City of Clovis

Nees Avenue Improvements - Minnewawa to Clovis Avenues (CIP 17-13)

Public Review Draft
Initial Study/Mitigated Negative Declaration
June 2020

Prepared for:
City of Clovis

Prepared by:
Provost & Pritchard Consulting Group
286 W. Cromwell
Fresno, CA 93711

EST. 1968
PROVOST& PRITCHARD
CONSULTING GROUP
An Employee Owned Company

Report Prepared for:

City of Clovis

Planning and Development Services Department
Engineering Division
1033 Fifth Street
Clovis, CA 93612

Contact:
Ms. Claudia Cázares
(559) 324-2387

Report Prepared by:

Provost & Pritchard Consulting Group

Briza Grace Sholars – Senior Planner/Project Manager
Amy M. Wilson – Associate Planner
Mallory Serrao – GIS
Jackie Lancaster – Administrative Support

Contact:
Briza Grace Sholars – Senior Planner/Project Manager
(559) 449-2700

Table of Contents

List of Figures

List of Tables

Acronyms and Abbreviations

AADT	Annual Average Daily Traffic
AB	Assembly Bill
Amsl	above mean sea level
APE	Area of Potential Effect
APN	Assessor's Parcel Number
BMP	Best Management Practices
BPS	Best Performance Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
Cal/OSHA	California Division of Occupational Safety and Health
Caltrans	California Department of Transportation
CA MUTCD	California Manual on Uniform Traffic Control Devices
CARB	California Air Resources Board
CAAQS	California Ambient Air Quality Standards
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	U.S. Code of Federal Regulations
CGP	Construction General Permit
CH_4	Methane
CRHR	California Register of Historical Resources
CNDDB	California Department of Fish and Wildlife Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2e	Carbon Dioxide Equivalent
CUPA	Certified Unified Program Agency
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
DOC	California Department of Conservations
DOD	Department of Defense
DTSC	Department of Toxic Substance Control
DWQ	Department of Water Quality

EIR ..... Environmental Impact Report
EPA ..... U.S. Environmental Protection Agency
FEMA ..... Federal Emergency Management Agency
FHSZ ..... Fire Hazard Severity Zone
FHWA ..... Federal Highway Administration
FIRM ..... Flood Insurance Rate Maps
FMFCD ..... Fresno Metropolitan Flood Control District
FMMP ..... Farmland Mapping and Monitoring Program
GC ..... Government Code
GHG ..... Greenhouse Gas
GIS ..... Geographic Information System
GWP ..... Global Warming Potential
HRER ..... California Register of Historical Resources
IPaC ..... U.S. Fish and Wildlife Service's Information for Planning and Consultation system
IS ..... Initial Study
IS/MND ..... Initial Study/Mitigated Negative Declaration
ISR ..... Indirect Source Review
LACWD ..... Los Angeles County Water District
LRP ..... Legally Responsible Person
MMRP ..... Mitigation Monitoring & Reporting Program
MND ..... Mitigated Negative Declaration
MRZ ..... Mineral Resource Zones
$MTCO_2e$ ..... Metric Tons of Carbon Dioxide Equivalent
Mybp ..... million years before present
NAAQS ..... National Ambient Air Quality Standards
NAHC ..... Native American Heritage Commission
ND ..... Negative Declaration
NEPA ..... National Environmental Policy Act
NHPA ..... National Historic Preservation Act
NO_2 ..... Nitrogen Dioxide
NOX ..... Nitrogen Oxide
NPDES ..... National Pollutant Discharge Elimination System
NRCS ..... Natural Resources Conservation Service
NRHP ..... National Register of Historic Places
NSR ..... Noise Study Report

O_3 ..... Ozone
Pb ..... Lead
PM_{10} ..... Particulate Matter less than 10 microns in diameter
$PM_{2.5}$ ..... Particulate Matter less than 2.5 microns in diameter
POAQC ..... Project of Air Quality Control
PRD ..... Permit Registration Documents
Project ..... City of Clovis Nees Ave Improvement Project
R-1 ..... Single Family Residential
R-2 ..... Low-Density Multiple Family Residential
SB ..... Senate Bill
SJVAB ..... San Joaquin Valley Air Basin
SJVAPCD ..... San Joaquin Valley Air Pollution Control District
SLIC ..... Spills-Leaks-Investigations-Cleanups
SO_2 ..... Sulfur Dioxide
SOI ..... Sphere of Influence
SRA ..... State Responsibility Area
SR ..... State Route
SSJVIC ..... Southern San Joaquin Valley Information Center
SWRCB ..... State Water Resources Control Board
SWPPP ..... Storm Water Pollution Prevention Plan
TAC ..... Toxic Air Contaminants
TCP ..... Traffic Control Plan
TNM ..... Traffic Noise Model
TPY ..... Tons Per Year
USFWS ..... U. S. Fish and Wildlife Service
USGS ..... U. S. Geological Survey
UST ..... Underground Storage Tanks
VbA ..... Vibration Velocity
VdB ..... Vibration Velocity Levels in Decibels
VMT ..... Vehicle Miles Traveled

Chapter 1 Introduction

The City of Clovis (City) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) to assess the potential environmental effects of the Nees Avenue Improvements Project (proposed Project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 *et.seq.* The City is the CEQA lead agency for this proposed Project.

The site and the proposed Project are described in detail in the **Chapter 2 Project Description**.

1.1 Regulatory Information

An Initial Study (IS) is a document prepared by a lead agency to determine whether a project may have a significant effect on the environment. In accordance with California Code of Regulations Title 14 (Chapter 3, Section 15000, *et seq.*)-- also known as the CEQA Guidelines-- Section 15064 (a)(1) states that an environmental impact report (EIR) must be prepared if there is substantial evidence in light of the whole record that the proposed Project under review may have a significant effect on the environment and should be further analyzed to determine mitigation measures or project alternatives that might avoid or reduce project impacts to less than significant levels. A negative declaration (ND) may be prepared instead if the lead agency finds that there is ***no*** substantial evidence in light of the whole record that the project may have a significant effect on the environment. An ND is a written statement describing the reasons why a proposed Project, not otherwise exempt from CEQA, would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a ND or *mitigated* ND shall be prepared for a project subject to CEQA when either:

a. The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed Project may have a significant effect on the environment, or

b. The IS identified potentially significant effects, but:

    1. Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed MND and IS is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and

    2. There is no substantial evidence, in light of the whole record before the agency, that the proposed Project *as revised* may have a significant effect on the environment.

1.2 Document Format

This IS/MND contains four chapters and seven appendices**. Chapter 1 Introduction**, provides an overview of the proposed Project and the CEQA process. **Chapter 2 Project Description**, provides a detailed description of proposed Project components and objectives. Chapter 2 concludes with the Lead Agency's determination based upon this initial evaluation. **Chapter 3 Impact Analysis**, presents the CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible mitigation measures. If the proposed Project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the proposed Project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. **Chapter 4 Mitigation Monitoring and Reporting Program** (MMRP),

provides the proposed mitigation measures, implementation timelines, and the entity/agency responsible for ensuring implementation.

The Air Quality Appendix, Biological Memorandum, Cultural Resources Report, Noise Study Report, Phase 1 Initial Site Assessment, Water Quality Assessment Report, and NRCS Soils Report are provided as technical **Appendix A, Appendix B, Appendix C, Appendix D**, **Appendix E**, **Appendix F**, and **Appendix G** respectively, at the end of this document.

Chapter 2 Project Description

2.1 Project Background and Objectives

2.1.1 Project Title

Nees Avenue Improvements – Minnewawa to Clovis Avenues (CIP 17-13)

2.1.2 Lead Agency Name and Address

City of Clovis
Planning and Development Services Department
Engineering Division
1033 Fifth Street
Clovis, CA 93612

2.1.3 Contact Person and Phone Number

Lead Agency Contact
Claudia Cázares, Management Analyst
Planning and Development Services Department
1033 Fifth Street
Clovis, CA 93612
Phone (559) 324-2387
claudiac@ci.clovis.ca.us

CEQA Consultant
Provost & Pritchard Consulting Group
Briza Sholars, Environmental Project Manager
(559) 449-2700

2.1.4 Project Location

The proposed Project is located in the City of Clovis, California, approximately 145 miles south of Sacramento and 105 miles north of Bakersfield (see **Figure 2-1** and **Figure 2-2**). The proposed Project site is located on Nees Avenue from the intersection at Minnewawa Avenue to the intersection at Clovis Avenue. The proposed Project is largely located within road right-of-way, but it also encompasses portions of the following APNs: 560-051-10 and 560-051-25. See **Figure 2-3**.

2.1.5 Latitude and Longitude

The western proposed Project limit to the eastern proposed Project limit is 36.852066, -119.7115138 to 36.8520861, -119.7035916.

2.1.6 General Plan Designation

Low Density Residential (L), Medium-High Density Residential (MH)

2.1.7 Zoning

Single Family Residential (6,000 SF) (R-1), Single Family Residential (24,000 SF) (R-A)

2.1.8 Description of Project

2.1.8.1 Project Background and Purpose

Nees Avenue runs east-west, across the northern half of the City. The Circulation Element of the Clovis Herndon-Shepherd Specific Plan identifies the need for additional street right-of-way totaling 24,283 square feet across APN 560-051-10 and 54,691 square feet across APN 560-051-25 to accommodate the outside travel lane and greenbelt/sidewalk.

2.1.8.2 Project Description

The City of Clovis proposes to widen approximately one-half mile of Nees Avenue between Clovis Avenue and Minnewawa Avenue from a three-lane arterial to a four-lane arterial. Arterials are designed to move large volumes of traffic and are intended to provide a high level of mobility between freeways, expressways, other arterials, and collector roadways. Arterials also provide nonfreeway/highway connections between major residential, employment, and activity centers. Unlike freeways, they are intended not only for motor vehicles, but also for bicycles and pedestrians. Arterial streets typically require more right-of-way and a higher degree of access control than collector roadways. Most arterials in the city have four travel lanes, and opposing traffic may be separated by a median[1].

The proposed Project would construct a new 12-foot outside travel lane on the north side of Nees Avenue and replace failing pavement as needed. It also includes installation of a Class II bicycle lane and improved sidewalk that will complete the pedestrian and bicycle connectivity between nearby Garfield Elementary, Alta Sierra Intermediate School, and Buchanan High School to residences and neighborhoods in the vicinity. Class II bicycle lanes are striped, stenciled, and signed on-road lanes adjacent to the outside travel lane on preferred corridors for bicyclists.

The proposed Project will involve earthwork, asphalt concrete paving, and installation of sidewalk, curb, curb returns and ramps, gutters, storm drain inlets, street lighting and retaining walls, and accessible pedestrian signal (APS) modifications to the street signal at Nees and Minnewawa Avenues. It will involve modifications to traffic loop detectors, striping, markings, and signage as well as relocation of overhead utilities (PG&E, AT&T, and cable wires) to underground conduits. New water valve covers and manholes will be installed in areas of new pavement and existing features will be brought up to grade to match the new pavement surface. Additional related activities include relocating an existing irrigation ditch and extension of associated underground water conveyance facilities operated by Fresno Irrigation District (FID). The proposed Project will also install new sewer mains from Clovis Avenue to Minnewawa Avenue.

The proposed Project will involve the removal of approximately 235 peach trees from the region of the orchard within the proposed Project area, in addition to several ornamental trees (one crepe myrtle tree, one crepe myrtle bush, one Chinese pistachio tree, four olive trees, three palms, two magnolias, one ash, three alders, and five pine trees). The proposed Project will include implementation of a landscape and irrigation plan that utilizes native drought-tolerant species and water-saving fixtures.

Widening Nees Avenue to accommodate an additional west-bound travel lane and install pedestrian and bicycle facilities will increase the safety and security of the transportation system, reduce traffic congestion and vehicle

[1] General Plan and Development Code Update Draft PEIR, City of Clovis. Page 5.16-4. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-16-Transportation-and-Traffic.pdf .

delays, improve service capacity during peak travel times, and provide complete street improvements for all modes of transportation. Completing this road section will improve traffic flow to the Buchanan Educational Complex and provide additional transportation options for non-motorized usage.

The area of potential effect (APE) is approximately 9.5 acres, with a direct APE of approximately 6.3 acres. The proposed Project site is located within the Clovis quadrangle.

2.1.8.3 Construction

It is anticipated that construction of the proposed Project will last for approximately three months and will be completed in fall of 2021. Generally, construction will occur during daylight hours, Monday through Friday, excluding holidays.

Construction will include the removal of trees that are on approximately 2.38 acres of the APE. Additionally, it is anticipated that there will be approximately 1,000 cubic yards of dirt removed from the site. As discussed in **Appendix E**, the presence of aerial deposited lead (ADL) along the shoulders of pre-1987 constructed highways, freeways and other heavily traveled roads, is common due to emissions from vehicles powered by internal-combustion, leaded-gasoline fueled engines. The 1923 topo map shows Nees and Minnewawa Avenues. The 1946 map provides road classifications of "light-duty" and "medium-duty" respectively. Given the road ages and classifications, the potential for ADL concentrations greater than regulatory limits exists within the right-of-way acquisition area along the north edge of Nees Avenue[2]. As part of the proposed Project the ADL will be assessed prior to construction. Should any contaminated soils be found they will be handled according to the Aerially Deposited Lead-Contaminated Soils Agreement with the California Department of Transportation.

Yellow traffic stripes are also known to contain heavy metals such as lead and chromium at concentrations in excess of the hazardous waste thresholds established by the California Code of Regulations and may produce toxic fumes when heated. There is yellow traffic striping at the turn pocket ends of the North Harvard and Nees Avenues intersection and at the delineation of the pedestrian cross walks at the intersection of Nees and North Minnewawa Avenues[3]. As part of the construction, traffic stripes will be assessed for hazards. Should any contaminated stripes be found they will be removed and disposed of in accordance with Caltrans Standard Special Provision for Hazardous Waste.

Construction will require temporary staging and storage areas for materials and equipment; all prospective staging areas are within the proposed Project APE.

2.1.8.4 Best Management Practices

The proposed Project has incorporated standard Best Management Practices (BMPs) relating to air quality, hazardous materials, water quality, and traffic, as summarized below. All BMPs for the proposed Project construction will be incorporated into the construction documents (plans and specifications), thereby contractually obligating contractors and subcontractors to adhere to these practices. These BMPs are not intended to serve as mitigation measures since they have been incorporated into the proposed project description.

[2] Appendix E, Phase 1 Initial Site Assessment, Nees Avenue Improvement Project – CIP 17-13. December 2019. Page 10.
[3] Ibid.

Table 2-1 Best Management Practices for Construction Activities

Best Management Practices for Construction Activities		
Air Quality – 1	SJVAPCD Regulation VIII Control Measures	1. All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover. 2. All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant. 3. All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. 4. With the demolition of buildings up to six stories in height, all exterior surfaces of the building shall be wetted during demolition. 5. When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained. 6. All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.) 7. Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant. 8. Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday. 9. An owner/operator of any site with 150 or more vehicle trips per day, or 20 or more vehicle trips per day by vehicles with three or more axles shall implement measures to prevent carryout and trackout. [4]
Hazardous Materials – 1 *All construction projects*	Ensure Proper Vehicle and Equipment Fueling and Maintenance	1. No fueling or servicing will be done in a waterway, unless equipment stationed in these locations is not readily relocated (i.e., pumps, generators). 2. For stationary equipment that must be fueled or serviced on-site, containment will be provided in such a manner that any accidental spill will not be able to come in direct contact with soil, surface water, or the storm drainage system. 3. All fueling or servicing done at the job site will provide containment to the degree that any spill will be unable to enter any waterway or damage riparian vegetation. 4. All vehicles and equipment will be kept clean. Excessive build-up of oil and grease will be prevented. 5. All equipment will be inspected for leaks each day prior to initiation of work. Maintenance, repairs, or other necessary actions will be taken to prevent or repair leaks, prior to use. 6. If emergency repairs are required in the field, only those repairs necessary to move equipment to a more secure location will be done in a channel or flood plain.

[4] SJVAPCD, Regulation VIII Control Measures. Page 3, http://www.valleyair.org/transportation/Mitigation-Measures.pdf

Best Management Practices for Construction Activities		
Hazardous Materials – 2 *All construction projects*	Utilize Spill Prevention Measures	1. Prevent the accidental release of chemicals, fuels, lubricants, and non-storm drainage water following these measures: 2. Field personnel will be appropriately trained in spill prevention, hazardous material control, and clean-up of accidental spills; 3. Equipment and materials for cleanup of spills will be available on site, and spills and leaks will be cleaned up immediately and disposed of according to applicable regulatory requirements; 4. Field personnel will ensure that hazardous materials are properly handled and natural resources are protected by all reasonable means; 5. Spill prevention kits will always be in close proximity when using hazardous materials (e.g., at crew trucks and other logical locations), and all field personnel will be advised of these locations; and, 6. The work site will be routinely inspected to verify that spill prevention and response measures are properly implemented and maintained.
Transportation/ Traffic – 1 *Construction activities on or adjacent to public roads*	Incorporate Public Safety Measures	1. Fences, barriers, lights, flagging, guards, and signs will be installed as determined appropriate by the City of Clovis, to give adequate warning to the public of the construction and of any dangerous conditions to be encountered as a result thereof.
Water Quality – 1 *All construction projects*	Maintain Clean Conditions at Work Sites	1. The work site, areas adjacent to the work site, and access roads will be maintained in an orderly condition, free and clear from debris and discarded materials on a daily basis. Personnel will not sweep, grade, or flush surplus materials, rubbish, debris, or dust into storm drains or waterways. 2. For activities that last more than one day, materials or equipment left on the site overnight will be stored as inconspicuously as possible and will be neatly arranged. Any materials and equipment left on the site overnight will be stored to avoid erosion, leaks, or other potential impacts to water quality *3.* Upon completion of work, all building materials, debris, unused materials, concrete forms, and other construction-related materials will be removed from the work site.
Water Quality – 2 *All construction projects*	Manage Sanitary and Septic Waste	1. Temporary sanitary facilities will be located on jobs that last multiple days, in compliance with California Division of Occupational Safety and Health (Cal/OSHA) regulation 8 California Code of Regulations 1526. All temporary sanitary facilities will be located where overflow or spillage will not enter a watercourse directly (overbank) or indirectly (through a storm drain).
Water Quality – 3 *All construction projects*	Storm Water Pollution Prevention Plan	1. For construction activity covering more than one acre, a Storm Water Pollution Prevention Plan (SWPPP) shall be prepared and submitted to the Central Valley Regional Water Quality Control Board (CVRWQCB) and an Order No. 2009-0009-DWQ Construction General Permit shall be obtained and implemented throughout construction.

2.1.9 Site and Surrounding Land Uses and Setting

The majority of the proposed Project area is Nees Avenue, with a small portion of a peach orchard to the north. The proposed Project portion of Nees Avenue is surrounded by residential homes to the south and a peach orchard to the north. Nees Avenue is an existing arterial roadway planned to be eventually widened to serve the community and to reduce traffic in the area. The proposed Project site and surrounding areas are currently utilized for residential and development, as well as for agriculture. Low-Density Residential (Single-Family) makes up most of the existing and planned land use in the proposed Project area, with a small portion being Medium High Density Residential.

2.1.10 Other Public Agencies Whose Approval May Be Required

The following approvals and reviews may be required; however, the list is not intended to be exhaustive and additional reviews or permits may be warranted as the proposed Project commences:

- City - Traffic Control Plan
- City – Encroachment Permit
- San Joaquin Valley Air Pollution Control District – Fugitive Dust Control Plan, Rule 9510

2.1.11 Consultation with California Native American Tribes

Pursuant to Assembly Bill 52 (AB 52; codified at Public Resources Code Section 21080.3.1, *et seq.*), a lead agency, within 14 days of deciding to carry out a project, must notify any Native American Tribe that has previously requested such notification about the project and inquire whether the Tribe wishes to initiate formal consultation. Tribes have 30 days from receipt of notification to request formal consultation. The lead agency then has 30 days to initiate the consultation, which then continues until the parties come to an agreement regarding necessary mitigation or agree that no mitigation is needed, or one or both parties determine that negotiation occurred in good faith, but no agreement will be made. No Tribes have submitted written request to the City of Clovis requesting notification of upcoming projects. However, the City of Clovis submitted a Local Government Tribal Consultation List Request, requesting a CEQA Tribal Consultation List (AB 52) to the Native American Heritage Commission and received the following list of Tribes from the NAHC that are traditionally and culturally affiliated with the geographic area of the proposed Project:

- Big Sandy Rancheria of Western Mono Indians, Elizabeth D. Kipp, Chairperson
- Cold Springs Rancheria, Carol Bill, Chairperson
- Dumna Wo-Wah Tribal Government, Robert Ledger Sr., Chairperson
- Dunlap Band of Mono Indians, Benjamin Charley Jr., Tribal Chair
- Dunlap Band of Mono Indians, Dick Charley, Tribal Secretary
- Kings river Choinumni Farm Tribe, Stan Alec
- North Fork Mono Tribe, Ron Goode, Chairperson
- Santa Rosa Rancheria Tachi Yokut Tribe, Ruben Barrios Sr., Chairperson

- Table Mountain Rancheria, Leanne Walker-Grant, Chairperson
- Table Mountain Rancheria, Bob Pennell, Cultural Resources Director
- Traditional Choinumni Tribe, David Alvarez, Chairperson
- Traditional Choinumni Tribe, Rick Osborne, Cultural Resources
- Wuksache Indian Tribe/Eshom Valley Band, Kenneth Woodrow, Chairperson

On September 11, 2019 the City provided letters to the above Tribes via U.S. mail.

In response to Section 106 notices sent out on August 15, 2019, the City received a letter from Table Mountain Rancheria dated September 9, 2019. Table Mountain Rancheria declined participation at this time, but stated that they would appreciate being notified in the unlikely event that cultural resources are identified.

No other responses have been received. All Tribal correspondence is included within **Appendix C**, Cultural Resources Report.

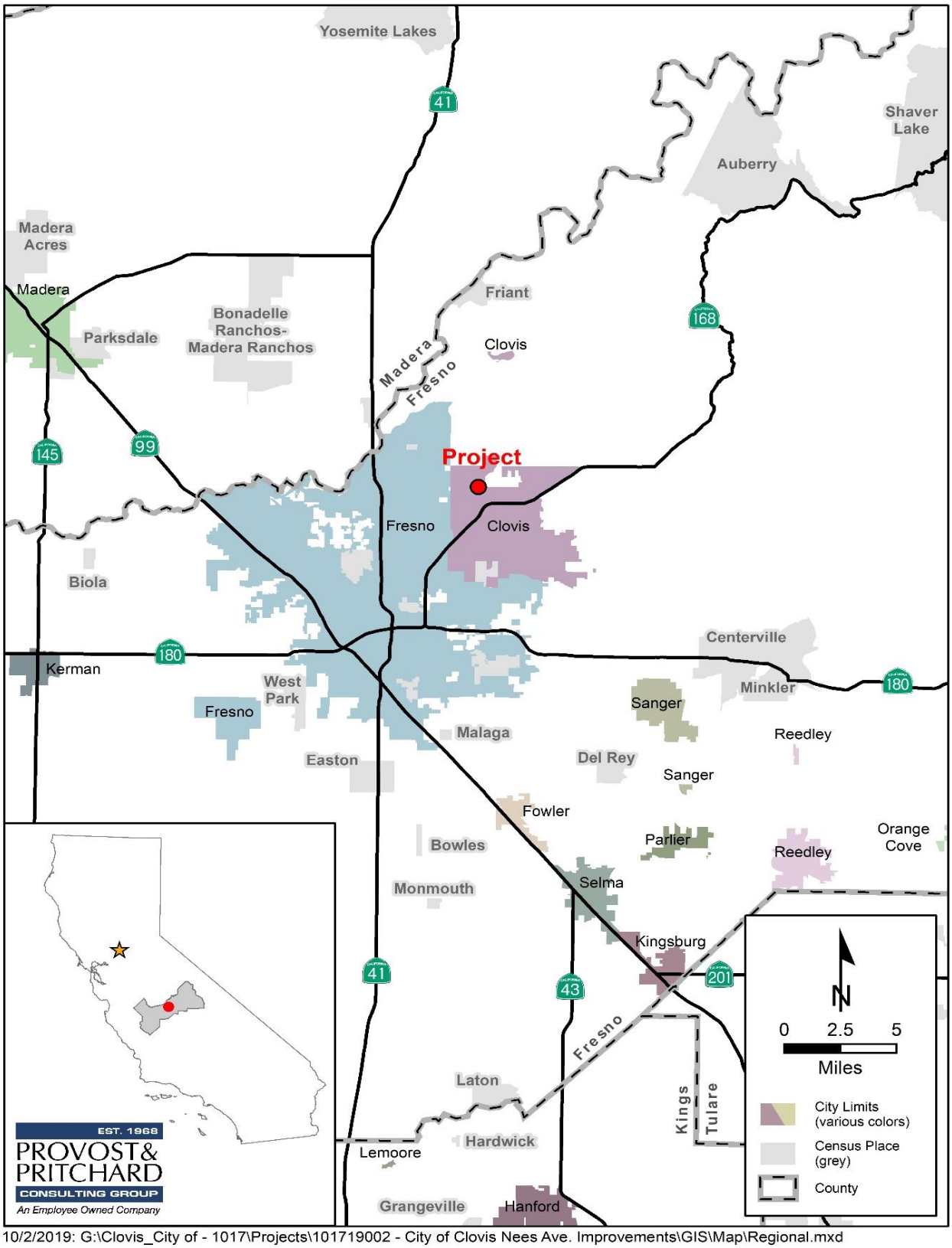
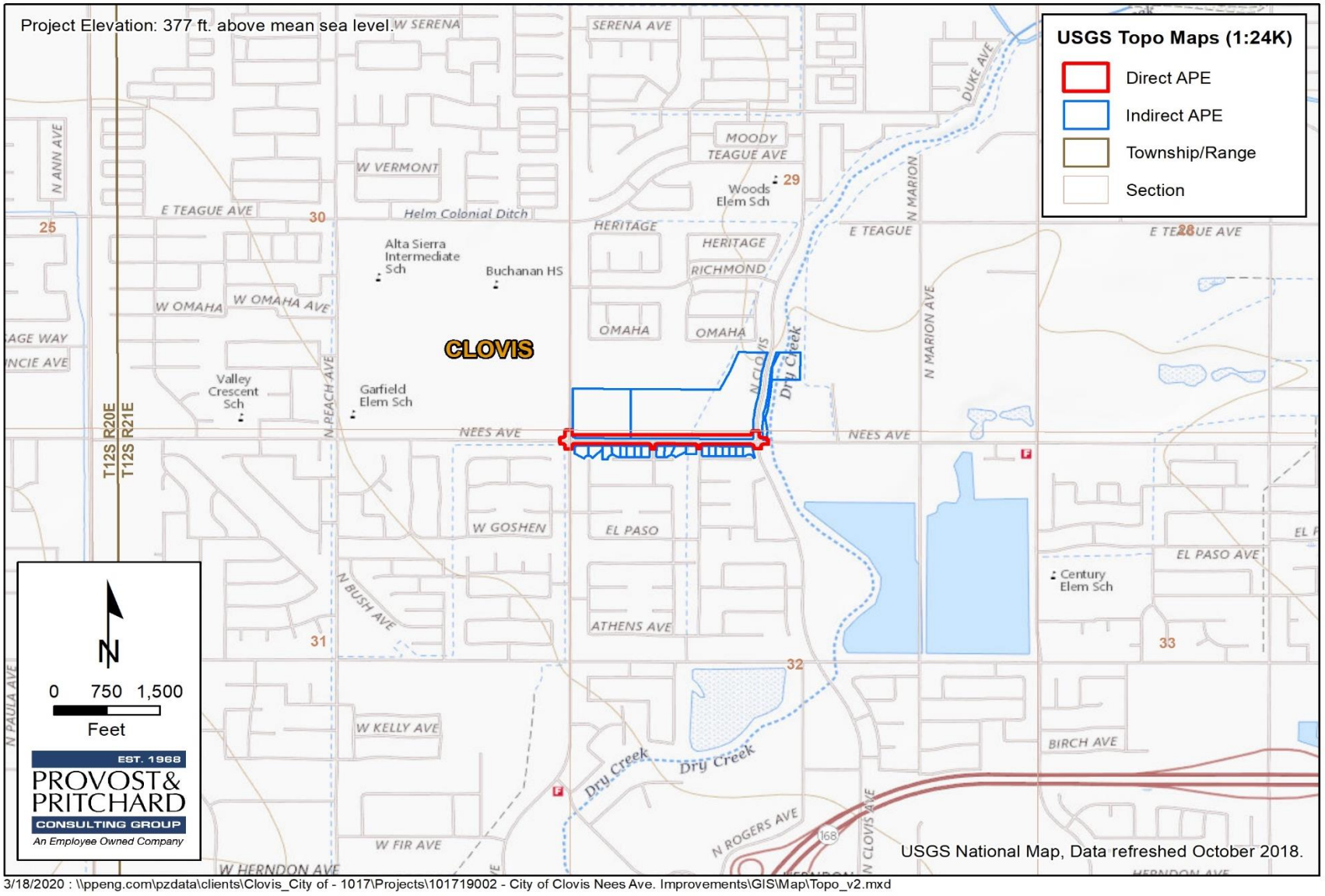


Figure 2-1 Regional Location Map



3/18/2020 : \\ppeng.com\pzdata\clients\Clovis_City of - 1017\Projects\101719002 - City of Clovis Nees Ave. Improvements\GIS\Map\Topo_v2.mxd

Figure 2-2 Topographic Quadrangle Map

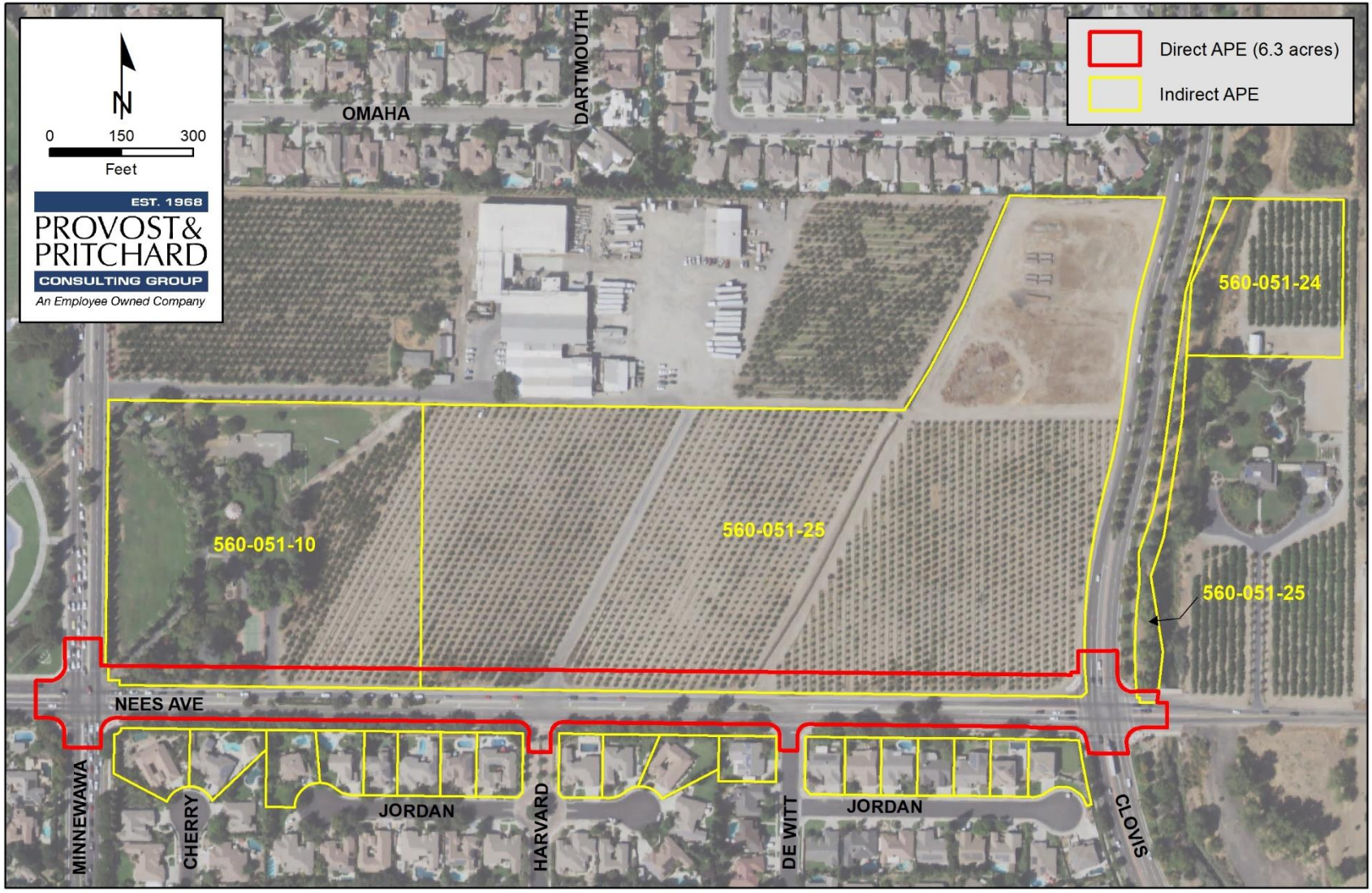


Figure 2-3 Site Plan

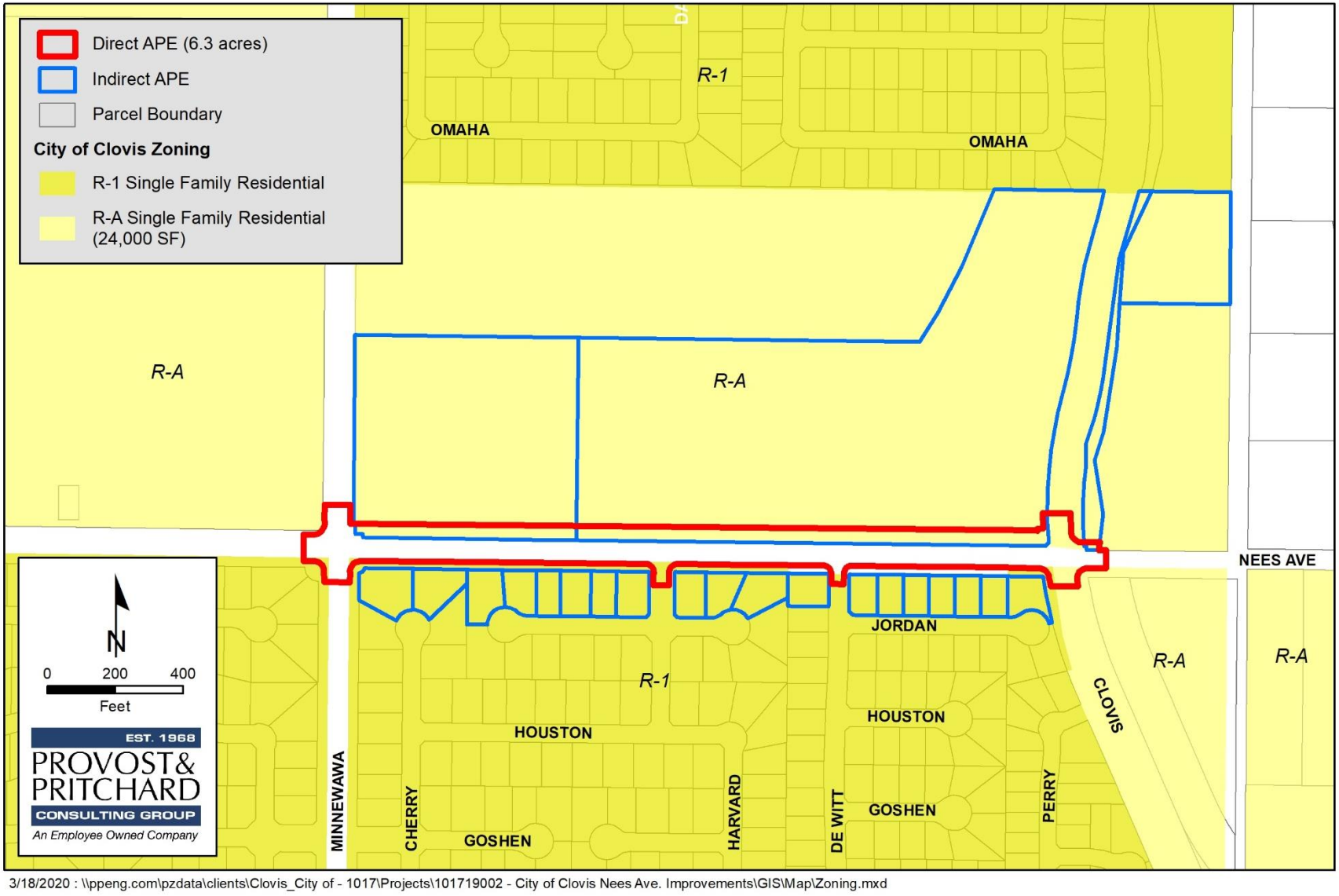


Figure 2-4 Zone District Map.

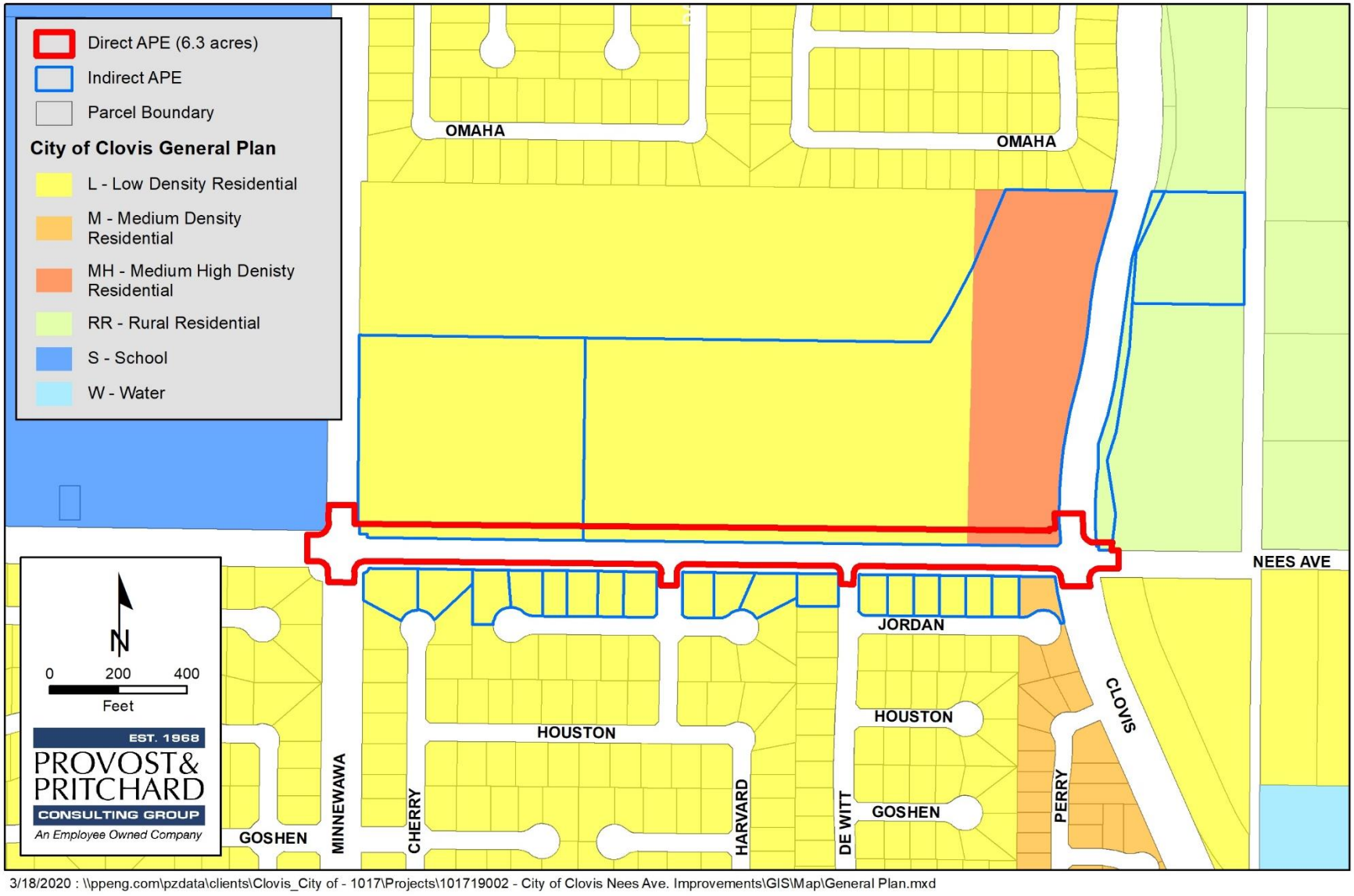


Figure 2-5 General Plan Land Use Designation Map

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and subsequent discussion on the following pages.

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Signature Date

_____

Claudia Cázares, Management Analyst

Chapter 3 Impact Analysis

3.1 Aesthetics

Table 3-1 Aesthetics Impacts

Aesthetics Impacts				
Except as provided in Public Resources Code Section 21099, would the project:	**Potentially Significant Impact**	**Less than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Environmental Setting and Baseline Conditions

Clovis is in California's San Joaquin Valley, and like most communities in the region, features a flat landscape organized around an orthogonal system of roadways. Due to its rapid growth in recent years and its adjacency to the city of Fresno, Clovis has a largely suburban character. A majority of the City's land area is devoted to low-density residential neighborhoods. However, because the community has grown from a small farming town and is still surrounded by agricultural land uses on three sides, it retains a rural atmosphere. The suburban/rural interface is most prominent on the City's eastern, southeastern, and southern edges. In these locations, new housing subdivisions are sited between working farms and large residential estate lots of two to five acres[5]. The land in the area of the proposed Project is primarily residential. The proposed Project portion of Nees Avenue is an arterial road[6]. Additionally, Nees Avenue is listed in the Fresno County Congestion Management Process as a regionally significant road. There are no officially designated scenic highways within the City of Clovis.

3.1.2 Impact Assessment

a) Would the project have a substantial adverse effect on a scenic vista?

a) Less Than Significant Impact. Scenic features in the area may include the peach orchards to the north of Nees Avenue as well as some green space that is located at the corner of Minnewawa Avenue and Nees Avenue. As part of the proposed Project some of the trees along the southern edge of the orchard will be removed, leaving the rest of the orchard intact. The proposed Project will help connect and provide a safer vehicular,

[5] General Plan and Development Code Update Draft PEIR, City of Clovis. Page 5.1-3. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-01-Aesthetics.pdf

[6] General Plan and Development Code Update Draft PEIR, City of Clovis. Figure 5.16-4, 2035 Circulation System and Roadway Classification. Page 5.16-21. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-16-Transportation-and-Traffic.pdf

pedestrian, and bicycle crossing between Minnewawa and Clovis Avenue. The proposed Project will implement landscape and irrigation that utilizes native drought-tolerant species and water saving fixtures. Further, because the proposed Project consists of roadway improvements, it would not include the construction of permanent structures, such as buildings, that are typically associated with potentially obstructing views. Therefore, any impacts to the views in the proposed Project area will be less than significant.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

b) No Impact. There are no state scenic highways within the City of Clovis[7]. Therefore, the proposed Project will not damage any scenic resources within a state scenic highway. Therefore, there will be no impact.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public view are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

c) No Impact. The proposed Project is in an urban area, and an arterial roadway is part of the existing visual character in the area. While the proposed Project will widen Nees Avenue it will not substantially change the current views of the site and its surroundings. The proposed Project is a City street improvement project that will ultimately benefit circulation in the area by improving Nees Avenue within the APE to a level consistent with segments to the east and west. Therefore, the proposed Project will not degrade the surrounding views, but rather make them more consistent with Nees Avenue to the east and west. There will be no impact.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

d) Less Than Significant Impact. The proposed Project site is currently an arterial roadway, with one west bound lane and two east bound lanes. Nees Avenue is currently lit by streetlights on the south side of the street. The proposed Project would improve Nees Avenue by widening it and also adding a total of 13 streetlights, staggered approximately 150 feet apart, on the north and south side. While the proposed Project would add approximately 13 streetlights to this portion of Nees Avenue, the lighting would meet City standards. It would not create a new source of substantial light or glare. Any impacts will be less than significant.

[7] General Plan and Development Code Update Draft PEIR, City of Clovis. Page 5.17-36. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-17-Utilities-and-Service-Systems.pdf

3.2 Agriculture and Forestry Resources

Table 3-2 Agriculture and Forestry Impacts

Agriculture and Forest Impacts				
Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**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?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

3.2.1 Environmental Setting and Baseline Conditions

Currently, there is little active agricultural use in the City of Clovis Plan Area because of water supply constraints and soil suitability issues, even though 7 percent of the SOI and 36 percent of the non-SOI Plan Area are designated Agriculture[8]. None of the proposed Project area is zoned or designated for agriculture. The majority of the proposed Project work will take place within road right of way and the area is surrounded by residential neighborhoods to the south and a peach orchard to the north.

Farmland Mapping and Monitoring Program (FMMP): The FMMP produces maps and statistical data used for analyzing impacts to California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. The maps are updated every two years with the use of a computer mapping system, aerial imagery, public review, and field reconnaissance.

The California DOC's 2016 FMMP is a non-regulatory program that produces "Important Farmland" maps and statistical data used for analyzing impacts on California's agricultural resources. The Important Farmland maps identify eight land use categories, five of which are agriculture related: prime farmland, farmland of

[8] General Plan and Development Code Update Draft PEIR, City of Clovis. Page 5.2-3. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-02-Agriculture-and-Forestry-Resources.pdf

statewide importance, unique farmland, farmland of local importance, and grazing land – rated according to soil quality and irrigation status. Each is summarized below[9]:

PRIME FARMLAND (P): Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

FARMLAND OF STATEWIDE IMPORTANCE (S): Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

UNIQUE FARMLAND (U): Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non- irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

FARMLAND OF LOCAL IMPORTANCE (L): Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

GRAZING LAND (G): Land on which the existing vegetation is suited to the grazing of livestock. The minimum mapping unit for Grazing Land is 40 acres.

URBAN AND BUILT-UP LAND (D): Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

OTHER LAND (X): Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and non-agricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

WATER (W): Perennial water bodies with an extent of at least 40 acres.

As demonstrated in

Figure 3-1, the FMMP for Fresno County designates the majority of the site as Urban and Built-Up Land while the portion along the northern edge is designated as Prime Farmland and Farmland of Statewide Importance.

3.2.2 Impact Assessment

a) Would the project 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?

a) Less Than Significant Impact. The majority of the proposed Project site is designated as Urban and Built-Up Land on the FMMP map. The northern edge of the proposed Project is designated as Farmland of

[9] California Department of Conservation. FMMP – Report and Statistics. https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx

Statewide Importance with a small portion being designated as Prime Farmland, and currently contains peach trees. See **Figure 3-2.** The proposed Project will convert approximately 2.38 acres of Farmland to non-agricultural uses. However, the location of the proposed Project is within an area of urban development, along an existing transportation corridor and the improvements along Nees Avenue are part of the City's plan for future development. The remaining orchard will continue to be farmed. Therefore, any impacts will be less than significant.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

b) No Impact. The proposed Project site is not subject to a Williamson Act Contract, nor are the surrounding areas. The area is zoned residential within the city. Therefore, there will be no impact.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

c) No Impact. The proposed Project site and surrounding areas have not been designated as forest land or timberland, nor have they been zoned as such. Therefore, there will be no impact.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

d) No Impact. The proposed Project site and surrounding areas do not contain forest land and therefore, would not convert forest land to non-forest use. There will be no impact.

e) Would the project 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?

e) Less Than Significant Impact. The northern portion of the proposed Project site is currently a peach orchard. However, the location of the proposed Project is within an area of urban development, along an existing transportation corridor and the improvements along Nees Avenue are part of the City's plan for future development. The Circulation Element of the Clovis Herndon-Shepherd Specific Plan identifies the need for additional street right-of-way totaling 24,283 square feet across APN 560-051-10 and 54,691 square feet across APN 560-051-25 to accommodate the outside travel lane and greenbelt/sidewalk. Approximately 2.38 acres of the orchard parcel will be converted to Nees Avenue, and the orchard will lose approximately 235 trees, but the parcel will continue to function as an orchard. Additionally, the project will not convert forest land to non-forest use. Therefore, any impacts will be less than significant.

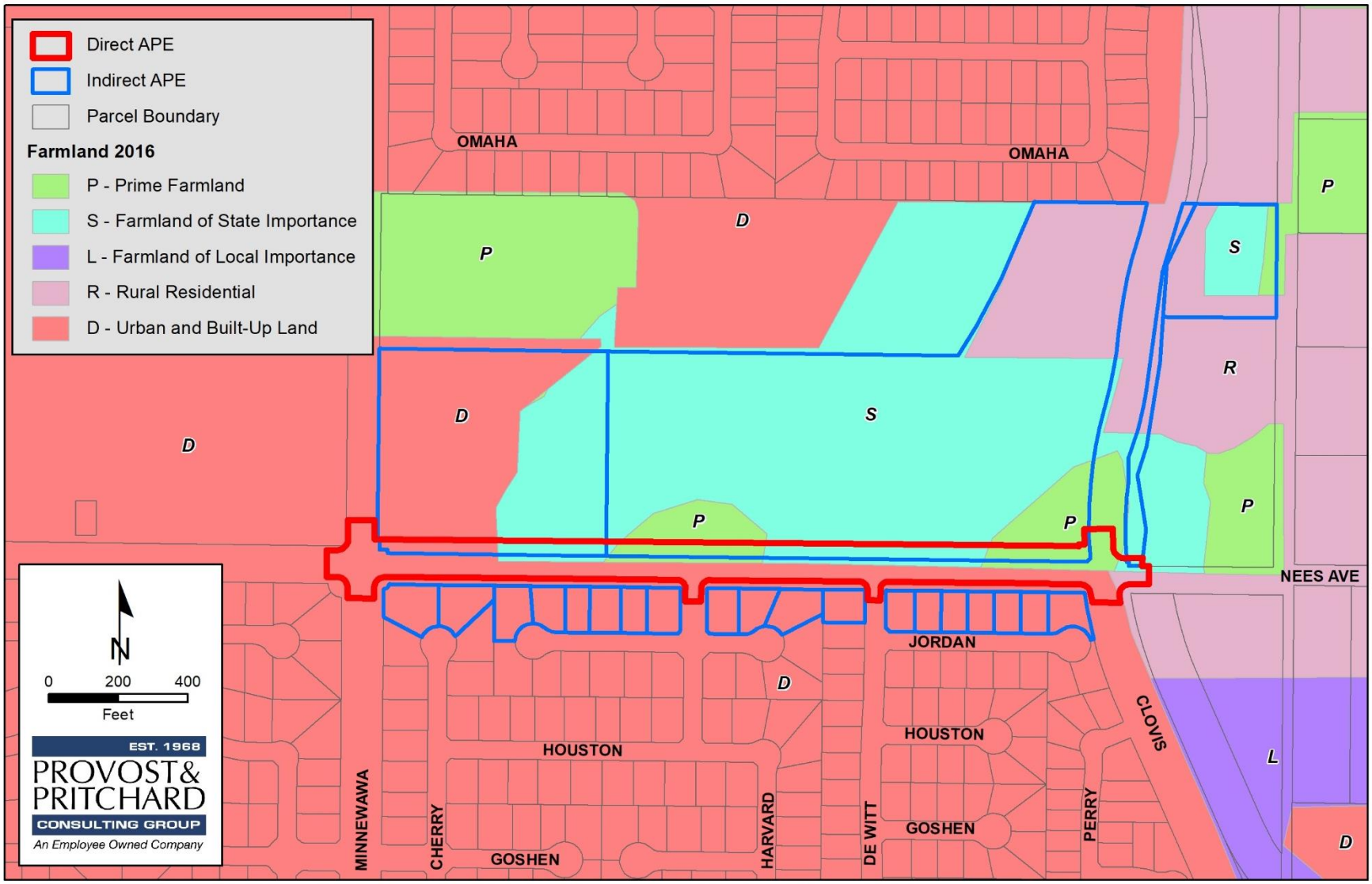


Figure 3-1 Farmland Designation Map

3.3 Air Quality

Table 3-3 Air Quality Impacts

Air Quality Impacts					
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:		**Potentially Significant Impact**	**Less than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Environmental Setting and Baseline Conditions

3.3.1.1 Regulatory Attainment Designations

Under the California Clean Air Act (CCAA), the California Air Resources Board (CARB) is required to designate areas of the State as attainment, nonattainment, or unclassified with respect to applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An "unclassified" designation signifies that the data does not support either an attainment or nonattainment designation. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The EPA designates areas for ozone, CO, and NO_2 as "does not meet the primary standards," "cannot be classified," or "better than national standards." For SO_2, areas are designated as "does not meet the primary standards," "does not meet the secondary standards," "cannot be classified," or "better than national standards." However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used. The EPA uses the same sub-categories for nonattainment status: serious, severe, and extreme. In 1991, EPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or III for PM_{10} based on the likelihood that they would violate national PM_{10} standards. All other areas are designated "unclassified."

The State and national attainment status designations pertaining to the San Joaquin Valley Air Basin are summarized in **Appendix A**. The SJVAB is currently designated as a nonattainment area with respect to the State PM_{10} standard, ozone, and $PM_{2.5}$ standards. The SJVAB is designated nonattainment for the NAAQS 8-

hour ozone and $PM_{2.5}$ standards. On September 25, 2008, the EPA re-designated the San Joaquin Valley to attainment status for the PM_{10} NAAQS and approved the PM_{10} Maintenance Plan.

Table 3-4 Summary of Ambient Air Quality Standards and Attainment Designation

Summary of Ambient Air Quality Standards & Attainment Designation					
Pollutant	**Averaging Time**	**California Standards***		**National Standards***	
		Concentration*	**Attainment Status**	**Primary**	**Attainment Status**
Ozone (O_3)	1-hour	0.09 ppm	Nonattainment/ Severe	–	No Federal Standard
	8-hour	0.070 ppm	Nonattainment	0.075 ppm	Nonattainment (Extreme)**
Particulate Matter (PM_{10})	AAM	20 µg/m^3	Nonattainment	–	Attainment
	24-hour	50 µg/m^3		150 µg/m^3	
Fine Particulate Matter ($PM_{2.5}$)	AAM	12 µg/m^3	Nonattainment	12 µg/m^3	Nonattainment
	24-hour	No Standard		35 µg/m^3	
Carbon Monoxide (CO)	1-hour	20 ppm	Attainment/ Unclassified	35 ppm	Attainment/ Unclassified
	8-hour	9 ppm		9 ppm	
	8-hour (Lake Tahoe)	6 ppm		–	
Nitrogen Dioxide (NO_2)	AAM	0.030 ppm	Attainment	53 ppb	Attainment/ Unclassified
	1-hour	0.18 ppm		100 ppb	
Sulfur Dioxide (SO_2)	AAM	–	Attainment	--	Attainment/ Unclassified
	24-hour	0.04 ppm		--	
	3-hour	–		0.5 ppm	
	1-hour	0.25 ppm		75 ppb	
Lead (Pb)	30-day Average	1.5 µg/m^3	Attainment	–	No Designation/ Classification
	Calendar Quarter	–		--	
	Rolling 3-Month Average	–		0.15 µg/m^3	
Sulfates (SO_4)	24-hour	25 µg/m^3	Attainment	No Federal Standards	
Hydrogen Sulfide (H_2S)	1-hour	0.03 ppm (42 µg/m^3)	Unclassified		
Vinyl Chloride (C_2H_3Cl)	24-hour	0.01 ppm (26 µg/m^3)	Attainment		
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient: 0.23/km-visibility of 10 miles or more due to particles when the relative humidity is less than 70%.	Unclassified		

** For more information on standards visit: https://ww3.arb.ca.gov/research/aaqs/aaqs2.pdf*
*** No Federal 1-hour standard. Reclassified extreme nonattainment for the Federal 8-hour standard December 2019.*
****Secondary Standard*
Source: CARB 2015; SJVAPCD 2015

3.3.2 Impact Assessment

An Air Quality and Greenhouse Gas Emissions Evaluation Report (**Appendix A**) was prepared using CalEEmod, Version 2016.3.2 for the proposed Project in November 2019. The sections below detail the methodology of the air quality and greenhouse gas emissions report and its conclusions.

3.3.2.1 Short-Term Construction-Generated Emissions

Short-term construction emissions associated with the proposed Project were calculated using CalEEmod, Version 2016.3.2. The emissions modeling includes emissions generated by off-road equipment, haul trucks, and worker commute trips. Emissions were quantified based on anticipated construction schedules and the proposed Project area provided by the Project applicant. All remaining assumptions were based on the default parameters contained in the model. Localized air quality impacts associated with the proposed Project would be minor and were qualitatively assessed. Modeling assumptions and output files are included in Appendix A.

3.3.2.2 Long-Term Operational Emissions

CalEEmod does not analyze operational emissions from vehicle traffic for roadway projects. Widening Nees Avenue to accommodate an additional west-bound travel lane and install pedestrian and bicycle facilities will increase the safety and security of the transportation system, reduce traffic congestion and vehicle delays, improve service capacity during peak travel times, and provide complete street improvements for all modes of transportation. Completing this road section will improve traffic flow to the Buchanan Educational Complex and provide additional transportation options for non-motorized usage. Nees Avenue was identified in the City's General Plan as a four lane arterial[10]. Arterials collect and distribute traffic from freeways and expressways to collector streets. The proposed Project would not generate additional vehicle trips on Nees Avenue beyond what was already planned for as a future four lane arterial and analyzed in the City's General Plan EIR. In addition, there are no stationary source emissions resulting from the proposed Project.

3.3.2.3 Thresholds of Significance

To assist local jurisdictions in the evaluation of air quality impacts, the SJVAPCD has published the *Guide for Assessing and Mitigating Air Quality Impacts*. This guidance document includes recommended thresholds of significance to be used for the evaluation of short-term construction, long-term operational, odor, toxic air contaminant, and cumulative air quality impacts. Accordingly, the SJVAPCD-recommended thresholds of significance are used to determine whether implementation of the proposed Project would result in a significant air quality impact. Projects that exceed these recommended thresholds would be considered to have a potentially significant impact to human health and welfare. The thresholds of significance are summarized, as follows:

Short-Term Emissions of Particulate Matter (PM_{10}): Construction impacts associated with the proposed Project would be considered significant if the feasible control measures for construction in compliance with Regulation VIII as listed in the SJVAPCD guidelines are not incorporated or implemented, or if project-generated emissions would exceed 15 tons per year (TPY).

Short-Term Emissions of Ozone Precursors (ROG and NOx): Construction impacts associated with the proposed Project would be considered significant if the project generates emissions of Reactive Organic Gases (ROG) or NO_X that exceeds 10 TPY.

Long-Term Emissions of Particulate Matter (PM10): Operational impacts associated with the proposed Project would be considered significant if the project generates emissions of PM_{10} that exceed 15 TPY.

[10] General Plan and Development Code Update Draft PEIR, City of Clovis. Appendix L. Figure 7. https://cityofclovis.com/wp-content/uploads/2018/10/Appendix-L.-Transportation-Impact-Study.pdf

Long-Term Emissions of Ozone Precursors (ROG and NOx): Operational impacts associated with the proposed Project would be considered significant if the project generates emissions of ROG or NO_X that exceeds 10 TPY.

Conflict with or Obstruct Implementation of Applicable Air Quality Plan: Due to the region's nonattainment status for ozone, $PM_{2.5}$, and PM_{10}, if the project-generated emissions of either of the ozone precursor pollutants (i.e., ROG and NO_x) or PM_{10} would exceed the SJVAPCD's significance thresholds, then the project would be considered to conflict with the attainment plans. In addition, if the project would result in a change in land use and corresponding increases in vehicle miles traveled, the project may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

Local Mobile-Source CO Concentrations: Local mobile source impacts associated with the proposed Project would be considered significant if the project contributes to CO concentrations at receptor locations in excess of the CAAQS (i.e. 9.0 ppm for 8 hours or 20 ppm for 1 hour).

Exposure to toxic air contaminants (TAC) would be considered significant if the probability of contracting cancer for the Maximally Exposed Individual (i.e., maximum individual risk) would exceed 10 in 1 million or would result in a Hazard Index greater than 1.

Odor impacts associated with the proposed Project would be considered significant if the project has the potential to frequently expose members of the public to objectionable odors.

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

a) No Impact. As noted in Impact Assessments b and c below, implementation of the proposed Project would not result in short-term or long-term increases in emissions that would exceed applicable thresholds of significance. Projects that do not exceed the recommended thresholds would not be considered to conflict with or obstruct the implementation of applicable air quality plans. Therefore, there will be no impact.

b) Would the project 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?

b) Less Than Significant Impact.

Short-Term Construction-Generated Emissions

Construction-generated emissions are temporary in duration, lasting approximately three months for removal of the trees, site preparation, asphalt concrete paving, and installation of sidewalk, curb, curb returns and ramps, gutters, storm drain inlets, street lighting and retaining walls, and all associated infrastructure. The construction of the proposed Project would result in the temporary generation of emissions associated with site grading and excavation, motor vehicle exhaust associated with construction equipment and worker trips, as well as the movement of construction equipment on unpaved surfaces.

Estimated construction-generated emissions are summarized in **Table 3-5**.

Table 3-5 Unmitigated Short-Term Construction-Generated Emissions of Criteria Air Pollutants

Short-Term Construction-Generated Emissions of Criteria Air Pollutants					
	Annual Emissions (Tons/Year) (1)				
Source	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
2021	0.1910	0.9776	0.6604	0.2620	0.1352
Maximum Annual Proposed Project Emissions:	0.1910	0.9776	0.6604	0.2620	0.1352
SJVAPCD Significance Thresholds:	*10*	*10*	*100*	*15*	*15*
Exceed SJVAPCD Thresholds?	*No*	*No*	*No*	*No*	*No*

1. *Emissions were quantified using CalEEmod Output Files Version 2016.3.2. Refer to Appendix A for modeling results and assumptions. Totals may not sum due to rounding.*

It is important to note that the proposed Project would be required to comply with SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibitions) as well as Rule 9510 Indirect Source Review (ISR). Mandatory compliance with these regulations would further reduce emissions of fugitive dust from the proposed Project site, and adequately minimize the proposed Project's potential to adversely affect nearby sensitive receptors to localized PM impacts.

Given that project-generated emissions would not exceed applicable SJVAPCD significance thresholds and the proposed Project would be required to comply with SJVAPCD Regulation VIII, and Rule 9510, construction-generated emissions of criteria pollutants will be considered less than significant.

