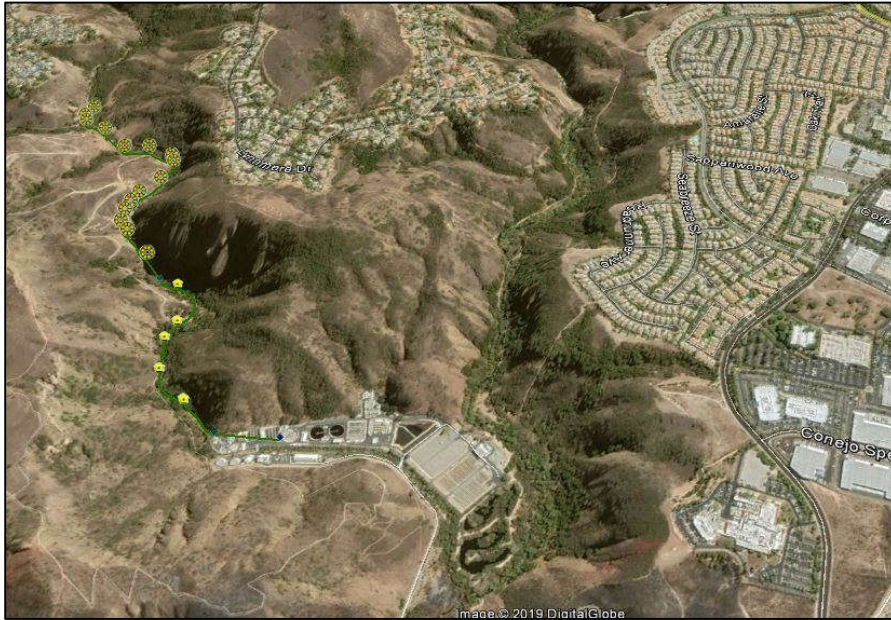


DRAFT

MITIGATED NEGATIVE DECLARATION

UNIT Y2 WASTEWATER INTERCEPTOR REHABILITATION PROJECT (CI 5328)



Lead Agency:

City of Thousand Oaks
2100 Thousand Oaks Boulevard
Thousand Oaks, California 91362
Contact: Mr. Nader Heydari
(805) 449-2392

Prepared by:

Padre Associates, Inc.
1861 Knoll Drive
Ventura, CA 93003
(805) 644-2220

December 2020

Project No. 1902-2181

TABLE OF CONTENTS

	Page
MITIGATED NEGATIVE DECLARATION	MND-1
1.0 INTRODUCTION	1
1.1 Purpose and Legal Authority	1
1.2 Project Proponent and Lead Agency	1
1.3 Project Location	1
1.4 Project Background	1
1.5 Project Purpose and Need	1
1.6 Project Approvals and Permits	1
1.7 Mitigation Monitoring Plan	2
1.8 Adoption of the Final Mitigated Negative Declaration	2
1.9 Preparers of this Initial Study	2
2.0 PROJECT DESCRIPTION	3
2.1 Existing Facilities	3
2.2 Project Elements	3
2.3 Construction	6
2.4 Operation and Maintenance	8
3.0 ENVIRONMENTAL IMPACT ANALYSIS	13
3.1 Aesthetics	13
3.2 Agricultural and Forestry Resources	15
3.3 Air Quality	17
3.4 Biological Resources	25
3.5 Cultural Resources	41
3.6 Energy	49
3.7 Geology and Soils	50
3.8 Greenhouse Gas Emissions	53
3.9 Hazards and Hazardous Materials/Risk of Upset	59
3.10 Hydrology and Water Quality	61
3.11 Land Use and Planning	70
3.12 Mineral Resources	71

TABLE OF CONTENTS (CONTINUED)

	Page
3.13 Noise	72
3.14 Population and Housing.....	74
3.15 Public Services	75
3.16 Recreation	76
3.17 Transportation.....	78
3.18 Tribal Cultural Resources.....	79
3.19 Utilities and Service Systems.....	80
3.20 Wildfire.....	81
4.0 CUMULATIVE IMPACTS.....	82
4.1 Description of Cumulative Projects	82
4.2 Discussion of Cumulative Impacts	84
5.0 MANDATORY FINDINGS OF SIGNIFICANCE.....	86
6.0 DETERMINATION OF ENVIRONMENTAL DOCUMENT	87
7.0 REFERENCES.....	88

FIGURES

Figure 1 Project Location Map	9
Figure 2 Rehabilitation Plan (1 of 2).....	10
Figure 3 Rehabilitation Plan (2 of 2).....	11
Figure 4 Site Photographs	12
Figure 5 Surface Water Resources of the Project Area.....	67

TABLES

Table 1 Ambient Air Quality Standards.....	18
Table 2 Summary of Ambient Air Pollutant Data Collected at the Thousand Oaks and Simi Valley Monitoring Stations	20
Table 3 Construction Air Pollutant Emissions	23
Table 4 Access Road Maintenance Air Pollutant Emissions	23
Table 5 Definitions of Special-status Plant Species	27

TABLE OF CONTENTS (CONTINUED)

	Page
Table 6 Special-status Plant Species Reported within Five Miles of the Unit Y2 Interceptor	27
Table 7 Definitions of Special-status Wildlife Species.....	32
Table 8 Special-status Wildlife Species Reported within Five Miles of the Unit Y2 Interceptor	32
Table 9 Jurisdictional Delineation Data Summary.....	36
Table 10 Previously Recorded Archaeological Sites within 0.5 miles of the Unit Y2 Interceptor	47
Table 11 Construction-related Greenhouse Gas Emissions	58
Table 12 Access Road Maintenance GHG Emissions	58
Table 13 Impaired Waters of the Calleguas Creek Watershed	62
Table 14 Beneficial Uses of Surface Waters of the Calleguas Creek Watershed.....	64

APPENDICIES

A	Vascular Plant Flora Observed along the Unit Y2 Interceptor, Ventura County, California
B	Vertebrate Animal Species Reported from Hill Canyon and North Fork and South Fork Arroyo Conejo, Ventura County, California

DRAFT MITIGATED NEGATIVE DECLARATION FOR THE UNIT Y2 WASTEWATER INTERCEPTOR REHABILITATION PROJECT

PROJECT DESCRIPTION

Proposed rehabilitation of the Unit Y2 Interceptor is comprised of the following primary components:

- Improve approximately 1,350 linear feet of the existing/historical access road between the HCTP and pipeline Station 14+50.
- Improve the existing meter station near the HCTP headworks (inlet).
- Install three new pressurized manholes (pipeline Stations 7+25, 13+48, 17+25). The existing clean-out structure at Station 13+48 would be removed in its entirety to construct the new manhole at that location.
- Line the two existing 18-inch diameter Techite parallel pipes with approximately 2,240 feet each of cured-in-place pipe (pipeline Station 1+40 to 23+65).
- Remove above-ground portions and abandon in place underground portions of four existing clean-out structures (pipeline Stations 5+30, 10+00, 15+50, 21+50).

Construction of Unit Y2 improvements is anticipated to require up to eight months but is unlikely to be continuous. Work would be scheduled to avoid the wet season when high stream flows may impede crossing North Fork Arroyo Conejo and other work tasks. Work would be primarily conducted between the hours of 7 a.m. and 4:30 p.m., Monday through Friday. However, short-term nighttime and/or weekend work may be considered for bypass operations and tie-in to the existing interceptor piping/structures.

Access road improvements would be completed as an initial task to facilitate access by construction equipment and vehicles to work and staging areas. Equipment and materials (rock for stream crossing improvements, piping, valves and pipe lining) would be staged in a clearing by the HCTP north gate (near pipeline Station 2+00 to 4+00) and/or the Indian Council Campground (near pipeline Station 17+00). Transportation of pipe rehabilitation/construction materials would require about 100 truck trips with a maximum of 10 truck trips on a peak day.

Equipment and vehicles would access the Project site from the HCTP north gate and the existing access road/trail from Avenida de los Arboles (Mesa Trail, Teepee Trail). The access road/trail from Avenida de los Arboles has been used for previous construction projects and is routinely used by City and Conejo Open Space Conservation Agency maintenance vehicles. Therefore, improvements to the access-road/trail are not anticipated to be required for this project.

Hiking trail closures (portions of the Lizard Rock Trail, Wildwood Canyon Trail and Eagle Point Trail) would be required for up to 14 weeks during construction of Unit Y2 improvements. Trail closures may be intermittent depending on the location of ongoing construction work. Trails would be re-opened on weekends when feasible depending on the nature and extent of construction activities in progress. In addition, portions of the Mesa Trail and Teepee Trail may be closed for short periods (few hours) during mobilization and demobilization of construction equipment and vehicles and major materials deliveries.

No change in the existing operation and maintenance of the Unit Y2 Interceptor is proposed. However, the re-established access road would require maintenance which may include removal of woody debris, installation of additional rock (near pipeline Station 11+00), and minor earthwork (less than 50 cubic yards) following major storm events, and occasional tree trimming.

PROJECT LOCATION

The subject reach of the Unit Y2 Interceptor is located within the City of Thousand Oaks, approximately 2.1 miles north of the U.S. Highway 101/Rancho Conejo Boulevard interchange. The Unit Y2 Interceptor is also located within Wildwood Open Space, a 1,732-acre area located in the northwestern portion of the City of Thousand Oaks and owned by the Conejo Open Space Conservation Agency (621 acres) and the Conejo Recreation and Park District (1,111 acres).

PROJECT PROPONENT AND LEAD AGENCY

City of Thousand Oaks
2100 Thousand Oaks Boulevard
Thousand Oaks, California 91362

Contact: Nader Heydari (805/449-2392)

PROPOSED FINDINGS

The City has prepared this Mitigated Negative Declaration (MND) pursuant to Sections 15070-15075 of the State Guidelines for the Implementation of the California Environmental Quality Act. This Mitigated Negative Declaration documents the City's finding that there are no significantly adverse unavoidable impacts associated with the proposed project, and the project does not require the preparation of an Environmental Impact Report (EIR). The attached Initial Study identifies and discusses potential impacts, mitigation measures and residual impacts for identified subject areas.

PUBLIC COMMENTS

In compliance with Section 15073 of the State Guidelines for the Implementation of the California Environmental Quality Act, the City will accept written comments on the adequacy of the information contained in the Draft MND. Please make sure that written comments reach the City's contact person by 5:00 p.m. on January 22, 2021, the close of the public review period. As a result of this project, potentially significant, but mitigable effects on the environment are anticipated in the areas of air quality, biological resources, archeological resources, land use and planning and recreation. After the close of the public comment period, the City will make appropriate changes to the document pursuant to the comments received and will release a Final MND.

Due to the non-complex nature of this project, a separate environmental hearing will not be held. However, public testimony will be accepted at the MND approval hearing before the City Council. For information regarding scheduling of this hearing, please contact Mr. Heydari at (805) 449-2392.

MITIGATION MEASURES

The following mitigation measures have been integrated into the proposed project and would reduce impacts to a level of less than significant.

Air Quality

With the implementation of following fugitive dust reduction measures recommended by the Ventura County Air Pollution Control District, air quality impacts would be reduced to a less than significant level.

1. The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust.
2. Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.
3. Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities:
 - a) All trucks shall be required to cover their loads as required by California Vehicle Code §23114.
 - b) All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved access roads and trails, shall be treated to prevent 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 reclaimed water shall be used whenever possible.
4. Graded and/or excavated inactive areas of the construction site shall be monitored by (indicate by whom) at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically 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 should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust.
5. Signs shall be posted on-site limiting traffic to 15 miles per hour or less.
6. During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with the VCAPCD in determining when winds are excessive.

7. Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.
8. Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.

Biological Resources

With the implementation of following mitigation measures, impacts to biological resources would be reduced to a less than significant level.

1. Removal of coast live oak trees by Project implementation shall be offset by planting replacement coast live oak trees at a 3:1 ratio in Project impact areas and/or other locations within the Wildwood Open Space.
2. A qualified biologist shall conduct surveys for arroyo chub, two striped garter snake and western pond turtle along the North Fork Arroyo Conejo (HCTP to Paradise Falls) no more than seven days prior to Project impacts. If any of these species are found, the following protective measures shall be implemented:
 - a. Netting (0.25" mesh) shall be installed immediately upstream and downstream of all five road crossings of North Fork Arroyo Conejo at the Project site, prior to installation of the temporary road crossings and Project-related use of other crossings. The netting shall be adequate in height and length to also limit two-striped garter snake and western pond turtle movement into work areas.
 - b. A qualified biologist shall relocate any arroyo chub, two striped garter snake and western pond turtle found within stream crossing areas to the upstream and downstream sides of the netting prior to installation of the temporary road crossings and Project-related use of other crossings.
 - c. A qualified biologist shall survey Project work areas periodically to identify and relocate arroyo chub, two striped garter snake and western pond turtle found in work areas to suitable habitat at least 300 feet from the Project site.
3. A qualified biologist shall conduct breeding bird surveys prior to any Project work involving heavy equipment or heavy-duty trucks between February 15 and August 1. Construction work within 200 feet of any active nests of special-status bird species shall be postponed until the young have fledged or the nest is abandoned. Alternatively, work may resume if nest monitoring indicates Project-related activities are not substantially reducing nesting success.
4. Temporary road crossing areas shall be restored following removal of these crossings. Portions of the secondary flow channel disturbed by installation of bank protection shall also be restored and may include planting willow cuttings in the toe trench. Restoration shall include planting native riparian and wetland plant species. The invasive Mexican fan palm within the affected reach of North Fork Arroyo Conejo shall be removed to offset Project impacts on riparian vegetation.

Archaeological Resources

With the implementation of following mitigation measures, impacts to archaeological resources would be reduced to a less than significant level.

- Should any buried archaeological materials be uncovered during project activities, such activities shall cease within 100 feet of the find. Prehistoric archaeological indicators include obsidian and chert flakes, chipped stone tools, bedrock outcrops and boulders with mortar cups, ground stone implements, locally darkened midden soils containing previously listed items plus fragments of bone and fire affected stones. Historic period site indicators may include fragments of glass, ceramic and metal objects, milled and split timber, building foundations, privy pits, wells and dumps, and old trails. All earth disturbing work within the vicinity of the find shall be temporarily suspended or redirected until the City has been notified and an archaeologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume.
- If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to the origin and deposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission.

Land Use and Planning

With the implementation of Mitigation Measure 1 under Biological Resources, impacts to land use and planning would be reduced to a less than significant level.

Recreation

With the implementation of following mitigation measures to repair Project-related trail deterioration and minimize loss of use of trails and picnic areas, impacts to recreation would be reduced to a less than significant level.

- Trails shall be returned to pre-construction conditions within 60 days of the completion of construction with regard to gradient, topography and soil texture (without imported gravel or rock), except where trails comprise the re-established access road.
- Trail, picnic area and campground closures shall be minimized and these areas re-opened on weekends and other periods when construction work is not ongoing, when safe to do so.

MITIGATION MONITORING AND REPORTING

Section 15074(d) of the State Guidelines for the Implementation of the California Environmental Quality Act and Section 21081.6 of the Public Resources Code, requires the lead agency (City) to adopt a monitoring program to ensure mitigation measures are complied with during implementation of the project. In compliance with these requirements, a Mitigation Monitoring Program Implementation Table is provided below. This Table identifies the timing, monitoring methods, responsibility and compliance verification method for all mitigation measures identified in this MND. Monitoring would be conducted by the City's project manager and qualified specialists under contract to the City.

**UNIT Y2 INTERCEPTOR REHABILITATION PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE**

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
						Signature	Date	Remarks
AIR QUALITY								
The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust.	Throughout the construction period	The construction inspector will observe work in progress	Initially and weekly thereafter	City staff	City staff will review inspection reports			
Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.	Throughout the construction period	The construction inspector will observe work in progress	Initially and weekly thereafter	City staff	City staff will review inspection reports			
Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities: • All trucks shall be required to cover their loads as required by California Vehicle Code §23114. • All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved access roads and trails, shall be treated to prevent 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 reclaimed water shall be used whenever possible.	Throughout the construction period	The construction inspector will observe work in progress	Initially and weekly thereafter	City staff	City staff will review inspection reports			

**UNIT Y2 INTERCEPTOR REHABILITATION PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE**

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
						Signature	Date	Remarks
AIR QUALITY (Continued)								
Graded and/or excavated inactive areas of the construction site shall be monitored at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically 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 should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust	Throughout the construction period	The construction inspector will inspect dust control efforts and order additional measures as needed	Initially and weekly thereafter	City staff	City staff will review inspection reports			
Signs shall be posted on-site limiting off-road traffic speed to 15 miles per hour or less	Throughout the construction period	The construction inspector will ensure signs are posted and maintained	Initially and weekly thereafter	City staff	City staff will review inspection reports			
During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with the VCAPCD in determining when winds are excessive	Throughout the construction period	The construction inspector will coordinate with site supervisor to curtail construction operations as needed during high wind periods	Initially and weekly thereafter	City staff	City staff will review inspection reports			
Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads	Throughout the construction period	The construction inspector will ensure roads are swept as needed	Initially and weekly thereafter	City staff	City staff will review inspection reports			

**UNIT Y2 INTERCEPTOR REHABILITATION PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE**

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
						Signature	Date	Remarks
AIR QUALITY (Continued)								
Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations	Throughout the construction period	The construction inspector will observe work in progress	Initially and weekly thereafter	City staff	City staff will review inspection reports			
BIOLOGICAL RESOURCES								
Removal of coast live oak trees by Project implementation shall be offset by planting replacement coast live oak trees at a 3:1 ratio in Project impact areas and/or other locations within the Wildwood Open Space.	Following project completion	Inspection following planting	As needed to ensure replacement trees survive	City staff	City staff will review inspection reports			
A qualified biologist shall conduct surveys for arroyo chub, two striped garter snake and western pond turtle along the North Fork Arroyo Conejo (HCTP to Paradise Falls) no more than seven days prior to Project impacts. If any of these species are found, the following protective measures shall be implemented: <ul style="list-style-type: none">• Netting (0.25" mesh) shall be installed immediately upstream and downstream of all five road crossings of North Fork Arroyo Conejo at the Project site, prior to installation of the temporary road crossings and Project-related use of other crossings. The netting shall be adequate in height and length to also limit two-striped garter snake and western pond turtle movement into work areas.	No more than seven days prior to construction mobilization	Coordination with the project biologist to ensure surveys are completed and netting installed as needed	Prior to construction mobilization	City staff	City staff will review of survey results			

**UNIT Y2 INTERCEPTOR REHABILITATION PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE**

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
						Signature	Date	Remarks
BIOLOGICAL RESOURCES (Continued)								
<ul style="list-style-type: none">• A qualified biologist shall relocate any arroyo chub, two striped garter snake and western pond turtle found within stream crossing areas to the upstream and downstream sides of the netting prior to installation of the temporary road crossings and Project-related use of other crossings.• A qualified biologist shall survey Project work areas periodically to identify and relocate arroyo chub, two striped garter snake and western pond turtle found in work areas to suitable habitat at least 300 feet from the Project site.	Prior to construction mobilization	Coordination with the project biologist to ensure surveys are completed and species are relocated	Prior to construction mobilization and periodically during construction	City staff	City staff will review survey results and species relocation reports			
A qualified biologist shall conduct breeding bird surveys prior to any Project work involving heavy equipment or heavy-duty trucks between February 15 and August 1. Construction work within 200 feet of any active nests of special-status bird species shall be postponed until the young have fledged or the nest is abandoned. Alternatively, work may resume if nest monitoring indicates Project-related activities are not substantially reducing nesting success.	Prior to any construction work conducted between February 15 and August 1	Coordination with the project biologist to ensure surveys are completed and active nests are avoided as needed	Weekly during the breeding season	City staff	City staff will review survey results			

**UNIT Y2 INTERCEPTOR REHABILITATION PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE**

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
						Signature	Date	Remarks
BIOLOGICAL RESOURCES (Continued)								
Temporary road crossing areas shall be restored following removal of these crossings. Portions of the secondary flow channel disturbed by installation of bank protection shall also be restored and may include planting willow cuttings in the toe trench. Restoration shall include planting native riparian and wetland plant species. The invasive Mexican fan palm within the affected reach of North Fork Arroyo Conejo shall be removed to offset Project impacts on riparian vegetation.	Following project completion	Inspection following restoration	As needed to ensure restoration is successful	City staff	City staff will review inspection reports			
ARCHEOLOGICAL RESOURCES								
Should any buried archaeological materials be uncovered during project activities, such activities shall cease within 100 feet of the find. Prehistoric archaeological indicators include obsidian and chert flakes, chipped stone tools, bedrock outcrops and boulders with mortar cups, ground stone implements, locally darkened midden soils containing previously listed items plus fragments of bone and fire affected stones. Historic period site indicators may include fragments of glass, ceramic and metal objects, milled and split timber, building foundations, privy pits, wells and dumps, and old trails. All earth disturbing work within the vicinity of the find shall be temporarily suspended or redirected until the City has been notified and an archaeologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume.	Throughout the construction period	The construction inspector will observe work in progress and ensure work is suspended as appropriate, the project manager will ensure evaluation of the find is completed	Initially and weekly thereafter	City staff	City staff will prepare an incident report to be included in the project inspection report			

**UNIT Y2 INTERCEPTOR REHABILITATION PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE**

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
						Signature	Date	Remarks
ARCHEOLOGICAL RESOURCES (Continued)								
If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to the origin and deposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission.	Throughout the construction period	The construction inspector will observe work in progress and ensure work is suspended as appropriate, the project manager will notify the coroner	Initially and weekly thereafter	City staff	City staff will prepare an incident report to be included in the project inspection report			

**UNIT Y2 INTERCEPTOR REHABILITATION PROJECT
MITIGATION MONITORING PROGRAM – IMPLEMENTATION TABLE**

Mitigation Measure	Implementation Timing	Monitoring Methods	Monitoring Frequency	Party Responsible for Monitoring	Method of Compliance Verification	Verification of Compliance		
						Signature	Date	Remarks
LAND USE AND PLANNING								
Removal of coast live oak trees by Project implementation shall be offset by planting replacement coast live oak trees at a 3:1 ratio in Project impact areas and/or other locations within the Wildwood Open Space.	Following project completion	Inspection following planting	As needed to ensure replacement trees survive	City staff	City staff will review inspection reports			
RECREATION								
Trails shall be returned to pre-construction conditions within 60 days of the completion of construction with regard to gradient, topography and soil texture (without imported gravel or rock), except where trails comprise the re-established access road.	Within 60 days of the completion of construction	Inspection following trail restoration	Once, following trail restoration	City staff	City staff will review inspection reports			
Trail, picnic area and campground closures shall be minimized and these areas re-opened on weekends and other periods when construction work is not ongoing, when safe to do so.	Throughout the construction period	The City project manager will evaluate work in progress and re-open recreational areas when safe	Weekly	City staff	City staff will document closure and re-opening of recreational areas			

1.0 INTRODUCTION

1.1 PURPOSE AND LEGAL AUTHORITY

This Initial Study has been prepared for the Unit Y2 Interceptor Rehabilitation Project (Project), which is a component of the City of Thousand Oaks (City) municipal wastewater collection system.

Section 2.0 of this document provides a description of the Project. The City is also the “lead agency” for the Project. As defined by Section 15367 of the CEQA Guidelines, the lead agency is “the public agency which has the principal responsibility for carrying out or approving a project which may have a significant impact on the environment.” Based on the findings of the Impact Analysis (Section 3.0 of this Initial Study), it has been determined that the Project (with mitigation) would not have a significant impact on the environment. As such, a Mitigated Negative Declaration has been prepared for the Project in accordance with CEQA.

1.2 PROJECT PROPONENT AND LEAD AGENCY

City of Thousand Oaks
2100 Thousand Oaks Boulevard
Thousand Oaks, California 91362

Contact: Nader Heydari (805/449-2392)

1.3 PROJECT LOCATION

The subject reach of the Unit Y2 Interceptor is located within the Wildwood Open Space (see Figure 1), a 1,732-acre area located in the northwestern portion of the City and owned by the Conejo Open Space Conservation Agency (621 acres) and the Conejo Recreation and Park District (1,111 acres).

1.4 PROJECT BACKGROUND

The Unit Y Interceptor transports municipal wastewater from the northeastern portion of the City mostly along the North Fork Arroyo Conejo and discharges to the Hill Canyon Treatment Plant (HCTP). The Unit Y2 Interceptor is composed of the lower 2,265 feet of the Unit Y Interceptor that flows into the HCTP.

1.5 PROJECT PURPOSE AND NEED

The proposed Project is part of the City’s long-term program to rehabilitate its wastewater interceptor system to improve reliability and prevent future failures. The Unit Y2 Interceptor is composed of twin 18-inch diameter reinforced plastic mortar pipe (brand name Techite) which is known to have a history of early failure. In addition, a 1,500-foot-long portion of the Unit Y2 interceptor leading to the HCTP is located at a lower elevation than its outlet, such that it accumulates rocks and sediment.

1.6 PROJECT APPROVALS AND PERMITS

Project implementation will require the City to obtain permits and/or other forms of discretionary approval from Federal, State and local agencies. These agencies may include the following:

1.6.1 U.S. Army Corps of Engineers (Corps)

Pipe rehabilitation activities within waters of the U.S. (North Fork Arroyo Conejo) would require authorization under Section 404 of the Clean Water Act, which is anticipated to be a nationwide permit.

1.6.2 California Department of Fish and Wildlife (CDFW)

Pipe rehabilitation activities within North Fork Arroyo Conejo would need to comply with Section 1602 of the California Fish and Game Code, which requires a streambed alteration agreement with CDFW for work within streambeds or stream banks. Therefore, CDFW is a responsible agency under CEQA.

1.6.3 Los Angeles Regional Water Quality Control Board (RWQCB)

For the Corps' nationwide permit to become effective, the City must obtain a water quality certification from the RWQCB as required by Section 401 of the Clean Water Act. Therefore, RWQCB is a responsible agency under CEQA.

1.6.4 Ventura County Watershed Protection District

New or modified facilities within North Fork Arroyo Conejo may require a watercourse permit from the Watershed Protection District. In this case, the Watershed Protection District is a responsible agency under CEQA.

1.7 MITIGATION MONITORING PLAN

Pursuant to California Resources Code Section 21081.6, a Mitigation Monitoring Plan will be developed to ensure the implementation of mitigation measures necessary to reduce or eliminate identified significant impacts. The Plan will be reviewed and adopted by the City in conjunction with the findings required under CEQA.

1.8 ADOPTION OF THE FINAL MITIGATED NEGATIVE DECLARATION

The Draft MND will be circulated for review by responsible agencies and interested members of the public for a minimum 30-day period. Following the public review period, the City will prepare responses to all comments received during the review period. Following the end of the review period, a Final MND will be prepared, and will be comprised of the Draft MND and any changes made in response to comments received during circulation of the Draft MND and responses to comments. At the time the Project is approved, the mandated CEQA Findings and a Mitigation Monitoring Plan will be adopted. The City is the lead agency and has the responsibility of determining the adequacy of the MND pursuant to CEQA.

1.9 PREPARERS OF THE INITIAL STUDY

This document was prepared for the City by Matt Ingamells, Rachael Letter and Lucas Bannan of Padre Associates, Inc.

2.0 PROJECT DESCRIPTION

2.1 EXISTING FACILITIES

The Unit Y2 Interceptor extends about 2,265 feet from the rock trap at HCTP north headworks (inlet) to the existing siphon inlet structure (see Figures 2 and 3). It is composed of two parallel 18-inch diameter Techite pipes and was installed in the 1970's. The peak hour wet weather design flows are currently 7.0 million gallons per day, while current peak hour wet weather flows are 5.7 million gallons per day (HDR, 2019). Wastewater transported by most of the Unit Y2 Interceptor is pressurized by gravity. Existing structures along the Unit Y2 Interceptor (extending east from the HCTP) include:

- Rock trap (pipeline Station 1+00)
- Meter vault (pipeline Station 1+25)
- Clean-out structure no. 5 (pipeline Station 5+30)
- Clean-out structure no. 4 (pipeline Station 10+00)
- Clean-out structure no. 3 (pipeline Station 13+48)
- Clean-out structure no. 2 (pipeline Station 15+50)
- Clean-out structure no. 1 (pipeline Station 21+50)
- Siphon inlet structure (pipeline Station 23+65)

The rock trap and meter vault are located within the HCTP in a paved area. All existing structures are at least partially buried. Less than 12 inches of the approximately two foot by four-foot concrete clean-out structures are exposed. Approximately two feet of the six foot by seven-foot concrete siphon inlet structure is exposed. The buried Unit Y2 Interceptor crosses North Fork Arroyo Conejo five times (near pipeline Stations 7+40, 12+00, 14+50, 19+00, 22+00) between the HCTP and the siphon inlet structure.

An unmaintained access road was historically present along the Unit Y2 Interceptor. Currently, much of this road is not functional due to erosion by storm flows and overgrowth by trees and other vegetation. Between the HCTP and the siphon inlet structure, two segments of this road are currently passable by maintenance vehicles:

- About 500 linear feet between the HCTP and Clean-out Structure no. 5.
- About 900 linear feet between pipeline Station 14+50 (near Clean-out Structure no. 2) and the siphon inlet structure.

2.2 PROJECT ELEMENTS

Proposed rehabilitation of the Unit Y2 Interceptor is comprised of the following primary components:

- Improve approximately 1,350 linear feet of the existing/historical access road between the HCTP and pipeline Station 14+50.
- Improve the existing meter station near the HCTP headworks (inlet).

- Install three new pressurized manholes (pipeline Stations 7+25, 13+48, 17+25). The existing clean-out structure at Station 13+48 would be removed in its entirety to construct the new manhole at that location.
- Line the two existing 18-inch diameter Techite parallel pipes with approximately 2,240 feet each of cured-in-place pipe (pipeline Station 1+40 to 23+65).
- Remove above-ground portions and abandon in place underground portions of four existing clean-out structures (pipeline Stations 5+30, 10+00, 15+50, 21+50).

