

Source: Bolt, Beranek & Newman, Noise Control for Buildings and Manufacturing Plants, 1987.

dBA = A-weighted decibels, ft-lb/blow = foot-pounds per blow

The nearest sensitive property are single family residences located at varying distances from the construction areas. The nearest properties are approximately 50 feet or more from construction areas. The only noise associated with the project would occur during construction which will be periodically audible at neighboring residences. As referenced, the worst-case combined noise level during the site preparation phase of construction is an estimated 91 dBA at a distance of 50 feet from the active construction area. Assuming 6 dBA reduction per doubling of distance, noise levels at residences located adjacent to the active construction area may range from 87 to 93 dBA under a worst-case scenario. Therefore, adjacent residential uses could be subjected to periodic construction noise levels that exceed 50 dBA Leq. As discussed above, the County of San Diego exempts construction projects from the noise standards, provided that the project complies with construction hour restrictions.

With respect to indirect noise impacts to sensitive species, The majority of the project noise will come from clearing, excavating, and loading with heavy equipment, Noise is typically only considered a problem when sound levels reach 60 dBA Leq (60 dBA averaged over an hour) for listed species during the breeding season. No federal or state listed species were detected and none are expected to occur within the alignments or in habitat adjacent to the alignments; thus, no indirect effects are expected to species listed under the federal and state Endangered Species Act. Indirect effects from noise on species with SSC status (coast horned lizard, Bell's sage sparrow, southern California rufous-crowned sparrow) would not be expected to substantially reduce the number, or restrict the range, of these species to a level affecting the species' population stability in the region.

The proposed project would comply with the limitation on hours of construction activity; thus, noise impacts to adjacent residences and sensitive species during the construction phase would be **less than significant**. No mitigation is required.

The proposed project would not generate noise post-construction. Routine maintenance inspections may be necessary; however, that would be consistent with current maintenance activities that occur throughout the VCMWD service area. They would not generate noise in excess of County standards. Impacts would be **less than significant**.

b) Vibration is a unique form of noise because its energy is carried through buildings, structures, and the ground, whereas noise is simply carried through the air. Thus, vibration is generally felt rather than heard. Some vibration effects can be caused by noise; e.g., the rattling of windows from truck pass-bys. This phenomenon is caused by the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Typically, groundborne vibration generated by manmade activities attenuates rapidly as vibration rapidly diminishes in amplitude with distance from the source. In the U.S., the ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB).

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and

distinctly perceptible levels for many people. If a roadway is smooth, the groundborne vibration from traffic is barely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. There are currently no activities observed in the area that generate perceptible groundborne vibration.

Construction activity would be temporary and any vibration would likely not persist for long periods. Assuming vibration levels would be similar to those associated with a large bulldozer, typical groundborne vibration levels would be 87 VdB at 25 feet, 81 VdB at 50 feet, and 75 VdB at 100 feet, based on the Federal Transit Administration’s (FTA’s) *Transit Noise and Vibration Impact Assessment* (May 2006) as shown in Table 7. Construction activities that typically generate substantial groundborne vibration include deep excavation and pile driving. Based on the proposed scope of improvements, this type of construction activity is not expected. General construction associated with the project would be confined to the project site and consist of trenching and related excavation for removal/replacement of the existing pipes. It would be temporary and occur consistent within the hours described above for noise control. The closest single-family residences are approximately 50 feet from construction areas. Based on the information presented in Table 5, vibration levels could be approximately 87 VdB at the nearest receiver during construction assuming a bulldozer is the heaviest piece of equipment used during grading or site clearing.

Table 5
Typical Vibration Source Levels for Construction Equipment

Equipment	Approximate VdB				
	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet
Large Bulldozer	87	81	79	77	75
Loaded Trucks	86	80	78	76	74
Jackhammer	79	73	71	69	67
Small Bulldozer	58	52	50	48	46

Source: Federal Railroad Administration, 1998

As discussed, 100 VdB is the threshold where minor damage can occur in fragile buildings. Vibration levels are projected to be under this threshold; thus, structural damage is not expected to occur as a result of construction activities associated with the proposed project.