Long-Term Operational Emissions

CalEEmod does not analyze operational emissions from vehicle traffic for roadway projects. Widening Nees Avenue to accommodate an additional west-bound travel lane and install pedestrian and bicycle facilities will increase the safety and security of the transportation system, reduce traffic congestion and vehicle delays, improve service capacity during peak travel times, and provide complete street improvements for all modes of transportation. Completing this road section will improve traffic flow to the Buchanan Educational Complex and provide additional transportation options for non-motorized usage. Nees Avenue was identified in the City's General Plan as a four lane arterial[11]. Arterials collect and distribute traffic from freeways and expressways to collector streets. In addition, there are no stationary source emissions resulting from the proposed Project.

In addition, the EPA and CalTrans have both concurred with the City's Consultation Memorandum on PM10 and PM2.5 Hot-spot Conformity Assessment that this proposed Project is not a "Project of Air Quality Concern" (POAQC) for the following reasons[12]:

- Nees Avenue between Clovis and Minnewawa Avenues is not designated as a truck route, and does not serve a significant number of diesel vehicles. City of Clovis traffic counts indicate an AADT of 9,409 with 1.42% attributed to truck traffic.
- The proposed project will improve traffic flow and will not involve any increase in idling.
- The proposed project should not result in a significant increase in traffic volume.

The proposed Project will not result in new violations of Federal PM 2.5 and PM 10 air quality standards. Therefore, the proposed Project would not increase mobile source emissions beyond what was previously analyzed in the City's General Plan EIR and would not otherwise violate any air quality standards or significantly

[11] General Plan and Development Code Update Draft PEIR, City of Clovis. Appendix L. Figure 7. https://cityofclovis.com/wp-content/uploads/2018/10/Appendix-L.-Transportation-Impact-Study.pdf
[12] Appendix A. Consultation Memorandum on PM10 and PM2.5 Hot-spot Conformity Assessment. Page 2.

increase any criteria pollutant and will not expose sensitive receptors to substantial pollutant concentrations. Project-related impacts to air quality will be considered less than significant.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

c) Less Than Significant Impact.

Sensitive receptors are identified by the SJVAPCD as: "People that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling unit(s)."[13] The location of sensitive receptors is needed to assess toxic impacts on public health. The nearest sensitive receptors to the proposed Project site are the homes located on the south side of Nees Avenue. The closest one is located approximately 40 feet away. All of the homes that abut the south side of Nees Avenue have a block wall that runs along the property line. The project is required to meet SJVAPCD Regulation VIII and Rule 9510 Indirect Source Review, as well as the City's requirements for demolition, grading, and construction related to air pollution. Therefore, the proposed project will result in a less than significant impact to sensitive receptors.

d) Would the project result in other emissions (such as those leading to odors adversely affecting a substantial number of people?

d) Less Than Significant Impact. Implementation of the proposed Project would not result in long-term emissions of odors. However, construction would involve the use of a variety of gasoline- or diesel-powered equipment that would emit exhaust fumes. Exhaust fumes, particularly diesel exhaust, may be considered objectionable by some people. Construction activities would be short-term in nature. Conditions created by Project-related activities would not vary substantially from the baseline conditions routinely experienced onsite and in the vicinity. The proposed Project involves improvements to an existing roadway. It does not include any structures nor would it induce any population growth in the area. Therefore, the proposed Project will result in a less than significant impact related to objectionable odors.

[13] Guidance for Assessing and Mitigating Air Quality Impacts. June 19, 2015. http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf.

3.4 Biological Resources

Table 3-6 Biological Resources Impacts

Biological Resources Impacts				
Would the project:	**Potentially Significant Impact**	**Less than Significant with Mitigation Incorporated**	**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?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
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?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.4.1 Environmental Setting and Baseline Conditions

A Biological Memorandum was prepared for this proposed Project by the Department of Transportation and is attached as **Appendix B**. The proposed Project is located in Fresno County, within the City of Clovis. There is disturbed/developed, and agricultural habitat found within the proposed Project limits as the proposed Project is located along and within the existing paved roadway. The proposed Project location is adjacent to a peach orchard, residential and commercial development. Each of the habitat types, and their commonly associated wildlife species, found in the biological study area, are described below:

Disturbed/Developed Habitat. Disturbed areas are lands that have been altered by human actions such that the natural communities no longer exist. Disturbed areas generally consist of ruderal species or are un-vegetated.

Developed areas consist of all artificial structures within the project area including the paved roadway and shoulders.

Landscape Habitat. In the biological study area, landscape habitat is associated with ornamental trees and grass, which are routinely maintained by weeding and herbicide application. Landscape habitat occurs along the roadway sidewalk and within the median.

Agricultural Habitat. In the biological study area agricultural land consists of a peach orchard on the westbound side of Nees Avenue. Migratory birds may nest in the peach trees if left undisturbed during the nesting season.

The California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) was queried using the Clovis 7.5-minute United States Geological Survey (USGS) quadrangle map. The results can be seen in the table below. The United States Fish and Wildlife Service (USFWS) official species list was acquired using the USFWS's Information for Planning and Consultation (IPaC) database, that list can be seen in **Appendix B**.

Table 3-7 List of Special Status Animals with Potential to Occur Onsite and/or in the Vicinity

Scientific Name	Common Name	Federal Status	State Status	CDFW Status
Ambystoma californiense	California tiger salamander	Threatened	Threatened	WL
Spea hammondii	western spadefoot	None	None	SSC
Agelaius tricolor	tricolored blackbird	None	Threatened	SSC
Athene cunicularia	burrowing owl	None	None	SSC
Buteo swainsoni	Swainson's hawk	None	Threatened	-
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Threatened	Endangered	-
Eremophila alpestris actia	California horned lark	None	None	WL
Phalacrocorax auritus	double-crested cormorant	None	None	WL
Vireo bellii pusillus	least Bell's vireo	Endangered	Endangered	-
Branchinecta lynchi	vernal pool fairy shrimp	Threatened	None	-
Mylopharodon conocephalus	hardhead	None	None	SSC
Bombus crotchii	Crotch bumble bee	None	Candidate Endangered	-
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	Threatened	None	-
Antrozous pallidus	pallid bat	None	None	SSC
Dipodomys nitratoides exilis	Fresno kangaroo rat	Endangered	Endangered	-
Euderma maculatum	spotted bat	None	None	SSC
Eumops perotis californicus	western mastiff bat	None	None	SSC
Taxidea taxus	American badger	None	None	SSC
Vulpes macrotis mutica	San Joaquin kit fox	Endangered	Threatened	-
Anniella pulchra	northern California legless lizard	None	None	SSC

Scientific Name	Common Name	Federal Status	State Status	CDFW Status
Arizona elegans occidentalis	California glossy snake	None	None	SSC
Emys marmorata	western pond turtle	None	None	SSC
Phrynosoma blainvillii	coast horned lizard	None	None	SSC

Table 3-8 List of Special Status Plants with Potential to Occur Onsite and/or in the Vicinity

Scientific Name	Common Name	Federal Status	State Status	CA Rare Plant Rank
Calycadenia hooveri	Hoover's calycadenia	None	None	1B.3
Castilleja campestris var. succulenta	succulent owl's-clover	Threatened	Endangered	1B.2
Caulanthus californicus	California jewelflower	Endangered	Endangered	1B.1
Downingia pusilla	dwarf downingia	None	None	2B.2
Eryngium spinosepalum	spiny-sepaled button-celery	None	None	1B.2
Imperata brevifolia	California satintail	None	None	2B.1
Lagophylla dichotoma	forked hare-leaf	None	None	1B.1
Leptosiphon serrulatus	Madera leptosiphon	None	None	1B.2
Orcuttia inaequalis	San Joaquin Valley Orcutt grass	Threatened	Endangered	1B.1
Orcuttia pilosa	hairy Orcutt grass	Endangered	Endangered	1B.1
Pseudobahia bahiifolia	Hartweg's golden sunburst	Endangered	Endangered	1B.1
Pseudobahia peirsonii	San Joaquin adobe sunburst	Threatened	Endangered	1B.1
Sagittaria sanfordii	Sanford's arrowhead	None	None	1B.2
Tropidocarpum capparideum	caper-fruited tropidocarpum	None	None	1B.1
Tuctoria greenei	Greene's tuctoria	Endangered	Rare	1B.1

STATUS CODES

SSC Species of Special Concern
WL Watch List

CNPS LISTING

1B Plants Rare, Threatened, or Endangered in California and elsewhere
2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere

Based on knowledge of the area, the quality of the surrounding habitats, and information obtained from the No Effect Memo found in **Appendix B**, protocol-level surveys for special status plants or animals were deemed unnecessary due to the disturbed and developed nature of the habitat within the study area.

3.4.2 Impact Assessment

a) Would the project 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?

a) Less Than Significant Impact with Mitigation Incorporation. The 9.05-acre proposed Project site does not provide regionally important foraging habitat for any special-status species, as Nees Avenue is an arterial roadway east-west running across almost the whole width of the City. Furthermore, most of this area has been urbanized for some time, with the only agriculture being the orchard to the north of the roadway, thus limiting habitat adequate for wild animals. Migratory birds may nest in the peach trees if left undisturbed during the nesting season. Implementation of the following mitigation measure will reduce any impacts to less than significant:

Mitigation Measure BIO-1 Pre-construction Surveys: Pre-construction surveys for nesting birds shall be conducted by the City if trees are removed during the nesting season (February 1 to September 30). If active nest(s) is found, the tree(s) shall not be removed until after the young have fledged.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

b) No Impact. According to the Biological Memorandum[14], only disturbed/developed and agricultural habitat is found within the proposed Project site. Riparian and other sensitive habitats are absent from the site[15]. Mitigation is not warranted. There will be no impact.

c) Would the project 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?

c) No Impact. According to the Biological Memorandum prepared by the Department of Transportation and the Water Quality Assessment prepared by Area West Environmental, Inc., there are no wetlands or waters of the U.S. within the proposed Project Area[16]. The irrigation ditch that crosses under Nees Avenue does not qualify as a water of the U.S., per concurrence with Caltrans on August 26, 2019. Therefore, work within the irrigation ditch does not require Section 404 CWA clearance from the Corps[17]. The proposed Project will not have a substantial adverse effect on state or federally protected wetlands. There will be no impact.

d) Would the project 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?

d) Less Than Significant Impact. The proposed Project will not have a significant adverse effect on movements of individual wildlife in the area. The existing roadway system, development, and agricultural lands near and within the City have altered the natural landscape by introducing non-native plant species and removing potentially suitable natural habitat for sensitive plant or animal species within the proposed Project area.

Many migratory species that pass through the proposed Project site are neotropical migrant birds that are likely to pass through and over the site even when it is eventually widened. Therefore, this proposed Project will result in a less than significant effect on regional wildlife movements. As discussed in Impact Assessment 3.4.2

[14] Appendix B. Biological Memorandum. August 26, 2019. Page 2.
[15] Appendix F. Water Quality Assessment Report. October 2019. Page 25.
[16] Appendix B. Biological Memorandum. August 26, 2019. Page 2.
[17] Appendix F. Water Quality Assessment Report. October 2019. Page 10.

(a), if any trees are removed during nesting season, then pre-construction surveys for nesting birds shall be conducted by the City, see **Mitigation Measure BIO-1** above.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

e) No Impact. The proposed Project does not conflict with any local policies regarding protection of biological resources. The widening of Nees Avenue is identified in the Circulation Element of the Clovis Herndon-Shepherd Specific Plan. The proposed Project includes implementation of a landscape and irrigation plan that utilizes native drought-tolerant species and water-saving fixtures. There will be no impact

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

f) No Impact. No known Habitat Conservation Plans are in effect for the area. There will be no impact.

3.5 Cultural Resources

Table 3-9 Cultural Resources Impacts

Cultural Resources Impacts					
Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	☐	☐	☒	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

3.5.1 Environmental Setting and Baseline Conditions

The natural topography of the project area is flat at 400 feet above mean sea level. The natural watercourse closest to the study area is Dry Creek, which flows directly southeast of the APE. According to the City of Clovis there have been approximately 60 recorded cultural sites in and around the City. Of these sites only 11 have been determined to be eligible for the NRHP and are also eligible for or listed in the CRHR[18]. None of these 11 sites were found to be within the proposed Project APE.

3.5.2 Methodology

The City of Clovis (City), under the Federal Transportation Improvement Program as administered through the California Department of Transportation (Caltrans), plans to widen and reconstruct a 0.5-mile segment of Nees Avenue from Minnewawa Avenue to Clovis Avenue. Because the project will receive federal funding from the Federal Highway Administration (FHWA) via the California Department of Transportation (Caltrans), it is considered a federal undertaking subject to the National Historic Preservation Act (NHPA) of 1966, as amended. The City retained Applied EarthWorks, Inc. to perform the following surveys and reports necessary for compliance with Section 106 of the NHPA. A full copy of the reports and their findings can be found in **Appendix C** of this document.

3.5.2.1 Historical Property Survey Report

The studies for this undertaking were carried out in a manner consistent with Caltrans' regulatory responsibilities under Section 106 of the National Historic Preservation Act (36 CFR Part 800) and pursuant to the January 2014 First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act (Section 106 PA), as well as under Public Resources Code 5024 and pursuant to the January 2015 Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Office Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92 (5024 MOU) as applicable.

[18] General Plan and Development Code Update Draft PEIR, City of Clovis. Page 5.5-8. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-05-Cultural-Resources.pdf.

3.5.2.2 Historical Resources Evaluation Report

This Historical Resources Evaluation Report (HRER) evaluates the potential for the proposed action to affect buildings and structures eligible for listing in the National Register of Historic Places (NRHP)/California Register of Historical Resources (CRHR) or any resources considered historic for the purposes of the California Environmental Quality Act (CEQA). The specific purpose of this HRER is to comply with applicable sections of the National Historic Preservation Act (NHPA) of 1966, as amended, especially those regulations that pertain to federally funded undertakings and their impacts on historic properties.

3.5.2.3 Archaeological Survey Report

The studies for this undertaking were carried out in a manner consistent with Caltrans' regulatory responsibilities under Section 106 of the National Historic Preservation Act (36 CFR Part 800) and pursuant to the January 2014 First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act (Section 106 PA).

Applied EarthWorks' inventory efforts included: (1) a records search at the Southern San Joaquin Valley Information Center of the California Historical Resources Information System; (2) a cursory review of materials from historical archives; (3) Native American consultation; and (4) a pedestrian survey of the Direct Area of Potential Effects (APE) for archaeological resources, covering 6.34 acres.

3.5.3 Impact Assessment

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?

a) Less Than Significant Impact. A survey of the built environment within the APE by Applied EarthWorks, Inc. identified two historic built environment resources: a ranch property at 1235 N. Minnewawa Avenue and a segment of the South Branch Helm Colonial Ditch (P-10-005511), which was built sometime between 1911 and 1913. Both resources are on adjacent parcels north of Nees Avenue (Assessor's Parcel Nos. 560-051-10 and 560-051-25, respectively)[19].

The Smittcamp Family Ranch at 1235 N. Minnewawa Avenue (Map Reference #1, in **Appendix C**), which includes two single-family residences, a semicircular driveway, a stable block, and a peach stand, demonstrates significance under NRHP/CRHR Criterion A/1 and B/2 and possesses sufficient integrity to be considered eligible at the local level of significance. Its construction around the middle of the twentieth century and largely unaltered existence to this day is closely tied to the Smittcamp family and their agricultural businesses. The period of significance is from 1946, when it was acquired along with surrounding agricultural land by the Smittcamp family, to 2014, when the family patriarch passed away as its last permanent resident[20]. As part of their identification efforts Caltrans determined, and the SHPO concurred in their letter dated May 29, 2020, that the Smittcamp Family Ranch is eligible for the National Register of Historic Places (NRHP). The proposed construction activities associated with the Nees Avenue Improvements project will not encumber or affect the character defining features of the Smittcamp Family Ranch district or any of its contributing elements and it will retain sufficient historical integrity to properly convey its historic context, and the essential qualities that make the ranch eligible for the NRHP. The project will not result in a cumulative effect to the Smittcamp Family Ranch, nor will the project impede its ability to convey its significance[21].

[19] Appendix C. Cultural Resources Report. Historical Resources Evaluation. Page 17.
[20] Ibid.
[21] Appendix C. Finding of No Adverse Effect Concurrence Memo.

A 1,155-foot-long segment of the South Branch of the Helm Colonial Ditch was recorded and evaluated for inclusion in the NRHP. A section of the West Branch of the Helm Colonial Ditch was recorded and evaluated as ineligible with SHPO concurrence in 2005. The segment of the South Branch within the APE is also recommended ineligible for inclusion in the NRHP and is not a historical resource for the purposes of CEQA[22]. Therefore, the proposed Project will have a less than significant impact on the recommended eligible historical resource.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

b) Less Than Significant Impact. No prehistoric or archaeological resources were identified during the survey, and no sacred areas were identified in the APE as a result of the NAHC Sacred Lands File search, Native American consultation, or the records search at the SSJVIC. As discussed in 3.6.3 a), a segment of the previously recorded Helm Colonial Ditch (built 1911–1913) occurs within the APE as well as a portion of the Smittcamp family ranch at 1235 N. Minnewawa Avenue on the corner of Nees and Minnewawa avenues. These resources are discussed in detail in the Historical Resources Evaluation Report (**Appendix C**).

If previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be halted in that area until a qualified archaeologist can assess the significance of the find.

In the event that cultural or archaeological remains are encountered at any time during development or ground-moving activities within the entire project area, all work in the vicinity of the find shall halt until a qualified archaeologist can assess the discovery. The City shall implement all recommendations of the archaeologist necessary to avoid or reduce to a less than significant level potential impacts to cultural resource. Appropriate actions could include a Data Recovery Plan or preservation in place. Additional archaeological survey will be needed if project limits are extended beyond the present survey limits. Any impacts to archaeological resources will be less than significant.

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

c) Less Than Significant Impact with Mitigation Incorporated. No formal cemeteries or other places of human internment are known to exist on the proposed Project site; however, in accordance with Health and Safety Code Section 7050.5 and Public Resource Code Section 5097.98, if human remains are uncovered, Mitigation Measure CUL-1 will be implemented.

Mitigation Measure CUL-1 Human Remains: If human remains are uncovered, or in any other case when human remains are discovered during construction, the Fresno County Coroner is to be notified to arrange proper treatment and disposition. If the remains are identified—on the basis of archaeological context, age, cultural associations, or biological traits—as those of a Native American, California Health and Safety Code 7050.5 and Public Resource Code 5097.98 require that the coroner notify the NAHC within 24 hours of discovery. The NAHC will then identify the Most Likely Descendent who will determine the manner in which the remains are treated.

[22] Appendix C. Cultural Resources Report. Historical Resources Evaluation. Page iii.

3.6 Energy

Table 3-10 Energy Impacts

Energy Impacts					
	Would the project:	**Potentially Significant Impact**	**Less than Significant with Mitigation Incorporated**	**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?	☐	☐	☒	☐
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

3.6.1 Environmental Setting and Baseline Conditions

PG&E has sufficient energy supplies to serve the growth that has occurred in the City of Clovis. Much of the energy consumed in the region is for residential, commercial, and transportation purposes.

Construction equipment and construction worker vehicles operated during proposed Project construction would use fossil fuels. This increased fuel consumption would be temporary and would cease at the end of the construction activity, and it would not have a residual permanent requirement for additional energy input. The marginal increases in fossil fuel use resulting from proposed Project construction are not expected to have appreciable impacts on energy resources.

3.6.2 Impact Assessment

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

a) Less Than Significant Impact. As discussed in **Section 3.3**, the proposed Project will not exceed any air emission thresholds during construction or operation. The proposed Project will add 13 additional streetlights along Nees Avenue. The streetlights will use LED bulbs, which are energy efficient. The streetlights will use the existing power grid and power supply which has capacity and will not require a new power source. The proposed Project will comply with construction best management practices and will be required to complete a Storm Water Prevention Plan Program (SWPPP) as part of construction and operational permits. Once completed, the proposed Project will be mostly passive in nature and will not use an excessive amount of additional energy. The proposed Project will not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. Any impacts will be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

b) No Impact. The proposed Project will be mostly passive in nature once it is completed, and the construction phase will be temporary in nature and will not exceed any thresholds set by the SJVAPCD. Therefore, there will be no impact.

3.7 Geology and Soils

Table 3-11 Geology and Soils Impacts

Geology and Soils Impacts					
	Would the project:	**Potentially Significant Impact**	**Less than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
	ii) Strong seismic ground shaking?	☐	☐	☒	☐
	iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
	iv) Landslides?	☐	☐	☐	☒
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d)	Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
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?	☐	☐	☒	☐
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

3.7.1 Environmental Setting and Baseline Conditions

The City of Clovis is in the San Joaquin Valley; the foothills of the Sierra Nevada begin several miles east of the City. The San Joaquin Valley is the southern of two valleys that make up the Great Valley geomorphic province, an alluvial plain about 400 miles long and 50 miles wide. The Coast Ranges bound the San Joaquin Valley on the west[23].

[23] City of Clovis General Plan and Development Code Update Draft PEIR. Page 5.6-2. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-06-Geology-and-Soils.pdf

The City of Clovis Plan Area is underlain by Quaternary alluvial fan sedimentary deposits and Pleistocene nonmarine sedimentary deposits (see Figure 5.6-1, Geologic Map of the City of Clovis General Plan). The Quaternary Period extends from the present to 1.8 million years before present (mybp), and the Pleistocene Epoch extends from 11,500 years before present to 1.8 mybp. The Plan Area is on a very slight southwest slope of about 0.2 percent grade; elevations in the incorporated portion of the City range from about 335 feet above mean sea level (amsl) at the southwest corner of the Plan Area to 435 feet amsl at the northeast corner. Elevations in the Sphere of Influence (SOI) range up to about 390 feet amsl at both the northern and eastern SOI boundaries. The terrain in the eastern and northeastern parts of the Plan Area is cut by numerous gullies and small canyons. The overall grade in those areas remains similar to that of the City and SOI; elevations in the Plan Area reach 584 feet amsl[24].

Faulting and Seismicity: Although all of California is typically regarded as seismically active, the Central Valley region does not commonly experience strong ground shaking resulting from earthquakes along known and previously unknown active faults. The Clovis Fault extends northwest-southeast from just north of the Plan Area, across the northeastern corner, to just east of the southeast Plan Area boundary (see Figure 5.6-2, Regional Fault Map). The Clovis Fault is not mapped as active and is mapped as showing no recognized displacement in the Quaternary Period, that is, within the last 1.6 million years. No other faults within 50 miles of the Plan Area are mapped on the 2010 Fault Activity Map of California[25].

Liquefaction: Liquefaction is a process whereby strong earthquake shaking causes sediment layers that are saturated with groundwater to lose strength and behave as a fluid. This subsurface process can lead to near-surface or surface ground failure that can result in property damage and structural failure. If surface ground failure does occur, it is usually expressed as lateral spreading, flow failures, ground oscillation, and/or general loss of bearing strength. Sand boils (injections of fluidized sediment) can commonly accompany these different types of failure. Areas of the San Joaquin Valley in Fresno County are not considered conducive to liquefaction due to soil types—either too coarse or too high in clay content[26].

Landslides: Landslides are downward and outward movements of slope forming materials which may be rock, soil, artificial fill, or combinations of such materials. The size of landslides varies from those containing less than a cubic yard of material to massive ones containing millions of cubic yards. Large landslides may move down slope for hundreds of yards or even several miles. A landslide may move rapidly or so slow that a change of position can be noted only over a period of weeks or years. A similar, but much slower movement is called creep. The City of Clovis is not susceptible to earthquake-induced landslides due to very slight grades.[27]

Soil Erosion: Erosion is the movement of soil from place to place and is a natural process. The main natural agents of erosion in the region are wind and flowing water. Erosion can be accelerated dramatically by ground-disturbing activities if effective erosion control measures are not used. Soil can be tracked off of construction sites by vehicles and carried off sites by wind and water[28].

Subsidence: The main cause of ground subsidence is withdrawal of groundwater. The most damaging effects of subsidence have been ground fissures in areas of differential ground subsidence (LACWD 2013). No significant land subsidence is known to have occurred in the last 50 years as a result of land development, water resources development, groundwater pumping, or oil drilling. Regional ground subsidence in the Plan Area for

[24] General Plan and Development Code Update Draft PEIR, City of Clovis.Page 5.6-3. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-06-Geology-and-Soils.pdf .
[25] General Plan and Development Code Update Draft PEIR, City of Clovis. Page 5.6-3. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-06-Geology-and-Soils.pdf .
[26] Ibid, Page 5.6-1.
[27] Ibid, Page 5.6-4
[28] Ibid, Page 5.6-4

the County of Fresno was mapped as less than one foot by the US Geological Survey in 1999. However, groundwater levels in the San Joaquin Valley are forecast to hit an all-time low in 2014.

Groundwater levels in the Kings Groundwater Basin are managed by nine public agencies and one private company within the Fresno Regional Groundwater Management Plan area, which is the northern part of the Kings River Subbasin encompassing the Fresno-Clovis Metropolitan Area and some surrounding areas of the San Joaquin Valley in Fresno County. Lands within the Fresno Regional Groundwater Management Plan area will be observed for land subsidence, and if land subsidence becomes a problem, the Fresno Regional Groundwater Management Plan will be amended to include preventive and mitigative measures for land subsidence[29].

Expansive Soils: Expansive soils shrink or swell as the moisture content decreases or increases; the shrinking or swelling can shift, crack, or break structures built on such soils. Based on a generalized assessment for Fresno County, soils with moderately high to high expansion potential are present along parts of the northern edge of the non-SOI Plan Area and in the easternmost part of the City of Clovis' Non-SOI Plan Area[30].

Soils: The soil at the proposed Project site include Hanford sandy loam; Hanford sandy loam, sandy substratum; Hanford fine sandy loam; Tujunga loamy sand, 0 to 3 percent slopes. The Hanford sandy loams are well drained and the Tujunga loamy sand is considered to be somewhat excessively drained[31].

3.7.2 Impact Assessment

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

VI-a-i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

VI-a-ii) Strong seismic ground shaking?

a-i and a-ii) Less Than Significant Impact. The proposed Project and its vicinity are located in an area traditionally characterized by relatively low seismic activity. The proposed Project is not located in an Alquist-Priolo Earthquake Fault Zone as established by the Alquist-Priolo Fault Zoning Act (Section 2622 of Chapter 7.5, Division 2 of the California Public Resources Code). The nearest major fault to the first phase is the San Andreas Fault, Creeping section, located approximately 73.5 miles southwest of the proposed Project site. A smaller fault zone, the San Joaquin fault, is approximately 58.9 miles west of the site.

The proposed Project is a roadway improvement project and will not result in an increase of people or habitable structures onsite. Any impact will be less than significant.

VI-a-iii) Seismic-related ground failure, including liquefaction?

a-iii) Less Than Significant Impact. Areas of the San Joaquin Valley in Fresno County are not considered conducive to liquefaction due to the soil types – either too coarse or too high in clay content. This impact will be less than significant.

[29] General Plan and Development Code Update Draft PEIR, City of Clovis. Page 5.6-4. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-06-Geology-and-Soils.pdf
[30] Ibid.
[31] Appendix G. NRCS Soils Report. November 4, 2019. Page 13-17

VI-a-iv) Landslides?

a-iv) No Impact. As the proposed Project is located on the Valley floor, no major geologic landforms exist on or near the site that could result in a landslide event. There will be no impact.

b) Would the project result in substantial soil erosion or the loss of topsoil?

b) Less Than Significant Impact with Mitigation Incorporated. The process of erosion involves the breaking down of soils and rocks and the transporting of broken fragments to another location. Water is the dominant cause of erosion and is also the most likely means of transporting broken down materials. The rate of erosion depends upon the texture of rock or soil, the composition, soil permeability, slope, vegetative cover, and precipitation amounts. The potential erodibility of soil in the proposed Project area is considered low, since land within the proposed Project area has a T rating of 5 (**Appendix G**). Therefore, erosion is not considered a critical issue. However, to ensure implementation of storm water requirements and to soil erosion effects, the City will obtain a Storm Water Pollution Prevention Plan (SWPPP), if ground disturbance exceeds one acre. Compliance with applicable requirements will minimize proposed Project impacts to soil erosion.

Mitigation Measure GEO-1: Prior to the issuance of a building permit, the project applicant shall submit Permit Registration Documents (PRD) for the Construction General Permit Order 2009-0009- DWQ to the State Water Resources Control Board, and comply with, and implement, all requirements of the permit. A Legally Responsible Person (LRP) shall electronically submit PRDs prior to commencement of construction activities in the Storm Water Multi- Application Report Tracking System. PRDs consist of the Notice of Intent, Risk Assessment, Post-Construction Calculations, a Site Map, the Storm Water Pollution Prevention Plan (SWPPP), a signed certification statement by the LRP, and the first annual fee. Following submittal of a Notice of Intent package and development of a SWPPP in accordance with the Construction General Permit, the applicant will receive a Waste Discharge Identification Number from the SWRCB. All requirements of the site-specific SWPPP, including any revisions, shall be included in construction documents and must be available on site for the duration of the project.

c) Would the project 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?

c) Less Than Significant Impact. Subsidence is the vertical displacement downward of the ground surface, the direct result of groundwater and oil and gas withdrawal. Subsidence is common in California, although mostly in areas where the subsurface consists of compressible silt and clay, and mostly due to the withdrawal of groundwater. Regional ground subsidence in the Clovis General Plan Area was mapped as less than one foot by the US Geological Survey in 1999[32]. Any impact will be less than significant.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial direct or indirect risks to life or property?

d) Less Than Significant Impact. The soil at the proposed Project site include Hanford sandy loam, Hanford sandy loam, sandy substratum, Hanford fine sandy loam, Tujunga loamy sand, 0 to 3 percent slopes. The Hanford sandy loams are well drained and the Tujunga loamy sand is considered to be somewhat excessively drained. Expansive soils have the potential to significantly shrink or swell with changes in moisture content. Type and amount of the silt and clay content in the soil will determine the amount of shrink or swell associated with the various levels of water content. Soils comprising sand and gravel are not expansive soils. Expansive soils are most likely to be found in basins and basin rims, and any structure located on expansive soils can be significantly damaged should the soil suddenly shrink or swell. According to the General, Plan, the extreme southwestern corner of the Planning Area is the only area in the City of Clovis with expansive soils. The

[32] General Plan and Development Code Update Draft PEIR, City of Clovis. Page 5.6-4. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-06-Geology-and-Soils.pdf

proposed Project will not involve the construction of any habitable buildings, any impacts will be less than significant.

e) Would the project 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?

e) Less Than Significant Impact. The proposed Project does not involve the use of septic tanks or alternative wastewater disposal systems. The proposed Project will improve the sewer system by connecting sewer mains from Clovis Avenue to Minnewawa Avenue. Therefore, impacts will be less than significant.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

f) No Impact. Paleontological resources are fossilized remains of flora and fauna and associate deposits. CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA **Appendix G**(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) Section 15126.4(a)(1)). PRC Section 5097.5 also applies to paleontological resources.

There are no unique paleontological resources or sites or unique geologic features present on the proposed Project site. Therefore, the proposed Project would not directly or indirectly destroy any unique paleontological resources or sites or any unique geologic feature. There will be no impact.

3.8 Greenhouse Gas Emissions

Table 3-12 Greenhouse Gas Emissions Impacts

Greenhouse Gas Emissions Impacts				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.8.1 Environmental Setting and Baseline Conditions

The Earth's climate has been warming for the past century. It is believed that this warming trend is related to the release of certain gases into the atmosphere. Greenhouse gases (GHG) absorb infrared energy that would otherwise escape from the Earth. As the infrared energy is absorbed, the air surrounding the Earth is heated. An overall warming trend has been recorded since the late 19th century, with the most rapid warming occurring over the past 35 years, with 16 of the 17 warmest years on record occurring since 2001. Not only was 2016 the warmest year on record, but eight of the 12 months that make up the year – from January through September, with the exception of June – were the warmest on record for those respective months. October, November, and December of 2016 were the second warmest of those months on record – in all three cases, behind records set in 2015[33]. Human activities have been attributed to an increase in the atmospheric abundance of greenhouse gases. The following is a brief description of the most commonly recognized GHGs.

3.8.1.1 Greenhouse Gases

Commonly identified GHG emissions and sources include the following:

Carbon dioxide (CO_2) is an odorless, colorless natural greenhouse gas. CO_2 is emitted from natural and anthropogenic sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic out gassing. Anthropogenic sources include the burning of coal, oil, natural gas, and wood.

Methane (CH_4) is a flammable greenhouse gas. A natural source of methane is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain methane, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and ruminants such as cattle.

Nitrous oxide (N_2O), also known as laughing gas, is a colorless greenhouse gas. Nitrous oxide is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load.

Water vapor is the most abundant, and variable greenhouse gas. It is not considered a pollutant; in the atmosphere, it maintains a climate necessary for life.

[33] NASA, NOAA Data Show 2016 Warmest Year on Record Globally. https://www.nasa.gov/press-release/nasa-noaa-data-show-2016-warmest-year-on-record-globally. January 18, 2017.

Ozone (O_3) is known as a photochemical pollutant and is a greenhouse gas; however, unlike other greenhouse gases, ozone in the troposphere is relatively short-lived and, therefore, is not global in nature. Ozone is not emitted directly into the atmosphere but is formed by a complex series of chemical reactions between volatile organic compounds, nitrogen oxides, and sunlight.

Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

Chlorofluorocarbons (CFCs) are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. CFCs destroy stratospheric ozone; therefore, their production was stopped as required by the Montreal Protocol in 1987.

Hydrofluorocarbons (HFCs) are synthetic chemicals that are used as a substitute for CFCs. Of all the greenhouse gases, HFCs are one of three groups (the other two are perfluorocarbons and sulfur hexafluoride) with the highest global warming potential. HFCs are human made for applications such as air conditioners and refrigerants.

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere; therefore, PFCs have long atmospheric lifetimes, between 10,000 and 50,000 years. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It has the highest global warming potential of any gas evaluated. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

3.8.1.2 Effects of Climate Change

There are uncertainties as to exactly what the climate changes will be in various local areas of the earth, and what the effects of clouds will be in determining the rate at which the mean temperature will increase. There are also uncertainties associated with the magnitude and timing of other consequences of a warmer planet: sea level rise, spread of certain diseases out of their usual geographic range, the effect on agricultural production, water supply, sustainability of ecosystems, increased strength and frequency of storms, extreme heat events, air pollution episodes, and the consequence of these effects on the economy.

Emissions of GHGs contributing to global climate change are largely attributable to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. GHG emissions are typically expressed in carbon dioxide-equivalents (CO_2e), based on the GHG's Global Warming Potential (GWP). The GWP is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, one ton of CH_4 has the same contribution to the greenhouse effect as approximately 21 tons of CO_2. Therefore, CH_4 is a much more potent GHG than CO_2.

3.8.2 Methodology

CalEEMod, version 2016.3.2, modeling software, was ran in November 2019, and is contained in **Appendix A**. The essential conclusions of this modeling are as follows:

Short-Term Construction-Generated Emissions

Short-term construction emissions associated with the proposed Project were calculated using CalEEmod, Version 2016.3.2. The emissions modeling includes emissions generated by off-road equipment, haul trucks, and worker commute trips. Emissions were quantified based on anticipated construction schedules and proposed Project area provided by the project applicant. All remaining assumptions were based on the default parameters contained in the model. Modeling assumptions and output files are included in **Appendix A.**

Long-Term Operational Emissions

CalEEmod does not analyze operational GHG emissions from vehicle traffic for roadway projects. Widening Nees Avenue to accommodate an additional west-bound travel lane and install pedestrian and bicycle facilities will increase the safety and security of the transportation system, reduce traffic congestion and vehicle delays, improve service capacity during peak travel times, and provide complete street improvements for all modes of transportation. Completing this road section will improve traffic flow to the Buchanan Educational Complex and provide additional transportation options for non-motorized usage. Nees Avenue was identified in the City's General Plan as a four lane arterial[34]. Arterials collect and distribute traffic from freeways and expressways to collector streets. The proposed Project would not generate additional vehicle trips on Nees Avenue beyond what was already planned for as a future four lane arterial and analyzed in the City's General Plan EIR. In addition, there are no stationary source emissions resulting from the Project.

3.8.2.1 Thresholds of Significance

CEQA Guidelines Amendments became effective June 18, 2010. Included in the amendments are revisions to the Appendix G Initial Study Checklist. In accordance with these amendments, a project would be considered to have a significant impact to climate change if it would:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or,
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

In accordance with SJVAPCD's CEQA Greenhouse Gas Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects, proposed projects complying with Best Performance Standards (BPS) would be determined to have a less-than-significant impact. Projects not complying with BPS would be considered less than significant if operational GHG emissions would be reduced or mitigated by a minimum of 29 percent, in comparison to business-as-usual (year 2004) conditions. In addition, project-generated emissions complying with an approved plan or mitigation program would also be determined to have a less-than-significant impact.

3.8.3 Impact Assessment

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

a) Less Than Significant Impact.

Short-Term Construction-Generated Emissions

Estimated construction-generated emissions are summarized in Table 3-5. As indicated, construction of the proposed Project would generate maximum total emissions of approximately 125.3383 metric tons of carbon dioxide equivalent ($MTCO_2e$) per the estimated length of the proposed Project (three months). Construction-related production of GHGs would be temporary. Any impacts will be less than significant.

[34] General Plan and Development Code Update Draft PEIR, City of Clovis. Appendix L. Figure 7. https://cityofclovis.com/wp-content/uploads/2018/10/Appendix-L.-Transportation-Impact-Study.pdf

Table 3-13 Short-Term Construction-Generated GHG Emissions

Short-Term Construction-Generated GHG Emissions	
Year	**Total Emissions ($MTCO_2e$)(1)**
2021	123.3383
AB 32 Consistency Threshold for Mobile Sources	*1,100*
AB 32 Consistency Threshold for Stationary Sources	*10,000*
Exceed Threshold?	No

1. Emissions were quantified using the CalEEmod, Version 2016.3.2. Refer to Appendix A for modeling results and assumptions. Totals may not sum due to rounding.

Long-Term Operational Emissions

CalEEmod does not analyze operational GHG emissions from vehicle traffic for roadway projects. Nees Avenue was identified in the City's General Plan as a four lane arterial[35]. The proposed Project would not generate additional vehicle trips on Nees Avenue beyond what was already planned for as a future four lane arterial and analyzed in the City's General Plan EIR. In addition, there are no stationary source emissions resulting from the Project.

Because construction of the proposed Project is below the AB 32 Consistency thresholds, impacts from greenhouse gas emissions will be less than significant.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

b) Less Than Significant Impact. SJVAPCD has not established thresholds of significance for greenhouse gas (GHG) emissions, nor has it published any goals, implementation measures, or guidance regarding GHG. In the absence of pre-determined thresholds of significance in the applicable Air District, the Bay Area Air Quality Management District's GHG emissions thresholds were used. The proposed Project complies with the Bay Area Air Quality Management District's GHG emissions thresholds for significance. The proposed Project will not conflict with any applicable plan, policy or regulation for reducing the emissions of GHGs, nor will the proposed Project have a significant impact on the environment. The impact will be considered less than significant.

[35] General Plan and Development Code Update Draft PEIR, City of Clovis. Appendix L. Figure 7. https://cityofclovis.com/wp-content/uploads/2018/10/Appendix-L.-Transportation-Impact-Study.pdf

3.9 Hazards and Hazardous Materials

Table 3-14 Hazards and Hazardous Materials Impacts

Hazards and Hazardous Materials Impacts					
	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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?	☐	☐	☒	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g)	Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

3.9.1 Environmental Setting and Baseline Conditions

3.9.1.1 Hazardous Materials

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code (GC) Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Cortese List. The Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List. DTSC's EnviroStor database provides DTSC's component of Cortese List data (DTSC, 2010). In addition to the EnviroStor database, the State Water Resources Control Board (SWRCB) Geotracker database provides information on regulated hazardous waste facilities in

California, including underground storage tank (UST) cases and non-UST cleanup programs, including Spills-Leaks-Investigations-Cleanups (SLIC) sites, Department of Defense (DOD) sites, and Land Disposal program. A search of the DTSC EnviroStor database and the SWRCB Geotracker performed in November 2019 determined that there are no known active hazardous waste generators or hazardous material spill sites within the proposed Project site or immediate surrounding vicinity.

3.9.2 Impact Assessment

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? And;

b) Would the project 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?

a-b) Less Than Significant Impact. The widening of Nees Avenue will not involve the demolition? of any structures. However, a portion of the peach orchard adjacent to the northern side of Nees Avenue will be removed. As discussed in **Appendix E**, the presence of aerial deposited lead (ADL) along the shoulders of pre-1987 constructed highways, freeways and other heavily traveled roads, is common due to emissions from vehicles powered by internal-combustion, leaded-gasoline fueled engines. The 1923 topo map shows Nees and Minnewawa Avenues. The 1946 map provides road classifications of "light-duty" and "medium-duty" respectively. Given the road ages and classifications, the potential for ADL concentrations greater than regulatory limits exists within the right-of-way acquisition area along the north edge of Nees Avenue[36]. As part of the proposed Project the ADL will be assessed prior to construction. Should any contaminated soils be found they will be handled according to the Aerially Deposited Lead-Contaminated Soils Agreement with the California Department of Transportation.

Yellow traffic stripes are also known to contain heavy metals such as lead and chromium at concentrations in excess of the hazardous waste thresholds established by the California Code of Regulations and may produce toxic fumes when heated. There is yellow traffic striping at the turn pocket ends of the North Harvard and Nees Avenues intersection and at the delineation of the pedestrian cross walks at the intersection of Nees and North Minnewawa Avenues[37]. Yellow traffic stripes will be addressed in the construction contract and will be assessed for hazards. Should any contaminated stripes be found, they will be removed and disposed of in accordance with Caltrans Standard Special Provision for Hazardous Waste. If other hazardous materials such as asbestos or lead paint are discovered during any proposed Project related road demolition, industry best management practices will be employed while complying with all federal and State regulations, as well as regulations set forth by the County, specifically Fresno County's Certified Unified Program Agency (CUPA), which consists of the County's Environmental Health Division.

The construction phase of the proposed Project will involve hazardous materials generally associated with construction activities, such as diesel fuel, gasoline, grease, solvents, adhesives, paints, hydraulic fluid, oil, lubricants, and other petroleum-based products. However, standard construction and operational BMPs, as described in Table 2-1, will be followed. Any potential hazardous materials spills during construction would be addressed according to industry best management practices, Occupational Safety and Health Administration (OSHA) requirements, federal and state regulations, and County requirements. Furthermore, a Stormwater Pollution Prevention Plan (SWPPP) will be employed to prevent stormwater contamination, control sedimentation and erosion, and comply with the requirements of the Clean Water Act. Therefore, any impacts will be less than significant.

[36] Appendix E, Phase 1 Initial Site Assessment, Nees Avenue Improvement Project – CIP 17-13. December 2019. Page 10.
[37] Ibid.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

c) Less Than Significant Impact. Buchanan High School and Garfield Elementary School are located approximately 0.35 northwest and 0.44 miles west, respectively, from the APE. The proposed Project involves the removal of a portion of a peach orchard and the widening of Nees Avenue. Other than those typically associated with construction, such as diesel fuel, gasoline, hydraulic fluid, oil, and lubricants, the transport or use of hazardous materials is not anticipated as part of the proposed Project. The impact will be less than significant.

d) Would the project 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?

d) No Impact. The proposed Project does not involve land that is listed as a hazardous materials site pursuant to Government Code Section 65962.5 and is not included on a list compiled by the Department of Toxic Substances Control. Both the GeoTracker and EnviroStor websites were checked for sites in the area. There will be no impact.

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?; and,

e) No Impact. The Fresno Yosemite International Airport is located approximately 4.5 miles south and Sierra Sky Park Airport is approximately 8.7 miles west of the proposed Project. The widening of Nees Avenue is not located within an airport land use plan or within two miles of an airport. There will be no impact.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

f) Less Than Significant Impact. Once the proposed Project is complete, the newly widened Nees Avenue will help improve overall circulation throughout the area and facilitate emergency evacuation. Temporary lane closures within the proposed Project area are anticipated during the construction phase of the proposed Project. However, these routine lane closures will be accommodated by adequate signage in accordance with industry best management practices and City standards. The detours around the lane closures would occur in a manner that maximizes the efficiency and safety of circulation during times of construction. With regard to this threshold, the impact will be less than significant.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

g) No Impact. The proposed Project and surrounding lands are developed, mainly for residential use. With no wildlands in the proposed Project site or adjacent areas, and no structures proposed as part of the proposed Project, the risk of a wildland fire is minimal. Furthermore, there is a fire station located 0.78 miles south of the proposed Project site. There will be no impact.

3.10 Hydrology and Water Quality

Table 3-15 Hydrology and Water Quality Impacts

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

3.10.1 Environmental Setting and Baseline Conditions

The existing Nees Avenue roadway between Clovis Avenue and Minnewawa Avenue currently consists of a three-lane arterial with no existing sidewalk connectivity on the north side of Nees Avenue. The existing irrigation ditch (Helm Colonial South Br. No. 116) runs through the proposed Project Area and is culverted underground to continue south across Nees Avenue. Elevation within the proposed Project area is relatively flat with elevations between approximately 370 to 380 feet. Water quality within Helm Colonial South Br. No. 116 is primarily dependent upon upstream flows. There are known sources of pollution upstream of the proposed Project Area. A Water Quality Assessment Report, was prepared for this proposed Project by Area West Environmental, Inc. and can be found in **Appendix F** of this document.

Surface Water: Drinking water for the City of Clovis is provided by the City, through both surface and groundwater. Surface water is provided to the City of Clovis Surface Water Treatment Plant via the Enterprise

Canal, which diverts water from the Kings River. Groundwater is pumped from wells, and the City operates a number of groundwater recharge facilities[38].

Groundwater: The proposed Project area is located within the Kings Groundwater Subbasin, which is part of the Kings Groundwater Basin. The Kings Groundwater Subbasin has been identified as critically over drafted[39].

3.10.1.1 Flooding

The proposed Project area is located within the 06019C1580H Flood Insurance Rate Map (FIRM). The majority of the area along Nees Avenue is designated as Zone X, which is defined as, "Area of Minimal Flood Hazard" (Figure 3-3) (Federal Emergency Management Agency [FEMA] 2017). However, approximately 0.00254 acres on the very east end of the proposed Project area is designated as a 100-year flood zone, which is defined as "Areas subject to inundation by the 1-percent-annual-chance flood event".

3.10.2 Impact Assessment

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

a) Less Than Significant Impact. The proposed Project will not result in habitable structures or population increase. Construction activities would result in minor disturbance within and adjacent to the irrigation ditch. Earthmoving, excavation, and demolition needed to remove the existing culvert and standpipe, extend the culvert, and install the new standpipe could result in a temporary increase in sediment loads, turbidity, and siltation. There is potential for erosion to occur from areas adjacent to the ditch where orchard trees will be removed for the new road alignment and sidewalks. The total disturbed soil area is expected to be approximately 2.41 acres[40].

The proposed Project would comply with the Construction General Permit (CGP), including preparing and implementing a SWPPP that identifies project-specific erosion, sediment, and stormwater BMPs to protect water quality during Project construction[41]. The SWPPP would identify Project specific BMPs to protect water quality from construction activities. Compliance with the CGP and the SWPPP would ensure that water quality standards would not be violated[42]. Therefore, any impacts will be less than significant.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project would impede sustainable groundwater management of the basin?

b) Less Than Significant Impact. As mentioned above in a), the proposed Project will not result in habitable structures or a population increase. The proposed Project will include implementation of a landscape and irrigation plan that utilizes native drought-tolerant species and water-saving fixtures. Additionally, the proposed Project will remove approximately 235 peach trees. The use of water for landscaping will be significantly less than the water that is currently required for the 235 peach trees. Groundwater depletion is not of concern for this proposed Project. Impacts will be less than significant.

[38] Appendix F. Water Quality Assessment Report. October 2019. Page 16.
[39] Ibid.
[40] Ibid. Page 27.
[41] Ibid.
[42] Ibid.

c) Would the project 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:

c-i) result in substantial erosion or siltation on- or off-site;

c-ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite;

c-iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

c-iv) impede or redirect flood flows?

c) Less Than Significant Impact. The ground disturbance generated by this proposed Project is primarily the expansion of Nees Avenue and its associated improvements. A large portion of the proposed Project area is currently paved, however, some of the existing drainage pattern of the area will be permanently altered by the expanded roadway. As part of the proposed Project, sidewalk, curb, curb returns and ramps, gutters and storm drain inlets will be installed which will handle any excess water on the site. Any areas that are temporarily disturbed will be restored. No substantial erosion or siltation on or off-site is expected. Additionally, surface runoff that would result in flooding is not expected to be increased as a result of the proposed Project. Dry Creek runs along the east side of North Clovis Avenue, approximately 175 LF from the proposed Project boundary. The proposed Project improvements would not impact or alter Dry Creek. No flood flows would be impeded or redirected. Any impacts associated with this checklist item will be less than significant.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundations?

d) No Impact. As discussed above, the majority of the proposed Project area is located outside the 100-year flood zone and the irrigation ditch does not function as a flood control facility. Because the proposed Project does not involve any structures or housing it will not subject persons or property to any impacts related to flood hazards, tsunamis, or seiches. There will be no impact.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

e) Less Than Significant Impact. The improvement of Nees Avenue is discussed in the Circulation Element of the Clovis Herndon-Shepherd Specific Plan identifies the need for additional street right-of-way totaling approximately 24,283 square feet across APN 560-051-10 and approximately 54,691 square feet across APN 560-051-25 to accommodate the outside travel lane and greenbelt/sidewalk. The proposed Project will have little effect on water supply. It will include implementation of a landscape and irrigation plan that utilizes native drought-tolerant species and water-saving fixtures. The widening of Nees Avenue would not conflict with or obstruct implementation of any water quality control plan or sustainable groundwater management plan. Impacts will be less than significant.

3/18/2020 : \\ppeng.com\pzdata\clients\Clovis_City of - 1017\Projects\101719002 - City of Clovis Nees Ave. Improvements\GIS\Map\FEMA.mxd

Figure 3-2 FEMA Flood Map

3.11 Land Use and Planning

Table 3-16 Land Use and Planning Impacts

Land Use and Planning Impacts					
	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Physically divide an established community?	☐	☐	☐	☒
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

3.11.1 Environmental Setting and Baseline Conditions

The proposed Project site is predominately within Nees Avenue and its surrounding road right-of-way, as well as a portion of the peach orchard to the north.

General Plan Land Use and Zoning Designations: The City of Clovis General Plan designates areas within the proposed Project site as: Low Density Residential (L); Medium High Density Residential (MH) and Rural Residential (RR). Areas within the site are zoned either Single Family Residential (R-1) or Single Family Residential (24,000 SF) (R-A). Nees Avenue is designated as an arterial roadway.

Surrounding Land use Designations: Nees Avenue is surrounded by residential homes to the south and east and a peach orchard to the north. Buchanan High School and Garfield Elementary are located to the West. Additionally, Dry Creek runs along the eastern edge of the proposed Project site going under Nees Avenue. The City of Clovis General Plan designates the immediately adjacent surrounding land uses as: Low Density Residential (L); Medium High Density Residential (MH), Medium Density Residential (M) Rural Residential (RR), and School (S).

3.11.2 Impact Assessment

a) Would the project physically divide an established community?

a) No Impact. The proposed Project proposes improving and widening of Nees Avenue, which is an arterial roadway connecting residential uses with commercial developments, parks, open space, schools, and community facilities. The proposed Project also includes installation of a Class II bicycle lane and improved sidewalk that will complete the pedestrian and bicycle connectivity between nearby Garfield Elementary, Alta Sierra Intermediate School, and Buchanan High School to residences and neighborhoods in the vicinity. Since the proposed Project would widen and improve the existing roadway and intersections, it would not cause any physical divisions of the community and would not result in isolation or separation of existing residences from businesses and community facilities. There will be no impact.

b) Would the project cause a significant environmental conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

b) No Impact. Nees Avenue was identified in the City's General Plan as a future four lane arterial[43]. The widening of Nees Avenue would not conflict with any land use plan, policy, or regulation. Therefore, there will be no impact.

[43] General Plan and Development Code Update Draft PEIR, City of Clovis. Appendix L. Figure 7. https://cityofclovis.com/wp-content/uploads/2018/10/Appendix-L.-Transportation-Impact-Study.pdf

3.12 Mineral Resources

Table 3-17 Mineral Resources Impacts

Mineral Resources Impacts					
Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b)	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

3.12.1 Environmental Setting and Baseline Conditions

The City of Clovis is located in central Fresno County within the central portion of the Central San Joaquin Valley. Mineral resources in the area tend to be located around the San Joaquin River, which is outside of the City of Clovis and its plan area boundary[44]. Furthermore, the proposed Project site is located within a developed portion of the City, along Nees Avenue.

3.12.2 Impact Assessment

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? and

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

a and b) No Impact. According to the City of Clovis General Plan, no mineral resource zones and no active or inactive mines mapped by the Office of Mine Reclamation are in the City of Clovis.[45] Furthermore, the proposed Project is located within a developed portion of the City, along Nees Avenue. Since no known mineral resources occur in this area, the proposed Project would not result in the loss of availability of a known mineral resource. There will be no impact.

[44] General Plan and Development Code Update Draft PEIR, City of Clovis. Figure 5.11-1.https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-11-Mineral-Resources.pdf
[45] Ibid. Page 5.11-10.

3.13 Noise

Table 3-18 Noise Impacts

Noise Impacts					
	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b)	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.13.1 Environmental Setting and Baseline Conditions

The City of Clovis is impacted by a multitude of noise sources. Mobile sources of noise, especially cars and trucks, are the most common and significant sources of noise in most communities, and they are predominant sources of noise in the City. The Fresno-Yosemite International Airport also generates noise from general aviation and commercial aircraft activity. In addition, commercial, industrial, and institutional land uses throughout the City (i.e., schools, fire stations, utilities) generate stationary-source noise[46].

The project area is already subject to traffic noise that is generated from Nees Avenue. A Noise Study report (NSR) was prepared by WJV Acoustics, Inc. The purpose of the NSR was to evaluate noise impacts and abatement under the requirements of Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772) "Procedures for Abatement of Highway Traffic Noise". 23 CFR 772 provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for federal and federal-aid highway projects. According to 23 CFR 772.3, all highway projects that are developed in conformance with this regulation are deemed to be in conformance with Federal Highway Administration (FHWA) noise standards (**Appendix D**).

One (1) long-term (24-hour measurement) and two (2) short-term (15-minute) noise level measurements were conducted on Tuesday, July 9, 2019 at acoustically representative locations to document existing ambient noise levels in the project vicinity. Figure 5-1 of **Appendix D**, details these locations. The short-term measurements included concurrent traffic counts in order to calibrate the traffic noise prediction model and were taken at 9:25 a.m., 9:45 a.m., 10:00 a.m., and 10:15 a.m[47]. The long-term measurement was intended to describe variations in existing ambient noise levels within the project vicinity over a 24-hour period. Using the TNM, existing traffic noise exposure for peak traffic conditions was calculated to be approximately of 57-60 dB Leq at the

[46] General Plan and Development Code Update Draft PEIR, City of Clovis. Page 5.12-10. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-12-Noise.pdf.
[47] Appendix D. Noise Study Report. September 2019. Table 6-1, Page 20.

closest noise-sensitive receivers (residences) to the proposed project area. The existing exterior traffic noise exposure at nearby agricultural uses were calculated to be 65 dB Leq. Short-term (15-minute) ambient noise measurements were conducted at two (2) locations in the project vicinity. 15-minute Leq noise levels at the four short-term measurement locations were in the range of 60-66 dB Leq[48] .

3.13.1.1 Groundborne Vibration

Vibration is the periodic oscillation of a medium or object. Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground borne vibrations may be described by amplitude and frequency. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared (RMS), as in RMS vibration velocity. The PPV and RMS (VbA) vibration velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal and is often used in monitoring of blasting vibration because it is related to the stresses that are experienced by buildings.[49]

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. As it takes some time for the human body to respond to vibration signals, it is more prudent to use vibration velocity when measuring human response. The typical background vibration-velocity level in residential areas is approximately 50 VdB. Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels.[50]

Typical outdoor sources of perceptible ground borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be transient, random, or continuous. The approximate threshold of vibration perception is 65 VdB, while 85 VdB is the vibration acceptable only if there are an infrequent number of events per day.[51]

3.13.2 Impact Assessment

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

a) Less Than Significant Impact with Mitigation Incorporated. Improved traffic flow and the construction of a new travel lane could result in an increase in traffic noise levels at the residences located along the project corridor. Additionally, proposed Project construction will involve temporary noise sources, mostly from trucks. The proposed Project is located on a site of approximately 9.05 acres and has a residential neighborhood along the south side of Nees Avenue. In addition to residences, surrounding uses are parks, schools, and commercial uses. All widening activities would occur on the north side of Nees Avenue.

In order to predict future Nees Avenue traffic noise levels a NSR was prepared by WJV Acoustics, Inc. The existing exterior traffic noise exposure at nearby agricultural uses were calculated to be 65 dB Leq. Short-term (15-minute) ambient noise measurements were conducted at two (2) locations in the project vicinity. 15-minute Leq noise levels at the four short-term measurement locations were in the range of 60-66 dB Leq[52] (**Appendix D**).

[48] Appendix D. Noise Study Report. September 2019. Page iii.
[49] Federal Transit Administration. Transit Noise and Vibration Impact Assessment. 2006.
[50] Ibid.
[51] Ibid.
[52] Appendix D. Noise Study Report. September 2019. Page iii.

Future (2039) with proposed Project predicted worst-hour noise levels for the analyzed residential receivers in the project vicinity were approximately 61-63 dB Leq and future (2039) with project predicted worst-hour noise level at nearby agricultural uses were calculated to be approximately 70 dB Leq. No residential receivers are expected to have predicted 2039 with project worst-hour noise levels that approach or exceed the NAC or result in an increase of 12 dB or greater. Therefore, the proposed Project is not expected to result in any significant impacts as described by the Protocol and noise abatement analysis is not required[53].

No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with Caltrans Standard Specifications Section 14-8.02 as outlined in **Appendix D** and applicable local noise standards. Construction noise would be short-term, intermittent, and overshadowed by local traffic noise. Further, implementing the following mitigation measures would minimize the temporary noise impacts from construction:

Mitigation Measure NOI – 1: All equipment will have sound-control devices that are no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust.

Mitigation Measure NOI – 2: As directed by the City of Clovis, the contractor will implement appropriate additional noise mitigation measures, including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

Any impacts to sensitive receptors will be less than significant with mitigation measures incorporated.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

b) Less Than Significant Impact with Mitigation Incorporated. The proposed Project will not expose persons or generate excessive vibration or noise levels. Under normal conditions with well-maintained asphalt, vibration levels from traffic are usually not perceptible beyond the road right-of-way[54]. The proposed Project will have some grading associated with the development of the site, but it would be minimal and temporary. The proposed Project footprint is relatively flat and will not require significant grading improvements.

The City of Clovis does not currently have adopted standards for groundborne vibration. As a result, vibration criteria established by the Federal Transit Administration (FTA 2006) was applied to this proposed Project.

During project construction heavy equipment would be used for grading excavation, and paving of the new roadway alignment, which would generate localized vibration in the immediate vicinity of the construction. The nearest residences would be located more than 25 feet from construction activities that would occur along the proposed Project corridor.

Incorporation of mitigation measures NOI-1 and NOI-2 during construction would reduce noise levels at the site and therefore, reduce ground borne vibration during construction. Traffic on the finished street widening is not anticipated to generate excessive ground borne vibration or noise because the asphalt will be new and well maintained. Impacts from ground borne vibration and noise will be less than significant with mitigation incorporated.

[53] Appendix D. Noise Study Report. September 2019. Page iii - iv.
[54] General Plan and Development Code Update Draft PEIR, City of Clovis. Page 5.12-18. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-12-Noise.pdf.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

c) No Impact. No public or private use airports are located within two miles of the proposed Project corridor. Because the proposed Project does not involve either the construction of noise-sensitive uses within an area impacted by aircraft noise, or involve any changes in aircraft noise generation, no noise impacts related to airport or aircraft operations will result from this proposed Project. There will be no impact.

3.14 Population and Housing

Table 3-19 Population and Housing Impacts

Population and Housing Impacts					
Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Environmental Setting and Baseline Conditions

The City of Clovis is currently home to approximately 112,022 residents as of July 1, 2018[55]. The majority of the housing within the City consists of low-density residential subdivisions.

3.14.2 Impact Assessment

a) Would the project 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)?

a) Less Than Significant Impact. The proposed Project would not encourage population growth directly or indirectly. The proposed Project will improve and expand an area of the existing arterial roadway, Nees Avenue. The expansion of Nees Avenue was identified in the Circulation Element of the Clovis Herndon-Shepherd Specific Plan to accommodate previously planned and anticipated growth. The proposed Project would widen approximately one-half mile of Nees Avenue between Clovis Avenue and Minnewawa Avenue from a three-lane arterial to a four-lane arterial. The project would construct a new 12-foot outside travel lane on the north side of Nees Avenue and replace failing pavement as needed. It also includes installation of a Class II bicycle lane and improved sidewalk that will complete the pedestrian and bicycle connectivity between nearby Garfield Elementary, Alta Sierra Intermediate School, and Buchanan High School to residences and neighborhoods in the vicinity. Impacts regarding population growth will be less than significant.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

b) No Impact. Improving and expanding Nees Avenue does not require removal of any housing. There will be no impact.

[55] American Fact Finder, United States Census Bureau.
https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml

3.15 Public Services

Table 3-20 Public Services Impacts

Public Services Impacts					
	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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?	☐	☐	☐	☒
	Police protection?	☐	☐	☐	☒
	Schools?	☐	☐	☐	☒
	Parks?	☐	☐	☐	☒
	Other public facilities?	☐	☐	☐	☒

3.15.1 Environmental Setting and Baseline Conditions

Fire Protection: The Clovis Fire Department Station 3 is located approximately 0.78 miles south of the proposed Project site.

Police Protection: The Clovis Police Department is located approximately two miles south of the project.

Schools: Buchanan High School is the closest to the proposed Project site, approximately 0.35 miles northwest of the project and the Garfield Elementary School is located approximately 0.44 miles west of the project.

Parks: The two closest parks to the proposed Project site are Colony Cambridge Park, and Dry Creek Park, 0.21 miles south of the site, and 1.29 miles southwest of the site, respectively.