The location of proposed elements of rehabilitation of the Unit Y2 Interceptor is provided in Figures 2 and 3. Photographs of some of the proposed rehabilitation work sites are provided in Figure 4.

2.2.1 Access Road Improvements

Approximately 1,350 linear feet of the existing/historical access road would be improved to provide long-term maintenance access and provide access for equipment and vehicles to be used for pipeline rehabilitation work. The width of the access road improvements would vary from 10 to 15 feet depending on local constraints. Improvements to the access road within the streambed or along established hiking trails would be limited to 10 feet. These improvements would include:

- Clearing vegetation, rocks and other obstructions where required.
- Limited tree trimming to provide vertical clearance of approximately 15 feet within the access road alignment.
- Grading as needed to widen the existing/historical access road/trail and provide a near level surface.
- Re-establishment of the historic access road alignment (near pipeline Station 11+00, see Figure 4.a) within the North Fork Arroyo Conejo secondary flow channel (about 125 linear feet). This component includes clearing of vegetation as needed, and placement of up to 70 cubic yards of 4 to 6-inch rock in the secondary channel to facilitate short-term (proposed pipeline rehabilitation) and long-term (maintenance) vehicle access.

2.2.2 Meter Station Improvements

Much of the piping within the existing buried concrete meter vault (approximately 12.6 by 6.6 feet) and two adjacent concrete structures (approximately 8 feet by 8 feet) would be demolished and replaced. The existing magnetic meter would be replaced. The existing buried concrete meter vault and adjacent concrete structures would be retained. However, two concrete walls would be replaced. New piping and valves would be installed to facilitate flow metering operations. The meter station is located within the HCTP site boundary in a paved area.

2.2.3 Pressurized Manholes

Three new pressurized manholes would be installed along the Unit Y2 Interceptor (see Figures 2 and 3), to provide access to the pipes for installation of the cured-in-place pipe lining. The proposed pressurized manhole at pipeline Station 13+48 would replace the existing clean-out structure at that location (see Figure 4.b). Each manhole would consist of a 24-inch diameter tee fitting on each of the two 18-inch diameter parallel Techite pipes within a new 26 foot by 10 foot buried concrete slab and encasement. Two round concrete pipe sections would be installed on the concrete encasement to form a manhole providing access to each tee fitting, and each provided with a 48-inch diameter hinged manhole cover. Generally, at least 12 inches of the manhole would be exposed above-ground. However, the new manhole at pipeline Station 13+48 may be installed at grade to allow passage by maintenance vehicles.

At the new manhole site at pipeline Station 13+48, the Unit Y2 pipelines are located immediately adjacent to the North Fork Arroyo Conejo secondary flow channel. Bank protection would be installed at this location (50 feet upstream, 30 feet downstream) to protect the new manhole from storm flows. Proposed bank protection would consist of ungrouted rock riprap including 9 inches of filter rock and 17-21 inches of one-quarter ton rock laid on a manufactured 1:1 slope (horizontal:vertical) with the toe of the slope buried beneath the streambed.

2.2.4 Cured-in-Place Pipe Lining

The two parallel Techite pipes that comprise the Unit Y2 Interceptor would be lined using cured-in-place pipe lining. The lining would be installed between the proposed replacement meter vault and the proposed pressurized manholes:

- Between the meter vault and the proposed manhole at pipeline Station 7+25.
- Between the proposed manhole at pipeline Station 7+25 and the proposed manhole at pipeline Station 13+48.
- Between the proposed manhole at pipeline Station 13+48 and the proposed manhole at pipeline Station 17+25.
- Between the proposed manhole at pipeline Station 17+25 and the existing siphon inlet structure.

The proposed pressurized manholes would be used to provide access to the existing pipes for insertion of the pipe lining. The cured-in-place pipe lining utilizes a flexible fabric tube manufactured of woven or non-woven polyester felt or fiber reinforced fabric that is impregnated with a liquid, thermosetting polymer resin. The resin-impregnated tube would be inserted into the existing Techite pipe by hydrostatic or air inversion, or by mechanically pulling-in with a winch and then inflated. Once the resin-impregnated tube is installed, the resin would be cured using either heat (water or steam) or ultraviolet light.

2.2.5 Clean-out Structure Abandonment

Four existing clean-out structures (pipeline Stations 5+30, 10+00, 15+50, 21+50) would be abandoned in place following installation of proposed pipe lining (see Figures 2, 3, 4.c and 4.d). The existing above-ground concrete encasement, bollards, and bollard foundations would be removed to depth of one foot below existing grade. In addition, the above-ground flange and flanged coupling adaptor would be removed. The remaining pipe connection (between one foot below grade to the newly lined pipe) would be filled with concrete. The area above the abandoned clean-out structure would be backfilled with native soil.

2.3 CONSTRUCTION

2.3.1 Construction Access and Timing

Construction of Unit Y2 improvements is anticipated to require up to eight months but is unlikely to be continuous. Work would be scheduled to avoid the wet season when high stream flows may impede crossing North Fork Arroyo Conejo and other work tasks. Work would be primarily conducted between the hours of 7 a.m. and 4:30 p.m., Monday through Friday. However, short-term nighttime and/or weekend work may be considered for bypass operations and tie-in to the existing interceptor piping/structures.

Access road improvements would be completed as an initial task to facilitate access by construction equipment and vehicles to work and staging areas. Equipment and materials (rock for stream crossing improvements, piping, valves and pipe lining) would be staged in a clearing by the HCTP north gate (near pipeline Station 2+00 to 4+00) and/or the Indian Council Campground (near pipeline Station 17+00). Transportation of pipe rehabilitation/construction materials would require about 100 truck trips with a maximum of 10 truck trips on a peak day.

Equipment and vehicles would access the Project site from the HCTP north gate and the existing access road/trail from Avenida de los Arboles (Mesa Trail, Teepee Trail). The access road/trail from Avenida de los Arboles has been used for previous construction projects and is routinely used by City and Conejo Open Space Conservation Agency maintenance vehicles. Therefore, improvements to the access-road/trail are not anticipated to be required for this project.

Hiking trail closures (portions of the Lizard Rock Trail, Wildwood Canyon Trail and Eagle Point Trail) would be required for up to 14 weeks during construction of Unit Y2 improvements. Trail closures may be intermittent depending on the location of ongoing construction work. Trails would be re-opened on weekends when feasible depending on the nature and extent of construction activities in progress. In addition, portions of the Mesa Trail and Teepee Trail may be closed for short periods (few hours) during mobilization and demobilization of construction equipment and vehicles and major materials deliveries.

2.3.2 Long-term Access Road Improvements and Bank Protection

These improvements would be constructed when work areas (secondary flow channel) are dry. Equipment and vehicles to be used to improve the existing access road and construct bank protection may include a backhoe, wheeled loader, small dozer, tree trimming truck with man bucket, chain saws, chipper, dump truck and crew trucks.

2.3.3 Temporary Access Road Crossing Improvements

Three historic road crossings of North Fork Arroyo Conejo (near pipeline Stations 7+40, 12+00, 14+50) would be improved to provide construction access, with improvements removed following the completion of construction. The other two access road crossings along the Unit Y2 Interceptor (near pipeline Stations 19+00 and 22+00) would be infrequently used during Project construction activities and would not be improved.

Improvements would consist of pipe culverts installed at the lowest point of the active flow channel, covered with rock, gravel and sand bags to allow construction equipment and vehicles to drive over the pipe culverts and avoid surface flows.

Equipment and vehicles to be used to install temporary access road crossing improvements may include a backhoe, wheeled loader, small dozer, dump truck and crew trucks. Pipe culverts and rock would be placed in the streambed using a wheeled loader. Diversion of surface flows is not proposed prior to the placement of pipe culverts and rock in the streambed because installation and removal of the diversion (including berm construction/demolition and diversion pipe installation/removal) is anticipated to result in greater impacts to biological resources and water quality than placement of clean rock in surface flows.

2.3.4 Meter Station Improvements

These improvements would require removing asphalt around the vault to expose buried piping and valves. Asphalt would be replaced following installation of new piping and valves. Equipment and vehicles to be used may include an air compressor, concrete saws, small crane, backhoe, asphalt roller, asphalt trucks and crew trucks.

2.3.5 Cured-in-Place Pipe Lining

Installation of the pipe lining would require diverting all wastewater flow into one of the two 18-inch pipelines (bypass) while the other is lined. Equipment and vehicles to be used may include specialized trucks to haul and insert the pipe lining, a crane to lift the pipe lining, dozer-mounted winches to pull the pipe lining in place, compressor or pump truck to invert the pipe lining, a boiler truck to create steam to cure the pipe lining and crew trucks. Water used in the boiler would be potable water brought on-site and not surface flow from North Fork Arroyo Conejo. No discharges of water used for curing the pipe lining to North Fork Arroyo Conejo would occur.

2.3.6 Pressurized Manholes

Installation of the pressurized manholes would involve diverting all wastewater flows to one pipe (bypass) while installing the fittings on the other pipe. Equipment and vehicles to be used may include concrete trucks, backhoe, generator, small crane and crew trucks. The area of disturbance associated with construction of new manholes would be 20 feet by 40 feet or less.

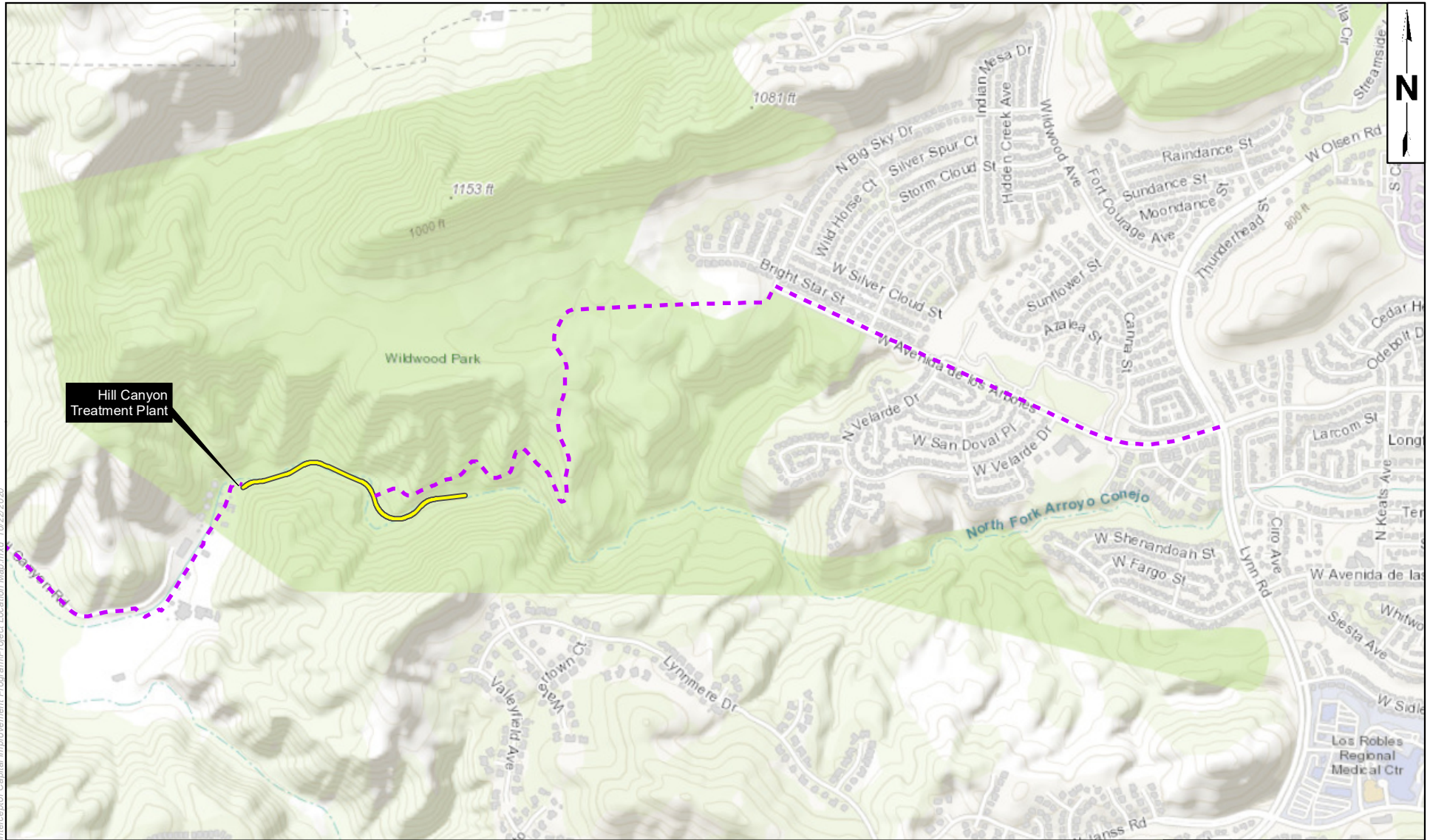
Construction of the proposed bank protection at pipeline Station 13+48 would entail grading approximately 80 linear feet of the streambed and bank to create a 1:1 slope, installation of geotextile fabric, filter rock and rock riprap, and backfilling and compacting the toe of the manufactured slope.

2.3.7 Clean-out Structure Abandonment

Abandonment of existing clean-out structures would be conducted following construction of new manholes and pipe lining. Equipment and vehicles to be used may include a backhoe, air compressor, jackhammers, concrete truck and crew trucks. The area of disturbance associated with each clean-out structure abandonment would be 10 feet by 20 feet or less. Debris generated by abandonment activities including concrete, bollards, pipe flanges and pipe would be removed from the site and recycled to the extent feasible.

2.4 OPERATION AND MAINTENANCE

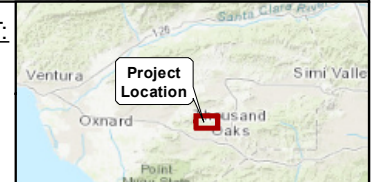
No change in the existing operation and maintenance of the Unit Y2 Interceptor is proposed. However, the re-established access road would require maintenance which may include removal of woody debris, installation of additional rock (near pipeline Station 11+00), and minor earthwork (less than 50 cubic yards) following major storm events, and occasional tree trimming.



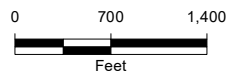
LEGEND:

--- Construction Access Routes — Unit Y2 Interceptor

MAP EXTENT:



Source: Esri Online Topo Basemap
 Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
 Notes: This map was created for informational and display purposes only.



padre
 associates, inc.
 ENGINEERS, GEOLOGISTS &
 ENVIRONMENTAL SCIENTISTS

PROJECT NAME:
**UNIT Y2 INTERCEPTOR REHABILITATION
 CITY OF THOUSAND OAKS, CA**

PROJECT NUMBER:
1902-2181

DATE:
October 2020

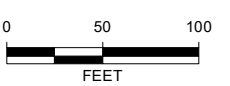
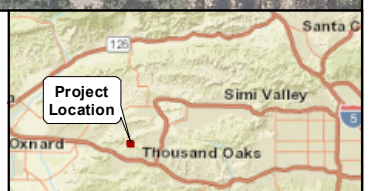
PROJECT LOCATION MAP

FIGURE
1



- LEGEND:**
- Clean-out Structure to be Abandoned
 - Proposed New Pressurized Manhole
 - Maintenance Access Road Stream Crossing
 - ⊠ Approximate Pipe Station
 - - - Construction Access Route
 - Existing Unit Y2 Interceptor to be Lined

MAP EXTENT:



Source: Sources, Esri Online Basemap
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

padre associates, inc. ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS	PROJECT NAME: UNIT Y2 INTERCEPTOR REHABILITATION CITY OF THOUSAND OAKS, CA		REHABILITATION PLAN (1 OF 2)	FIGURE 2
	PROJECT NUMBER: 1902-2181	DATE: November 2020		

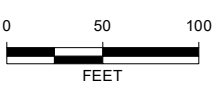


FIGS Projects\GIS Maps\Map Project\Wastewater Interceptor Capital Improvement Program\Rehabilitation Plan.mxd 12/15/2020

LEGEND:

- | | | |
|---|--|-------------------------------|
| ● Clean-out Structure to be Abandoned | ⊠ Approximate Pipe Station | — Existing Unit Y Interceptor |
| ● Proposed New Pressurized Manhole | — Construction Access Route | |
| ■ Maintenance Access Road Stream Crossing | — Existing Unit Y2 Interceptor to be Lined | |

MAP EXTENT:



Source: Sources, Esri Online Basemap
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

padre associates, inc. ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS	PROJECT NAME: UNIT Y2 INTERCEPTOR REHABILITATION CITY OF THOUSAND OAKS, CA		REHABILITATION PLAN (2 OF 2)	FIGURE 3
	PROJECT NUMBER: 1902-2181	DATE: December 2020		



a. Historic access road to be improved (~Station 11+00)



b. Clean-out no. 3 to be replaced with manhole (Station 13+48)



c. Clean-out no. 4 to be abandoned (Station 10+00)



d. Clean-out no. 5 to be abandoned (Station 5+30)

3.0 ENVIRONMENTAL IMPACT ANALYSIS

This section provides an analysis of the potential environmental impacts associated with the Project. The analysis is organized by environmental issue area (e.g., aesthetics, agricultural resources, air quality). Each issue area begins with a checklist, which identifies criteria that have been used to assess the significance or insignificance of each potential impact. The checklists used in this Initial Study were taken from the 2020 update to the State CEQA Guidelines prepared by the Association of Environmental Professionals. The checklists also indicate the conclusions made regarding the potential significance of each impact. Explanations of each conclusion are provided after the checklists. If appropriate, setting descriptions and recommended mitigation measures are also provided. Finally, residual impacts (i.e., with the implementation of recommended mitigation measures) are assessed.

Impact classifications used in the checklists are the following:

- **Potentially Significant Impact.** An impact that could be significant, and requires further study in an Environmental Impact Report (EIR).
- **Less than Significant Impact with Mitigation.** An impact that is potentially significant, but can feasibly be mitigated to a less than significant level with measures identified in the Initial Study.
- **Less than Significant Impact.** An impact that would not be significantly adverse.
- **No Impact.** Applied when the Project would not result in any impact to a specific issue area.

3.1 AESTHETICS

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input type="checkbox"/>
c. In non-urban areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? 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"/>

3.1.1 Setting

The scenic character of the City of Thousand Oaks is in part due to its position between two major east-west trending mountain ranges and significant landforms including many prominent knolls, hills, rocky outcroppings and lower intervening ridgelines, and a system of deeply entrenched stream channels and barrancas. One of the most notable of these features is the Conejo Canyons which is characterized by very steep, rugged, hillside and mountainous terrain that descends rapidly northward toward the Santa Rosa Valley. Development within the City has proceeded with concern for the scenic qualities of the community. Therefore, primary landforms and viewsheds have been preserved. Development within the City has typically not featured visually prominent structures with a few exceptions such as City Hall and Performance Arts Center.

The Project site is located within the canyon formed by the North Fork Arroyo Conejo within the City. This creek segment extends from its confluence with the South Fork Arroyo Conejo in Hill Canyon east to Lynn Road, where the creek becomes a lined storm drain channel.

The North Fork Arroyo Conejo creek corridor has a high level of scenic variety resulting from its variation in topography, natural geologic features, water features (including Paradise Falls) and diverse vegetation including willow and oak woodland, marsh, chaparral, coastal sage scrub, and grassland habitats. However, existing components of the City's wastewater system (e.g., clean-out and junction structures) are visible within the creek corridor. Such intrusive elements in the natural environment reduce its scenic variety and visual character.

Based upon the information presented above, the visual sensitivity of the Project site can be considered to be high because although it is not prominently visible from major roads or vista points, it is visible from public trails located within the Wildwood Open Space, including Lizard Rock, Eagle Point, Wildwood Canyon and Tepee Trails. Viewers on these trails are likely to have a high regard for the scenic quality of the Project site as a natural component of the environment.

3.1.2 Impact Analysis

- a. Proposed improvements would not be visible from any scenic vistas.
- b. Vegetation removal and tree trimming required to re-establish the historic access road and construct new manholes may degrade the scenic quality of views of the creek corridor from public trails. However, the amount of vegetation removal would be very small (about 0.45 acres), mostly temporary and dispersed along the Unit Y2 Interceptor alignment. Therefore, changes in scenic quality would be minor and considered a less than significant impact.
- c. See response to part b above. The Project involves the construction of three new manholes and removal of five smaller existing clean-out structures. Overall, the amount of wastewater infrastructure visible from public trails would be virtually the same. Therefore, Project-related changes in visual character and quality would be minor and considered a less than significant impact.
- d. No lighting or glared-producing surfaces are proposed.

3.1.3 Mitigation Measures and Residual Impacts

As the Project would not result in significant impacts related to aesthetics, no mitigation measures are necessary.

3.2 AGRICULTURAL AND FORESTRY RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or 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, timberland or timberland zoned Timberland Production?	<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 or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.2.1 Setting

Important Farmlands. The Farmland Mapping and Monitoring Program operated by the California Department of Conservation has classified farmland as "Prime," "Statewide Importance," "Unique" and "Local Importance". In the Project area, the basis for this classification is the Soil Survey, Ventura Area, California (Edwards et al., 1970). All proposed improvements would be located in areas mapped as "Other Land" (non-farmland).

"Prime" farmlands are defined as farmland with the best combination of physical and chemical features able to sustain long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for production of irrigated crops at some time during the four years prior to the most recent mapping date (2016). The nearest Prime farmland is located in the Santa Rosa Valley, approximately 1.3 miles north-northwest of the Unit Y2 Interceptor.

"Farmlands of Statewide Importance" are lands similar to "Prime" but with minor shortcomings, such as greater slopes or less soil moisture-holding capacity. Land must have been used for production of irrigated crops at some time during the four years prior to the most recent mapping date (2016). The nearest Farmland of Statewide Importance is located in the Santa Rosa Valley, approximately 1.5 miles north-northwest of the Unit Y2 Interceptor.

"Unique Farmlands" are other lands of lesser quality soils used for production of the State's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards. Land must have been used for production of crops at some time during the four years prior to the most recent mapping date (2016). The nearest Unique farmland is located in the Santa Rosa Valley, approximately 1.0 miles north-northwest of the Unit Y2 Interceptor.

"Farmland of Local Importance" is considered to be important to the local agricultural economy as determined by each county's Board of Supervisors and a local advisory committee. The nearest Farmland of Local Importance is located in the Santa Rosa Valley, approximately 0.9 miles north of the Unit Y2 Interceptor.

California Land Conservation Act Contracts. A primary tool to preserve farmlands is the LCA or Williamson Act contract program. Under the Act, landowners may voluntarily enter into a long-term contract to maintain their property in agriculture or open space in exchange for reduced property tax assessments. Contract terms are either 10 or 20 years, and are annually self-renewing unless a Notice of Non-Renewal is filed. Since its inception in 1962, the program has been the backbone of agricultural preservation efforts statewide. The nearest lands enrolled in LCA contracts are located along Santa Rosa Road, approximately 1.3 miles north-northwest of the Unit Y2 Interceptor.

Forest Land. The nearest forest land (as defined in Public Resources Code Section 12220) or timberland is located within the Los Padres National Forest, at least 17 miles north of the Unit Y2 Interceptor.

Zoning. All proposed improvements would be located within the City in areas zoned as "Public Land".

3.2.2 Impact Analysis

- a. The Project would not result in the conversion of farmland to non-agricultural use and no loss of farmland soils would occur.
- b. The Project would not conflict with any agriculturally zoned areas or any Williamson Act contracts.
- c. The Project is consistent with existing zoning, and would not cause any forest land or timberlands to be rezoned.
- d. The Project would not result in the loss or conversion of forest land to non-forest uses.
- e. Projects that involve public infrastructure (e.g., roads, power, water, sewer) in a previously undeveloped area may lead to inducement of population growth and associated conversion of agricultural lands. However, the Project would merely increase the reliability of existing wastewater infrastructure and would not result in any expansion of these facilities or extension of the City's wastewater treatment service area. Therefore, the Project would not result in the conversion of farmland or forest land.

3.2.3 Mitigation Measures and Residual Impacts

The Project would not result in significant impacts to agricultural or forestry resources. Therefore, no mitigation is required.

3.3 AIR QUALITY

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.3.1 Setting

Climatological Setting. The Project area is characterized by cool winters and hot, dry summers occasionally tempered by cooling sea breezes. Summer, spring and fall weather is generally a result of the movement and intensity of the semi-permanent high pressure area located several hundred miles to the west. Winter weather is generally a result of the size and location of low pressure weather systems originating in the north Pacific Ocean.

The Unit Y2 Interceptor is located in the City of Thousand Oaks. In Thousand Oaks, the maximum average monthly temperature is 85 degrees Fahrenheit (°F) in July and August, and the minimum average monthly temperature is 44 °F in December and February. The average monthly maximum precipitation is 4.21 inches in February, and the average monthly minimum is 0.04 inches in July, with an average annual precipitation of 16.62 inches.

Ambient Air Quality. Air quality in Ventura County is directly related to air pollutant emissions and regional topographic and meteorological factors. The California Air Resources Board (CARB) has divided the State into 15 air basins to better manage air pollution. Air basin boundaries were determined by grouping together areas with similar geographical and meteorological features. Political boundaries were also considered in determining the air basin boundaries. The Unit Y2 Interceptor is located within the Ventura County portion of the South-Central Coast Air Basin (SCCAB). The SCCAB encompasses the counties of Ventura, Santa Barbara and San Luis Obispo.

The U.S. Environmental Protection Agency (USEPA) and CARB classify an area as attainment, unclassified, or nonattainment depending on whether the monitored ambient air quality data shows compliance, insufficient data available, or non-compliance with the ambient air quality standards, respectively. The National and California Ambient Air Quality Standards (NAAQS and CAAQS) relevant to the Project are provided in Table 1.

Table 1. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	Federal Standards (NAAQS)	
			Primary	Secondary
Ozone (O ₃)	1-hour	0.09 ppm (180 µg/m ³)	--	--
	8-hour	0.07 ppm (137 µg/m ³)	0.070 ppm* (137 µg/m ³)	Same as primary
Respirable Particulate Matter (PM ₁₀)	24-hour	50 µg/m ³	150 µg/m ³	Same as primary
	Annual	20 µg/m ³	--	--
Fine Particulate Matter (PM _{2.5})	24-hour	--	35 µg/m ³	Same as primary
	Annual	12 µg/m ³	12 µg/m ³	Same as primary
Carbon Monoxide (CO)	1-hour	20 ppm (23 µg/m ³)	35 ppm (40 mg/m ³)	--
	8-hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	--
Nitrogen dioxide (NO ₂)	1-hour	0.18 ppm (339 µg/m ³)	0.10 ppm (188 µg/m ³)	Same as primary
	Annual	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as primary
Sulfur dioxide (SO ₂)	1-hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³)	--
	3-hour	--	--	0.50 ppm (1300 µg/m ³)
	24-hour	0.04 ppm (105 µg/m ³)	0.14 ppm (for certain areas)	--
	Annual Arithmetic Mean		0.030 ppm (for certain areas)	

*The 2008 (0.075 ppm) Federal 8-hour ozone standard was revised to 0.070 ppm in 2015

Ambient Air Quality Standard Attainment Status. Proposed facilities would be located in eastern Ventura County (SCCAB). Ventura County has been designated by the CARB and USEPA as unclassified or in attainment of all criteria ambient air pollutant standards with the exception of:

- Federal 2015 8-hour ozone standard: non-attainment, classified as “serious”.
- California 1-hour ozone standard: non-attainment.
- California particulate matter less than 10 microns (PM₁₀) standard: non-attainment.

According to the baseline (2012) air pollutant emissions inventory presented in the Ventura County Air Pollution Control District (VCAPCD)'s 2016 Air Quality Management Plan, mobile sources (on-road vehicles, trains, aircraft, marine vessels, farm equipment) account for about 45 percent of the Reactive Organic Compound (ROC) emissions and 88 percent of the oxides of nitrogen (NO_x) emissions in the County.

Air Quality Monitoring. The ambient air quality of Ventura County is monitored by a network of five stations, located in El Rio, Ojai, Piru, Simi Valley and Thousand Oaks. The nearest air quality monitoring station is the Thousand Oaks station (at Thousand Oaks High School), located approximately 2.6 miles east of the Unit Y2 Interceptor. Table 2 lists the monitored maximum concentrations and number of exceedances of air quality standards at the Thousand Oaks station for the years 2017 through 2019. PM₁₀ is not monitored at the Thousand Oaks station; therefore, data from the nearest station (Simi Valley, 13.8 miles northeast of the Unit Y2 Interceptor) is provided.

As shown in Table 2, the 8-hour ozone standards are rarely exceeded at the Thousand Oaks station. Concentrations of PM₁₀ monitored at the Simi Valley station exceeded the State 24-hour standard an average of 6.3 days per year from 2017 through 2019. Concentrations of PM_{2.5} monitored at the Thousand Oaks station exceeded the Federal 24-hour standard on only one day from 2017 through 2019.

Sensitive Receptors. Some land uses are considered more sensitive to air pollution than others due to population groups and/or activities involved. Sensitive population groups include children, the elderly, the acutely ill and the chronically ill, especially those with cardio-respiratory diseases. Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present.

The nearest residences to the Unit Y2 Interceptor are:

- Lynnmere Drive and Moberly Court: as close as 1,200 feet southeast of the Unit Y2 Interceptor.
- San Miguel Circle and Valencia Circle: as close as 3,400 feet east of the Unit Y2 Interceptor.
- Bright Star Circle: as close as 3,500 feet northeast of the Unit Y2 Interceptor.

Recreational land uses may be considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. For the purposes of this analysis, persons using trails near the Project site are considered sensitive receptors.

Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

Table 2. Summary of Ambient Air Pollutant Data Collected at the Thousand Oaks and Simi Valley Monitoring Stations

Parameter	Standard	Year		
		2017	2018	2019
Ozone – parts per million (ppm): Thousand Oaks				
Maximum 1-hr concentration monitored		0.090	0.080	0.082
Number of days exceeding CAAQS	0.09	0	0	0
Maximum 8-hr concentration monitored		0.074	0.073	0.074
Number of days exceeding 8-hour ozone NAAQS or CAAQS	0.070	6	1	2
PM ₁₀ – micrograms per cubic meter (µg/m³): Simi Valley				
Maximum 24-hour average sample (California sampler)		149.8	107.6	124.3
Number of days exceeding CAAQS	50	9	6	4
Number of days exceeding NAAQS	150	0	0	0
PM _{2.5} – micrograms per cubic meter (µg/m³): Thousand Oaks				
Maximum 24-hour sample		32.0	41.5	24.5
Number of days exceeding NAAQS	35	0	1	0

Planning for Attainment of Ambient Air Quality Standards. Federal. The Federal government first adopted the Clean Air Act (CAA) in 1963 to improve air quality and protect citizens' health and welfare, which required implementation of the NAAQS. The NAAQS are revised and changed when scientific evidence indicates a need. The CAA also requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The CAA Amendments of 1990 added requirements for states with non-attainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies.

The USEPA has been charged with implementing Federal air quality programs, which includes the review and approval of all SIPs to determine conformation to the mandates of the CAA and its amendments, and to determine whether implementation of the SIPs will achieve air quality goals. If the USEPA determines that a SIP is inadequate, a Federal Implementation Plan that imposes additional control measures may be prepared for the non-attainment area. Failure to submit an approvable SIP or to implement the plan within the mandated time frame may result in application of sanctions to transportation funding and stationary air pollution sources within the air basin.

Pursuant to the CAA, State and local agencies are responsible for planning for attainment and maintenance of the NAAQS. The USEPA classifies air basins (i.e., distinct geographic regions) as either “attainment” or “non-attainment” for each criteria pollutant, based on whether the NAAQS have been achieved. Some air basins have not received sufficient analysis for certain criteria air pollutants and are designated as “unclassified” for those pollutants. The VCAPCD and the CARB are the responsible agencies for providing attainment plans and for demonstrating attainment of these standards within the proposed Project area.

The VCAPCD completed the 2016 update to the County’s Air Quality Management Plan (AQMP) on February 14, 2017 to build on past AQMPs including a strategy to attain the 2008 Federal 8-hour ozone standard, an attainment demonstration and reasonable further progress demonstration for the Federal 8-hour ozone standard. The 2016 AQMP includes control strategies to be implemented both locally (Ventura County) and Statewide, to reduce air pollutant emissions as needed to attain the Federal 8-hour ozone standard. The 2016 AQMP includes four new stationary source control measures to be adopted as rules to facilitate attainment of the Federal 8-hour ozone standard. Ventura County is anticipated to attain the 2015 Federal 8-hour ozone standard (0.070 ppm) by 2025 (VCAPCD, 2017).

State. The California Clean Air Act (CCAA), signed into law in 1988, requires all areas to achieve and maintain attainment with the CAAQS by the earliest possible date. The CCAA, enforced by CARB, requires that each area exceeding the CAAQS develop a plan aimed at achieving those standards. The California Health and Safety Code, Section 40914, requires air districts to design a plan that achieves an annual reduction in district-wide emissions of 5 percent or more, averaged every consecutive 3-year period. To satisfy this requirement, the local air districts are required to develop and implement air pollution reduction measures, which are described in their clean air plans, incorporated into the SIP, and outline strategies for achieving the State ambient air quality standards for criteria pollutants for which the region is classified as non-attainment.

In 1991, the VCAPCD adopted an AQMP to attain the California ozone standards. The CCAA mandates that every three years areas update their clean air plans to attain the State ozone standard. The most recent triennial update (dated November 2015) indicates Ventura County is making significant progress towards attaining the California 1-hour ozone standard. The “every feasible measure” analysis conducted for the update identified five existing VCAPCD rules for enhancement and three possible new control measures to facilitate progress toward attainment.

Local Authority. The VCAPCD is the local agency that has primary responsibility for regulating stationary sources of air pollution located within Ventura County. To this end, the VCAPCD implements air quality programs required by State and federal mandates, develops and enforces local rules and regulations based on air pollution laws, and educates businesses and residents about their role in protecting air quality. The VCAPCD is also responsible for managing and permitting existing, new, and modified sources of air emissions within the County. Applicable VCAPCD rules and regulations for proposed Project are limited to:

- **Rule 51 (Nuisance):** this Rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. This rule would apply to fugitive dust generated during Project-related construction.
- **Rule 55 (Fugitive Dust):** this Rule regulates visible dust beyond the property line, opacity (amount of light blocked by a dust cloud) and track-out of soil onto adjacent roads and applies to construction activities. This Rule applies to dust generated by Project-related construction.

Significance Thresholds. The VCAPCD has developed Air Quality Assessment Guidelines (2003) for the preparation of air quality impact analyses. The Guidelines indicate that a Project may have a significant impact on the environment if it would:

- Result in daily emissions exceeding 25 pounds of reactive organic compounds (ROC) or oxides of nitrogen (NO_x).
- Cause a violation or make a substantial contribution to a violation of an ambient air quality standard.
- Directly or indirectly cause the existing population to exceed the population forecasts in the most recently adopted Ventura County AQMP.
- Be inconsistent with the AQMP and emit greater than two pounds per day ROC or NO_x.

3.3.2 Impact Analysis

- a. Projects that cause local populations to exceed population forecasts in the AQMP are considered inconsistent with the AQMP, as exceeding population forecasts can result in the generation of emissions beyond those which have been projected in the AQMP. The Project would only increase the reliability of the City's municipal wastewater collection system and would not increase wastewater transportation or treatment capacity which could support or induce population growth. Overall, the Project would have no effect on implementation of the AQMP and progress towards attainment of air quality standards.
- b. **Short-Term Construction Emissions.** The Project would generate air pollutant emissions as a result of construction activities, primarily exhaust emissions from heavy-duty trucks, worker vehicles and heavy equipment. Heavy equipment emissions were estimated for a peak day using the OFFROAD 2017 model developed by the CARB, focusing on construction of pressurized manholes and meter station improvements. Emissions of on-road vehicles were estimated using the CARB's EMFAC2017 model, assuming up to 10 heavy-duty truck trips (20 one-way trips) and 15 worker trips (30 one-way trips) would occur on a peak work day. Estimated Project peak day emissions are listed in Table 3.

Table 3. Construction Air Pollutant Emissions

Source	Pollutant, Pounds per Peak Day			
	ROC	NO _x	CO	PM ₁₀
Equipment exhaust	3.0	28.6	22.6	1.4
On-road vehicles	0.3	3.2	4.4	0.2
Fugitive dust	0.0	0.0	0.0	236.1*
Total	3.3	31.8	27.0	237.7

*Without standard mitigation

Peak day construction emissions would be 31.8 pounds NO_x and 3.3 pounds ROC. As such, NO_x emissions during peak construction periods would exceed the 25 pounds per day threshold established by the VCAPCD. However, due to the temporary, short-term nature of construction emissions, the VCAPCD does not apply the quantitative emissions thresholds for ROC and NO_x to construction activities. The VCAPCD does require that emissions reduction measures be implemented during construction to reduce exhaust emissions and fugitive dust generation. The VCAPCD's emissions reduction measures have been provided as mitigation measures.

Long-Term Operational Emissions. Periodic maintenance of the re-established access road would generate a small amount of air pollutant emissions but would be less than the VCAPCD quantitative emissions thresholds (see Table 4). Therefore, these emissions are considered a less than significant impact to air quality.

Table 4. Access Road Maintenance Air Pollutant Emissions

Source	Pollutant, Pounds per Peak Day			
	ROC	NO _x	CO	PM ₁₀
Equipment exhaust	0.6	6.4	4.3	0.3
On-road vehicles	<0.1	0.3	0.6	<0.1
Fugitive dust	0.0	0.0	0.0	25.5
Total	0.6	6.7	4.9	25.8
Significance Threshold	25	25	--	--

- c. Trail users (sensitive receptors) adjacent to Project work areas and vehicle access routes may be significantly affected by fugitive dust generated by vehicle traffic on trails and unpaved roads. This impact is considered potentially significant.

- d. Project-related activities may generate odors such as diesel exhaust and pipe lining curing odors. Due to the distance to the nearest residence, receptors would be limited to trail users, which would only be exposed for a few minutes. Proposed temporary trail closures would also limit exposure of trail users to objectionable odors. Therefore, such odors would not cause injury, detriment, nuisance or annoyance to a considerable number of persons and are considered a less than significant impact.

3.3.3 Mitigation Measures and Residual Impacts

With the implementation of the following fugitive dust reduction measures recommended by the VCAPCD, air quality impacts would be reduced to a less than significant level.

1. The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust.
2. Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.
3. Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities:
 - a) All trucks shall be required to cover their loads as required by California Vehicle Code §23114.
 - b) All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved access roads and trails, shall be treated to prevent 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 reclaimed water shall be used whenever possible.
4. Graded and/or excavated inactive areas of the construction site shall be monitored by (indicate by whom) at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically 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 should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust.
5. Signs shall be posted on-site limiting traffic to 15 miles per hour or less.
6. During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with the VCAPCD in determining when winds are excessive.

7. Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.
8. Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.

3.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<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 and regulations or by the California Department of Fish and Wildlife 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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"/>

3.4.1 Setting

Overview. The Unit Y2 Interceptor is located within the Wildwood Open Space, a 1,732-acre area located in the northwestern portion of the City and owned by the Conejo Open Space Conservation Agency (621 acres) and the Conejo Recreation and Park District (1,111 acres). The buried Unit Y2 Interceptor pipeline traverses trails and picnic areas within the Wildwood Open Space and crosses the North Fork Arroyo Conejo five times (see Figures 2 and 3).

Vegetation. Vegetation within and adjacent to areas affected by proposed improvements may be characterized as non-native annual grassland, mixed riparian woodland, coast live oak woodland, black sage scrub, purple sage scrub, lemonade berry scrub and cattail stands. Non-native annual grassland is variable in the project area, with dominants including rip-gut brome (*Bromus diandrus*), smilo grass (*Stipa miliacea*), summer mustard (*Hirschfeldia incana*), Italian thistle (*Carduus pycnocephalus*) and ragweed (*Ambrosia psilostachya*). The term mixed riparian woodland is used to describe the variable composition of riparian vegetation in the project area, which includes California sycamore (*Platanus racemosa*), arroyo willow (*Salix lasiolepis*), red willow (*Salix laevigata*) and white alder (*Alnus rhombifolia*). Coast live oak woodland in the project area is composed of patches of coast live oaks (*Quercus agrifolia*), typically with minimal understory due to existing recreational uses (trails, picnic areas, campgrounds). However, poison oak (*Toxicodendron diversilobum*) and snowberry (*Symphoricarpos mollis*) may be present under or adjacent to the tree canopy. Black sage (*Salvia mellifera*) scrub and purple sage (*Salvia leucophylla*) scrub occurs as patches on slopes outside the riparian corridor, typically with California sagebrush (*Artemisia californica*). Patches of lemonade berry (*Rhus integrifolia*) occur along the affected trails and access road, typically with toyon (*Hetermeles arbutifolia*) when near riparian areas.

Flora. Project-specific botanical surveys were conducted by a qualified biologist along the lower Unit Y Interceptor (Paradise Falls to the HCTP) and adjacent areas in June 2019, and April and June 2020. A total of 162 plant species were identified including 106 native species (65 percent). Of the 56 non-native species identified, 26 are considered invasive by the California Invasive Plant Council, including one species rated as highly invasive, 15 species rated as moderately invasive and 10 species rated as limited invasiveness. Appendix A provides a list of vascular plants identified during the botanical surveys.

Special-Status Plant Species. These plant species are either listed as endangered or threatened under the Federal or California Endangered Species Acts, or rare under the California Native Plant Protection Act, or considered to be rare or of scientific interest (but not formally listed) by resource agencies, professional organizations (e.g., Audubon Society, California Native Plant Society [CNPS], The Wildlife Society) and the scientific community.

For the purposes of this Project, special-status plant species are defined in Table 5. The literature search conducted for this impact analysis indicates 20 special-status plant species have been reported within five miles of the Unit Y2 Interceptor. Table 6 lists these species (including scientific names), their current status and the nearest known location relative to the proposed Project facilities.

Conejo dudleya and Conejo buckwheat are located adjacent to the Unit Y Interceptor at Paradise Falls. Southern California black walnut, western sycamore, coast live oak and scrub oak occur with the Project site. Other species that have a moderate potential to occur in proximity to Project impact areas include Catalina mariposa lily, slender mariposa lily, Plummer's mariposa lily, Verity's dudleya and chaparral ragwort. Suitable habitat for other special-status species listed in Table 6 does not occur in the immediate Project area and/or were not observed during field surveys. Therefore, these species are considered absent.

Table 5. Definitions of Special-Status Plant Species

- Plants listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (50 CFR 17.12 for listed plants and various notices in the Federal Register for proposed species).
- Plants that are candidates for possible future listing as threatened or endangered under the Federal Endangered Species Act (Federal Register, November 16, 2020).
- Plants that meet the definitions of rare or endangered species under the CEQA (State CEQA Guidelines, Section 15380).
- Plants considered by the CNPS to be "rare, threatened, or endangered" in California (Lists 1B and 2).
- Plants listed by CNPS as plants about which we need more information and plants of limited distribution (Lists 3 and 4).
- Plants listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (14 CCR 670.5).
- Plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq.).
- Plants considered sensitive by other Federal agencies (i.e., U.S. Forest Service, Bureau of Land Management), State and local agencies or jurisdictions.
- Plants considered sensitive or unique by the scientific community or occurring at the limits of its natural range (State CEQA Guidelines).
- Oak trees protected by City of Thousand Oaks ordinance.

Table 6. Special-Status Plant Species Reported within Five Miles of the Unit Y2 Interceptor

Common Name (<i>Scientific Name</i>)	Status	Habitat Description	Nearest Known Location	Potential to Occur in Proximity to the Project Impact Area
Braunton's milkvetch (<i>Astragalus brauntonii</i>)	FE, List 1B	Chaparral, coastal scrub, coniferous forest on recent burns or disturbed areas	Lang Ranch, approximately 4.1 miles east of Unit Y at Paradise Falls (CNDDDB, 2020)	None-Low, suitable habitat not present, not observed during botanical surveys conducted during the flowering period
Catalina mariposa lily (<i>Calochortus catalinae</i>)	List 4	Grasslands and openings in chaparral, coastal scrub	Wildwood Park, approximately 0.2 miles northwest of Unit Y2 (M. Ingamells personal observation, 2019)	Low, suitable habitat in Project area, not observed during botanical surveys conducted during the flowering period
Slender mariposa lily (<i>Calochortus clavatus</i> var. <i>gracilis</i>)	List 1B	Chaparral, coastal scrub	Pacific Rock Quarry, 4.7 miles southwest of Unit Y2 (M. Ingamells personal observation, 2014)	Low, suitable habitat in Project area, not observed during botanical surveys conducted during the flowering period
Plummer's mariposa lily (<i>Calochortus plummerae</i>)	List 4	Chaparral, woodland, coastal scrub, grassland, coniferous forest	Pacific Rock Quarry, 4.7 miles southwest of Unit Y2 (M. Ingamells personal observation, 2014)	Low, suitable habitat in Project area, not observed during botanical surveys conducted during the flowering period
Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>)	List 1B	Vernal pools, marsh margins	Near U.S. 101 at Borchard Road, approximately 2.1 miles southwest of Unit Y2 (CNDDDB, 2020)	None-Low, no suitable habitat in Project area, not observed during botanical surveys conducted during the flowering period

Common Name (Scientific Name)	Status	Habitat Description	Nearest Known Location	Potential to Occur in Proximity to the Project Impact Area
Santa Susana tarplant (<i>Deinandra minthornii</i>)	SR, List 1B	Chaparral, coastal scrub on sandstone-derived soils	North of Lake Sherwood, approximately 5.1 miles southeast of Unit Y2 (CNDDDB, 2020)	None, no suitable habitat in Project area, outside the geographical range and not observed during botanical surveys
Blochman's dudleya (<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>)	List 1B	Rocky areas with shallow soils	Newbury Park, approximately 1.6 miles southwest of Unit Y2 (CNDDDB, 2020)	None-Low, no suitable habitat in Project area, not observed during botanical surveys conducted during the flowering period
Marcescent dudleya (<i>Dudleya cymosa</i> ssp. <i>marcescens</i>)	FT, SR, List 1B	Volcanic rock outcrops in chaparral	Near Hidden Valley, approximately 5.1 miles south of Unit Y2 (CNDDDB, 2020)	None, no suitable habitat in Project area, outside the geographical range and not observed during botanical surveys conducted during the flowering period
Conejo dudleya (<i>Dudleya parva</i>)	FT, List 1B	Volcanic rock outcrops in chaparral and coastal scrub	North Fork Arroyo Conejo adjacent to Unit Y at Paradise Falls (June 7, 2019 botanical survey)	None-Low, no suitable habitat adjacent to work areas, not observed during botanical surveys conducted during the flowering period
Verity's dudleya (<i>Dudleya verity</i>)	List 1B	Volcanic rock outcrops in chaparral and coastal scrub	Conejo Mountain, approximately 4.0 miles southwest of Unit Y2 (CNDDDB, 2020)	Low-Moderate, suitable habitat present but not observed during botanical surveys conducted during the flowering period
Conejo buckwheat (<i>Eriogonum crocatum</i>)	SR, List 1B	Volcanic rock outcrops in chaparral, coastal scrub, grassland	North Fork Arroyo Conejo, adjacent to Unit Y at Paradise Falls (June 7, 2019 botanical survey)	None-Low, no suitable habitat adjacent to work areas, not observed during botanical surveys conducted during the flowering period
Gerry's curly-leaved monardella (<i>Monardella sinuata</i> ssp. <i>gerryi</i>)	List 1B	Sandy openings in coastal scrub	Las Posas Hills, 2.3 miles north of Unit Y2 (CNDDDB, 2020)	None, no suitable habitat in Project area, outside the geographical range and not observed during botanical surveys conducted during the flowering period
Ojai navarretia (<i>Navarretia ojaiensis</i>)	List 1B	Openings in chaparral and coastal scrub, grassland on clay soils	Newbury Park, approximately 1.7 miles southwest of Unit Y2 (CNDDDB, 2020)	Low, clay soils are rare within impact area, not observed during botanical surveys conducted during the flowering period
Lyon's pentachaeta (<i>Pentachaeta lyonii</i>)	FE, SE, List 1B	Openings in chaparral and coastal scrub, grassland	Wildwood Park, approximately 0.3 miles north of Unit Y2 (CNDDDB, 2020)	Low, suitable habitat in Project area, not observed during botanical surveys conducted during the flowering period
Chaparral ragwort (<i>Senecio aphanactis</i>)	List 2B	Chaparral, woodland, coastal scrub	Wildwood Park, approximately 0.2 miles north of Unit Y2 (CNDDDB, 2020)	Low, suitable habitat in Project area, not observed during botanical surveys conducted during the flowering period

Common Name (Scientific Name)	Status	Habitat Description	Nearest Known Location	Potential to Occur in Proximity to the Project Impact Area
Southern California black walnut (<i>Juglans californica</i>)	List 4, LTO (>8' in diameter)	Canyon bottoms, north-facing slopes	Along North Fork Arroyo Conejo at the Project site	Present
Western sycamore (<i>Platanus racemosa</i>)	LTO (>12' in diameter)	Streams and canyon bottoms	Along North Fork Arroyo Conejo at the Project site	Present
Coast live oak (<i>Quercus agrifolia</i>)	CTO	Canyon bottoms, north-facing slopes, creek corridors	Adjacent to Unit Y2 along North Fork Arroyo Conejo	Present
Scrub oak (<i>Quercus berberidifolia</i>)	CTO	Canyon bottoms, north-facing slopes, creek corridors	Adjacent to Unit Y2 along North Fork Arroyo Conejo	Present
Valley Oak (<i>Quercus lobata</i>)	CTO	Valley bottoms, terraces	North Fork Arroyo Conejo	Observed during the botanical surveys adjacent but not within impact area

Status Codes:

CTO	Regulated under City of Thousand Oaks Oak Tree Ordinance 937-NS (>2 inches in diameter)
FE	Federal Endangered (USFWS)
FT	Federal Threatened (USFWS)
List 1B	Plants rare, threatened, or endangered in California and elsewhere (CNPS)
List 2B	Plants rare, threatened, or endangered in California but more common elsewhere (CNPS)
List 4	Plants of limited distribution (CNPS)
LTO	Regulated under the City of Thousand Oaks Historical and Landmark Tree Ordinance: Resolution no. 70-45
SE	California Endangered (CDFW)
SR	California Rare (CDFW)

Wildlife. The wildlife habitat value of the Project area is considered high because it is surrounded by open space and associated riparian wildlife habitat. Both North and South Fork Arroyo Conejo provide perennial surface water and riparian habitat in an open space area, which is becoming rare in southern California. Factors that reduce the habitat value of the Project area include nearby residential land uses on plateaus above the incised canyons, periodic disturbance associated with maintaining wastewater treatment facilities, pipelines and access roads and heavy recreational trail use along the Unit Y2 Interceptor.

Accurate assessment of wildlife populations would require extended periods of site research, trapping, and census taking. It is particularly difficult to detect nocturnal, rare or reclusive species to obtain accurate estimates of population size and geographical distribution. Other complications in the quantitative assessment of vertebrate (and invertebrate) populations include:

- Many species may occur in the area only for short periods during migrations;
- Many species of amphibians and reptiles become inactive during one or more seasons; and
- Seasonal or annual fluctuations in climate or weather patterns may confound observations.

Fish observed in North Fork Arroyo Conejo during the field surveys was limited to an unidentified minnow. Focused fish surveys were not conducted for this project as the fish fauna of Arroyo Conejo is well known due to construction-related stream dewatering observed by Padre biologists. At least seven species of fish have been reported from Arroyo Conejo (see Appendix B).

No amphibians were observed during the field survey along the Unit Y2 Interceptor alignment and construction access routes. However, three species are known to occur along Arroyo Conejo including bullfrog (*Lithobates catesbeianus*), Baja California treefrog (*Pseudacris hypochondriaca*) and western toad (*Anaxyrus boreas halophilus*).

Reptiles observed during the field survey along the Unit Y2 Interceptor alignment and construction access routes were limited to western fence lizard (*Sceloporus occidentalis*) and side-blotched lizard (*Uta stansburiana*). Other species reported from Hill Canyon and Arroyo Conejo may also be present (see Appendix B), including western pond turtle (*Emys marmorata*) and two-striped garter snake (*Thamnophis hammondi*).

A total of 31 bird species were observed along the Unit Y2 Interceptor alignment and construction access routes during the field survey and are listed in Appendix B (see those preceded with an asterisk). Most of these species are expected to breed within or adjacent to the Project site. Wildlife observations were conducted during fall; therefore, breeding migrants would have not been recorded.

Mammals observed during field surveys conducted by Padre Associates included coyote (*Canis latrans*, scat and tracks), dog (tracks and scat), California ground squirrel (*Spermophilus beecheyi*), black-tailed deer (*Odocoileus hemionus*, tracks) and Audubon's cottontail (*Sylvilagus auduboni*).

Wildlife Corridors. Wildlife migration corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Migration corridors may be local such as between foraging and nesting or denning areas, or they may be regional in nature. Migration corridors are not unidirectional access routes; however, reference is usually made to source and receiver areas in discussions of wildlife movement networks. "Habitat linkages" are migration corridors that contain contiguous strips of native vegetation between source and receiver areas. Habitat linkages provide cover and forage sufficient for temporary inhabitation by a variety of ground-dwelling animal species. Wildlife migration corridors are essential to the regional ecology of an area as they provide avenues of genetic exchange and allow animals to access alternative territories as fluctuating dispersal pressures dictate.

The Unit Y2 Interceptor is located within the Wildwood Open Space area which is connected to the Simi Hills via the Mountclef Ridge. The Simi Hills serve as a stepping stone of undeveloped land between the Santa Susana Mountains to the north, the Santa Monica Mountains to the south, and the San Gabriel Mountains (Angeles National Forest) to the east. Within the regional wildlife network, this land functions as a genetic and population reservoir that is important in maintaining species and genetic diversity through migration between source and receiver areas (Lieberstein, 1987).

Edelman (1990) conducted studies of the actual and potential movement of ground-dwelling animals at "choke points" between the coastal portions of the Santa Susana Mountains and the Simi Hills along the Simi Valley Freeway (State Route 118), and between the Simi Hills and the Santa Monica Mountains along U.S. 101. Edelman (1990) mapped the entire regional wildlife corridor network that includes actual and potential corridors for animal movement throughout the Santa Susana and San Gabriel Mountains, the Simi Hills and the Santa Monica Mountains.

For purposes of this analysis, the Santa Monica Mountains are considered the source area, and the Simi Hills are referred to as the receiver area. Past studies (Edelman, 1990) indicate that the Simi Hills function as a corridor "stepping stone" between the Santa Susana and Santa Monica Mountains. Although ground-dwelling animal movements are highly constrained by lack of adequate open space connection, animals are attempting to access habitats on both sides of the 101 and 118 freeways as evidenced by roadkill data collected by Edelman (1990).

Wildlife from source areas are likely to enter the region from the Simi Hills via Mountclef Ridge and from the Santa Monica Mountains via a culvert under U.S. 101 near the Camarillo Grove County Park. Arroyo Conejo is considered an important wildlife movement corridor because it allows wildlife to access the Conejo Canyons Open Space/Wildwood Open Space habitat block via a contiguous strip of native vegetation with minimal human presence. This habitat block is relatively isolated by the City of Thousand Oaks to the south and east, U.S. 101 to the south, and agricultural land to the west and north.

The South Coast Wildlands Missing Linkages Project (Penrod et al., 2006) has identified the Santa Monica-Sierra Madre Landscape Linkage which connects the Santa Monica Mountains to the south and the Sierra Madre Ranges of the Los Padres National Forest to the north. The east end of the Las Posas Hills meets the southwestern strand of the Santa Monica-Sierra Madre Landscape Linkage near Tierra Rejada Valley, where the Linkage then heads toward the southeast through the western Simi Hills to Palo Comado Canyon and Point Mugu State Park. At its nearest point, the Linkage is located approximately 4.2 miles northeast of the Unit Y2 Interceptor and is separated by substantial residential development.

Special-Status Wildlife Species. These wildlife species are defined in Table 7. The potential for these species to occur in the vicinity of the Project construction and access areas was determined by Project-specific field surveys, habitat characterization of areas along the Unit Y2 Interceptor, review of sight records from other environmental documents, recorded wildlife observations from iNaturalist.org, and bird observations in the Project area (primarily Hill Canyon and Wildwood Park) obtained from ebird.org. Table 8 lists special-status wildlife species that have the potential to occur in proximity to Project impact areas for at least a portion of their life cycle.