Given the distance between the construction area and the closest residences, vibration levels could exceed the groundborne velocity threshold level of 72 VdB for residences and/or buildings where people sleep as discussed above. Maximum vibration levels could be 87 VdB at 50 feet from the source. Construction would occur consistent with Section 36.408 of the County

of San Diego code which limits the use of construction equipment between the hours of 7:00 and 7:00 p.m. Monday through Saturday. No construction would occur on Sundays or holidays. Construction occurring consistent with these provisions is exempt from regulation. Thus, vibration occurring during construction would be **less than significant**.

c) The existing noise environment in the project area consists primarily of noise associated with rural residential areas, traffic on neighboring roadways, aircraft overflights, landscaping equipment, barking dogs and noise from similar sources. The proposed project would not generate new traffic or require the use of noise-generating equipment. With the completion of construction activities, ambient noise levels would not change as a result of project operation. The project area is located in general proximity to Blackinton Airport; however, all improvements would occur outside the boundaries of any airport land use plan and none would be sensitive to aircraft noise. **No impact** would occur under this threshold.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XIV. POPULATION AND HOUSING –

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Induce substantial unplanned 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

a) The proposed project consists of replacing or repairing existing pipeline segments. The project would not induce population growth directly through the development of new residential occupancies or indirectly through the extension of utility infrastructure to a currently unserved area. **No impacts** related to population growth would occur with the project.

b) The project site consists of existing roadway corridors and easements. Project implementation would not result in the removal of existing housing or the displacement of residents that would require the construction of replacement housing elsewhere. **No impact** would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XV. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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:

i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a (i-v) The project would not induce population growth directly through the development of new residential occupancies or indirectly through the extension of utility infrastructure to a currently unserved area. Demand for public services within Valley Center would not change as a result of project construction and operation. Thus, the project would not require the provision of new or physically altered governmental facilities to maintain acceptable levels of service. **No impact** would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XVI. RECREATION --

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVI. RECREATION --				
such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a-b) The project would not increase demand for recreational facilities such that the deterioration of such facilities would be accelerated. Further, the project would not require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. **No impact** would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVII. TRANSPORTATION -- Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Potentially Significant Less than Significant Impact	No Impact
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XVII. TRANSPORTATION -- Would the project:
 access?

a-b) Project construction would temporarily increase traffic on area roadways as equipment and materials are delivered to individual construction sites. This is not expected to affect roadway operations. The new pipeline segments would be monitored and/or inspected consistent with current operations. No additional trips would be required to operate and maintain project improvements; thus, the vehicle miles traveled (VMT) associated with ongoing inspection and maintenance would not change from existing conditions. **No impact** would occur under this threshold.

c) The proposed project would not require any road improvements. Disturbed road corridors would be restored to preconstruction condition. Thus, it would not result in design features that would increase hazards. **No impact** would occur.

d) The proposed project would not alter emergency access routes. No improvements road improvements or revisions to the existing circulation pattern would occur as a result of the project. No project activity would impair emergency access to the area. **No impact** would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Potentially Significant Less than Significant Impact	No Impact
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XVIII. TRIBAL CULTURAL RESOURCES -- Would the project:

- a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in the Public Resource 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:

- i. Listed or eligible for listing in the California Register of Historic Places, or in a local register of historical resources as defined in Public Resource Code section 5020.1(k), or
- ii. 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 Resource Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

a) As part of the Phase I Cultural Resources Assessment methodology, Anza requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission on January 10, 2019. As described in Section V, *Cultural Resources*, the NAHC sent a response on January 15, 2019, stating that a search of the SLF was completed with positive results. The NAHC also provided a list of 32 Native American contacts that may have knowledge regarding Native American cultural resources within or near the APE. The NAHC specifically recommended that the “Kwaaymii Laguna Band of Mission Indians, Pala Band of Mission Indians, Pechanga Band of Mission Indians, Rincon Band of Luiseno Indians, San Luis Rey Band of Mission Indians, and the San Pasqual Band of Diegueno Mission Indians” be contacted. Anza prepared and mailed letters dated January 29, 2019, to the 32 Native American contacts describing the projects and asking if they had knowledge regarding cultural resources of Native American origin within or near the project APEs. Responses are summarized in Section V. Cultural Resources.

The District conducted AB 52 consultation with the two tribes that responded to the District's notification letter and requested consultation; the San Luis Rey Band of Mission Indians and the Rincon Band of Luiseno Indians. Both tribes identified the program area as sensitive for buried tribal cultural resources and requested copies of the confidential cultural resources records search results. Upon review of the confidential cultural resources records, the Rincon Band stated that although the project alignments are in previously disturbed corridors; and thus, have low potential to retain significant archaeological scientific data, any tribal resources within

these alignments could still be important to Native Americans (i.e., resources in a secondary or disturbed context may still have tribal heritage value). As stated in the Rincon Band's consultation summary letter (Appendix D, the Rincon Band has requested Native American monitoring for all projects implemented under the Pipeline Replacement Program.