Landfills: The landfill that would likely be used during construction of the proposed Project would be American Avenue Landfill, which is approximately 26 miles southwest of the project.

3.15.2 Impact Assessment

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:

a) No Impact. The proposed Project is not associated with population growth and would not require the addition or alteration of any public services. The site is within the City of Clovis and would utilize existing services provided by the City. There will be no impact.

Fire Protection – The Clovis Fire Department Station 3 will continue to provide fire protection services to the proposed Project site and surrounding areas. The proposed Project is not associated with population growth or residential development and therefore will not require additional staffing or create a strain on current departmental resources. The detours around the temporary lane closures during the proposed Project construction would occur in a manner that maximizes the efficiency and safety of circulation during times of construction. There will be no impact to fire protection services.

Police Protection – The City of Clovis Police Department will continue to provide protection services to the proposed Project site and surrounding areas. The proposed Project is not associated with population growth or residential development and therefore will not require additional staffing or create a strain on current departmental resources. The detours around the temporary lane closures during the proposed Project construction would occur in a manner that maximizes the efficiency and safety of circulation during times of construction. There will be no impact to police protection services.

Schools –The Garfield Elementary School and Buchanan High School are located in the neighborhood. The proposed Project would not include construction of any residential structure. The proposed Project would not result in an increase of population that would require additional school facilities; therefore, there will be no impact.

Parks and other public facilities – The proposed Project does not include recreational facilities. As there is no population growth associated with the proposed Project, construction or expansion of nearby recreational facilities will not be necessary.

The proposed Project would improve the existing pedestrian and bicycle facilities in the Project area and would improve non-vehicular access along this stretch of Nees Avenue. There will be no impact to parks or other public facilities.

3.16 Recreation

Table 3-21 Recreation Impacts

Recreation Impacts					
	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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?	☐	☐	☒	☐
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Environmental Setting and Baseline Conditions

The City of Clovis Public Utilities Department builds and maintains public parks. Currently, approximately 285 acres are developed as park space or City maintained landscaping. The parks in the City range from 0.06 acres to 17.9 acres, and each provides varied amenities and facilities, such as playgrounds, shelters, picnic tables, sports fields, drinking fountains, restrooms, and parking. The proposed Project site does not include any park space.

3.16.2 Impact Assessment

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?

a) Less Than Significant Impact. The proposed Project includes the widening and improvement of Nees Avenue between Clovis Avenue and Minnewawa Avenue. No population growth will be associated with or necessitated by the proposed Project.

The proposed Project includes installation of a Class II bicycle lane and improved sidewalk that will complete the pedestrian and bicycle connectivity between nearby Garfield Elementary, Alta Sierra Intermediate School, and Buchanan High School to residences and neighborhoods in the vicinity. Better pedestrian and bicycle networks could increase usage of nearby parks. The closest parks to the site are Colony Cambridge Park, 0.21 miles south of the proposed Project and Dry Creek Park, which is approximately 1.29 miles southwest of the proposed Project. Impacts will be less than significant.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

b) No Impact. The proposed Project does not include recreational facilities. As there is no population growth associated with the proposed Project, construction or expansion of nearby recreational facilities would not be necessary. There will be no impact.

3.17 Transportation

Table 3-22 Transportation Impacts

Transportation Impacts					
	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b)	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)??	☐	☐	☒	☐
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d)	Result in inadequate emergency access?	☐	☒	☐	☐

3.17.1 Environmental Settings and Baseline Conditions

Roadways in the City are categorized according to the type of service they provide. Nees Avenue is categorized as an arterial roadway. Arterials are designed to move large volumes of traffic and are intended to provide a high level of mobility between freeways, expressways, other arterials, and collector roadways. Arterials also provide nonfreeway/highway connections between major residential, employment, and activity centers. Unlike freeways, they are intended not only for motor vehicles, but also for bicycles and pedestrians. Arterial streets typically require more right-of-way and a higher degree of access control than collector roadways. Most arterials in the city have four travel lanes, and opposing traffic may be separated by a median[56]. Nees Avenue runs east and west across the majority of the City, from the existing western city limit to Temperance Avenue. From Temperance to Locan Avenue, Nees Avenue continues on as a collector street.

A Class II bicycle lane is proposed for the entire length of Nees Avenue in the 2014 General Plan and Development Code update. The proposed Project site does not currently have a Class II bicycle lane.

3.17.2 Impact Assessment

a) Would the project conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

a) No Impact. The City of Clovis proposes to widen approximately one-half mile of Nees Avenue between Clovis Avenue and Minnewawa Avenue from a three-lane arterial to a four-lane arterial. The proposed Project would construct a new 12-foot outside travel lane on the north side of Nees Avenue and replace failing pavement as needed. It also includes installation of a Class II bicycle lane and improved sidewalk that will complete the pedestrian and bicycle connectivity between nearby Garfield Elementary, Alta Sierra Intermediate School, and Buchanan High School to residences and neighborhoods in the vicinity. These improvements are

[56] General Plan and Development Code Update Draft PEIR, City of Clovis. Page 5.16-4. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-16-Transportation-and-Traffic.pdf .

intended to increase efficiency in circulation and improve multimodal access and mobility, and provide some accommodation for the needs of future local and regional traffic.

The proposed Project would improve pedestrian and bicycle access within the proposed Project area and would improve the corridor consistent with the prior development along Nees Avenue on both sides of the proposed Project (east and west) to provide a continuous arterial transportation corridor. This will significantly reduce commuter bottleneck traffic during peak hours.

Therefore, the proposed Project will not conflict with any congestion management plan or any other applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. There will be no impact.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 Subdivision (b)?

b) Less Than Significant Impact. The City has not yet adopted thresholds for Vehicle Miles Traveled (VMT). However, as mentioned in a) above, the proposed Project is intended to increase efficiency in circulation and improve multi-modal access and mobility. The City's General Plan EIR analyzed build out of its circulation system through 2035, the proposed Project is included in that analysis. Future traffic volumes along Nees Avenue in the proposed Project area are projected for Year 2035 as follows: AM peak hour volume of 2,210, and PM peak hour volume of 2,370[57]. There is no population growth associated with the proposed Project beyond what was analyzed in the City's General Plan and the proposed Project would not generate new vehicle trips in and of itself. Therefore, because the proposed Project will not result in additional vehicle traffic impacts beyond what was previously analyzed in the City's General Plan EIR, impacts will be less than significant.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

c) No Impact. The purpose of the proposed Project is to improve traffic operations and transportation capacity by adding an additional through lane on Nees Avenue. It will also help connect and provide a safer vehicular, pedestrian, and bicycle crossing. There will be no impact.

d) Would the project result in inadequate emergency access?

d) Less Than Significant Impact with Mitigation Incorporated. The project would improve pedestrian and bicycle access within the project area and would improve the corridor consistent with the prior development along Nees Avenue on both sides (east and west) to provide a continuous arterial transportation corridor. No road closures are planned, however traffic will be re-routed from the south side of the median while work is done on the north side, and then routed back to the north side of the median while work is done on the south side. Incorporation of the following mitigation measure will ensure that any impacts to emergency access will be less than significant:

Mitigation Measure TRA-1 Traffic Control Plan: A traffic control plan (TCP) based on the California Manual on Uniform Traffic Control Devices (CA MUTCD) will be created and implemented. The TCP will be phased to assure West Nees Avenue will remain open during the entirety of construction. Emergency vehicle access to Buchannan Estates may be achieved by utilizing North Minnewawa Avenue or North Clovis Avenue with minimal potential for delay.

With incorporation of the above mitigation measure, impacts will be temporary and less than significant.

[57] General Plan and Development Code Update Draft PEIR, City of Clovis. Appendix A of Appendix L. Page 12. https://cityofclovis.com/wp-content/uploads/2018/10/Appendix-L-Transportation-Impact-Study-Appendix-A-Roadway-LOS.pdf

3.18 Tribal Cultural Resources

Table 3-23 Tribal Cultural Resources Impacts

Tribal Cultural Resources Impacts				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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, sacred place, or object with cultural value to a California Native American tribe, and that is:	☐	☐	☒	☐
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

3.18.1 Environmental Setting and Baseline Conditions

The City of Clovis lies at the intersection of where ethnographers generally recognize three cultural-geographical divisions of Yokuts: Foothills, Northern Valley, and Southern Valley. The Foothill Yokuts included about 15 named tribes, representing the eastern third of the 40 to 50 recorded Yokut tribes. The tribes that were nearest the Plan Area were the Bokninuwad (or Hoeynche) of the Upper Deer Creek area (near California Hot Springs) and the Yawdanchi of the North Fork Tule River (north of Springville). Each Foothill Yokuts tribe inhabited one or more village, each with its own chief, and occupied a home territory encompassing one or two drainage systems. Given their location on the western slope of the Sierra between 2,000 and 4,000 above sea level, it is not surprising that the Foothill Yokuts drew resources from the San Joaquin Valley to the west and the coniferous forests to the east. Their diet was notably omnivorous. Staples included deer, quail, and acorns, and supplemental foods included a wide variety of small mammals, berries, seeds, and fish[58].

3.18.2 Impact Assessment

a) 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

[58] General Plan and Development Code Update Draft PEIR, City of Clovis. Page 5.5-4 https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-05-Cultural-Resources.pdf. .

geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a-i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)

a-ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

a-i-a-ii) Less Than Significant Impact. The proposed Project site is mostly developed with a three-lane street, surrounded by an established residential neighborhood to the south and an actively farmed orchard to the north. On June 26, 2019, Applied EarthWorks sent an e-mail to the Native American Heritage Commission (NAHC) requesting a search of their Sacred Lands File and the contact information for local Native American representatives who may have information about the area or an interest in the proposed Project. The NAHC responded on July 3, 2019, stating that it did not identify any sacred sites within or adjacent to the APE (**Appendix C**). The NAHC cautioned that its Sacred Lands Inventory is not exhaustive, and the absence of recorded sites does not preclude the discovery of cultural resources during project activities. The NAHC also provided the names and contact information for thirteen Native American tribal representatives or individuals who may have an interest in the proposed Project. On August 15, 2019, the City of Clovis sent a letter to each contact describing the project, including a map of its location and requesting information about the study area. On September 20, 2019, Applied EarthWorks attempted follow-up contact with the representatives by telephone, e-mail, or both. To date, only one response has been received from individuals or organizations contacted by Applied EarthWorks or the City. The response, sent to the City on September 9, 2019 via certified mail, is from Robert Pennell of Table Mountain Rancheria, who stated that the Tribe declines further participation at this time but would appreciate being notified in the unlikely event that cultural resources are identified. See **Appendix C** for copies of all correspondence.

Although the proposed Project is unlikely to turn up human remains, California Health and Safety Code Section 7050.5 requires that in the event that human remains are discovered within the proposed Project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. The proposed Project will comply with existing law, and potential impacts to human remains will be less than significant.

In the unlikely event that previously undetected cultural materials (i.e. prehistoric sites, historic features, isolated artifacts, and features such as concentrations of shell or glass) or paleontological resources (i.e., fossils) are discovered are discovered during construction, work in the immediate vicinity should immediately cease and be redirected to another area until a qualified archaeologist or paleontologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historic archaeology inspects and assesses the find. The City shall consider further recommendations as presented by the professional and implement additional measures as necessary to protect and preserve the particular resource. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures.

In the event that cultural archaeological remains are encountered at any time during development or ground-moving activities within the entire project area, all work in the vicinity of the find shall halt until a qualified archaeologist can assess the discovery. The District shall implement all recommendations of the archaeologist

necessary to avoid or reduce to a less than significant level potential impacts to cultural resource. Appropriate actions could include a Data Recovery Plan or preservation in place. Impacts to cultural materials will be less than significant.

3.19 Utilities and Service Systems

Table 3-24 Utilities and Service Systems Impacts

Utilities and Service Systems Impacts					
	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d)	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reductions goals?	☐	☐	☒	☐
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

3.19.1 Environmental Setting and Baseline Conditions

The City of Clovis' solid waste collection is done by the City Public Utilities Department. Recycling and green waste collection is provided under contract by Republic Services[59]. The City of Clovis' permanent storm drain system is operated and maintained by the Fresno Metropolitan Flood Control District (FMFCD). The FMFCD service area includes both the City of Fresno and the City of Clovis and is divided into 163 drainage areas averaging one to two square miles each[60]. Energy services are provided to the City of Clovis by Pacific Gas and Electric.

3.19.2 Impact Assessment

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

a) Less Than Significant Impact. The project will involve installation of sidewalk, curb, curb returns and ramps, gutters, storm drain inlets, street lighting and retaining walls, and accessible pedestrian signal (APS)

[59] General Plan and Development Code Update Draft PEIR, City of Clovis.. Page 5.17-36. https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-17-Utilities-and-Service-Systems.pdf
[60] Ibid. Page 5.17-31.

modifications to the street signal at Nees and Minnewawa Avenues. It will involve modifications to traffic loop detectors, striping, markings, and signage as well as relocation of overhead utilities (PG&E, AT&T, and cable wires) to underground conduits. New water valve covers and manholes will be installed in areas of new pavement and existing features will be brought up to grade to match the new pavement surface. Additional related activities include relocating an existing irrigation ditch and extension of associated underground water conveyance facilities operated by Fresno Irrigation District. The proposed Project would not exceed wastewater treatment requirements and would not require new facilities or require major alteration of existing facilities. There is no population increase related to the proposed Project and therefore, no anticipated increase in wastewater production. Impacts will be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

b) Less Than Significant Impact. The proposed Project will have little effect on water supply. The proposed Project proposes to improve and widen Nees Avenue, and would not result in an increase of population density that would require an increase in water service utilizing ground water. It will include implementation of a landscape and irrigation plan that utilizes native drought-tolerant species and water-saving fixtures. Impacts to water supplies will be less than significant.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

c) No Impact. The proposed Project will not result in population increase or involve habitable structures, and therefore, will not increase demands on the City's wastewater treatment system. The proposed Project will have no impact on a wastewater treatment provider.

d) Would the project 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? And;

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

d-e) Less Than Significant Impact. There will not be solid waste associated with the operational phase of the proposed Project. Any waste associated with construction would be minimal and temporary, most of which will be recycled. The proposed Project will utilize the Clovis Landfill to dispose of construction waste that is unable to be recycled. According the City's General Plan EIR, the Clovis Landfill has adequate capacity to receive solid waste through the year 2053[61]. Therefore, the impact will be less than significant.

[61] General Plan and Development Code Update Draft PEIR, City of Clovis. Page 5.17-36 https://cityofclovis.com/wp-content/uploads/2018/10/Chapter-05-17-Utilities-and-Service-Systems.pdf.

3.20 Wildfire

Table 3-25 Wildfire Impacts

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

3.20.1 Environmental Setting and Baseline Conditions

The proposed Project is located within the City of Clovis. The proposed Project site is in a relatively flat urban area of the Central San Joaquin Valley. No structures are being constructed as part of the proposed Project, and the proposed Project is not considered to be population growth inducing.

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

b) Would the project, due to slope, prevailing winds, or other factors exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from wildfire or the uncontrolled spread of wildfire?

c) Would the project Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

a-d) No Impact. The proposed Project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. The nearest moderate State Responsibility Area (SRA) is approximately 3.4 miles to the northeast. The proposed Project site is approximately 18.4 miles from the nearest Very High classification of Fire Hazard Severity Zone (FHSZ). Additionally, there are no structures being built as part of

this proposed Project, and no population increase because of this proposed Project. Therefore, further analysis of the proposed Project's potential impacts to wildfire are not warranted. There will be no impacts.

3.21 CEQA Mandatory Findings of Significance

Table 3-26 Mandatory Findings of Significance Impacts

Mandatory Findings of Significance Impacts					
	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Does the project have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
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)?	☐	☒	☐	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.21.1 Impact Assessment

a) Does the project have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

a) Less Than Significant Impact with Mitigation Incorporated. The analysis conducted in this Initial Study/Mitigated Negative Declaration results in a determination that the proposed Project, with incorporation of mitigation measures, will have a less than significant effect on the environment. The potential for impacts to biological resources, geology and soils, and cultural resources from the implementation of the proposed Project will be less than significant with the incorporation of the mitigation measures discussed in **Chapter 4 Mitigation Monitoring and Reporting Program**. Accordingly, the proposed Project will involve no potential for significant impacts through the degradation of the quality of the environment, the reduction in the habitat or population of fish or wildlife, including endangered plants or animals, the elimination of a plant or animal community or example of a major period of California history or prehistory. Impacts will be less than significant with mitigation incorporation.

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)?

b) Less Than Significant Impact with Mitigation Incorporated. CEQA Guidelines Section 15064(i) States that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of cumulative effects of a project must be conducted in connection with the effects of past projects, other current projects, and probable future projects. The proposed Project would include the widening of Nees Avenue and various road and street improvements. No new roads would be constructed as a result of the proposed Project, nor would any additional public services be required. The proposed Project intends to improve traffic and pedestrian access along this portion of Nees Avenue. All potential impacts will be reduced to less than significant through the implementation of mitigation measures and basic regulatory requirements incorporated into future Project design.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

c) Less than Significant Impact with Mitigation Incorporated. The proposed Project will improve Nees Avenue. The proposed Project in and of itself would not create a significant hazard to the public or the environment. On the contrary, implementation of the proposed Project would improve traffic congestion and pedestrian access along this portion of Nees Avenue. Mitigation measures have been incorporated in the proposed Project to reduce all potentially significant impacts to less than significant.

Chapter 4 Mitigation Monitoring and Reporting Program

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Nees Avenue Improvements – Minnewawa to Clovis Avenues (proposed Project) in the City of Clovis. The MMRP lists mitigation measures recommended in the IS/MND for the proposed Project and identifies monitoring and reporting requirements.

Table 4-1 presents the mitigation measures identified for the proposed Project. Each mitigation measure is numbered with a symbol indicating the topical section to which it pertains, a hyphen, and the impact number. For example, AIR-2 would be the second mitigation measure identified in the Air Quality analysis of the IS/MND.

The first column of **Table 4-1** identifies the mitigation measure. The second column, entitled "When Monitoring is to Occur," identifies the time the mitigation measure should be initiated. The third column, "Frequency of Monitoring," identifies the frequency of the monitoring of the mitigation measure. The fourth column, "Agency Responsible for Monitoring," names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last columns will be used by CCSD to ensure that individual mitigation measures have been complied with and monitored.

Table 4-1 Mitigation Monitoring and Reporting Program

Mitigation Monitoring and Reporting Program				
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Agency Responsible for Implementing Mitigation**	**Agency Responsible for Monitoring**	**Verification of Compliance (name/date)**
Biological Resources				
Mitigation Measure BIO-1 Pre-construction Surveys. Pre-construction surveys for nesting birds shall be conducted by the City if trees are removed during the nesting season (February 1 to September 30). If active nest(s) is found, the tree(s) shall not be removed until after the young have fledged.	Prior to construction	City of Clovis	City of Clovis	
Cultural Resources				
Mitigation Measure CUL-1 (Human Remains) If human remains are uncovered, or in any other case when human remains are discovered during construction, the Fresno County Coroner is to be notified to arrange proper treatment and disposition. If the remains are identified—on the basis of archaeological context, age, cultural associations, or biological traits—as those of a Native American, California Health and Safety Code 7050.5 and Public Resource Code 5097.98 require that the coroner notify the NAHC within 24 hours of discovery. The NAHC will then identify the Most Likely Descendent who will determine the manner in which the remains are treated.	During construction	City of Clovis and Construction Contractor	City of Clovis and Construction Contractor	
Geology Resources				
Mitigation Measure GEO-1 Prior to the issuance of a building permit, the project applicant shall submit Permit Registration Documents (PRD) for the Construction General Permit Order 2009-0009- DWQ to the State Water Resources Control Board, and comply with, and implement, all requirements of the permit. A Legally Responsible Person (LRP) shall electronically submit PRDs prior to commencement of construction activities in the Storm Water Multi- Application Report Tracking System. PRDs consist of the Notice of Intent, Risk Assessment, Post-Construction Calculations, a Site Map, the Storm Water Pollution Prevention Plan (SWPPP), a signed certification statement by the LRP, and the first annual fee. Following submittal of a Notice of Intent package and development of a SWPPP in accordance with the Construction General Permit, the applicant will receive a Waste Discharge Identification Number from the SWRCB. All requirements of the site-specific SWPPP, including any revisions, shall be	Prior to the issuance of an encroachment permit	City of Clovis and Construction Contractor	City of Clovis	

Mitigation Monitoring and Reporting Program				
Mitigation Measure/Condition of Approval	**When Monitoring is to Occur**	**Agency Responsible for Implementing Mitigation**	**Agency Responsible for Monitoring**	**Verification of Compliance (name/date)**
included in construction documents and must be available on site for the duration of the project.				
Noise Resources				
Mitigation Measure NOI – 1: All equipment will have sound-control devices that are no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust.	During construction	City of Clovis and Construction Contractor	City of Clovis	
Mitigation Measure NOI – 2: As directed by Caltrans and/or the City of Clovis, the contractor will implement appropriate additional noise mitigation measures, including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.	During construction	City of Clovis and Construction Contractor	City of Clovis	
Transportation Resources				
Mitigation Measure TRA – 1: A traffic control plan (TCP) based on the California Manual on Uniform Traffic Control Devices (CA MUTCD) will be created and implemented. The TCP will be phased to assure West Nees Avenue will remain open during the entirety of construction. Emergency vehicle access to Buchannan Estates may be achieved by utilizing North Minnewawa Avenue or North Clovis Avenue with minimal potential for delay.	During construction	City of Clovis and Construction Contractor	City of Clovis	

Appendix A

Air Quality Appendix

CalEEMod Output Files
City of Clovis Memorandum for Consultation on PM10 and PM2.5 Hot-spot Conformity Assessment

Nees Avenue Improvements

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	9.50	Acre	9.50	413,820.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - APE is approx 9.5 acres.

Construction Phase - Only painting would be re-striping the roads.

Grading -

Demolition - Demolition is the removal of approx 256 trees that are on approx 103,605 sq ft of property.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	7.00
tblConstructionPhase	PhaseEndDate	5/20/2022	6/15/2021
tblConstructionPhase	PhaseEndDate	4/22/2022	6/4/2021
tblConstructionPhase	PhaseStartDate	4/23/2022	6/5/2021
tblConstructionPhase	PhaseStartDate	3/26/2022	5/8/2021
tblGrading	MaterialExported	0.00	1,000.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1910	0.9776	0.6604	1.4000e-003	0.2173	0.0447	0.2620	0.0939	0.0413	0.1352	0.0000	124.5385	124.5385	0.0320	0.0000	125.3383
Maximum	**0.1910**	**0.9776**	**0.6604**	**1.4000e-003**	**0.2173**	**0.0447**	**0.2620**	**0.0939**	**0.0413**	**0.1352**	**0.0000**	**124.5385**	**124.5385**	**0.0320**	**0.0000**	**125.3383**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1910	0.9776	0.6604	1.4000e-003	0.2173	0.0447	0.2620	0.0939	0.0413	0.1352	0.0000	124.5384	124.5384	0.0320	0.0000	125.3382
Maximum	**0.1910**	**0.9776**	**0.6604**	**1.4000e-003**	**0.2173**	**0.0447**	**0.2620**	**0.0939**	**0.0413**	**0.1352**	**0.0000**	**124.5384**	**124.5384**	**0.0320**	**0.0000**	**125.3382**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2021	5-31-2021	1.0239	1.0239
2	6-1-2021	8-31-2021	0.1268	0.1268
		Highest	1.0239	1.0239

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0354	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0354**	**0.0000**	**9.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.0000**	**1.8000e-004**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0354	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0354**	**0.0000**	**9.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.0000**	**1.8000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2021	3/26/2021	5	20	
2	Site Preparation	Site Preparation	3/27/2021	4/9/2021	5	10	
3	Grading	Grading	4/10/2021	5/7/2021	5	20	
4	Paving	Paving	5/8/2021	6/4/2021	5	20	
5	Architectural Coating	Architectural Coating	6/5/2021	6/15/2021	5	7	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 9.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 24,829 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	471.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0510	0.0000	0.0510	7.7200e-003	0.0000	7.7200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3144	0.2157	3.9000e-004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0008	34.0008	9.5700e-003	0.0000	34.2400
Total	**0.0317**	**0.3144**	**0.2157**	**3.9000e-004**	**0.0510**	**0.0155**	**0.0665**	**7.7200e-003**	**0.0144**	**0.0221**	**0.0000**	**34.0008**	**34.0008**	**9.5700e-003**	**0.0000**	**34.2400**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7700e-003	0.0610	8.5600e-003	1.9000e-004	4.0300e-003	2.0000e-004	4.2300e-003	1.1100e-003	1.9000e-004	1.3000e-003	0.0000	17.7194	17.7194	1.5300e-003	0.0000	17.7578
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	3.7000e-004	3.7800e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0023	1.0023	2.0000e-005	0.0000	1.0030
Total	**2.3700e-003**	**0.0614**	**0.0123**	**2.0000e-004**	**5.2300e-003**	**2.1000e-004**	**5.4400e-003**	**1.4300e-003**	**2.0000e-004**	**1.6300e-003**	**0.0000**	**18.7218**	**18.7218**	**1.5500e-003**	**0.0000**	**18.7608**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0510	0.0000	0.0510	7.7200e-003	0.0000	7.7200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3144	0.2157	3.9000e-004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0007	34.0007	9.5700e-003	0.0000	34.2400
Total	**0.0317**	**0.3144**	**0.2157**	**3.9000e-004**	**0.0510**	**0.0155**	**0.0665**	**7.7200e-003**	**0.0144**	**0.0221**	**0.0000**	**34.0007**	**34.0007**	**9.5700e-003**	**0.0000**	**34.2400**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7700e-003	0.0610	8.5600e-003	1.9000e-004	4.0300e-003	2.0000e-004	4.2300e-003	1.1100e-003	1.9000e-004	1.3000e-003	0.0000	17.7194	17.7194	1.5300e-003	0.0000	17.7578
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	3.7000e-004	3.7800e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0023	1.0023	2.0000e-005	0.0000	1.0030
Total	**2.3700e-003**	**0.0614**	**0.0123**	**2.0000e-004**	**5.2300e-003**	**2.1000e-004**	**5.4400e-003**	**1.4300e-003**	**2.0000e-004**	**1.6300e-003**	**0.0000**	**18.7218**	**18.7218**	**1.5500e-003**	**0.0000**	**18.7608**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.2000e-004	2.2700e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6014	0.6014	1.0000e-005	0.0000	0.6018
Total	**3.6000e-004**	**2.2000e-004**	**2.2700e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6014**	**0.6014**	**1.0000e-005**	**0.0000**	**0.6018**

3.3 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.2000e-004	2.2700e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6014	0.6014	1.0000e-005	0.0000	0.6018
Total	**3.6000e-004**	**2.2000e-004**	**2.2700e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6014**	**0.6014**	**1.0000e-005**	**0.0000**	**0.6018**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0656	0.0000	0.0656	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2644
Total	**0.0229**	**0.2474**	**0.1586**	**3.0000e-004**	**0.0656**	**0.0116**	**0.0772**	**0.0337**	**0.0107**	**0.0444**	**0.0000**	**26.0537**	**26.0537**	**8.4300e-003**	**0.0000**	**26.2644**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.7000e-004	0.0162	2.2700e-003	5.0000e-005	1.0700e-003	5.0000e-005	1.1200e-003	2.9000e-004	5.0000e-005	3.4000e-004	0.0000	4.7026	4.7026	4.1000e-004	0.0000	4.7128
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	3.7000e-004	3.7800e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0023	1.0023	2.0000e-005	0.0000	1.0030
Total	**1.0700e-003**	**0.0166**	**6.0500e-003**	**6.0000e-005**	**2.2700e-003**	**6.0000e-005**	**2.3300e-003**	**6.1000e-004**	**6.0000e-005**	**6.7000e-004**	**0.0000**	**5.7050**	**5.7050**	**4.3000e-004**	**0.0000**	**5.7158**

3.4 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0656	0.0000	0.0656	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2643
Total	**0.0229**	**0.2474**	**0.1586**	**3.0000e-004**	**0.0656**	**0.0116**	**0.0772**	**0.0337**	**0.0107**	**0.0444**	**0.0000**	**26.0537**	**26.0537**	**8.4300e-003**	**0.0000**	**26.2643**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.7000e-004	0.0162	2.2700e-003	5.0000e-005	1.0700e-003	5.0000e-005	1.1200e-003	2.9000e-004	5.0000e-005	3.4000e-004	0.0000	4.7026	4.7026	4.1000e-004	0.0000	4.7128
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	3.7000e-004	3.7800e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0023	1.0023	2.0000e-005	0.0000	1.0030
Total	**1.0700e-003**	**0.0166**	**6.0500e-003**	**6.0000e-005**	**2.2700e-003**	**6.0000e-005**	**2.3300e-003**	**6.1000e-004**	**6.0000e-005**	**6.7000e-004**	**0.0000**	**5.7050**	**5.7050**	**4.3000e-004**	**0.0000**	**5.7158**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0125					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0250**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	3.7000e-004	3.7800e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0023	1.0023	2.0000e-005	0.0000	1.0030
Total	**6.0000e-004**	**3.7000e-004**	**3.7800e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0023**	**1.0023**	**2.0000e-005**	**0.0000**	**1.0030**

3.5 Paving - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0125					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0250**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	3.7000e-004	3.7800e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0023	1.0023	2.0000e-005	0.0000	1.0030
Total	**6.0000e-004**	**3.7000e-004**	**3.7800e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0023**	**1.0023**	**2.0000e-005**	**0.0000**	**1.0030**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0863					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7000e-004	5.3400e-003	6.3600e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	0.8936	0.8936	6.0000e-005	0.0000	0.8952
Total	**0.0871**	**5.3400e-003**	**6.3600e-003**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**	**0.0000**	**0.8936**	**0.8936**	**6.0000e-005**	**0.0000**	**0.8952**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.0000e-004	3.0900e-003	1.0000e-005	9.8000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8186	0.8186	2.0000e-005	0.0000	0.8191
Total	**4.9000e-004**	**3.0000e-004**	**3.0900e-003**	**1.0000e-005**	**9.8000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8186**	**0.8186**	**2.0000e-005**	**0.0000**	**0.8191**

3.6 Architectural Coating - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0863					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7000e-004	5.3400e-003	6.3600e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	0.8936	0.8936	6.0000e-005	0.0000	0.8952
Total	**0.0871**	**5.3400e-003**	**6.3600e-003**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**	**0.0000**	**0.8936**	**0.8936**	**6.0000e-005**	**0.0000**	**0.8952**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.0000e-004	3.0900e-003	1.0000e-005	9.8000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8186	0.8186	2.0000e-005	0.0000	0.8191
Total	**4.9000e-004**	**3.0000e-004**	**3.0900e-003**	**1.0000e-005**	**9.8000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8186**	**0.8186**	**2.0000e-005**	**0.0000**	**0.8191**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.487139	0.031901	0.169199	0.121386	0.017033	0.004732	0.033028	0.124746	0.002366	0.001590	0.005154	0.001097	0.000629

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0354	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004
Unmitigated	0.0354	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0268					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004
Total	**0.0354**	**0.0000**	**9.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.0000**	**1.8000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0268					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.8000e-004
Total	**0.0354**	**0.0000**	**9.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.0000**	**1.8000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Biological Memorandum

Memorandum

Serious drought
Help save water!

To: **Shane Gunn**
Branch Chief
Environmental Analysis, Planning/Local Programs

Cassidy Ellis
Environmental Planner
Environmental Analysis, Planning/Local Programs

Date: August 26, 2019

File: STPL 5208 (160)
City of Clovis

From: **Elmer Llamas**
Associate Environmental Planner (Biologist)
Environmental Analysis, Planning/Local Programs

Subject: Biological Compliance

Project Description: The City of Clovis proposes to build a 12-foot outside travel lane and bike lane on west bound Nees Avenue between Clovis Avenue and Minnewawa Avenue. Work includes road widening reconstruction, installation of curbs, gutters, returns, bicycle lanes, sidewalk, adjustment/relocation of existing utilities and irrigation canal, modifying existing traffic signal signalization, installing traffic striping, markings and signage, and street lights.

The project will require vegetation/tree removal and ground disturbance.

Purpose and Need: The purpose is to widen the existing roadway with facility upgrades; the need is to increase safety, reduce traffic congestion and improve bicycle lane connectivity.

Existing Environment: The project is in Fresno County in the City of Clovis, on Nees Avenue between Clovis Avenue and Minnewawa Avenue. There is disturbed/developed, and agricultural habitat found within the project limits as the project is located along and within the existing paved roadway. Project location is adjacent to a peach orchard, residential and commercial development. Each of the habitat types, and their commonly associated wildlife species, found in the biological study area, are described below:

Disturbed/Developed Habitat. Disturbed areas are lands that have been altered by human actions such that the natural communities no longer exist. Disturbed areas generally consist of ruderal species or are un-vegetated. Developed areas consist of all artificial structures within the project area including the paved roadway and shoulders.

Landscape Habitat. In the biological study area, landscape habitat is associated with ornamental trees and grass, which are routinely maintained by weeding and herbicide application. Landscape habitat occurs along the roadway sidewalk and within the median.

Agricultural Habitat. In the biological study area agricultural land consist of a peach orchard on the westbound side of Nees Avenue. Migratory birds may nest in the peach trees if left undisturbed during the nesting season.

Study Methods: The California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) was queried using the Clovis 7.5-minute United States Geological Survey (USGS) quadrangle map, and the United States Fish and Wildlife Service (USFWS) official species list was acquired using the USFWS's Information for Planning and Consultation (IPaC) database. Attached is the USFWS's official species list and the National Oceanic and Atmospheric Administration (NOAA) Fisheries jurisdictional office map.

Based on knowledge of the area, the quality of the surrounding habitats, and information obtained from current literature review, protocol level surveys for special-status plants or animals were deemed unnecessary due to the disturbed and developed nature of the habitat within the study area.

Findings and Discussion: The project area and vicinity consist of developed and agricultural lands. The existing roadway system, development and agricultural lands near and within the City of Clovis have altered the natural landscape by introducing non-native plant species and removing potentially suitable natural habitat for sensitive plant or animal species within the project area. Only disturbed/developed and agricultural habitat is found within the project limits. The vegetation found along the existing paved roadways consists of non-native ornamental and agricultural species that provide little or no biological importance or value.

Due to the proposed removal of several ornamental and agricultural trees, it is recommended that the trees be inspected for nesting birds if work is done during the nesting season (February 1 to September 30).

On August 23, 2019 the City of Clovis contacted the Fresno Irrigation District (FID) to verify if the proposed irrigation canal relocation was subject to 404 permitting. FID confirmed that canal is not under the jurisdiction of the U.S. Army Corps of Engineers due to the lack of connections to federal traditional navigable waters. Based on this verification, the proposed irrigation canal relocation will not require 404/401 permits.

Conclusion: Due to the nature of the project, the lack of suitable habitat within the project limits and the high level of disturbance within and adjacent to the project area, it has been determined that the proposed project will have No Effect on any USFWS listed species or designated critical habitat (see attached USFWS official species list dated August 26, 2019) no Section 7 consultation is required. The project area is located outside of NOAA Fisheries jurisdiction (see attached office map with project location). No United States Army Corps of Engineers (USACE) jurisdictional waters will be affected by the proposed project. No jurisdictional or biological permits will be required.

- **Pre-construction surveys for nesting birds shall be conducted by the City if trees are removed during the nesting season (February 1 to September 30). If active nest(s) is found, the tree(s) shall not be removed until after the young have fledged.**

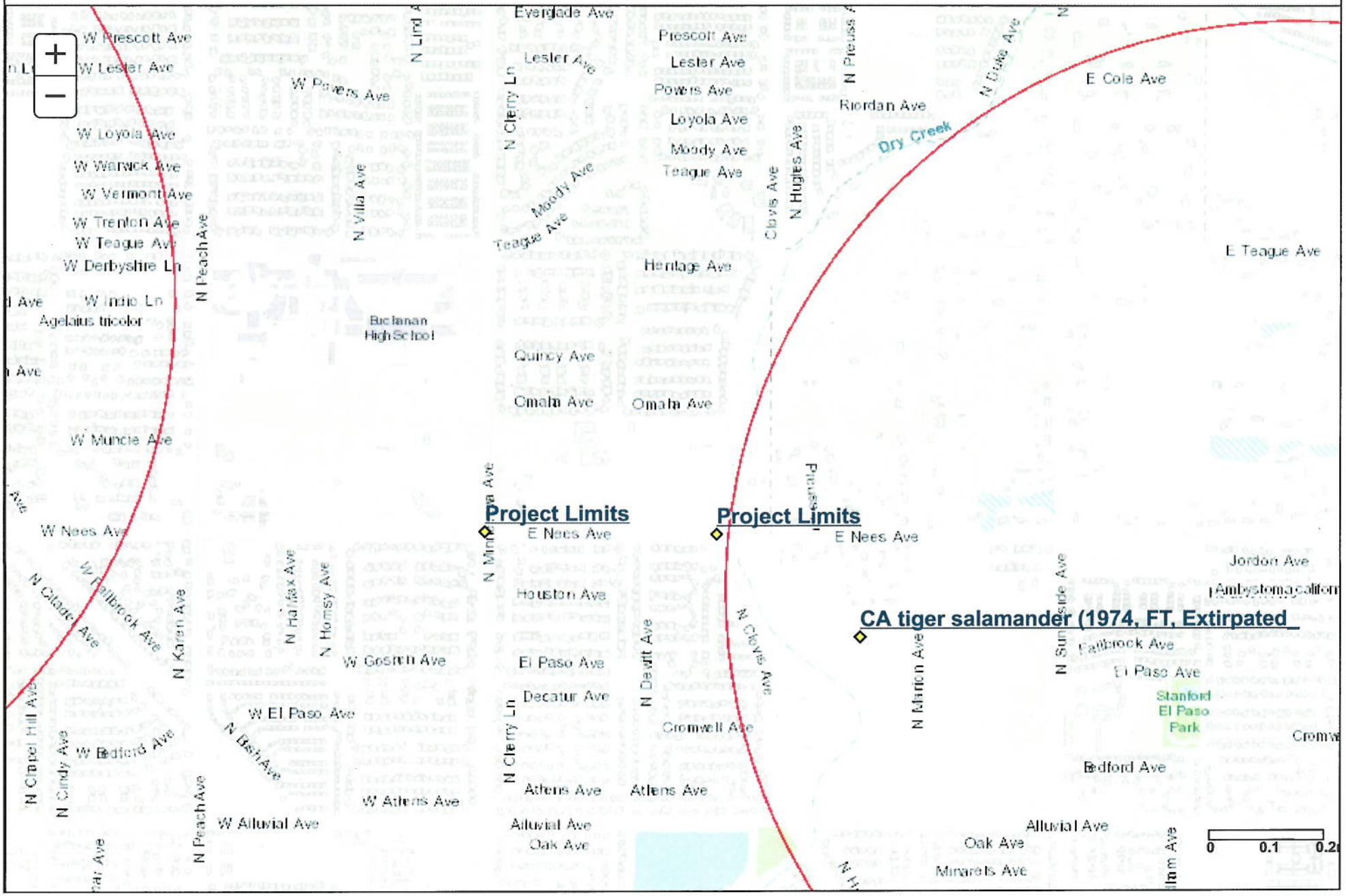
If you have any questions, please contact Elmer Llamas at (559) 455-6314 or email at elmer.llamas@dot.ca.gov.

Attachment/Enclosure:

CNDDB Species Map
USFWS Official Species List
NOAA Fisheries Office Map

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **BIOS**

Hello, cnddb_gov@dfg.ca.gov Log off



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Consultation Code: 08ESMF00-2019-SLI-2848
Event Code: 08ESMF00-2019-E-09107
Project Name: STPL- 5208 (160)

August 26, 2019

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2019-SLI-2848

Event Code: 08ESMF00-2019-E-09107

Project Name: STPL- 5208 (160)

Project Type: TRANSPORTATION

Project Description: The City of Clovis proposes to build a 12-foot outside travel lane and bike lane on west bound Nees Avenue between Clovis Avenue and Minnewawa Avenue. Work includes road widening reconstruction, installation of curbs, gutters, returns, bicycle lanes, sidewalk, adjustment/relocation of existing utilities and irrigation canal, modifying existing traffic signal signalization, installing traffic striping, markings and signage, and street lights.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/36.8521018330027N119.70751941204072W

Counties: Fresno, CA

Endangered Species Act Species

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Fresno Kangaroo Rat *Dipodomys nitratoides exilis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5150 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/37/office/11420.pdf	Endangered
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **proposed** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard *Gambelia silus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered
Giant Garter Snake *Thamnophis gigas* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp *Branchinecta conservatio* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

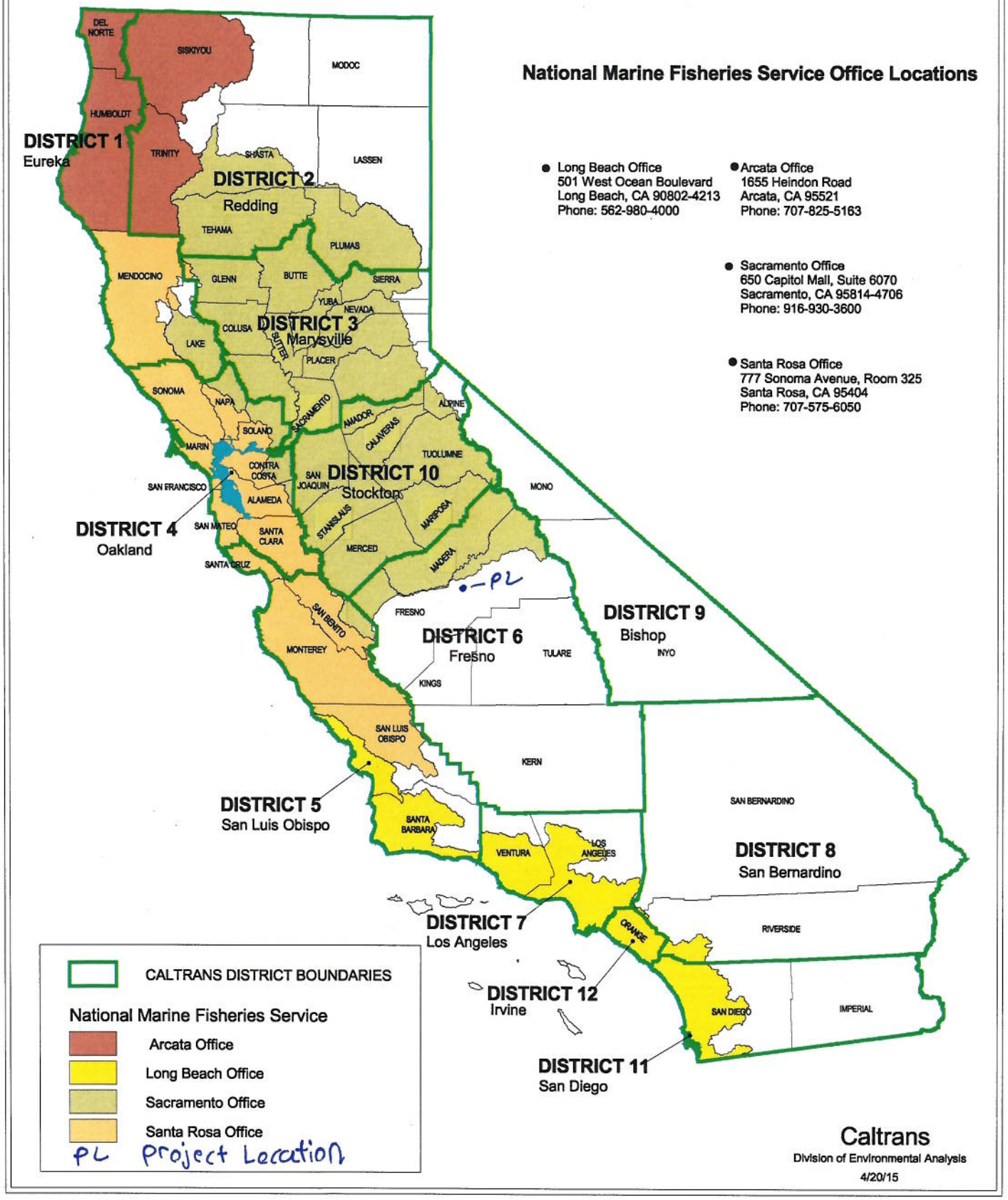
Flowering Plants

NAME	STATUS
Greene's Tuctoria *Tuctoria greenei* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1573	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Caltrans District and National Marine Fisheries Service (NMFS)



National Marine Fisheries Service Office Locations

- Long Beach Office
  501 West Ocean Boulevard
  Long Beach, CA 90802-4213
  Phone: 562-980-4000
- Arcata Office
  1655 Heindon Road
  Arcata, CA 95521
  Phone: 707-825-5163
- Sacramento Office
  650 Capitol Mall, Suite 6070
  Sacramento, CA 95814-4706
  Phone: 916-930-3600
- Santa Rosa Office
  777 Sonoma Avenue, Room 325
  Santa Rosa, CA 95404
  Phone: 707-575-6050

Caltrans
Division of Environmental Analysis
4/20/15

Appendix C

Cultural Resources Report

HISTORIC PROPERTY SURVEY REPORT

Nees Avenue Improvements Project CIP 17-13 City of Clovis, Fresno County, California

STPL-5208(160)

Submitted To: Environmental Analysis, Planning, and Local Programs
California Department of Transportation — District 6
Fresno, California

Prepared For: City of Clovis Planning Division
Clovis, California

Prepared By: Mary Baloian, Principal Archaeologist
Applied EarthWorks, Inc.
Fresno, California

November 2019

HISTORIC PROPERTY SURVEY REPORT

1. UNDERTAKING DESCRIPTION AND LOCATION

District	*County*	*Federal Project. Number. (Prefix, Agency Code, Project No.)*	*Location*
6	FRE	STPL-5208(160)	Nees Avenue between Minnewawa and Clovis Avenues

The studies for this undertaking were carried out in a manner consistent with Caltrans' regulatory responsibilities under Section 106 of the National Historic Preservation Act (36 CFR Part 800) and pursuant to the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act* (Section 106 PA), as well as under Public Resources Code 5024 and pursuant to the January 2015 *Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Office Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92* (5024 MOU) as applicable.

Project Description:

The City of Clovis (City), with support from the Federal Highway Administration (FHWA) via the California Department of Transportation (Caltrans), proposes to widen and reconstruct a 0.5-mile segment of Nees Avenue from Minnewawa Avenue to Clovis Avenue. The Nees Avenue Improvements Project (Project) will increase the existing three-lane arterial road to a four-lane arterial road and will improve traffic operations and reduce vehicle delays and congestion. The project will require acquisition of additional right-of-way to build a 12-foot outside travel lane and bike lane west bound on Nees Avenue. The project also will include the construction of a greenbelt/sidewalk and reconstruction of failing street segments where needed along the existing roadway. In addition to the earthwork, asphalt concrete paving, curb, gutter, drain, lighting, and infrastructure work; construction will involve the relocation/construction of a Fresno Irrigation District structure.

The Nees Avenue Improvements Project is in northeast Clovis within Fresno County (Attachment I: Exhibit A). The project is in Sections 29, 30, 31, and 32 of Township 11 South, Range 24 East, as depicted on the U.S. Geological Survey (USGS) Clovis 7.5-minute quadrangle (Attachment I: Exhibit B). The project will improve a 0.5-mile segment of Nees Avenue from Minnewawa Avenue to Clovis Avenue (Attachment I: Exhibit C).

2. AREA OF POTENTIAL EFFECTS

In accordance with Section 106 PA Stipulation VIII.A, the Area of Potential Effects (APE) for the Project was established in consultation with John Whitehouse, Caltrans District Archaeologist and Architectural Historian (PQS) and James Perrault, Caltrans Local Assistance Engineer on November 8, 2019. The APE map is included as Exhibit C in Attachment I of this report.

The Direct APE for the Project has been determined by reviewing the direct impacts of widening the roadway and installing new utility infrastructure. Subsurface areas that will be disturbed by construction work are included in the Direct APE, which extends 2,370 feet, beginning 140 feet east of the intersection midpoint of Nees Avenue and Clovis Avenue and continuing west to 105 feet west of the intersection midpoint of Nees Avenue and Minnewawa Avenue. There is also the potential to affect resources below the surface through excavation during road widening and construction/relocation of the Fresno Irrigation District structure. The depth of these ground-disturbing activities is not expected to exceed 10 feet in limited areas, which are included in the vertical APE. The Direct APE has an average width of 110 feet and encompasses 6.34 acres. The Indirect APE extends to the first-tier parcels touching the Direct APE.

 Copyright © 2017 State of California. All rights reserved.
Alteration to the title and section headings is prohibited.

3. CONSULTING PARTIES / PUBLIC PARTICIPATION

☒ Local Government

- Ryan Burnett, Engineering Division, City of Clovis

☒ Native American Heritage Commission

On behalf of the City, Applied EarthWorks, Inc. contacted the Native American Heritage Commission (NAHC) on June 26, 2019, requesting a search of their Sacred Lands File and the contact information for local Native American representatives who may have information about the area or an interest in the Project. The NAHC responded on July 3, 2019, stating that it did not identify any sacred sites within or adjacent to the APE (see Archaeological Survey Report, Appendix C). The commission cautioned that its Sacred Lands Inventory is not exhaustive, and the absence of recorded sites does not preclude the discovery of cultural resources during project activities. The NAHC also provided the names and contact information for six Native American tribal representatives and individuals who may have an interest in the Project.

☒ Native American Tribes, Groups and Individuals

On August 15, 2019, the City of Clovis sent a letter to the following individuals:

- Mr. Robert Pennell, Cultural Resources Director of the Table Mountain Rancheria;
- Chairperson Leanne Walker-Grant of the Table Mountain Rancheria;
- Robert Ledger, Sr. of the Dumna Wo-Wah Tribal Government;
- Kenneth Woodrow of the Wuksache Indian Tribe/Eshom Valley Band;
- Rueben Barrios Sr. of the Santa Rosa Rancheria Tachi Yokut Tribe; and
- Stan Alec of the Kings River Choinumni Farm Tribe.

Applied EarthWorks attempted follow-up contact with the representatives by telephone, email, or both. To date, only one response has been received from individuals or organizations contacted by Applied EarthWorks or the City. The response, sent to the City on September 9, 2019, via certified mail, is from Robert Pennell of Table Mountain Rancheria, who stated that the Tribe declines further participation at this time but would appreciate being notified in the unlikely event that cultural resources are identified. Æ will forward any further communication with Native American representatives to the City of Clovis.

4. SUMMARY OF IDENTIFICATION EFFORTS

☒ National Register of Historic Places (NRHP)
☒ California Register of Historical Resources (CRHR)
☐ National Historic Landmark (NHL)
☒ California Historical Landmarks (CHL)
☐ California Points of Historical Interest
☒ California Historical Resources Information System (CHRIS)
☐ Caltrans Historic Bridge Inventory
☐ Caltrans Cultural Resources Database (CCRD)

☒ Other Sources consulted:

- Applied EarthWorks' in-house library, which includes local histories
- Online Map and Aerial Locator Tool, Henry Madden Library, California State University, Fresno
- Online US Topo and Historical Topographic Map Collection
- California History and Genealogy Room, Main Branch of the Fresno County Library
- Clovis-Big Dry Creek Historical Society
- Fresno Historical Society
- Fresno County Assessor's and Recorder's Offices, Fresno
- William Smittcamp

 Copyright © 2017 State of California. All rights reserved.
Alteration to the title and section headings is prohibited.

☒ Results:

- On July 8, 2019, the Southern San Joaquin Valley Information Center (SSJVIC) at California State University, Bakersfield, performed a records search of the CHRIS that encompassed the APE and a 0.5-mile surrounding radius. SSJVIC reported no previous cultural resource studies within the APE and eight within the 0.5-mile vicinity (Attachment III, Appendix B). There were no previously recorded cultural resources within the APE and only one resource that had been identified within a 0.5-mile radius of the APE. This resource is the historical West Branch of the Helm Colonial Ditch.
- The Project APE contains a 1,155-foot-long segment of the South Branch Helm Colonial Ditch (P-10-005511/CA-FRE-3344H), a historic built environment resource that intersects the Direct APE (Attachment I, Exhibit C). In its entirety, the South Branch Helm Colonial Ditch flows approximately 2 miles from its head gate on the Enterprise Canal near the intersection of Shepard and Sunnyside Avenues north of Clovis in a southwest direction to Maple Avenue where it rejoins the Helm Canal. Flowing south through the Project APE, the unlined earthen channel measures approximately 19 feet wide; its depth is estimated at 4 and 1/2 feet but could not be precisely determined as there was water in the canal. There are four features related to the canal within the Project APE. These include a recent concrete submersion pipe, a culvert with earthen covering, irrigation gate, and concrete containment well. A section of the West Branch of the Helm Colonial Ditch was recorded and evaluated as ineligible with SHPO concurrence in 2005. The segment of the South Branch within the APE is also recommended ineligible for inclusion in the NRHP and is not a historical resource for the purposes of CEQA (Attachment II: Appendix C).
- The Project APE also overlaps the historical Smittcamp Family Ranch at 1235 N Minnewawa Avenue on the northeast corner of the intersection of Nees Avenue and Minnewawa Avenue. The lot is just under 9 acres in size. The ranch consists of a primary residence with an attached garage, a secondary residence, a stable block, a main garage, a single-story fruit stand, a merry-go-round, a tennis court, tracks for a small-scale railroad, and a peach orchard. The orchard provides a physical connection to the historical agricultural use of the ranch and the primary product that led to the Smittcamp family's entrepreneurial success, which was started and solidified on the ranch. However, the boundary of the Smittcamp Family Ranch is confined to Assessor's Parcel No. 56005110. The resource is considered significant under National Register Criterion A and B at the local level. It retains integrity and is recommended eligible for the National Register of Historic Places (Attachment II: Appendix C).
- An archaeological survey of the 6.34-acre Direct APE on August 29, 2019, encountered no archaeological resources within the Direct APE (Attachment III). USGS Clovis, CA, quadrangle maps dated between 1923 and 1993 demonstrate that the land adjacent to the APE has exhibited some form of development for most of the twentieth century. Agricultural development dominated the project area in the early twentieth century. USGS maps depict several small structures scattered within a mile of the APE. Given the agricultural setting, it is likely that the structures represent farm residences, outbuildings, and other buildings related to agribusiness. By 1942 aerial photographs depict buildings at the Smittcamp residence at 1235 N. Minnewawa. The area surrounding the project slowly developed in the second half of the twentieth century. Starting in 1980, aerial photographs depict steady urban development, and by 1993, aerial photographs show that Garfield Elementary School and Veterans Memorial Stadium construction efforts were in progress. The residential subdivision south of Nees Avenue was in place by 2002. Along with the findings of the field survey, the results of the records search, archival research, and Native American consultation suggest that the likelihood of exposing buried intact archaeological remains during construction is low.

 Copyright © 2017 State of California. All rights reserved.
Alteration to the title and section headings is prohibited.

5. PROPERTIES IDENTIFIED

☒ John Whitehouse, who meets the Professionally Qualified Staff (PQS) Standards in Section 106 PA Attachment 1 and as applicable PRC 5024 MOU Attachment 1 as a(n) Architectural Historian, has determined that the only/only other properties present within the APE meet the criteria for Section 106 PA Attachment 4 (**Properties Exempt from Evaluation**) and as applicable PRC 5024 MOU Stipulation VIII.C.1 and Attachment 4.

☒ Caltrans, in accordance with Section 106 PA Stipulation VIII.C.5 and as applicable PRC 5024 MOU Stipulation VIII.C.5 has determined there are cultural resources within the APE that were previously determined not eligible for inclusion in the NRHP and/or not eligible for registration as a CHL with SHPO concurrence and those determinations remain valid. Copy of SHPO/Keeper correspondence is attached.

- Map Ref. #2—Helm Colonial Ditch (P-10-005511/CA-FRE-3344H)

☒ Caltrans has determined there are properties within the APE that were evaluated as a result of this project and are eligible for inclusion in the NRHP and/or as CHLs. Under Section 106 PA Stipulation VIII.C.6 and as applicable PRC 5024 MOU Stipulation VIII.C.6, Caltrans requests SHPO's concurrence in this determination.

- Map Ref. #1—Smittcamp Family Ranch

6. FINDING FOR THE UNDERTAKING

☒ Caltrans, pursuant to Section 106 PA Stipulation IX.A and as applicable PRC 5024 MOU Stipulation IX.A.2, has determined a Finding of **No Historic Properties Affected** is appropriate for this undertaking. Although the Direct APE encroaches upon a small area of the recommended eligible Smittcamp Family Ranch, the proposed undertaking will not alter the characteristics of the ranch that contribute to its eligibility for the NRHP.

7. CEQA CONSIDERATIONS

☒ Not applicable; **Caltrans is not the lead agency under CEQA**.

8. LIST OF ATTACHED DOCUMENTATION

☒ Attachment I: Project Vicinity, Location, and APE Maps (Exhibits A, B, and C)

☒ Attachment II: Historical Resources Evaluation Report (HRER)

- Prepared by Carlos van Onna (October 2019); reviewed by John Whitehouse

☒ Attachment III: Archaeological Survey Report (ASR)

- Prepared by Ward Stanley and Mary Baloian (October 2019); reviewed by John Whitehouse

9. HPSR PREPARATION AND CALTRANS APPROVAL

Prepared by: Mary Baloian 11/13/19
Mary Baloian, Ph.D., RPA 15189 Date
Principal Archaeologist, Applied EarthWorks, Inc., Fresno, CA

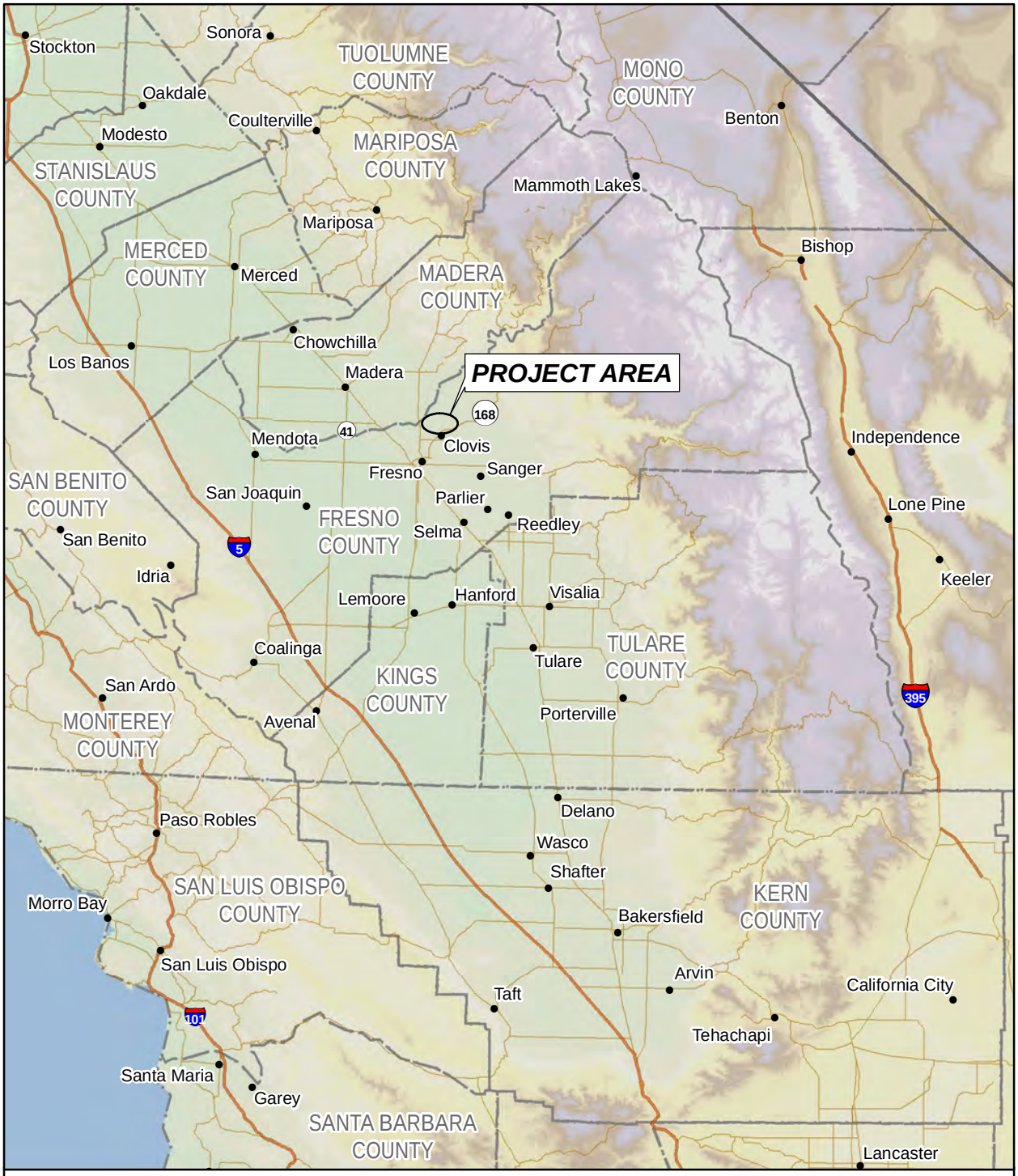
Reviewed for Approval by: _____
District 6 Caltrans PQS Date
John Whitehouse, PI—Prehistoric and Historical Archaeology

Approved by: _____
District 6 EBC Date
Shane Gunn

 Copyright © 2017 State of California. All rights reserved.
Alteration to the title and section headings is prohibited.