Table 7. Definitions of Special-Status Wildlife Species

➤ Animals listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (50 CFR 17.11 for listed animals and various notices in the Federal Register for proposed species).
➤ Animals that are candidates for possible future listing as threatened or endangered under the Federal Endangered Species Act (Federal Register November 16, 2020).
➤ Animals that meet the definitions of rare or endangered species under the CEQA (<i>State CEQA Guidelines</i> , Section 15380).
➤ Animals listed or proposed for listing by the State of California as threatened and endangered under the California Endangered Species Act (14 CCR 670.5).
➤ Animal species of special concern to the CDFW (Shuford & Gardali, 2008 for birds; Williams, 1986 for mammals; Moyle et al., 2015 for fish; and Thomson et al., 2016 for amphibians and reptiles).
➤ Animal species that are fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

Table 8. Special-Status Wildlife Species Reported within Five Miles of the Unit Y2 Interceptor

Common Name (Scientific Name)	Status	Nearest Known Location	Potential to Occur in Proximity to the Project Impact Area
Arroyo chub (<i>Gila orcuttii</i>)	CSC	South Fork Arroyo Conejo (Padre Associates, 1999; Padre Associates, 2009)	High, suitable habitat present and known to occur in South Fork Arroyo Conejo
Southern California legless lizard (<i>Anniella stebbinsi</i>)	CSC	Thousand Oaks, 2.6 miles southeast of Unit Y2 at Paradise Falls (CNDDB, 2020)	Moderate, may occur in woodlands along North Fork Arroyo Conejo
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	CSC	Las Posas Hills, 2.4 miles north-northwest of Unit Y2 (CNDDB, 2020)	Low, may occur in sandy areas away from Arroyo Conejo
Coastal western whiptail (<i>Aspidoscelis tigris stejnegeri</i>)	CSC	Wildwood Park along Teepee Trail, approximately 200 feet north of Unit Y2 (iNaturalist, 2018 observation)	High, likely to occur in chaparral and coastal scrub away from Arroyo Conejo
Two-striped garter snake (<i>Thamnophis hammondi</i>)	CSC	South Fork Arroyo Conejo (Padre Associates, 1999)	High, suitable habitat present and known to occur within South Fork Arroyo Conejo
San Bernardino ring-neck snake (<i>Diadophis punctatus modestus</i>)	USFS	Las Posas Hills, 2.4 miles north of Unit Y2 (CNDDB, 2020)	Low-Moderate, may occur in rocky areas near Arroyo Conejo
Western pond turtle (<i>Emys marmorata</i>)	CSC	South Fork Arroyo Conejo (Padre Associates, 1999; Padre Associates, 2009); North Fork Arroyo Conejo along Unit Y2 (CNDDB, 2020)	High, suitable habitat present and known to occur
Cooper's hawk (<i>Accipiter cooperi</i>)	WL, PR (nesting)	Observed along North Fork Arroyo Conejo during field survey conducted for the Project	High, observed during field survey of the Project site
Short-eared owl (<i>Asio flammeus</i>)	CSC, PR (nesting)	South Fork Arroyo Conejo (Padre Associates, 2009)	Low, very rarely observed in the area, no breeding habitat present
White-tailed kite (<i>Elanus caeruleus</i>)	FP, PR	Observed near the Project site during field survey conducted for the Project	High, may forage near Project site, but no breeding habitat present
Sharp-shinned hawk (<i>Accipiter striatus</i>)	WL, PR (nesting)	South Fork Arroyo Conejo (Padre Associates, 2009), Wildwood Park in 2018 (ebird.org)	Low, uncommon migrant in the County, does not nest in the region

Common Name (Scientific Name)	Status	Nearest Known Location	Potential to Occur in Proximity to the Project Impact Area
Northern harrier (<i>Circus hudsonius</i>)	CSC, PR (nesting)	Wildwood Park in 2019 (ebird.org)	Low, rare in the County, no breeding habitat in area
Merlin (<i>Falco columbarius</i>)	WL, PR (wintering)	Wildwood Park in 2019 (ebird.org)	Low, rare winter migrant in area
Osprey (<i>Pandion haliaetus</i>)	WL, PR (nesting)	South Fork Arroyo Conejo (Padre Associates, 2009), Santa Rosa County Park in 2018 (ebird.org)	Low, rarely observed in the area, no breeding habitat present
Loggerhead shrike (<i>Lanius ludovicianus</i>)	CSC (nesting)	Wildwood Park in 2017 (ebird.org)	Low-Moderate, minimal suitable habitat near impact area
Oak titmouse (<i>Baeolophus inornatus</i>)	BCC	Observed near the Project site during field survey conducted for the Project	High, observed in area, suitable habitat present
Yellow warbler (<i>Dendroica petechia brewsteri</i>)	CSC (nesting)	South Fork Arroyo Conejo, just downstream of the HCTP (Padre Associates, 2018), Wildwood Park in 2019 (ebird.org)	High, recently observed in area, suitable habitat present
Yellow-breasted chat (<i>Icteria virens</i>)	CSC (nesting)	Santa Rosa County Park in 2019 (ebird.org)	Moderate, uncommon in region but suitable habitat present
California gnatcatcher (<i>Poliophtila californica</i>)	FT, CSC	Mounclef Ridge, 2.2 miles northeast of Unit Y2 at Paradise Falls (CNDDDB, 2020)	None-Low, no suitable habitat in proximity to impact areas
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE, SE	Arroyo Santa Rosa, 1.3 miles to the north-northwest of Unit Y2 (Ventura County WPD, 2006), Santa Rosa County Park in 2018 (ebird.org)	Low, not found during modified protocol surveys near HCTP in 2018
Southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	WL	Wildwood Park in 2019 (ebird.org)	Low, minimal suitable habitat near impact areas
Grasshopper sparrow (<i>Ammodramus savannarum</i>)	CSC (nesting)	Wildwood Park in 2008 (ebird.org)	None-Low, rare in the region, minimal suitable habitat near impact area
Lawrence's goldfinch (<i>Spinus lawrencei</i>)	BCC	Wildwood Park in 2017 (ebird.org)	Moderate, could nest in oaks in Project area
Yuma myotis (<i>Myotis yumanensis</i>)	WBWG: LM	South Fork Arroyo Conejo (M. Ingamells personal observation, 1998)	High, likely to forage in Arroyo Conejo adjacent to impact areas
San Diego desert woodrat (<i>Neotoma lepida intermedia</i>)	CSC	Hidden Valley, 4.6 miles north of Unit Y2, (CNDDDB, 2020)	Moderate, may occur in rocky areas near Unit Y2

Status Codes:

BCC	Birds of Conservation Concern (USFWS)
CSC	California Species of Special Concern (CDFW)
FE	Listed as endangered under the Endangered Species Act (USFWS)
FP	Fully protected under the California Fish and Game Code (CDFW)
FT	Listed as threatened under the Endangered Species Act (USFWS)
PR	Raptor protected under Section 3503.5 of the Fish and Game Code (CDFW)
SE	Listed as endangered under the California Endangered Species Act (CDFW)
USFS	U.S. Forest Service: sensitive
WBWG: LM	Western Bat Working Group; low-medium priority
WL	Watch List (CDFW)

Federal Regulations and Standards. Numerous Federal regulations have been established to protect and conserve biological resources. The descriptions below provide a brief overview of the regulations applicable to the resources that occur within or adjacent to the Unit Y2 Interceptor.

Federal Endangered Species Act (ESA). Enacted in 1973, the ESA provides for the conservation of threatened and endangered species and their habitat. The Act prohibits the “take” of threatened and endangered species except under certain circumstances and only with authorization from the U.S. Fish and Wildlife Service (USFWS) through a permit under Section 4(d), 7, or 10(a) of the Act. Under the ESA, “take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The ESA requires federal agencies to make a finding on all federal actions, including approval by an agency of a public or private action, as to the potential to jeopardize the continued existence of any listed species. The proposed Project is anticipated to require a Federal permit from the U.S. Army Corps of Engineers (Corps); therefore, Section 7 of the ESA would apply including formal consultation between the Corps and USFWS.

Migratory Bird Treaty Act. Congress passed the Migratory Bird Treaty Act (MBTA) in 1918 to prohibit the pursuit, hunt, kill, capture, possession, purchase, barter, or transport of native migratory birds, or any part, nest, or egg of any such bird unless allowed by another regulation adopted in accordance with the MBTA. The USFWS has jurisdiction over migratory birds. No permit is issued under the MBTA; however, Project construction and operation should be conducted to avoid take of migratory birds.

Federal Water Pollution Control Act (Clean Water Act). The Federal Water Pollution Control Act was first passed by Congress in 1948. The Act was later amended and became known as the Clean Water Act (CWA). The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. It gives the U.S. Environmental Protection Agency the authority to implement pollution control programs, including setting wastewater standards for industry and water quality standards for contaminants in surface waters. The CWA makes it unlawful for any person to discharge any pollutant from a point source into waters of the U.S., without a permit under its provisions. CWA Section 404 permits are issued by the Corps for dredge/fill activities within wetlands or non-wetland waters of the U.S. CWA Section 401 water quality certifications are issued by the local Regional Water Quality Control Board (RWQCB) for activities requiring a federal permit or license which may result in discharge of pollutants into waters of the U.S. The proposed Project would require a Section 404 Nationwide Permit authorization from the Corps which would trigger the requirement for a Section 401 water quality certification from the Los Angeles RWQCB.

Regulated Waters and Wetlands. The term wetland is used to describe a particular landscape characterized by inundation or saturation with water for a sufficient duration to result in the alteration of physical, chemical, and biological elements relative to the surrounding landscape. Wetland areas are characterized by prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands provide habitats that are essential to the survival of many threatened or endangered species as well as other wetland dependent species. Wetlands also have value to the public for flood retention, storm abatement, aquifer recharge, water quality improvement, and for aesthetic qualities. Wetlands also play a role in the maintenance of air and water quality and contribute to the stability of global levels of available nitrogen, atmospheric sulfur, carbon dioxide, and methane. Wetlands are rapidly declining within California and efforts are being made to maintain and preserve remaining wetlands.

Regulatory agencies with jurisdiction over wetlands include the Corps with authority to enforce two Federal regulations involving wetland preservation; the Clean Water Act (Section 404), which regulates the disposal of dredge and fill materials in waters of the U.S., and the Rivers and Harbors Act of 1899 (Section 10), which regulates diking, filling, and placement of structures in navigable waterways.

In the Clean Water Act regulations (33 CFR 328.3.a, effective June 22, 2020), the term “waters of the U.S.” is defined as follows:

1. The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide.
2. Tributaries.
3. Lakes and ponds, and impoundments of jurisdictional waters.
4. Adjacent wetlands.

Under Corps and U.S. Environmental Protection Agency (USEPA) regulations, wetlands are defined as: *“those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”*

In non-tidal waters, the lateral extent of Corps jurisdiction is determined by the ordinary high water mark (OHWM) which is defined as the: *“...line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.”* (33 CFR 328.c.7).

The USFWS defines wetlands as: *“...lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For the purposes of this classification, wetlands must have one or more of the following attributes: 1) at least periodically, the land supports predominantly hydrophytes; 2) the substrate is predominantly undrained hydric soil; and 3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season each year.”*

Protected Wetlands. A preliminary wetland delineation was conducted at the Project site on November 13, 2020 to identify waters of the U.S., including wetlands. The delineation was performed in accordance with the routine procedures for areas greater than five acres detailed in the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 1987) and Arid West Supplement (Environmental Laboratory, 2008). Jurisdictional wetlands were determined to be present if evidence of all three Federal parameters were observed (hydrophytic vegetation, hydric soils, and wetland hydrology).

The preliminary wetland delineation was limited to affected stream areas; the three access road stream crossings to be temporarily improved, the secondary channel to be filled to re-establish the historic access road and proposed bank protection at pipeline Station 13+48. The Corps' Arid West Region Wetland Delineation Data Form was completed for each crossing, and the top of bank and OHWM was noted and measured. Collected data is summarized in Table 9.

Table 9. Jurisdictional Delineation Data Summary

Location	Waters of the U.S. OHWM Width (feet)	CDFW Jurisdiction Width (feet)	Impact Area (ft)	Impact to Waters of the U.S. (acres)	Impact to CDFW Jurisdiction (feet)
Temporary Impact Areas					
Crossing 1 (~STA 7+40)	58	58	15	0.020	0.020
Crossing 2 (~STA 12+00)	61	80	15	0.021	0.028
Crossing 3 (~STA 14+50)	57	67	15	0.020	0.023
Total				0.06	0.07
Permanent Impact Areas					
Secondary channel fill area	60	75	10	0.03*	0.03*
Bank protection	55	55	10	0.02**	0.02**
Total				0.05	0.05

*Based on 125-foot channel length and 10-foot-wide fill area

**Based on bank protection footprint (10' x 80')

The three temporary access road crossing sites, secondary channel fill area and proposed bank protection site at pipeline Station 13+48 meet the hydrophytic vegetation and wetland hydrology criteria. Hydric soils could not be found at these sites, likely due to the high turnover of stream channel sediments which prevents development of hydric characteristics. Due the lack of hydric soils, Corps-defined wetlands (protected under the Clean Water Act) are not present within Project impact areas.

State Regulations and Standards. California Fish and Game Code. The California Fish and Game Code, administered by the California Department of Fish and Wildlife (CDFW) regulates the taking or possession of birds, mammals, fish, amphibian, and reptiles, as well as natural resources such as wetlands and waters of the state. It includes regulations addressing modifications to streambeds and lakes (Sections 1600-1616), as well as provisions for legal hunting and fishing, and tribal agreements for activities involving take of native wildlife.

The California Fish and Game Code also includes Sections 3503 and 3513 which prohibits take or destruction of bird nests and eggs and take of migratory birds. The proposed Project would involve construction-related impacts to the streambed of North Fork Arroyo Conejo and would require a streambed alteration agreement with CDFW.

California Endangered Species Act. This Act generally parallels the main provisions of the Federal ESA and is administered by the CDFW. California Endangered Species Act (CESA) prohibits take of any species that the California Fish and Game Commission determines to be a threatened or endangered species. CESA allows for take incidental to otherwise lawful development projects upon approval from the CDFW. Under the California Fish and Game Code, "take" is defined as to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill. The CESA "rare" designation applies to plants only and includes those plants that are not threatened or endangered, but that could become eligible due to decreasing numbers or further restrictions to habitat. Any Project-related impacts to State-listed species may require an incidental take permit under CESA.

California Species of Special Concern. California also has identified wildlife species of special concern which is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- Is extirpated from the State or, in the case of birds, is extirpated in its primary season or breeding role.
- Is Federally-listed as threatened or endangered, but not State-listed, meets the State definition of threatened or endangered but has not formally been listed.
- Is experiencing, or formerly experienced, serious (non-cyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status.
- Has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

Having been so designated, these species of special concern are considered as "special-status species" and substantial adverse effects to these species may be considered a significant impact in this MND.

3.4.2 Impact Analysis

- a. Special-status species that are known to occur or likely to occur in proximity to Project impact areas include southern California black walnut, western sycamore, coast live oak, scrub oak, arroyo chub, southern California legless lizard, coastal western whiptail, two-striped garter snake, western pond turtle, Cooper's hawk, white-tailed kite, loggerhead shrike, oak titmouse, yellow warbler, yellow-breasted chat, Lawrence's goldfinch, Yuma myotis and San Diego desert woodrat.

Southern California Black Walnut. Several southern California black walnut trees may need to be trimmed to facilitate re-establishment of the historic access road and abandonment of clean-out structures. Specimens over 8 inches in diameter are protected under City Resolution no. 70-45. No specimen black walnut trees would be removed. Therefore, impacts are considered less than significant.

Western Sycamore. Minor trimming of several western sycamore trees would be required to provide construction access. Specimens over 12 inches in diameter are protected under City Resolution no. 70-45. Western sycamore trees would not be removed; therefore, impacts are considered less than significant.

Coast Live Oak. Project-related activities would result in the removal of two protected coast live oak trees (6" diameter at breast height) and trimming of about 10 trees. Impacts are considered potentially significant.

Scrub Oak. Project-related activities would result in trimming of a protected few trees. Scrub oaks would not be removed; therefore, impacts are considered less than significant.

Arroyo Chub. This species is likely to occur within North Fork Arroyo Conejo and may be adversely affected by installation of the three proposed temporary access road crossings (near pipeline Stations 7+40, 12+00, 14+50), and infrequent use of the existing access road crossings by vehicles and heavy equipment near pipeline Stations 19+00 and 22+00. These impacts may include direct mortality, reduction in dissolved oxygen and increased turbidity and siltation. These impacts are considered potentially significant.

Southern California Legless Lizard. This species may occur in leaf litter and loose soils in woodland areas near the Project site. Excavation related to manhole construction and abandonment of clean-out structures would be very limited and mostly conducted in disturbed areas (trails, former access road, picnic areas, campgrounds). Therefore, the potential to encounter and adversely affect southern California legless lizard is considered low and impacts less than significant.

Coastal Western Whiptail. This species is known to occur in coastal scrub and chaparral along North Fork Arroyo Conejo. Project-related loss or disturbance of this habitat would be very limited (0.03 acres temporary, <0.01 acres permanent) and occur along heavily used trails. Coastal western whiptail is highly mobile and vibration generated by construction and maintenance activities is expected to cause this species to avoid work areas and potential mortality. Project-related loss of habitat would be very small and would not adversely affect the local population. Therefore, impacts to this species are considered less than significant.

Two-striped Garter Snake and Western Pond Turtle. These species have the potential to occur within or adjacent to North Fork Arroyo Conejo at the Project site and may be adversely affected by construction of access road improvements, installation of the three proposed temporary access road crossings, installation of bank protection near the proposed manhole at pipeline Station 13+48, and infrequent use of the existing access road crossings by vehicles and heavy equipment near pipeline Stations 19+00 and 22+00. These impacts may include direct mortality and habitat loss and are considered potentially significant.

White-tailed Kite and Loggerhead Shrike. These species are occasionally reported from the Wildwood Open Space and could forage at the Project site. However, suitable breeding habitat is absent, and the Project-related loss of foraging habitat would be minimal. Therefore, impacts to these species are considered less than significant.

Cooper's Hawk, Oak Titmouse, Yellow Warbler, Yellow-Breasted Chat and Lawrence's Goldfinch. These species may be adversely affected by habitat loss and disturbance during the breeding season caused by proposed construction and maintenance activities. Any Project-related disturbance of active nests is considered a significant impact.

Yuma Myotis. This species has been observed foraging along South Fork Arroyo Conejo at night (about 0.6 miles south of the Unit Y2 Interceptor) and may also forage at the Project site. However, suitable breeding habitat is absent (such as bridges and old structures) and the Project-related loss of foraging habitat would be minimal and mostly temporary. Therefore, impacts to this species are considered less than significant.

San Diego Desert Woodrat. This species may occur in rock outcrops along the North Fork Arroyo Conejo canyon and forage in scrub habitats near the Project site. However, the Project would not result in the loss or disturbance of any breeding habitat and loss of foraging habitat would be minimal and mostly temporary. Therefore, impacts to these species are considered less than significant.

- b. Approximately 0.15 acres of riparian vegetation (mixed riparian woodland) would be removed by tree trimming required to provide construction access, installation of the temporary access road crossings, construction of new manholes at pipeline Stations 7+25 and 13+48, and construction of bank protection at pipeline Station 13+48. However, only 0.02 acres of this removal would be permanent, associated with displacement by the proposed new manhole and bank protection at pipeline Station 13+48. Impacts to riparian vegetation are considered significant.
- c. Based on the preliminary wetland delineation conducted for the Project, wetlands protected under the Clean Water Act are not present and would not be affected by Project-related activities.
- d. There are no identified fish or wildlife migration corridors in the Project vicinity. However, the Project site is located with an open space area contiguous with other undeveloped areas to the southwest and northeast, such that regional wildlife movement may occur. In addition, the canyon formed by the North Fork Arroyo Conejo may focus wildlife movement. Project-related loss of vegetation would be minimal and no barriers to fish or wildlife movement are proposed. Therefore, significant adverse impacts to fish and wildlife movement are not anticipated.
- e. The Project would result in the removal of two native trees protected under City regulations (coast live oak). Therefore, removal of these trees is considered a significant impact.
- f. The Project area is not subject to a habitat conservation plan or other conservation plan. Therefore, no adverse impacts related to compliance with habitat conservation plans are anticipated.

3.4.3 Mitigation Measures and Residual Impacts

With the implementation of following mitigation measures, impacts to biological resources would be reduced to a less than significant level.

1. Removal of coast live oak trees by Project implementation shall be offset by planting replacement coast live oak trees at a 3:1 ratio in Project impact areas and/or other locations within the Wildwood Open Space.
2. A qualified biologist shall conduct surveys for arroyo chub, two striped garter snake and western pond turtle along the North Fork Arroyo Conejo (HCTP to Paradise Falls) no more than seven days prior to Project impacts. If any of these species are found, the following protective measures shall be implemented:
 - a. Netting (0.25" mesh) shall be installed immediately upstream and downstream of all five road crossings of North Fork Arroyo Conejo at the Project site, prior to installation of the temporary road crossings and Project-related use of other crossings. The netting shall be adequate in height and length to also limit two-striped garter snake and western pond turtle movement into work areas.

- b. A qualified biologist shall relocate any arroyo chub, two striped garter snake and western pond turtle found within stream crossing areas to the upstream and downstream sides of the netting prior to installation of the temporary road crossings and Project-related use of other crossings.
 - c. A qualified biologist shall survey Project work areas periodically to identify and relocate arroyo chub, two striped garter snake and western pond turtle found in work areas to suitable habitat at least 300 feet from the Project site.
3. A qualified biologist shall conduct breeding bird surveys prior to any Project work involving heavy equipment or heavy-duty trucks between February 15 and August 1. Construction work within 200 feet of any active nests of special-status bird species shall be postponed until the young have fledged or the nest is abandoned. Alternatively, work may resume if nest monitoring indicates Project-related activities are not substantially reducing nesting success.
4. Temporary road crossing areas shall be restored following removal of these crossings. Portions of the secondary flow channel disturbed by installation of bank protection shall also be restored, and may include planting willow cuttings in the toe trench. Restoration shall include planting native riparian and wetland plant species. The invasive Mexican fan palm within the affected reach of North Fork Arroyo Conejo shall be removed to offset Project impacts on riparian vegetation.

3.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines?	<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 pursuant to Section 15064.5 of the CEQA Guidelines?	<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"/>

3.5.1 Setting

Archaeological Context. The Project site is situated within a cultural-geographic area known as the Conejo Corridor. The Conejo Corridor was an integral part of a much larger Chumash territory that extended well inland from the coast and Channel Islands to include all of Santa Barbara, most of Ventura and parts of San Luis Obispo, Kern and Los Angeles counties. Locally, sites related to Late Prehistoric period occupation dating from approximately A.D. 500 to historic contact, yield abundant evidence regarding the lifeways of these indigenous native people before the arrival of foreign explorers (Impact Sciences, 2011).

Early Period (c. 8,000 – c. 3350 B.P.). Reliable evidence of Holocene (post-10,000 years ago) settlement in the region begins circa 8,000 Before Present (B.P.). The earliest sites were located on terraces and mesas; however, settlement gradually shifted to the coast (Wlodarski, 1988). Site assemblages dating to this period often contained substantial amounts of milling stones and manos, crude choppers, and core tools (W&S, 1997). Prehistoric peoples used these tools to harvest terrestrial and sea mammals, shellfish, and fish. Mortars and pestles appear toward the end of the period, suggesting a shift towards a greater reliance on acorns (Ventura County RMA, 1988c).

Middle Period (c. 3350 – c. 800 B.P.). Archaeological material dating to the Middle Period represents a significant evolution in hunter-gatherer technology. The presence of chipped stone tools increases and diversifies, projectile points became more common, and fishhooks and plank canoes (*tomol*) appear (Wlodarski, 1988; W&S, 1997). Burials dating to this period provide evidence of wealth and social stratification indicating a transition to ranked society. Excavation data from the Santa Monica Mountains demonstrate expansion to the inland region allowing trade and ceremonial exchange patterns to develop (Ventura County RMA, 1988c).

Late Period (c. 800 – c. 150 B.P.). The cultural complexity initiated during the Middle Period intensified in the Late Period. This period is also referred to as the Chumash Era as Chumash social and religious development peaked during this time. Villages became the main population centers with satellite camps geared toward the seasonal harvest of plants, seeds, game, and material resources (Wlodarski, 1988). The Chumash became expert craftsman of baskets, stone vessels, shell beads, *tomol*, and fishing technology. It is also likely that communication and trade with non-Chumash tribes and villages accelerated during this period (Ventura County RMA, 1988c).

Ethnographic Context. The Project site is located within the ethnographic territory of the Chumash, who inhabited the Coast Ranges between San Simeon and Malibu (Kroeber, 1925). The Chumash have been divided into several geographic groups, each associated with a distinct language dialect (Hoover, 1986). The Chumash living in Ventura County formed the Ventureño dialect group of the Chumash language family (Golla, 2007). This group was named for their association with the Spanish Mission San Buenaventura, founded in 1782.

The Chumash political organization comprised a named village and the surrounding resource areas governed by a chief, known as the Wot (Sampson, 2013). Some higher status chiefs controlled large chiefdoms containing several villages. It is likely the Project site was included in the chiefdom Lulapin, whose limits extended from Malibu to just beyond modern Santa Barbara. The village Muwu, at modern Point Mugu approximately 18 miles west of the Project site, was the main headquarters for this chiefdom (Whitley and Clewlow, 1979; Whitley and Beaudry, 1991). Other villages included Shimiya (from which Simi is derived), Hu'wam located at the base of Escorpión Peak, and Ta'apu located approximately 13 miles north of the Project site. According to ethnographic studies, inhabitants from different villages bonded through trade, joint ceremonies, and intermarriage (Sampson, 2013).

The chiefly offices were normally inherited through the male line with a primogeniture rule, i.e., the custom of the firstborn inheriting the office, in effect (Hoover, 1986). Chiefs had several bureaucratic assistants to help in political affairs and serve as messengers, orators, and ceremonial assistants. Several status positions were associated with specialized knowledge and rituals such as weather prophet, ritual poisoner, herbalist, etc. (Bean, 1974).

The Chumash were a non-agrarian culture and relied on hunting and gathering for their sustenance. Archaeological evidence indicates that the Chumash exploited marine food resources from the earliest occupation of the coast at least 9,000 years ago (Greenwood, 1978). Much of their subsistence was derived from pelagic fish, particularly during the late summer and early fall (Hoover, 1986). Shellfish were also exploited, including mussel and abalone from rocky shores and cockle and clams from sandy beaches. Acorns were a food staple; they were ground into flour using stone mortars and pestles and then leached to remove tannic acid. In addition, a wide variety of seeds, including chia from various species of sage, was utilized. The Chumash harvested several plants for their roots, tubers, or greens (Hoover, 1986).

In this area, as elsewhere in California, basketry served many of the functions that pottery did in other places. The Chumash used baskets for cooking, serving, storage, and transporting burdens. Some basket makers wove baskets so tightly that they could hold water while others waterproofed their baskets by lining them with pitch or asphaltum (Chartkoff and Chartkoff, 1984).

The coastal Chumash practiced a regular seasonal round of population dispersal and aggregation in response to the location and seasonal availability of different food resources (Landberg, 1965). In this way, large coastal villages would have been fully populated only in the late summer when pelagic fishing was at its peak. Through winter, the Chumash depended largely on stored food resources. During the spring and summer, the population dispersed through inland valleys to harvest wild plant resources (Landberg, 1965).

The Chumash lived in large, hemispherical houses constructed by planting willows or other poles in a circle and bending and tying them together at the top. These structures were then covered with tule mats or thatch. Structures such as this housed 40 to 50 individuals, or three-to-four-member family groups. Dance houses and sweathouses are also reported for the Chumash (Kroeber, 1925). Archaeological evidence supports observations that twin or split villages existed on opposite sides of streams or other natural features, possibly reflecting the moiety system of native California (Greenwood, 1978).

Spanish colonization and the establishment of Mission San Buenaventura ended Chumash culture in Ventura County. Chartkoff and Chartkoff (1984) note that Spanish settlement barred many Native Americans from traditionally important resources including clamshell beads, abalone shells, Catalina steatite, shellfish, and asphaltum. The introduction of European customs and diseases transformed the hunter-gatherers into agricultural laborers and decimated the native population.

Historical Context. Contact Period (A.D. 1542 - 1782). Juan Cabrillo, while exploring the California coast, became the first European to travel near the Project site when he anchored near Point Mugu in October 1542. Over two hundred years later, Gaspar de Portolá led the first Spanish land expedition in January 1770, traveling through what is now the Conejo Valley and camping near a Chumash village near present-day Westlake Village (probably Hipuc). Juan Crespi, a priest accompanying the expedition, named the campsite El Triunfo del Dulcísimo Nombre de Jesus, the English translation of which is “The Triumph of the Sweetest Name of Jesus” (Bolton, 1926; Browning, 1992; Priestley, 1937). Several accounts of this expedition exist, including those of Juan Crespi (Bolton, 1926), Miguel Costansó (Browning, 1992), and Pedro Fages (Priestley, 1937). Costansó’s diary contains observations regarding the native inhabitants’ houses, settlement patterns, dress, and customs, as well as their attitudes toward the expedition (Browning, 1992). Fages noted the general Chumash population was distributed in small, numerous villages (Priestley, 1937).

In 1776, Juan Bautista de Anza traveled through Ventura County as leader of the San Francisco colonists, stopping near the outlet of the Santa Clara River. This route, known today as the Juan Bautista De Anza National Historic Trail, runs from near Nogales, Arizona to San Francisco, California, and crosses through Ventura County (CATE, 2000).

Mission Period (A.D. 1782 – 1834). Junípero Serra founded Mission San Buenaventura, approximately 30 miles west of the Project site, in 1782. Newly baptized Chumash provided almost all the labor to construct and maintain the mission, which included the seven-mile long aqueduct system that carried water from the Ventura River. The aqueduct allowed the mission to maintain large orchards and gardens, which produced surplus food for trade. Most of the missions were similar in design and consisted of a church and living quarters for the priests, soldiers, and baptized Chumash. By the early nineteenth century, the surrounding Chumash villages were barely inhabited (Triem, 1985).

Rancho Period (A.D. 1822 – 1845). In historic times, the alignment of present-day Lindero Canyon Road formed the approximate boundary between two adjacent land grants: Rancho El Conejo, to the west, and Rancho Simi to the east. Rancho El Conejo was a 48,572-acre parcel granted to former Santa Barbara Presidio soldiers Jose Polanco and Ygnacio Rodriguez in 1803. Although Polanco would lose his portion of the grant in 1822 due to neglect, it would later be re-granted to influential Santa Barbara Army officer José de la Guerra y Noriega by Spanish governor Vicente de Solá (Hoffman, 1862). Rancho Simi was a 113,009-acre parcel granted to Santiago Pico and Luis Peña by Governor Diego de Borica in 1795 (Atkins, 2012). Pico constructed a large adobe dwelling on the property in the early nineteenth century, which served as the rancho headquarters and a stopover place between the Missions San Fernando Rey and San Buenaventura (SVHS, 2016).

In 1821, Mexico declared independence from Spain; a year later, California became a Mexican Territory. After the secularization of the missions in 1834, lands were gradually transferred to private ownership via a system of land grants. A claim for Rancho El Conejo was filed with the Public Land Commission in 1852 and the grant was patented to José de la Guerra y Noriega and María del Carmen de Rodríguez in 1873 (Willey, 1886). José de la Guerra would later purchase nearby Rancho Simi from the Pico family in 1842, where he raised cattle and sheep (Atkins, 2012).

The standard rancho labor force mostly consisted of local Chumash and often small rancherias or villages were scattered about the estate (Lebow et al., 2001). Cattle ranching, and to a lesser extent, sheep became the principal agricultural activities, primarily for the lucrative hide and tallow trade (Bean, 1968).

Anglo-Mexican Period (A.D. 1845-1865). Following the Bear Flag Revolt in 1846, John C. Frémont and the California Battalion marched into San Buenaventura, finding all the inhabitants fled except the Chumash neophytes. The Treaty of Hidalgo formally transferred California to the United States in 1848 and statehood was achieved in 1850. At the time, the area that would become Ventura County was originally the southern portion of Santa Barbara County (Murphy, 1979).

Locally, the Philadelphia and California Petroleum Company purchased most of Rancho Simi after de la Guerra's death in 1858. The rest of de la Guerra's family moved to an adobe in Tapo Rancho (Atkins, 2012). During the 1860s, Americans settled in the area and raised livestock and crops (SVHS, 2016). The lands held within the Rancho El Conejo remained in the de la Guerra and Rodriguez families until the 1860s, when severe cattle herd losses brought on by prolonged drought and disease forced the two families to sell their land

Americanization Period (A.D. 1865-present). In 1872, an immigrant from Minnesota named Howard Mills purchased one-half of the Conejo grant from the heirs of Captain Jose de la Guerra, renaming it Triunfo Ranch. Mills, who owned most of present-day Westlake Village and Hidden Valley, went bankrupt in 1891 and sold Triunfo Ranch to Andrew D. Russell. In 1874, approximately 2,259 acres of what would later be called the Newbury Tract was purchased by Egbert Starr Newbury, a Michigan native (Bidwell, 1989). Newbury later gained prominence as Conejo Valley's first postmaster and newspaper reporter and is also the man for whom the nearby township of Newbury Park is now named. When the Conejo Valley School District was established in March of 1877, there were 126 residents living in Conejo Valley (Begun, 2006).