The District will consult with the Rincon Band on a project-by-project basis to assess which portions of each project will require Native American monitoring. The District will retain Luiseno Native American monitors as determined by the results of the consultation for each project implemented as part of the program.

b) The *Phase I Cultural Resources Assessment* referenced above, did not identify significant resources within the APE pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. However, as referenced above, the Rincon Band has requested construction monitoring occur in all areas affected by program implementation. While no evidence has been presented to indicate the potential presence of undiscovered resources within the pipeline corridors, the District will consult with the Rincon Band on a project-by-project basis to determine where Native American monitoring should occur. Where monitoring is needed, the District will retain Luiseno Native American monitors as determined by the results of the consultation for each project implemented as part of the program. Impacts under this threshold would be **less than significant**.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XIX. UTILITIES AND SERVICE SYSTEMS -- Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) The project would replace existing water pipeline segments to address deficiencies in the existing infrastructure. It would not result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities. All impacts would be temporary and confined to the pipeline alignments and/or easements. **No impact** would occur under this threshold.

b) The project would replace existing water infrastructure. The improvements are not being proposed to address deficiencies in supply nor would the improvements increase water demand. **No impact** would occur under this threshold.

c) The project would not generate or discharge wastewater. Thus, the project would not create additional demand on existing facilities such that wastewater treatment standards would be exceeded or new or expanded facilities required. **No impact** would occur.

d) The proposed project would generate construction/demolition waste (CDW). No waste would be generated post-construction. It is presumed that construction waste would be comprised of concrete, metals, wood, landscape and related material. The California Integrated Waste Management Act (CIWMA) of 1989 mandates that all cities and counties in California reduce solid waste disposed at landfills generated within their jurisdictions by 50%. AB 341

amended the CIWMA to increase recycling to 75% by 2020. CDW associated with the proposed project will be recycled to the extent practicable with the remainder sent to a landfill. A **less than significant impact** would occur under this threshold.

e) The applicant and project contractor will comply with all local, state, and federal requirements for integrated waste management (e.g., recycling, green waste) and solid waste disposal as required by the CIWMA of 1989 as amended per AB 341. **No impact** would occur under this threshold.

XX. WILDFIRES -- 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?

a) The project would replace existing water supply infrastructure at various locations throughout the service area. Construction would be temporary and any traffic control required for work within or along a roadway would maintain access for emergency vehicles as well as evacuation. The project would have no impact on the implementation of emergency response of evacuation plan; and thus, would have **no impact** under this threshold.

b) Post-construction, all improvements would be subsurface. The improvements would not expose project occupants to pollutant concentrations associated with wildfires. **No impact** would occur under this threshold.

c) The project would improve the reliability of water service within the areas where improvements are programmed. The project would not require the installation of infrastructure or other improvements that could cause or exacerbate wildfire. **No impact** would occur under this threshold.

d) As discussed, the improvements would occur within or along existing road corridors and easements. The area of disturbance required would be minimal and off-road construction would clear a linear corridor that may act as a firebreak or impede the spread of wildfire should one occur. The area of disturbance required for the project would be not be extensive enough to contribute to flooding, erosion, landslides, mudflows or other adverse conditions that may occur after a wildfire event. **No impact** would occur under this threshold.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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XVIII. MANDATORY FINDINGS OF SIGNIFICANCE —

a) Does the project have the potential to substantially degrade the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, substantially 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?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

a) Construction activities would occur within roadways and disturbed pipeline corridors. Mitigation measures have been identified (**Mitigation Measures BIO-1 through BIO-4**) to reduce potential impacts to biological resources to a less than significant level. Although the project area is not anticipated to contain any known paleontological or archaeological resources, it may contain previously undetected subsurface archaeological resources. Mitigation measures have been identified (**Mitigation Measures CUL-1 and CUL-2**) to mitigate any impacts associated with the discovery of previously undetected subsurface cultural resources during excavation activities. Further, the District will consult with the Rincon Band on a project-by-project basis to assess which portions of each project will require Native American monitoring. The District will retain Luiseno Native American monitors as determined by the results of the consultation for each project implemented as part of the program. These measures would further avoid or reduce the likelihood of impacting previously undiscovered archaeological resources within the project alignments.

b) As presented in the discussion of environmental checklist Sections I through XX, the project would have no impact, a less than significant impact, or a potentially significant impact unless mitigation is incorporated with respect to all environmental issues. With mitigation measures, potentially significant biological, cultural and tribal cultural resources impacts would be reduced to **less than significant**. Based on the limited scope of direct physical impacts to the environment associated with the proposed project, the impacts are project-specific in nature. Consequently, the project along with other cumulative projects would result in a **less than significant** cumulative impact with respect to all environmental issues with mitigation incorporated.

c) In general, impacts to human beings are associated with air quality, hazards and hazardous materials and noise. As presented in the environmental checklist discussions, the project would have no impact or a less than significant impact with respect to these environmental issues. Therefore, the project would have a **less than significant** impact on human beings.

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