ATTACHMENT I

Project Vicinity, Location, and Area of Potential Effects Maps (Exhibits A, B, and C)



SCALE 1:2,000,000

10 0 10 20 30 40 50 Miles

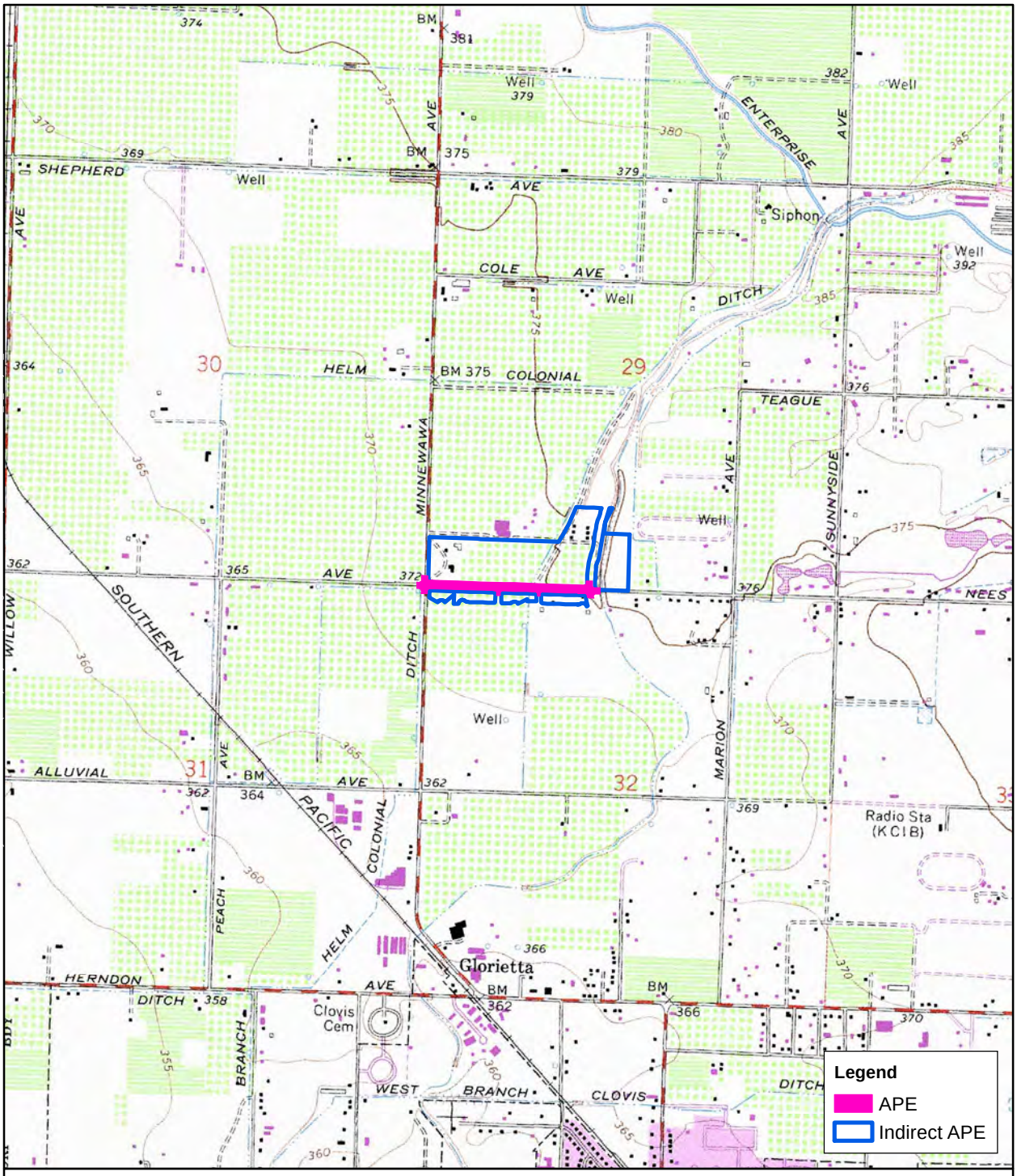
10 0 10 20 30 40 50 Kilometers

PROJECT VICINITY

Nees Avenue Improvements Project
Minnewawa Avenue to Clovis Avenue

Caltrans District 6
Fresno County
FTIP STPL-5208(160)

EXHIBIT A



SCALE 1:24,000

0.5 0 0.5 Miles

1,000 0 1,000 2,000 3,000 Feet

0.5 0 0.5 Kilometers

Township 12S / Range 21E, Section 29, 30, 31, 32,
Clovis (1964-PR1981), CA 7.5' USGS Quadrangle

PROJECT LOCATION

Nees Avenue Improvements Project
Minnewawa Avenue to Clovis Avenue

Caltrans District 6
Fresno County
FTIP STPL-5208(160)

EXHIBIT B

APE Approval:

11/8/19
Caltrans District Local Assistance Engineer — Date

11-8-2019
Caltrans Professionally Qualified Staff — Date

SCALE 1:2,400

0.1 0.05 0 0.1 Miles
100 0 100 200 300 400 500 600 700 Feet
0.1 0.05 0 0.1 Kilometers

AREA OF POTENTIAL EFFECTS MAP
Nees Avenue Improvements Project
Minnewawa Avenue to Clovis Avenue

Caltrans District 6
Fresno County
FTIP STPL-5208(160)

EXHIBIT C

ATTACHMENT II

Historical Resources Evaluation Report
(van Onna 2019)

HISTORICAL RESOURCES EVALUATION REPORT

Nees Avenue Improvements Project CP 17-13 (Minnewawa to Clovis Avenues) City of Clovis, Fresno County, California

STPL-5208(160)

Prepared By: _____ 11/5/2019

Carlos van Onna, M.A. Date
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C, Fresno, CA 93711

Prepared For: **City of Clovis Planning Division**
1033 Fifth Street, Clovis, CA 93612

Reviewed By: _____ _____

John Whitehouse, Principal Architectural Historian Date
Environmental Analysis, Planning, and Local Programs
California Department of Transportation, District 6
855 M Street, Suite 200, Fresno, CA 93721

Approved By: _____ _____

Shane Gunn, Branch Chief Date
Environmental Analysis, Planning, and Local Programs
California Department of Transportation, District 6
855 M Street, Suite 200, Fresno, CA 93721

November 2019

SUMMARY OF FINDINGS

The City of Clovis, in coordination with the California Department of Transportation, proposes to widen Nees Avenue along a 0.5-mile stretch between Minnewawa and Clovis avenues. The proposed widening will increase the existing three-lane arterial road to a four-lane arterial road and will require the acquisition of additional right-of-way to build a 12-foot outside travel lane and bike lane west bound on Nees Avenue. The project also will include the construction of a greenbelt/sidewalk.

This Historical Resources Evaluation Report (HRER) evaluates the potential for the proposed action to affect buildings and structures eligible for listing in the National Register of Historic Places (NRHP)/California Register of Historical Resources (CRHR) or any resources considered historic for the purposes of the California Environmental Quality Act (CEQA). The specific purpose of this HRER is to comply with applicable sections of the National Historic Preservation Act (NHPA) of 1966, as amended, especially those regulations that pertain to federally funded undertakings and their impacts on historic properties.

A built-environment survey for the project identified two historic-era cultural resources on adjacent parcels along the north side of Nees Avenue within the Area of Potential Effects: a rural property with two residences and various structures at 1235 N. Minnewawa Avenue (Assessor's Parcel Number 56005110) and the South Branch Helm Colonial Ditch (P-10-005511) in Assessor's Parcel No. 56005125.

The property at 1235 N. Minnewawa Avenue demonstrates significance under Criterion A/1 and B/2 and possesses sufficient integrity to be considered eligible at the local level for inclusion in the NRHP. It is also a historical resource for the purposes of CEQA. The period of significance is from 1946, when it was acquired along with surrounding agricultural land by the Smittcamp family, to 2014, when the family patriarch passed away as its last permanent resident.

A 1,155-foot-long segment of the South Branch of the Helm Colonial Ditch was recorded and evaluated for inclusion in the NRHP. A section of the West Branch of the Helm Colonial Ditch was recorded and evaluated as ineligible with SHPO concurrence in 2005. The segment of the South Branch within the APE is also recommended ineligible for inclusion in the NRHP and is not a historical resource for the purposes of CEQA.

CONTENTS

APPENDICES

FIGURES

1 PROJECT DESCRIPTION

The City of Clovis, with the support of the Federal State Transportation Improvement Program (FSTIP), plans to widen and reconstruct a half-mile segment of Nees Avenue from Minnewawa to Clovis Avenue. The project will increase the existing three-lane arterial road to a four-lane arterial road to improve traffic operations and reduce vehicle delays and congestion. Construction will require the acquisition of additional right-of-way to build a 12-foot outside travel lane and bike lane west bound on Nees Avenue. The project also will include the construction of a greenbelt/sidewalk and reconstruction of failing street segments where needed along the existing roadway. The project also will include asphalt concrete paving as well as curb, gutter, drain, lighting, and infrastructure work. In addition, construction will involve the relocation/construction of a Fresno Irrigation District structure.

The project is in northwestern Clovis within Fresno County (Map 1). Specifically, it is in Sections 29, 30, 31, and 32 of Township 11 South, Range 24 East, as depicted on the U.S. Geological Survey (USGS) Clovis 7.5-minute quadrangle (Map 2). The project area is mostly comprised of Nees Avenue, a three-lane paved road with a median divider. A rural historical residence and orchards lie north of the APE, and a contemporary residential subdivision lies directly south.

Section 106 regulations (36 CFR 800.16[d]) define the Area of Potential Effects (APE) as the area within which a project has the potential to directly or indirectly cause alterations to historic properties. The Direct APE for the current Project includes an approximately 0.5-mile-long corridor of Nees Avenue between Minnewawa and Clovis avenues (Map 3). The Direct APE encompasses 6.34 acres. The Indirect APE extends to the first-tier parcels touching the Direct APE (Map 3).

2 RESEARCH METHODS

Applied EarthWorks Senior Architectural Historian Carlos van Onna conducted archival research through a series of stepwise tasks. On July 8, 2019, the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System housed at California State University, Bakersfield, performed a records search that included a review of the SSJVIC's own maps and reports on file as well as the National Register of Historic Places, the Historic Property Data File (3/18/13), California Register of Historical Resources, California Inventory of Historic Resources, and listings of California Historical Landmarks and California Points of Historical Interest. The purpose of the records search was to determine whether the two subject resources had been previously recorded and evaluated and to identify any other known cultural resources that may exist within the study vicinity.

Because only the Helm Colonial Ditch had previously been recorded and evaluated, archival research was carried out to construct a historic context for evaluation and to gather property-specific information about the ranch complex. The historic context (see Section 4.1) establishes the framework within which decisions about significance are based (National Park Service 1995:9). The evaluation process essentially weighs the relative importance of the subject resources against the larger backdrop of history; the context provides the comparative standards

and/or examples as well as the theme(s) necessary for this assessment. According to the National Park Service (1995:9), a theme is a pattern or trend that has influenced the history of an area for a certain period. A theme is typically couched in geographic (i.e., local, state, or national) and temporal terms to focus and facilitate the evaluation process.

Considering the location and economic function of the two subject resources, research focused on the theme of agricultural development in the Fresno-Clovis area. The historic context contained in this report is based on research from numerous (unrelated) evaluations performed by Applied EarthWorks in the past 12 years. These evaluations have assessed the historical significance of rural properties and irrigation canals throughout Fresno County. In creating a general historic context for the Fresno-Clovis area, Applied EarthWorks consulted several local repositories, including:

- The California History and Genealogy Room at the Main Branch of the Fresno County Library;
- Clovis-Big Dry Creek Historical Society;
- Fresno Historical Society;
- Fresno County Assessor's and Recorder's Offices, Fresno; and
- Applied EarthWorks' in-house library, which includes local histories, technical publications about irrigation, and other material related to the topics of water conveyance and farming.

Property-specific research seeks to answer such basic questions as "when was the building/structure built," "who built, lived in, or used it," and "why was it built." Although precise construction dates for old buildings and structures are rarely found in the historical record, a narrow range of dates can be ascertained though a review of archival maps and aerial photographs. Very often, the reasons or circumstances underlying the construction of a particular building or structure can be revealed by relating property-specific information (e.g., date of construction, owner, etc.) to the chronology of development in the vicinity. For instance, the construction of rural homes and branch canals in the Fresno-Clovis area has historically occurred after the subdivision of a larger property by a land developer for sale to individual farmers.

For the current investigation, Applied EarthWorks reviewed archival USGS topographic maps from 1923 to present showing the Project area and examined a series of aerial photographs of the Project area dating from 1937 to 1992. Details of historical maps and aerial photographs are provided in Appendix B. Finally, Æ conducted a telephone interview with William Smittcamp to learn more about the property's history.

3 FIELD METHODS

On August 28, 2019, Architectural Historian Carlos van Onna visited the project area to document and photograph the subject resource. The level of effort was sufficient to provide enough visual information for recordation and evaluation of the resource. The California Department of Parks and Recreation (DPR) forms for the evaluated resources are provided in Appendix C.

4 HISTORICAL OVERVIEW

4.1 EARLY DAYS IN THE DRY CREEK DRAINAGE (1853–1874)

The first Euro-American settlements in the greater Clovis area occurred not within the swampy "hog wallows" that once dotted the landscape of the present city limits but in the grassy plains around Dry Creek where the stream flows down from the foothills into the valley (Clough and Secrest 1984:304). A small outpost was established at the current intersection of Shepherd and Thompson avenues in 1853 and later became a stop along the Stockton to Los Angeles stage route (Smith 1991:11, 31). For many years, the lonely station, which eventually became known as Collins Corner, stood by itself with no other buildings in sight. After the Civil War, shepherds, many from the southern United States, began to trickle into the area.

During the 1860s, many homesteaders came to the valley to graze their herds or flocks in the pastures around the San Joaquin River and its drainages. The local cattle industry continued to grow until at least 1870, when, according to Vandor (1919:162), it reached its peak. There were, however, some bumps along the way. The erratic climate patterns of the 1860s—a decade that experienced alternating periods of severe flooding and drought—had considerable impact on the make-up of the Central Valley's agrarian base. In particular, the two-year-long drought that followed the great flood of 1862 decimated remaining old Spanish cattle that had escaped the deluge (Byron 1951:26). In response, cattlemen restocked their herds with other varieties, including longhorns that had been driven from Texas (Vandor 1919:162). For their part, shepherds adopted the annual cycle of Old World pastoralists: during the summer months they drove their flocks into the Sierra Nevada high country to conserve the lowland grasses for fall and winter grazing. The floods and droughts similarly wreaked havoc with the production of agricultural goods, causing dramatic swings in commodity values. In the wake of the 1864 drought, crop failures depleted the supply of grain as the price of wheat on the San Francisco Market soared to $5.00 per cental (100 pounds) in March 1865. By comparison, the price rarely breeched the $3.00 mark during the entire 1870s (Elliot 1883:71).

Along with the climate, political factors had a major hand in shaping the economic landscape. Although the 1874 enactment of the "no fence" laws did not necessarily deal a death blow to valley ranching, the statute did greatly curtail the influence and importance of this industry. The law had both operational and monetary repercussions:

> The "no fence" law obligated the stock owner to herd his cattle and sheep, whereas before the stock roamed at will and was not assembled except for the annual rodeo. He was also made responsible for damage done by his beasts. The farmer was not required to fence his holdings, though . . . he occasionally did so [Vandor 1919:163].

Without the entire extent of the San Joaquin Valley at his disposal and burdened by the continual task of containing his herds and flocks, the rancher found himself increasingly marginalized in the developing valley economy.

4.2 IRRIGATION AND THE BEGINNINGS OF CLOVIS (1874–1900)

Along with the railroad and pro-agriculture legislation, the development of irrigation systems contributed to the growth of agriculture. Built in the 1870s, the first major water conveyance

systems in the Fresno-Clovis area included the canals of the Fresno Canal and Irrigation Company (FCIC), the Kings River and Fresno Canal Company (KRFC), and the Enterprise Canal Company (ECC). These same systems remain essential parts of the area's agricultural industry today.

In local history, Moses Church—a former sheepherder from Napa County—is considered the chief developer of water conveyance in Fresno County. As early as 1870, Church began acquiring water rights along the Kings River; in February 1871, he and two business associates incorporated the FCIC (Willison 1980). His first objective was to deliver appropriated water to the farm of A. Y. Easterby, located in the present-day Sunnyside neighborhood of Fresno (Vandor 1919:170–171). In 1872, the company completed construction of the first main head gate that allowed 2,000 feet of water to be diverted into the irrigation system (Elliot 1882:102). The Fresno Canal is the FCIC system's primary channel. Even though it runs a relatively short 12 miles; the Fresno Canal is the source of numerous large branch canals that irrigated the fields south, west, and east of the Fresno-Clovis metropolitan area.

The KRFC, also established in 1871, intended to build a similar system, although the project did not materialize until 1873 when L. A. Gould purchased interest in the company (Clough and Secrest 1984:118–119). By August of the same year, irrigation water arrived at Gould's nursery via KRFC or Gould Canal, which receives water from the Kings River through its head gate on the Fresno Canal. The KRFC's dependence on the Fresno Canal later proved to be its undoing.

Although archival research could not determine precisely when the Enterprise Canal was built, evidence indicates that construction occurred in or after 1873 and was completely by 1875. The Enterprise Canal flows for over 36 miles, irrigating the farmlands north and east of the Fresno-Clovis area. The canal heads at the Gould Canal of the KRFC, which had agreed to supply irrigation water to the ECC (Willison 1980:76). In 1875, KRFC became embroiled in a water litigation case with the FCIC. In August 1875, the court ruled in favor of the FCIC and enjoined the KRFC from drawing water from the Kings River. With no water rights and without access to water from the river, the KRFC and ECC were forced to sell their canals to the FCIC, which then sold irrigation rights to landowners along the routes of the Gould and Enterprise canals (Clough and Secrest 1984:151; Willison 1980:84). The court decision thus left the FCIC in control of all three canal systems.

For Church and other land promoters, the intended effect of irrigation was to increase the value of their properties so that they could be subdivided and sold to newly arriving homesteaders at a hefty profit. While this primary purpose was certainly achieved, the advent of intensive irrigation additionally led to a shift in both the types of crops grown and the size of a typical farm. Grain farming generally requires substantial acreage, but as irrigation water became more readily available, individual farmers realized that premium crops like grapes, citrus, and tree fruit could be profitably grown on lots as small as 20 acres.

Vandor's history includes a commentary from (probably Charles) Nordoff, who describes how, with irrigation, bigger is not necessarily better.

> Big ranches there are yet but they are hazardous ventures, and the fact is that in the big valley the twenty, forty and eighty-acre farmers brought the lasting and real agricultural prosperity. There, where wheat was once the big and only crop, the man with less than

> 320 acres classed himself as a humble small farmer. Slowly but gradually the conviction forced itself that eighty acres with water on a good location was a little too much, forty a liberal plenty with which to make a fair start in life, and twenty just enough for one man on which to make a comfortable living for self and family and have something over with industry and health for the proverbial rainy day. Wonders have been accomplished with ten acres by men who were not overambitious, not overburdened with money and hesitated not to combine brain and brawn in the labor in the field. Intelligent twenty-acre men are laying up what eastern farmers would consider a fortune . . . [Vandor 1919:261].

Much like the "no fence" laws, the 1887 Wright Act, which provided for the creation of irrigation districts, is also seen as an important step in solidifying the interests of agriculture. In its original form, the law could not be implemented and was in fact suspended until proper government oversight was established. Thus, municipal irrigation districts did not begin replacing private irrigation companies until the early twentieth century. At its initial passage, the Wright Act was, nevertheless, another legislative expression of the growing need for appropriated water.

In 1875, mining investor and fledgling farmer Bernhard Marks convinced William S. Chapman, Fresno County's largest landholder, and William H. Martin, a San Francisco financier, that it could be very lucrative to sell land and irrigation rights in Fresno County. An investor could purchase these on a large scale, subdivide the land, and then sell small irrigated lots at a profit. This practice was known as the colony farm system. The trio first established the Central California Colony southwest of present-day Fresno. It consisted of 192 twenty-acre lots that were sold for $1,000 with no interest and easy payment terms. The venture proved successful and soon other investors established their own colonies in the area.

As more colonies were established, the irrigation system was expanded. The increase in agricultural products also spurred the development of related industries, including nurseries and farm implement manufacturers. The immigration of a large number of colonists also promoted expansion of commercial ventures that offered food, clothing, and other staples.

Although a variety of crops were grown on the small colony farms, most of the valley was covered in wheat fields in the 1870s. However, when several small grape growers began turning huge profits on raisin production in the 1880s, wheat fields were quickly overtaken by vineyards. This trend gained steam when a nationwide glut in the grain market and attendant drop in the price of wheat caused valley farmers to shift their attention to these newer crops. Although many fields were covered with vineyards, orchards of citrus, apricots, peaches, and figs became more common in the Fresno area.

Clovis originated in 1891 as a stop along the San Joaquin Valley Railroad, and was named after Clovis M. Cole, the landowner known as the "Wheat King" from who Michigan lawyer Marcus Pollasky purchased one square mile of land for the construction of a new railroad. Pollasky named the station Clovis, which would later become the name for the city that formed around it (Clovis-Big Dry Creek Historical Society 2019). The railroad extended from Fresno to the aspiring community of Pollasky (formerly called Hamptonville and later renamed Friant), located on the south bank of the San Joaquin River (Clough and Secrest 1984:281). Although Pollasky never fully materialized and the railroad was eventually sold off to the Southern Pacific, the new transportation link had opened up the area northeast of Fresno for settlement and other ventures. Shortly afterward, the Fresno Flume and Irrigation Company, a combination lumber

and irrigation venture, located its sawmill on a 60-acre parcel at the current site of Clark Intermediate School and the Clovis Rodeo Grounds. The mill was the end point of a 45-mile wooden flume from Shaver Lake. By its second year of operation in 1895, between 300 and 500 employees worked at the mill (Clough and Secrest 1984:305; Johnston 1997).

4.3 DIVERSIFICATION AND WATER ISSUES (1900–1950)

The Reclamation Act of 1902 facilitated the further proliferation of smaller farms. This law granted subsidized irrigation water to farmers, provided that the agricultural lands did not exceed 160 acres and that the recipient of the water resided on the property. The bill was intended to assist small farmers while at the same time implement a legal structure to restrain the accumulation of agricultural lands by wealthy property owners. However, difficulties in enforcing the act, loopholes inherent within the statute, and changes to the law over the years have allowed individual farmers to receive cheap irrigation water well beyond the 160-acre limitation. Much of the San Joaquin Valley has been converted into arable land under the 1902 Reclamation Act.

The trend toward smaller farms continued well into the new century. Between 1900 and 1920, 45,000 new farms were established in California, of which about 85 percent were less than 50 acres (Hall 1986:170). Yet whether a farm is small or large, the decision of which crop(s) to grow from year to year has historically been a speculative one for valley farmers. Given the decentralized nature of the industry, the market for a particular product was capable of unpredictable and dramatic changes in its volume and price. Oversupply of the previous year's crop and the prospect of low prices have often compelled growers to look for other, more profitable alternatives. Out of this instability, many new fruit and vegetable varieties have been introduced to the valley.

For instance, in the early 1900s, a glut in the grape and raisin market—one of several that would occur in the century—caused many farmers around Selma to turn to peaches and other tree fruit. Predictably, the market became saturated as the commodity was over produced, but stone fruit (peaches, nectarines, plums, and apricots) has since remained a fixture in local agriculture (Hall 1986:170). During this same time, fig orchards began to appear in greater numbers. George Roeding's work with the pollination (or caprification) of Smyrna figs resulted in the development of the Calimyrna variety, which eventually surpassed the white Adriatic, the black mission, and the kadota to become the state's most popular fig (Hall 1986:171–172). In the Fresno area, the crop is synonymous with J. C. Forkner's "Fig Gardens" (located in what is today the central part of town), but it was also successfully grown on numerous farms in northeast Clovis (Smith 1991:19). Another historically important crop that emerged as an alternative to grain is citrus, which is grown most successfully along the eastern margins of the valley. The microclimate in this region is especially conducive to the cultivation of oranges and lemons: here, it is cold enough to enhance the sugar content of the fruit yet comparably less prone to the hard freezes that beset other valley regions. The citrus industry grew so quickly that by 1900 ranchers began planting orange groves in former rangeland, a decision prompted by the fact that at the time an irrigated orchard fetched $1,500 per acre compared to $100 per acre for raw land (Hall 1986:173).

Such decisions, however, were not always driven exclusively by supply and demand and were sometimes based on a willingness to invest in a new direction. In the 1910s, many grape and raisin growers switched from the muscat variety to the Thompson seedless, presently the most popular table grape in the nation. Compared to the muscat, the Thompson grape was less sticky when dried and, as its name implies, seedless—two factors that facilitated the packaging and marketing of the product (Hall 1986:169). People have been drying grapes to make raisins for thousands of years, but this ancient practice grew to become one of the state's dominant industries in the early years of the twentieth century. Before the advent of modern refrigeration in railcars and freight trucks, the marketability of fresh tree fruit and grapes was restricted to the western United States. By preserving and thus increasing the shelf life of the fruit, farmers opened up the eastern markets to their crops and, at the same time, removed some of the price volatility associated with perishable agricultural commodities.

World War I created an unprecedented demand for agricultural products, as the U.S. government sent shiploads of canned food and textiles overseas. The conflict had interrupted the import of Egyptian cotton, and the heightened demand stimulated local production of the commodity (Hall 1986:175–176). Similarly, the raisin industry benefited from the agricultural boom; in 1920, even 2 years after the armistice, growers received $295 per ton, while vineyards were valued at over $1,000 per acre (Hall 1986:175). In time, however, supply caught up and overtook demand for the dried goods, creating surpluses and depressed prices. The war had ended, and the government no longer had the need to purchase tons of crops and textiles. To exacerbate matters for viticulturists, from 1919 to 1933, the Eighteenth Amendment banned the manufacture, sale, and transportation of all alcoholic beverages, including wine, brandy, and other grape-based libations. Ironically, the Roaring Twenties, a period often portrayed as one of the nation's most prosperous times, were not always kind to the nation's farmers.

The steady growth of the San Joaquin Valley's agricultural base and its reliance on irrigation were beginning to erode the state's water supply. In the period between 1909 and 1919, newly irrigated lands were placed under production at a rate of 155,000 acres per year (Hall 1986:174). Established in 1920, the Fresno Irrigation District acquired the aging conveyance systems from the previous century, including the Fresno, Gould, and Enterprise systems, and immediately set out to revamp and add to the existing canals and structures (Willison 1980). Technological improvements to electric water pump technology allowed wells to extend even deeper into the aquifer, and by the mid-1920s the proliferation of wells had caused the water table to drop to alarmingly low levels. Among the most threatened were farmers who relied solely on wells for irrigation water. Along with a falling water table, California's water issues included reducing the danger of flooding along the major rivers, providing for more dependable navigation on the Sacramento River, and improving the water quality in the East Bay area (Jackson 1977).

The solution was the Central Valley Project (CVP), a statewide multicomponent water conveyance system to control and redistribute the tremendous supply of water flowing from the Sierra Nevada. The CVP began as a New Deal project in the early and mid-1930s, but partially due to labor shortages created by World War II, the entire system was not completed until the early 1950s. The Friant-Kern Canal, an original component of the CVP, flows about 6 miles east of the project area.

In many ways, the Dry Creek drainage was a microcosm of the water issues facing the state during the 1920s and 1930s. Winding southwest from the foothills, Dry Creek disappears into a

natural sink near the Old Fig Garden area in north-central Fresno. The natural flow from the creek raises the underground water table, which has been an important source of well irrigation water. Since the earliest days of Fresno, however, the annual flooding of the waterway caused traffic hazards, material damage, and considerable loss of life (Baloian 2012:7-9; Wilson 1932).

4.4 MODERN WATER MANAGEMENT AND AGRICULTURE (1950–PRESENT)

Water management methods became more diverse in the middle of the twentieth century and presently involve the storage of runoff in reservoirs for hydroelectric power and flood control and maintenance of underground water tables for such uses as irrigation and drinking water. As part of this larger process, the Dry Creek Project has sought to control the stream's natural runoff by channeling the water into reservoirs (Fresno Bee 1948). Since beginning operation in 1948, the Dry Creek Project has expanded its scope to prevent flooding while managing the groundwater level (Clovis Unified School District 1984:137; Fresno Metropolitan Flood Control District 2004).

When it reached fruition in the 1950s, the CVP sparked a new wave of agricultural growth by providing an ample supply of federally subsidized water across the valley floor. For Fresno County, the important feature of this system has been the Delta-Mendota Canal, which provides water to West Side farmers. The Friant-Kern Canal flows through the Dry Creek District and its primary function is to convey irrigation water to the counties of the south San Joaquin Valley. Nevertheless, water from the channel does not pass through the greater Fresno area completely untouched; along with the City of Fresno, the Garfield Irrigation District and the Harlan Ranch established the right to divert water from the Friant-Kern Canal (Baloian 2012:9; CUSD 1984:136).

Even with federal subsidies, farming was a risky and expensive venture. In the 1950s, mechanization and scientific advances contributed to the consolidation of farm land and allowed farmers to easily expand the number of acres in production. Hundreds if not thousands of acres, which previously required numerous workers to sow and harvest, could now be cultivated and managed with only a fraction of the labor. On the west side of Fresno County, farms averaged more than 2,000 acres. However, because of the 1902 Reclamation Act, getting water for these large farms became a hotbed issue and a political focus until the 1980s. Much of this land was irrigated by water derived from federal projects such as the San Luis Dam, Pine Flat Dam, or Friant Dam, and, therefore, in theory was subject to the Reclamation Act. Although most farms were technically too large to qualify for federally subsidized water, various political machinations allowed Central Valley farmers to continue to thrive. In 1982, Congress was finally persuaded to update the Reclamation Act to reflect more modern times. The Reclamation Reform Act, which raised the limitation for federally subsidized water to 960 acres and eliminated the residency restriction, allowed small farmers to increase production. However, farming still remains a speculative venture, vulnerable to violent market fluctuations. Active interest by the federal government in the form of subsidies, infrastructural projects, and extensive federally funded scientific research has brought much stability, allowing smaller farms to maintain a competitive edge (Clough 1986). In 2000, the average farm comprised 374 acres, with families or individuals, not corporations, driving production (Nettles and Baloian 2005; Pollock 2000).

4.5 PROPERTY-SPECIFIC HISTORY

4.5.1 1235 N. Minnewawa Avenue

The property at 1235 N. Minnewawa Avenue is commonly known as the Smittcamp Ranch, or Wawona Ranch. It is on a parcel of just under 9 acres and is historically part of the southwest quadrant of Section 29 of Township 12 South, Range 21 East, which was acquired in its entirety by Earl and Muriel Smittcamp in 1946.

Notable early owners of this land were Charles A. Owen and Carrie Cole. Owen, born in Iowa in 1853, came to California in 1862 when his parents George W. Owen and Eleanor Owen made the trek to Northern California from the Midwest. As a stock farmer, George W. Owen first acquired land in Fresno County in 1875 (Vandor 1919:706). It seems Charles followed in his father's footsteps and acquired the southwest quadrant of Section 29, along with other land, on August 28, 1877, from Robert Flack, a farmer and native of Scotland (Fresno County Recorder 1877).

Charles married Carrie Cole, sister of "wheat king" Clovis Cole, the landowner the City of Clovis was named after, on January 29, 1878 (Clovis-Big Dry Creek Historical Society 2019). Upon their father's passing in 1880, Charles' brother Richard T. Owen was left in charge of the estate, and he purchased additional land in the Clovis area in 1881. Richard Owen relocated from Stanislaus County to Fresno in 1882. Charles and Richard farmed grain, kept livestock, and bred racehorses together (Vandor 1919:707). The 1891 Fresno County Atlas shows that the Owen family owned a substantial amount of land in the area.

The 1891 atlas shows a built structure at roughly the same location as the current Smittcamp Ranch, presumably Charles and Carrie Owen's residence. This is said to have been a three-story building that featured a dance floor at the top, supposedly the venue for many nights of entertaining by the Owens. The house was destroyed by fire around 1912. Another supposed feature of the Owen's property was a racetrack for horses (Clovis-Big Dry Creek Historical Society 2019). An exact date or location is unknown. The driveway lined with palm trees that is extant today is said to have led to the racetrack and is believed to be from the late 1880s. (Smittcamp 2019).

Charles and Carrie Owen retired in 1902 and moved to a house on Washington Avenue in Fresno (Clovis-Big Dry Creek Historical Society 2019). On December 20 of that same year, Charles Owen was killed in a train wreck at Byron, California. His brother's death prompted Richard Owen's retirement. According to Vandor, Richard Owen lived in the "first fine house in Clovis . . . surrounded by a productive vineyard and orchard" with his family (Vandor 1919:707).

The 1907 Fresno County Atlas shows the southwest quadrant of Section 29 in possession of the Shepard and Teague Company, which retained ownership up to 1920. The Shepard-Teague Land Company was founded in 1892 by Charles Teague, a native of England. Teague was active in the acquisition and sale of land in Fresno County, particularly selling to outsiders that wanted to settle in California but who were unable to make the purchase in person. Offering land at affordable prices, Teague enabled many new landowners to develop and sell their property, turning substantial profits and adding to the value of land in Fresno County (Vandor 1919:828).

The 1923 Fresno County Atlas lists the owner as A. A. Drescher et. al., and the 1930 atlas lists A. A. Brown et. al. as the owner. Drescher is known to have represented the Wawona Company from the San Francisco area, and Brown was in all likelihood also involved with this company. The exact nature of their business is unknown; however, it is believed to have been the cultivation of figs (Smittcamp 2019). On the same 1930 map, the lot catty-corner to the present Smittcamp Ranch is also in their possession, listed under the Wawona Company name. According to the 1935 Fresno County Atlas, this is also the case for the southwest quadrant of Section 29. From the second half of the twentieth century to present day, the Wawona name is most firmly associated with the agricultural businesses of Earl and Muriel Smittcamp and their family, as it was first used by them in 1947 and trademarked in 1979 (U.S. Patent and Trademark Office 2019).

Before the Smittcamp family's involvement with the land, it was leased and farmed by Kehar Singh Brar and his wife Dalip Kaur Singh Brar from around 1926 until 1941. As immigrants from India, the Brar couple was not legally permitted at the time to purchase the land. In 1941, Muriel Smittcamp's parents Robert and Jessie May Schmeiser, purchased the land from the Wawona Company (Clovis Centennial 2011:77; Smittcamp 2019). The Schmeisers were farmers and had previously lived in Yolo County, where Muriel was born in 1917, and Corcoran in Kings County, California, before relocating to the Fresno area.

Earl Smittcamp was born in Kerman, California, in 1918. He had worked many jobs so he could afford to attend California State University, Fresno, commonly referred to as Fresno State. He carpooled daily from Kerman (Smittcamp 2019). Earl and Muriel met at Fresno State in 1936 and married in 1940. Earl graduated in 1939, and served oversees with the U.S. Marine Corps during World War II. Upon his return to Clovis, on January 25, 1946, the couple purchased the southwest quadrant of Section 29 from the Schmeisers along with other land in the area (Fresno County Recorder 1946; Lee et al. 2014). Construction on their residence began in 1949 (Fresno Bee 1970). An older structure was moved for this purpose, and is now part of the Wawona packing plant just northeast of the ranch. With the exception of the older driveway, all buildings and structures on the ranch appear to date from the mid-twentieth century.

The Smittcamps had four children, Bob, Carole, Betsy, and Bill, born in 1941, 1946, 1949, and 1951, respectively (Ancestry 2019; Lee et al. 2014). It was from their ranch that the Smittcamps grew their businesses into the successful entities they are today. While the fields around it originally had a variety of crops growing on them, Earl Smittcamp decided to focus on peaches. Being new to farming, he was assisted by his father-in-law and neighboring farmers (Lee et al. 2014). Under the Wawona name, the Smittcamps started Wawona Orchards and Wawona Packing in 1948, and Wawona Frozen Foods in 1968, encompassing all aspects of fruit processing from growing to packing to freezing. In 1971, the Smittcamps took over Lyons Magnus, a fruit processing company founded in San Francisco around 1852, and moved its operations to Clovis (Lyons Magnus Inc. 2019).

During his lifetime, Earl Smittcamp was very active in community life and politics. He was director on the farm credit board at the Federal Land Bank of Berkeley in and around 1952 (Fresno Bee 1952), was on the Fresno State Foundation board, and fulfilled many other leadership roles (Lee et al. 2014). In 1962, he was named an Outstanding Citizen of Clovis. He unsuccessfully ran for the California State Assembly in 1960 and the California State Senate in 1970. He served on the California State Board of Agriculture between 1970 and 1972, and he

served on the U.S. Advisory Committee on Regulatory Programs in 1976. Earl Smittcamp was named an outstanding alumnus of Fresno State in 1980, and in 1995 he received an honorary doctorate. In recognition of his accomplishments in the frozen food industry since 1968 that are related to his company, Wawona Frozen Foods, Earl Smittcamp was inducted to the Frozen Food Hall of Fame in 2005 (Lee et al. 2014). Among the other inductees is Clarence Birdseye, who is widely credited with inventing frozen food (Library of Congress 2019).

Earl and Muriel Smittcamp were also committed to local charitable causes. In 1997, they made an initial donation of one million dollars to Fresno State, establishing the Smittcamp Family Honors College as well as the Smittcamp Alumni House. This program provides top Central Valley students with quality education and pays for the majority of tuition and housing costs. The Smittcamps' goal was to attract and keep talent in the Central Valley (Fresno State 2019). At their ranch, the Smittcamps hosted countless benefits to raise funds for Clovis youth. This tradition of philanthropy is continued by their children.

Muriel Smittcamp passed away on October 8, 2009, at the age of 92 (Sheehan 2009). Earl Smittcamp passed away on October 20, 2014, at the age of 96 (Lee et al. 2014). The property has since remained in the family; however, in March of 2018 it was announced that local church organization The Well is in the process of purchasing it as part of their proposed campus.

4.5.2 South Branch Helm Colonial Ditch

Prior to 1900, the lands surrounding Clovis were primarily divided into large (320 or 640 acre) tracts and were owned by wealthy stockmen and farmers. After 1900, many of these tracts were divided, usually into 40-acre lots, and sold either independently or as part of a colony. The Helm Colonial Development, for which the Helm Colonial Ditch is named, is an example of the latter. The subdivision was named for William Helm—a prominent stockman, farmer, and financier in the early history of Fresno County. The lots were owned by farmers who cultivated vineyards, tree fruits, citrus, or other premium crops that could be profitably grown on a small scale. This farmland was irrigated from water transported through a series of canals and ditches. These water conveyance systems, in particular the canals, were vital to agricultural development. Major canals, such as the Enterprise Canal and Gould Canal, brought water from the King's River to the Clovis vicinity. Secondary canals and ditches then transported that water to lots within the colonies. The Helm Colonial Ditch was one such secondary supply line. Constructed sometime between 1911 and 1913, it supplied irrigation water to, among other agricultural subdivisions, the Helm Colonial Development. The ditch is part of the Fresno Irrigation District and is an example of its secondary laterals, many of which have been piped underground since they were first constructed.

5 DESCRIPTION OF CULTURAL RESOURCES

5.1 1235 N. MINNEWAWA AVENUE

The Smittcamp family ranch at 1235 N. Minnewawa Avenue is on the northeast corner of the intersection of Nees and Minnewawa avenues and encompassed just under 9 acres. The ranch consists of a primary residence with an attached garage (Figure 1), a secondary residence directly to the north (Figure 2), a stable block to the northeast, and a separate single-story fruit stand with

gable roof to the northwest (Figure 3). A semicircular driveway lined with palm trees provides access to all buildings and connects to both the intersection in the south and Minnewawa Avenue in the north. The stable block is accessed through a paved driveway that branches off the semicircular driveway to the east and leads to a small parking lot in front of the stables. The main garage is set back behind the primary residence and is accessed through a separate driveway that connects to Nees Avenue in the south. Notable recreational features on the ranch are a merry-go-round between the residences (Figure 4), a tennis court south of the main residence, and tracks for a miniature railroad that once carried passengers around the perimeter of the lot (Figure 5). The railroad and merry-go-round are recent additions dating to the early 1990s (Agricultural Adjustment Administration 1992). The train was donated to a local amusement park in October 2018 (Walker 2018), and the track is no longer fully intact.

Vegetation is lush at the center of the lot around the buildings and includes numerous trees, flowering plants, manicured hedges, and shrubbery. On the west side, a sizable lawn takes up the negative space of the semicircular driveway. A previous widening of Minnewawa Avenue led to the removal of the line of historic palm trees that originally connected to both ends of the driveway in the west. This edge of the lot is now demarcated by a line of conifer trees (Figure 6). The east side of the parcel is occupied by several rows of the peach orchard that extends onto the adjacent parcels.

A more detailed description of the ranch and its components can be found on the California Department of Parks and Recreation 523 forms in Appendix C of this report. The Direct APE overlaps only a small portion of the historic-era ranch; the majority of the property and all the historic-era structures lie within the Indirect APE (Map 3).

5.2 SOUTH BRANCH HELM COLONIAL DITCH (P-10-005511)

The 1,155-foot-long recorded segment is part of the South Branch of the Helm Colonial Ditch, which originates from the Enterprise Canal near the intersection of Shepard and Sunnyside avenues north of Clovis. Originally an open earthen ditch, the majority of this system has now been piped underground (Fresno Irrigation District 2019). Part of the last unpiped segment of the South Branch intersects the south end of the Direct APE (Figure 7). The ditch cuts through a parcel that is largely occupied by peach orchards (APN 560-051-25). The West Branch of the Helm Colonial Ditch, which is outside the project area and was not inspected during the current effort, was previously recorded and evaluated (Baloian 2005). The agricultural fields that this ditch once delivered water to are quickly disappearing into subdivisions.

A more detailed description of the ditch and its features can be found on the California Department of Parks and Recreation 523 forms in Appendix C of this report.

All other built environment resources within the Direct and Indirect APE are modern residential properties built sometime between the late 1990s and the early 2000s. One home northeast of the intersection of Clovis and Nees avenues, APN 56051006, was built within the past 40 years.

Figure 1 **Main residence at 1235 N. Minnewawa Avenue, facing northeast.**

Figure 2 **Secondary residence, west elevation, facing east.**

Figure 3 **Wawona Fruit Stand and portion of curved palm-lined driveway, facing southwest.**

Figure 4 **Merry-go-round, facing northeast.**

Figure 5 **Tennis court south of the main residence and railroad track at left, facing southwest.**

Figure 6 **Conifer trees and miniature railroad tracks along Minnewawa Avenue, facing southwest.**

Figure 7 South Branch Helm Colonial Ditch, facing northwest.

6 FINDINGS AND CONCLUSION

6.1 FINDINGS

Applied EarthWorks identified two cultural resources within the proposed project APE. The cultural resources fall into the following categories:

Historic Properties listed in the National Register: There are no properties within the APE listed on the NRHP.

Historic Properties previously determined eligible for the National Register: There are no historic properties previously determined eligible for the NRHP within the APE.

Cultural Resources previously determined not eligible for the National Register: There are no cultural resources previously determined not eligible for the NRHP within the APE.

Historic Properties determined eligible for the National Register as a result of the current study: There is one cultural resource in this category (see Appendix C):

Name	Address/Location	Community	OHP Status Code	Map Ref. #
Smittcamp Family Ranch	1235 N. Minnewawa Ave. APN 65005110	Clovis, CA	3S	1

Cultural Resources determined not eligible for the National Register as a result of the current study: There is one cultural resource in this category (see Appendix C):

Name	Address/Location	Community	OHP Status Code	Map Ref. #
South Branch Helm Colonial Ditch P-10-005511	APN 56005125	Clovis, CA	6Y	2

Cultural Resources for which further study is needed because evaluation was not possible: There is no resources in this category.

Historical Resources for the purposes of California Environmental Quality Act (CEQA): There is one cultural resource in this category (see Appendix C):

Name	Address/Location	Community	OHP Status Code	Map Ref. #
Smittcamp Family Ranch	1235 N. Minnewawa Ave. APN 65005110	Clovis, CA	3S	1

Resources that are not historical resources for the purposes of CEQA, per CEQA Guidelines Section 15064.5, because they do not meet the California Register criteria as outlined in PRC 5024.1: There is one resource in this category (see Appendix C).

Name	Address/Location	Community	OHP Status Code	Map Ref. #
South Branch Helm Colonial Ditch P-10-005511	APN 56005125	Clovis, CA	6Z	2

John Whitehouse, who is certified as Professionally Qualified Staff under Caltrans Section 106 PA Attachment 1 as an Architectural Historian, has determined that the only other properties present within the APE meet the criteria for Section 106 PA Attachment 4 (Properties Exempt from Evaluation).

6.2 CONCLUSIONS

A survey of the built environment within the APE by Applied EarthWorks, Inc. identified two historic built environment resources: a ranch property at 1235 N. Minnewawa Avenue and a segment of the South Branch Helm Colonial Ditch (P-10-005511), which was built sometime between 1911 and 1913. Both resources are on adjacent parcels north of Nees Avenue (Assessor's Parcel Nos. 56005110 and 56005125, respectively).

The Smittcamp Family Ranch at 1235 N. Minnewawa Avenue (Map Reference #1), which includes two single-family residences, a semicircular driveway, a stable block, and a peach stand, demonstrates significance under NRHP/CRHR Criterion A/1 and B/2 and possesses sufficient integrity to be considered eligible at the local level of significance. Its construction around the middle of the twentieth century and largely unaltered existence to this day is closely tied to the Smittcamp family and their agricultural businesses. The period of significance is from 1946,

when it was acquired along with surrounding agricultural land by the Smittcamp family, to 2014, when the family patriarch passed away as its last permanent resident.

A 1,155-foot-long segment of the South Branch of the Helm Colonial Ditch was recorded and evaluated for inclusion in the NRHP. A section of the West Branch of the Helm Colonial Ditch was recorded and evaluated as ineligible with SHPO concurrence in 2005. The segment of the South Branch within the APE is also recommended ineligible for inclusion in the NRHP and is not a historical resource for the purposes of CEQA.

7 BIBLIOGRAPHY

Agricultural Adjustment Administration

1992 Fresno County, California, Aerial Survey No. 1992 BR CVHAB 10 120, https://digitized.library.fresnostate.edu/digital/collection/aerial/id/10901, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, August 12, 2019.

Ancestry

2019 Birth, Baptism & Christening, https://www.ancestry.com/search/, accessed August 2019.

Baloian, Randy

2005 *Historic Property Survey Report for the Peach Avenue Couplet, Clovis, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for City of Clovis Planning Division, Clovis, California. Submitted to California Department of Transportation, District 6, Fresno, California.

2012 *Historic Property Survey Report, Shaw Avenue and De Wolf Avenue Signal Light Project in the City of Clovis, Fresno County, California, STPL-5208(10).* Applied EarthWorks, Inc., Fresno, California. Prepared for City of Clovis Planning Division, Clovis, California. Submitted to California Department of Transportation, District 6, Fresno.

Byron, William G.

1951 *A Geographic Analysis of the Porterville Area, California.* Master's thesis, University of California, Los Angeles. On file, Special Collections, Henry Madden Library, California State University, Fresno.

Clough, Charles W.

1986 *Fresno County—In the 20th Century: From 1900 to the 1980s*, edited by Bobbye Sisk Temple. Panorama West Books, Fresno, California.

Clough, Charles W., and William B. Secrest Jr.

1984 *Fresno County—The Pioneer Years: From the Beginnings to 1900*, edited by Bobbye Sisk Temple. Panorama West Books, Fresno, California.

Clovis-Big Dry Creek Historical Society
2019 About Us, https://www.clovis-museum.com/about_us, accessed August 15, 2019.

Clovis Centennial Book Committee
2011 *Images of America: Clovis*. Arcadia, Charleston, South Carolina.

Clovis Unified School District (CUSD)
1984 *Images of an Age.* Pacific Printing Press, Fresno, California.

Donaldson, Milford Wayne
2005 Determinations of Eligibility for the Proposed Peach Avenue Couplet Project, Clovis, CA. Reply to: FHWA050808S. Office of Historic Preservation, Department of Parks and Recreation, August 25.

Elliot, Wallace W.
1882 *History of Fresno County, California, with Illustrations. . . .* Wallace W. Elliott and Co., San Francisco, California. Reprinted 1973, Valley Publishers, Fresno, California.

1883 *History of Kern County, California.* Wallace Elliot and Company, San Francisco, California.

Fresno Bee
1948 Water Flows into Reservoir of Dry Creek Flood Project. 14 April:17. Fresno, California.

1952 Clovis Man Is Named to Farm Credit Board. 14 June:18. Fresno, California.

1970 Smittcamps: 'Always Together.' 26 October:8. Fresno, California.

Fresno County Recorder
1877 Deed of Sale from Robert Flack to Charles A. Owen. Book O, p. 589.

1946 Deed of Sale from Robert Schmeiser to Earl Smittcamp. Book 2360, p. 287.

Fresno Irrigation District
2019 District Maps, https://www.fresnoirrigation.com/maps. Fresno Irrigation District website, accessed September 2019.

Fresno Metropolitan Flood Control District
2004 Flood Control System, www.fresnofloodcontrol.org/flood_control_system. Fresno Metropolitan Flood Control District Website, accessed June 2004.

Fresno State
2018 The Smittcamp Family Honors College, http://fresnostate.edu/academics/honors/family/index.html, accessed August 15, 2019.

Hall, Richard D.
1986 Agriculture and Water. In *Fresno County in the 20th Century: From 1900 to the 1980s,* edited by Bobbye Sisk Temple, pp. 169–202. Panorama West Books, Fresno, California.

Jackson, W. Turrentine
1977 *The Sacramento–San Joaquin Delta: The Evolution and Implementation of Water Policy: A Historical Perspective.* California Water Resources Center, University of California, Davis.

Johnston, Hank
1997 *The Whistles Blow No More: Railroad Logging in the Sierra Nevada.* Stauffer Publishing, Fish Camp, California.

Lee, Bonhia, John Ellis, and Bethany Clough
2014 Earl Smittcamp, Founder of Wawona Frozen Foods in Clovis, Dies at 96. Fresno Bee, 20 October. Fresno, California.

Library of Congress
2019 Everyday Mysteries. Fun Science Facts from the Library of Congress, https://www.loc.gov/rr/scitech/mysteries/frozenfood.html. Library of Congress website, accessed September 2019.

Lyons Magnus Inc.
2019 History, https://www.lyonsmagnus.com/history. Lyons Magnus Inc. Website, accessed August 2019.

National Park Service
1995 *How to Apply the National Register Criteria for Evaluation*. U.S. Department of the Interior, National Park Service, Cultural Resources, National Register, History, and Education, Washington, D.C.

Nettles, Wendy M., and Randy Baloian
2005 *National Register of Historic Places Evaluation of the USDA Horticultural Field Station on Peach Avenue in Fresno, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for City of Fresno Department of Parks, Recreation, and Community Services, Fresno, California.

Pollock, Dennis
2000 The First Citizens of Agriculture: They Came, They Saw, and They Planted, http://www.fresnobee.com/man/projects/timecapsule/empire/agcitizens.html. *Time Capsule,* produced by *Fresno Bee*, 1 January.

Sheehan, Tim
2009 Smittcamp Matriarch Dies at Age 92. Fresno Bee, 8 October. Fresno, California.

Smith, Ephraim K
1991 *Historical Architectural Survey Report for Route 168 Rural Project, 6-Fre-168 R9.0/R14.75, EA #06-342700.* California State University, Fresno Foundation. Submitted to INFOTEC Research, Inc., Fresno, California.

Smittcamp, William
2019 Telephone interview with Carlos van Onna, 27 September.

U.S. Patent and Trademark Office
2019 Search Results Wawona, https://search.uspto.gov/search?query=wawona&op=Search&affiliate=web-sdmg-uspto.gov, accessed August 2019.

Vandor, Paul E.
1919 *History of Fresno County, California, with Biographical Sketches: The Leading Men and Women of the County Who Have Been Identified with Its Growth and Development from the Early Days to the Present*, Vol. 2. Historic Record Company, Los Angeles, California.

Walker, John
2018 Smittcamp Train Makes Its Last Run on Clovis Ranch. Next Stop: Storyland & Playland. Fresno Bee, 20 September. Fresno, California.

Wawona Frozen Foods
2019 About Us, https://wawona.com/about-us/, accessed August 2019.

Willison, Paul H.
1980 Past, Present, & Future of the Fresno Irrigation District. District manuscript, 1 August. On file, Fresno Irrigation District, Fresno, California.

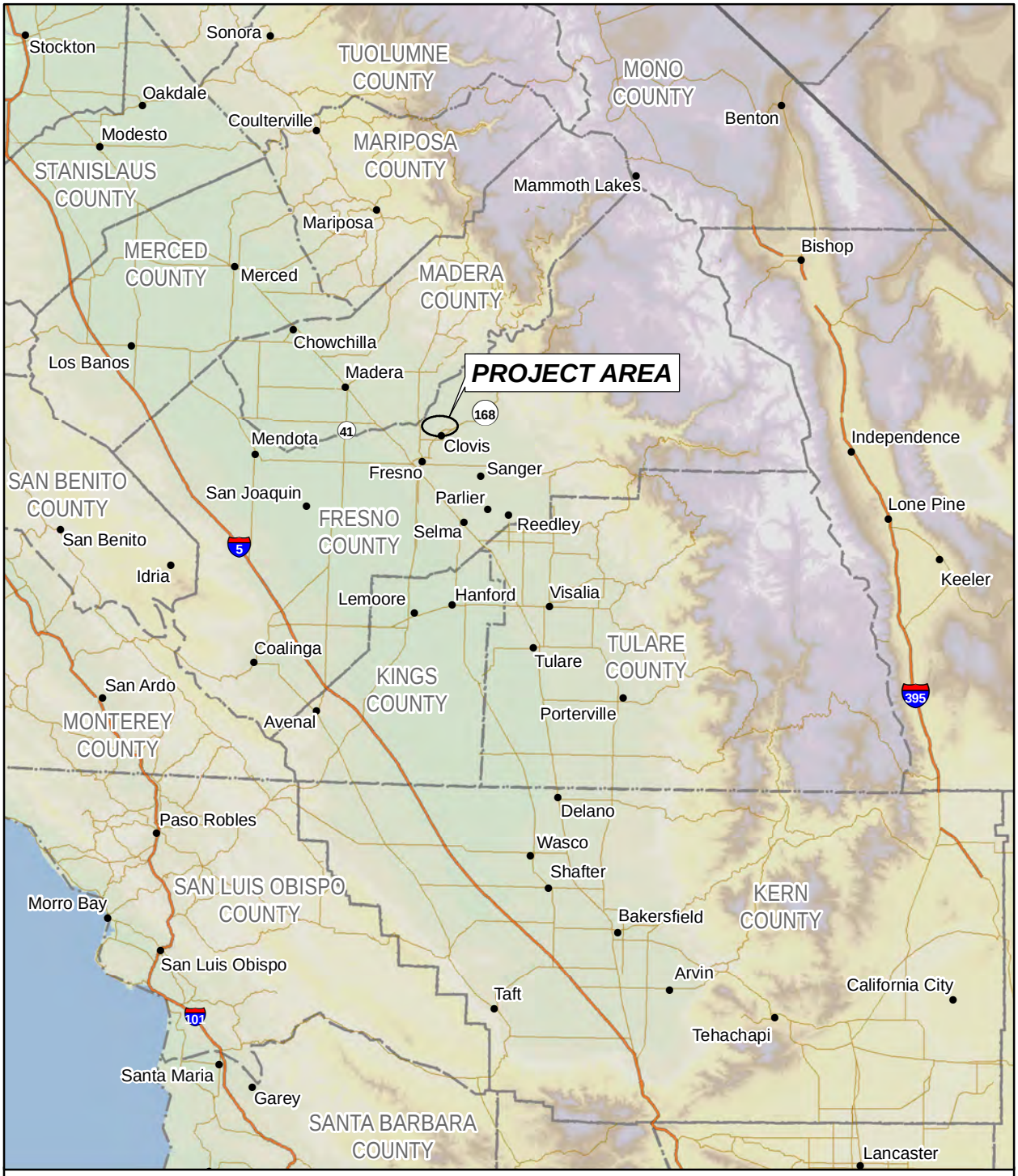
Wilson, L. H.
1932 Deaths, Injuries, Illness Caused by Dry Creek; Elimination Suggested. Fresno Morning Republican, 19 January:7. Fresno, California.

8 PREPARER'S QUALIFICATIONS

Carlos van Onna (M.A., Architectural History & Historic Preservation, Utrecht University, The Netherlands) is an Architectural Historian practicing in Fresno, California. He meets the Professional Qualifications Standards as determined by the Secretary of the Interior. Van Onna has 8 years experience in built environment research and cultural resource management.

APPENDIX A

Maps



SCALE 1:2,000,000

10 0 10 20 30 40 50 Miles

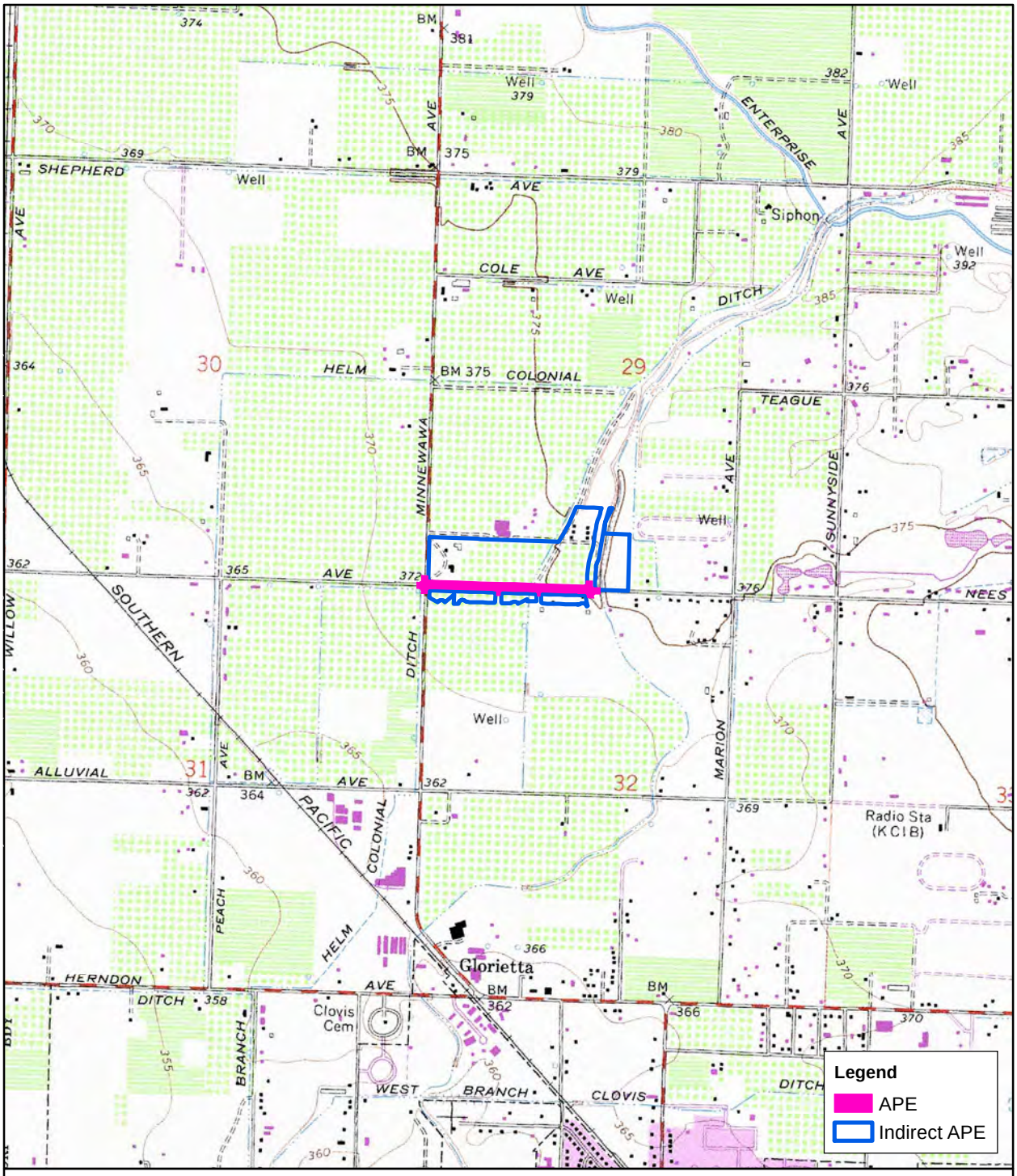
10 0 10 20 30 40 50 Kilometers

PROJECT VICINITY

Nees Avenue Improvements Project
Minnewawa Avenue to Clovis Avenue

Caltrans District 6
Fresno County
FTIP STPL-5208(160)

MAP 1



SCALE 1:24,000

0.5 0 0.5 Miles

1,000 0 1,000 2,000 3,000 Feet

0.5 0 0.5 Kilometers

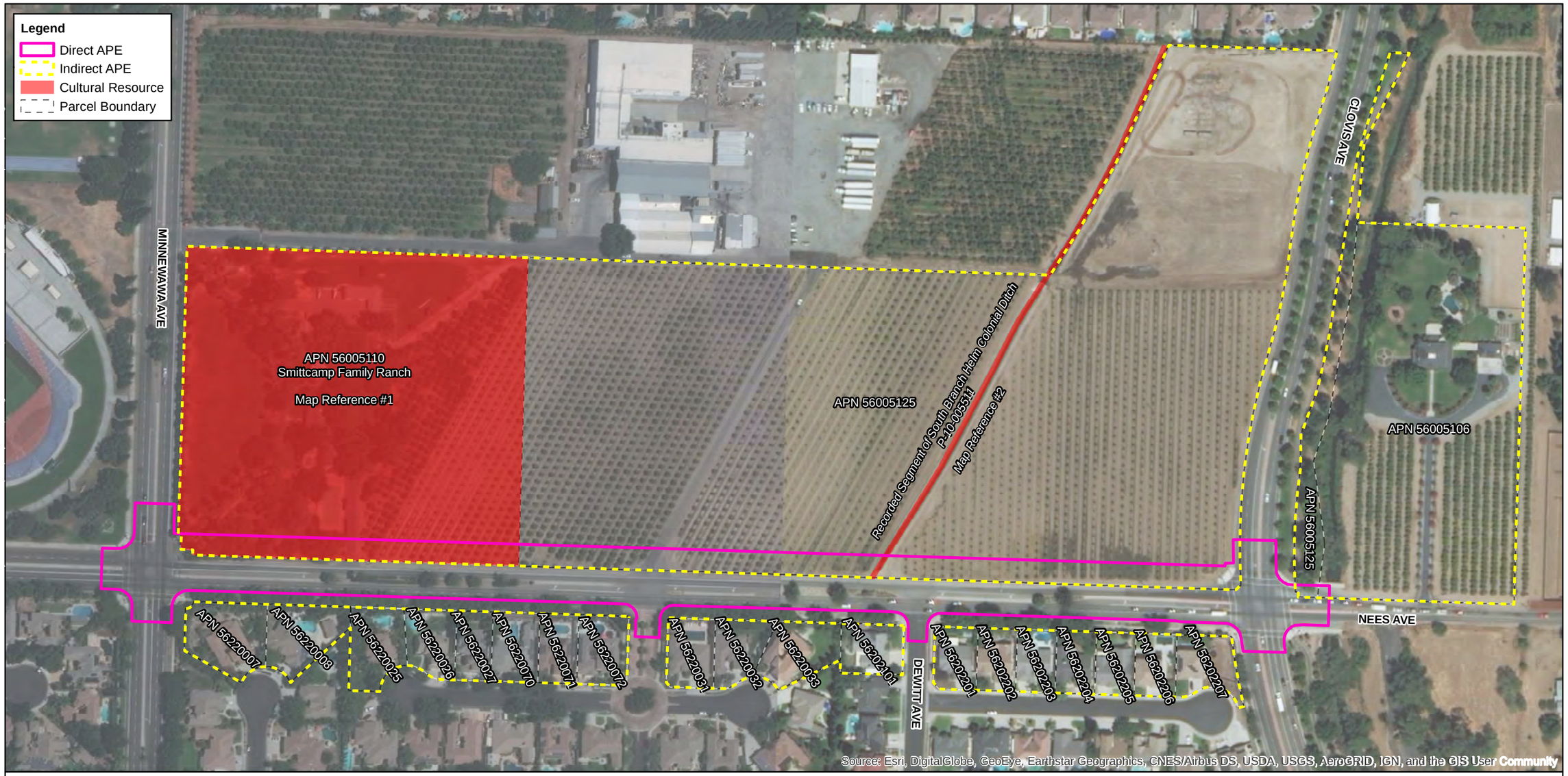
Township 12S / Range 21E, Section 29, 30, 31, 32,
Clovis (1964-PR1981), CA 7.5' USGS Quadrangle

PROJECT LOCATION

Nees Avenue Improvements Project
Minnewawa Avenue to Clovis Avenue

Caltrans District 6
Fresno County
FTIP STPL-5208(160)

MAP 2



SCALE 1:2,400

0.05 0.025 0 0.05 0.1 0.15 Miles

100 0 100 200 300 400 500 600 700 Feet

0.05 0.025 0 0.05 0.1 0.15 Kilometers

AREA OF POTENTIAL EFFECTS

Nees Avenue Improvements Project
Minnewawa Avenue to Clovis Avenue

Caltrans District 6
Fresno County
FTIP STPL-5208(160)

MAP 3

APPENDIX B

Archival Research References

Historical Topographic Maps and Aerial Images Consulted

Date	Name	Author	Reference	Notes
1891	Official Historical Atlas of Fresno County	Thompson, Thos. H.	Thos. H. Thompson, 1891 *Official Historical Atlas of Fresno County* . Map accessed from the Online Archive of California, https://oac.cdlib.org/ark:/13030/kt196nc97t/?order=25 &brand=oac4, August 2019.	T12S, R21E, SW 1/4 of Section 29 owned by Charles A. Owen. Built structure indicated on SW corner.
1907	Atlas of Fresno County California	Harvey, William	William Harvey, Sr., 1907 *Atlas of Fresno County California.* Map accessed from the Online Archive of California, https://oac.cdlib.org/ark:/13030/kt9v19r2p2/?order=15 &brand=oac4, August 2019.	T12S, R21E, SW 1/4 of Section 29 owned by Shepard & Teague. Nees and Minnewawa avenues named Nevada and Alabama avenues respectively.
1909	Atlas of Fresno County, California	Guard, W.C.	W.C. Guard, 1909 *Atlas of Fresno County, California.* Map accessed from the Online Archive of California, https://oac.cdlib.org/ark:/13030/kt8w1028fp/?order=1 8&brand=oac4, August 2019.	T12S, R21E, SW 1/4 of Section 29 owned by Shepard & Teague. Big Dry Creek appears to split into an east and west branch on the SW 1/4 of Section 29.
1911	Atlas of Fresno County, California	Guard, W.C.	W.C. Guard, 1911 Atlas of Fresno County, California. Map accessed from the Online Archive of California, https://oac.cdlib.org/ark:/13030/kt5489r0fn/?order=1& brand=oac4, August 2019.	Situation unchanged, T12S, R21E, SW 1/4 of Section 29 owned by Shepard & Teague. Nees and Minnewawa avenues named Nevada and Alabama avenues respectively. Big Dry Creek appears to split into an east and west branch on the SW 1/4 of Section 29.
1920	Progressive Atlas of Fresno County	Progressive Map Service	Progressive Map Service, 1920 *Progressive Atlas of Fresno County,* accessed from the Online Archive of California, https://oac.cdlib.org/ark:/13030/kt987030nr/?order=12 &brand=oac4, August 2019.	T12S, R21E, SW 1/4 of Section 29 owned by Shepard & Teague. Big Dry Creek no longer split.
1930	Progressive Atlas of Fresno County	Progressive Map Service	Progressive Map Service, 1930 Progressive Atlas of Fresno County. AE in-house library.	
1935	Progressive Atlas of Fresno County	Progressive Map Service	Progressive Map Service, 1935 *Progressive Atlas of Fresno County.* AE in-house library.	