City of Thousand Oaks Historical Context. The City of Thousand Oaks, which was at one time called Conejo Mountain Valley (Begun, 2006), gained its current name because of a local contest held in the 1920s. The winning entry of that contest, "Thousand Oaks", was suggested by a 14-year old boy named Bobby Harrington (Chalquist, 2008; Bidwell, 1989; O'Brien, 2017).

In 1910, the Janss Investment Corporation, formed by the brothers Edwin and Harold Janss, purchased around 10,000 acres of land in what is now Thousand Oaks from the heir of John Edwards, a Welsh immigrant, who had himself previously purchased the land from the heirs of de la Guerra. While the Janss brothers had envisioned the rapid growth of a "total community" on their lands, it was not until the 1950s that the Conejo Valley began to see a significant population boom. Prior to that, the area was primarily used for ranching and agriculture, although a small number of Hollywood elites had taken an interest in the area as early as the 1920s. In particular, Jungleland USA, a private zoo, animal training facility, and animal theme park, was established in Thousand Oaks by Louis Goebel in 1926 as a support facility for Hollywood (Maulhardt, 2011).

In subsequent years, filmmaking emerged as a prominent industry in the Conejo Valley, whose rural landscape and commutable distance to Los Angeles were attractive traits for midcentury movie and television productions. Hollywood celebrities and executives soon began purchasing land in the Conejo Valley and, coupled with the arrival of several high-tech companies such as Packard Bell and Technology Instrument Company in the 1960s and 1970s, the area's population increased dramatically. Between 1950 and 1970, the population of the Conejo Valley increased from 3,000 to 30,000 residents (McCormack, 2000).

The City of Thousand Oaks was incorporated in 1964, at which time the Janss Corporation suggested a new name: "City of Conejo". A vote was held but the old name prevailed, with most area residents (87 percent) agreeing that the city should remain "Thousand Oaks" (Conejo Valley Guide Welcome Blog Archive, 2018).

Cultural Resources Records Search. On July 19, 2019, Padre Senior Archaeologist Rachael J. Letter ordered an archaeological records search from the South Central Coast Information Center (SCCIC) located at California State University, Fullerton. The center is an affiliate of the State of California Office of Historic Preservation and the official state repository of archaeological and historic records and reports for Ventura, Los Angeles, San Bernardino, and Orange counties. Padre received the results on August 1, 2019. The records search included a review of all recorded historic-era and prehistoric archaeological sites within a 0.5-mile radius of the Unit Y2 Interceptor as well as a review of known cultural resource surveys and technical reports. The State Historic Property Data Files, National Register of Historic Places, National Register of Determined Eligible Properties, California Points of Historic Interest, and the California Office of Historic Preservation Archaeological Determinations of Eligibility also were analyzed.

The records search identified 15 previously recorded cultural resources within a 0.5-mile radius of the Unit Y2 Interceptor (see Table 10). A previously recorded cultural resource (CA-VEN-483) is located within or adjacent to the Unit Y Interceptor alignment (about 0.2 miles east of the subject Unit Y2 Interceptor). No other recorded cultural resources are located in close proximity to the Unit Y2 Interceptor. CA-VEN-483 was first recorded in 1975 and consists of a prehistoric rock shelter containing shell fragments, charcoal fragments, fire cracked rock, a stone fragment with asphaltum, and evidence of a hearth (Maxwell, 1975). The site was revisited in 1976 and observed to be greatly altered and disturbed (URS, 2005).

Tribal Cultural Resources. No traditionally and culturally affiliated Native American tribes have requested the City to be informed of proposed projects pursuant to Public Resources Code Section 21080.3.1. Therefore, it is presumed no tribal resources are present and consultation with Native American tribes is not required.

Table 10. Previously Recorded Archaeological Sites within 0.5 miles of the Unit Y2 Interceptor

Site Number	Description
CA-VEN-170	Prehistoric lithic scatter with groundstone tools
CA-VEN-171	Prehistoric lithic scatter with groundstone tools
CA-VEN-172	Prehistoric lithic scatter with groundstone tools
CA-VEN-173	Prehistoric lithic scatter with groundstone tools
CA-VEN-311	Prehistoric midden with tools
CA-VEN-312	Prehistoric lithic scatter
CA-VEN-313	Prehistoric lithic scatter
CA-VEN-327	Prehistoric lithic scatter
CA-VEN-446	Prehistoric lithic scatter
CA-VEN-457	Prehistoric occupation site
CA-VEN-483	Prehistoric rock shelter with groundstone tools
CA-VEN-484	Prehistoric lithic scatter
CA-VEN-485	Prehistoric lithic scatter
CA-VEN-544	Prehistoric lithic scatter
CA-VEN-751	Prehistoric bedrock mortars with rock art

Significance Thresholds. Significance criteria for cultural resources are taken from the 2020 State CEQA Guidelines (Appendix G). A project would be considered to have a significant impact if it would:

- Cause a substantial adverse change in the significance of an historical resource pursuant to Section 15064.5 of the California Public Resources Code.
- Cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5 of the California Public Resources Code.
- Disturb human remains, including those interred outside formal cemeteries.

Substantial adverse change in the significance of a cultural resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired.

The significance of an historical resource is materially impaired when a project:

- a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
- b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- c) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

3.5.2 Impact Analysis

- a. The National Register of Historic Places listing does not include any properties within or adjacent to the proposed facilities. No California Historical Landmarks or California Points of Historical Interest are located within or adjacent to the proposed facility sites. The California State Historic Resources Inventory lists no properties within or adjacent to the proposed facility sites. No City or Ventura County landmarks are located within or adjacent to the Project site. Therefore, no impacts to historic resources are anticipated.
- b. The cultural resources record search did not identify any archaeological sites in close proximity to the Project site. However, creek corridors such as North Fork Arroyo Conejo are commonly used by Native American populations and unreported archeological resources could be discovered during Project construction, which may be significantly affected by Project activities.
- c. No prehistoric village site or burial sites have been reported in close proximity to the Project site. However, Project activities may disturb unidentified burial sites and associated human remains and result in significant impacts.

3.5.3 Mitigation Measures and Residual Impacts

The following mitigation measures are provided to prevent significant impacts, should archaeological resources be found during Project construction.

- Should any buried archaeological materials be uncovered during project activities, such activities shall cease within 100 feet of the find. Prehistoric archaeological indicators include obsidian and chert flakes, chipped stone tools, bedrock outcrops and boulders with mortar cups, ground stone implements, locally darkened midden soils containing previously listed items plus fragments of bone and fire affected stones. Historic period site indicators may include fragments of glass, ceramic and metal objects, milled and split timber, building foundations, privy pits, wells and dumps, and old trails. All earth disturbing work within the vicinity of the find shall be temporarily suspended or redirected until the City has been notified and an archaeologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume.
- If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to the origin and deposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission.

Implementation of the above measures would reduce impacts to archaeological resources to a level of less than significant.

3.6 ENERGY

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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"/>

3.6.1 Setting

The proposed Project would consume non-renewable energy in the form of fuels for vehicles and equipment used to construct proposed improvements, complete pipe rehabilitation and maintain the re-established access road. This energy use would not be wasteful, inefficient or unnecessary. Consistent with existing conditions, wastewater would continue to flow by gravity to the HCTP with no energy use associated with pumping.

3.6.2 Impact Analysis

The proposed Project would not conflict with any State or local plan for renewable energy or energy efficiency, including the City's Sustainability Plan for Municipal Operations.

3.6.3 Mitigation Measures and Residual Impacts

No significant energy impacts were identified; therefore, mitigation measures are not required.

3.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a. Expose people or structures to 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 type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.7.1 Setting

Local Geology and Faulting. The proposed Project lies within the southernmost part of the west-central portion of the Transverse Ranges geologic province of Southern California. This province is characterized by east-west trending folds, faults, and mountain ranges that are transverse to the northwest trend of most of the geologic features in California. The Unit Y Interceptor is located in an incised canyon formed by the North Fork Arroyo Conejo composed of Conejo Volcanics and the Lower Topanga Formation. Conejo Volcanics of this canyon are comprised of Miocene-aged basaltic igneous rocks. The Lower Topanga Formation is comprised of Miocene-aged clay shale and sandstone. (Dibblee & Ehrenspeck, 1990).

No known active or potentially active faults traverse or trend towards the Unit Y2 Interceptor. The nearest active fault is the Simi-Santa Rosa Fault, located approximately 2.5 miles north of the Unit Y2 Interceptor. The Geotechnical Desktop Study prepared by Oakridge Geoscience (2019) indicates the potential for fault rupture to affect the Unit Y2 Interceptor alignment is considered low.

Ground-shaking Hazard. Ground-shaking is the cause of most damage during earthquakes. The Project area has a 10 percent chance of exceeding a peak ground acceleration of 0.52 g (alluvium conditions) in 50 years (California Department of Conservation 2002).

Liquefaction Hazard. Liquefaction occurs when strong, cyclic motions during an earthquake cause water-saturated soils to lose their cohesion and take on a liquid state. Liquefied soils are unstable and can subject overlying structures to substantial damage. The occurrence of liquefaction is highly dependent on local soil properties, depth to groundwater, and the strength and duration of a given ground-shaking event. The HCTP and adjacent portions of the Unit Y2 Interceptor are located within a liquefaction hazard zone as designated by the California Department of Conservation (2002). The Geotechnical Desktop Study prepared by Oakridge Geoscience (2019) indicates the potential exists for liquefaction to affect Project improvements founded in alluvial sediments.

Landslide Hazard. Areas of high landslide or mudflow potential are typically hillside areas with slopes of greater than 10 percent. The Unit Y2 Interceptor is located adjacent to seismically-induced landslide hazard areas (canyon walls) (California Department of Conservation 2002).

Expansive Soil Hazard. Expansive soils are primarily clay-rich soils subject to changes in volume with changes in moisture content. Based on the regional soil map, soils along the Unit Y2 Interceptor are mapped as Hambright very rocky loam (15 to 75 percent slopes) with a moderate shrink-swell potential (Edwards et al. 1970). The Geotechnical Desktop Study prepared by Oakridge Geoscience (2019) indicates alluvial soils in the Project vicinity have the potential to be expansive.

Subsidence Hazard. Subsidence is generally related to over-pumping of groundwater or petroleum reserves from deep underground reservoirs. The Project site is not located within a probable subsidence zone identified in the Ventura County General Plan Hazards Appendix (Ventura County RMA, 1988a).

Paleontological Resources. A record search was conducted of the on-line collections data base of the University of California Museum of Paleontology. No fossils have been reported from the Project area. The Ventura County Initial Study Assessment Guidelines (2011) indicate Topanga Formations have moderate paleontological importance and Conejo Volcanics have no paleontological importance.

3.7.2 Impact Analysis

- a.** Due to the absence of any faults in close proximity and minimal proposed ground disturbance, the proposed Project would not directly or indirectly cause earthquake fault rupture or seismic ground shaking and associated adverse effects on nearby land uses. Engineering of Project improvements would consider the seismic environment and would be designed and installed to be resistant to seismic-related damage, including liquefaction and seismic-induced landslides. The Project would not increase the number of persons exposed to existing seismic hazards.
- b.** The proposed pressurized manholes may be exposed to soil erosion generated by storm flows. However, these facilities would be composed of reinforced concrete, resistant to soil erosion and protected from storm flows as needed. Project construction activities would be subject to the State's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Water Quality Order 2012-0006-DWQ), which would require implementation of best management practices to minimize soil erosion. Overall, the potential for soil erosion is considered low and a less than significant impact.
- c.** According to the Ventura County General Plan Hazards Appendix, the proposed improvement sites are not located in a subsidence zone. As such, the Project is not expected to generate impacts associated with land subsidence. See response a. for discussion of issues related to liquefaction and landslides.
- d.** The proposed improvement sites may support moderately expansive soils. However, engineering of Project improvements would consider the soil environment and would be designed and installed to be resistant to expansion-related damage. Impacts to life and property are not anticipated.
- e.** Septic waste disposal systems are not proposed as part of the Project; therefore, no impacts would result.
- f.** The Project site is located in a canyon bottom exposed to regular storm-related erosion and deposition of sediments, such that paleontological resources are not anticipated to be present. In any case, Project-related excavation would be limited to recent alluvium and not affect geologic formations that may support fossils. Therefore, impacts to paleontological resources are not anticipated. No unique geologic features have been identified in the Project area, and none would be adversely affected by Project implementation.

3.7.3 Mitigation Measures and Residual Impacts

No significant geologic hazards were identified; therefore, mitigation measures are not required.

3.8 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.8.1 Setting

Greenhouse Gases and Global Climate Change. Greenhouse gases (GHGs) are defined as any gas that absorbs infrared radiation in the atmosphere. Climate change, often referred to as “global warming” is a global environmental issue that refers to any significant change in measures of climate, including temperature, precipitation, or wind. Climate change refers to variations from baseline conditions that extend for a period (decades or longer) of time and is a result of both natural factors, such as volcanic eruptions, and anthropogenic, or man-made, factors including changes in land-use and burning of fossil fuels. Anthropogenic activities such as deforestation and fossil fuel combustion emit heat-trapping GHGs, defined as any gas that absorbs infrared radiation within the atmosphere.

According to data from the National Oceanic and Atmospheric Administration, the 2019 average temperature across global land and ocean surfaces was 1.71°F above the twentieth-century average of 57.0°F, making it the second-warmest year on record. The global annual temperature has increased at an average rate of 0.13°F per decade since 1880 and over twice that rate (0.32°F) since 1981. From 1900 to 1980 a new temperature record was set on average every 13.5 years; however, since 1981 the average period between temperature records has decreased to every 3 years.

GHG emissions are a global issue, as climate change is not a localized phenomenon. Eight recognized GHGs are described below. The first six are commonly analyzed for projects, while the last two are often excluded for reasons described below.

- Carbon Dioxide (CO₂): natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic degassing; anthropogenic sources of CO₂ include burning fuels such as coal, oil, natural gas, and wood.

- Methane (CH₄): natural sources include wetlands, permafrost, oceans and wildfires; anthropogenic sources include fossil fuel production, rice cultivation, biomass burning, animal husbandry (fermentation during manure management), and landfills.
- Nitrous Oxide (N₂O): natural sources include microbial processes in soil and water, including those reactions which occur in nitrogen-rich fertilizers; anthropogenic sources include industrial processes, fuel combustion, aerosol spray propellant, and use of racing fuels.
- Chlorofluorocarbons (CFCs): no natural sources, synthesized for use as refrigerants, aerosol propellants, and cleaning solvents.
- Hydrofluorocarbons (HFCs): no natural sources, synthesized for use in refrigeration, air conditioning, foam blowing, aerosols, and fire extinguishing.
- Sulfur Hexafluoride (SF₆): no natural sources, synthesized for use as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF₆ has a long lifespan and high global warming potency.
- Ozone: unlike the other GHGs, ozone in the troposphere is relatively short-lived and, therefore, is not global in nature. Due to the nature of ozone, and because this Project is not anticipated to contribute a significant level of ozone, it is excluded from consideration in this analysis.
- Water Vapor: the most abundant and variable GHG in the atmosphere. It is not considered a pollutant and maintains a climate necessary for life. Because this Project is not anticipated to contribute significant levels of water vapor to the environment, it is excluded from consideration in this analysis.

The primary GHGs that would be emitted during construction of the proposed Project are CO₂, CH₄ and N₂O. The Project is not expected to have any associated use or release of HFCs, CFCs or SF₆.

The heat absorption potential of a GHG is referred to as the “Global Warming Potential” (GWP). Each GHG has a GWP value based on the heat-absorption properties of the GHG relative to CO₂. This is commonly referred to as CO₂ equivalent (CO₂E). The GWP of the three primary GHGs associated with the proposed Project are defined by the Intergovernmental Panel on Climate Change (IPCC): CO₂ – GWP of 1, CH₄ – GWP of 28, and N₂O – GWP of 265.

International Authority. The IPCC is a scientific body that reviews and assesses the most recent scientific, technical, and socio-economic information produced worldwide relevant to the understanding of climate change. The scientific evidence brought up by the first IPCC Assessment Report of 1990 unveiled the importance of climate change as a topic deserving international political attention to tackle its consequences; it therefore played a decisive role in leading to the creation of the United Nations Framework Convention on Climate Change, the key international treaty to reduce global warming and cope with the consequences of climate change.

On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change. Under the Convention, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

The Kyoto Protocol is an international treaty which extends the United Nations Framework Convention on Climate Change and commits governments to reduce greenhouse gas emissions, based on the premise that (a) global warming exists and (b) human-made CO₂ emissions have caused it. The Kyoto Protocol was adopted in Kyoto, Japan, on December 11, 1997 and entered into force on February 16, 2005. The United States has not ratified the Protocol and is not bound by its commitments.

At the 2015 United Nations Climate Change Conference in Paris, a global agreement was initiated, which represented a consensus of the representatives of the 196 parties attending it. On April 22, 2016 (Earth Day), 174 countries signed the Paris Agreement in New York, and began adopting it within their own legal systems (through ratification, acceptance, approval, or accession). As of October 2020, 197 United Nations Climate Change Conference members have signed the agreement, 189 of which have ratified it. The United States ratified the Paris Agreement on September 3, 2016. The Paris Agreement entered into force on November 4, 2016, thirty days after the date on which at least 55 Parties to the Convention accounting in total for an estimated 55 percent of the total global greenhouse gas emissions deposited their instruments of ratification, acceptance, approval or accession.

On June 1, 2017, President Trump announced that the U.S. would cease participation in the Paris Agreement. However, in accordance with Article 28 of the Paris Agreement, the earliest possible effective withdrawal date by the United States cannot be before November 4, 2020, four years after the Agreement came into effect in the United States and one day after the 2020 U.S. presidential election.

Federal Authority. On September 22, 2009, the USEPA released its final GHG Reporting Rule (Reporting Rule), in response to the fiscal year 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-161) that required the USEPA to develop "... mandatory reporting of GHGs above appropriate thresholds in all sectors of the economy". The Reporting Rule applies to most entities that emit 25,000 metric tons (MT) CO₂E or more per year. On September 30, 2011, facility owners were required to submit an annual GHG emissions report with detailed calculations of facility GHG emissions. The Reporting Rule mandates recordkeeping and administrative requirements for the USEPA to verify annual GHG emissions reports but does not regulate GHG as a pollutant.

The CAA defines the USEPA's responsibilities for protecting and improving the nation's air quality and the stratospheric ozone layer. On May 13, 2010, USEPA set greenhouse gas emissions thresholds to define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these CAA permitting programs to limit covered facilities to the nation's largest greenhouse gas emitters: power plants, refineries, and cement production facilities.

State Authority. In efforts to reduce and mitigate climate change impacts, state and local governments are implementing policies and initiatives aimed at reducing GHG emissions. California, one of the largest state contributors to the national GHG emission inventory, has adopted significant reduction targets and strategies. The primary legislation affecting GHG emissions in California is the California Global Warming Solutions Act (Assembly Bill [AB] 32). AB 32 focuses on reducing GHG emissions in California, and requires the CARB to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020. In addition, two State-level Executive Orders have been enacted by the Governor (Executive Order S-3-05, signed June 1, 2005, and Executive Order S-01-07, signed January 18, 2007) that mandate reductions in GHG emissions.

In June 2008, CARB developed a Draft Scoping Plan for Climate Change, pursuant to AB 32. The Scoping Plan was approved at the Board hearing on December 12, 2008. The Scoping Plan proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, and enhance public health while creating new jobs and enhancing the growth in California's economy. Key elements of the Scoping Plan for reducing California's greenhouse gas emissions to 1990 levels by 2020 include:

- Expansion and strengthening of existing energy efficiency programs and building and appliance standards.
- Expansion of the Renewables Portfolio Standard to 33 percent.
- Development of a California cap-and-trade program that links with other Western Climate Initiative Partner programs to create a regional market system.
- Implementation of existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard.
- Targeted fees to fund the State's long-term commitment to AB 32 administration.

The Climate Change Scoping Plan was updated in May 2014, and again in November 2017. In 2016, the State Legislature passed Senate Bill (SB) 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan. The 2017 update to the Scoping Plan indicates the State is on track to reduce GHG emissions to 1990 levels by the 2020 target, and focuses on strategies to achieve the 2030 target set by Executive Order B-30-15 and codified by SB 32.

The CARB developed regulations for mandatory reporting of greenhouse gas emissions in 2007, which incorporated by reference certain requirements promulgated by the USEPA in its Final Rule on Mandatory Reporting of Greenhouse Gases (Title 40, Code of Federal Regulations, Part 98). These regulations were revised in 2010, 2012, 2013, and 2014, with the current regulations becoming effective on January 1, 2015. The proposed Project would not be subject to these regulations, as it does not involve any industrial processes and does not meet the 10,000 MTCO₂E reporting threshold.

SB 97, enacted in 2007, amends the CEQA statute to clearly establish that greenhouse gas emissions and the effects of GHG emissions are appropriate for CEQA analysis. It directs the California Office of Planning and Research (OPR) to develop guidelines *"for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division."* (Pub. Res. Code § 21083.05(a)).

In December of 2009, the California Natural Resources Agency adopted amendments to the CEQA Guidelines (Title 14, Cal. Code of Regulations, §15000 et seq.) to comply with the mandate set forth in Public Resources Code §21083.05. These revisions became effective March 18, 2010. According to the 2020 State CEQA Guidelines (Section 15064.4), a lead agency may use a model or methodology to estimate GHG emissions, has the discretion to select the most appropriate model or methodology, and must support the selection of the model or methodology with substantial evidence.

Local Authority. To date, Ventura County and the City of Thousand Oaks have not adopted any documents related to GHG emissions reduction planning in the County or City. However, the City's Sustainability Plan for Municipal Operations provides numerous strategies related to energy use, transportation and wastewater treatment that would reduce GHG emissions generated by City operations.

Significance Thresholds. To date, GHG thresholds of significance have not been adopted by the CMWD or Ventura County. On November 8, 2011, the VCAPCD completed a staff report assessing several options and strategies in developing GHG thresholds for land development projects. Although no GHG thresholds were developed, the November 8, 2011 staff report stated that consistency with any GHG thresholds developed by the South Coast Air Quality Management District (SCAQMD) is preferred. On December 5, 2008, the SCAQMD governing board adopted an interim GHG significance threshold of 10,000 metric tons per year CO₂ equivalent (including amortized construction emissions) for industrial projects. Due to the lack of any other applicable threshold, this value will be used in this analysis to determine the significance of the contribution of the Project to global climate change.

3.8.2 Impact Analysis

- a. Construction GHG Emissions.** Project construction would result in greenhouse gas emissions, primarily in the form of CO₂ exhaust emissions from the use of off-road construction equipment and on-road vehicles. Emissions of GHG from construction-related sources were estimated using CARB's EMFAC2017 Model and OFFROAD 2017 Model and emission factors provided in the California Climate Action Registry General Reporting Protocol. Estimated emissions of GHG associated with Project construction are 164.8 metric tons of CO₂ equivalent (MTCO₂E) and the calculations are summarized in Table 11. Project GHG emissions would be less than the 10,000 MTCO₂E per year threshold adopted for the Project; therefore, construction-related GHG emissions are considered a less than significant impact on global climate change.

Table 11. Construction-Related Greenhouse Gas Emissions

Parameter	CO ₂ Emissions (metric tons)	CH ₄ Emissions (metric tons)	N ₂ O Emissions (metric tons)
Total GHG Emissions	163.5	0.008	0.004
Global Warming Potential Factor	1	28	265
Total CO ₂ Equivalent Emissions	163.5	0.3	1.0
Total Metric Tons of CO ₂ Equivalent	164.8		

Long-Term Operational GHG Emissions. Periodic maintenance of the re-established access road would generate a small amount of GHG emissions. These emissions were estimated based on five days operation of a backhoe, wheeled loader and on-road vehicles and would be less than the 10,000 MTCO₂E per year threshold adopted for the Project (see Table 12). Therefore, operational GHG emissions are considered a less than significant impact on global climate change.

Table 12. Access Road Maintenance GHG Emissions

Parameter	CO ₂ Emissions (metric tons)	CH ₄ Emissions (metric tons)	N ₂ O Emissions (metric tons)
GHG Emissions	2.9	<0.001	<0.001
Global Warming Potential Factor	1	28	265
CO ₂ Equivalent Emissions	2.9	<0.1	<0.1
Metric Tons of CO ₂ Equivalent	2.9		

- b.** The Project would not involve any sources of greenhouse gases that are regulated under the State cap and trade program, or other plans or policies regulating these emissions.

3.8.3 Mitigation Measures and Residual Impacts

No significant impacts to global climate change related to greenhouse gas emissions were identified; therefore, mitigation measures are not required.

3.9 HAZARDS AND HAZARDOUS MATERIALS/RISK OF UPSET

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
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 one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<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 or excessive noise 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"/>
g. Expose people or structures to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.9.1 Setting

A "hazardous material" means any material that, because of its quantity, concentration, physical or chemical characteristics poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or environment. Appendix G of the CEQA Guidelines indicates that a project would have a significant impact if it would create a public health hazard, expose people to a potential health hazard, or pose a threat to the environment.

Hazardous materials sites within two miles of the Unit Y2 Interceptor are limited to:

- A leaking underground gasoline storage tank case (former Northrup Corporation) located 1.0 miles to the south-southwest that was closed in 1996.

- Ongoing cleanup and monitoring of soil contaminated with arsenic, tetrachloroethylene and trichloroethylene near Home Depot located 1.9 miles to the southwest of the Unit Y2 Interceptor.

3.9.2 Impact Analysis

- a. The Project would not use, transport or dispose of hazardous materials; however, diesel fuel would be brought on-site using a maintenance truck to fuel on-site construction equipment. No storage of diesel fuel would occur on-site. Therefore, significant hazards to the public or environment related to hazardous materials would not occur.
- b. Fueling of on-site construction equipment could result in inadvertent spillage of diesel fuel into North Fork Arroyo Conejo. However, fueling would be conducted in areas removed from surface flows. Therefore, significant hazards to the public or environment related to fuel spillage would not occur.
- c. The nearest school is the Newbury Park Adventist Academy High School located approximately 1.7 miles southwest of the Unit Y2 Interceptor. Therefore, the Project would not involve the use of hazardous materials, hazardous waste or result in hazardous emissions within one-quarter mile of a school.
- d. No hazardous materials sites compiled pursuant to Government Code Section 65962.5 are located in the Project area. The Project would not affect any of these sites or result in a related hazard to the public or the environment.
- e. The Unit Y2 Interceptor is located approximately 8.6 miles east of the Camarillo Airport. The Project site is not subject to an Airport Land Use Plan, nor is it located within two miles of a public use airport. No safety or noise hazards resulting from airport proximity are expected.
- f. The Project site is located in an open space area, at least 0.3 miles from any roadway or occupied land uses. Therefore, no change in public access, emergency response or emergency evacuation would occur.
- g. The Project site is located within a Very High Fire Hazard Severity Zone designated by the California Department of Forestry and Fire Protection, and supports areas of flammable vegetation. The Project would be constructed of non-flammable materials (concrete, steel, rock), and would not involve any habitable structures or increase the risk of loss, injury or death from wildland fires.

3.9.3 Mitigation Measures and Residual Impacts

No significant impacts related to hazards or hazardous materials were identified; therefore, mitigation measures are not necessary.

3.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the 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 surfaces, in a manner which would:				
1. Result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Substantially increase the rate or amount of surface run-off in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. 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"/>
4. Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. In flood hazard, tsunami or seiche zones, 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 checked="" type="checkbox"/>	<input type="checkbox"/>

3.10.1 Setting

Regulatory and Public Policy Framework. Federal Clean Water Act (CWA). The Federal Water Pollution Control Act Amendments of 1972 and 1987, collectively known as the Clean Water Act (33 United States Code [USC] §§1251 et seq.), establish the principal Federal statutes for water quality protection. The Clean Water Act (CWA)'s intent is "to restore and maintain the chemical, physical, and biological integrity of the nation's water, to achieve a level of water quality which provides for recreation in and on the water, and for the propagation of fish and wildlife."

CWA Section 303(d) requires States, territories, and tribes to develop lists of impaired waters within their jurisdictions every two years. Impaired waters are those that do not meet water quality standards. States, territories, and tribes are also required to establish priority rankings for waters on their respective lists. Water bodies in a given State or territory are prioritized by comparing their existing degrees of pollution, and the sensitivity and importance of beneficial uses that are being threatened. The water bodies that are deemed most important are designated as “high priority”.

Section 303(d) also requires States, territories, and tribes to develop Total Maximum Daily Loads (TMDLs) for all water bodies on their respective lists of impaired waters. In essence, TMDLs are plans by which impaired water bodies would be restored such that they consistently meet the established water quality standard(s) that are currently being violated. TMDLs specify the maximum amount of pollutants that a water body can receive and still meet water quality standards, and allocates pollutant loads among point and non-point sources in the subject watershed. The intent of CWA is for the TMDL program to work hand in hand with the impaired waters lists; impaired waters are identified, and then restored to meet water quality standards.

The Unit Y2 Interceptor is located within the Arroyo Conejo watershed, a sub-watershed of the Calleguas Creek watershed. Each of the major waterbodies of the Calleguas Creek watershed have been listed under Section 303(d) as impaired. Table 13 lists these waterbodies in the Project area, and the pollutants contributing to impairment (2014-2016 approved 303(d) list). The water quality in both the North and South Forks is considered impaired (see Table 13), mostly a result of historic agricultural use of pesticides in the watershed.

Table 13. Impaired Waters of the Calleguas Creek Watershed

Waterbody	Pollutant
Mugu Lagoon (Calleguas Creek, Reach 1)	Chlordane, copper, DDT, dieldrin, endosulfan, mercury, nickel, nitrogen, polychlorinated biphenyls (PCB), sediment toxicity, sedimentation/siltation, toxaphene, zinc
Calleguas Creek, Revolon Slough, Arroyo Simi, Arroyo Las Posas (Calleguas Creek Reaches 2-8)	Ammonia, ChemA, chlordane, copper, DDT, dieldrin, endosulfan, fecal coliform, nitrogen, PCB, sediment toxicity, siltation, toxaphene, trash, chloride, nitrate and nitrite, total dissolved solids, chlorpyrifos, diazinon, selenium, toxicity, sulfates, boron, indicator bacteria, organophosphorus pesticides
Conejo Creek (Calleguas Creek Reach 9)	ChemA, chlordane, chlorpyrifos, DDT, diazinon, dieldrin, endosulfan, fecal coliform, lindane, nitrate, nitrogen, PCB, sulfates, total dissolved solids, chloride, toxaphene, toxicity, trash, ammonia, indicator bacteria
North Fork Arroyo Conejo (Reach 12)	Dieldrin, toxaphene, total dissolved solids, PCB, chlordane (tissue), DDT (tissue), sulfates
South Fork Arroyo Conejo (Reach 13, includes South Branch)	Ammonia, DDT (tissue), chlordane, toxicity, endosulfan (tissue), toxaphene (tissue and sediment), dieldrin, PCB, chloride, sulfates, ChemA (tissue), total dissolved solids

California Porter-Cologne Act. The Porter-Cologne Act (California Water Code Section 13000) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and groundwater, and to both point and non-point sources of pollution. Pursuant to the Porter-Cologne Act, it is the policy of the State:

- The quality of all the waters of the State shall be protected.
- All activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason.
- The State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation.
- The State shall undertake all possible steps to encourage development of water recycling facilities to help meet the growing water requirements of the State.

Pursuant to the Porter-Cologne Act, the responsibility for protection of water quality in California rests with the State Water Resources Control Board (SWRCB). The SWRCB administers Federal and State water quality regulations for California's ocean waters, and also oversees and funds the State's nine Regional Water Quality Control Boards (RWQCBs). The RWQCBs prepare water quality control plans, establish water quality objectives, and carry out Federal and State water quality regulations and permitting duties for inland water bodies, enclosed bays, and estuaries within their respective regions. The Porter-Cologne Act gives the SWRCB and RWQCBs broad powers to protect water quality by regulating waste dischargers to water and land, and requiring cleanup of hazardous wastes.

Water Quality Protection. Per the requirements of the CWA and the California Porter-Cologne Act, the Los Angeles RWQCB has prepared a Water Quality Control Plan for the watersheds under its jurisdiction. The Water Quality Control Plans from all nine of the RWQCBs and the California Ocean Plan (prepared and implemented by SWRCB) collectively constitute the State Water Quality Control Plan. Water Quality Control Plan, Los Angeles Region has been designed to support the intentions of the CWA and the Porter-Cologne Act by: (1) characterizing watersheds within the Los Angeles Region; (2) identifying beneficial uses that exist or have the potential to exist in each water body; (3) establishing water quality objectives for each water body to protect beneficial uses or allow their restoration, and; (4) providing an implementation program that achieves water quality objectives. Implementation program measures include monitoring, permitting, and enforcement activities. Per the requirements of CWA Section 303(c), the Water Quality Control Plan is reviewed every three years and revised as necessary to address problems with the plan, and meet new legislative requirements.

Beneficial uses designated by Los Angeles RWQCB in the Water Quality Control Plan for the Calleguas Creek watershed are listed in Table 14. Beneficial uses are potential uses of surface waters and groundwater that could be supported, including water supply, recharge of groundwater supplies, recreation and wildlife habitat. Consistent with the requirements of CWA Section 303(d), LARWQCB identifies impaired waters and prepares TMDLs for impaired waters within its jurisdiction. TMDLs completed to date for the Calleguas Creek watershed include:

- Nitrogen compounds: in effect July 16, 2003 (waste load allocations updated, effective September 29, 2008).
- Toxicity, chlorpyrifos and diazinon: in effect March 24, 2006.
- Organochlorine pesticides, polychlorinated biphenyls and siltation: in effect March 24, 2006.
- Metals and selenium: in effect March 26, 2007, revised effective June 23, 2107.
- Boron, chloride, sulfate and total dissolved solids (TDS) (salts): in effect December 2, 2008.
- Trash (Revolon Slough and Beardsley Wash): in effect March 6, 2008, revised effective June 14, 2018.
- Pesticides, PCBs and sediment toxicity (Oxnard Drain 3): October 6, 2011.

Each of the above approved TMDLs have compliance deadlines of 15 to 20 years from the date of adoption, along with implementation plans or necessary technical studies needed to bring waterbodies into compliance with TMDL requirements.

Table 14. Beneficial Uses of Surface Waters of the Calleguas Creek Watershed

Waterbody	Beneficial Uses
Mugu Lagoon	Navigation, water-contact recreation (potential), non-water contact recreation, commercial and sport fishing, estuarine habitat, marine habitat, wildlife habitat, preservation of biological habitats, rare, threatened or endangered species habitat, migration of aquatic organisms, spawning habitat, shellfish harvesting, wetland habitat
Calleguas Creek (Arroyo Simi, Arroyo Las Posas)	Municipal water supply (potential), industrial water supply, industrial process supply, agricultural supply, groundwater replenishment, water-contact recreation, non-water contact recreation, warm freshwater habitat, wildlife habitat, wetland habitat
Conejo Creek	Municipal water supply (potential), industrial water supply, industrial process supply, agricultural supply, groundwater replenishment, water-contact recreation, non-water contact recreation, warm freshwater habitat, wildlife habitat
North Fork Arroyo Conejo	Municipal water supply (potential), agricultural supply, groundwater replenishment, water-contact recreation, non-water contact recreation, warm freshwater habitat, wildlife habitat, fish spawning habitat
South Fork Arroyo Conejo	Municipal water supply (potential), groundwater replenishment (intermittent), freshwater replenishment (intermittent), water-contact recreation (intermittent), non-water contact recreation (intermittent), warm freshwater habitat (intermittent), wildlife habitat

Salts (TDS, chloride and sulfates) are a critical factor affecting water quality in the Calleguas Creek watershed. The connection between salts and water supply are inextricably linked in watersheds where imported water supplies are extensively utilized. The evolution of the Salts TMDL reflects a growing understanding of how water supply management, wastewater management, and surface water quality standards are linked.

Even during average to slightly above average rainfall years, more salts enter the watershed on an average daily basis through imported water supplies, than is transported off the watershed in surface waters. While wet and dry weather patterns follow a generally cyclical pattern, there can be significant variation in the length of dry weather patterns (Hanson et al., 2003). The accumulation of salts during these relatively dry periods and the subsequent release during wet weather cycles complicates the instantaneous management of chlorides and salts on the watershed by stockpiling salts that once in solution would exceed the assimilative capacity of other contributing sources to the surface waters. Unless salts are actively managed, stranded salts will continue to accumulate and periodically impair surface waters. They also have the potential to further degrade groundwater sources.

Municipal Wastewater Discharge Permitting. The Calleguas Creek watershed is within the jurisdiction of the LARWQCB, which includes coastal drainages from Rincon Point (western boundary of Ventura County) to the eastern Los Angeles County boundary. The RWQCBs regulate discharges under the Porter-Cologne Act primarily through issuance of National Pollutant Discharge Elimination System (NPDES) permits. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Porter-Cologne Act provides RWQCBs with several options for enforcing regulations, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions.

The City's Hill Canyon Treatment Plant (HCTP) treats municipal wastewater collected by the City's wastewater interceptor pipelines, including Unit Y, Unit W and Unit F. Treated municipal wastewater is discharged to the North Fork Arroyo Conejo just upstream of its confluence with the South Fork. This discharge is authorized by the LARWQCB through NPDES Permit No. CA0056294 (Order No. R4-2014-0065-A02). This NPDES permit includes effluent limitations and monitoring and reporting provisions to ensure compliance. In addition, the NPDES permit includes receiving water (North Fork Arroyo Conejo) limitations for temperature, pH, dissolved oxygen, residual chlorine, bacteria and other applicable water quality objectives of the Water Quality Control Plan. Surface water quality monitoring is required at two locations on the North Fork Arroyo Conejo on a monthly basis.

Municipal Stormwater Permit. The Ventura County Municipal Separate Storm Sewer System MS4 NPDES permit (Order no. R4-2010-0108) regulates non-point water discharges (run-off) of storm water and non-storm water into storm drains within affected Ventura County watersheds, including Arroyo Conejo. This permit provides best management practices to be implemented by new development and construction activities to minimize discharge of pollutants to waterways.

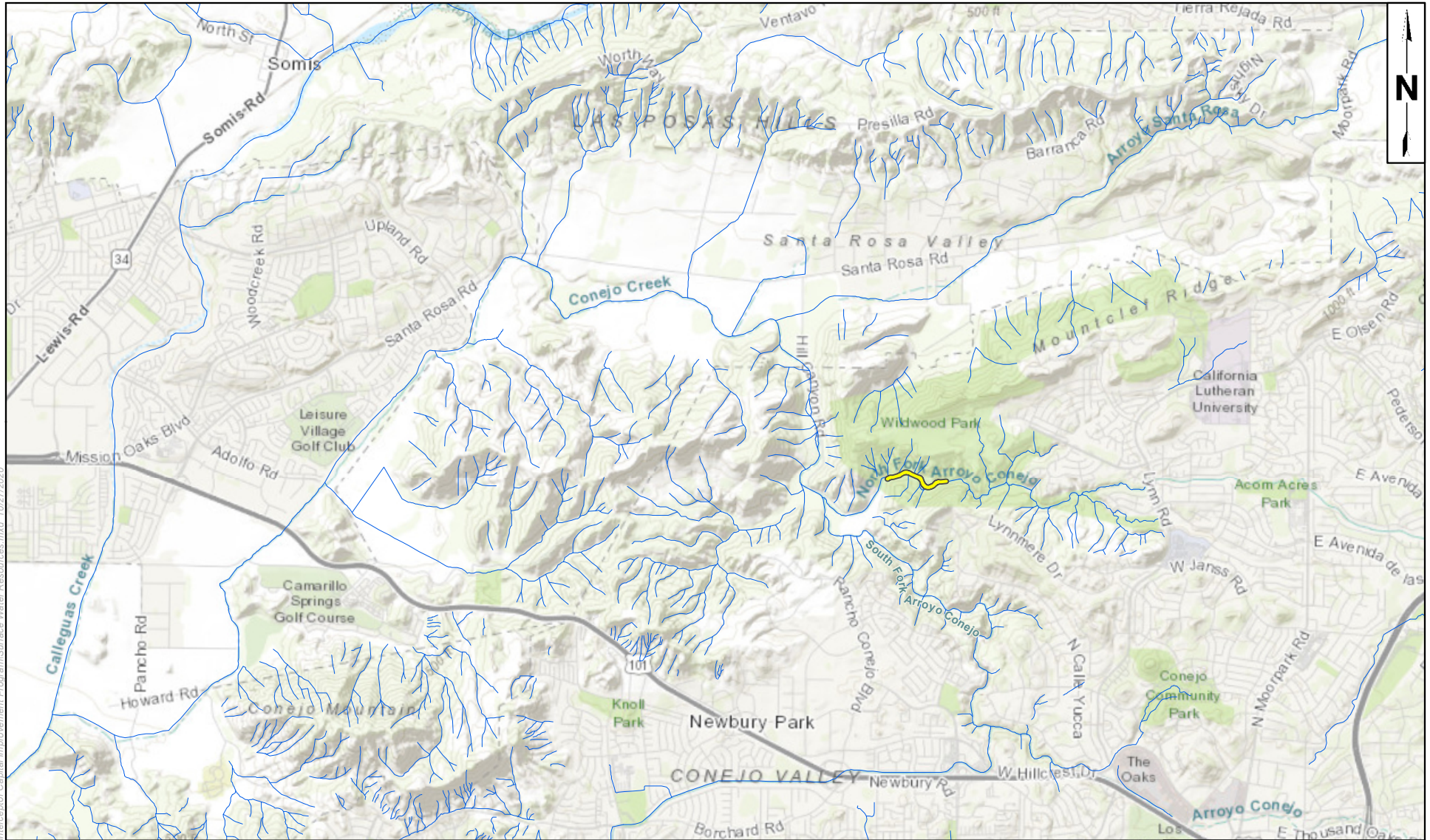
Surface Water Characteristics. The Unit Y2 Interceptor is located within the Arroyo Conejo watershed, a sub-watershed of the Calleguas Creek watershed. The Calleguas Creek watershed is approximately 30 miles long and 14 miles wide, with a surface area of about 343 square miles. The northern boundary of the Calleguas Creek watershed is formed by the Santa Susana Mountains, South Mountain and Oak Ridge, the southern boundary is formed by the Simi Hills and Santa Monica Mountains. Primary surface water features of the watershed include Calleguas Creek, Arroyo Las Posas, Arroyo Simi, Conejo Creek, Arroyo Conejo, Arroyo Santa Rosa, Revolon Slough and Mugu Lagoon. Surface water resources of the Project area are identified in Figure 5.

The Calleguas Creek watershed was historically characterized as an ephemeral stream system that supported substantial surface flow only during the wet season. Importation of State Water Project water began in 1963, and over time, the watershed began to support perennial surface water. Since 1962, dry weather flows on Conejo Creek above U.S. Highway 101 increased from an average of 0.5 to 15 cubic feet per second (Hanson et al., 2003). These flows are a result of rising groundwater generated by percolation of applied imported water, discharge of treated municipal wastewater to streams and urban run-off. Currently, natural surface flow in the Calleguas Creek watershed is augmented/modified by:

- Discharge of groundwater from the Simi Valley dewatering wells to Arroyo Simi.
- Discharge of tertiary-treated effluent from the Simi Valley Water Quality Control Plant to Arroyo Simi.
- Discharge of tertiary-treated effluent from the HCTP to North Fork Arroyo Conejo.
- Rising groundwater into Arroyo Simi and Arroyo Conejo due to high groundwater levels associated with aquifer recharge of imported water.
- Capture of a portion of surface flows generated by the HCTP discharge at Conejo Creek, just downstream of the U.S. Highway 101 crossing.
- Discharge of tertiary-treated effluent from the Camarillo Sanitary District Water Reclamation Plant to Conejo Creek.
- Agricultural irrigation run-off and tiled drain discharge.

In addition, wastewater is occasionally discharged during wet weather periods from the Moorpark Wastewater Treatment Plant to Arroyo Las Posas, and from the Camrosa Water District Water Reclamation Facility to Calleguas Creek.

The Arroyo Conejo watershed extends from the northern slopes of the Santa Monica Mountains to Conejo Creek, a tributary of Calleguas Creek. Arroyo Conejo extends south through Hill Canyon, then branches to form the South Fork (main stem) and the North Fork at the HCTP. The community of Newbury Park is drained by the South Branch Arroyo Conejo which empties into the South Fork near the Ventu Park Road/U.S. 101 interchange.



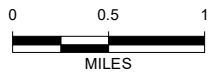
LEGEND:

— Unit Y2 Interceptor

MAP EXTENT:



Source: Esri Online Topo Basemap
 Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
 Notes: This map was created for informational and display purposes only.



padre
 associates, inc.
 ENGINEERS, GEOLOGISTS &
 ENVIRONMENTAL SCIENTISTS

PROJECT NAME:
**UNIT Y2 INTERCEPTOR REHABILITATION
 CITY OF THOUSAND OAKS, CA**

PROJECT NUMBER:
1902-2181

DATE:
October 2020

**SURFACE WATER RESOURCES
 OF THE PROJECT AREA**

**FIGURE
 5**

The Unit Y Interceptor is located along the North Fork Arroyo Conejo, while the Unit W wastewater interceptor pipeline is located along South Fork Arroyo Conejo. These pipelines transport municipal wastewater produced by local residents by gravity to the HCTP. The North Fork and South Fork support an earthen streambed and are not channelized. Unit Y passes through a natural rock formation that forms Paradise Falls on the North Fork.

Groundwater Environment. The Unit Y2 Interceptor is not located within a recognized groundwater basin. However, areas generating municipal wastewater transported by the pipelines lie within the Conejo Valley Groundwater Basin. The Conejo Valley Groundwater Basin underlies much of the Arroyo Conejo watershed. The Basin encompasses 28,900 acres and the principal water bearing units are Quaternary age alluvium and the Modelo, Topanga and Conejo Formations (California DWR, 2004). Recharge is provided by percolation of rainfall, percolation of surface water in Arroyo Conejo and irrigation return (imported water). The Basin was estimated to be 75 percent full in 1999, and groundwater extraction is estimated to be less than 100 acre-feet/year (California DWR, 2004). The operational safe yield of the basin is estimated at 3,500 acre-feet/year (CDM Smith, 2016). The primary water quality concern in the basin is total dissolved solids, which may exceed 1,500 milligrams per liter in the eastern portion of the basin (CDM Smith, 2016).

The 2014 Sustainable Groundwater Management Act requires the formation of groundwater sustainability agencies (GSAs) in high- and medium-priority groundwater basins and sub-basins by June 30, 2017 to meet California Water Code requirements. The Conejo Valley Groundwater Basin is a very low priority basin and formation of a GSA is not required to manage groundwater in this basin. However, in June 2020 Woodard & Curran prepared a voluntary groundwater management plan for the basin on behalf of the City of Thousand Oaks.

Potable Water Supply. The City of Thousand Oaks is the water purveyor to approximately 36 percent of the water users within the City. Other water purveyors include the California-American Water Company (48 percent), California Water Service Company (16 percent), the Newbury Park Academy Mutual Water Company (less than one percent) and the Camrosa Water District (less than one percent) (Kennedy/Jenks Consultants, 2016). Potable water distributed to City residents is imported water purchased from the Calleguas Municipal Water District, which receives its supply from the Metropolitan Water District of Southern California (MWD). The source of MWD's water supply is either the State Water Project or the Colorado River.

Based on the City's 2015 Urban Water Management Plan, the City has adequate supplies to meet demands during average, single-dry, and multiple-dry years throughout the 25-year planning period. Imported water supplies are projected to be available in surplus of total demands through 2040.

Floodplain and Flooding. The Unit Y2 Interceptor is located along the North Fork Arroyo Conejo within an unregulated floodplain. The Unit W Interceptor is located along South Fork Arroyo Conejo in a regulatory floodplain within a designated flood hazard area subject to inundation by a 1% annual chance flood event (Flood Insurance Rate Map 06111C0958E).

3.10.2 Impact Analysis

- a. The Project-related operation of equipment in surface waters and use of stream crossings by vehicles would cause short-term turbidity that may exceed the turbidity water quality objective of the Water Quality Control Plan. This surface water quality impact would be minimized by the following Project features:
- Three temporary road crossings would be installed and maintained during the construction period to reduce construction equipment and vehicles from disturbing surface waters of North Fork Arroyo Conejo and generating turbidity.
 - Re-establishment of the historic access road near pipeline Station 11+00 would be conducted during the dry season and would avoid disturbance of surface water.
 - Installation of bank protection at pipeline Station 13+48 would be conducted during the dry season and would avoid disturbance of surface water.

Turbidity increases would be limited to a few hours during installation and removal of temporary road crossings, and short periods following infrequent use of the other two road crossings (near pipeline Stations 19+00 and 22+00). Therefore, water quality impacts are considered less than significant.

- b. The Project would use small amounts of potable water for curing the pipe lining, soil compaction and dust control and would be supplied by existing City connections (likely fire hydrants). This water would be provided by CMWD, from mostly non-groundwater sources. The amount of water used would be relatively small (up to a few thousand gallons a day) and temporary and, as such, would not adversely affect groundwater supplies.
- c. The Project would not alter existing drainage patterns or alter the course of a stream or river. The Project would result in an increase of 0.02 acres of impervious surfaces associated with the proposed pressurized manholes.
1. Installation and removal of the three temporary access road crossings and infrequent use of the other two road crossings (near pipeline Stations 19+00 and 22+00) may result in minor short-term siltation of downstream areas. This impact is considered less than significant due to its short-term, temporary and localized nature.
 2. The very small increase in impervious surfaces and dispersed nature (over three manhole locations) would not result in any perceptible increase in storm water run-off and would not result in any increase in flooding on- or off-site.
 3. The Project site is not served by a storm drain system. Any Project-related increased storm water run-off would not generate additional pollutants.
 4. The proposed bank protection at pipeline Station 13+48 would be designed to not impede or re-direct flood flows. No Project-related changes in flood flows would occur.

- d. The Project site is not located in a flood hazard zone, tsunami inundation hazard zone or seiche hazard area. Proposed manholes and other improvements would be sealed such that inundation of Project components would not result in release of pollutants (municipal wastewater). No Project-related increase in public exposure to flood, tsunami, seiche or water pollutant hazards would occur.
- e. See part a. above regarding conflicts with the Water Quality Control Plan. The local groundwater basin is not subject to a sustainable groundwater management plan.

3.10.3 Mitigation Measures and Residual Impacts

No significant impacts related to hydrology or water quality would result from the Project. Therefore, no mitigation is required.

3.11 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.11.1 Setting

All proposed improvements would be located within the City in areas with a General Plan land use designation of "Existing Parks, Golf Courses, Open Space" and zoned as "Public Land". Proposed improvements to the Unit Y2 Interceptor would occur within the Wildwood Open Space, a 1,732-acre area located in the northwestern portion of the City and owned by the Conejo Open Space Conservation Agency and the Conejo Recreation and Park District. The buried Unit Y2 Interceptor pipeline traverses trails and picnic areas within the Wildwood Open Space and crosses the North Fork Arroyo Conejo five times. Residential areas are located on plateaus above the canyon formed by North Fork Arroyo Conejo to the south and northeast of the Unit Y2 Interceptor.

3.11.2 Impact Analysis

- a. All proposed improvements would be located within the undeveloped canyon bottom and would not divide an established community.
- b. The Project would be consistent with the policies of the City of Thousand Oaks General Plan. However, the Project includes removal of two coast live oak trees protected under City ordinance.

- c. The Project site is not subject to a habitat conservation plan or natural community conservation plan and would not conflict with any such plan.

3.11.3 Mitigation Measures and Residual Impacts

Mitigation for tree removal is provided under the biological resources discussion (Section 3.4.3). Residual impacts would be less than significant.

3.12 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a. Result in the loss or 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"/>

3.12.1 Setting

Aggregate is the only locally important mineral resource and is defined as construction grade sand and gravel. All Project elements would be located in areas mapped as MRZ-3 (cannot evaluate mineral resource significance from available data) by the California Department of Conservation (1993). The nearest aggregate production site is Grimes Rock, located approximately 8.4 miles north of the Unit Y2 Interceptor.

3.12.2 Impact Analysis

- a. The Project site is not located in a mineral resource area and would not hamper the extraction of such resources in the region. Therefore, no impacts to such resources would occur as result of Project implementation.
- b. The Project would not adversely affect the Grimes Rock facility or other mineral resource production sites, or the availability of these mineral resources.

3.12.3 Mitigation Measures and Residual Impacts

No impacts to mineral resources would result from the Project. Therefore, mitigation is not required.

3.13 NOISE

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise 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 ground-borne vibration or ground-borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. For a project 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"/>

3.13.1 Setting

Noise levels are measured on a logarithmic scale due to physical characteristics associated with noise transmission and reception. A doubling of noise energy normally results in a 3.0-decibel (dB) increase in noise levels. The threshold of human hearing is between 0 and 10 dBA. Because of the structure of the human auditory system, a 10-dB increase in noise is perceived as a doubling of noise. A 1- to 2-dB change in ambient noise levels is generally not perceptible to sensitive receptors.

Noise levels diminish (or attenuate) as distance from the source increases based upon an inverse square rule, but the rate of attenuation varies with the type of sound source. Sound attenuates from point sources, such as an industrial facility, at a rate of 6 dB per doubling of distance. Roads typically have an attenuation rate of 4.5 dB per doubling of distance. However, heavily traveled roads with few gaps in traffic are typically characterized as a line source with an attenuation rate of 3-dB per doubling of distance.

The duration of noise and the time period at which it occurs are important factors in determining the impact of noise on sensitive receptors. Noise is more disturbing at night than during the day and noise indices have been developed to account for the varying duration of noise events over time as well as community response to them. The Community Noise Level Equivalent (CNEL) and the Day-Night Average Level (DNL or Ldn) are such indices. These indices use time-weighted average values based on the equivalent sound level (Leq).

The CNEL penalizes noise levels during the night (10 p.m. to 7 a.m.) by 10 dB to account for the increased sensitivity of people to noise during the hours when most people are expected to be resting or sleeping. Evening noise levels (7 p.m. to 10 p.m.) are penalized 5 dB by the CNEL. Appropriately weighted hourly Leqs are then combined over a 24-hour period to result in a CNEL. The Ldn also penalizes nighttime noise levels, but does not penalize evening levels.

People are subject to a multitude of sounds in the urban environment. Excessive noise may not only be undesirable, but may also cause physical and/or psychological damage. The amount of annoyance or damage to sensitive receptors is dependent primarily upon three factors: 1) the amount and nature of the noise; 2) the amount of ambient noise present before the intruding noise; and 3) the activity of the person working or living in the noise source area.

The difficulty in relating noise exposure to public health and welfare is one of the major obstacles in determining appropriate maximum noise levels. Although there has been some dispute in the scientific community regarding the detrimental effects of noise, a number of general conclusions have been reached, including the following:

- Noise of sufficient intensity can cause irreversible hearing damage.
- Noise can produce physiological changes in humans and animals.
- Noise can interfere with speech and other communication.
- Noise can be a major source of annoyance by disturbing sleep, rest, and relaxation.

The noise environment of areas potentially affected by the proposed Project is dominated by traffic noise generated by arterial roadways and highways, including Rancho Conejo Boulevard, Ventu Park Road, Lynn Road, Hillcrest Drive and U.S. Highway 101. Noise sensitive land uses in proximity to the Unit Y2 Interceptor are limited to residential land uses near the western terminus of Lynnmere Drive and Avenida de los Arboles. However, these residential areas are located at least 1,160 feet from the nearest Project component.

Significance Thresholds. Construction activities conducted adjacent to residences between 7 p.m. and 7 a.m. or on a Sunday may result in a significant impact.

Operational noise exceeding the following levels at residential land uses is considered a significant impact based on the City's General Plan Noise Element:

- Project-related increase of greater than 1.0 dBA at residences in areas where the annual average noise level at General Plan build-out would be between 55 and 60 dBA CNEL.
- Project-related increase of greater than 0.5 dBA at residences in areas where the annual average noise level at General Plan build-out would be greater than 60 dBA CNEL.

As per the Noise Element thresholds of significance, Project-related operational (long-term) noise increases (regardless of the magnitude of increase) would not be significant for residential areas where the annual average noise level at General Plan build-out would be less than 55 dBA CNEL.

3.13.2 Impact Analysis

- a. Construction noise would be generated by heavy equipment and heavy-duty trucks associated with proposed improvements. Noise levels at the nearest residence (Lynnmere Drive) associated with manhole construction were estimated using the Roadway Construction Noise Model developed by the Federal Highway Administration. The estimated peak noise level at the nearest residence is 44.0 dBA Leq, which includes 8 dBA barrier attenuation associated with the intervening canyon walls. This noise level is less than the anticipated ambient noise level and would not be perceptible at the nearest residence. In any case, construction activities are not planned after 7 p.m. or on a Sunday. Operational noise increases are limited to periodic maintenance of the re-established access road, which also would not be perceptible at the nearest residence. Overall, Project-related noise increases would be less than significant.
- b. Project construction (primarily earthwork) and operation (periodic access road maintenance) would generate ground-borne noise and vibration; however, this noise and vibration would not be detectable at any occupied structures as they are at least 1,160 feet from areas of any proposed earthwork. Therefore, Project-related ground-borne noise and vibration would be less than significant.
- c. The Project is not located in an area addressed in an airport land use plan, nor is it within two miles of any public airport or public use airport. Therefore, no impacts are expected.

3.13.3 Mitigation Measures and Residual Impacts

No significant noise impacts would result from the Project. Therefore, mitigation is not required.

3.14 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<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"/>

3.14.1 Setting

The proposed improvements would occur within the City of Thousand Oaks. Housing inventories is regulated in part through implementation of development projects consistent with the City's General Plan.

3.14.2 Impact Analysis

- a. The proposed Project would increase the reliability of the existing Unit Y2 Interceptor in transporting municipal wastewater to the HCTP. The Project would not extend wastewater collection infrastructure to new areas or users. Therefore, the Project is not expected to result in population growth beyond currently forecast levels.
- b. As all Project components would be located within the undeveloped canyon bottom, no people or housing would be displaced by the proposed facilities and construction of replacement housing would not be necessary.

3.14.3 Mitigation Measures and Residual Impacts

No significant impacts to population or housing would result from the Project, therefore, no mitigation is required.

3.15 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.15.1 Impact Analysis

- a. The Project area (including the HCTP) is served by Station 52 of the Ventura County Fire Department located at 5353 Santa Rosa Road. The proposed Project does not include any new facilities requiring fire protection.

The Ventura County Sheriff's Department provides law enforcement services to the City of Thousand Oaks, including City and County residential areas near the Unit Y2 Interceptor. The proposed Project does not include any new facilities requiring police protection.

The Project would not provide housing or increase the local population. Therefore, no impacts to schools, parks and other public facilities or increased demand for such facilities would occur.

3.15.2 Mitigation Measures and Residual Impacts

No impacts to public services would result from the Project. Therefore, no mitigation is necessary.

3.16 RECREATION

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.16.1 Setting

Facilities. The Unit Y2 Interceptor is located within the Wildwood Open Space, a 1,732-acre area located in the northwestern portion of the City and owned by the Conejo Open Space Conservation Agency (621 acres) and the Conejo Recreation and Park District (1,111 acres). The buried Unit Y2 Interceptor pipeline traverses trails and picnic areas within the Wildwood Open Space and crosses the North Fork Arroyo Conejo five times. Trails adjacent to the Unit Y2 Interceptor include Lizard Rock, Eagle Point, Wildwood Canyon and Teepee. Excluding the Eagle Rock Trail, these trails are heavily used with several hundred hikers using them on a peak day.