Historical Topographic Maps and Aerial Images Consulted

Date	Name	Author	Reference	Notes
1937	Fresno County, California, Aerial Survey No. 1937 13 ABI 48 39	Agricultural Adjustment Administration	Agricultural Adjustment Administration 1937 Fresno County, California, Aerial Survey No. 1937 13 ABI 48 39, https://digitized.library.fresnostate.edu/digital/collection/aerial/id/667, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, August 12, 2019.	The historic driveway with palmtrees can be seen. Some unknown, no longer extant structures are visible. To the east, the Helm Colonial Ditch can be seen. In-between the ranch and the ditch, in the agricultural fields, there are what appear to be sandy patches. This is possibly explained by the previous split of the Big Dry Creek from before 1920.
1950	Fresno County, California, Aerial Survey No. 1950 ABI 4G 55,	Agricultural Adjustment Administration	1950 Fresno County, California, Aerial Survey No. 1950 ABI 4G 55, https://digitized.library.fresnostate.edu/digital/collection/aerial/id/1750, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, August 12, 2019.	Along with the driveway and palmtrees, the main residence and stable block can be seen. Other buildings/structures obstructed by vegetation. To the northeast the Wawona packing plant is visible. Along Minnewawa Avenue, the palmtrees belonging to the driveway are clearly visible.
1957	Fresno County, California, Aerial Survey No. 1957 ABI 51T 135	Agricultural Adjustment Administration	1957 Fresno County, California, Aerial Survey No. 1957 ABI 51T 135, https://digitized.library.fresnostate.edu/digital/collection/aerial/id/3157, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, August 12, 2019.	Situation largely unchanged. The packing plant has been expanded. The surrounding land is still completely used for agricultural purposes.
1965	Fresno County, California, Aerial Survey No. 1965 FRE 4 41	Agricultural Adjustment Administration	1965 Fresno County, California, Aerial Survey No. 1965 FRE 4 41, https://digitized.library.fresnostate.edu/digital/collection/aerial/id/6705, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, August 12, 2019.	The second residence can now also be seen. South of the main residence, the tennis court can now be seen. The packing plant has been expanded further. The surrounding land is still completely used for agricultural purposes.
1967	Fresno County, California, Aerial Survey No. 1967 ABI 3HH 82	Agricultural Adjustment Administration	1967 Fresno County, California, Aerial Survey No. 1967 ABI 3HH 82, https://digitized.library.fresnostate.edu/digital/collection/aerial/id/4957, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, August 12, 2019.	The stable block now clearly has an L-shaped footprint. It is accessible via a secondary driveway that connects to the main semicircular driveway. The surrounding land is still primarily used for agricultural purposes.
1992	Fresno County, California, Aerial Survey No. 1992 BR CVHAB 10 120	Agricultural Adjustment Administration	1992 Fresno County, California, Aerial Survey No. 1992 BR CVHAB 10 120, https://digitized.library.fresnostate.edu/digital/collection/aerial/id/10901, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, August 12, 2019.	The recreational features have been added, a merry-go-round and the miniature railroad along the perimiter of the ranch. The surrounding area is slowly getting developed for residential purposes.

Historical Topographic Maps and Aerial Images Consulted

Date	Name	Author	Reference	Notes
1923-1947	Clovis, CA	United States Geological Survey	1923 Clovis, CA, https://ngmdb.usgs.gov/topoview/viewer/#14/36.8521/119.7096, accessed through the National Geologic Map Database, August 2019.	The USGS maps of Clovis, CA from 1923 - 1947 provide no additional information. The 1923 map shows the semicircular driveway and a built structure.
1948-1962	Fresno, CA	United States Geological Survey	1948 Fresno, CA, https://ngmdb.usgs.gov/topoview/viewer/#15/36.8468/119.7052, accessed through the National Geologic Map Database, August 2019.	The USGS maps of Fresno, CA from 1946 - 1962 provide no additional information.
1964	Clovis, CA	United States Geological Survey	1964 Clovis, CA, https://ngmdb.usgs.gov/topoview/viewer/#15/36.8534/119.7058, accessed through the National Geologic Map Database, August 2019.	The USGS map of Clovis, CA from 1964 shows the stable block as an L-shaped structure. Northeast of the ranch, the packing plant is now visible.
1966-1982	Fresno, CA	United States Geological Survey	1966 Fresno, CA, https://ngmdb.usgs.gov/topoview/viewer/#15/36.8534/119.7058, accessed through the National Geologic Map Database, August 2019.	The USGS maps of Fresno, CA from 1966 - 1982 provide no additional information.
2012-2018	Clovis, CA	United States Geological Survey	2012 Clovis, CA, https://ngmdb.usgs.gov/topoview/viewer/#15/36.8534/119.7058, accessed through the National Geologic Map Database, August 2019.	The USGS maps of Clovis, CA from 2012 - 2018 show N Clovis Avenue parallel to the Big Dry Creek. The N 1/2 of Section 29 is developed as a residential neighborhood named "Historic Wawona Ranch." Both developments took place in the early 2000s.

APPENDIX C

California Department of Parks and Recreation 523 Forms

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-10-005511
HRI #
Trinomial CA-FRE-3344H
NRHP Status Code 6Z

Other Listings
Review Code Reviewer Date

P1. Temporary Number/Resource Name: West Branch Helm Colonial Ditch

P2. Location: a. County: Fresno ☐ **Not for Publication** ☒ **Unrestricted**
b. USGS 7.5′ Quad: Clovis, CA **Date** 1964; Photorevised 1981 T 12S; R 21E ;Sections 29, 30, 31, 32
T 13S; R 20E; Section 1
T 13S; R 21E; Sections 5, 6
c. Address: MD **B.M.**
d. UTM: Origin: Zone 11 259930 **mE /** 4083180 **mN** Split: Zone 11 259200 **mE /** 4082500 **mN**
West Branch Terminus at Helm Canal: Zone 11 255125 **mE /** 4079740 **mN**
South Branch Terminus at Helm Canal: Zone 11 256375 **mE /** 4078960 **mN**
e. Other Locational Data: Segment inspected is located on the west side of Peach Avenue between Herndon Avenue and Birch Street.

P3a. Description: The Helm Colonial Ditch originates from the Enterprise Canal near the intersection of Shepherd and Sunnyside Avenues north of Clovis. From the Enterprise Canal, the ditch meanders in a southwesterly direction, paralleling Dry Creek. At the intersection of Teague and Clovis avenues, the ditch splits into south and west branches. (See Continuation Sheet.)

P3b. Resource Attributes: (List attributes and codes) (HP 20) Canal/Aqueduct

P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other:

P5. Photograph or Drawing: Recorded segment of Helm Colonial Ditch, view to the north (DSCN 1271).

P6. Date Constructed/Age:
☐ Prehistoric
☒ Historic (Between 1911 and 1913)
☐ Both

P7. Owner and Address: Fresno Irrigation Dist. 2907 South Maple, Fresno, CA

P8. Recorded by: Applied EarthWorks, Inc., 5090 N. Fruit Ave. #101, Fresno, CA 93711

P9. Date Recorded: 17 June 2005

P10. Survey Type:
☒ Intensive
☐ Reconnaissance
☐ Other
Describe: Pedestrian survey of area to be impacted by construction of the Peach Avenue Couplet

P11. Report Citation:
Nettles, Wendy N., and Randy Baloian
2005 *Historic Resources Evaluation Report for the Peach Avenue Couplet, Clovis, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for the City of Clovis Planning Division, Clovis, California. Submitted to California Department of Transportation, District 6, Fresno.

Attachments:
☐ NONE ☒ Location Map ☐ Site/Sketch Map ☐ Continuation Sheet
☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☒ Linear Feature Record
☐ Photograph Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record
☐ Other (list):

CONTINUATION SHEET

Temporary Number/Resource Name: West Branch Helm Colonial Ditch

P3a. Description (cont.) From the split, the West Branch proceeds west, then turns south at Peach Avenue. It continues along the western shoulder of Peach Avenue to Herndon Avenue. At Herndon, the ditch turns west, paralleling Herndon to Maple Avenue. At Maple, the ditch turns south and joins with the Helm Canal. The South Branch follows a more winding path. From the split, this branch continues to parallel Dry Creek in a southwesterly direction to Nees Avenue. The ditch parallels Nees, then turns south to parallel Minnewawa Avenue. At Alluvial Avenue, the ditch cuts through the southeast quadrant of Section 31 to Herndon Avenue, then turns south to parallel Peach Avenue. Between Sierra and Bullard avenues, the ditch turns west and joins with the Helm Canal. Each branch is approximately 2 miles long.

Originally an open earthen ditch, the majority of this system has now been piped underground. The South Branch was not inspected during the current effort. Unpiped portions of the West Branch are located along Peach Avenue. One of these unpiped segments, located between Herndon and Birch Street, is the subject of the current effort. The agricultural fields that this ditch once delivered water to are quickly disappearing into subdivisions.

L1. Historic and/or Common Name: Helm Colonial Ditch

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:** West Branch
b. Location of point or segment: Northern End of Segment Evaluated: Zone 11 257240 **mE /** 4080230 **mN**
Southern End of Segment Evaluated: Zone 11 257240 **mE /** 4080180 **mN**

L3. Description: Constructed sometime between 1911 and 1913., the Helm Colonial Ditch supplied irrigation water to, among other agricultural subdivisions, the Colonial Helm development. Both ditch and subdivision are named for William Helm—a prominent stockman, farmer, and financier in the early history of Fresno County. Major portions of this canal system have been piped underground over the past 20 years. Routine maintenance requires periodic cleanout of the open ditch, during which dredged soil is piled on each side of the ditch.

L4. Dimensions:
a. Top Width: 15 feet
b. Bottom Width: 16 feet
c. Height or Depth: 6 feet
d. Length of Segment: 1,320 feet (evaluated segment)

L4e. Sketch or Cross Section ☐ attached ☒ none **Facing:**

L5. Associated Resources:

L6. Setting: Prior to 1900, the lands surrounding Clovis were primarily divided into large (320 or 640 acre) tracts and were owned by wealthy stockmen and farmers. After 1900, many of these tracts were divided, usually into 40-acre lots, and sold either independently or as part of a colony. These lots were owned by farmers who cultivated vineyards, tree fruits, citrus, or other premium crops that could be profitably grown on a small scale. This farmland was irrigated from water transported through a series of ditches and canals. These water conveyance systems were vital to agricultural development. Major canals, such as the Enterprise Canal and Gould Canal, brought water from the King's River to the Clovis vicinity. Secondary canals and ditches then transported the vital liquid to lots within the colonies. The Helm Colonial Ditch was one such secondary supply line.

L7. Integrity Considerations: The evaluated segment of the ditch, which lies between Herndon Avenue and Birch Street, has lost some of its integrity. Moreover, the feeling and setting of the ditch have been severely affected by construction of commercial buildings in the vicinity and by the high volume of traffic at the intersection of Peach and Herndon avenues.

L8. Description of Photo, Map, or Drawing:

L9. Remarks:

L10. Form Prepared By: Wendy M. Nettles

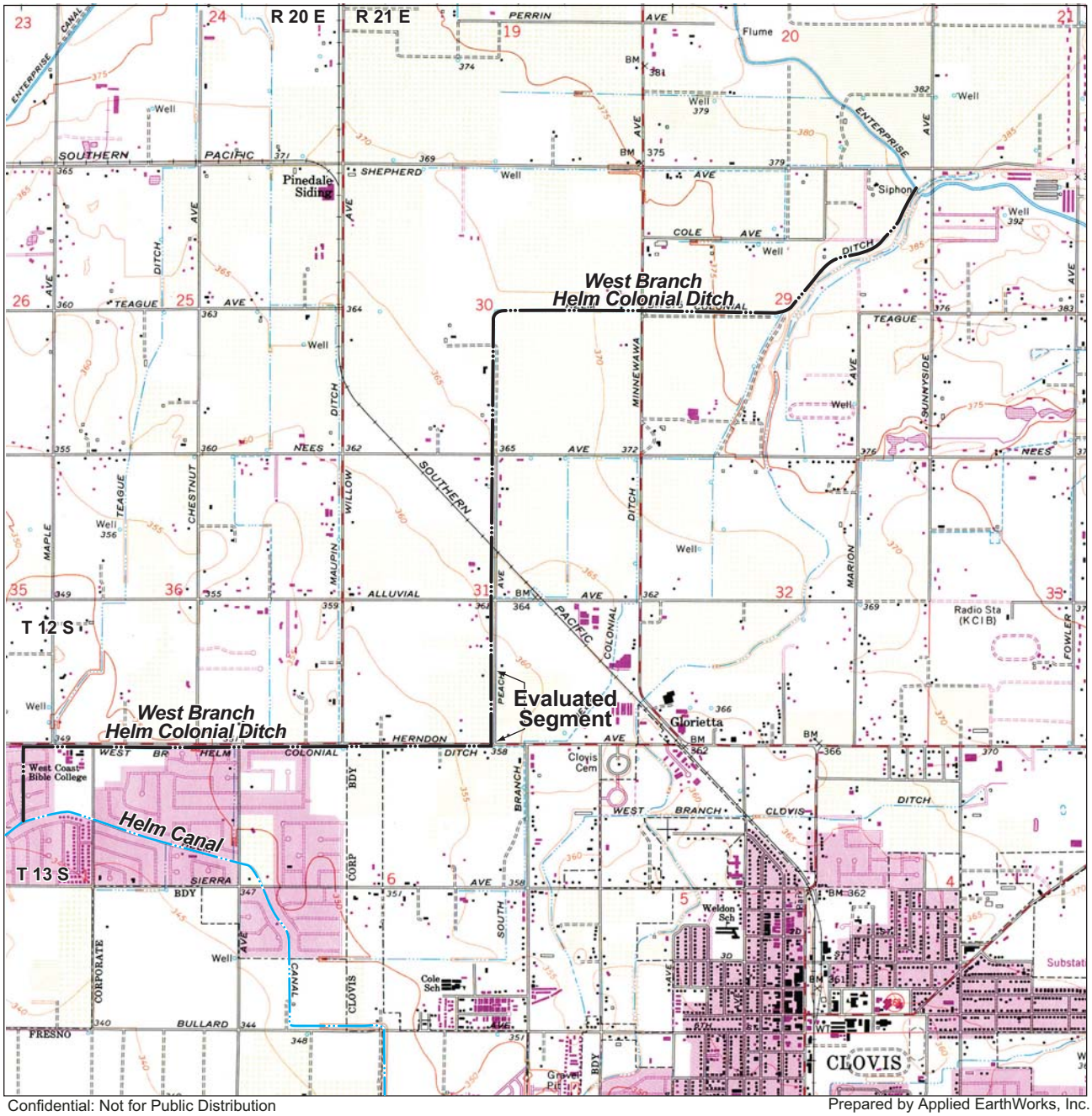
L11. Date: 21 June 2005

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # P-10-005511
HRI #/Trinomial CA-FRE-3344H

Temporary Number/Resource Name: West Branch Helm Colonial Ditch



Confidential: Not for Public Distribution

Prepared by Applied EarthWorks, Inc.

U.S.G.S. 7.5 Minute
Topographic Quadrangle
Clovis, CA
T 12–13 S - R 21 E
1964, Photorevised 1981

N

0 ½ 1
Miles

Map base reduced 65%
Contour Interval: 5 Feet

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov
www.ohp.parks.ca.gov

August 25, 2005

Reply To: FHWA050808S

Gail Miller, Chief
San Joaquin Environmental Management Branch
Department of Transportation
2015 E Shields Avenue, Suite A-100
Fresno, CA 93726-5428

Re: Determinations of Eligibility for the Proposed Peach Avenue Couplet Project, Clovis, CA, CA

Dear Ms. Miller:

Thank you for consulting with me about the subject undertaking in accordance with the *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA).

The California Department of Transportation (Caltrans) is requesting my concurrence pursuant to Stipulation VIII.C.5 of the PA that the following properties are not eligible for the National Register of Historic Places (NRHP):

- Gattie Farm, 380 Peach Avenue, Clovis, CA
- Radisich Farm, 462 Herndon, Clovis, CA
- Helm Colonial Dutch

Based on review of the submitted documentation, I concur with this determination.

Thank you for considering historic properties during project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 654-0631 or e-mail at nlind@ohp.parks.ca.gov.

Sincerely,

for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # 10-005511
HRI #
Trinomial CA-FRE-3344H
NRHP Status Code 6Y

Other Listings
Review Code | Reviewer | Date

 Resource Name or # Helm Colonial Ditch (South Branch) **Map Reference** #2

P1. Other Identifier:

*__P2. Location: a. County:__ Fresno ☐ **Not for Publication** ☒ **Unrestricted**
b. USGS 7.5′ Quad: Clovis **Date:** 1964 (1981) T12S, R21E; Sec. 6, 29, 32, 31, 6 M.D. **B.M.**
c. Address:
d. UTM: NAD 83, Zone 11; 258703 **mE /** 4081894 **mN** (south end of recorded segment)
e. Other Locational Data: From the intersection of Minnewawa and Nees avenues in Clovis, proceed east on Nees Avenue for approximately 950 feet. The aboveground segment of the ditch is visible on the north side of Nees Avenue running north–south perpindicular to Nees Avenue.

***P3a. Description:** The Helm Colonial Ditch originates from the Enterprise Canal near the intersection of Shepard and Sunnyside avenues north of Clovis. From the Enterprise Canal, the ditch meanders in a southwesterly direction paralleling Dry Creek. At the intersection of Teague and Clovis avenues, the ditch splits into south and west branches. (see Continuation Sheet).

***P3b. Resource Attributes:** HP 20: Canal/Aqueduct

***P4. Resources Present:** ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other:

***P5a. Photograph or Drawing:**

P5b. Description of Photo: South Branch Helm Colonial Ditch, facing north.

***P6. Date Constructed/Age and Sources:**
☐ Prehistoric ☒ Historic ☐ Both

***P7. Owner and Address:**
Fresno Irrigation District
2907 S. Maple Avenue
Fresno, CA 93711

***P8. Recorded By:** Carlos van Onna
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

***P9. Date Recorded:** 9/28/19

***P10. Survey Type:** ☒ Intensive
☐ Reconnaissance ☐ Other
Describe:

***P11. Report Citation:** Carlos van Onna
2019 *Historical Resources Evaluation Report: Nees Avenue Improvements Project CIP 17-13 (Minnewawa to Clovis Avenues), City of Clovis, Fresno County, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for City of Clovis Planning Division, Clovis, California. Submitted to California Department of Transportation, District 6, Fresno.

***Attachments:**
☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet
☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☒ Linear Feature Record
☐ Photograph Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record
☐ Other (list):

***P3a. Description (Continued).** From the split, the South Branch continues to parallel Dry Creek in a southwesterly direction to Nees Avenue. The ditch parallels Nees underground, then turns south to parallel Minnewawa Avenue. At Alluvial Avenue, the ditch cuts through the southeast quarter of Section 31 to Herndon Avenue, then turns south to parallel Peach Avenue. Between Sierra and Bullard avenues, the ditch turns west and joins with the Helm Canal. The West Branch proceeds west from where the ditch splits, then turns south at Peach Avenue. It continues along the western shoulder of Peach Avenue to Herndon Avenue. At Herndon, the ditch turns west, paralleling Herndon to Maple Avenue. At Maple, the ditch turns south and joins the Helm Canal. Each branch of the Helm Colonial Ditch is approximately 2 miles long.

Originally an open earthen ditch, the majority of this system has now been piped underground. A segment of the last remaining unpiped stretch of the South Branch is the subject of this record. The West Branch Helm Colonial Ditch was previously recorded by Applied Earthworks on June 21, 2005. The agricultural fields that this ditch once delivered water to are quickly disappearing into subdivisions.

State of California — The Resources Agency **Primary #** 10-005511
DEPARTMENT OF PARKS AND RECREATION **HRI #/Trinomial** CA-FRE-3344H
BUILDING, STRUCTURE, AND OBJECT RECORD
***NRHP Status Code** 6Y

 Resource Name or #: Helm Colonial Ditch (South Branch)

B1. Historic Name: South Branch Helm Colonial Ditch

B2. Common Name: Helm Colonial Ditch

B3. Original Use: Irrigation Ditch **B4. Present Use:** Irrigation Ditch

***B5. Architectural Style:** N/A

***B6. Construction History (construction date, alterations, and dates of alterations):** Constructed sometime between 1911 and 1913. Major portions of this canal system have been piped underground over the past 30 years. Routine maintenance requires periodic cleanout of the open ditch, during which dredged soil is piled on the berms of the ditch.

***B7. Moved?:** ☒ No ☐ Yes ☐ Unknown Date: Original Location:

***B8. Related Features:** Modern-era concrete submersion pipe with metal grate and an irrigation gate with a small rectangular concrete containment well set into the ditch.

B9. a. Architect: Unknown **b. Builder:** Unknown

***B10. Significance:** Theme: Small Scale Agriculture Area: City of Clovis Sphere of Influence
Period of Significance: 1900-present Property Type: Irrigation Ditch Applicable Criteria: N/A
Evaluation of the Helm Colonial Ditch follows the guidelines contained in the National Register Bulletin *How to Apply the National Register Criteria for Evaluation* published by the National Park Service (2002). The resource is evaluated for eligibility under the National Register Criteria A–D. Given the similarity between federal and state significance criteria, the results of the NRHP evaluation are equally applicable to determinations of eligibility for the California Register of Historical Resources (CRHR) under Criteria 1–4. Additionally, the current evaluation is partially based on a previous evaluation of the Helm Colonial Ditch (Nettles 2005).

The evaluated resource is an irrigation ditch. A segment of the ditch has been recorded as a linear resource/feature, a category that also includes roads, transmission lines, and railroad lines. The current investigation recorded a 640-foot segment of the aboveground portion of the South Branch of the Helm Colonial Ditch. In 2005, Applied EarthWorks, Inc. recorded a 1,320-foot segment of the West Branch of the Helm Colonial Ditch west of Peach Avenue between Herndon Avenue and Birch Street.

Four fairly broad periods comprise the history of agrarian development in the Clovis/Fresno area: the pioneer days in and around the Dry Creek drainage (1853–1874); the initial development of agriculture (1874–1900); the continuing development and diversification of agriculture and growing water issues (1900–1950); and modern water management (1950 to present). Research indicates that the original course of Helm Colonial Ditch was built sometime between 1911 and 1913, as a lateral of the older, and much larger, Enterprise Canal built around the 1880s. While the ditch continues to operate to the present, its construction is most closely associated with the events and trends of this period regarding the continuing development and diversification of agricultural development and growing water issues. The ditch is most appropriately evaluated within a local geographical context and, thematically, as an example of the impact of irrigation in the Fresno-Clovis area.

Sketch Map

This space reserved for official comments.

Prior to 1900, the lands surrounding Clovis were primarily divided into large (320 or 640 acre) tracts and were owned by wealthy stockmen and farmers. After 1900, many of these tracts were divided, usually into 40 acre lots, and sold either independently or as part of a colony. The Helm Colonial Development, for which the ditch is named, is an example of the latter. These lots were owned by farmers who cultivated vineyards, tree fruits, citrus, or other premium crops that could be profitably grown on a small scale. This farmland was irrigated from water transported through a series of canals and ditches. These water conveyance systems were vital to agricultural development. Major canals, such as the Enterprise Canal and Gould Canal, brought water from the King's River to the Clovis vicinity. Secondary canals and ditches then transported the water to lots within the colonies. The Helm Colonial Ditch was one such secondary supply line, and the Helm Colonial Development was one of many from the era. The Helm Colonial Ditch is not always shown in its entirety on archival maps, which further suggests a role of limited importance. And, without the existence of the Enterprise Canal, the Helm Colonial Ditch could not have fulfilled any role within the larger context of bringing irrigation to the Fresno County area. Consistent with previous evaluations of the ditch (Nettles 2005), the Helm Colonial Ditch is not considered a significant resource at the National, State, or local level under Criterion A/1.

Archival research found no evidence to suggest that the Helm Colonial Ditch is directly linked to individuals significant in the history of the Fresno-Clovis area. While William Helm was a prominent stockman, farmer and financier in the early history of Fresno County, the ditch is named for the Helm Colonial Development subdivision rather than the person. For this reason, the Helm Colonial Ditch is not considered significant under Criterion B/2.

Significance under Criterion C/3, when applied to canals, ditches and similar linear structures, is measured by distinctive or innovative design, methods of construction, or use of technology. Unfortunately, archival research uncovered little data about the original dimensions of the channel (i.e., its shape, width, depth, etc.) or related features, such as distribution gates. While it is possible that the ditch did display innovative design, methods of construction, or use of technology, there is no evidence to demonstrate that the ditch ever possessed these characteristics. The ditch is thus not considered significant under Criterion C/3.

Criterion D/4 is most relevant for archaeological sites, but it can apply to built-environment resources if further study has the potential to yield information that cannot be obtained from other sources. However, no such remnant exists within the recorded segment. The ditch, including its features, generally appears to be a modern structure. The Helm Colonial Ditch is thus not considered significant under Criterion D/4.

The South Branch of the Helm Colonial Ditch is recommended ineligible for the National Register because it does not possess the required significance under any of the National Register criteria for evaluation.

B11. Additional Resource Attributes (list attributes and codes): None.

***B12. References:**

Nettles, Wendy M., and Randy Baloian
2005 *Historic Resources Evaluation Report for the Peach Avenue Couplet, Clovis, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for City of Clovis Planning Division, Clovis, California. Submitted to California Department of Transportation, District 6, Fresno, California.

B13. Remarks: None.

***B14. Evaluator:** Carlos van Onna
Date of Evaluation: August 23, 2019

State of California — The Resources Agency **Primary #** 10-005511
DEPARTMENT OF PARKS AND RECREATION **HRI #**
LINEAR FEATURE RECORD **Trinomial** CA-FRE-3344H

 Resource Name or No.: Helm Colonial Ditch (South Branch)

L1. Historic and/or Common Name: Helm Colonial Ditch

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:** South Branch
b. Location of point or segment: North End 258873**mE /** 4082201**mN**
South End 258703**mE /** 4081894**mN**

L3. Description: The recorded 1,155-foot segment is part of the South Branch Helm Colonial Ditch. It is an unpiped, unlined portion of the ditch, flowing from the Enterprise Canal in the north in a northeast to southwest direction, ultimately connecting with the Helm Canal in the south. It measures 19-feet from bank to bank and has a width of 5.5-feet at the water level. At the time of recording, the northern half was filled to capacity. Water filled the southern half of the ditch up to one quarter of its total depth, which is estimated at around 4.5-feet. The banks are raised slightly above surface level. The recorded segment has four features. Features one (1) and two (2) are located on the north and south ends of the ditch respectively. They are modern-era concrete submersion pipes with metal grates. Feature one measures 7.5 feet in height, and 4.5 feet in diameter. Feature two measures 4 feet in height, and 5 feet in diameter. Feature three (3) is a concrete pipe that protrudes from the eastern berm of the ditch, just north of the midpoint. It has a total height of 3.3 feet, and a total width of 3.7 feet. It is covered by a metal grate and serves as protective housing for a plastic pipe. Midway on the ditch is feature four (4), a culvert with earthen covering with an irrigation gate and rectangular concrete containment well that is set into the ditch. The gate appears modern and currently functioning and presumably opens into an underground conduit, most likely to provide irrigation to the adjacent peach orchards. The culvert measures 14 feet north to south. The containment well measures 4.6 feet north to south, and 14.5 feet across the ditch. The earthen cover provides vehicular and pedestrian access across the ditch. Noted outside of the recorded segment, on the south side of Nees Avenue, is a modern-era concrete access pipe with a metal grate, measuring 2-feet in height and 6-feet in diameter. This is part of the piped section of the South Branch.

L4. Dimensions:
a. Top Width: 19 feet
b. Bottom Width: 5.5 feet
c. Height or Depth: 4.5 feet
d. Length of Segment: 1,155 feet (recorded segment)

L4e. Sketch or Cross Section ☐ attached ☒ none **Facing:**

L5. Associated Resources: West Branch Helm Colonial Ditch

L6. Setting: The 1,155-foot segment is in the middle of a peach orchard. An unpaved path wide enough for vehicle access is located on both sides of the ditch. At the north end of the recorded segment, is an unpaved culvert providing vehicle access between Clovis Avenue in the east and the Wawona packing plant in the west. At the south end, there is a significant volume of traffic on Nees Avenue passing by some 30-feet from the ditch.

L7. Integrity Considerations: The recorded segment of the ditch, which lies north of Nees Avenue, has retained some integrity. It is in use today, and part of the last remaining unpiped stretch of the South Branch. Of the total length of the South Branch, approximately 2 miles, only this 1,155-feet remains unpiped. Its current setting in a peach orchard has remained unaltered throughout the second half of the twentieth century and is in keeping with its original location and agricultural purpose. As it is the case for most historic canals and ditches, periodic cleanouts have reshaped the ditch, in particular the gradient of its berms. At the time of construction, these typically had a more angular, V-shaped appearance. This negatively impacts the design, materials, and workmanship aspects of the ditch's integrity. The distinctly modern features at both ends of the segment, concrete submersion pipes, are visually prominent due to how they protrude, and therefore have considerable impact on the feeling of the ditch.

L8. Description of Photo, Map, or Drawing:

L9. Remarks: Applied EarthWorks recorded a segment of the West Branch Helm Colonial Ditch in 2005 and evaluated it as ineligible for the NRHP/CRHR. The State Historic Preservation Officer concurred with this evaluation.

L10. Form Prepared By: Carlos van Onna
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

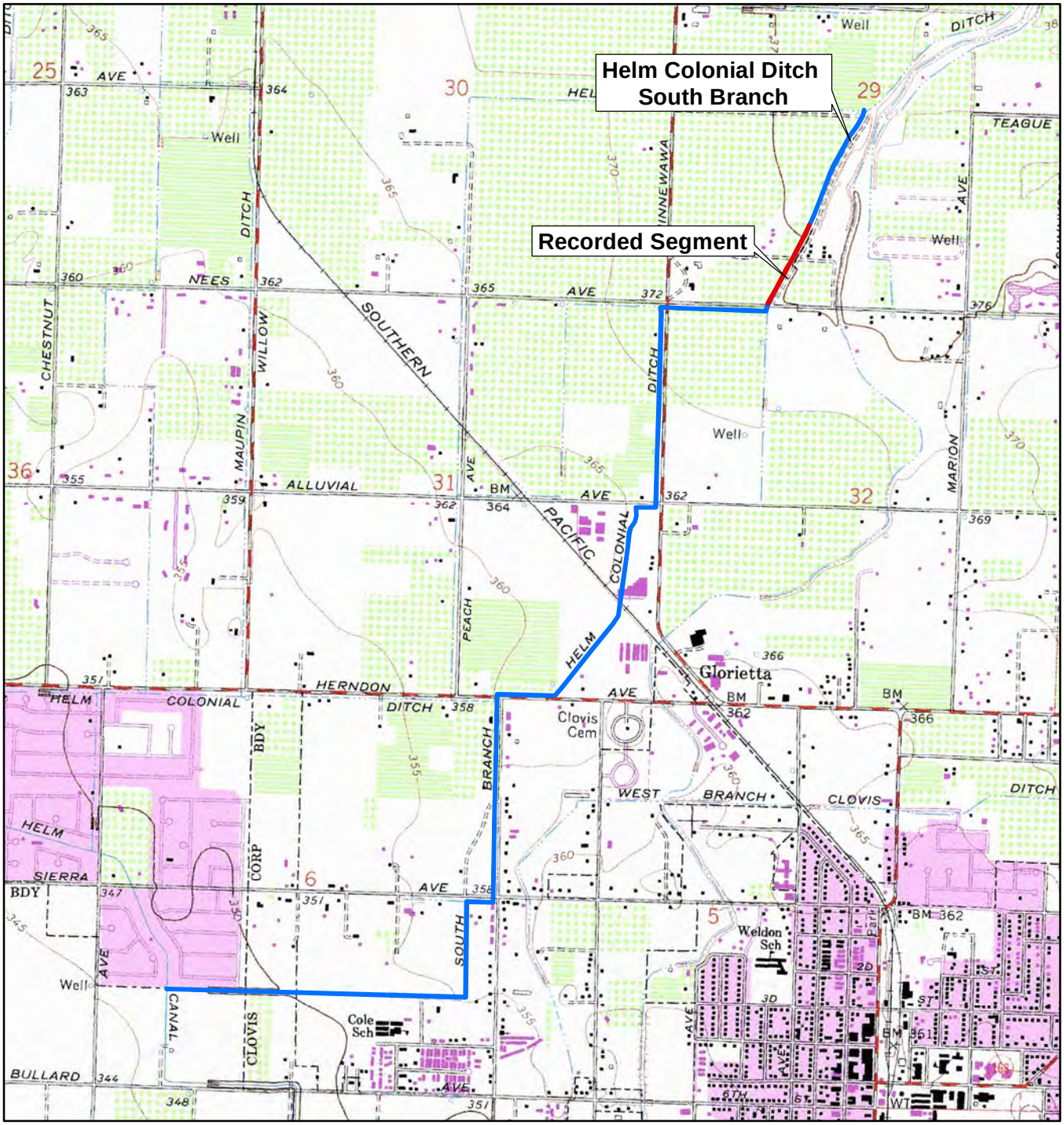
L11. Date: 8/28/19

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # 10-005511
HRI#
Trinomial CA-FRE-3344H

Resource Name or #: Helm Colonial Ditch (South Branch) **Scale:** 1:24,000

Map Name: Clovis, CA, USGS 7.5' quadrangle **Date:** 1964 (1981)



SCALE 1:24,000

1 0.5 0 1 Miles

1,000 0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 Feet

1 0.5 0 1 Kilometers

TRUE NORTH

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI #**
PRIMARY RECORD
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

 Resource Name or # Smittcamp Family Ranch **Map Reference** #1

P1. Other Identifier:

***P2. Location: a. County:** Fresno County ☐ **Not for Publication** ☐ **Unrestricted**
b. USGS 7.5′ Quad: Clovis **Date:** 1964 (1981) T 12S, R 21E; SW 1/8 of SW 1/4 **of** Sec. 29 M.D. **B.M.**
c. Address: 1235 N. Minnewawa Avenue
d. UTM: NAD 83, Zone 11; 258410**mE /** 4082055**mN**
e. Other Locational Data: APN 56005110

***P3a. Description:** The Smittcamp property at 1235 N. Minnewawa Avenue covers just under 9 acres and contains two single-family residences, a semicircular driveway, a stable block, and a peach stand. The property is at the northeast corner of the intersection of North Minnewawa and Nees avenues within the city of Clovis. In addition to the buildings and structures, the parcel contains a garden with lush vegetation around the center, including shade trees, flowering plants, manicured hedges, and shrubbery. On the west side, a sizeable lawn takes up the negative space of the semicircular driveway. The east side of the parcel contains part of a peach orchard that historically extended onto the surrounding parcels. The orchard provides a physical connection to the historical agricultural use of the ranch and the primary product that led to the Smittcamp family's entrepreneurial success, which was started and solidified on the ranch. However, the boundary of the Smittcamp Family Ranch is confined to Assessor's Parcel No. 56005110. Recreational elements on the ranch include a carousel between the residences, a tennis court south of the main residence, and remnants of a miniature railroad from the early 1990s that runs along the perimeter of the parcel. Some of the sides of the buildings and structures were not accessible and could not be recorded in detail (see Continuation Sheet).

***P3b. Resource Attributes:** HP33. Farm/Ranch

***P4. Resources Present:** ☒ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other:

***P5a. Photograph or Drawing:**

P5b. Description of Photo: Main residence at 1235 N. Minnewawa Avenue, facing northeast.

***P6. Date Constructed/Age and Sources:** ☐ Prehistoric ☒ Historic ☐ Both

***P7. Owner and Address:**
William Smittcamp
1235 N. Minnewawa Ave.
Clovis, CA 93612

***P8. Recorded By:** Carlos van Onna
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

***P9. Date Recorded:** 9/24/2019

***P10. Survey Type:** ☒ Intensive ☐ Reconnaissance ☐ Other
Describe:

***P11. Report Citation:** Carlos van Onna
2019 *Historical Resources Evaluation Report: Nees Avenue Improvements Project CIP 17-13 (Minnewawa to Clovis Avenues), City of Clovis, Fresno County, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for City of Clovis Planning Division, Clovis, California. Submitted to California Department of Transportation, District 6, Fresno.

***Attachments:** ☐ NONE ☒ Location Map ☒ Sketch Map ☒ Continuation Sheet
☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record
☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record
☐ Photograph Record ☐ Other (list):

P3. Description (continued): The buildings and structures on the Smittcamp Family Ranch (Assessor's Parcel No. 56005110) are two single-family residences (1 and 2), a semicircular driveway (3), a stable block (4), and a peach stand (5).

(1) **Primary Residence** (Photo 1). This single-story vernacular building under a cross-gable roof has an attached garage. It is U-shaped with a predominantly north–south orientation. Construction on the residence started in 1949 and was completed the following year. The earliest aerial photograph on which the current shape can be seen with a high degree of certainty dates to 1957. The residence's primary elevation faces west, and the main entrance is under a porch roof supported by four wood-clad columns. Here, the façade is clad in unpainted brick, and a brick chimney protrudes from the roof. The remaining elevations of the residence that could be recorded have white horizontal wood board siding. Fenestration on the primary façade consists of four wood double-hung windows with hatches to the north of the porch, a front door with transom and two large fixed windows under it, and a large bay window with a brick base to the south. French doors with sidelights open to a small covered patio on the south elevation and lead to a landscaped rose garden. A box window is between the French doors and the garage, which is set back and perpendicular to the south elevation of the residence. The garage has vertical board siding, and its west elevation features three residential-style double-hung windows with wood hatches. The east elevation has two open vehicle bays. Vehicular access is provided by a secondary driveway that connects to Nees Avenue to the south.

(2) **Secondary Residence** (Photo 2). This appears to be a secondary residence. It is a single-story vernacular building under a cross-gable roof with overhanging eaves. The residence in part dates to before the Smittcamps' ownership of the property and originally measured about 8 by 8 feet. Two bedrooms were added around 1960, and its current shape is first visible on an aerial photograph from 1961 when some dense vegetation was likely removed for construction. All elevations are clad in white horizontal wood board siding. The west elevation appears to be the primary elevation and features a covered front door and three wood double-hung windows. The south elevation features one similar double-hung window and three small sliding windows. The north elevation features a rectangular attic window at the gable end and a pair of double-hung windows to the west of it. The east elevation could not be recorded. Door and window frames are painted a soft yellow.

(3) **Semicircular Driveway** (Photo 3). The asphalt-paved semicircular driveway is approximately 720 feet long and is lined by 36 palm trees with an approximate height of 50 feet. It connects to Nees Avenue on the south end and Minnewawa Avenue on the north end. The driveway and tree line can be seen on a 1937 aerial photograph and are believed to date back to the late nineteenth century. At the time, the property was owned by Charles Owen, who with his brother Richard, bred race horses. The driveway is said to have led to a half-mile racetrack. The number of palm trees was originally higher. A previous widening of Minnewawa Avenue in 2002 led to the removal of the line of historic palm trees that originally connected to both ends of the driveway in the west. This edge of the lot is now demarcated by a line of conifer trees. Also, some of the original palm trees along the driveway have died or been removed over time.

(4) **Stable Block** (Photo 4). The L-shaped stable block is northeast of the secondary residence. The stable has a saltbox roof and white vertical wood siding. Along the north and east sides of the stables is a horse paddock. An aerial photograph from 1950 shows a structure there with a north–south orientation, which is believed to have served as a stable at the time. In 1961, an L-shape can be discerned. It is likely the same structure that is there today.

(5) **Fruit Stand** (Photo 5). The Wawona Peach Tree Stand is a single-story structure under a metal clad gable roof with overhanging eaves and white vertical wood siding on all sides. A construction date for the current structure could not be established; however, excess peaches have historically been sold at the property since 1952, and it likely dates to around that time. The structure has an east-west orientation with its main elevation facing north. There, is a Dutch door with a large sliding window to either side. Another large sliding window is located on the west end of the building. All windows are equipped with cloth awnings. The south side of the structure has no fenestration, nor does the east side as storage and utilities are located there.

Photo 1 Main residence west elevation, facing northeast.

Photo 2 Secondary residence west elevation, facing east.

Photo 3 Driveway from southwest corner, facing northeast.

Photo 4 Stables, facing east.

Photo 5 Wawona fruit stand, facing southeast.

B1. Historic Name:

B2. Common Name: Smittcamp/Wawona Ranch

B3. Original Use: Dwelling **B4. Present Use:** Dwelling

***B5. Architectural Style:** Vernacular

***B6. Construction History (construction date, alterations, and dates of alterations):** A 1937 aerial photograph shows the semicircular driveway and palm trees, said to have been constructed as a pathway to a no-longer extant horse racetrack west of the property in the late nineteenth century. Other buildings or structures on the ranch cannot be discerned with any certainty on the 1937 aerial image. It is known, however, that a structure existed where the current main residence was constructed in 1949. This earlier structure was moved to the nearby peach packing plant just northeast of the ranch. The secondary residence was constructed around 1941 and expanded to its current form around 1960 when two bedrooms were added. The stable block northeast of the secondary residence dates to the 1950s and was expanded around 1960 to its current L-shaped form. The precise date of construction for the Wawona Peach Tree Stand is unknown; however, it most likely dates to the mid-twentieth century.

***B7. Moved?:** ☒ No ☐ Yes ☐ Unknown Date: Original Location:

***B8. Related Features:**

B9. a. Architect: Unknown **b. Builder:** Unknown

***B10. Significance:** Theme: Modern Agriculture Area:
Period of Significance: 1946–2014 Property Type: Applicable Criteria: A/1, B/2

Evaluation of the Smittcamp Ranch follows the guidelines contained in the National Register Bulletin, *How to Apply the National Register Criteria for Evaluation*, published by the National Park Service (2002). The resource is evaluated for eligibility under National Register of Historic Places (NRHP) Criteria A–D. Given the similarity between federal and state significance criteria, the results of the NRHP evaluation are equally applicable to determinations of eligibility for the California Register of Historical Resources (CRHR) under Criteria 1–4.

The evaluated resource is a ranch with several buildings and structures. The ranch has been recorded under the address of the main residence and is confined to the boundary of Assessor's Parcel No. (APN) 56005110. The entire resource is described on the Primary Record.

Four fairly broad periods comprise the history of agrarian development in the Clovis area and Fresno County: the pioneer days in and around the Dry Creek drainage (1853–1874), the initial development of agriculture (1874–1900), the continuing development and diversification of agriculture and growing water issues (1900–1950), and modern water management and agriculture (1950–present).

While the ranch is maintained to this day, its construction is most closely associated with the events and trends of the modern agriculture period (1950–present) and the Smittcamp family's entrepreneurship and philanthropy during that time. The ranch is most appropriately evaluated within a local geographical context and is an example of a residential dwelling on a large agricultural parcel in the Fresno-Clovis area. The southwest quadrant of Section 29, acquired in its entirety by the Smittcamp family in 1946,

Sketch Map

This space reserved for official comments.

lies at the core of the Smittcamp family business. From this land, they cultivated the peaches that led to several advancements in their industry. While over time the acreage around the ranch has shrunk through the sale of land for a large residential subdivision (on the north half of the quadrant), and while some successful branches of their enterprise occur elsewhere nearby, the Smittcamp Family Ranch has been a constant throughout. The ranch should be viewed as the seat of the Smittcamp empire, which they designed around it. Its setting is indicative of the direct relationship between the ranch and the family business, with peach orchards to the north and east, originally stretching across the remainder of the southwest quadrant of Section 29. The "Wawona" packing plant was constructed directly northeast, within walking distance of the ranch. The "Wawona" name, which serves as an umbrella brand for most Smittcamp businesses, appears to be inspired by a previous owner of the land and was later trademarked by the family. It has also become a common name for the ranch itself, making the ranch synonymous with the family's peach empire.

The Smittcamp enterprise, led by patriarch Earl, can be considered a trendsetter in its industry. The Smittcamps sought to improve efficiency in the packing, processing, and storing of their product, and made efforts to extend the longevity and reach of their products. Examples of the latter two are the establishment of a frozen foods company, "Wawona Frozen Foods," and a fruit processing plant, the "Wawona Preserving Company" in 1968. The Smittcamps successfully expanded their business from farmers and packers to processers and distributors, all while living at their ranch. Crucial decisions guiding the future of the company were likely made there. For his contribution to the field of frozen foods, Earl Smittcamp was inducted in the Frozen Food Hall of Fame in 2005. On a smaller, local scale the Smittcamps contributed to their industry and community through selling peaches at the fruit stand on the ranch, a tradition started by Muriel Smittcamp in the 1960s. The fruit stand is well known throughout the Clovis-Fresno area, and likely beyond, for its fresh peaches. Earl and Muriel Smittcamp were also known for their philanthropy, and the ranch was frequently host to charitable events. It is said several hundred thousand dollars were raised at the ranch, most of it aimed at benefiting Clovis youth. In the early 1990s, the fundraising effort was further strengthened by the addition of a merry-go-round to the ranch and the construction of a miniature railroad around its perimeter. In 1998, the Smittcamps donated a sum of $2 million to Fresno State for the foundation of the Smittcamp Honors College and Alumni House at their alma mater, creating a celebrated program that continues to benefit students to this day.

The ranch at 1235 N. Minnewawa Avenue serves as a vivid and physical manifestation of the theme of modern agriculture and is a good representative of a residential dwelling on a large agricultural property. From this ranch, the Smittcamps started their peach empire on the adjacent land, and the ranch continued to be the headquarters throughout the industrialization and professionalization of their organization. It is well known locally for its fruit stand with fresh peaches and as a long-time venue for charitable events. Therefore, the ranch appears to be significant under Criterion A/1 for its association and important contributions to agricultural developments since 1950.

Research indicates that the current ranch at 1235 N. Minnewawa Avenue is primarily the result of building activities by a single family, the Smittcamp family, since the mid-twentieth century. The development of the ranch is closely tied to the personal and professional lives of Earl and Muriel Smittcamp as well as their children. The substantial entrepreneurial success this family has known since they started their first business on the ranch in 1948, and the active role they have played in their community, has solidified the Smittcamp name in the Fresno-Clovis area. Archival research and inquiries at the local historical society yielded many results that attest to the family's success and involvement in their community. At the core of the Smittcamp's success are the peaches they have grown on the fields around their ranch since the late 1940s. From there, patriarch Earl Smittcamp expanded into the large-scale packing, processing, freezing, and shipping of peaches for the North American market, primarily under their "Wawona" brand. The company's packing plant is within walking distance from the ranch, illustrative of the direct relationship between the ranch, its agricultural surroundings, and the Smittcamp family business. A triangular section of peach orchards within APN 56005110 further enhances this connection. Alongside his personal endeavors in business, Earl Smittcamp has shown a substantial dedication to serve his community throughout his lifetime. He served with the U.S. Marines during World War II, ran for political office at the State level twice, and served on the California State Board of Agriculture and the U.S. Advisory Committee on Regulatory Programs during the 1970s. Among other signs of recognition, Earl Smittcamp was named an outstanding alumnus by Fresno State in 1980, and received an honorary doctorate in 1995. The Smittcamps' close connection with their alma mater culminated in the aforementioned donation to the university, creating an esteemed honors program in their name.

Earl and Muriel Smittcamp both resided at the ranch from the 1940s until their deaths, in 2014 and 2009, respectively, and during that time made a significant contribution to local history. Because they built the ranch,

started several highly successful businesses there, and uninterruptedly resided there during their productive lives, their ranch is representative of those achievements and is significant under Criterion B/2.

The subject residential buildings were constructed between 1941 and 1961. The residential buildings and ancillary structures are vernacular in style and do not exhibit distinctive architectural characteristics or high artistic values. They are simple and modest examples of a common type in the region. Therefore, they do not appear to be significant under Criterion C/3.

Criterion D/4 is most relevant for archaeological sites, but it can apply to built environment resources if further study has the potential to yield information that cannot be obtained from other sources. However, further study of the ranch, including its components, would not yield any additional information about twentieth-century building methods that is not readily available from published sources. The Smittcamp Family Ranch is thus not considered significant under Criterion D/4.

Application of the NRHP and CRHR significance criteria found that the Smittcamp Family Ranch is significant at the local level under Criteria A/1 and B/2. Regarding the resource's ability to convey this significance, its integrity, this evaluation has found the ranch and its components at 1235 N. Minnewawa Ave to be in a well-maintained condition similar to that at the time of construction. The ranch retains integrity of design, and in its current form is the result of Earl and Muriel Smittcamp's vision. The integrity of association is tied in with this, as it was their home throughout their productive lives and its location remains unchanged. In terms of setting, the ranch retains a high degree of integrity. During the last 20 years, residential subdivisions have expanded to the borders of both Clovis and Fresno, replacing rural residences and farm buildings on large once open agricultural parcels. The southwest quadrant of Section 29 is one such large agricultural parcel that has been subdivided during this time. In the early 2000s, the northern half of the quadrant was redeveloped for residential use. However, the southern half is currently still the site of the Smittcamp Family Ranch (the subject of this record), packing plant, peach orchards, and the unpiped segment of the South Branch of the Helm Colonial irrigation ditch. This agricultural setting also contributes to the integrity of feeling, which is clearly recognizable as that of a historic ranch. The individual buildings and structures show integrity of materials, as they remain largely unaltered since they were constructed. Workmanship is consistent with a mid-century, vernacular property of this type. Aside from the noninvasive addition of several recreational elements, a merry-go-round and miniature railroad, no apparent alterations have taken place on the ranch since the mid-twentieth century. Due to its significance under Criteria A/1 and B/2 and the high degree of integrity, the property at 1235 N. Minnewawa Avenue appears to be eligible for the NRHP/CRHR at the local level.

B11. Additional Resource Attributes (list attributes and codes):

***B12. References:**

Agricultural Adjustment Administration

1937 Fresno County, California, Aerial Survey No. 1937 13 ABI 48 39, https://digitized.library.fresnostate.edu/digital/collection/aerial/id/667, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, August 12, 2019.

1957 Fresno County, California, Aerial Survey No. 1957 ABI 51T 135, https://digitized.library.fresnostate.edu/digital/collection/aerial/id/3157, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, August 12, 2019.

1950 Fresno County, California, Aerial Survey No. 1950 ABI 4G 55, https://digitized.library.fresnostate.edu/digital/collection/aerial/id/1750, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, August 12, 2019.

1965 Fresno County, California, Aerial Survey No. 1965 FRE 4 41, https://digitized.library.fresnostate.edu/digital/collection/aerial/id/6705, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, August 12, 2019.

1967 Fresno County, California, Aerial Survey No. 1967 ABI 3HH 82, https://digitized.library.fresnostate.edu/digital/collection/aerial/id/4957, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, August 12, 2019.

1992 Fresno County, California, Aerial Survey No. 1992 BR CVHAB 10 120, https://digitized.library.fresnostate.edu/digital/collection/aerial/id/10901, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, August 12, 2019.

Lee, Bonhia, John Ellis and Bethany Clough
2014 Earl Smittcamp, founder of Wawona Frozen Foods in Clovis, dies at 96, The Fresno Bee 20 October. Fresno, California.

National Park Service
2002 How to Apply the National Register Criteria for Evaluation. Rev. for the Internet. U.S. Department of the Interior, National Park Service, Cultural Resources, National Register, History, and Education, Washington, D.C. Electronic document, Accessed at www.nps.gov/history/nr/publications/bulletins/nrb15, September 2019.

Smittcamp, William
2019 Telephone interview with Carlos van Onna, 27 September.

B13. Remarks:

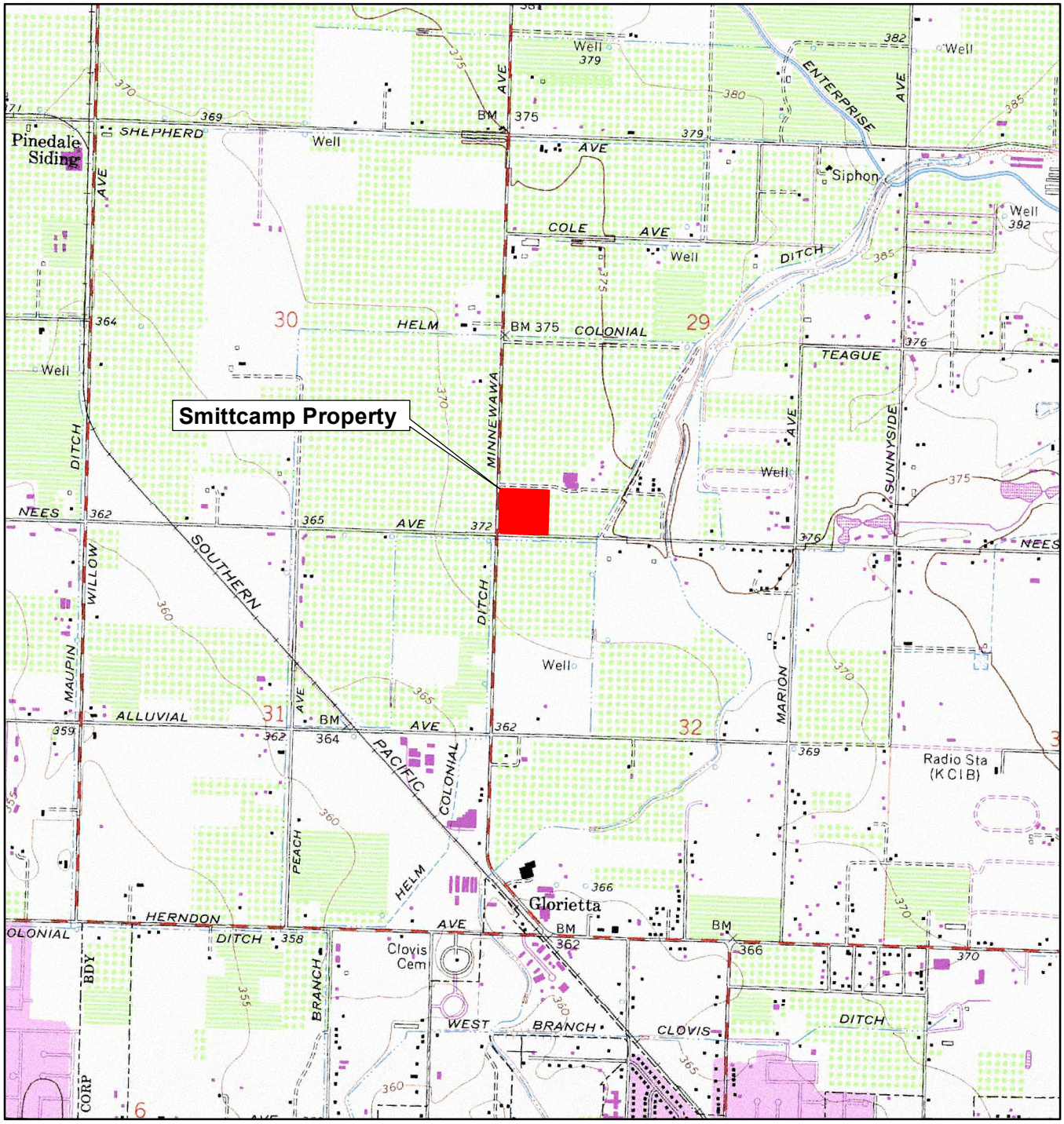
***B14. Evaluator:** Carlos van Onna
Applied Earthworks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711-3600
Date of Evaluation: 9/24/2019

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #
HRI#
Trinomial

Page 8 **of** 8 **Resource Name or #:** Smittcamp Family Ranch **Scale:** 1:24,000

Map Name: Clovis, CA, USGS 7.5' quadrangle **Date:** 1964 (1981)



SCALE 1:24,000

1 0.5 0 1 Miles

1,000 0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 Feet

1 0.5 0 1 Kilometers

TRUE NORTH

ATTACHMENT III

Archaeological Survey Report
(Stanley and Baloian 2019)

ARCHAEOLOGICAL SURVEY REPORT

Nees Avenue Improvements Project CIP 17-13 (Minnewawa to Clovis Avenues), City of Clovis, Fresno County, California

STPL-5208(160)

Prepared By: Mary Baloian 11/13/2019

Ward Stanley, B.A., and Mary Baloian, Ph.D., RPA 15189 Date
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C, Fresno, CA 93711

Prepared For: **City of Clovis Planning & Development**
1033 Fifth Street, Clovis, CA 93612

Reviewed By: _____ _____

John Whitehouse, PI – Prehistoric and Historical Archaeology Date
Environmental Analysis, Planning and Local Programs
California Department of Transportation, District 6
855 M Street, Suite 200, Fresno, CA 93721

Approved By: _____ _____

Shane Gunn, Branch Chief Date
Environmental Analysis, Planning and Local Programs
California Department of Transportation, District 6
855 M Street, Suite 200, Fresno, CA 93721

November 2019

USGS Clovis 7.5-min. quad
6.34 acre APE

Keywords: No archaeological resources; Helm Colonial Ditch (P-10-005511/CA-FRE-3344H), Smittcamp family ranch (1235 North Minnewawa Avenue)

SUMMARY OF FINDINGS

The City of Clovis (City), under the Federal State Transportation Improvement Program as administered through the California Department of Transportation (Caltrans), plans to widen and reconstruct a 0.5-mile segment of Nees Avenue from Minnewawa Avenue to Clovis Avenue. Because the project will receive support from the Federal Highway Administration (FHWA) via the California Department of Transportation (Caltrans), it is considered a federal undertaking subject to the National Historic Preservation Act (NHPA) of 1966, as amended. The City of Clovis retained Applied EarthWorks, Inc. to perform the cultural resource inventory necessary for compliance with Section 106 of the NHPA.

The studies for this undertaking were carried out in a manner consistent with Caltrans' regulatory responsibilities under Section 106 of the National Historic Preservation Act (36 CFR Part 800) and pursuant to the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act* (Section 106 PA).