Other recreational facilities in the Project vicinity include:

- Rancho Conejo Playfield: located on Ventu Park Road at Lawrence Drive; includes baseball fields, soccer fields and tennis courts.
- Wildflower Playfield: located north of Avenida de los Arboles at Canna Street; includes baseball fields, soccer fields, tennis courts and skate park.
- Wildwood Neighborhood Park: located south of Avenida de los Arboles at Canna Street; includes playground equipment and grassy area.

Significance Thresholds. Significance thresholds for recreation impacts are taken from the State CEQA Guidelines, which indicate a project may have a significant impact with respect to recreation if it results in any of the following:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration would occur or be accelerated.

- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

In addition, project-related activities that would substantially modify or restrict public use of a recreational facility is considered a significant impact.

3.16.2 Impact Analysis

- a. The Project would not result in population growth and would not increase the use of existing neighborhood or regional parks, or any other recreational facilities. As such, the Project would not result in the accelerated physical deterioration of any recreational facilities. However, construction-related access to the Project site would require the operation of heavy-duty trucks and heavy equipment on public recreational trails. This activity may result in physical deterioration of these trail facilities. In addition, Project construction would require periodic trail and picnic area closures to allow access to the Project site and construct proposed improvements.
- b. The Project would not involve the construction or expansion of any recreational facilities. Thus, the Project would not have any impacts on the physical environment associated with the construction or use of recreational facilities.

3.16.3 Mitigation Measures and Residual Impacts

The following mitigation measures are provided to repair Project-related trail deterioration and minimize loss of use of trails and picnic areas. Residual impacts would be less than significant with implementation of the mitigation measures.

- Trails shall be returned to pre-construction conditions within 60 days of the completion of construction with regard to gradient, topography and soil texture (without imported gravel or rock), except where trails comprise the re-established access road.
- Trail, picnic area and campground closures shall be minimized and these areas re-opened on weekends and other periods when construction work is not ongoing, when safe to do so.

3.17 TRANSPORTATION

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Would the project conflict with 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 uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.17.1 Setting

The Project site would be accessed from Hill Canyon Road and Avenida de los Arboles (see Figure 1).

3.17.2 Impact Analysis

- a. The Project does not include any land uses that may create demand for transportation facilities and would not conflict with local or regional transportation planning.
- b. The Project would generate construction and periodic maintenance-related vehicle trips, vehicle miles traveled and associated climate change and air quality impacts and potential traffic safety impacts. However, it is not a land use or transportation project and new vehicle miles traveled would be limited (about 40,000 miles over eight months) and temporary. Therefore, the Project is consistent with Section 15064.3 of the State CEQA Guidelines.
- c. The Project would not involve any changes to roadways or incompatible uses of existing roadways; therefore, Project-related increases in traffic hazards are not anticipated.
- d. The Project would not require emergency services or create conditions that would impede emergency access for adjacent land uses.

3.17.3 Mitigation Measures and Residual Impacts

No significant impacts associated with transportation would result from the Project; therefore, no mitigation is necessary.

3.18 TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, scared place, or object with cultural value to a California Native American tribe that is:				
1. Listed or eligible for listing in the California Register of Historic Resources, or in the local register of historic resources as defined in Public Resources Code Section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to subdivision c. of Public Resources Code Section 5024.1 In applying the criteria set forth in subdivision c. of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.18.1 Setting

See Section 3.5.1.

3.18.2 Impact Analysis

- a.** The cultural resources record search conducted for the Project (see Section 3.5.1) did not identify any historic, archeological or tribal cultural resources in proximity to the Project site. Therefore, no adverse effects to such resources would occur.

3.18.3 Mitigation Measures and Residual Impacts

No significant impacts associated with tribal cultural resources would result from the Project; therefore, no mitigation is necessary.

3.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a. Require or result in the construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<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 development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 type="checkbox"/>	<input checked="" type="checkbox"/>
e. Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.19.1 Impact Analysis

- a. The Project would not require the construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas or telecommunications facilities.
- b. Small amounts of potable water would be used during construction. However, this temporary consumption would not affect the City's ability to meet the demand for existing and reasonably foreseeable development.
- c. The Project would generate a small amount of wastewater as a result of curing the proposed pipe lining. Such wastewater would be disposed at an existing facility and would not affect the capacity of any wastewater treatment provider.
- d. A small amount of solid waste would be generated by Project construction, primarily packaging materials. These materials would be recycled to the extent feasible and would not affect the capacity of local landfills or impair attainment of State-mandated solid waste reduction goals.
- e. The City complies with all federal, state and local statutes relating to solid waste, and would continue to do so during the construction and operation of Project improvements. As such, no impacts of this type are expected to result.

3.19.2 Mitigation Measures and Residual Impacts

No significant impacts related to utilities and service systems would result from the Project; therefore, no mitigation is necessary.

3.20 WILDFIRE

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project?				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.20.1 Setting

The Project site is located within a Very High Fire Hazard Severity Zone designated by the California Department of Forestry and Fire Protection.

3.20.2 Impact Analysis

- a. The Project site is located in an undeveloped canyon bottom and would not affect emergency response to other land uses or impair implementation of any emergency response or evacuation plan.
- b. The Project would not involve any habitable structures and would not have any occupants. Proposed improvements would be constructed of non-flammable materials (concrete, steel, rock) and would not increase the potential for uncontrolled wildfire spread or increase the risk of loss, injury or death from wildland fires.

3.20.3 Mitigation Measures and Residual Impacts

No significant impacts related to wildfire would result from the Project; therefore, no mitigation is necessary.

4.0 CUMULATIVE IMPACTS

Cumulative impacts are defined as two or more individual effects which, when considered together are considerable, or which compound or increase other environmental impacts. Under Section 15064 of the State CEQA Guidelines, the lead agency (City) must identify cumulative impacts, determine their significance and determine if the effects of a project are cumulatively considerable.

4.1 DESCRIPTION OF CUMULATIVE PROJECTS

4.1.1 Ventura County

The Ventura County Resource Management Agency pending project list and recently approved project list (dated October 5, 2020) were reviewed to identify other projects in nearby County jurisdictional areas (Lynn Ranch, Santa Rosa Valley) that would result in a substantial physical change to the environment. These projects are limited to:

- PL20-0100 (2690 Duval Road, Camarillo): new 2,000 square foot stable (under review).

4.1.2 City of Thousand Oaks

The following projects that would result in a substantial physical change to the environment are under review or recently approved as listed in the City's Development Activity Report for October 2020:

- Specific Plan at 1872 Newbury Road: 218 multi-family residential units and 120 room hotel (approved).
- Industrial buildings at 1515 Rancho Conejo Boulevard: two new 181,958 square foot industrial buildings (under review).
- Hotel expansion at 880 S. Westlake Boulevard: new wing with 68 rooms (approved).
- Tennis club expansion at 4761 Valley Spring Road: 13,354 square foot replacement clubhouse, new tennis court and swimming pool (approved)
- Single-family development at Lynn Road/Kelley Road intersection; 11 new single-family dwelling units (under review).
- Townhome project at 3190 Los Robles Road: two new townhomes (approved).
- Retail project at 971 S. Westlake Boulevard: new 6,000 square foot retail building (approved).
- Mixed use development at 325 Hampshire Road: 175,000 square foot mixed use and 420 multi-family residential units (under review).
- Apartment project at Rancho Conejo Boulevard/Corporate Center Drive intersection: 45 multi-family residential units (under review).
- Apartment project at 59 Moody Court: four multi-family residential units (under review).

- Apartment project at Erbes Road near Thousand Oaks Boulevard: 22 multi-family residential units (under review).
- Townhome project at 2821 Los Robles Road: four multi-family residential units (under review).
- Apartment project at 3801 Maurice Drive: 37 multi-family residential units (under review).
- Mixed use project at 515 E. Thousand Oaks Boulevard: 4,000 square feet of retail space and 30 multi-family residential units (under review).
- Apartment project west of Rancho Conejo Boulevard/Corporate Center Drive intersection: 26 multi-family residential units (under review).
- Residential project on north side of Skyline Drive: five new single-family residential units (under review).
- Apartment project at 111 Jensen Court: five multi-family residential units (under review).
- Townhome project at 1816 Los Feliz Drive: seven multi-family residential units (under review).
- Commercial project at 4500 E. Thousand Oaks Boulevard: 10,000 square foot commercial building (under review).
- Coffee shop at 2198 N. Moorpark Road: 850 square-foot building with parking (under review).
- Porsche dealership at 3839 Auto Mall Drive: new 126,195 square foot dealership (under review).
- New hotel at 139 W. Thousand Oaks Boulevard: new four-story hotel (under review).
- New gym at 350 West Hillcrest Drive: new 92,442 square foot building (under review).
- Church expansion at 200 Bethany Court: 34,630 square foot addition (under review).
- College expansion at 130 Memorial Parkway: new 28,471 square foot building at California Lutheran University (under review).

4.2 DISCUSSION OF CUMULATIVE IMPACTS

4.2.1 Aesthetics

The minor degradation of visual quality associated with the proposed Project would not incrementally contribute to aesthetics impacts of the cumulative projects, because they could not be viewed from the same area. Cumulative aesthetic impacts are considered less than significant.

4.2.2 Air Quality

Construction-related and maintenance-related air pollutant emissions associated with the Project would incrementally contribute to air emissions of the cumulative projects. However, mitigation measures have been provided such that the Project's incremental contribution to cumulative air quality impacts would not be considerable.

4.2.3 Biological Resources

Habitat loss and disturbance associated with the Project would incrementally contribute to loss of wildlife habitat of the cumulative projects. However, with implementation of proposed mitigation, the Project's incremental contribution to cumulative impacts to biological resources would not be considerable.

4.2.4 Cultural Resources

The cumulative projects identified in Section 4.1 may adversely impact cultural resources, and the Project has the potential to incrementally contribute to cumulative impacts to archeological resources. However, mitigation measures have been provided such that the Project's incremental contribution to cumulative cultural resources impacts would not be considerable.

4.2.5 Geology and Soils

The cumulative projects identified in Section 4.1 may result in significant seismic-related hazards, landslides, soil erosion, loss of topsoil, lateral spreading, expansive soil damage and have significant septic system limitations. However, these other projects would not affect the Project site such that impacts would not be additive. The Project contribution would be minor and limited to the undeveloped Project site. The Project's incremental contribution to cumulative geology and soils impacts would not be considerable.

4.2.6 Greenhouse Gas Emissions

By their nature and potential global effects, greenhouse gas emissions are a cumulative issue. The Project would generate greenhouse gas emissions during construction and operation, which would incrementally contribute to cumulative impacts. However, Project emissions would be much less than any suggested threshold and are considered less than significant on a cumulative basis.

4.2.7 Water Resources

Potential construction-related surface water quality degradation associated with the Project may incrementally contribute to water quality impacts of cumulative projects that drain to North Fork Arroyo Conejo. The Project contribution would be minor such that the incremental contribution to cumulative water quality impacts would not be considerable.

4.2.8 Noise

Construction-related noise associated with the cumulative projects would not be additive, because they would not affect the same noise receptors. Project-related noise would not be perceptible at nearby land uses. Therefore, the incremental contribution to cumulative noise impacts would not be considerable.

4.2.9 Transportation

Construction-related and maintenance-related vehicle trips and miles travelled would be minor and consistent with local transportation planning. Therefore, the Project's incremental contribution to transportation impacts would not be cumulatively considerable.

5.0 MANDATORY FINDINGS OF SIGNIFICANCE

MANDATORY FINDINGS OF SIGNIFICANCE --	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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"/>
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a. The Project would temporarily degrade habitat for fish and wildlife and may adversely affect unreported buried archeological resources. However, measures have been incorporated into the Project to prevent significant impacts to these resources.
- b. The incremental cumulative impacts of the Project (as mitigated) would not be cumulatively considerable.
- c. The Project may result in adverse impacts related to aesthetics, air quality, hazardous materials, hazards, water quality and noise. However, impacts would be less than significant or measures have been incorporated into the Project to avoid and/or minimize impacts.

6.0 DETERMINATION OF ENVIRONMENTAL DOCUMENT

On the basis of this evaluation:

- ☐ I find the Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION should be prepared.
- ☒ I find that although the Project could have a significant impact on the environment, there will not be a significant effect with the implementation of mitigation measures described in this Initial Study. A MITIGATED NEGATIVE DECLARATION should be prepared.
- ☐ I find the Project, individually and/or cumulatively, MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.



12/14/2020

Signature of Person Responsible for Administering the Project

Date

7.0 REFERENCES

- Atkins 2012. *Simi Valley General Plan Environmental Impact Report*. SCH No. 2009121004. Prepared by Atkins. Prepared for City of Simi Valley, Department of Environmental Services.
- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti and D.H. Wilken. 2012. *The Jepson Manual, Vascular Plants of California*. University of California Press. Berkeley, CA.
- Bean, L. J. 1974. *Social Organization in Native California*. In Antap: California Indian Political and Economic Organization. Anthropological Papers 2:93-110. Ballena Press, Ramona.
- Bean, W. 1968. *California: An Interpretive History*. McGraw Hill Book Company, New York.
- Begun, R. 2006. *The Newburys of Newbury Park*. Conejo Valley Historical Society, California.
- Bidwell, C. A. 1989. *The Conejo Valley: Old and New Frontiers*. Windsor Publications, Conejo Valley, California.
- Bolton, H. E. 1926. *Captain Portola in San Luis Obispo County 1769*. Tabula Rasa Press, Morro Bay, California.
- Bramlet, D. 1997. *Botanical Survey of the Tram Road Study Area*. Memorandum to Carl Thelander, regarding the Hill Canyon Regional Recreational Facility.
- Browning, P. (Editor) 1992. *The Discovery of San Francisco Bay - The Portolá Expedition of 1769 – 1770: The Diary of Miguel Costansó*. Great West Books, Lafayette, California.
- California Department of Conservation, Division of Mines and Geology. 1993. *Update of Mineral Land Classification of Portland Cement Concrete Aggregate in Ventura, Los Angeles and Orange Counties, California. Part 1-Ventura County*. DMG Open File Report 93-10.
- California Department of Conservation, Division of Mines and Geology. 2002. *Seismic Hazard Report for the Newbury Park 7.5-minute quadrangle, Ventura County, California*.
- California Department of Water Resources. 2004. *California's Groundwater, Bulletin 118*.
- California Natural Diversity Database (CNDDDB). 2020. RAREFIND query results for the Thousand Oaks and Newbury Park 7.5' Quadrangles. California Department of Fish and Wildlife. Sacramento, CA.
- California Regional Water Quality Control Board, Los Angeles Region (RWQCB). 1994 (revised 2013). *Water Quality Control Plan Los Angeles Region*.
- California Regional Water Quality Control Board, Los Angeles Region. 2010. *Order R4-2010-0108 NPDES Permit no. CAS004002 Waste Discharge Requirements for Storm Water (Wet Weather) and Non-Storm Water (Dry Weather) Discharges from the Municipal Separate Storm Sewer Systems within Ventura County Watershed Protection District, County of Ventura and the Incorporated Cities Therein*.
- California Department of Transportation (Caltrans). 2013. *Transportation and Construction Vibration Guidance Manual*.

- California Native Plant Society (CNPS). 2020. On-line CNPS Inventory of rare and endangered plants.
- CDM Smith. 2016. *City of Thousand Oaks Groundwater and Reclaimed Water Study*.
- Center for Advanced Technology in Education (CATE). 2000. *The Web de Anza Project*. Center for Advanced Technology in Education, College of Education, University of Oregon. Electronic Document, <http://anza.uoregon.edu/default.html>, accessed August 1, 2014.
- Conejo Valley Guide. 2018. *Voters Chose to Incorporate the City of Thousand Oaks Over the City of Conejo in a September 29, 1964 Special Election*. Conejo Valley Guide "Welcome" Blog Archive. Electronic resource: <https://www.conejovalleyguide.com/welcome/voters-chose-to-incorporate-the-city-of-thousand-oaks>. Accessed April 10, 2019.
- Chalquist, C. 2008. *Deep California: Images and Ironies of Cross and Sword on El Camino Real*. Published by iUniverse, Inc., New York.
- Chartkoff, J. L. and Chartkoff, K. K. 1984. *The Archaeology of California*. Stanford University Press, Stanford, California.
- Conejo Open Space Conservation Agency. 2017. *Bird Checklist*. Developed in coordination with the Conejo Valley Audubon Society.
- Dibblee, T.W., Jr. and H.E. Ehrenspeck. 1990. *Geologic Map of the Camarillo and Newbury Park Quadrangles, Ventura County, California, DF-28*.
- Edelman, P. 1990. *Critical Wildlife Corridor/Habitat Linkage Areas between the Santa Susana Mountains, the Simi Hills and the Santa Monica Mountains*. Prepared for The Nature Conservancy.
- Edwards, R.D., D.F. Rabey and R.W. Kover. 1970. *Soil Survey of the Ventura Area, California*. Prepared for the U.S. Department of Agriculture.
- Environmental Laboratory. 1987. Corps of Engineers Wetland Delineation Manual. (Technical Report Y-87-1). Vicksburg, LA.
- Environmental Laboratory. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (ERDC/EL TR-08-28).
- Federal Highway Administration. 2006. *FHWA Roadway Construction Noise Model User's Guide*.
- Garrett, Kimball and Jon Dunn. 1981. *Birds of Southern California, Status and Distribution*. Los Angeles Audubon Society. Los Angeles, CA.
- Golla, V. 2007. *Linguistic Prehistory. California Prehistory*. T. L. Jones and K. A. Klar, eds., AltaMira Press, Lanham, Maryland.
- Greenwood, R.S. 1978. *Obispeño and Purisimeño Chumash*. In Volume 8, California, Handbook of North American Indians. Edited by Robert F. Heizer. Smithsonian Institution, Washington.
- Hall, E.R. 1981. *The Mammals of North America*. John Wiley & Sons. New York, NY.

- Hanson R.T., P. Martin and K.M. Koczot. 2003. *Simulation of Ground-Water/Surface-Water Flow in the Santa Clara-Calleguas Basin, Ventura County, California*. U.S. Geological Survey Water-Resources Investigations Report 02-4136.
- HDR, Inc. 2019. *Preliminary Design Report City of Thousand Oaks Unit Y2 Wastewater Interceptor Rehabilitation (CI 5328)*.
- Hoffman, O. 1862. *Reports of Land Cases Determined in the United States District Court for the Northern District of California*; Numa Hubert, San Francisco.
- Hoover, R. 1986. *Archaeological Survey Report for the Proposed Shell-Union Oil Pipeline Connection, Price Canyon Facility*. On file, Central Coast Information Center, Department of Anthropology, University of California, Santa Barbara.
- Impact Sciences, 2011. *Thousand Oaks Boulevard Specific Plan: Final Environmental Impact Report, Volume I*. Prepared by Impact Sciences, Inc., Camarillo, California for the City of Thousand Oaks Community Development Department.
- Kennedy/Jenks Consultants. 2016. *Final 2015 Urban Water Management Plan for City of Thousand Oaks*.
- Kroeber, A. L. 1925. *Handbook of the Indians of California*. Bulletin 78 of the Bureau of American Ethnology of the Smithsonian Institution, Government Printing Office, Washington. Republished in 1976 by Dover Publications, Inc., New York.
- Landberg, L. C. W. 1965. *The Chumash Indians of Southern California*. Southwest Museum Papers No. 19. Southwest Museum, Los Angeles.
- Lebow, C., Baloian, M., Harro, D., McKim, R., Denardo, C., Onken, J., Romanski, E., and Price, B. 2001. *Final Report of Archaeological Investigations for Reaches 5B and 6, Coastal Branch Aqueduct, Phase II*. Prepared for Central Coast Water Authority. E-2740/E-4472.
- Lieberstein, T. 1987. *Wildlife Corridor Design: A Case Study for Los Angeles and Ventura Counties*. Part III in a Series-Biogeography and the Zoo.
- LSA Associates, Inc. 1996. *Updated Biological Constraints Analysis, Hill Canyon Regional Recreational Facility*. Prepared for Gold Dimensions.
- Maxwell, T. 1975. *Archaeological Site Record: CA-VEN-483*.
- McCormack, D. 2000. *Santa Barbara and Ventura 2001*. McCormack's Guides, California.
- Maulhardt, J. W. 2011. *Jungleland. Images of America Series*. Arcadia Publishing, California.
- Moyle, P., R. Quinones and J. Katz. 2015. *Fish Species of Special Concern of California*. California Department of Fish and Wildlife. Sacramento, CA.
- Murphy, A. L. 1979. *A Comprehensive Story of Ventura County, California*. M&N Printing, Oxnard.
- O'Brien, T. 2017. *Thousand Oaks and Westlake Village*. Images of America Series. Arcadia Publishing, California.

- Oakridge Geoscience, Inc. 2019. *Geotechnical Desktop Study, City of Thousand Oaks Wastewater Interceptor CIP Unit Y2 (CI 5328), Thousand Oaks, California.*
- Padre Associates, Inc. 1998. *Environmental Impact Report for the Unit W & Unit F Interceptor Reconstruction Project.* Prepared for the City of Thousand Oaks.
- Padre Associates, Inc. 1999. *Supplemental Environmental Impact Report for the Unit W Interceptor Phase II Reconstruction Project.* Prepared for the City of Thousand Oaks.
- Padre Associates, Inc. 2004. *Year 5 Monitoring Report for On-Site Mitigation for Phase I of the Unit W Interceptor Reconstruction Project.* Prepared for the City of Thousand Oaks.
- Padre Associates, Inc. 2009. *Project Completion Report for the Mesa Feeder Crossing Relocation Project in the South Branch Arroyo Conejo, in the City of Thousand Oaks, Ventura County, California.* Prepared for the Calleguas Municipal Water District.
- Padre Associates, Inc. 2014. *Initial Study Biological Assessment for Tentative Tract 4410, Santa Rosa Valley.* Submitted to Ventura County Planning Division.
- Padre Associates, Inc. 2018. *Biological Baseline Assessment Conejo Canyons Bridge Project, Thousand Oaks, California.* Prepared for the Conejo Open Space Conservation Agency.
- Penrod K., C. Cabanero, P. Beier, C. Luke, W. Spencer, E. Rubin, R. Sauvajot, S. Riley and D. Kamradt. 2006. *South Coast Missing Linkages Project: A Linkage Design for the Santa Monica-Sierra Madre Connection.*
- Priestley, H. I. 1937. *A Historical, Political, and Natural Description of California by Pedro Fages, Written for the Viceroy in 1775.* Translated by Herbert Ingram Priestley. University of California Press, Berkeley.
- Sampson, M. 2013. *Humaliwo: An Ethnographic Overview of the Chumash in Malibu.* California Department of Parks and Recreation. Electronic Document, http://www.parks.ca.gov/?page_id=24435, accessed July 18, 2019.
- Sawyer, J.O., T. Keeler-Wolf and J.M. Evens. 2009. *A Manual of California Vegetation (Second Edition).* California Native Plant Society.
- Shuford, W.D. and T. Gardali, editors. 2008. *California Bird Species of Special Concern.* Published by Western Field Ornithologists and California Department of Fish and Wildlife.
- Simi Valley Historical Society (SVHS). 2016. *History of Simi Valley.* Electronic Document, <http://www.simihistory.com/#!/history/c161y>. Accessed on May 12, 2016.
- State Water Resources Control Board. 2016. *2014/2016 Clean Water Act 303(d)List/305(b) Report.*
- Thomson, R., A. Wright and H. Bradley Shaffer. 2016. *California Amphibian and Reptile Species of Special Concern.* California Department of Fish and Wildlife. Sacramento, California.
- Thousand Oaks, City. 1974. *Thousand Oaks General Plan Scenic Highways Element.*
- Thousand Oaks, City. 2013a. *Thousand Oaks General Plan Conservation Element.*
- Thousand Oaks, City. 2013b. *Thousand Oaks General Plan Open Space Element.*

- Thousand Oaks, City. 2014. *Thousand Oaks General Plan Safety Element*.
- Thousand Oaks, City. 2018. *Sustainability Plan for Municipal Operations*.
- Triem, J. 1985. *Ventura County, Land of Good Fortune*. Windsor Publications, Chatsworth, California.
- URS Corporation. 2005. *Cultural Resources Technical Report, Conejo Fire Mitigation, Conejo Recreation and Parks District, FEMA-1498-DR-CA, HMGP #1498-98-36*. Prepared for the Federal Emergency Management Agency.
- Ventura County Air Pollution Control District. 2003. *Air Quality Assessment Guidelines*.
- Ventura County Air Pollution Control District. 2017. *2016 Air Quality Management Plan*.
- Ventura County Resource Management Agency. 1988a. *Ventura County General Plan, Hazards Appendix (with amendments through 2013)*.
- Ventura County Resource Management Agency. 1988b. *Ventura County General Plan, Goals, Policies and Programs. (with amendments through 2019)*.
- Ventura County Resource Management Agency. 1988c. *Ventura County General Plan, Resources Appendix (with amendments through 2019)*.
- Ventura County Resource Management Agency. 2005. *Final Subsequent Environmental Impact Report for Focused General Plan Update*.
- Ventura County Resource Management Agency. 2011. *County of Ventura Initial Study Assessment Guidelines*.
- Ventura County Watershed Protection District. 2006. Memorandum from Pam Lindsey to Antal Szijj, U.S Army Corps of Engineers, dated August 16, 2006.
- Whitley, D. S. and Beaudry, M. P. 1991. *Chiefs on the Coast: Developing Chiefdoms in the Tiquisate Region in Ethnographic Perspective*. In *Development of Complex Societies in Southeastern Mesoamerica*, edited by W. Fowler. CRC Press, Boca Raton, Florida.
- Whitley, D. S. and Clewlow, Jr., C. W. 1979. *The Organizational Structure of the Lulapin and Humaliwo*. In *The Archaeology of Oak Park, Ventura County, California*. Volume 3, edited by C. W. Clewlow and D. S. Whitley. Institute of Archaeology, Monograph 11. University of California, Los Angeles.
- Wiley, H. I. 1886. Report of the Surveyor-General of the State of California from August 1, 1884, to August 1, 1886. Sacramento State Printing Office, Sacramento, California.
- Williams, D. 1986. *Mammalian Species of Special Concern in California*. California Department of Fish and Game, Wildlife Management Division, Administrative Report 86-1. Sacramento, CA.
- Wlodarski, R. J. 1988. *An Archaeological Reconnaissance Report for Portions of Land Located within the Northeast Industrial Assessment District, City of Oxnard, Ventura County, California*. Prepared by Historical, Environmental, Archaeological, Research, Team. Prepared for the City of Oxnard.

- Woodard & Curran. 2020. *Groundwater Management Plan*. Prepared for the City of Thousand Oaks.
- W & S Consultants. 1997. *Phase I Archaeological Survey and Cultural Resources Assessment for the Northwest Golf Course Community Specific Plan Study Area, Oxnard, Ventura County, California*. Prepared for Impact Sciences, Inc.
- Zeiner, David C., William F. Laudenslayer, Jr. and Kenneth E. Mayer. 1988. *California's Wildlife, Volume I, Amphibians and Reptiles*. California Department of Fish and Game. Sacramento, CA.
- Zeiner, David C., William F. Laudenslayer, Jr., Kenneth E. Mayer, and Marshall White. 1990a. *California's Wildlife, Volume II, Birds*. California Department of Fish and Game. Sacramento, CA.
- Zeiner, David C., William F. Laudenslayer, Jr., Kenneth E. Mayer, and Marshall White. 1990b. *California's Wildlife, Volume III, Mammals*. California Department of Fish and Game. Sacramento, CA.

APPENDIX A

VASCULAR PLANTS OBSERVED ALONG THE UNIT Y2 INTERCEPTOR, VENTURA COUNTY, CALIFORNIA

Appendix A

Vascular Plant Flora Observed along the Unit Y2 Interceptor, Ventura County, California

Scientific Name	Common Name	Habit	Family	Wetland Status	Invasiveness Rating
<i>Acacia longifolia</i> *	Sydney golden wattle	S	Fabaceae	*	
<i>Acmispon americanus</i>	Spanish clover	AH	Fabaceae	*	
<i>Acmispon glaber</i> var. <i>glaber</i>	Deerweed, California broom	PH	Fabaceae	*	
<i>Acmispon maritimus</i> var. <i>maritimus</i>	Coastal lotus	AH	Fabaceae	*	
<i>Acourtia microcephala</i>	Acourtia	PH	Asteraceae	*	
<i>Alnus rhombifolia</i>	White alder	T	Betulaceae	FACW	
<i>Ambrosia psilostachya</i>	Western ragweed	PH	Asteraceae	FACU	
<i>Amsinckia menziesii</i>	Common fiddleneck	AH	Boraginaceae	*	
<i>Anemopsis californica</i>	Yerba mansa	PH	Sauraceae	OBL	
<i>Apium graveolens</i> *	Celery	AH	Apiaceae	*	
<i>Artemisia californica</i>	California sagebrush	S	Asteraceae	*	
<i>Artemisia douglasiana</i>	Mugwort	PH	Asteraceae	FAC	
<i>Atriplex semibaccata</i> *	Australian saltbush	PH	Chenopodiaceae	FAC	Moderate
<i>Avena barbata</i> *	Slender wild oats	AG	Poaceae	*	Moderate
<i>Baccharis pilularis</i>	Coyote brush	S	Asteraceae	*	
<i>Baccharis salicifolia</i>	Mulefat	S	Asteraceae	FAC	
<i>Brassica nigra</i> *	Black mustard	AH	Brassicaceae	*	Moderate
<i>Brickellia californica</i>	California brickellbush	S	Asteraceae	FACU	
<i>Bromus catharticus</i> *	Rescue grass	AG	Poaceae	*	
<i>Bromus diandrus</i> *	Ripgut grass	AG	Poaceae	*	Moderate
<i>Bromus hordeaceus</i> *	Soft chess	AG	Poaceae	FACU	Limited
<i>Bromus madritensis</i> ssp. <i>rubens</i> *	Red brome	AG	Poaceae	UPL	High
<i>Calystegia macrostegia</i> ssp. <i>cyclostegia</i>	Chaparral morning glory	PV	Convolvulaceae	*	
<i>Camissoniopsis micrantha</i>	Evening primrose	AH	Onagraceae	*	
<i>Capsella bursa-pastoris</i> *	Shepherd's purse	AH	Brassicaceae	FACU	
<i>Cardamine oligosperma</i>	Bitter-cress	AH	Brassicaceae	FAC	
<i>Carduus pycnocephalus</i> *	Italian thistle	AH	Asteraceae	*	Moderate
<i>Centaurea melitensis</i> *	Tocalote	AH	Asteraceae	*	Moderate
<i>Cercocarpus betuloides</i> var. <i>betuloides</i>	Birch-leaf mountain mahogany	S	Rosaceae	*	
<i>Chenopodium album</i> *	Lamb's quarters	AH	Chenopodiaceae	FACU	
<i>Chenopodium californicum</i>	California goosefoot	PH	Chenopodiaceae	*	
<i>Chorizanthe staticoides</i>	Turkish rugging	AH	Polygonaceae	*	
<i>Cirsium occidentale</i> var. <i>californicum</i>	Cobweb thistle	BH	Asteraceae	*	
<i>Clarkia unguiculata</i>	Elegant clarkia	AH	Onagraceae	*	
<i>Claytonia perfoliata</i>	Miner's lettuce	AH	Montiaceae	FAC	
<i>Conium maculatum</i> *	Poison hemlock	PH	Apiaceae	FACW	Moderate
<i>Convolvulus arvensis</i> *	Bind-weed	PV	Convolvulaceae	*	
<i>Cordylanthus rigidus</i> ssp. <i>setigerus</i>	Bird's beak	AH	Orobanchaceae	*	
<i>Corethrogyne filaginifolia</i>	California aster	PH	Asteraceae	*	
<i>Cotula australis</i> *	Australian cotula	AH	Asteraceae	FAC	
<i>Cryptantha muricata</i> var. <i>muricata</i>	Popcorn flower	AH	Boraginaceae	*	
<i>Cuscuta campestris</i>	Dodder	PV	Convolvulaceae	*	
<i>Cynodon dactylon</i> *	Bermuda grass	PG	Poaceae	FACU	Moderate
<i>Cyperus involucratus</i> *	Flat-sedge	PH	Cyperaceae	FACW	
<i>Dudleya lanceolata</i>	Lanceleaf dudleya	PH	Crassulaceae	*	
<i>Dudleya parva</i>	Conejo dudleya	PH	Crassulaceae	*	
<i>Dudleya pulverulenta</i>	Chalk dudleya	PH	Crassulaceae	*	
<i>Eleocharis parishii</i>	Parish's spike-rush	PH	Cyperaceae	FACW	
<i>Elymus condensatus</i>	Giant wild rye	PG	Poaceae	*	
<i>Encelia californica</i>	California bush sunflower	S	Asteraceae	*	
<i>Erigeron foliosus</i> var. <i>foliosus</i>	Flea-bane	PH	Asteraceae	*	
<i>Eriogonum crocatum</i>	Conejo buckwheat	S	Polygonaceae	*	
<i>Eriogonum elongatum</i> var. <i>elongatum</i>	Wand buckwheat	S	Polygonaceae	*	
<i>Eriogonum fasciculatum</i> var. <i>fasciculatum</i>	California buckwheat	S	Polygonaceae	*	
<i>Eriogonum cinereum</i>	Ashy-leaf buckwheat	S	Polygonaceae	*	
<i>Eriophyllum confertiflorum</i>	Golden yarrow	S	Asteraceae	*	
<i>Erodium cicutarium</i> *	Redstem filaree	AH	Geraniaceae	*	Limited
<i>Erysimum capitatum</i> var. <i>capitatum</i>	Western wallflower	PH	Brassicaceae	*	
<i>Eucrypta chrysanthemifolia</i> var. <i>chrysanthemifolia</i>	Eucrypta	AH	Boraginaceae	*	
<i>Euphorbia</i> [Chamaesyce] <i>albomarginata</i>	Rattlesnake weed	PH	Euphorbiaceae	*	
<i>Euphorbia peplus</i> *	Petty spurge	AH	Euphorbiaceae	*	
<i>Euthamia occidentalis</i>	Western goldenrod	PH	Asteraceae	FACW	
<i>Festuca arundinacea</i> *	Tall fescue	PG	Poaceae	*	Moderate
<i>Festuca myuros</i> *	Rat-tail fescue	AG	Poaceae	*	Moderate
<i>Foeniculum vulgare</i> *	Sweet-fennel	PH	Apiaceae	*	Moderate
<i>Fraxinus pennsylvanicus</i> *	Green ash	T	Oleacea	FACW	
<i>Fraxinus velutina</i>	Velvet ash	T	Oleacea	FAC	
<i>Galium angustifolium</i>	Bedstraw	PH	Rubiaceae	*	
<i>Galium aparine</i>	Goose grass	AH	Rubiaceae	FACU	
<i>Geranium molle</i> *	Wild geranium	AH	Geraniaceae	*	
<i>Glycyrrhiza lepidota</i>	Wild licorice	PH	Fabaceae	FAC	
<i>Helminthotheca echioides</i> *	Bristly ox-tongue	AH	Asteraceae	FAC	Limited
<i>Hesperoyucca whipplei</i>	Our lord's candle	S	Agavaceae	*	
<i>Heteromeles arbutifolia</i>	Toyon	T	Rosaceae	*	
<i>Hirschfeldia incana</i> *	Summer mustard	BH	Brassicaceae	*	Moderate
<i>Hordeum murinum</i> *	Barley	AG	Poaceae	FACU	Moderate
<i>Hypochaeris glabra</i> *	Smooth cat's ear	AH	Asteraceae	*	Limited
<i>Juglans californica</i>	Southern California black walnut	T	Juglandaceae	FACU	

Appendix A

Vascular Plant Flora Observed along the Unit Y2 Interceptor, Ventura County, California

Scientific Name	Common Name	Habit	Family	Wetland Status	Invasiveness Rating
<i>Juncus balticus</i> ssp. <i>ater</i>	Baltic rush	PH	Juncaceae	FACW	
<i>Keckiella cordifolia</i>	Heart-leaved penstemon	S	Plantaginaceae	*	
<i>Lactuca serriola</i> *	Prickly lettuce	AH	Asteraceae	FACU	
<i>Lathyrus vestitus</i>	Chaparral pea	PV	Fabaceae	*	
<i>Lepidium didymum</i> *	Lesser swine cress	AH	Brassicaceae	*	
<i>Logfia gallica</i> *	Daggerleaf cotton-rose	AH	Asteraceae	*	
<i>Lonicera subspicata</i> var. <i>denudata</i>	Chaparral honeysuckle	S	Caprifoliaceae	*	
<i>Lupinus bicolor</i>	Miniature lupine	AH	Fabaceae	*	
<i>Lysimachia [Anagallis] arvensis</i> *	Scarlet pimpernel	AH	Myrsinaceae	FAC	
<i>Malacothamnus fasciculatus</i> ssp. <i>fasciculatus</i>	Chaparral bush mallow	S	Malvaceae	*	
<i>Malacothrix saxatilis</i> var. <i>tenuifolia</i>	Cliff aster	PH	Asteraceae	*	
<i>Marah macrocarpus</i> var. <i>macrocarpus</i>	Wild cucumber	PV	Cucurbitaceae	*	
<i>Marrubium vulgare</i> *	Horehound	PH	Lamiaceae	FACU	Limited
<i>Matricaria discoidea</i> *	Pineapple weed	AH	Asteraceae	FACU	
<i>Medicago polymorpha</i> *	Bur clover	AH	Fabaceae	FACU	Limited
<i>Melica imperfecta</i>	Melic grass	PG	Poaceae	*	
<i>Melilotus albus</i> *	White sweet-clover	PH	Fabaceae	*	
<i>Melilotus indicus</i> *	Sour-clover	BH	Fabaceae	FACU	
<i>Mimulus aurantiacus</i>	Bush monkeyflower	S	Phrymaceae	*	
<i>Mirabilis laevis</i> var. <i>crassifolia</i>	Wishbone bush	PH	Nyctaginaceae	*	
<i>Nasturtium officinale</i>	Water-cress	PH	Brassicaceae	OBL	
<i>Nerium oleander</i> *	Oleander	S	Apocynaceae	*	
<i>Nicotiana glauca</i> *	Tree tobacco	S	Solanaceae	FAC	Moderate
<i>Opuntia littoralis</i>	Coast prickly-pear	S	Cactaceae	*	
<i>Oxalis californica</i>	California wood-sorrel	PH	Oxalidaceae	*	
<i>Paeonia californica</i>	Wild peony	PH	Paeoniaceae	*	
<i>Peritoma arborea</i>	Bladder-pod	S	Cleomaceae	*	
<i>Persicaria lapathifolia</i>	Willow weed	AH	Polygonaceae	FACW	
<i>Phacelia cicutaria</i> var. <i>hispida</i>	Caterpillar phacelia	AH	Boraginaceae	*	
<i>Phacelia ramosissima</i> var. <i>ramosissima</i>	Branching phacelia	PH	Boraginaceae	FACU	
<i>Pholistoma auritum</i> var. <i>auritum</i>	Fiesta flower	AV	Boraginaceae	*	
<i>Phoradendron leucarpum</i> ssp. <i>macrophyllum</i>	Mistletoe	S	Viscaceae	*	
<i>Pinus torreyana</i> **	Torrey pine	T	Pinaceae	*	
<i>Plantago major</i> *	Comon plantain	PH	Plantaginaceae	FAC	
<i>Platanus racemosa</i>	Western sycamore	T	Plantanaceae	FAC	
<i>Plagiobothrys canescens</i> var. <i>canescens</i>	Plagiobothrys	AH	Boraginaceae	*	
<i>Polypodium californicum</i>	California polypody	PF	Polypodiaceae	*	
<i>Polypogon viridis</i> *	Water beard-grass	PG	Poaceae	FACW	
<i>Populus trichocarpa</i>	Black cottonwood	T	Salicaceae	FAC	
<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>	Holly-leaved cherry	S/T	Rosaceae	*	
<i>Pseudognaphalium californicum</i>	Green everlasting	AH	Asteraceae	*	
<i>Pseudognaphalium microcephalum</i>	White everlasting	BH	Asteraceae	*	
<i>Pterostegia drymarioides</i>	Threadstem	AV	Polygonaceae	*	
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	Coast live oak	T	Fagaceae	*	
<i>Quercus berberidifolia</i>	Scrub oak	S	Fagaceae	*	
<i>Quercus lobata</i>	Valley oak	T	Fagaceae	*	
<i>Rafinesquia californica</i>	Rafinesquia	AH	Asteraceae	*	
<i>Rhamnus crocea</i>	Red-berry	S	Rhamnaceae	*	
<i>Rhamnus ilicifolia</i>	Holly-leaved redberry	S	Rhamnaceae	*	
<i>Raphanus sativus</i> *	Radish	BH	Brassicaceae	*	Limited
<i>Rhus integrifolia</i>	Lemonade berry	S	Anacardiaceae	*	
<i>Rhus ovata</i>	Sugar bush	S	Anacardiaceae	*	
<i>Ribes speciosum</i>	Fuschia-flowered gooseberry	S	Grossulariaceae	*	
<i>Rosa californica</i>	California wildrose	S	Rosaceae	FAC	
<i>Rubus ursinus</i>	California blackberry	PV	Rosaceae	FAC	
<i>Rumex crispus</i> *	Curly dock	PH	Polygonaceae	FAC	Limited
<i>Salix laevigata</i>	Red willow	T	Salicaceae	FACW	
<i>Salix lasiolepis</i>	Arroyo willow	T	Salicaceae	FACW	
<i>Salvia columbariae</i>	Chia	AH	Lamiaceae	*	
<i>Salvia leucophylla</i>	Purple sage	S	Lamiaceae	*	
<i>Salvia mellifera</i>	Black sage	S	Lamiaceae	*	
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	Blue elderberry	T	Adoxaceae	FACU	
<i>Sanicula crassicaulis</i>	Pacific sanicle	PH	Apiaceae	*	
<i>Schinus molle</i> *	Pepper tree	T	Anacardiaceae	FACU	Limited
<i>Scirpus microcarpus</i>	Small-fruited bulrush	PH	Cyperaceae	OBL	
<i>Silene laciniata</i> ssp. <i>laciniata</i>	Indian pink	PH	Caryophyllaceae	*	
<i>Sisymbrium irio</i> *	London rocket	AH	Brassicaceae	*	Limited
<i>Solanum xanthii</i>	Purple nightshade	PH	Solanaceae	*	
<i>Sonchus oleraceus</i> *	Common sow thistle	AH	Asteraceae	UPL	
<i>Stellaria media</i> *	Chick-weed	AH	Caryophyllaceae	FACU	
<i>Stipa lepida</i>	Foothill needlegrass	PG	Poaceae	*	
<i>Stipa miliacea</i> var. <i>miliacea</i> *	Smilo grass	PG	Poaceae	*	Limited
<i>Symphoricarpos mollis</i>	Snowberry	S	Caprifoliaceae	FACU	
<i>Thysanocarpus laciniatus</i>	Fringe-pod	AH	Brassicaceae	*	
<i>Toxicodendron diversilobum</i>	Poison oak	S	Anacardiaceae	FACU	
<i>Typha latifolia</i>	Broad-leaf cattail	S	Typhaceae	OBL	
<i>Ulmus parvifolia</i> *	Chinese elm	T	Ulmaceae	*	
<i>Urtica urens</i> *	Dwarf nettle	AH	Urticaceae	*	

Appendix A

Vascular Plant Flora Observed along the Unit Y2 Interceptor, Ventura County, California

Scientific Name	Common Name	Habit	Family	Wetland Status	Invasiveness Rating
<i>Veronica anagallis-aquatica</i> *	Water speed-well	PH	Plantaginaceae	OBL	
<i>Vicia benghalensis</i> *	Mediterranean vetch	AV	Fabaceae	*	
<i>Vicia sativa</i> *	Common vetch	AV	Fabaceae	FACU	
<i>Washingtonia robusta</i> *	Mexican fan palm	T	Arecaceae	FACW	Moderate
<i>Xanthium strumarium</i>	Cockle-bur	AH	Asteraceae	FAC	
<i>Yabea microcarpa</i>	False carrot	AH	Apiaceae	FACU	

Notes:

Scientific nomenclature follows The Jepson Manual Second Edition (Baldwin et al., 2012), including supplements (old names in brackets).

An "*" indicates non-native species which have become naturalized or persist without cultivation.

An "****" indicates species which have been planted and may not persist without cultivation.

Habit Definitions:

AF = annual fern or fern ally.

AG = annual grass.

AH = annual herb.

BH = biennial herb.

PF = perennial fern or fern ally.

PG = perennial grass.

PH = perennial herb.

PV = perennial vine.

S = shrub.

T = tree.

Invasiveness Rating from the online database of the California Invasive Plant Council

Wetland Status from Arid West 2018 Regional Wetland Plant List

OBL - Obligate wetland: almost always occurs in wetlands (>99% probability)

FACW - Facultative-Wetland: usually occurs in wetlands (67-99% probability)

FAC - Facultative: equally likely to occur in wetlands or non-wetlands (34-66% probability)

FACU - Facultative-Upland: usually occurs in non-wetlands (1-33% probability)

UPL - Upland: almost always occurs in non-wetlands (>99% probability)

*: not addressed in the wetland plant list, non-wetland species

APPENDIX B

VERTEBRATE ANIMAL SPECIES REPORTED FROM HILL CANYON AND NORTH FORK AND SOUTH FORK ARROYO CONEJO, VENTURA COUNTY, CALIFORNIA

Appendix B

Vertebrate Animal Species Reported from Hill Canyon and North Fork and South Arroyo Conejo, Ventura County, California

FAMILY			Habitat	
<u>Common Name</u>	<u>Scientific Name</u>		<u>Use(1)</u>	<u>Status(2)</u>
FISH				
Cyprinidae				
Goldfish	<i>Carassius auratus</i>	B/F	--	
Carp	<i>Cyprinus carpio</i>	B/F	--	
Arroyo chub	<i>Gila orcuttii</i>	B/F	CSC	
Ictaluridae				
Black bullhead	<i>Ameiurus melas</i>	B/F	--	
Centrarchidae				
Green sunfish	<i>Lepomis cyanellus</i>	B/F	--	
Small-mouth bass	<i>Micropterus dolomieu</i>	B/F	--	
Poeciliidae				
Western mosquitofish	<i>Gambusia affinis</i>	B/F	--	
AMPHIBIANS AND REPTILES				
Bufonidae				
Western toad	<i>Anaxyrus boreas halophilus</i>	B/F	--	
Ranidae				
Bullfrog	<i>Lithobates catesbeianus</i>	B/F	--	
Hylidae				
Baja California tree frog	<i>Pseudacris hypochondriaca</i>	B/F	--	
Emydidae				
Western pond turtle	<i>Emys marmorata</i>	B/F	CSC	
Iguanidae				
*Western fence lizard	<i>Sceloporus occidentalis longipes</i>	B/F	--	
*Side-blotched lizard	<i>Uta stansburiana elegans</i>	B/F	--	
Teiidae				
Coastal western whiptail	<i>Aspidoscelis tigris stejnegeri</i>	B/F	CSC	
Scincidae				
Western skink	<i>Eumeces skiltonianus</i>	B/F	--	
Anguidae				
San Diego alligator lizard	<i>Elgaria multicarinatus webbia</i>	B/F	--	
Colubridae				
San Diego gopher snake	<i>Pituophis melanoleucus annectens</i>	B/F	--	
Two-striped garter snake	<i>Thamnophis hammondi</i>	B/F	CSC	
Southern Pacific rattlesnake	<i>Crotalus viridis helleri</i>	B/F	--	
California kingsnake	<i>Lampropeltis getulus californiae</i>	B/F	--	
San Diego mountain kingsnake	<i>Lampropeltis zonata pulchra</i>	B/F	--	

Appendix B

Vertebrate Animal Species Reported from Hill Canyon and North Fork and South Arroyo Conejo, Ventura County, California

FAMILY		Habitat
<u>Common Name</u>	<u>Scientific Name</u>	<u>Use(1)</u> <u>Status(2)</u>
BIRDS		
Phalacrocoracidae		
Double-crested cormorant	<i>Phalacrocorax auritus</i>	F WL (rookery)
Ardeidae		
Great blue heron	<i>Ardea herodias</i>	F --
Green heron	<i>Butorides striatus</i>	F --
Great egret	<i>Ardea alba</i>	F --
Snowy egret	<i>Egretta thula</i>	F --
Anatidae		
*Mallard	<i>Anas platyrhynchos</i>	B/F --
Lesser scaup	<i>Aythya affinis</i>	F --
Rallidae		
Sora	<i>Porzana carolina</i>	F --
American coot	<i>Fulica americana</i>	B/F --
Charadriidae		
Killdeer	<i>Charadrius vociferus</i>	B/F --
Scolopacidae		
Lesser yellowlegs	<i>Tringa flavipes</i>	F --
Spotted sandpiper	<i>Actitis macularius</i>	F --
Laridae		
Western gull	<i>Larus occidentalis</i>	F --
Cathartidae		
Turkey vulture	<i>Cathartes aura</i>	B/F --
Accipitridae		
*Red-tailed hawk	<i>Buteo jamaicensis</i>	B/F --
Red-shouldered hawk	<i>Buteo lineatus</i>	B/F --
*Cooper's hawk	<i>Accipiter cooperi</i>	B/F WL (nesting)
Sharp-shinned hawk	<i>Accipiter striatus</i>	F WL (nesting)
*White-tailed kite	<i>Elanus caeruleus</i>	B/F CP
Pandionidae		
Osprey	<i>Pandion haliaetus</i>	F WL (nesting)
Falconidae		
American kestrel	<i>Falco sparverius</i>	B/F --
Phasianidae		
*California quail	<i>Callipepla californicus</i>	B/F --
Columbidae		
*Mourning dove	<i>Zenaida macroura</i>	B/F --
Rock dove	<i>Columba livia</i>	B/F --

Appendix B

Vertebrate Animal Species Reported from Hill Canyon and North Fork and South Arroyo Conejo, Ventura County, California

FAMILY			Habitat	
<u>Common Name</u>	<u>Scientific Name</u>		<u>Use(1)</u>	<u>Status(2)</u>
Poliioptillidae				
*Blue-gray gnatcatcher	<i>Poliioptila caerulea</i>	B/F	--	
Strigidae				
Great horned owl	<i>Bubo virginianus</i>	B/F	--	
Short-eared owl	<i>Asio flammeus</i>	F	CSC (nesting)	
Apodidae				
White-throated swift	<i>Aeronautes saxatilis</i>	B/F	--	
Trochilidae				
*Anna's hummingbird	<i>Calypte anna</i>	B/F	--	
Black-chinned hummingbird	<i>Archilochus alexandri</i>	B/F	--	
Costa's hummingbird	<i>Calypte costae</i>	B/F	--	
*Allen's hummingbird	<i>Selasphorus sasin</i>	B/F	--	
Picidae				
*Northern flicker	<i>Colaptes cafer</i>	B/F	--	
Acorn woodpecker	<i>Melanerpes formicivorus</i>	B/F	--	
*Nuttall's woodpecker	<i>Picoides nuttallii</i>	B/F	--	
Downy woodpecker	<i>Picoides pubescens</i>	B/F	--	
Hairy woodpecker	<i>Picoides villosus</i>	B/F	--	
Tyrannidae				
*Black phoebe	<i>Sayornis nigricans</i>	B/F	--	
Western kingbird	<i>Tyrannus verticalis</i>	B/F	--	
*Say's phoebe	<i>Sayornis saya</i>	B/F	--	
Pacific slope flycatcher	<i>Empidonax difficilis</i>	B/F	--	
Ash-throated flycatcher	<i>Myiarchus cinerascens</i>	B/F	--	
Cassin's kingbird	<i>Tyrannus vociferans</i>	B/F	--	
Alaudidae				
Horned lark	<i>Eremophila alpestris actia</i>	F	WL	
Hirundinidae				
Cliff swallow	<i>Petrochelidon pyrrhonota</i>	B/F	--	
Barn swallow	<i>Hirundo rustica</i>	B/F	--	
Violet-green swallow	<i>Tachycineta thalassina</i>	B/F	--	
Northern rough-winged swallow	<i>Stelgidopteryx serripennis</i>	B/F	--	
Tree swallow	<i>Tachycineta bicolor</i>	B/F	--	
Alcedinidae				
Belted kingfisher	<i>Ceryle alcyon</i>	B/F	--	
Corvidae				
*American raven	<i>Corvus corax</i>	B/F	--	
*American crow	<i>Corvus brachyrhynchos</i>	B/F	--	
*Western scrub jay	<i>Aphelocoma californica</i>	B/F	--	
Paridae				
*Oak titmouse	<i>Baeolophus inornatus</i>	B/F	BCC	

Appendix B

Vertebrate Animal Species Reported from Hill Canyon and North Fork and South Arroyo Conejo, Ventura County, California

FAMILY			Habitat	
<u>Common Name</u>	<u>Scientific Name</u>		<u>Use(1)</u>	<u>Status(2)</u>
Aegithalidae				
*Common bushtit	<i>Psaltirparus minimus</i>	B/F	--	
Troglodytidae				
*Bewick's wren	<i>Thryomanes bewickii</i>	B/F	--	
*House wren	<i>Troglodytes aedor</i>	B/F	--	
*Cactus wren	<i>Campylorhynchus brunneicapillus</i>	B/F	--	
Canyon wren	<i>Catherpes mexicanus</i>	B/F	--	
Regulidae				
*Ruby-crowned kinglet	<i>Regulus calendula</i>	F	--	
Sylviidae				
*Wrentit	<i>Chamaea fasciata</i>	B/F	--	
Turdidae				
American robin	<i>Turdus migratorius</i>	B/F	--	
Swainson's thrush	<i>Catharus ustulatus</i>	B/F	--	
Apodidae				
White-throated swift	<i>Aeronautes saxatilis</i>	B/F		
Mimidae				
*Northern mockingbird	<i>Mimus polyglottos</i>	B/F	--	
*California thrasher	<i>Toxostoma redivivum</i>	B/F	--	
Vireonidae				
Least Bell's vireo	<i>Vireo belli pusillus</i>	B/F	SE, FE	
Warbling vireo	<i>Vireo gilvus</i>	B/F	--	
Hutton's vireo	<i>Vireo huttoni</i>	B/F	--	
Sturnidae				
European starling	<i>Sturnus vulgaris</i>	B/F	--	
Ptilonotidae				
Phainopepla	<i>Phainopepla nitens</i>	B/F	--	
Parulidae				
Yellow warbler	<i>Setophaga petechia</i>	B/F	CSC	
Emberizidae				
Orange-crowned warbler	<i>Vermivora celata</i>	B/F	--	
Yellow-rumped warbler	<i>Dendroica coronata</i>	F	--	
Yellow-breasted chat	<i>Icteria virens</i>	B/F	CSC	
Common yellowthroat	<i>Geothlypis trichas</i>	B/F	--	
*White-crowned sparrow	<i>Zonotrichia leucophrys</i>	B/F	--	
Song sparrow	<i>Melospiza melodia cooperii</i>	B/F	--	
S. California rufous-crowned sparrow	<i>Aimophila ruficeps canescens</i>	B/F	WL	
Brewer's blackbird	<i>Euphagus cyanocephalus</i>	B/F	--	
Red-winged blackbird	<i>Agelaius phoeniceus</i>	B/F	--	
*Spotted towhee	<i>Pipilo maculatus</i>	B/F	--	

Appendix B

Vertebrate Animal Species Reported from Hill Canyon and North Fork and South Arroyo Conejo, Ventura County, California

FAMILY			Habitat	
<u>Common Name</u>	<u>Scientific Name</u>		<u>Use(1)</u>	<u>Status(2)</u>
Dark-eyed junco	<i>Junco hyemalis</i>	B/F	--	
Blue grosbeak	<i>Guiraca caerulea</i>	B/F	--	
Black-headed grosbeak	<i>Pheucticus melanocephalus</i>	B/F	--	
*California towhee	<i>Melospiza crissalis</i>	B/F	--	
Lark sparrow	<i>Chondestes grammacus</i>	B/F	--	
Hooded oriole	<i>Icterus cucullatus</i>	B/F	--	
Bullock's oriole	<i>Icterus bullockii</i>	B/F	--	
Brown-headed cowbird	<i>Molothrus ater</i>	B/F	--	
*Western meadowlark	<i>Sturnella neglecta</i>	B/F	--	
Fringillidae				
*House finch	<i>Carpodacus mexicanus</i>	B/F	--	
*Lesser goldfinch	<i>Spinus psaltria</i>	B/F	--	
American goldfinch	<i>Carduelis tristis</i>	B/F	--	
Lawrence's goldfinch	<i>Carduelis lawrencei</i>	B/F	--	
Purple finch	<i>Carpodacus purpureus</i>	B/F	--	
Passeridae				
House sparrow	<i>Passer domesticus</i>	B/F	--	
MAMMALS				
Didelphidae				
Virginia opossum	<i>Didelphis virginiana</i>	B/F	--	
Vespertilionidae				
Yuma myotis	<i>Myotis yumanensis</i>	B/F	--	
Canidae				
*Coyote	<i>Canis latrans</i>	B/F	--	
Gray fox	<i>Urocyon cinereoargenteus</i>	B/F	--	
Dog	<i>Canis familiaris</i>	F	--	
Procyonidae				
Raccoon	<i>Procyon lotor</i>	B/F	--	
Mustelidae				
Striped skunk	<i>Mephitis mephitis</i>	B/F	--	
Cervidae				
*Black-tailed deer	<i>Odocoileus hemionus</i>	B/F	--	
Felidae				
Mountain lion	<i>Felis concolor</i>	F	--	
Bobcat	<i>Lynx rufus</i>	B/F	--	
Feral cat	<i>Felis catus</i>	B/F	--	
Sciuridae				
*California ground squirrel	<i>Spermophilus beecheyi</i>	B/F	--	
Western gray squirrel	<i>Sciurus griseus</i>	B/F	--	

Appendix B

Vertebrate Animal Species Reported from Hill Canyon and North Fork and South Arroyo Conejo, Ventura County, California

FAMILY			Habitat	
<u>Common Name</u>	<u>Scientific Name</u>		<u>Use(1)</u>	<u>Status(2)</u>
Geomyidae				
Botta's pocket gopher	<i>Thomomys bottae</i>		B/F	--
Cricetidae				
Deer mouse	<i>Peromyscus maniculatus</i>		B/F	--
Dusky-footed woodrat	<i>Neotoma fuscipes macrotis</i>		B/F	--
Leporidae				
*Audubon's cottontail	<i>Sylvilagus auduboni</i>		B/F	--
Brush rabbit	<i>Sylvilagus bachmanii</i>		B/F	--
Muridae				
Black rat	<i>Rattus rattus</i>		B/F	--
House mouse	<i>Mus musculus</i>		B/F	--

* Observed during field surveys near the Unit Y2 Interceptor alignment

(1) Habitat Use
 B= Breeding
 F= Foraging

(2) Status
 CP= Protected under California Fish & Game Code
 CSC= CDFW Species of Special Concern
 SA= CDFW Special Animal
 SE= State Endangered
 FE= Federal Endangered
 WL= CDFW Watch List
 BCC=Birds of Conservation Concern

Fish nomenclature based on Swift et al. (1993)
 Amphibian and reptile nomenclature based upon Jensen (1983)
 Bird nomenclature based upon American Ornithologists Union (2020)
 Mammal nomenclature based upon Hall (1981)