Applied EarthWorks' inventory efforts included: (1) a records search at the Southern San Joaquin Valley Information Center of the California Historical Resources Information System; (2) a cursory review of materials from historical archives; (3) Native American consultation; and (4) a pedestrian survey of the Direct Area of Potential Effects (APE) for archaeological resources, covering 6.34 acres.

The records search identified no cultural resource studies within the Direct APE and eight within 0.5 mile of the APE. No cultural resources have been recorded within the APE, and only one, a segment of the Helm Colonial Ditch (P-10-005511/CA-FRE-3344H), was reported within a 0.5 mile of the Direct APE. Applied EarthWorks' pedestrian survey on August 29, 2019, did not identify any prehistoric or historic-era archaeological resources within the Direct APE, and no sacred areas were identified as a result of the Native American Heritage Commission Sacred Lands File search. Similarly, consultation with local Native American representatives did not yield specific information pertaining to Native American resources within the APE. A segment of the Helms Colonial Ditch (P-10-005511/CA-FRE-3344H) and the Smittcamp family ranch at 1235 N. Minnewawa Avenue (the corner of Nees and Minnewawa avenues) occurs within the APE. These resources are discussed in detail in the Historical Resources Evaluation Report for this project.

It is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the project changes to include areas not previously surveyed.

CONTENTS

APPENDICES

FIGURES

1 INTRODUCTION

The City of Clovis (City), with support from the Federal Highway Administration (FHWA) via the California Department of Transportation (Caltrans), proposes to widen and reconstruct a 0.5-mile segment of Nees Avenue from Minnewawa Avenue to Clovis Avenue. The project will increase the existing three-lane arterial road to a four-lane arterial road and will improve traffic operations and reduce vehicle delays and congestion. The project will require acquisition of additional right-of-way.

The project is considered a federal undertaking subject to the National Historic Preservation Act (NHPA) of 1966, as amended. The environmental review, consultation, and any other actions required by applicable federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and executed by the FHWA and Caltrans. The studies for this undertaking were carried out in a manner consistent with Caltrans' regulatory responsibilities under Section 106 of the National Historic Preservation Act (36 CFR Part 800) and pursuant to the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act* (Section 106 PA).

Applied EarthWorks, Inc. performed the cultural resource inventory necessary for compliance with Section 106 of the NHPA. As part of the inventory, Applied EarthWorks requested a records search from the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System and reviewed the results; initiated Native American consultation; and performed an archaeological survey of the Direct Area of Potential Effects (APE). These investigations were conducted in accordance with the guidelines for identification of cultural resources provided in *Caltrans Standard Environmental Reference, Volume 2: Cultural Resources*, available online.

This report documents the background research, results from the Native American Heritage Commission Sacred Lands File Search and communication with local Native American representatives, and archaeological survey conducted for the proposed project. Staff Archaeologist Ward Stanley, who holds a bachelor's degree in anthropology (2009), conducted the pedestrian survey on August 29, 2019, and prepared this technical report. Stanley has more than 10 years of experience performing and documenting archaeological investigations throughout California. Principal Archaeologist Mary Baloian served as project manager and provided technical oversight for the project. She holds a doctoral degree in anthropology (2003) and is a Registered Professional Archaeologist (RPA 15189) with more than 28 years of experience in California archaeology.

2 PROJECT LOCATION AND DESCRIPTION

The Nees Avenue Improvements Project is in Caltrans District 6 within Fresno County (Map 1). The project is in Sections 29, 30, 31, and 32 of Township 11 South, Range 24 East, as depicted on the U.S. Geological Survey (USGS) Clovis, CA, 7.5-minute quadrangle (Map 2). The project area is mostly comprised of Nees Avenue, a three-lane paved road with a median divider. A rural

residence and orchards lie north of the APE, and a large residential subdivision lies directly south.

The City proposes to provide for various improvements along Nees Avenue between Minnewawa and Clovis avenues to improve traffic operations, increase safety and security, and reduce traffic congestion and vehicle delays. Improvements include increasing the existing three-lane arterial road to a four-lane arterial road, which will require the acquisition of additional right-of-way to build a 12-foot outside travel lane and bike lane west bound on Nees Avenue. The project also will include the construction of a greenbelt/sidewalk and reconstruction of failing street segments where needed along the existing roadway. In addition to the earthwork, asphalt concrete paving, curb, gutter, drain, lighting, and infrastructure work, construction will involve the relocation/construction of a Fresno Irrigation District structure; adjustment of existing manholes, valves, and vaults for new pavement; undergrounding of utility cable wires; installation /construction of street lighting; installation/construction of retaining walls; accessible pedestrian signal modifications to the traffic signal at Nees and Minnewawa avenues; replacement/modifications of traffic loop detectors; striping, markings, and signage; and installation of an irrigation system.

The APE defines the area within which the project has the potential to directly or indirectly cause alterations to historic properties per 36 CFR 800.16(d). Archaeological survey coverage for the present undertaking (Map 3) was intended to encompass all areas that may be directly affected during project construction, encompassing 6.34 acres.

3 SOURCES CONSULTED

3.1 RECORDS SEARCH

On July 8, 2019, the staff of the SSJVIC at California State University, Bakersfield, performed a records search of the California Historical Resources Information System, which encompassed the APE and a 0.5-mile surrounding radius (Records Search File No. 19-257; Appendix B). SSJVIC staff examined site location maps and site record files as well as the California Office of Historic Preservation Historic Properties Directory, Archaeological Determinations of Eligibility, and the California Inventory of Historic Resources (1976).

The records search did not identify any previously recorded resources or cultural resource studies within the APE. One cultural resource—a segment of the West Branch Helm Colonial Ditch (P-10-005511/CA-FRE-3344H) lies within a 0.5-mile radius of the APE, and there have been eight previous cultural resource studies conducted within the 0.5-mile vicinity (Appendix B).

3.2 NATIVE AMERICAN CONSULTATION

On June 26, 2019, Applied EarthWorks sent an e-mail to the Native American Heritage Commission (NAHC) requesting a search of their Sacred Lands File and the contact information for local Native American representatives who may have information about the area or an interest in the Project. The NAHC responded on July 3, 2019, stating that it did not identify any sacred sites within or adjacent to the APE (Appendix C). The commission cautioned that its Sacred Lands Inventory is not exhaustive, and the absence of recorded sites does not preclude the

discovery of cultural resources during project activities. The NAHC also provided the names and contact information for six Native American tribal representatives or individuals who may have an interest in the Project. On August 15, 2019, the City of Clovis sent a letter to each contact describing the project, including a map of its location and requesting information about the study area. On September 20, 2019, Applied EarthWorks attempted follow-up contact with the representatives by telephone, e-mail, or both. To date, only one response has been received from individuals or organizations contacted by Applied EarthWorks or the City. The response, sent to the City on September 9, 2019 via certified mail, is from Robert Pennell of Table Mountain Rancheria, who stated that the Tribe declines further participation at this time but would appreciate being notified in the unlikely event that cultural resources are identified (Appendix C).

3.3 ARCHIVAL RESEARCH

The purpose of archival research for archaeological studies is to provide information regarding the potential for historical deposits to exist within the APE. The investigation compiled information from several sources, including:

- Map Aerial Locator Tool (MALT) of the Henry Madden Library at California State University, Fresno (http://malt.lib.csufresno.edu/MALT/);
- Various online resources for historical maps and documents; and
- Applied EarthWorks' in-house library, which includes local histories.

Applied EarthWorks consulted several historical topographic maps and aerial photographs. USGS Clovis, CA, quadrangle maps dated between 1923 and 1993 demonstrate that the land adjacent to the APE has exhibited some form of development for most of the twentieth century. Agricultural development dominated the project area in the early twentieth century. USGS maps depict several small structures scattered within a mile of the APE. Given the agricultural setting, it is likely that the structures represent farm residences, outbuildings, and other buildings related to agribusiness. An aerial photograph from 1937 shows development of (Assessor's Parcel No. 56005110) the parcel at the northwest end of the APE. The area surrounding the project slowly developed in the second half of the twentieth century. Starting in 1980, aerial photographs depict steady urban development, and by 1993, aerial photographs show that Garfield Elementary School and Veterans Memorial Stadium construction efforts were in progress. The residential subdivision south of Nees Avenue was in place by 2002. The Helm Colonial Ditch bisects the APE. The ditch is depicted on a 1937 aerial photograph; however, it was not labeled on USGS maps until 1947. A list of all historical maps and aerial photographs consulted is provided in Appendix B.

4 BACKGROUND

4.1 ENVIRONMENT

The project area lies on the eastern margin of the San Joaquin Valley near the base of the Sierra Nevada foothills. In general, the valley is bordered on the east by the Sierra Nevada, on the west

by the Coast Ranges, and on the south by the Tehachapi Range. The north-south orientation of the Sierra Nevada greatly influences the general hydrology of the region by directing the flow of rivers and streams westward into the San Joaquin Valley.

The complex geology of the adjacent foothills and the Sierra Nevada is reflected in the primary and secondary soils in the valley. The primary soils are developed by weathering of the underlying granitic parent material. The secondary soils are formed by a combination of eolian and alluvial forces transporting a variety of granitic and assorted metamorphic and metavolcanic materials from mountain streams (Weir 1956). Quaternary and recent alluvium covers most of the valley basin.

The natural vegetation of the San Joaquin Valley has been severely compromised as a result of farming and ranching. Originally, the area was covered with native annual and perennial grasses such as needlegrass (*Stipa* spp.), bluegrass (*Poa* spp.), and three awn (*Aristida divaricata)* commonly found in the Valley Grassland Community (Munz and Keck 1973). Prior to Euro-American colonization, the valley floor was occupied by a diverse population of resident and migratory mammals and birds, which along with fish and other aquatic species provided a rich resource base for aboriginal subsistence. Historical and modern land use has greatly reduced the size and number of native habitats, eliminating numerous indigenous species. Most commonly found in the study vicinity today are jackrabbits, ground squirrels, field mice, snakes, and frogs, along with such birds as jays, mourning doves, crows, and red-tailed hawks.

The San Joaquin Valley lies within the Mediterranean climate zone typified by hot, dry summers and cool, wet winters. Temperatures range from highs of 90–100°F in the summer months to lows of 40–50°F in the winter (Weir 1956), although temperatures exceeding 100°F in the summer and dropping below freezing in the winter are not uncommon. Annual precipitation averages 10 inches per year, with most of the rain falling between October and March. Thick "tule" fog is common in the valley during December and January.

The natural topography of the project area is flat at 400 feet above mean sea level. The natural watercourse closest to the study area is Dry Creek, which flows directly southeast of the APE.

4.2 ETHNOGRAPHY

At the time of first contact with the Spanish missionaries, the Yokuts people collectively inhabited the San Joaquin Valley as well as the western foothills of the Sierra Nevada from the Calaveras River southward to the Kern River. The Yokuts were organized into relatively small autonomous tribes or tribelets, which maintained a fluid territory containing multiple semipermanent settlements. Specifically, the study area lies within the territory of the Gashowu, a tribelet that occupied the drainages of Big Dry Creek and Little Dry Creek. Two major settlements are attributed to the Gashowu: *Pohonui*, below Letcher on Big Dry Creek, and *Yokau*, on Little Dry Creek in Auberry Valley (Kroeber 1976:481, plate 47). These villages appear to have been central year-round settlements occupied more densely in the winter. Food-gathering forays in the spring or summer expanded the Gashowu range to the lowlands of present-day Clovis and Fresno.

Acorns were a Gashowu staple; additional nutrition was culled from other nuts and seeds, berries, fruit, and game. These dietary items as well as toolstone and a variety of other resources

were gathered at the summer camps. Procurement loci survive today as scatters of lithic artifacts and bedrock milling stations where plants and seeds were processed. In addition to these features, artifacts used to process procured resources (such as mortars, pestles, and manos) and the remains of resources gathered (such as bone and acorn shell) are also common within archaeological sites.

The villages of the Southern Valley Yokuts, including the Gashowu, profited from the east-west trade of goods that flowed between the Pacific Coast and the High Sierra and Great Basin (Davis 1961). The Yokuts bartered their local staples (e.g., freshwater fish, acorns, steatite goods, and tule reeds) to obtain such goods as obsidian, pine nuts, shell beads and ornaments, and other exotic commodities.

As with other Indian groups in California, the lifeways of the Yokuts were dramatically altered as a result of contact with Spanish explorers and missionaries, miners, ranchers, and other immigrants who entered the San Joaquin Valley after 1700. The introduction of European culture and new diseases proved devastating to the native population. Having been pushed off their land by white settlers, many Yokuts ended up as impoverished agricultural workers or otherwise occupied the lower echelons of the new Californian society (Wallace 1978).

4.3 PREHISTORY

Archaeological evidence suggests that the valley's initial occupants settled mostly in lakeshore and streamside environments and used the foothills seasonally. Early ("Paleoindian") sites are typified by fluted points, stemmed dart points, scrapers, and flaked stone crescents. The middle and late Holocene witnessed mobile hunters and gatherers. As compared with their predecessors, Archaic groups utilized a broad resource base, including both large and small game and hard seeds. Manos, milling slabs, mortars, and pestles are common in Archaic assemblages, as are atlatl dart points. Favorable climatic conditions between 3,000 and 3,500 years ago fostered widespread settlement along the Sierran west slope. The late Holocene witnessed various technological and social changes, including the adoption of the bow and arrow, expansion of trade, increasing use of acorns, and improved food storage techniques. As populations grew, social relations became more complex. Economic stress and social instability became more pronounced during a period of xeric climates between circa A.D. 450 and 1250. Thereafter, new levels of population growth were achieved, resulting in part from movement of new Sierran groups. By circa A.D. 1600–1700, most groups claimed the territories that would identify them ethnographically.

A number of prehistoric sites have been identified in Gashowu territory (Price 1992). Located in the foothills northeast of Clovis, these sites are primarily either extensive midden deposits found along both small ephemeral drainages and larger permanent watercourses or multiple bedrock milling features, sometimes with numerous individual stations.

Investigations at CA-FRE-1671, which may have formed the core of the *Pohoniu* village community, yielded radiocarbon dates showing that Yokuts settlement of the area extended from A.D. 1300 well into the historic period. An earlier occupation phase at the site was dated between circa 700 B.C. and A.D. 300 but could not be linked directly to the Gashowu or any other Yokuts group (Moratto 1988).

At CA-FRE-64, investigations showed that the Yokuts may have occupied the area as early as A.D. 1100–1200, with continuing occupation to around A.D. 1600. An even earlier component lacked the data to attribute it to the Gashowu but suggested that the steatite industry in the area may have begun as early as A.D. 800 (Wallace et al. 1989).

CA-FRE-1154 and CA-FRE-1155 are in the foothills east of the project area. CA-FRE-1154, the Sharer Site, lies "along an abandoned oxbow bend associated with a channelized stream" (Langenwalter et al. 1989:68). This site, interpreted as a seasonal procurement campsite, appears to have been used during a long temporal span from 850 B.C. to A.D. 1850. It consists of a midden ranging from 60 to 160 centimeters in depth and a large bedrock boulder containing 76 mortars, cups, cupules, and slicks. Artifacts included ground and flaked stone tools, steatite bowl fragments, ornaments, crystals, daub, and ochre. Additionally, the remains of a juvenile burial were encountered.

CA-FRE-1155, the Harlan Site, contains a small but well-developed midden between 80 and 190 centimeters thick as well as five bedrock features. Artifacts similar to those from CA-FRE-1154 indicate that CA-FRE-1155 was used as a seasonal procurement site. It appears to have been sporadically occupied between 850 B.C. and A.D. 300, with intensive occupation from A.D. 300 to 1500 (Langenwalter et al. 1989).

Surveys east of the current Project area have shown that many small processing stations and temporary camps occur along seasonal channels near the lower foothills (Meighan and Dillon 1987), suggesting a pattern of widespread but relatively ephemeral use of the area during the late Holocene (McGuire 1992).

In the first half of the nineteenth century, the Gashowu population was decimated by disease, missionization, and military action. This led to a radical change in settlement: the surviving peoples abandoned the residential sites that they had occupied prehistorically and congregated at a small number of locations. Glass trade beads and other historical artifacts recovered from CA-FRE-687 and CA-FRE-1671 may be evidence of these postcontact settlements (Price 1992:32–33).

4.4 HISTORY

The Spanish and later Mexican explorers who entered the San Joaquin Valley in the first decades of the nineteenth century encountered a raw and varied hinterland that differed greatly from today's agricultural landscape. As the chronicler for Lieutenant Gabriel Moraga's 1806 trek into the valley, Father Pedro Muñoz observed well-wooded places along the upper Kings River (near present-day Sanger) and in the Kaweah Delta (near present-day Visalia) that would have made suitable mission sites (Cook 1960:251–252, 284). By contrast, much of the areas surrounding Tulare Lake were shrouded with marshes. However, neither the padres nor the Spanish and Mexican provincial governments were able to establish a presence within the San Joaquin Valley. It was through their continual excursions to recover runaway neophytes and stolen livestock that the clerics and military became acquainted with the valley and its people (Cook 1960).

The first Euro-American settlements in the greater Clovis area occurred in the grassy plains around Dry Creek where the stream flows down from the foothills into the valley (Clough and

Secrest 1984:304). A small outpost was established at the current intersection of Shepherd and Thompson avenues in 1853 and later became a stop along the Stockton to Los Angeles stage route (Smith 1991:11, 31). For many years the lonely station, which eventually became known as Collins Corner, stood by itself with no other buildings in sight.

During the 1860s, homesteaders came to the valley to graze their herds or flocks in the pastures around the San Joaquin River and its drainages. The local cattle industry continued to grow until at least 1870, when, according to Vandor (1919:162), it reached its peak. There were, however, some bumps along the way. The erratic climate patterns of the 1860s—a decade that experienced alternating periods of severe flooding and drought—had considerable impact on the makeup of the Central Valley's agrarian base, affecting both ranching and farming operations.

Along with the climate, political factors had a major hand in shaping the economic landscape. Although the 1874 enactment of the "no fence" laws did not necessarily deal a death blow to valley ranching, the statute greatly curtailed the influence and importance of this industry. Without the entire extent of the San Joaquin Valley at their disposal and burdened by the continual task of containing their herds and flocks, ranchers found themselves increasingly marginalized in the developing valley economy.

In addition to pro-agriculture legislation and the arrival of the Southern Pacific Railroad in 1872, the development of irrigation systems greatly contributed to the growth of agriculture in Fresno County. Built in the early and mid-1870s, the first major water conveyance systems in the Fresno-Clovis area included the canals of the Fresno Canal and Irrigation Company, the Kings River and Fresno Canal Company, and the Enterprise Canal Company. These systems, which use the waters of the Kings River, remain essential parts of the area's agricultural industry today. Flowing through the study area, the Colonial Helm Ditch, constructed circa 1911–1913, is an example of an early canal built during this formative time in the history of the area. The canal served as a secondary conveyance system flowing from the Enterprise Canal and was vital in transporting water to lots within the agricultural colonies.

For land promoters in the valley, the intended effect of irrigation was to increase the value of their properties so that they could be subdivided and sold to newly arriving homesteaders at a hefty profit. While this primary purpose was certainly achieved, the advent of intensive irrigation additionally led to a shift in both the types of crops grown and the size of a typical farm. Grain farming generally requires substantial acreage, but as irrigation water became more readily available, individual farmers realized that premium crops like grapes, citrus, and tree fruit could be profitably grown on lots as small as 20 acres.

Agricultural growth in the San Joaquin Valley generally was accompanied by consistent population growth and urbanization, and with the rise in residential, commercial, and infrastructural development came an increase in demand for building materials. The one-man milling operations of the gold rush era had given way to late nineteenth-century lumber companies with the financial and technological means to harvest vast stands of timber in the nearby Sierra Nevada. It was primarily in this context that the town of Clovis arose.

Clovis originated in 1891 as a stop along the San Joaquin Valley Railroad, which extended from Fresno to the aspiring community of Pollasky (formerly called Hamptonville and later renamed Friant), located on the south bank of the San Joaquin River (Clough and Secrest 1984:281).

Although Pollasky never fully materialized and the railroad was eventually sold off to the Southern Pacific, the new transportation link had opened up the area northeast of Fresno for settlement and other ventures. Shortly afterward, the Fresno Flume and Irrigation Company, a combination lumber and irrigation venture, located its sawmill on a 60-acre parcel at the current site of Clark Intermediate School and the Clovis Rodeo Grounds. The mill was the end point of a 45-mile-long wood flume from Shaver Lake. By its second year of operation in 1895, between 300 and 500 employees worked at the mill (Clough and Secrest 1984:305; Johnston 1997).

The trend toward smaller farms continued well into the new century. Between 1900 and 1920, 45,000 new farms were established in California, of which about 85 percent were less than 50 acres (Hall 1986:170). Yet whether a farm is small or large, the decision of which crop(s) to grow from year to year has historically been a speculative one for valley farmers. Given the decentralized nature of the industry, the market for a particular product was capable of unpredictable and dramatic changes. Oversupply of the previous year's crop and the prospect of low prices have often compelled growers to look for other, more profitable alternatives. Out of this instability, many new fruit and vegetable varieties have been introduced in the valley.

The steady growth of the San Joaquin Valley's agricultural base and its reliance on irrigation were beginning to erode the state's water supply. The solution was the Central Valley Project (CVP), a statewide multicomponent water conveyance system to control and redistribute the tremendous supply of water flowing from the Sierra Nevada. The CVP, which began at the state level, became part of the New Deal project in the mid-1930s because of the massive financing required for the project. Partially due to labor shortages created by World War II, the entire system was not completed until the early 1950s.

Water control and management continued to be an important issue for the valley and particularly for residents along Dry Creek. Winding southwest from the foothills, Dry Creek disappears into a natural sink near the Old Fig Garden area in north-central Fresno. The natural flow from the creek raises the underground water table, which has been an important source of well irrigation water. Yet, since the earliest days of settlement, the annual flooding of the waterway caused traffic hazards, material damage, and even loss of life (Wilson 1932). Since beginning operation in 1948, the Dry Creek Project has expanded its scope to prevent flooding while managing the groundwater level (Clovis Unified School District 1984:137; Fresno Bee 1948; Fresno Metropolitan Flood Control District 2004). In the past 30 years, suburban development of Clovis has replaced much of the former agricultural lands surrounding the town.

5 FIELD METHODS

On August 29, 2019, Staff Archaeologist Ward Stanley performed an intensive pedestrian survey of the 6.34-acre Direct APE (Map 3) using parallel transects 7.5 meters apart. Stanley photographed the survey area with a digital camera and documented field conditions on a Survey Field Record. All field notes and photographs are on file at Applied EarthWorks' Fresno office.

Ground visibility within the survey area varied greatly (Figures 1 and 2) from poor (little to no visibility) to excellent (90–100 percent visibility). Most of the project area offered poor visibility because the native surface was completely covered by concrete or asphalt pavement and

Figure 1 **Overview of survey area offering 0–50 percent ground visibility along Nees Avenue road shoulder; facing east.**

Figure 2 **Overview of survey area offering excellent ground visibility along north side of Nees Avenue, facing east.**

ornamental landscaping (Figure 1). Stanley did not survey the paved roadways (Nees, Minnewawa, and North Clovis avenues) or the adjacent sidewalks and lawns; however, he walked two parallel transects on the north side of Nees Avenue (Map 3). In total, Applied EarthWorks surveyed 2.78 acres of the 6.34-acre Direct APE. Ground visibility north of Nees Avenue was poor (0–50 percent) at the west end of the Direct APE due to the presence of lawns, landscaping, and the paved road shoulders; however, the portions of the APE within the orchards afforded excellent ground visibility (90–100 percent). Soils observed are composed of silty loam interspersed with sand and angular gravels.

6 STUDY FINDINGS AND CONCLUSIONS

No prehistoric or archaeological resources were identified during the survey, and no sacred areas were identified in the Direct APE as a result of the NAHC Sacred Lands File search, Native American consultation, or the records search at the SSJVIC. A segment of the previously recorded Helm Colonial Ditch (built 1911–1913) occurs within the Direct APE as well as a portion of the Smittcamp family ranch at 1235 N. Minnewawa Avenue on the corner of Nees and Minnewawa avenues. These resources are discussed in detail in the Historical Resources Evaluation Report for this project (van Onna 2019). Additional archaeological survey will be needed if Project limits are extended beyond the present survey limits.

If previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be halted in that area until a qualified archaeologist can assess the significance of the find. Additional archaeological survey will be needed if project limits are extended beyond the present survey limits.

7 REFERENCES CITED

Clough, Charles W., and William B. Secrest Jr.
1984 *Fresno County, the Pioneer Years: From the Beginnings to 1900.* Panorama West Books, Fresno, California.

Clovis Unified School District
1984 *Images of an Age.* Pacific Printing Press, Fresno, California.

Cook, Sherburne F.
1960 *Colonial Expeditions to the Interior of California: Central Valley, 1800–1820.* University of California Anthropological Records Vol. 16(6). University of California Press, Berkeley and Los Angeles.

Davis, James T.
1961 *Trade Routes and Economic Exchange among the Indians of California*. Reports of the University of California Archaeological Survey Vol. 54. University of California Press, Berkeley and Los Angeles.

Fresno Bee
1948 Water Flows into Reservoir of Dry Creek Flood Project. 14 April:17. Fresno, California.

Fresno Metropolitan Flood Control District
2004 Flood Control System. Electronic document, www.fresnofloodcontrol.org/flood_control_system. accessed April 2012.

Hall, Richard D.
1986 Agriculture and Water. In *Fresno County in the 20th Century: From 1900 to the 1980s,* edited by Bobbye Sisk Temple, pp. 169–202. Panorama West Books, Fresno, California.

Johnston, Hank
1997 *The Whistles Blow No More: Railroad Logging in the Sierra Nevada, 1874–1942.* Stauffer Publishing, Fish Camp, California.

Kroeber, Alfred L.
1976 *Handbook of the Indians of California.* Reprinted. Dover Publications, New York Originally published 1925, Bureau of American Ethnology Bulletin 78, Smithsonian Institution, Washington, D.C.

Langenwalter, Paul E., II, Adella Schroth, Philip de Barros, and Franklin Fenenga
1989 *Redbank and Fancher Creeks Archaeological Data Recovery Program, CA-FRE-632, -633, -1154, and -1155, Fresno County, California*. MITECH, Santa Ana, California. Submitted to U.S. Army Corps of Engineers, Sacramento District.

McGuire, Kelly R.
1992 *Rural Route 180, Fowler to Cove Avenues (06-FRE-180-R64.6/84.0 06-250-342500); Test Excavations at CA-FRE-61 and Extended Survey at CA-FRE-2851: A Preliminary Report*, with contributions by R. Bethard, H. McCarthy, K. Tate, and E. Wohlgemuth. Far Western Anthropological Research Group, Inc., Davis, California. Submitted to Woodward-Clyde Consultants, Oakland, California, and California Department of Transportation, District 6, Fresno.

Meighan, Clement W., and Brian D. Dillon
1987 *Redbank and Fancher Creeks Intensive Cultural Resources Survey.* Submitted to U.S. Army Corps of Engineers, Sacramento District. On file, Southern San Joaquin Valley Information Center, California State University, Bakersfield.

Moratto, Michael J.
1988 *Archaeological Excavations at Site CA-FRE-1671, Fresno, California: Final Report.* 2 vols. INFOTEC Research, Inc., Sonora, California. Submitted to California Department of Transportation, Sacramento.

Munz, Phillip A., and David D. Keck
1973 *A California Flora with Supplement.* University of California Press, Berkeley.

Price, Barry A.
1992 *Archaeological Survey Report of Route 168 Study Areas, Fresno County, California.* INFOTEC Research, Inc., Fresno, California. Submitted to CH_2M Hill, Emeryville, California.

Smith, Ephraim K
1991 *Historical Architectural Survey Report for Route 168 Rural Project, 6-Fre-168 R9.0/R14.75*. California State University, Fresno Foundation. Submitted to INFOTEC Research, Inc., Fresno, California.

Vandor, Paul E.
1919 *History of Fresno County, California, with Biographical Sketches: The Leading Men and Women of the County Who Have Been Identified with Its Growth and Development from the Early Days to the Present*, Vol. 2. Historic Record Company, Los Angeles, California.

van Onna, Carlos, and Mary Baloian
2019 *Historical Resources Evaluation Report: Nees Avenue Improvements Project CIP 17-13 (Minnewawa to Clovis Avenues), City of Clovis, Fresno County, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for City of Clovis Planning Division, Clovis, California. Submitted to California Department of Transportation, District 6, Fresno.

Wallace, William J.
1978 Southern Valley Yokuts. In *California*, edited by Robert F. Heizer, pp. 448–461. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

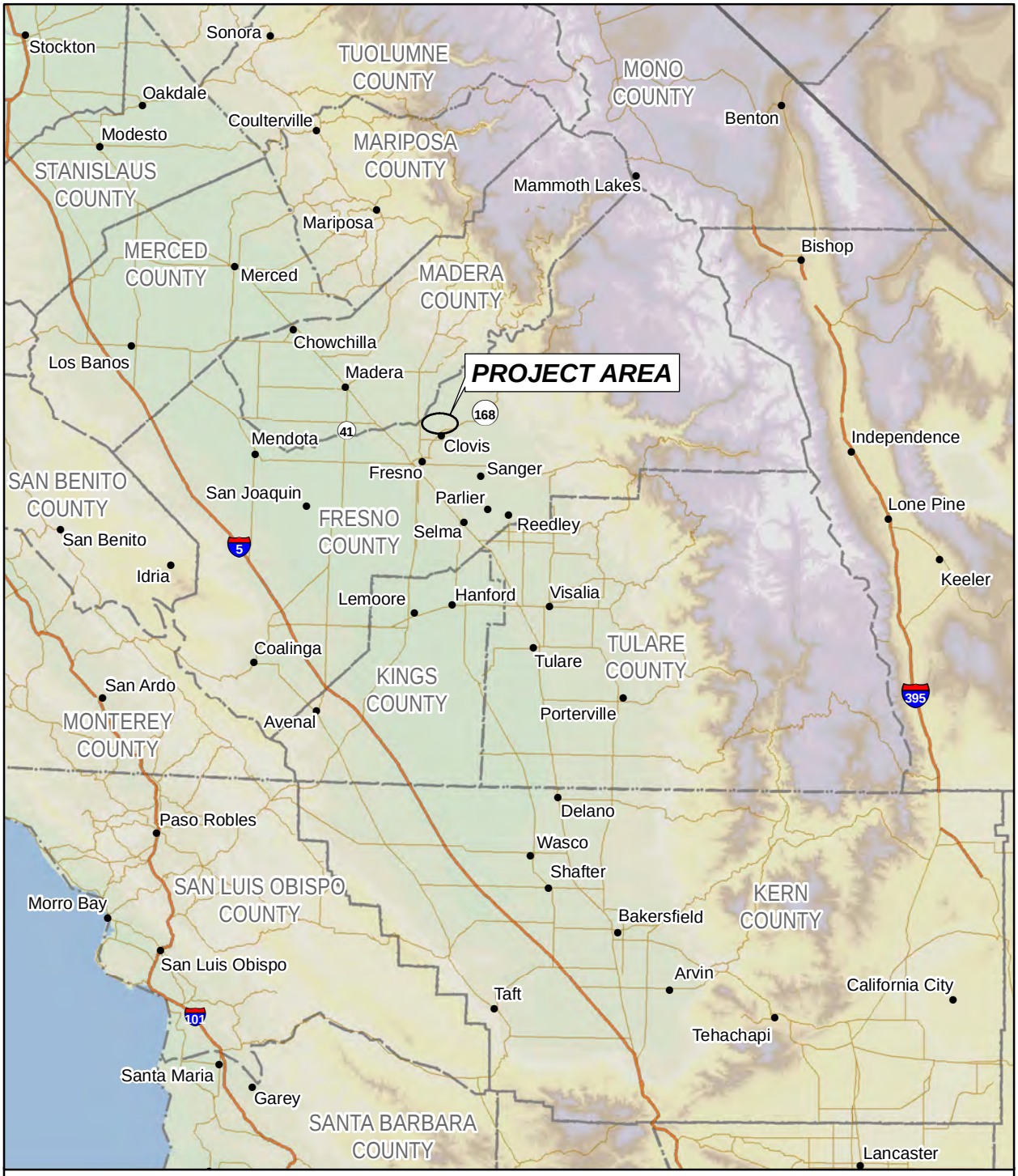
Wallace, William J., Adella A. Schroth, and Phillip De Barros
1989 *Archaeological Data Recovery at Prehistoric Archaeological Site CA-FRE-64.* Chambers Group, Inc., Santa Ana, California. Prepared for California Department of Transportation, District 6, Fresno.

Weir, Walter W.
1956 *Soils of Madera County, California*. Soil Survey No. 12. Department of Soils and Plant Nutrition, Berkeley, California.

Wilson, L. H.
1932 Deaths, Injuries, Illness Caused by Dry Creek; Elimination Suggested. Fresno Morning Republican, 19 January:7. Fresno, California.

APPENDIX A

Maps

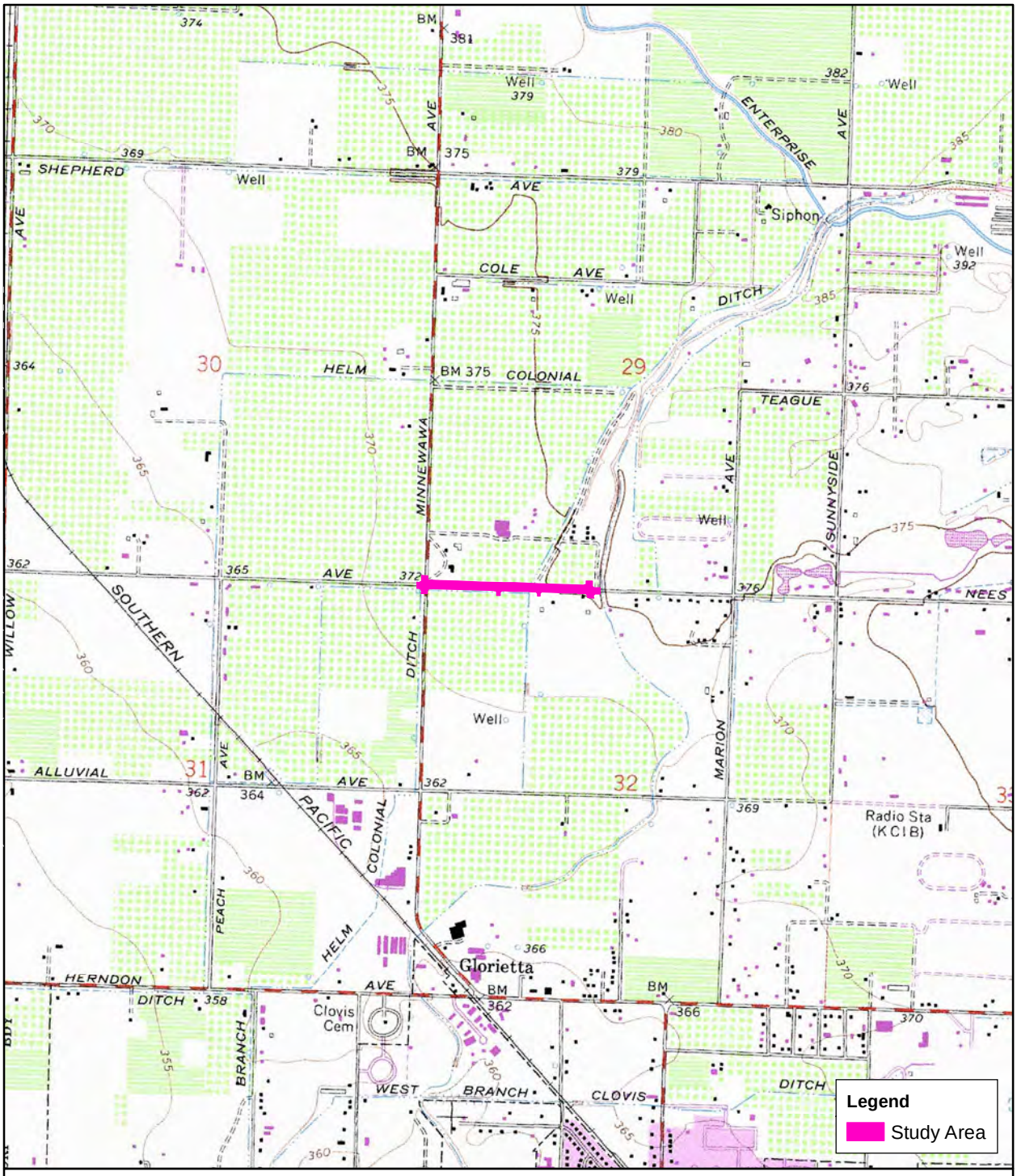


STUDY VICINITY

Nees Avenue Improvements Project
Minnewawa Avenue to Clovis Avenue

Caltrans District 6
Fresno County
FTIP STPL-5208(160)

MAP 1



SCALE 1:24,000

0.5 0 0.5 Miles

1,000 0 1,000 2,000 3,000 Feet

0.5 0 0.5 Kilometers

STUDY LOCATION

Nees Avenue Improvements Project
Minnewawa Avenue to Clovis Avenue

Caltrans District 6
Fresno County
FTIP STPL-5208(160)

Township 12S / Range 21E, Section 29, 30, 31, 32,
Clovis (1964-PR1981), CA 7.5' USGS Quadrangle

MAP 2

SCALE 1:2,400

0.1 0.05 0 0.1 Miles

100 0 100 200 300 400 500 600 700 Feet

0.1 0.05 0 0.1 Kilometers

SURVEY COVERAGE

Nees Avenue Improvements Project
Minnewawa Avenue to Clovis Avenue

Caltrans District 6
Fresno County
FTIP STPL-5208(160)

MAP 3

APPENDIX B

Records Search Results

California Historical Resources Information System

Fresno
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
E-mail: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

7/8/2019

Mary Baloian
Applied EarthWorks, Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

Re: Nees Avenue Improvements
Records Search File No.: 19-257

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on the Clovis USGS 7.5' quad. The following reflects the results of the records search for the project area and the 0.5 mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☐ custom GIS maps ☒ shapefiles

Resources within project area:	None
Resources within 0.5 mile radius:	P-10-005511
Reports within project area:	None
Reports within 0.5 mile radius:	FR-00074, 00281, 01869, 01890, 02308, 02500, 02855, 02900

Resource Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Database Printout (details):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):	☒ enclosed	☐ not requested	☐ nothing listed
Report Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed
Resource Record Copies:	☒ enclosed	☐ not requested	☐ nothing listed
Report Copies:	☐ enclosed	☒ not requested	☐ nothing listed
OHP Historic Properties Directory:	☐ enclosed	☐ not requested	☒ nothing listed
Archaeological Determinations of Eligibility:	☐ enclosed	☐ not requested	☒ nothing listed
CA Inventory of Historic Resources (1976):	☐ enclosed	☐ not requested	☒ nothing listed

Caltrans Bridge Survey: Not available at SSJVIC; please see

http://www.dot.ca.gov/hq/structur/strmaint/historic.htm

Ethnographic Information: Not available at SSJVIC

Historical Literature: Not available at SSJVIC

Historical Maps: Not available at SSJVIC; please see
http://historicalmaps.arcgis.com/usgs/

Local Inventories: Not available at SSJVIC

GLO and/or Rancho Plat Maps: Not available at SSJVIC; please see
http://www.glorecords.blm.gov/search/default.aspx#searchTabIndex=0&searchByTypeIndex=1 and/or
http://www.oac.cdlib.org/view?docId=hb8489p15p;developer=local;style=oac4;doc.view=items

Shipwreck Inventory: Not available at SSJVIC; please see
http://www.slc.ca.gov/Info/Shipwrecks.html

Soil Survey Maps: Not available at SSJVIC; please see
http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Celeste M. Thomson Digitally signed by Celeste M. Thomson
Date: 2019.07.08 10:02:27 -07'00'

Celeste M. Thomson
Coordinator

Report List

SSJVIC Record Search 19-257

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
FR-00074	NADB-R - 1141287	1978	Baker, Suzanne	Archaeological Reconnaissance of the Shepherd 230kV Substation and Transmission Line	Archaeological Consultants	
FR-00281		1992	Bissonnette, Linda Dick	Cultural Resources Assessment for the Fresno Metropolitan Flood Control District, Stormwater Retention Basin BT, Nees and Marion Avenues, Fresno County	Michael Paoli and Associates	
FR-01869		2001	Nadolski, John A.	Archaeological Investigations for Tower modifications at 34 Cell Tower Sites	Pacific Legacy, Inc.	
FR-01890		2002	Wren, Donald G.	A Cultural Resource Study for the Teague/Clovis Elementary School Project, Fresno County, California	Individual Consultant	
FR-02308		2008	Losee, Carolyn	Cultural Resource Investigation for AT&T Project CN2530-B "Shepherd & Sunnyside" 1120 North Sunnyside Avenue, Clovis, Fresno County, California 93611 EBI Project #61082417	Archaeological Resources Technology	
FR-02500		2008	Bonner, Wayne H.	Cultural Resources Records Search and Site Visit Results for T-Mobile USA Candidate SR912-SC40139A (Veteran's Stadium), 1560 Minnewawa Avenue, Clovis, Fresno County, California	Michael Brandman Associates	
FR-02855		2017	Pearson, Jeffrey	Cultural Resources Records Search and Site Visit for T-Mobile West, LLC Candidate SC40139B (Buchanan HS Baseball Field) 1560 North Minnewawa Avenue, Clovis, Fresno County, California	Environmental Assessment Specialists, Inc.	
FR-02900	OHP PRN - FCC_2017_0928_002	2017	Davis, Shane	Cultural Resources Records Search and Site Visit Results for Cellco Partnership and their Controlled Affiliates doing Business as Verizon Wireless Candidate Nees & Minnewawa, 1560 North Minnewawa, Clovis, Fresno County, California	Helix Environmental Planning	

Resource List

SSJVIC Record Search 19-257

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-10-005511	CA-FRE-003344H	Resource Name - West Branch Helm Colonial Ditch	Structure	Historic	HP20	2005 (Wendy Nettles, Randy Baloian, Applied EarthWorks, Inc.)	FR-02123

APPENDIX C

Native American Consultation

Native American Consultation

City of Clovis Nees Avenue Improvements Project

Organization	Name	Position	Letter	E-mail	Phone	Summary of Contact
Native American Heritage Commission	Katy Sanchez	Associate Environmental Planner		7/3/19		In a letter emailed on July 3, Ms. Sanchez stated that there are no known sacred sites within the project area. She attached a list of six Native American contacts who may have knowledge of unreported resources within the project area.
Table Mountain Rancheria	Bob Pennell	Cultural Resources Director	8/15/19	9/20/19		Letter received 9-9-19. Declined participation.
Table Mountain Rancheria	Leanne Walker Grant	Chairperson	8/15/19	9/20/19		See above.
Dunlap Band of Mono Historical Preservation Society	Kenneth Woodrow	Chairperson	8/15/19	9/20/19		No response to date.
Dumna Wo-Wah Tribal Government	Robert Ledger Sr.	Tribal Chairperson	8/15/19	9/20/19		No response to date.
Kings River Choinumni Farm Tribe	Stan Alec		8/15/19		9/20/19	No response to date.
Santa Rosa Tachi Rancheria	Reuben Barrios, Sr.	Chairperson	8/15/19		9/20/19	No response to date.

TABLE MOUNTAIN RANCHERIA
TRIBAL GOVERNMENT OFFICE

CERTIFIED 3675 4487

September 9, 2019

Claudia Cazares, Management Analyst
Engineering Division
City of Clovis
1033 Fifth Street
Clovis, Ca. 93612

RE: City of Clovis Nees Avenue Improvements Project – CIP 17-13

Dear: Claudia Cazares

This is in response to your letter dated, August 15, 2019, regarding, City of Clovis Nees Avenue Improvements Project – CIP 17-13. Thank you for notifying us of the potential development and the request for consultation.

We decline participation at this time but would appreciate being notified in the unlikely event that cultural resources are identified.

Sincerely,

Robert Pennell
Tribal Cultural Resources Director
rpennell@tmr.org
559.325.0351

Leanne Walker-Grant
Tribal Chairperson

Beverly J. Hunter
Tribal Vice-Chairperson

Craig Martinez
Tribal Secretary/Treasurer

Matthew W. Jones
Tribal Council Member

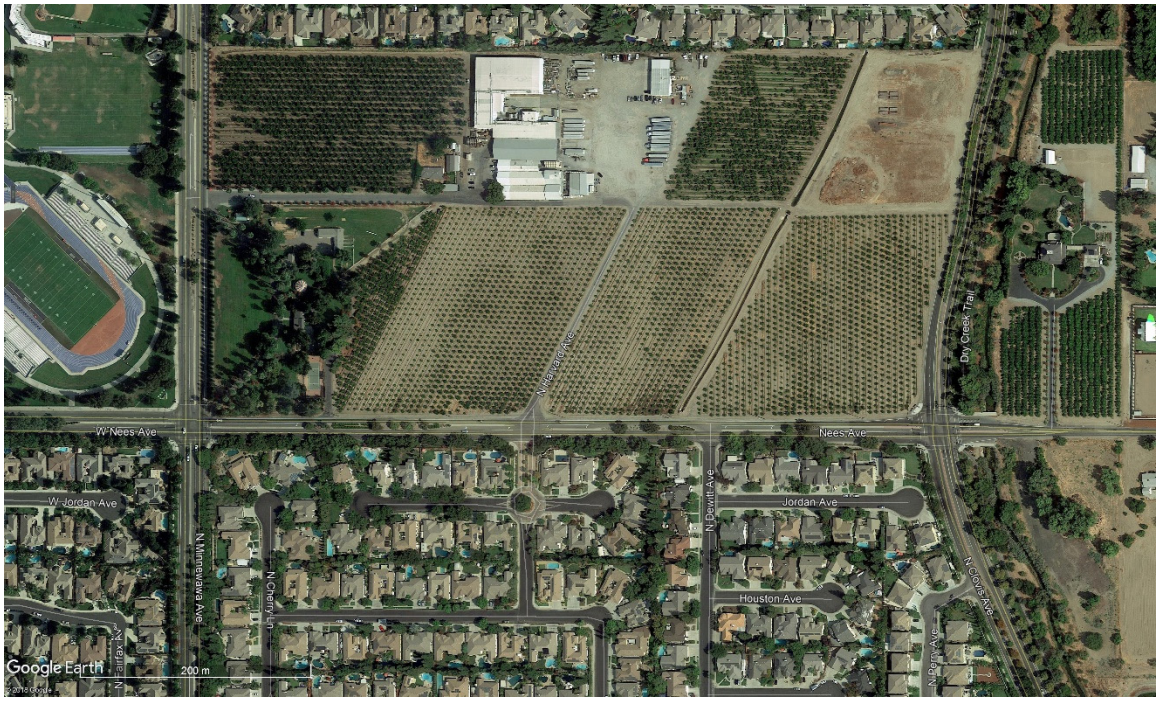
Richard L. Jones
Tribal Council Member

23736
Sky Harbour Road
Post Office
Box 410
Friant
California
93626
(559) 822-2587
Fax
(559) 822-2693

Appendix D

Noise Study

Nees Avenue Improvements Project *NSR*



Noise Study Report

Nees Avenue Improvements Project NSR

Clovis, California

FTIP STPL-5208 (160)

September 2019

Noise Study Report

Nees Avenue Improvements Project CIP 17-13

Clovis, California

FTIP STPL-5208 (160)

September 2019

Prepared By: Walter J. Van Groningen, President
WJV Acoustics, Inc.
113 N. Church Street, Suite 203
Visalia, CA 93291
(559) 627-4923

September 23, 2019

Approved By: _____ Date: _____

Phone Number _____
Office Name _____
District/Region _____

Summary

The purpose of this Noise Study report (NSR) is to evaluate noise impacts and abatement under the requirements of Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772) "Procedures for Abatement of Highway Traffic Noise". 23 CFR 772 provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for federal and federal-aid highway projects. According to 23 CFR 772.3, all highway projects that are developed in conformance with this regulation are deemed to be in conformance with Federal Highway Administration (FHWA) noise standards.

The City of Clovis proposes to widen and reconstruct a half-mile segment of Nees Avenue from Minnewawa Avenue to Clovis Avenue. The project will increase the existing 3-lane arterial road to a 4-lane arterial road and will improve traffic operations and reduce vehicle delays and congestion, and include acquisition of additional right-of-way.

A "No Build Alternative" is the only alternative analyzed in this noise study report.

Existing land use in the project area consists primarily of single-family residential and agricultural land uses. The terrain adjacent to the roadway is generally flat.

One (1) long-term (24-hour measurement) and two (2) short-term (15-minute) noise level measurements were conducted in July of 2019 at acoustically representative locations to document existing ambient noise levels in the project vicinity. The short-term measurements included concurrent traffic counts in order to calibrate the traffic noise prediction model. The long-term measurement was intended to describe variations in existing ambient noise levels within the project vicinity over a 24-hour period.

Using the TNM, existing traffic noise exposure for peak traffic conditions was calculated to be approximately of 57-60 dB L_{eq} at the closest noise-sensitive receivers (residences) to the proposed project area. The existing exterior traffic noise exposure at nearby agricultural uses were calculated to be 65 dB L_{eq}. Short-term (15-minute) ambient noise measurements were conducted at two (2) locations in the project vicinity. 15-minute L_{eq} noise levels at the four short-term measurement locations were in the range of 60-66 dB L_{eq}.

Future (2039) with project predicted worst-hour noise levels for the analyzed residential receivers in the project vicinity were approximately 61-63 dB L_{eq} and future (2039) with project predicted worst-hour noise level at nearby agricultural uses were calculated to be

approximately 70 dB L_{eq}. No residential receivers are expected to have predicted 2039 with-project worst-hour noise levels that approach or exceed the NAC or result in an increase of 12 dB or greater. Therefore, the project is not expected to result in any significant impacts as described by the Protocol and noise abatement analysis is not required.

Table of Contents

List of Figures

List of Tables

Page

List of Abbreviated Terms

CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNEL	Community Noise Equivalent Level
dB	Decibels
FHWA	Federal Highway Administration
Hz	Hertz
kHz	Kilohertz
L_{dn}	Day-Night Level
L_{eq}	Equivalent Sound Level
$L_{eq(h)}$	Equivalent Sound Level over one hour
L_{max}	Maximum Sound Level
LOS	Level of Service
L_{xx}	Percentile-Exceeded Sound Level
mPa	micro-Pascals
mph	miles per hour
NAC	noise abatement criteria
NADR	Noise Abatement Decision Report
NEPA	National Environmental Policy Act
NSR	Noise Study Report
Protocol	Caltrans Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects
SPL	sound pressure level
TeNS	Caltrans' Technical Noise Supplement
TNM 2.5	FHWA Traffic Noise Model Version 2.5

Chapter 1. Introduction

1.1 Purpose of the Noise Study Report

The purpose of this NSR is to evaluate noise impacts and abatement under the requirements of Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772) "Procedures for Abatement of Highway Traffic Noise." 23 CFR 772 provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for federal and Federal-aid highway projects. According to 23 CFR 772.3, all highway projects that are developed in conformance with this regulation are deemed to be in conformance with Federal Highway Administration (FHWA) noise standards. Compliance with 23 CFR 772 provides compliance with the noise impact assessment requirements of the National Environmental Policy Act (NEPA).

The Caltrans Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects (Protocol) (Caltrans 2011) provides Caltrans policy for implementing 23 CFR 772 in California. The Protocol outlines the requirements for preparing noise study reports (NSR).

1.2 Project Purpose and Need

The City of Clovis proposes to widen and reconstruct a half-mile segment of Nees Avenue from Minnewawa Avenue to Clovis Avenue. The project will increase the existing 3-lane arterial road to a 4-lane arterial road and will improve traffic operations and reduce vehicle delays and congestion, and include acquisition of additional right-of-way.

Chapter 2. Project Description

The City of Clovis proposes to widen approximately one-half mile of Nees Avenue between Clovis Avenue and Minnewawa Avenue from a three-lane arterial to a four-lane arterial. The project would construct a new 12-foot outside travel lane on the north side of Nees Avenue and replace failing pavement as needed. It also includes installation of a Class II bicycle lane and improved sidewalk that will complete the pedestrian and bicycle connectivity between nearby Garfield Elementary, Alta Sierra Intermediate School, and Buchanan High School to residences and neighborhoods in the vicinity.

The project will involve earthwork, asphalt concrete paving, and installation of sidewalk, curb, curb returns and ramps, gutters, storm drain inlets, street lighting and retaining walls, and accessible pedestrian signal (APS) modifications to the street signal at Nees and Minnewawa Avenues. It will involve modifications to traffic loop detectors, striping, markings, and signage as well as relocation of overhead utilities (PG&E, AT&T, and cable wires) to underground conduits. New water valve covers and manholes will be installed in areas of new pavement and existing features will be brought up to grade to match the new pavement surface. Additional related activities include relocating an existing irrigation ditch and extension of associated underground water conveyance facilities operated by Fresno Irrigation District. The project will also improve the sewer system by connecting sewer mains from Clovis Avenue to Minnewawa Avenue.

The Circulation Element of the Clovis Herndon-Shepherd Specific Plan identifies the need for additional street right-of-way totaling 24,283 square feet across APN 560-051-10 and 54,691 square feet across APN 560-051-25 to accommodate the outside travel lane and greenbelt/sidewalk.

The project will involve the removal of 235 peach trees from the region of the orchard within the project area, in addition to several ornamental trees (one crepe myrtle tree, one crepe myrtle bush, one Chinese pistache tree, four olive trees, three palms, two magnolias, one ash, three alders, and five pine trees). The project will include implementation of a landscape and irrigation plan that utilizes native drought-tolerant species and water-saving fixtures.

Widening Nees Avenue to accommodate an additional west-bound travel lane and install pedestrian and bicycle facilities will increase the safety and security of the transportation system, reduce traffic congestion and vehicle delays, improve service capacity during peak travel times, and provide complete street improvements for all modes of

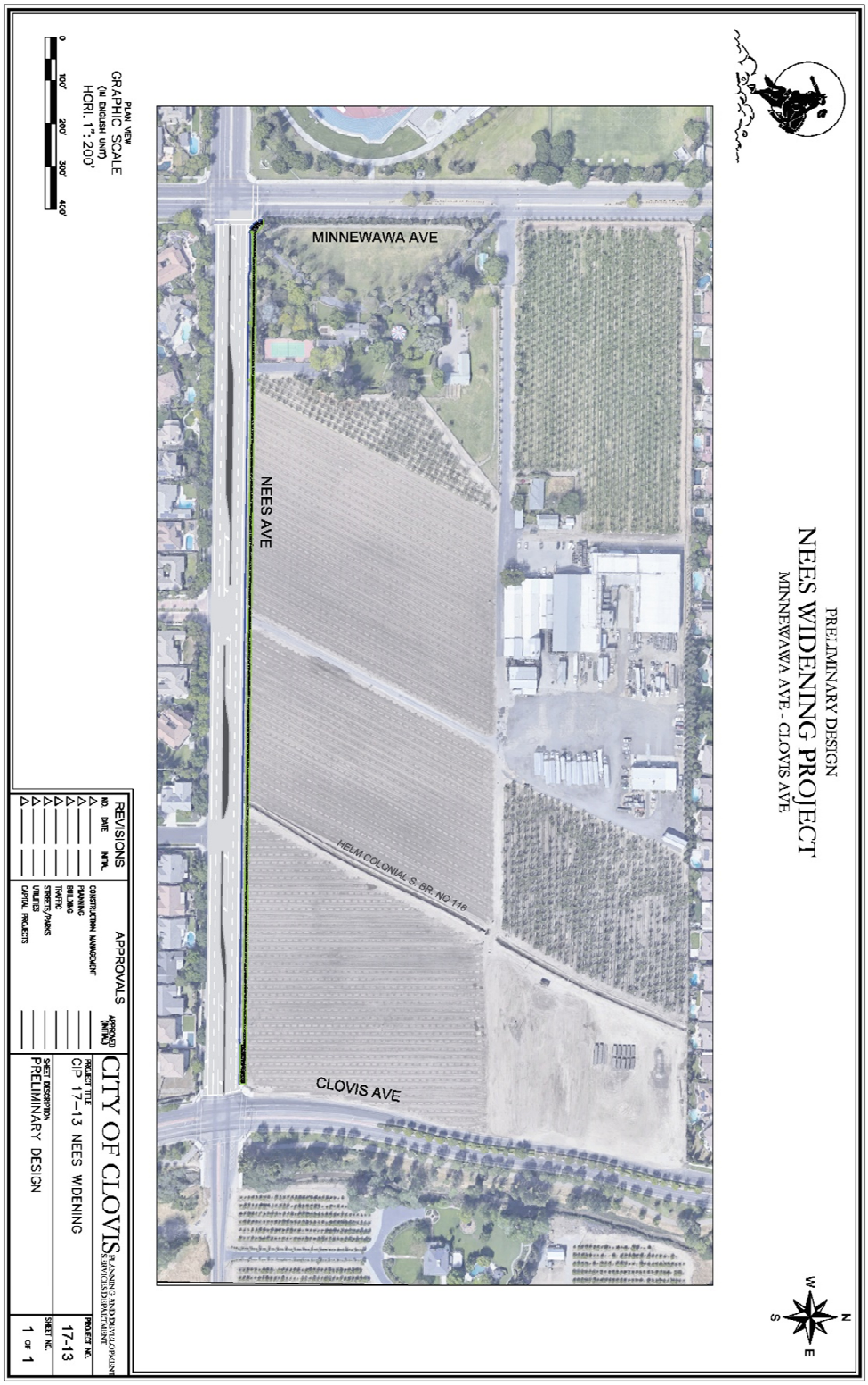
transportation. Completing this road section will improve traffic flow to the Buchannan Educational Complex and provide additional transportation options for non-motorized usage.

The area of potential effect is approximately 9.5 acres. The western project limit to Eastern project limit is 36.852066, -119.7115138 to 36.8520861, -119.7035916. The project site is located within the Clovis quadrangle.

2.1. No-Build

Under the No-Build Alternative, no changes would be made to the roadway.

Figure 2-1: Proposed Project Roadway Alignment and Lane Configuration



Chapter 3. Fundamentals of Traffic Noise

The following is a brief discussion of fundamental traffic noise concepts. For a detailed discussion, please refer to Caltrans' Technical Noise Supplement (TeNS) (Caltrans 2013), a technical supplement to the Protocol that is available on Caltrans Web site (http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013B.pdf).

3.1. Sound, Noise, and Acoustics

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is defined as loud, unexpected, or annoying sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receptor determine the sound level and characteristics of the noise perceived by the receptor. The field of acoustics deals primarily with the propagation and control of sound.

3.1. Frequency

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

3.2. Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this huge range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB). The threshold of hearing for young people is about 0 dB, which corresponds to 20 mPa.

3.3. Addition of Decibels

Because decibels are logarithmic units, SPL cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one automobile produces an SPL of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB—rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level 5 dB louder than one source.

3.4. A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz, and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an "A-weighted" sound level (expressed in units of dBA) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Other weighting networks have been devised to address high noise levels or other special problems (e.g., B-, C-, and D-scales), but these scales are rarely used in conjunction with highway-traffic noise. Noise levels for traffic noise reports are typically reported in terms of A-weighted decibels or dBA. Table 3-1 describes typical A-weighted noise levels for various noise sources.

Table 3-1. Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013.

3.5. Human Response to Changes in Noise Levels

As discussed above, doubling sound energy results in a 3-dB increase in sound. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different than what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels, when exposed to steady, single-frequency ("pure-tone") signals in the midfrequency (1,000 Hz–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness. Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound, would generally be perceived as barely detectable.

3.6. Noise Descriptors

Noise in our daily environment fluctuates over time. Some fluctuations are minor, but some are substantial. Some noise levels occur in regular patterns, but others are random. Some noise levels fluctuate rapidly, but others slowly. Some noise levels vary widely, but others are relatively constant. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors most commonly used in traffic noise analysis.

- **Equivalent Sound Level (L_{eq}):** L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound that actually occurs during the same period. The 1-hour A-weighted equivalent sound level (L_{eq}[h]) is the energy average of A-weighted sound levels occurring during a one-hour period, and is the basis for noise abatement criteria (NAC) used by Caltrans and FHWA.

- **Percentile-Exceeded Sound Level (L_{xx}):** L_{xx} represents the sound level exceeded for a given percentage of a specified period (e.g., L_{10} is the sound level exceeded 10% of the time, and L_{90} is the sound level exceeded 90% of the time).

- **Maximum Sound Level (L_{max}):** L_{max} is the highest instantaneous sound level measured during a specified period.

- **Day-Night Level (L_{dn}):** L_{dn} is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to A-weighted sound levels occurring during nighttime hours between 10 p.m. and 7 a.m.

- **Community Noise Equivalent Level (CNEL):** Similar to L_{dn}, CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to A-weighted sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m., and a 5-dB penalty applied to the A-weighted sound levels occurring during evening hours between 7 p.m. and 10 p.m.

3.7. Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on the following factors.

3.7.1. Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 decibels for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path, and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 decibels for each doubling of distance from a line source.

3.7.2. Ground Absorption

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water,), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor, such as soft dirt, grass, or scattered bushes and trees), an excess ground-attenuation value of 1.5 decibels per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 decibels per doubling of distance.

3.7.3. Atmospheric Effects

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) from the highway due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

3.7.4. Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often

constructed between a source and a receptor specifically to reduce noise. A barrier that breaks the line of sight between a source and a receptor will typically result in at least 5 dB of noise reduction. Taller barriers provide increased noise reduction. Vegetation between the highway and receptor is rarely effective in reducing noise because it does not create a solid barrier.

Chapter 4. Federal Regulations and State Policies

This report focuses on the requirements of 23 CFR 772, as discussed below.

4.1. Federal Regulations

4.1.1. 23 CFR 772

23 CFR 772 provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for federal and Federal-aid highway projects. Under 23 CFR 772.7, projects are categorized as Type I, Type II, or Type III projects.

- FHWA defines a Type I project as a proposed federal or federal-aid highway project for the construction of a highway on a new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment of the highway. The following projects are also considered to be Type I projects:

- The addition of a through-traffic lane(s). This includes the addition of a through-traffic lane that functions as a high-occupancy vehicle (HOV) lane, high-occupancy toll (HOT) lane, bus lane, or truck climbing lane,

- The addition of an auxiliary lane, except for when the auxiliary lane is a turn lane,

- The addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange,

- Restriping existing pavement for the purpose of adding a through traffic lane or an auxiliary lane,

- The addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot, or toll plaza.

If a project is determined to be a Type I project under this definition, the entire project area as defined in the environmental document is a Type I project.

A Type II project is a noise barrier retrofit project that involves no changes to highway capacity or alignment. A Type III project is a project that does not meet the

classifications of a Type I or Type II project. Type III projects do not require a noise analysis.

Under 23 CFR 772.11, noise abatement must be considered for Type I projects if the project is predicted to result in a traffic noise impact. In such cases, 23 CFR 772 requires that the project sponsor "consider" noise abatement before adoption of the final NEPA document. This process involves identification of noise abatement measures that are reasonable, feasible, and likely to be incorporated into the project, and of noise impacts for which no apparent solution is available.

Traffic noise impacts, as defined in 23 CFR 772.5, occur when the predicted noise level in the design-year approaches or exceeds the NAC specified in 23 CFR 772, or a predicted noise level substantially exceeds the existing noise level (a "substantial" noise increase). 23 CFR 772 does not specifically define the terms "substantial increase" or "approach"; these criteria are defined in the Protocol, as described below.

Table 4-1 summarizes NAC corresponding to various land use activity categories. Activity categories and related traffic noise impacts are determined based on the actual or permitted land use in a given area.

4.1.2. Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects

The Protocol specifies the policies, procedures, and practices to be used by agencies that sponsor new construction or reconstruction of federal or Federal-aid highway projects. The Protocol defines a noise increase as substantial when the predicted noise levels with project implementation exceed existing noise levels by 12 dBA or more. The Protocol also states that a sound level is considered to approach a NAC level when the sound level is within 1 dB of the NAC identified in 23 CFR 772 (e.g., 66 dBA is considered to approach the NAC of 67 dBA, but 65 dBA is not).

The Technical Noise Supplement to the Protocol provides detailed technical guidance for the evaluation of highway traffic noise. This includes field measurement methods, noise modeling methods, and report preparation guidance.

Table 4-1. Activity Categories and Noise Abatement Criteria (23 CFR 772)

Activity Category	Activity $L_{eq}[h]$[1]	Evaluation Location	Description of Activities
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[2]	67	Exterior	Residential.
C[2]	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F.
F			Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G			Undeveloped lands that are not permitted.

[1] The $L_{eq}(h)$ activity criteria values are for impact determination only and are not design standards for noise abatement measures. All values are A-weighted decibels (dBA).

[2] Includes undeveloped lands permitted for this activity category.

4.2. State Regulations and Policies

4.2.1. California Environmental Quality Act (CEQA)

Noise analysis under the California Environmental Quality Act (CEQA) may be required regardless of whether or not the project is a Type I project. The CEQA noise analysis is completely independent of the 23 CFR 772 analysis done for NEPA. Under CEQA, the baseline noise level is compared to the build noise level. The assessment entails looking at the setting of the noise impact and then how large or perceptible any noise increase would be in the given area. Key considerations include: the uniqueness of the setting, the sensitive nature of the noise receptors, the magnitude of the noise increase, the number of residences affected, and the absolute noise level

The significance of noise impacts under CEQA are addressed in the environmental document rather than the NSR. Even though the NSR (or noise technical memorandum) does not specifically evaluate the significance of noise impacts under CEQA, it must contain the technical information that is needed to make that determination in the environmental document.

4.2.2. Section 216 of the California Streets and Highways Code

Section 216 of the California Streets and Highways Code relates to the noise effects of a proposed freeway project on public and private elementary and secondary schools. Under this code, a noise impact occurs if, as a result of a proposed freeway project, noise levels exceed 52 dBA-L_{eq}(h) in the interior of public or private elementary or secondary classrooms, libraries, multipurpose rooms, or spaces. This requirement does not replace the "approach or exceed" NAC criterion for FHWA Activity Category E for classroom interiors, but it is a requirement that must be addressed in addition to the requirements of 23 CFR 772.

If a project results in a noise impact under this code, noise abatement must be provided to reduce classroom noise to a level that is at or below 52 dBA-L_{eq}(h). If the noise levels generated from freeway and roadway sources exceed 52 dBA-L_{eq}(h) prior to the construction of the proposed freeway project, then noise abatement must be provided to reduce the noise to the level that existed prior to construction of the project.

Chapter 5. Study Methods and Procedures

5.1. Methods for Identifying Land Uses and Selecting Noise Measurement and Modeling Receiver Locations

A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. Land uses in the project area were categorized by land use type, Activity Category as defined in Table 4-1, and the extent of frequent human use. The project area consists of Activity Categories B and F as defined in Table 4-1. As stated in the Protocol, noise abatement is only considered for areas of frequent human use that would benefit from a lowered noise level. Although all developed land uses are evaluated in this analysis, the focus is on locations of frequent human use that would benefit from a lowered noise level. Accordingly, this impact analysis focuses on locations with defined outdoor activity areas, such as residential backyards.

Short-term measurement locations were selected to represent each major developed area within the project area. One (1) long-term measurement site was selected to capture the diurnal traffic noise level pattern in the project area. Short-term measurement locations were selected to serve as representative modeling locations. Additional non-measurement locations were selected as modeling locations.

5.2. Field Measurement Procedures

A field noise study was conducted in accordance with recommended procedures in TeNS. The following is a summary of the procedures used to collect short-term and long-term sound level data.

5.2.1. Short-Term Measurements

Short-term monitoring was conducted at two (2) locations ST-1 (R-3) and ST-2 (R-4/LT-1) on July 9, 2019 using a Larson-Davis Model 820 Precision Type 1 sound level meter. Short-term measurements were conducted for two (2) consecutive 15-minute periods at each site. The short-term noise measurement locations are identified below on Figure 5.1.

Temperature, wind speed, and humidity were observed directly during the short-term monitoring sessions. During the short-term measurements on July 9, 2019, wind speeds ranged from 0 to 10 miles per hour (mph), the temperature was approximately 85-90°F. The sky was clear, and relative humidity was low to moderate.

During the short-term measurements, WJVA staff attended the sound level meter. Overall L_{eq} values collected during each 15-minute measurement period were logged manually, and dominant noise sources observed during the sampling period were also identified and logged. The calibration of the meter was checked before and after the measurements using a Bruel & Kjaer Type 4230 acoustical calibrator.

Traffic on Nees Avenue was classified and counted during the short-term noise measurements. Vehicles were classified as automobiles, medium-duty trucks, or heavy-duty trucks. An automobile was defined as a vehicle with two axles and four tires that is designed primarily to carry passengers. Small vans and light trucks were included in this category. Medium-duty trucks included all cargo vehicles with two axles and six tires. Heavy-duty trucks included all vehicles with three or more axles. The posted speed limit on Nees in the project vicinity was 45 mph.

5.2.2. Long -Term Measurements

Long-term monitoring was conducted at one location (LT-1) using Larson-Davis Model 820 Precision Type 1 sound level meter (serial number 1222). The purpose of these measurements was to identify variations in sound levels throughout the day. The long-term sound level data was collected over a 24-hour period, beginning Tuesday, July 9, 2019, and ending Wednesday, July 10, 2019.

Long-term monitoring location LT-1 was located in the backyard at a residence located at 545 Jordan Avenue, on the south side of Nees Avenue, approximately 30 feet from the Nees Avenue edge-of-pavement (refer to Figure 5-1). This is the same location where ST-2 measurements were taken.

5.3. Traffic Noise Levels Prediction Methods

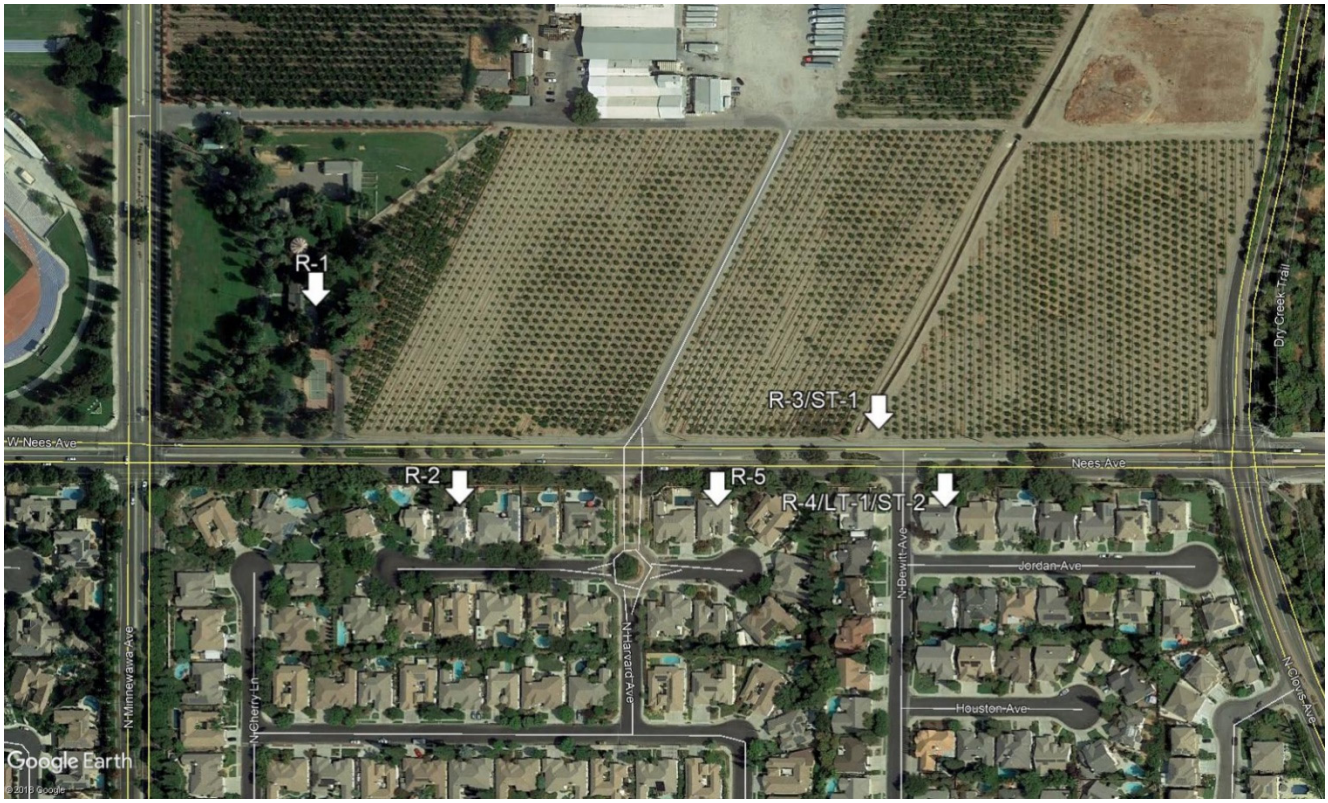
Traffic noise levels were predicted using the FHWA Traffic Noise Model Version 2.5 (TNM 2.5). TNM 2.5 is a computer model based on two FHWA reports: FHWA-PD-96-009 and FHWA-PD-96-010 (FHWA 1998a, 1998b). Key inputs to the traffic noise model were the locations of roadways, shielding features (e.g., topography and buildings), noise barriers, ground type, and receivers. Three-dimensional representations of these inputs were developed using aerial photographs and traffic data provided by the City of Clovis.

Traffic noise was evaluated under existing conditions and design year (2039) conditions with and without the project alternative. There would be no change to design year traffic volumes between the project and no-project alternatives. Loudest-hour traffic volumes

for existing and design-year (2039) conditions and vehicle classification percentages were obtained from the City of Clovis. Table A-1 in Appendix A summarizes the traffic volumes and assumptions used for modeling existing and design-year (2039) conditions.

To validate the accuracy of the model calculations, TNM 2.5 was used to compare measured traffic noise levels to modeled noise levels at field measurement locations. For each receptor, traffic volumes counted during the short-term measurement periods were normalized to 1-hour volumes. These normalized volumes were assigned to the corresponding project area roadways to simulate the noise source strength at the roadways during the actual measurement period. Modeled and measured sound levels were then compared to determine the accuracy of the model and if additional adjustment of the model was necessary.

Figure 5-1. Analysis Areas and Noise Monitoring Positions



5.4. Methods for Identifying Traffic Noise Impacts and Consideration of Abatement

Traffic noise impacts are considered to occur at receiver locations where predicted design-year noise levels are at least 12 dB greater than existing noise levels, or where predicted design year noise levels approach or exceed the NAC for the applicable activity category. Where traffic noise impacts are identified, noise abatement must be considered for reasonableness and feasibility as required by 23 CFR 772 and the Protocol.

According to the Protocol, abatement measures are considered acoustically feasible if a minimum noise reduction of 5 dB at impacted receiver locations is predicted with implementation of the abatement measures. In addition, barriers should be designed to intercept the line-of-sight from the exhaust stack of a truck to the first tier of receivers, as required by the Highway Design Manual, Chapter 1100. Other factors that affect feasibility include topography, access requirements for driveways and ramps, presence of local cross streets, utility conflicts, other noise sources in the area, and safety considerations. The overall reasonableness of noise abatement is determined by considering factors such as cost; absolute predicted noise levels; predicted future increase in noise levels; expected noise abatement benefits; build date of surrounding residential development along the highway; environmental impacts of abatement construction; opinions of affected residents; input from the public and local agencies; and social, legal, and technological factors. The Caltrans acoustical design goal is that noise abatement must be predicted to provide at least 7 dB of noise reduction at one or more benefited receptors.

The Protocol defines the procedure for assessing reasonableness of noise barriers from a cost perspective. A cost-per-residence allowance is calculated for each benefited residence (i.e., residences that receive at least 5 dB of noise reduction from a noise barrier). The current allowance is $107,000 per benefited residence. Total allowances are calculated by multiplying the allowance by the number of benefited residences for each noise barrier. If the total allowance for all evaluated noise barriers is more than 50% of the estimated construction cost, the allowance per residence is modified to a reduced value.

Chapter 6. Existing Noise Environment

6.1. Existing Land Uses

A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. Single-family residences were identified as Activity Category B land uses in the project area. Additionally, in the project area, agricultural land was identified as Activity Category F.

As required by the Protocol, although all developed land uses are evaluated in this analysis, noise abatement is only considered for areas of frequent human use that would benefit from a lowered noise level. Accordingly, this impact analysis focuses on locations with defined outdoor activity areas, such as residential back yards.

Modeled land uses in the project area are represented by four (4) residential land uses and one (1) agricultural land use, located adjacent to Nees Avenue.

- **R-1:** R-1 is a single-family residential land use located approximately 300 feet north of Nees Avenue and approximately 375 feet east of Minnewawa Avenue. The area is generally flat. The sensitive receiver location was assumed to be the backyard of the residence. There is no acoustical shielding between the backyard of the residence and Nees Avenue. R-1 is an activity category B.

- **R-2:** R-2 is a single-family residential land use located approximately 75 feet south of Nees Avenue and approximately 625 feet east of Minnewawa Avenue. The area is generally flat. The sensitive receiver location was assumed to be the backyard of the residence. There is an existing 6-foot concrete sound wall which shields the backyard from traffic noise associated with Nees Avenue. R-2 is an activity category B.

- **R-3 (ST-1):** R-3 is currently agricultural land. The modeled location is approximately 50 feet north of Nees Avenue and approximately 675 feet west of Clovis Avenue. The area is generally flat. No noise barriers or topographical shielding occurs between the roadway and the modeled location. R-3 is an activity category F.

- **R-4 (LT-1/ST-2):** R-4 is a single-family residential land use located approximately 65 feet south of Nees Avenue and approximately 575 feet west of Clovis Avenue. The area is generally flat. The sensitive receiver location was assumed to be the

backyard of the residence. There is an existing 5-foot concrete sound wall which shields the backyard from traffic noise associated with Nees Avenue. R-4 is an activity category B.

- **R-5:** R-5 is a single-family residential land use located approximately 70 feet south of Nees Avenue and approximately 1,000 feet west of Clovis Avenue. The area is generally flat. The sensitive receiver location was assumed to be the backyard of the residence. There is an existing 5-foot concrete sound wall which shields the backyard from traffic noise associated with Nees Avenue. R-5 is an activity category B.

6.2. Noise Measurement Results

The existing noise environment in the project area is characterized below based on short- and long-term noise monitoring that were conducted.

6.2.1. Short-Term Monitoring

Table 6-1 summarizes the results of the short-term noise monitoring conducted in the project area.

Table 6-1. Summary of Short-Term Measurements

Position	Location	Land Use	Start Time (a.m.)	Duration (minutes)	Measured L_{eq}, dB	Autos	Medium Trucks	Heavy Trucks	Estimated Speed (mph)
ST-1	50 feet from Nees Ave.	F-Agricultural	9:25	15	65.7	185	5	0	45
			9:45	15	64.9	177	4	0	45
ST-2	65 feet from Nees Ave.	B-Residential	10:00	15	58.9	162	3	0	45
			10:15	15	59.8	179	2	0	45

Note: Refer to Figures 5.1 for measurement locations.

TNM 2.5 was used to compare measured traffic noise levels to modeled noise levels at field measurement locations. Table 6-2 compares measured and modeled noise levels at each measurement location (see Figure 5.1). The predicted noise levels were within 1 dB of the measured noise levels at all short-term measurement locations. Overall, the measurements were considered to be in excellent agreement with the modeled noise levels. It should be noted, short-term monitoring site ST-2 was located in a residential backyard, where acoustic shielding was provided by an existing 5-foot concrete masonry sound wall.

Table 6-2. Comparison of Measured to Predicted Noise Levels in the TNM Model

Measurement Position	Measured Sound Level (dBA)	Predicted Sound Level (dBA)	Measured minus Predicted (dB)
ST-1	65.7	65.4	+0.3
ST-1	64.9	64.4	+0.5
ST-2	58.9	59.2	+0.7
ST-2	59.8	60.8	+1.0

6.2.2. Long-Term Monitoring

Long-term monitoring was conducted at one location (LT-1) using a Larson-Davis Model 820 Precision Type 1 sound level meter (serial numbers 1222). The purpose of these measurements was to identify variations in sound levels throughout the day. The long-term sound level data were collected over a 24-hour period on July 9, 2019.

Table 6-3. Summary of Long-Term Monitoring at Location LT-1

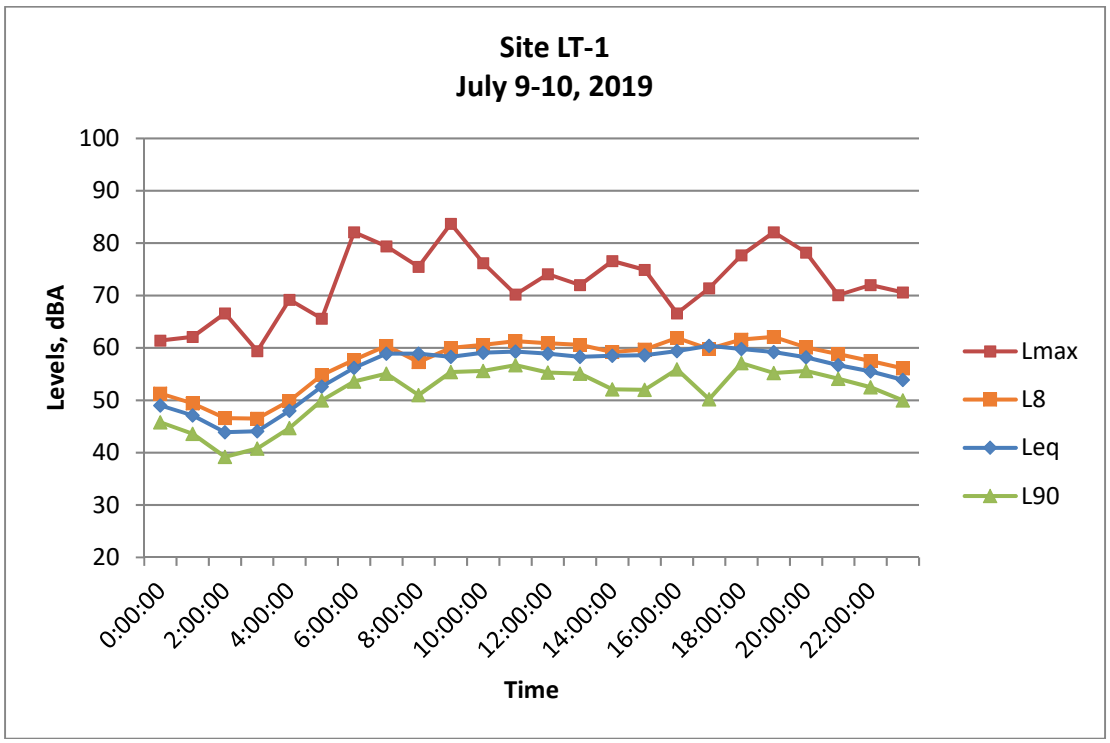
TABLE 6.3

SUMMARY OF LONG-TERM NOISE MONITORING AT LT-1
JULY 9-10, 2019

Hour	Hourly L_{eq}, dBA	Difference From Loudest Hour, dBA
12:00 a.m.	49.0	-11.4
1:00 a.m.	47.1	-13.3
2:00 a.m.	43.9	-16.5
3:00 a.m.	44.1	-16.3
4:00 a.m.	48.0	-12.4
5:00 a.m.	52.6	-7.8
6:00 a.m.	56.2	-4.2
7:00 a.m.	58.9	-1.5
8:00 a.m.	58.9	-1.5
9:00 a.m.	58.3	-2.1
10:00 a.m.	59.1	-1.3
11:00 a.m.	59.3	-1.1
12:00 p.m.	58.9	-1.5
1:00 p.m.	58.3	-2.1
2:00 p.m.	58.5	-1.9
3:00 p.m.	58.6	-1.8
4:00 p.m.	59.4	-1
5:00 p.m. [1]	**60.4**	0
6:00 p.m.	59.8	-0.6
7:00 p.m.	59.2	-1.2
8:00 p.m.	58.2	-2.2
9:00 p.m.	56.7	-3.7
10:00 p.m.	55.5	-4.9
11:00 p.m.	53.9	-6.5

[1] loudest hour
Source: WJV Acoustics, Inc.

Figure 6.1: Noise Levels, Long-Term Monitoring Location at LT-1



Chapter 7. Future Noise Environment, Impacts, and Considered Abatement

7.1. Future Noise Environment and Impacts

Table B-1 in Appendix B summarizes the traffic noise modeling results for existing conditions and design-year conditions with and without the project. There would be no changes in predicted traffic volumes between the no-project and with-project scenarios. Predicted design-year traffic noise levels with the project are compared to existing conditions. The comparison to existing conditions is included in the analysis to identify traffic noise impacts under 23 CFR 772.

As stated in the TeNS, modeling results are rounded to the nearest decibel before comparisons are made. In some cases, this can result in relative changes that may not appear intuitive. An example would be a comparison between sound levels of 64.4 and 64.5 dBA. The difference between these two values is 0.1 dB. However, after rounding, the difference is reported as 1 dB.

Modeling results in Table B-1 indicate that predicted traffic noise levels for the design-year with-project conditions do not exceed or approach the NAC at any of the modeled receiver locations, as defined by the protocol. Additionally, design year with-project noise levels do not result in an increase of 12 dB or more over existing ambient noise levels. Therefore, no traffic noise impacts are predicted to occur at Activity Category B land uses within the project area, and noise abatement is not required.

7.2. Preliminary Noise Abatement Analysis

The project is not expected to approach or exceed the NAC or result in an increase of 12 dB or more over existing ambient noise levels for any of the Activity Categories in the project area. Noise Abatement Analysis is therefore not required for the project.

Chapter 8. Construction Noise

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans Standard Specifications Section 14-8, "Sound Control Requirements," which states that construction noise levels should comply with applicable local, state and federal regulations and that all equipment shall be fitted with adequate mufflers according to the manufacturers' specifications. In addition, the specification states that construction noise levels from job site activities occurring between the hours of 9:00 p.m. to 6:00 a.m. should not exceed 86 dBA at a distance of 50 feet.

The distances from the closest outdoor activity areas of the receivers in the project area to the project site are 60-100 feet or greater, many of which are acoustically shielded by existing sound walls in the project area. Table 8-1 summarizes noise levels produced by construction equipment that is commonly used on roadway construction projects. Noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance.

Table 8-1. Construction Equipment Noise

Equipment	Maximum Noise Level (dBA at 50 feet)
Scrapers	89
Bulldozers	85
Heavy Trucks	88
Backhoe	80
Pneumatic Tools	85
Concrete Pump	82

Source: Federal Transit Administration 2006

No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with Caltrans Standard Specifications Section 14-8.02 and applicable local noise standards. Construction noise would be short-term, intermittent, and overshadowed by local traffic noise. Further, implementing the following measures would minimize the temporary noise impacts from construction:

- All equipment will have sound-control devices that are no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust.
- As directed by Caltrans and/or the City of Clovis, the contractor will implement appropriate additional noise mitigation measures, including changing the location of

stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

Chapter 9. References

Caltrans, 2013. *Technical Noise Supplement.* Sacramento, CA: California Department of Transportation Division of Environmental Analysis. Sacramento, CA. Available: (http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013B.pdf).

Caltrans. 2011. *Traffic Noise Analysis Protocol for New Highway Construction*, Reconstruction, and Retrofit Barrier Projects. May. Sacramento, CA.

Federal Highway Administration. 1998a. FHWA Traffic Noise Model, Version 1.0 User's Guide. January. FHWA-PD-96-009. Washington D.C.

Federal Highway Administration. 2004. FHWA Traffic Noise Model, Version 2.5. April. FHWA-PD-96-010. Washington D.C.

Federal Transit Administration. 2006. *Transit noise and vibration impact assessment.* (FTA-VA-90-1003-06.) Office of Planning, Washington, DC. Prepared by Harris Miller Miller & Hanson, Inc. Burlington, MA.

Appendix A Traffic Data

Table A-1. Traffic Data for Existing and Design Conditions

TABLE A-1

TRAFFIC DATA ASSUMPTIONS-NEES AVENUE IMPROVEMENTS PROJECT
CLOVIS, CALIFORNIA

Roadway	Existing				2039			
	P.M. Peak Hour Volume (vph)	% Medium Truck	% Heavy Truck	Speed (mph)	P.M. Peak Hour Volume (vph)	% Medium Truck	% Heavy Truck	Speed (mph)
Nees Avenue	821	2	1	45	1,980	2	1	45

Sources: City of Clovis
WJV Acoustics, Inc.

Appendix B Predicted Future Noise Levels and Noise Barrier Analysis

Table B-1. Predicted Future Noise

Receiver I.D.	Land Use	Number of Dwelling Units Represented	Address	Existing Noise Level $L_{eq}(h)$, dBA	Nees Avenue Improvements Project Future Worst Hour Noise Levels - $L_{eq}(h)$, dBA			
					Design Year Noise Level No Project $L_{eq}(h)$, dBA	Design Year Noise Level with Project $L_{eq}(h)$, dBA	Design Year Noise Level minus Existing Conditions $L_{eq}(h)$, dBA	Activity Category (NAC)
R-1	Residential	1	1235 N. Minnewawa Avenue	58	62	62	4	B (67)
R-2	Residential	1	195 Jordan Avenue	57	61	61	4	B (67)
R-3	Agricultural	--	Nees Avenue	65	69	70	5	F (--)
R-4	Residential	--	545 Jordan Avenue	60	64	64	4	B (67)
R-5	Residential	1	365 Jordan Avenue	58	61	61	3	B (67)

Appendix E

Phase 1 Initial Site Assessment

PHASE 1 INITIAL SITE ASSESSMENT

Nees Avenue Improvement Project – CIP 17-13 (Minnewawa to Clovis Avenues)

City of Clovis, California

December 2019

Prepared for:

CITY of CLOVIS

Planning and Development Services Department
1033 Fifth Street
Clovis, CA 93612

Prepared by:

blackburn consulting

4186 West Swift Avenue, Suite 107
Fresno, California 93722

Fresno Office:
4186 W. Swift Ave., Ste. 107 ▪ Fresno, CA 93722
(559) 438-8411

blackburn consulting

Main Auburn Office: (530) 887-1494
West Sacramento Office: (916) 375-8706

Geotechnical ▪ Geo-Environmental ▪ Construction Services ▪ Forensics

File No. 3692.X
December 3, 2019

City of Clovis – Planning and Development Services Department
Ms. Claudia Cazares
1033 Fifth Street
Clovis, CA 93722

Subject: **PHASE 1 INITIAL SITE ASSESSMENT**
Nees Avenue Improvement Project – CIP 17-13 (Minnewawa to Clovis Avenues)
Clovis, California

Dear Ms. Cazares,

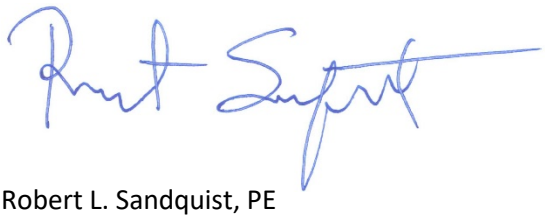
Blackburn Consulting prepared this Phase 1 Initial Site Assessment (ISA) for the Nees Avenue improvements project (from Minnewawa to Clovis Avenues), located in Clovis, California. We prepared this report in accordance with our agreement dated October 24, 2019. The purpose of this report is to assess whether indications of hazardous or potentially hazardous materials are present within the proposed project area.

Thank you for selecting BCI to assist you on this important project. Please call if you have questions or require additional information.

Sincerely,

BLACKBURN CONSULTING

Reviewed by:



Robert L. Sandquist, PE
Senior Engineer

Laura Long
Geo-Environmental Project Manager

Copies: One to addressee (PDF)

Table of Contents

Table of Contents (cont.)

EXECUTIVE SUMMARY

Blackburn Consulting (Blackburn) completed this Phase 1 Initial Site Assessment (ISA) for the Nees Avenue Improvements Project - CIP 17-13 (Minnewawa to Clovis Avenues) FTIP STPL-5208(160), located in Clovis, California. We performed this assessment to identify recognized environmental conditions (RECs) [1] and/or potential RECs within and adjacent to the proposed improvement area which could affect the design, construction, and/or the cost of the proposed project. We prepared this report in conformance with ASTM E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

The project includes widening approximately ½ mile of Nees Avenue to a four-lane arterial between Minnewawa and Clovis Avenues. The City plans to acquire additional right-of-way (ROW) from APN 560-051-10 (24,283 square feet) and APN 560-051-25 (54,691 square feet) along the north side of Nees Avenue.

Blackburn identified the following potential hazardous materials conditions.

SITES WITH KNOWN AND/OR POTENTIAL RECS

Blackburn did not identify hazardous or potentially hazardous material conditions within the project limits.

Recommendation: No further action.

DE MINIMIS CONDITIONS

De minimis conditions are environmental conditions which generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of the appropriate governmental agencies. Conditions determined to be de minimis are not RECs. We identified the following de minimis condition.

Former Orchard

We identified an orchard on APN 560-051-10 on the 1937 aerial photo and on APN 560-051-25 on the 1957 aerial photo within the ROW acquisition areas. Persistent pesticides such as lead arsenate and organochlorine (OCP) compounds such as DDT and DDE were commonly used in orchards prior to 1972. There is no evidence of pesticide mixing, bulk storage, or significant release of pesticides in this area.

[1] Blackburn uses the term Recognized Environmental Condition (REC) in general but not strict compliance with ASTM E1527-13, which defines the meaning as *"the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimus conditions that generally do not present a threat to human health or the environment and generally would not be the subject of an enforcement action if brought to the attention of the appropriate regulatory agencies. Conditions determined to be de minimus are not recognized environmental conditions."* We include this definition to clarify conditions addressed in this ISA.

The occurrence of pesticides due to agricultural application in the limited area of the project do not represent a significant risk to the site and would not likely be the subject of enforcement action if brought to the attention of the appropriate government agency.

Recommendation: No further assessment.

GENERAL CONTAMINATION/HAZARDOUS MATERIALS ISSUE

Our assessment identified the following general environmental conditions:

Aerially Deposited Lead (ADL)

The presence of ADL along the shoulders of pre-1987 constructed highways, freeways and other heavily traveled roads, is common due to emissions from vehicles powered by internal-combustion, leaded-gasoline fueled engines. The 1923 topo map shows Nees and Minnewawa Avenues. The 1946 map provides road classifications of "light-duty" and "medium-duty" respectively. Given the road ages and classifications, the potential for ADL concentrations greater than regulatory limits exists within the ROW acquisition area along the north edge of Nees Avenue.

Recommendation: Conduct an ADL assessment within the project limits along the north side of Nees Avenue.

Yellow Traffic Stripes

Yellow traffic stripes are known to contain heavy metals such as lead and chromium at concentrations in excess of the hazardous waste thresholds established by the California Code of Regulations and may produce toxic fumes when heated. We observed yellow traffic striping at the turn pocket ends of the North Harvard and Nees Avenues intersection and delineating the pedestrian cross walks at the intersection of Nees and North Minnewawa Avenues.

Recommendation: Remove and dispose of yellow traffic stripes in accordance with Caltrans Standard Special Provisions for Hazardous Waste if removal of any yellow traffic striping is included in the project scope.

Transformers

Our scope did not include an inventory of past and present transformers. We did not observe pole-mounted transformers on the overhead power lines within the existing right-of-way. If the relocation of power facilities or high voltage power lines is required, the utility owner should check existing transformers for the presence of PCBs or other hazardous materials and if present properly remediate and dispose. Identification and remediation of old transformers is the responsibility of the utility owner.

1 INTRODUCTION

Blackburn Consulting (Blackburn) completed this Phase 1 Initial Site Assessment (ISA) for the Nees Avenue Improvements Project - CIP 17-13 (Minnewawa to Clovis Avenues) FTIP STPL-5208(160), located in Clovis, California. We performed this assessment to identify recognized environmental conditions (RECs) [2] and/or potential RECs within and adjacent to the proposed improvement area which could affect the design, construction, and/or the cost of the proposed project. We prepared this report in conformance with ASTM E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

This report is for the City of Clovis (City) to use for design and construction of the proposed improvements. Do not use or rely upon this report for different locations or improvements without Blackburn's written consent.

To complete this ISA, Blackburn:

- Reviewed published maps and literature for the general site geology, groundwater, and soil conditions.
- Reviewed historical aerial imagery and topographic maps of the site and immediately adjacent areas to identify past and present land use for indications of potential sources of contamination.
- Performed federal, state, and county records review for indications of the use, misuse, or storage of hazardous and/or potentially hazardous materials on or near the project corridor.
- Performed state records review of on-line regulatory databases GeoTracker and EnviroStor, to determine if known site impacts and/or previous environmental work exist for the project area.
- Conducted a site visit to observe current land use and signs of potential contamination, as well as hazardous and potentially hazardous waste issues for the project area and immediately adjacent areas.

2 PROJECT LOCATION AND DESCRIPTION

2.1 Project Location

The project is on Nees Avenue from Minnewawa to Clovis Avenues within the City of Clovis. Figure 1 - Vicinity Map shows the general site location. Figure 2 - Site Plan shows the project limits, right-of-way acquisition areas, and neighboring parcels.

[2] Blackburn uses the term Recognized Environmental Condition (REC) in general but not strict compliance with ASTM E1527-13, which defines the meaning as *"the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimus conditions that generally do not present a threat to human health or the environment and generally would not be the subject of an enforcement action if brought to the attention of the appropriate regulatory agencies. Conditions determined to be de minimus are not recognized environmental conditions."* We include this definition to clarify conditions addressed in this ISA.

2.2 Project Description

The project includes widening approximately ½ mile of Nees Avenue to a four-lane arterial between Minnewawa and Clovis Avenues.

Blackburn reviewed preliminary project plans (dated May 2019) prepared by the City and understand the project includes:

- Increase of the existing 3-lane arterial road to a 4-lane arterial road.
- Addition of a 12-foot outside travel lane and a Class II bike lane.
- Construction of a greenbelt/sidewalk.
- Reconstruction of failing street segments along the existing roadway.
- Earthwork.
- Construction of new hot mix asphalt (HMA) paving structural section.
- Pavement grinding and HMA overlay.
- Construction of curb and gutter, curb returns, storm drain inlets.
- Construction of retaining walls.
- Installation of new street lighting.
- Modification of traffic loop detectors, striping, markings, and signage conduits.
- Relocation of overhead utilities (PG&E, AT&T, and cable wires) to underground conduits.
- Construction of new sewer manholes and approximately 2,017 LF of 15-inch diameter sewer pipe.
- Removal and reconstruction of approximately 159 LF of 30-inch diameter reinforced concrete pipe.
- Removal of 235 peach trees and 21 ornamental trees.

The City plans to acquire additional right-of-way (ROW) from APN 560-051-10 (24,283 square feet) and APN 560-051-25 (54,691 square feet) along the north side of Nees Avenue.

2.3 Site Description

Existing roadway improvements includes two eastbound and one westbound travel lanes separated by a raised median with turn pockets.

Residential development is present on the south side of Nees Avenue. Current development on the north side of Nees Avenue consists of:

- APN 560-051-10: a residence, fruit stand, packing shed, orchard, and tennis court.
- APN 560-051-25: an orchard and Fresno Irrigation District (FID) canal.

Most of the land surrounding the project site has been agriculture and orchard land use since the early 1900's.

2.4 Topography and Drainage

Nees Avenue generally slopes from east to west (between Minnewawa and Clovis Avenues) and the topography within and surrounding the project is predominantly flat with slopes generally not exceeding 2 percent. The elevations (from preliminary plans) at the east and west ends of the project is approximately 380 feet and 374 feet respectively.

Natural surface water flow directions have been altered by existing roadway construction and structures. Surface water sheet flows to roadway gutters on the south side of the road and then drains to storm drain systems adjacent to the existing roadway. On the north side of the road, surface water sheet flows to the end of the road and collects until it infiltrates, evaporates, or finds the overland flow path into the adjacent orchard.

2.5 General Geologic Conditions

The site is within the Great Valley Geomorphic Province (Great Valley), which includes the area known as the Great Central Valley of California. The Great Valley extends 400 miles north to south and 60 miles east to west and is encompassed by the Coast Ranges (metamorphic), the Klamath Ranges (metamorphic), the Cascade Range (volcanic), and the Sierra Nevada Range (granitic and metamorphic). The Great Valley consists of an elongated structural trough filled with a sequence of sedimentary deposits (20,000 to 40,000 feet thick) ranging in age from Jurassic to recent. Geophysical evidence suggests that the Great Valley is underlain at depth with granitic rocks of the Sierra Nevada Province. Many rocks and deposits found within the Great Valley are sedimentary. The age of these rocks and deposits ranges from Upper Jurassic to recent.

The Geologic Map of California – Fresno Sheet (1965, scale 1:250,000) maps the site underlain by recent Great Valley alluvial fan deposits. The Stratigraphic Nomenclature of the Fresno Sheet says the unit consists of granitic sand and silt sediments from the Modesto Formation deposited by streams emerging from highlands surrounding the Great Valley.

2.6 Surface Water, Groundwater, and Wells

The site is located between the San Joaquin River to the north and the Kings River to the south within the northern portion of the Tulare Lake Hydrologic Region which encompasses an area of approximately 10.9 million acres (17,000 square miles). The Tulare Lake Hydrologic Region consists of 19 identified basin/subbasins.

Distinctive geographic features in the general Clovis area include ephemeral drainages and intermittent to perennial streams/rivers. Fresno Irrigation District (FID) operates the Helm Colony South Bridge No. 116 open canal through APN 560-051-25. The canal flow enters a pipeline on the north side of Nees Avenue. The FID pipeline changes direction and flows west after crossing under Nees Avenue. Private pipeline #381 branches off the Helm Colony South pipeline at the southern edge of Nees Avenue and runs south. Dry Creek is runs along the east side of North Clovis Avenue.

The California Department of Water Resources (DWR) Groundwater Bulletin 118 maps the site in the San Joaquin Valley Groundwater Basin and the Kings Subbasin. DWR's Groundwater Information Center Interactive Map Application (https://gis.water.ca.gov/app/gicima/) shows fall 2018 regional

groundwater depths of approximately 90 feet at North Clovis Avenue and 110 feet at North Minnewawa Avenue. The recent groundwater flow is generally east to west.

The aquifer system underlying Clovis supplies water for municipal and agricultural demands.

The EDR Well Database identified:

- five USGS wells within a one-mile radius,
- no Federal Public Water Supply Systems within ¼- ½ mile, and
- four State Database Wells within ¼ to ½ mile and 11 wells within ½ to 1 mile.

None of the wells are located at or immediately adjacent to the project limits.

2.7 Historical Land Use

2.7.1 Aerial Photograph Review

Blackburn reviewed historical aerial photography to identify conditions that may indicate potential hazardous materials issues within or adjacent to the project limits. We reviewed the aerial photos listed on Table 1 below. Appendix A contains copies of the aerial photographs.

Table 1: Aerial Photo Summary

Year	Scale	Details	Source
2016	1 inch = 500 feet	Flight Year: 2016	USDA/NAIP
2012	1 inch = 500 feet	Flight Year: 2012	USDA/NAIP
2009	1 inch = 500 feet	Flight Year: 2009	USDA/NAIP
2005	1 inch = 500 feet	Flight Year: 2005	USDA/NAIP
1998	1 inch = 500 feet	Acquisition Date: August 17, 1998	USGS/DOQQ
1987	1 inch = 500 feet	Flight Date: June 17, 1987	USDA
1984	1 inch = 500 feet	Flight Date: June 9, 1984	USDA
1979	1 inch = 500 feet	Flight Date: September 4, 1979	USDA
1973	1 inch = 500 feet	Flight Date: May 8, 1973	USDA
1967	1 inch = 500 feet	Flight Date: May 3, 1967	USDA
1962	1 inch = 500 feet	Flight Date: August 9, 1962	USGS
1957	1 inch = 500 feet	Flight Date: August 9, 1957	USDA
1950	1 inch = 500 feet	Flight Date: January 31, 1950	USDA
1946	1 inch = 500 feet	Flight Date: April 22, 1946	USGS
1937	1 inch = 500 feet	Flight Date: October 5, 1937	USDA

Below, we summarize our observations.

1937:
Nees Avenue is in the current alignment and appears to be an unpaved dirt road. North Minnewawa appears to be paved. Two structures are present on APN 560-051-10. The larger structure is in the

approximate position of the current residence. An orchard is present in the project area from North Minnewawa Avenue to the driveway off Nees Avenue. Row crops are visible on APN 560-051-10 within the project area from the driveway to the boundary with APN 560-051-25.

APN 560-051-25 contains what appears to be an unpaved road in the approximate alignment of the existing FID canal. Row crops are present on the west side of the unpaved road and fallow land on the east side.

1946:
The two structures on APN 560-051-10 in the 1937 aerial photo are no longer visible and appear to have been demolished. There are several minor structures present in the north portion of the parcel outside the project area. The orchard has been removed from the project area. The remainder of the project area appears to be tilled or recently planted with row crops.

The FID canal is visible on APN 560-051-25. The land on both sides of the canal appears to be tilled or recently planted with row crops.

1950:
A structure is present on APN 560-051-10 in the approximate position of the current residence. A few minor structures are present to the east and north of the residence. One small structure is present immediately north of Nees Avenue in the project area. Ornamental trees are visible in the project area. Row crops are present within the project area from the driveway to the eastern parcel boundary.

Row crops are still visible on APN 560-051-25.

1957:
The structure immediately north of Nees Avenue in the project area has been demolished. The structure east of the residence has been demolished. An orchard appears to be recently established on the remainder of the parcel.

The orchard on APN 560-051-25 was recently planted.

1962:
Nees Avenue appears to be paved. The existing tennis court is present on APN 560-051-10. No other visible changes.

1967:
No visible changes to the project area.

1973/1979:
No visible changes to the project area.

1984/1987:
No visible changes to the project area.

1998:
A driveway appears on APN 560-051-25 in the approximate position of North Harvard Avenue. The Nees Avenue center median is present. Clovis Avenue is not present.

2005/2009/2012/2016:
The project area appears in present day configuration. Orchards appear recently replanted on APN's 560-051-10 and 560-051-25 in the 2016 photo.

2.7.2 Topographic Map Review

Blackburn reviewed topographic maps to identify conditions that may indicate potential hazardous materials issues within or adjacent to the project limits. Appendix B contains copies of the topographic maps. Our review included 7.5-minute quad maps (Clovis and Friant) from 1923 (Clovis only), 1946, 1947, 1964, 1972 (Clovis only), 1981 (Clovis only), and 2012. We note the following changes recorded on the topographic maps within and adjacent to the project limits:

1923:
The map shows Nees and North Minnewawa Avenues (both unlabeled). It also shows an unlabeled linear feature oriented northeast/southwest through APN 560-051-25 which turns east/west on the south side of Nees Avenue. The contours on the map indicate a low point coincides with the linear feature.

The map shows one structure (possibly on APN 560-051-10) north of Nees Avenue just east of North Minnewawa Avenue.

1946/1947:
The maps show:

- The linear feature from the 1923 map is identified as "Colonial Ditch".
- A structure on APN 560-051-10 and an "unimproved dirt" road coming off North Minnewawa Avenue.
- Nees and Minnewawa Avenues are labeled.
- Nees Avenue is classified as a "light-duty" road.
- Minnewawa Avenue is classified as a "medium-duty" road.

1964:
Two more structures (total of three) are shown within APN 560-051-10 north of the structure on the 1946/1947 maps. Orchards are shown on APN's 560-051-10 and 560-051-25. The map shows an "unimproved dirt" road within APN 560-051-25 running parallel on the east side of Colonial Ditch. A new irrigation ditch/pipeline runs south from Nees Avenue.

1972/1981:
No significate changes from 1964 map.

2012:
The project exists in its current development. The structures, road, and orchards identified within APN's 560-051-10 and 560-051-25 on previous maps are not shown. Clovis Avenue is shown but not labeled. The project site appears in its present configuration.

2.7.3 Sanborn® Map Review

Environmental Data Resources, Inc. (EDR) searched the Sanborn® Maps Library for the project and surrounding area. The EDR search did not return Sanborn Maps (fire insurance maps) covering the project area. We include EDR's Sanborn Map Report in Appendix C.

3 RECORDS REVIEW

3.1 County, State, and Federal Records Review

EDR provided a "Radius Map with GeoCheck" report on November 1, 2019 for the project area. We include the report in Appendix D. EDR performs a search of county, state, and federal databases for environmental records for sites located within a 1-mile radius from the approximate outline of the project area. The EDR report includes a complete listing of the databases searched. Sites with adequate address information are plotted on EDR's site plan "EDR Radius Map with GeoCheck". EDR lists sites with inadequate address information as "orphan sites" and does not provide mapped locations. EDR identified two "orphan sites". Blackburn reviewed the list of "orphan sites" and determined they are not located within or adjacent to the project corridor.

Blackburn also reviewed the online databases:

- **GeoTracker** - The California State Water Resources Control Board (SWRCB) database for managing sites that impact groundwater, especially those that require treatment, such as underground storage tanks.
- **EnviroStor** - The California Department of Toxic Substance Control (DTSC) database for identifying sites that have known contamination or sites there may be reason to investigate further.

3.2 Summary of Records Search

Blackburn reviewed the databases for the sites listed within the searched area. The records review identified the following sites with potentially hazardous material conditions at, adjacent to, or within ¼ - mile of the project limits.

City of Clovis Well 25
The EDR report shows this site with 1/8 mile of the project area. Fresno County's CUPA (Certified Unified Program Agency) database lists this site as a "hazardous materials handler". Fresno County's Department of Public Health performed compliance evaluation inspections on January 6, 2015 and March 15, 2018 and noted no violations found.

1265 North Minnewawa Avenue (Wawona Frozen Foods Ranch)

This site is north of and adjacent to APN 560-051-10. The EDR report locates this site between 1/8 – ¼ mile north of the project area. This site is listed in the following databases:

- CERS (10704550) – hazardous chemical management, hazardous waste generator, and chemical storage facilities.
- CUPA Fresno – extremely hazardous substance handler and hazardous waste generator.

Fresno County's Department of Public Health performed compliance evaluation inspections in November 2014, November 2017, and January 2017 and noted that no violations were found.

1265 North Minnewawa Avenue (Lyons Transportation, Inc.)

This site is north of and adjacent to APN's 560-051-10 and 560-051-25. The EDR report shows this site between 1/8 – ¼ mile north of the project area and is listed in the following databases:

- RCRA – Non generator. Hazardous materials handler.
- CERS Haz Waste (10699618): Hazardous waste generator.
- CERS Tanks (10699618): Above ground petroleum storage.
- CUPA Fresno – Waste tire facility, auto repair/maintenance, UST removal/closure W/1 tank, and hazardous waste generator.

Fresno County's Department of Public Health performed a compliance evaluation inspection on June 15, 2016 and noted no violations were found.

Blackburn did not find records indicating RECs exist within the project acquisition areas. We observed the above sites during the site reconnaissance and determined the sites are not within the acquisition areas and based on the distance of these sites from the acquisition area, it is unlikely that hazardous materials present at the site have impacted parcels located north of Nees Avenue.

3.3 Title Documents Review

Blackburn was not provided title documents for this assessment.

3.4 City Directory

EDR searches city directories from 1922 to 2014 to assess site occupancy at approximately five-year intervals within or immediately adjacent to the project area. Appendix E contains the search results.

We did not observe evidence of apparent RECs in the city directories.

4 SITE RECONNAISSANCE

Blackburn's senior engineer Robert Sandquist visited the site on November 27, 2019. He observed the project site, parcel acquisition areas, and area immediately adjacent to the project site. Appendix F contains photos from the site visit. Our observations generally support the land use descriptions and background data.

Mr. Sandquist did not observe signs of RECs during the reconnaissance.

5 OWNER INTERVIEW

Per ASTM, past owners, operators, and/or occupants of the subject properties who are likely to have material information regarding the potential for contamination at the subject properties shall be

contacted to the extent that they can be identified and that the information likely to be obtained is not duplicative of information already obtained from other sources.

Blackburn understands the Smittcamps own APN's 560-051-10 and 560-051-25. At the City of Clovis' request, we did not attempt to contact the owners. Blackburn considers this data gap as a limit to the assessment but is unlikely to represent a data failure.

6 DATA GAPS

In accordance with ASTME E1527-13, this section discusses data gaps in the documents we obtained and reviewed as part of this ISA and discusses the significance. ASTM E1527-13 defines a data gap as "…a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information." In our opinion, we did not observe a data gap significant enough to change the conclusions of this report.

7 SUMMARY OF FINDINGS

This ISA summarizes our findings and opinions regarding the potential presence of hazardous materials within the project limits and proposed ROW acquisition areas on APN's 560-051-10 and 560-051-25 at concentrations likely to warrant mitigation pursuant to regulations, and to identify sites with RECs and/or potential RECs which could affect the design, constructability, feasibility, and/or the cost of the proposed project.

7.1 Sites with Potential RECs Within or Adjacent to the Project Limits

We did not identify hazardous or potentially hazardous material conditions within or adjacent to the ROW acquisition areas or project limits.

Recommendation: No further action.

7.2 De Minimis Conditions

De minimis conditions are environmental conditions which generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of the appropriate governmental agencies. De minimis conditions are not RECs. We identified following de minimis conditions.

Former Orchard
Orchards are visible within the ROW acquisition area at APN 560-051-10 in the 1937 aerial photo and at APN 560-051-25 in the 1957 aerial photo. Persistent pesticides such as lead arsenate and organochlorine (OCP) compounds such as DDT and DDE were commonly used in orchards prior to 1972. There is no evidence, however, of pesticide mixing, bulk storage, or significant release of pesticides in this area. The occurrence of pesticides due to agricultural application in the limited area of the project do not represent a significant risk to the site and would not likely be the subject of enforcement action if brought to the attention of the appropriate government agency.

Recommendation: No further assessment.

7.3 General Contamination/Hazardous Materials Issues

Our assessment identified the following general hazardous materials conditions:

Aerially Deposited Lead (ADL)
The presence of ADL along the shoulders of pre-1987 constructed highways, freeways and other heavily traveled roads, is common due to emissions from vehicles powered by internal-combustion, leaded-gasoline fueled engines. The 1923 topo map shows Nees and Minnewawa Avenues. The 1946 map provides road classifications of "light-duty" and "medium-duty" respectively. Given the road ages and classifications, the potential for ADL concentrations greater than regulatory limits exists within the ROW acquisition area along the north edge of Nees Avenue.

Recommendation: Conduct an ADL assessment within the project limits along the north side of Nees Avenue.

Yellow Traffic Stripes
Yellow traffic stripes are known to contain heavy metals such as lead and chromium at concentrations in excess of the hazardous waste thresholds established by the California Code of Regulations and may produce toxic fumes when heated. We observed yellow traffic striping at the turn pocket ends of the North Harvard and Nees Avenues intersection and delineating the pedestrian cross walks at the intersection of Nees and North Minnewawa Avenues.

Recommendation: Remove and dispose of yellow traffic stripes in accordance with Caltrans Standard Special Provisions for Hazardous Waste if removal of any yellow traffic striping is included in the project scope.

Transformers
Our scope did not include an inventory of past and present transformers. We did not observe pole-mounted transformers on the overhead power lines within the existing right-of-way. If the relocation of power facilities or high voltage power lines is required, the utility owner should check existing transformers for the presence of PCBs or other hazardous materials and if present properly remediate and dispose. Identification and remediation of old transformers is the responsibility of the utility owner.

8 QUALIFICATIONS

Robert Sandquist, PE prepared this ESA under the supervision of Laura Long. Ms. Long declares that, to the best of her professional knowledge and belief, she meets the definition of an environmental professional as defined in Section 312.10 of 40 Code of Federal Regulations (CFR) 312 and has the specific qualifications based on education, training, and experience to assess a property of its nature, history, and setting of the subject property. Ms. Long has performed appropriate inquiries in general conformance with the standards and practice set forth in 40 CFR 312.

9 LIMITATIONS

This report summarizes the findings and opinions of Blackburn Consulting regarding the potential presence of hazardous materials on the properties within and adjacent to the proposed improvement area at concentrations likely to warrant mitigation under current statutes and guidelines.

Our findings and opinions are based on information obtained on given dates or provided by specified individuals, through public records review, site review, and related activities. This report is only intended to identify RECs and potential RECs in, or adjacent to, the project limits. It does not assess the impact to the project or any areas with respect to source, type, and magnitude of contamination. Conditions can change after we have made our observations. We cannot warrant or guarantee that hazardous materials do not exist at the described site. To further reduce your risk, an extensive invasive exploration may be necessary.

We prepared this report for the City of Clovis to use and applies only to the subject area. We are not responsible for other parties' interpretations of data presented in this report. This report is not a legal opinion. No warranty is expressed or implied. We base our conclusions in this report on judgment and experience. Blackburn performed services in accordance with generally accepted geo-environmental principles and practices currently used in this area.

Our scope of service does not include:

- Determining the presence of radon, lead-based paint, or asbestos-containing materials, except as described herein.
- Identifying endangered species, geologic hazards, archeological sites, or ecologically sensitive areas.
- Geotechnical conclusions and recommendations about subsurface conditions for project construction.

The governmental records portion of this report is derived from public records and is updated on a continual basis. Also, conditions at the site may change over time. For these reasons, we do not advise you use this information to base a decision after 180 days of the issue date of this report. Please contact Blackburn to revise this report to reflect new information should you intend to rely on the findings of this report past 180 days from issuance or should the project area described herein change.

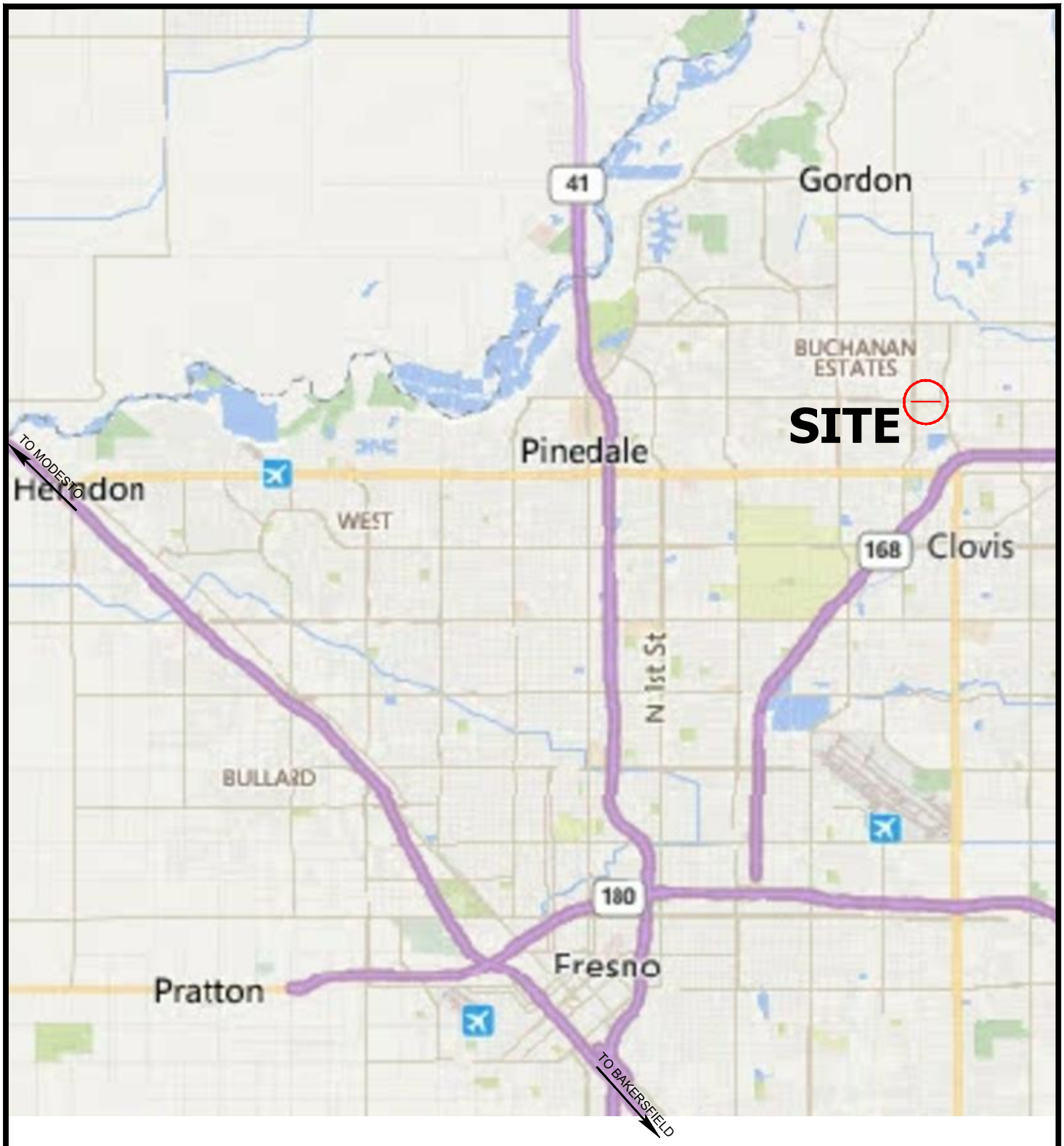
Appendix G contains GBA's Important Information about This Geoenvironmental Report.

PHASE 1 INITIAL SITE ASSESSMENT

Nees Avenue Improvement Project – CIP 17-13 (Minnewawa to Clovis Avenues)

City of Clovis, California

FIGURES



N

SCALE 1"=10,000'

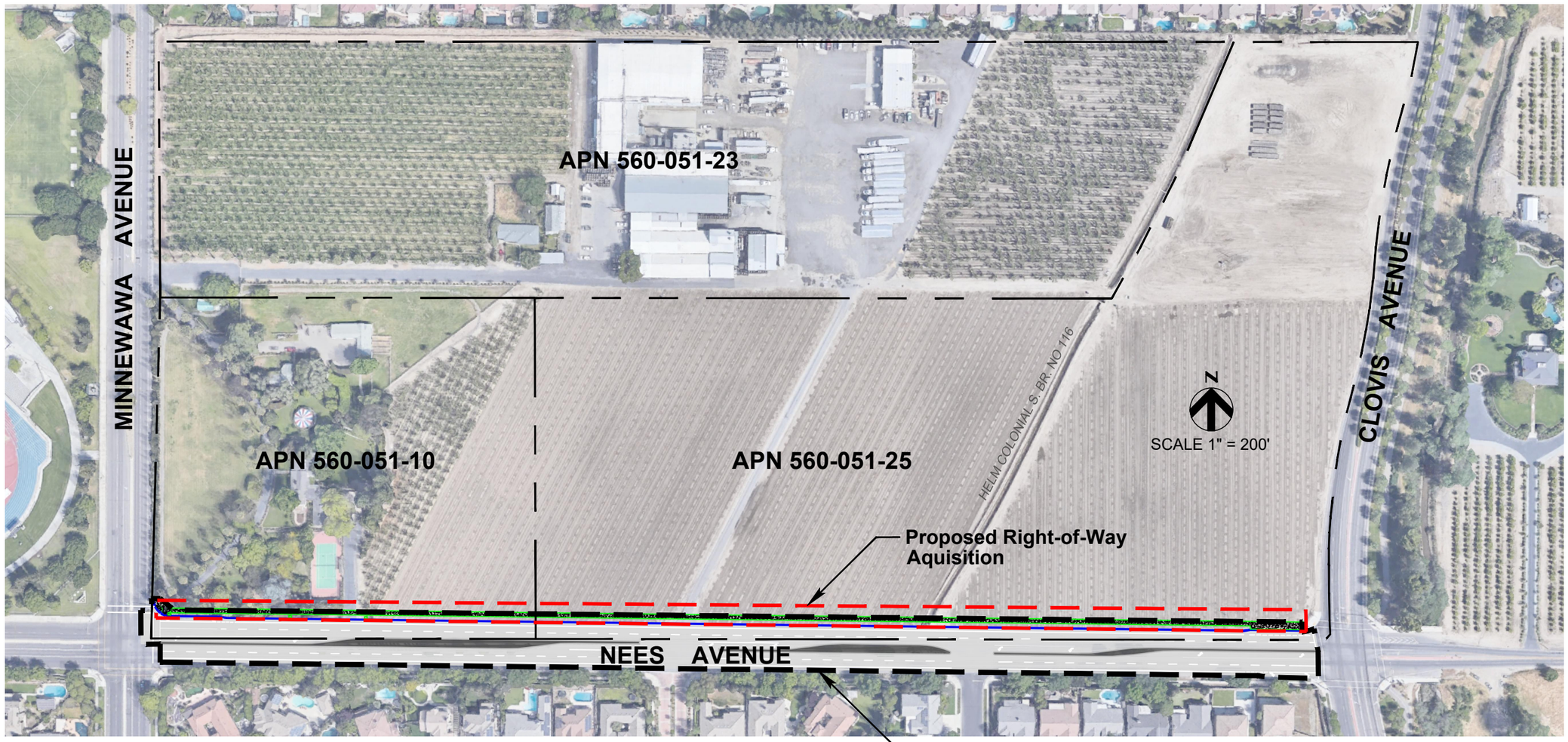
BLACKBURN CONSULTING

VICINITY MAP

Nees Avenue Widening Project ISA
Minnewawa Ave. - Clovis Ave.
Clovis, California

File No. 3692.x
December 2019
Figure 1

12/3/2019 3692.x Fig1 Nees Ave ISA.dwg



BLACKBURN CONSULTING	**VICINITY MAP** Nees Avenue Widening Project ISA Minnewawa Ave. - Clovis Ave. Clovis, California	**File No. 3692.x** **December 2019** **Figure 2**

12/3/2019 3692.x Fig2 Nees Ave ISA.dwg

PHASE 1 INITIAL SITE ASSESSMENT

Nees Avenue Improvement Project – CIP 17-13 (Minnewawa to Clovis Avenues)

City of Clovis, California

APPENDIX A

Aerial Photographs

Nees Ave. Widening From Minnewawa To Clovis

Nees Ave./N. Harvard Ave

Clovis, CA 93619

Inquiry Number: 5852839.8

November 01, 2019

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

11/01/19

Site Name:

Nees Ave. Widening From Mini
Nees Ave./N. Harvard Ave
Clovis, CA 93619
EDR Inquiry # 5852839.8

Client Name:

Blackburn Consulting
11521 Blocker Drive
Auburn, CA 95603
Contact: Rob Sandquist

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1998	1"=500'	Acquisition Date: August 17, 1998	USGS/DOQQ
1987	1"=500'	Flight Date: June 17, 1987	USDA
1984	1"=500'	Flight Date: June 09, 1984	USDA
1979	1"=500'	Flight Date: September 04, 1979	USDA
1973	1"=500'	Flight Date: May 08, 1973	USDA
1967	1"=500'	Flight Date: May 03, 1967	USDA
1962	1"=500'	Flight Date: August 09, 1962	USGS
1957	1"=500'	Flight Date: August 09, 1957	USDA
1950	1"=500'	Flight Date: January 31, 1950	USDA
1946	1"=500'	Flight Date: April 22, 1946	USGS
1937	1"=500'	Flight Date: October 05, 1937	USDA

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2019 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.


INQUIRY #: 5852839.8
YEAR: 2016
= 500'
N
EDR

INQUIRY #: 5852839.8

YEAR: 2012

= 500'

N

EDR

INQUIRY #: 5852839.8

YEAR: 2009

= 500'

N

EDR

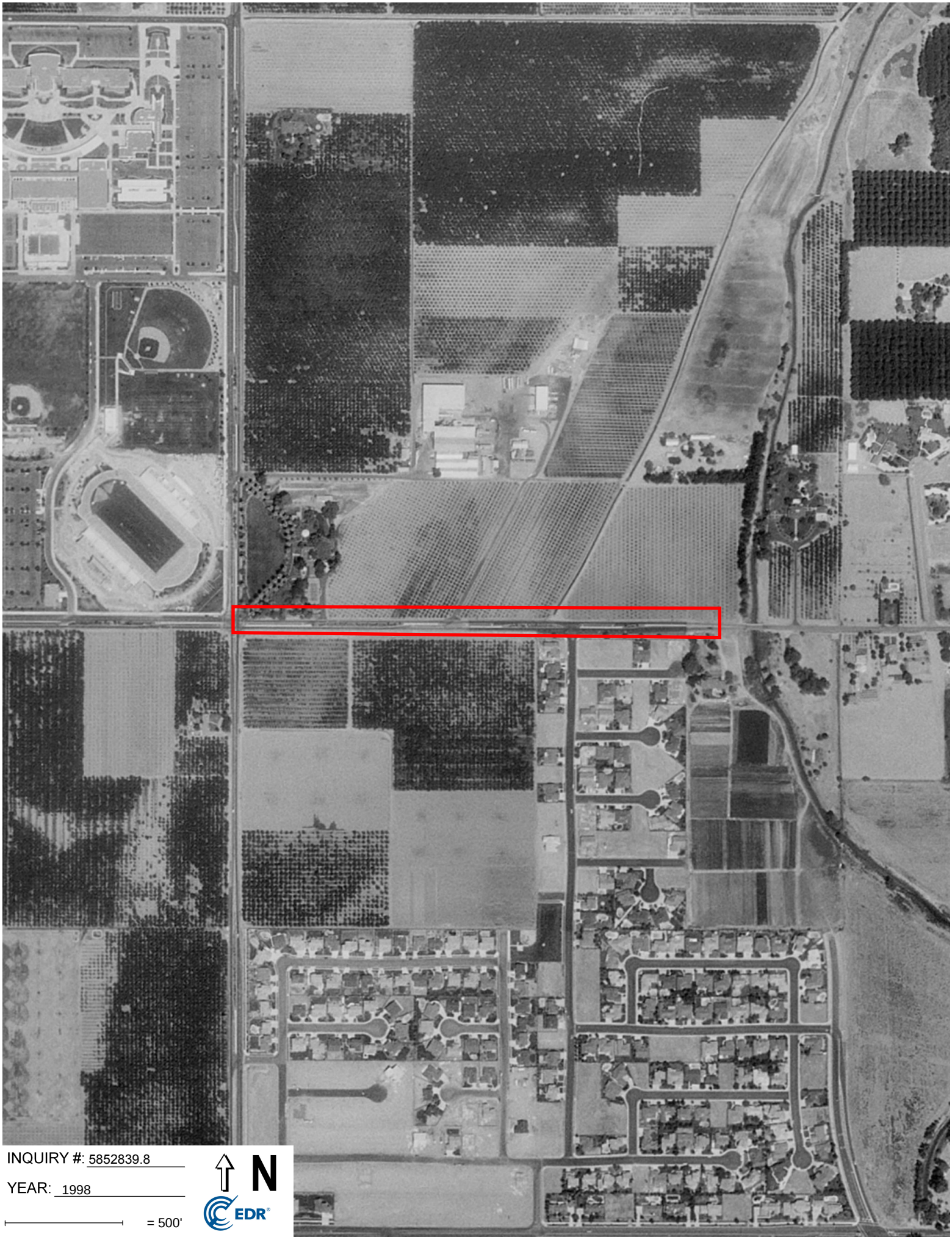
INQUIRY #: 5852839.8

YEAR: 2005

= 500'

N

EDR



INQUIRY #: 5852839.8

YEAR: 1998

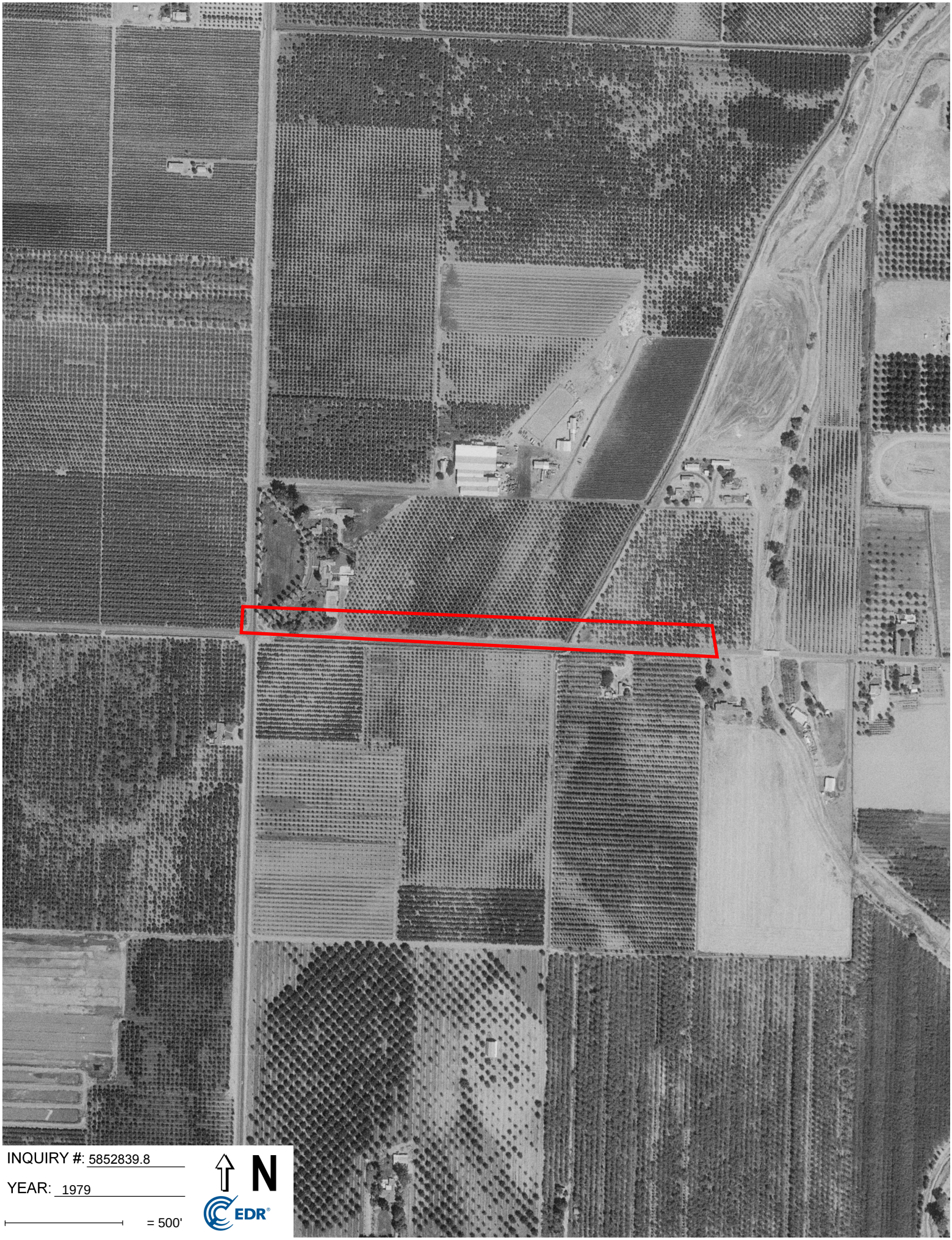
= 500'

N

EDR


INQUIRY #: 5852839.8
YEAR: 1987
= 500'
N
EDR


INQUIRY #: 5852839.8
YEAR: 1984
= 500'
N
EDR



INQUIRY #: 5852839.8

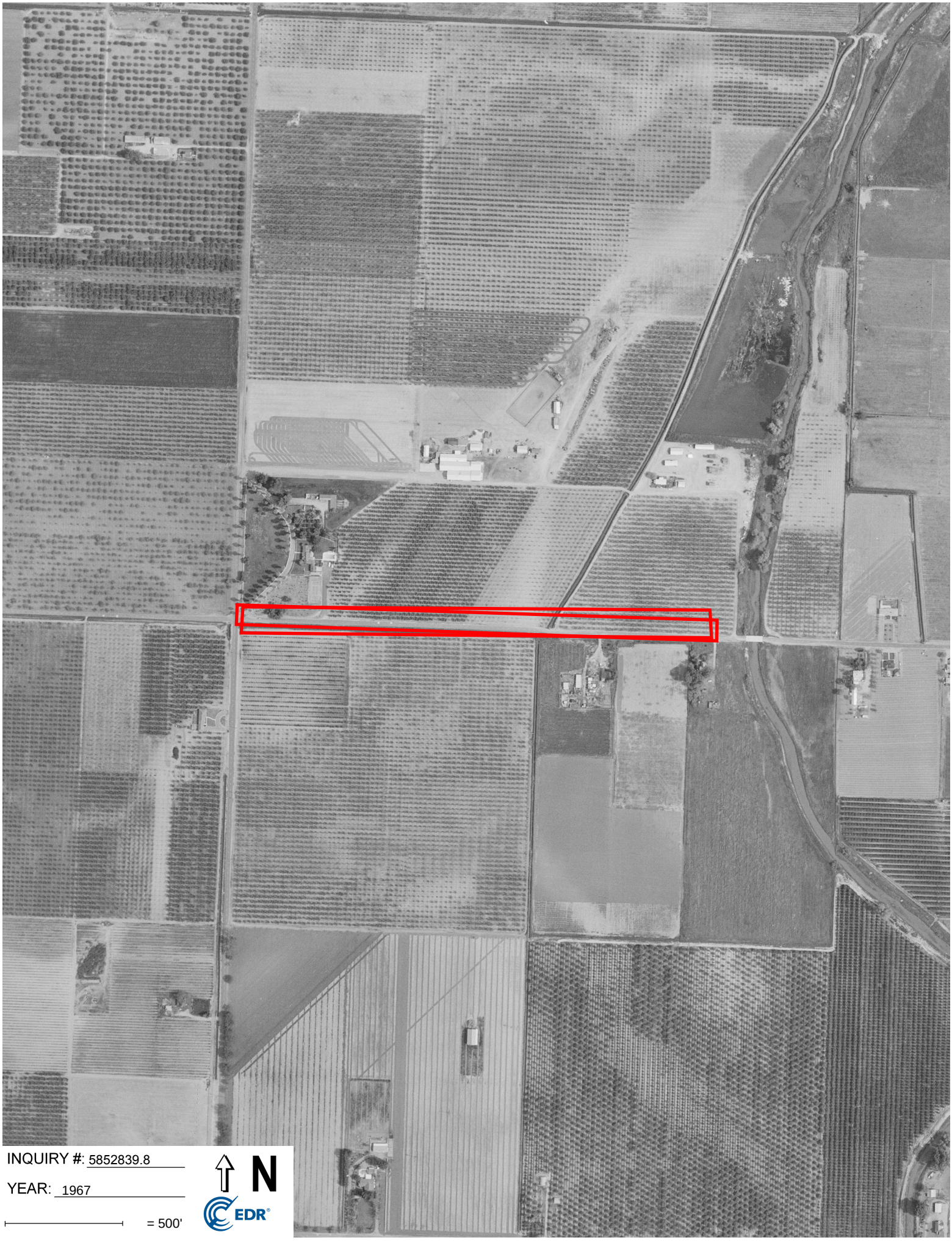
YEAR: 1979

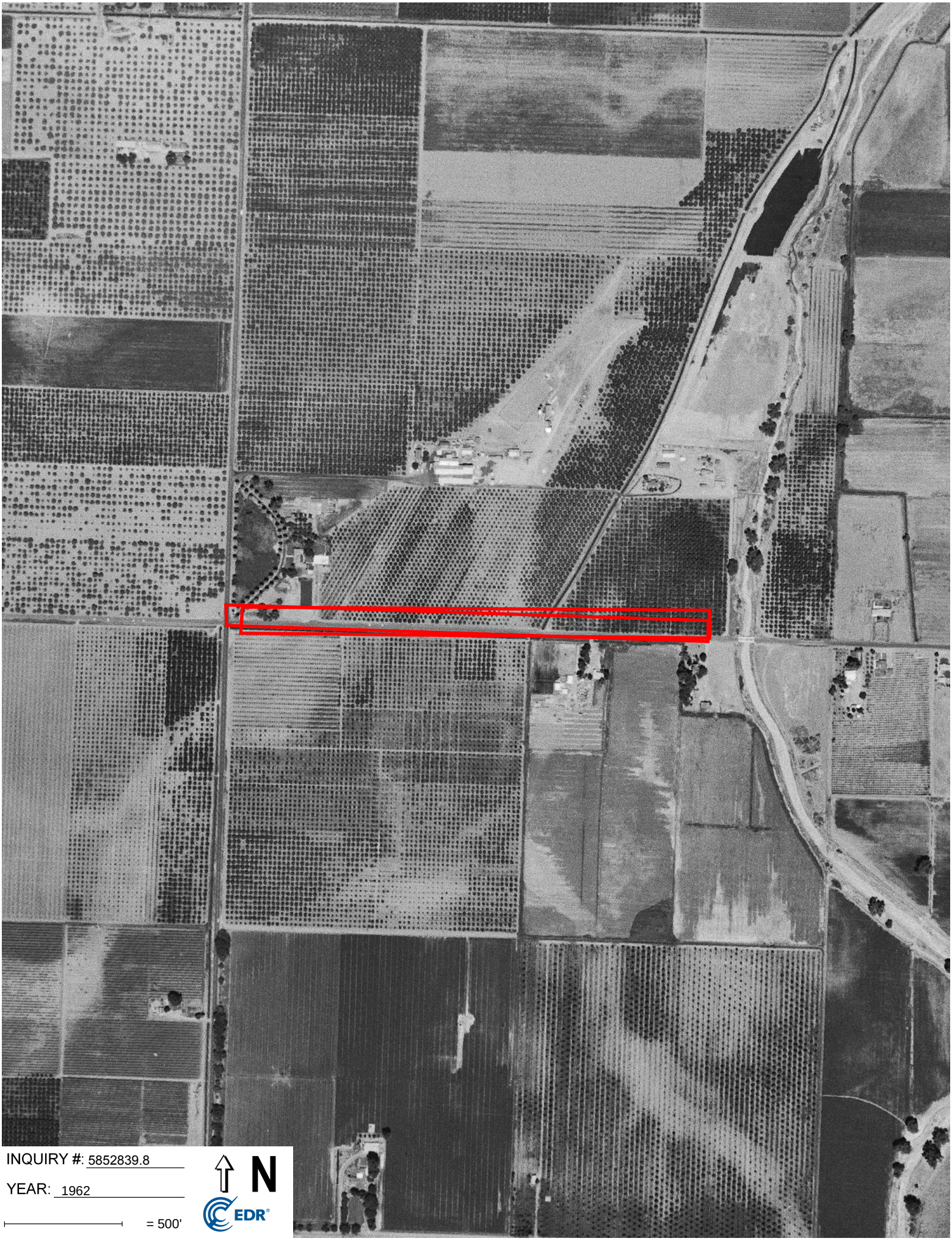
= 500'

N

EDR


INQUIRY #: 5852839.8
YEAR: 1973
= 500'
N
EDR


INQUIRY #: 5852839.8
YEAR: 1967
= 500'
N
EDR



INQUIRY #: 5852839.8

YEAR: 1962

= 500'

N

EDR

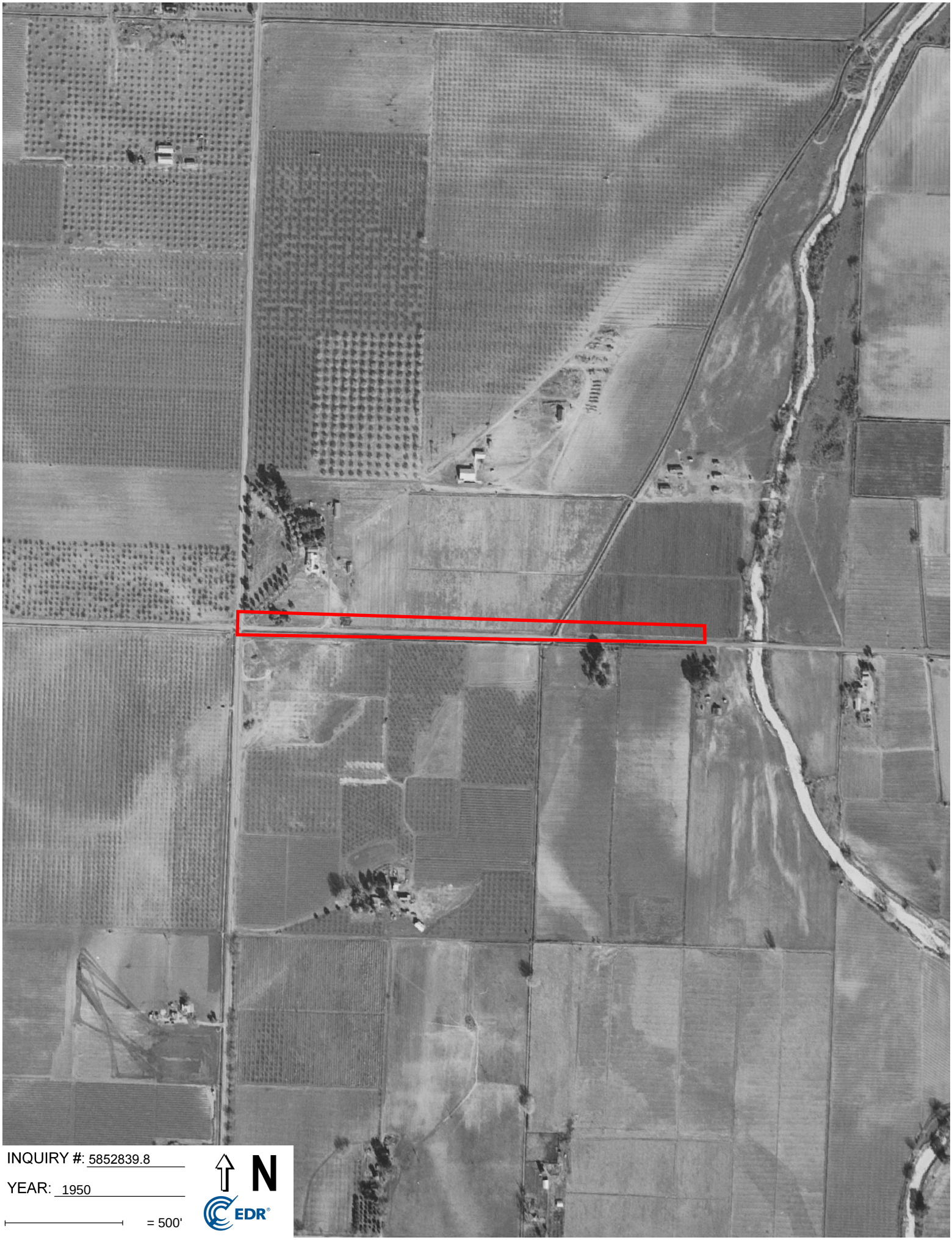
INQUIRY #: 5852839.8

YEAR: 1957

= 500'

N

EDR



INQUIRY #: 5852839.8

YEAR: 1950

= 500'

N

EDR


INQUIRY #: 5852839.8
YEAR: 1946
= 500'
N
EDR


INQUIRY #: 5852839.8
YEAR: 1937
= 500'
N
EDR

PHASE 1 INITIAL SITE ASSESSMENT

Nees Avenue Improvement Project – CIP 17-13 (Minnewawa to Clovis Avenues)

City of Clovis, California

APPENDIX B

Topographic Maps

Nees Ave. Widening From Minnewawa To Clovis

Nees Ave./N. Harvard Ave

Clovis, CA 93619

Inquiry Number: 5852839.4

November 01, 2019

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

11/01/19

Site Name:

Nees Ave. Widening From Mini
Nees Ave./N. Harvard Ave
Clovis, CA 93619
EDR Inquiry # 5852839.4

Client Name:

Blackburn Consulting
11521 Blocker Drive
Auburn, CA 95603
Contact: Rob Sandquist

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Blackburn Consulting were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# 11241

Project: City of Clovis - Nees Ave ISA

Coordinates:

Latitude:	36.85211 36° 51' 8" North
Longitude:	-119.707861 -119° 42' 28" West
UTM Zone:	Zone 11 North
UTM X Meters:	258573.92
UTM Y Meters:	4081889.72
Elevation:	375.00' above sea level

Maps Provided:

2012
1981
1972
1964
1947
1946
1923

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2019 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

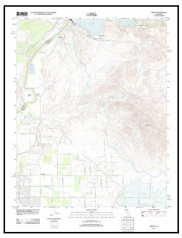
EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

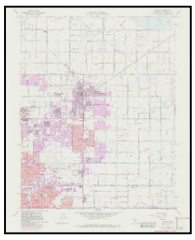
2012 Source Sheets

Clovis
2012
7.5-minute, 24000



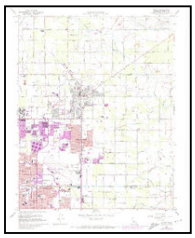
Friant
2012
7.5-minute, 24000

1981 Source Sheets



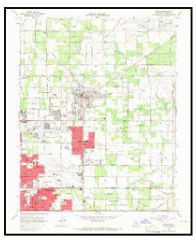
Clovis
1981
7.5-minute, 24000
Aerial Photo Revised 1978

1972 Source Sheets



Clovis
1972
7.5-minute, 24000
Aerial Photo Revised 1972

1964 Source Sheets



Clovis
1964
7.5-minute, 24000
Aerial Photo Revised 1962

Friant
1964
7.5-minute, 24000
Aerial Photo Revised 1962

Topo Sheet Key

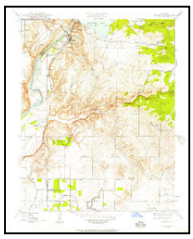
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1947 Source Sheets

Clovis
1947
7.5-minute, 24000

Friant
1947
7.5-minute, 24000

1946 Source Sheets



Friant
1946
7.5-minute, 24000

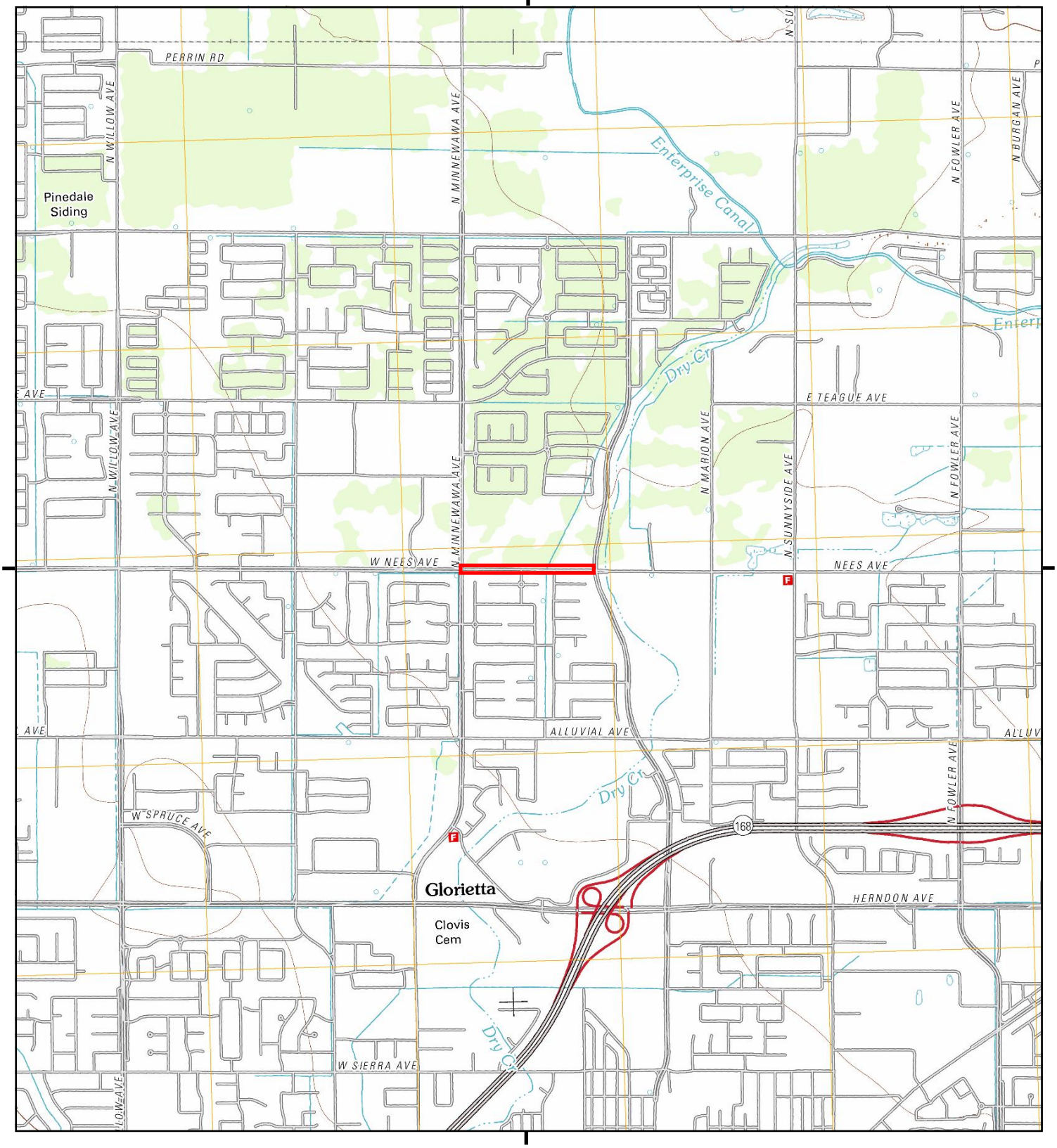
Clovis
1946
7.5-minute, 24000

1923 Source Sheets

Clovis
1923
7.5-minute, 31680

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

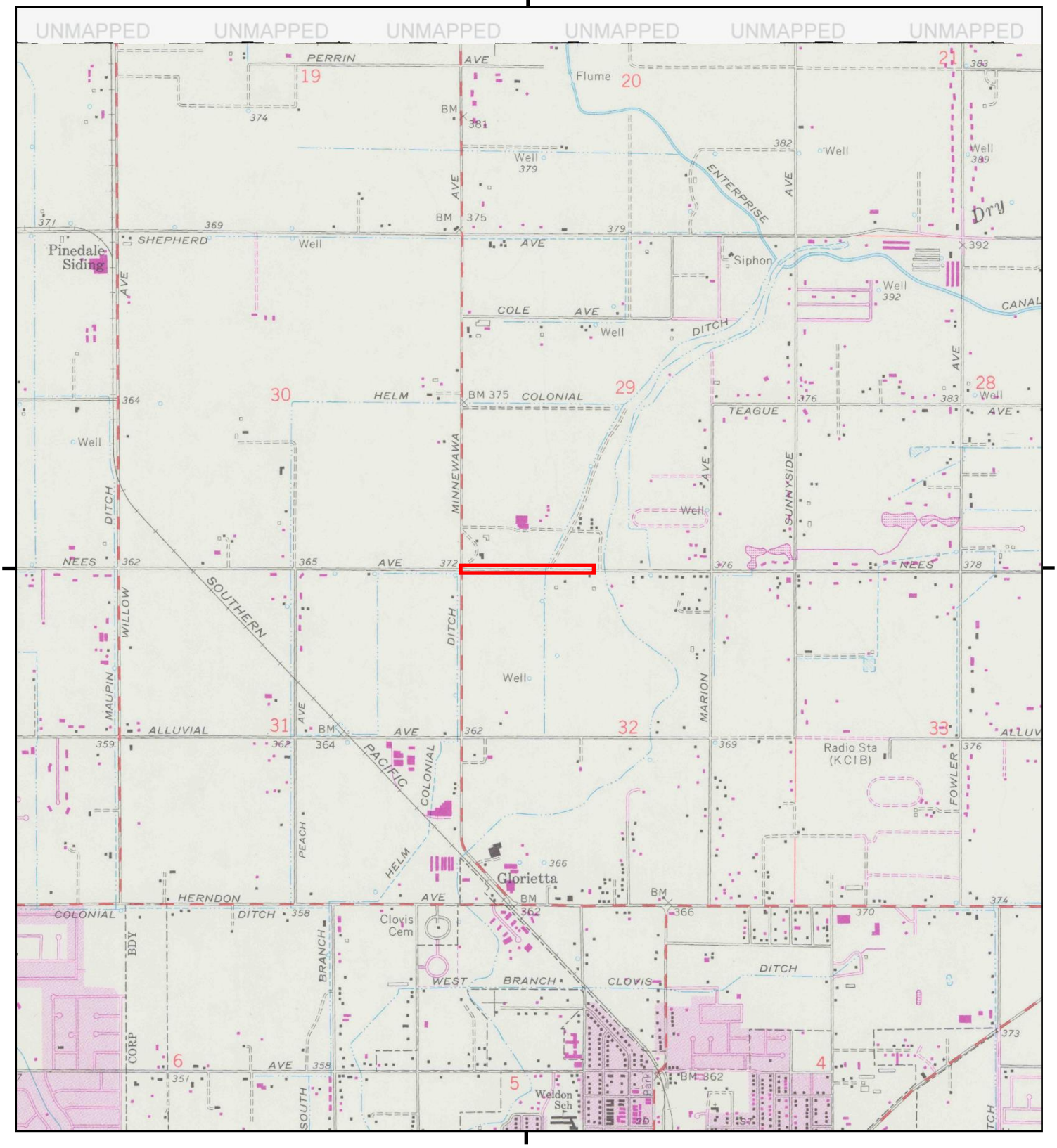
TP, Clovis, 2012, 7.5-minute
N, Friant, 2012, 7.5-minute

SITE NAME: Nees Ave. Widening From Minnewawa T
ADDRESS: Nees Ave./N. Harvard Ave
Clovis, CA 93619
CLIENT: Blackburn Consulting

N

Historical Topo Map

1981



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

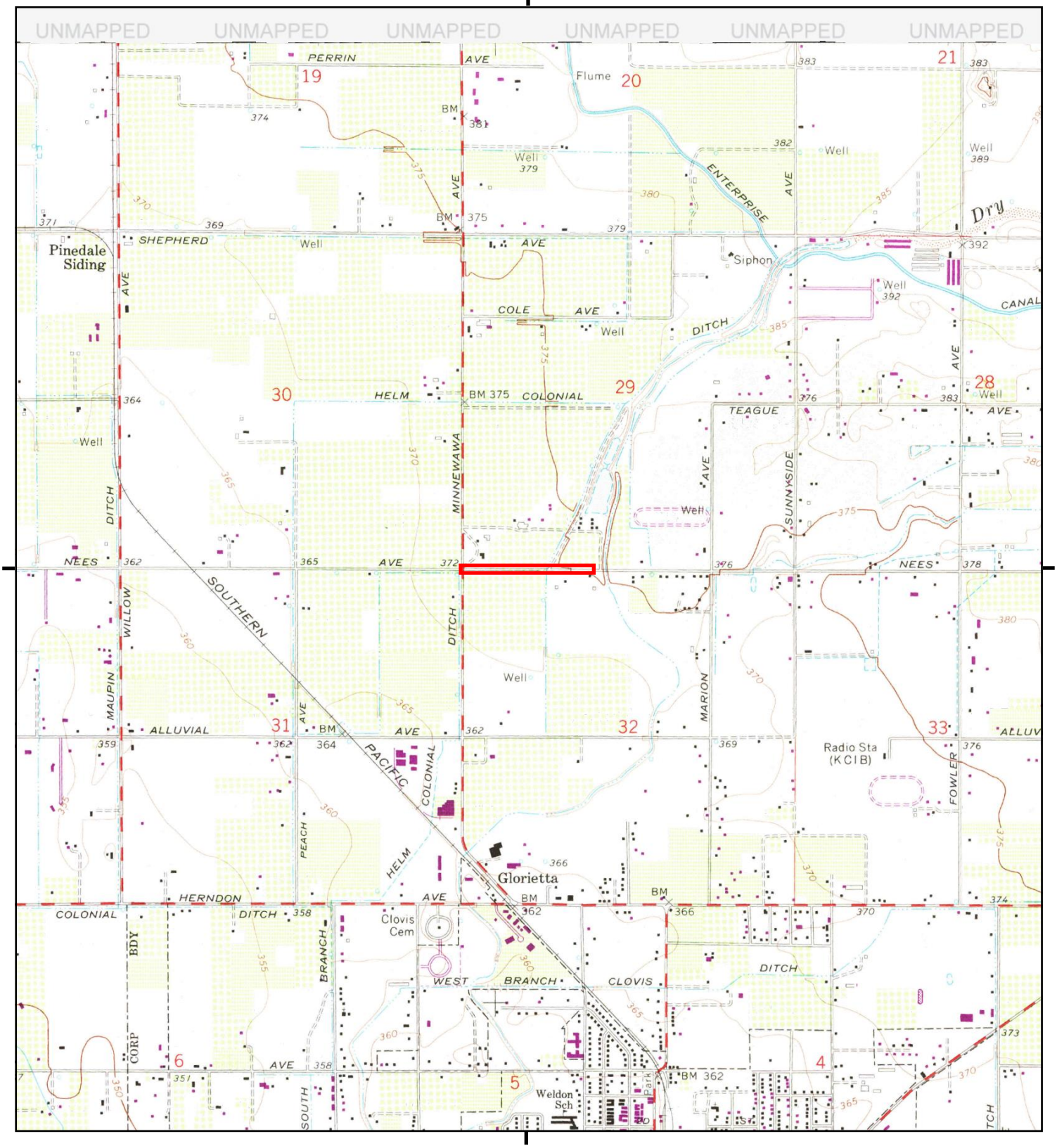
TP, Clovis, 1981, 7.5-minute

SITE NAME: Nees Ave. Widening From Minnewawa T(
ADDRESS: Nees Ave./N. Harvard Ave
Clovis, CA 93619
CLIENT: Blackburn Consulting

N

Historical Topo Map

1972



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

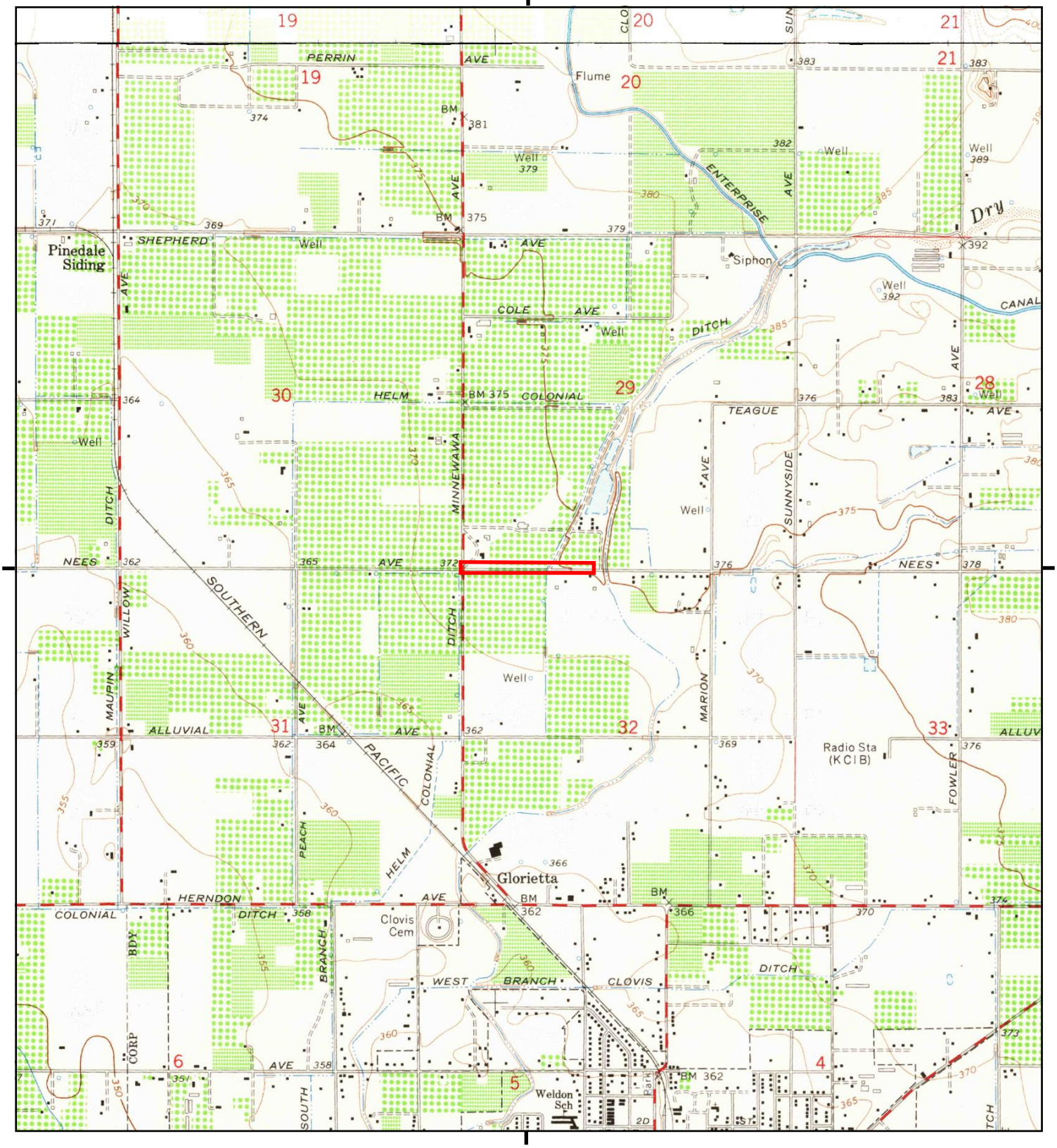
TP, Clovis, 1972, 7.5-minute

SITE NAME: Nees Ave. Widening From Minnewawa T
ADDRESS: Nees Ave./N. Harvard Ave
Clovis, CA 93619
CLIENT: Blackburn Consulting

N

Historical Topo Map

1964



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

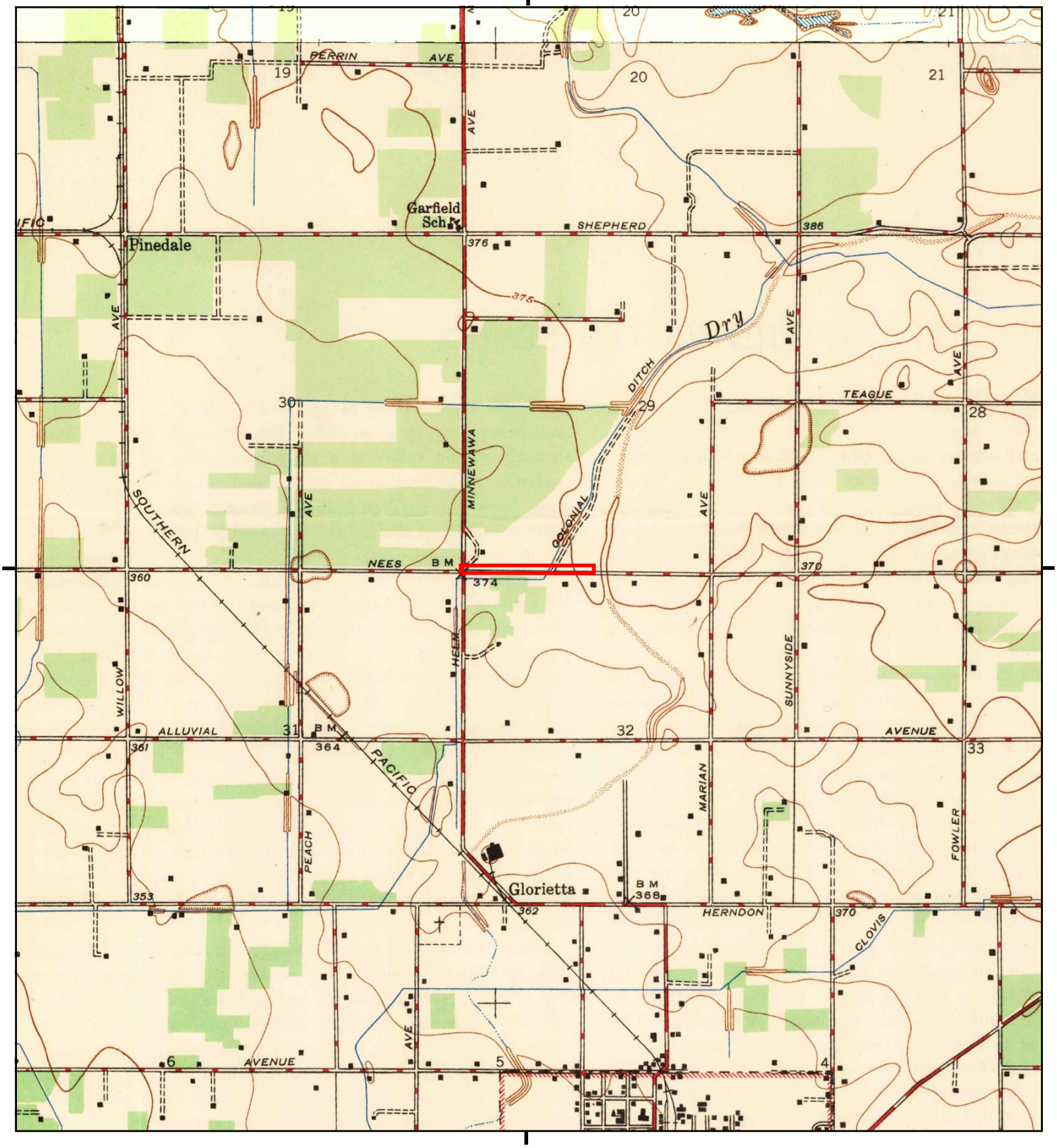
TP, Clovis, 1964, 7.5-minute
N, Friant, 1964, 7.5-minute

SITE NAME: Nees Ave. Widening From Minnewawa T(
ADDRESS: Nees Ave./N. Harvard Ave
Clovis, CA 93619
CLIENT: Blackburn Consulting

N

Historical Topo Map

1947



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

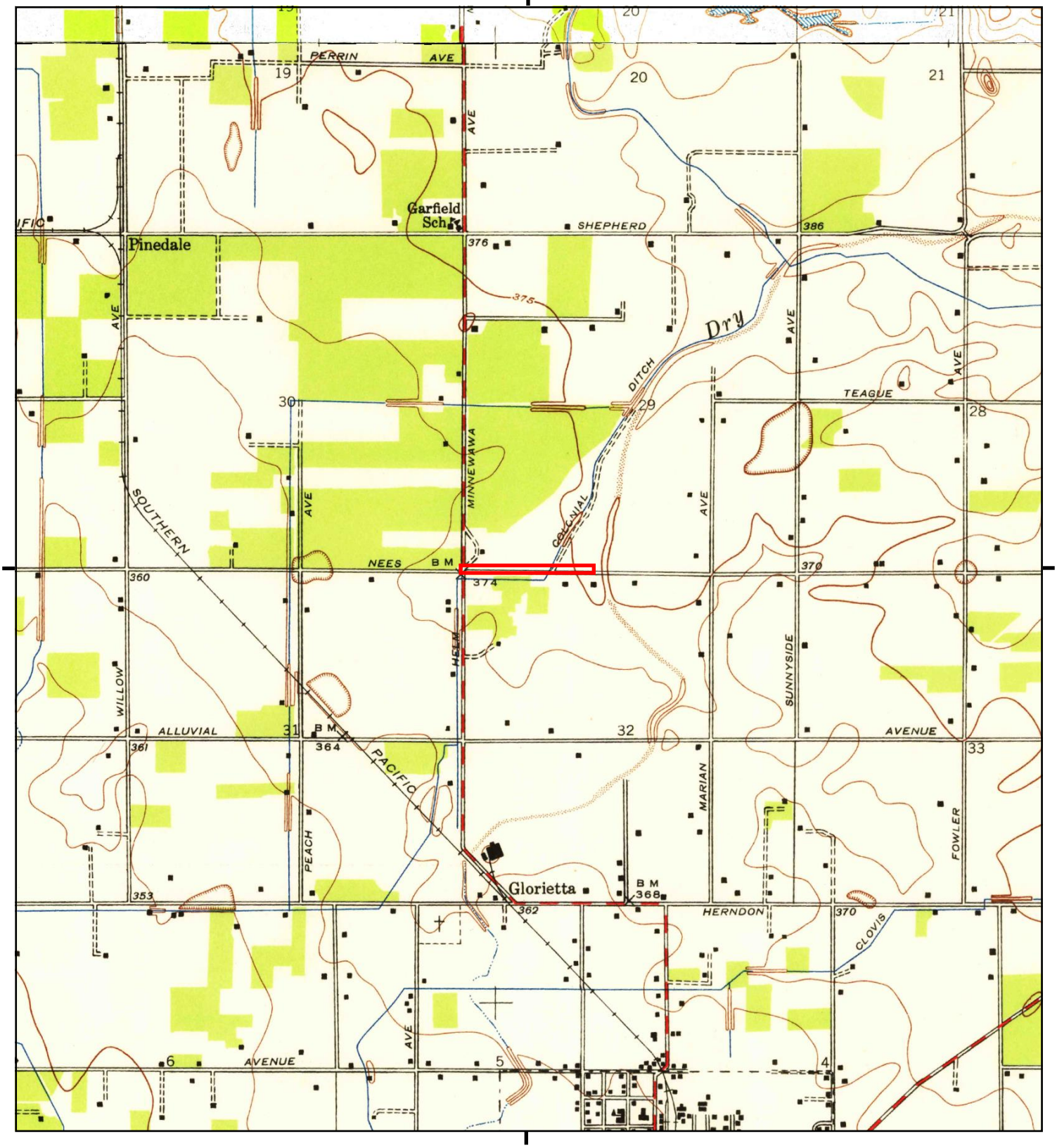
TP, Clovis, 1947, 7.5-minute
N, Friant, 1947, 7.5-minute

SITE NAME: Nees Ave. Widening From Minnewawa T
ADDRESS: Nees Ave./N. Harvard Ave
Clovis, CA 93619
CLIENT: Blackburn Consulting

N

Historical Topo Map

1946



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

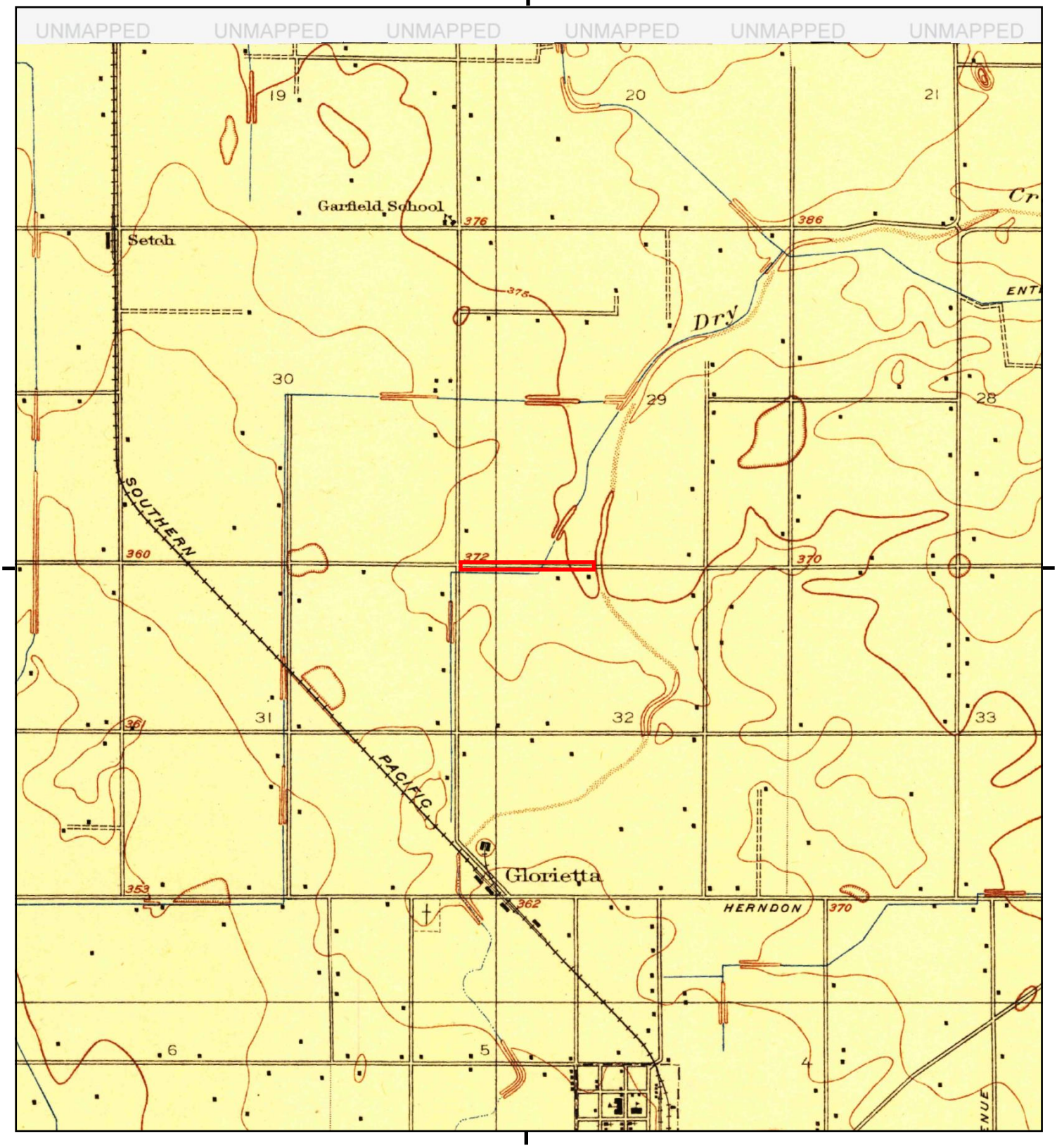
TP, Clovis, 1946, 7.5-minute
N, Friant, 1946, 7.5-minute

SITE NAME: Nees Ave. Widening From Minnewawa T
ADDRESS: Nees Ave./N. Harvard Ave
Clovis, CA 93619
CLIENT: Blackburn Consulting

N

Historical Topo Map

1923



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Clovis, 1923, 7.5-minute

SITE NAME: Nees Ave. Widening From Minnewawa T(
ADDRESS: Nees Ave./N. Harvard Ave
Clovis, CA 93619
CLIENT: Blackburn Consulting

N

PHASE 1 INITIAL SITE ASSESSMENT

Nees Avenue Improvement Project – CIP 17-13 (Minnewawa to Clovis Avenues)

City of Clovis, California

APPENDIX C

Sanborn Map Search

Nees Ave. Widening From Minnewawa To Clovis

Nees Ave./N. Harvard Ave

Clovis, CA 93619

Inquiry Number: 5852839.3

November 01, 2019

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

11/01/19

Site Name:

Nees Ave. Widening From Mini
Nees Ave./N. Harvard Ave
Clovis, CA 93619
EDR Inquiry # 5852839.3

Client Name:

Blackburn Consulting
11521 Blocker Drive
Auburn, CA 95603
Contact: Rob Sandquist

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Blackburn Consulting were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 603C-409F-AE1E

PO # 11241

Project City of Clovis - Nees Ave ISA

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 603C-409F-AE1E

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

Blackburn Consulting (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2019 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

PHASE 1 INITIAL SITE ASSESSMENT

Nees Avenue Improvement Project – CIP 17-13 (Minnewawa to Clovis Avenues)

City of Clovis, California

APPENDIX D

EDR Report

Nees Ave. Widening From Minnewawa To Clovis
Nees Ave./N. Harvard Ave
Clovis, CA 93619

Inquiry Number: 5852839.2s
November 01, 2019

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2019 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

NEES AVE./N. HARVARD AVE
CLOVIS, CA 93619

COORDINATES

Latitude (North):	36.8521100 - 36° 51' 7.59''
Longitude (West):	119.7078610 - 119° 42' 28.29''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	258568.0
UTM Y (Meters):	4081687.0
Elevation:	375 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5603160 CLOVIS, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140618, 20140619
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
NEES AVE./N. HARVARD AVE
CLOVIS, CA 93619

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	CITY OF CLOVIS WELL	105 W NEES AVE	CUPA Listings, CERS	Lower	53, 0.010, West
A2	WAWONA FROZEN FOODS	1265 N MINNEWAWA AVE	CERS HAZ WASTE, CUPA Listings, CERS	Higher	761, 0.144, North
A3	LYONS TRANSPORTATION	1265 N MINNEWAWA AVE	RCRA NonGen / NLR	Higher	761, 0.144, North
A4	LYONS TRANSPORTATION	1265 N MINNEWAWA AVE	CERS HAZ WASTE, CERS TANKS, CUPA Listings, CERS	Higher	761, 0.144, North
5	BUCHANAN HIGH SCHOOL	1560 N. MINNEWAWA	ENVIROSTOR, SCH, CERS HAZ WASTE, CUPA Listings,...	Higher	1848, 0.350, NNW
6	NORTH CLOVIS AVENUE	CLOVIS AVENUE/TEAGUE	ENVIROSTOR, SCH	Higher	3311, 0.627, NNE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

LUST..... Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC..... Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
UST..... Active UST Facilities
AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties
INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database
SWRCY..... Recycler Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
ODI..... Open Dump Inventory
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

HIST Cal-Sites ---- Historical Calsites Database
SCH ---- School Property Evaluation Program
CDL ---- Clandestine Drug Labs
Toxic Pits ---- Toxic Pits Cleanup Act Sites
US CDL ---- National Clandestine Laboratory Register
PFAS ---- PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

SWEEPS UST ---- SWEEPS UST Listing
HIST UST ---- Hazardous Substance Storage Container Database
CA FID UST ---- Facility Inventory Database

Local Land Records

LIENS ---- Environmental Liens Listing
LIENS 2 ---- CERCLA Lien Information
DEED ---- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
CHMIRS ---- California Hazardous Material Incident Report System
LDS ---- Land Disposal Sites Listing
MCS ---- Military Cleanup Sites Listing
SPILLS 90 ---- SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS ---- Formerly Used Defense Sites
DOD ---- Department of Defense Sites
SCRD DRYCLEANERS ---- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---- Financial Assurance Information
EPA WATCH LIST ---- EPA WATCH LIST
2020 COR ACTION ---- 2020 Corrective Action Program List
TSCA ---- Toxic Substances Control Act
TRIS ---- Toxic Chemical Release Inventory System
SSTS ---- Section 7 Tracking Systems
ROD ---- Records Of Decision
RMP ---- Risk Management Plans
RAATS ---- RCRA Administrative Action Tracking System
PRP ---- Potentially Responsible Parties
PADS ---- PCB Activity Database System
ICIS ---- Integrated Compliance Information System
FTTS ---- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS ---- Material Licensing Tracking System
COAL ASH DOE ---- Steam-Electric Plant Operation Data
COAL ASH EPA ---- Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ---- PCB Transformer Registration Database
RADINFO ---- Radiation Information Database
HIST FTTS ---- FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS ---- Incident and Accident Data
CONSENT ---- Superfund (CERCLA) Consent Decrees
INDIAN RESERV ---- Indian Reservations

FUSRAP ---- Formerly Utilized Sites Remedial Action Program
UMTRA ---- Uranium Mill Tailings Sites
LEAD SMELTERS ---- Lead Smelter Sites
US AIRS ---- Aerometric Information Retrieval System Facility Subsystem
US MINES ---- Mines Master Index File
ABANDONED MINES ---- Abandoned Mines
FINDS ---- Facility Index System/Facility Registry System
DOCKET HWC ---- Hazardous Waste Compliance Docket Listing
ECHO ---- Enforcement & Compliance History Information
UXO ---- Unexploded Ordnance Sites
FUELS PROGRAM ---- EPA Fuels Program Registered Listing
CA BOND EXP. PLAN ---- Bond Expenditure Plan
Cortese ---- "Cortese" Hazardous Waste & Substances Sites List
DRYCLEANERS ---- Cleaner Facilities
EMI ---- Emissions Inventory Data
ENF ---- Enforcement Action Listing
Financial Assurance ---- Financial Assurance Information Listing
HAZNET ---- Facility and Manifest Data
ICE ---- ICE
HIST CORTESE ---- Hazardous Waste & Substance Site List
HWP ---- EnviroStor Permitted Facilities Listing
HWT ---- Registered Hazardous Waste Transporter Database
MINES ---- Mines Site Location Listing
MWMP ---- Medical Waste Management Program Listing
NPDES ---- NPDES Permits Listing
PEST LIC ---- Pesticide Regulation Licenses Listing
PROC ---- Certified Processors Database
Notify 65 ---- Proposition 65 Records
UIC ---- UIC Listing
UIC GEO ---- UIC GEO (GEOTRACKER)
WASTEWATER PITS ---- Oil Wastewater Pits Listing
WDS ---- Waste Discharge System
WIP ---- Well Investigation Program Case List
MILITARY PRIV SITES ---- MILITARY PRIV SITES (GEOTRACKER)
PROJECT ---- PROJECT (GEOTRACKER)
WDR ---- Waste Discharge Requirements Listing
CIWQS ---- California Integrated Water Quality System
CERS ---- CERS
NON-CASE INFO ---- NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS ---- OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS ---- PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT ---- SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ ---- Well Stimulation Project (GEOTRACKER)
MINES MRDS ---- Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---- EDR Proprietary Manufactured Gas Plants
EDR Hist Auto ---- EDR Exclusive Historical Auto Stations
EDR Hist Cleaner ---- EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF ---- Recovered Government Archive Solid Waste Facilities List

EXECUTIVE SUMMARY

RGA LUST---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 07/29/2019 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BUCHANAN HIGH SCHOOL Status: No Further Action Facility Id: 60001141	***1560 N. MINNEWAWA***	***NNW 1/4 - 1/2 (0.350 mi.)***	***5***	***18***
NORTH CLOVIS AVENUE Status: No Further Action Facility Id: 10010017	***CLOVIS AVENUE/TEAGUE***	***NNE 1/2 - 1 (0.627 mi.)***	***6***	***30***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 08/14/2019 has revealed that there

are 2 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WAWONA FROZEN FOODS	***1265 N MINNEWAWA AVE***	***N 1/8 - 1/4 (0.144 mi.)***	***A2***	***10***
LYONS TRANSPORTATION	***1265 N MINNEWAWA AVE***	***N 1/8 - 1/4 (0.144 mi.)***	***A4***	***15***

Local Lists of Registered Storage Tanks

CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

A review of the CERS TANKS list, as provided by EDR, and dated 08/14/2019 has revealed that there is 1 CERS TANKS site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LYONS TRANSPORTATION	***1265 N MINNEWAWA AVE***	***N 1/8 - 1/4 (0.144 mi.)***	***A4***	***15***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/24/2019 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LYONS TRANSPORTATION EPA ID:: CAL000329591	1265 N MINNEWAWA AVE	N 1/8 - 1/4 (0.144 mi.)	A3	14

CUPA Listings: A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

A review of the CUPA Listings list, as provided by EDR, has revealed that there are 3 CUPA Listings sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WAWONA FROZEN FOODS Database: CUPA FRESNO, Date of Government Version: 07/11/2019 Facility Id: FA0277034	***1265 N MINNEWAWA AVE***	***N 1/8 - 1/4 (0.144 mi.)***	***A2***	***10***
LYONS TRANSPORTATION Database: CUPA FRESNO, Date of Government Version: 07/11/2019 Facility Id: FA0279885	***1265 N MINNEWAWA AVE***	***N 1/8 - 1/4 (0.144 mi.)***	***A4***	***15***

Lower Elevation	Address	Direction / Distance	Map ID	Page
CITY OF CLOVIS WELL Database: CUPA FRESNO, Date of Government Version: 07/11/2019	***105 W NEES AVE***	***W 0 - 1/8 (0.010 mi.)***	***1***	***8***

EXECUTIVE SUMMARY

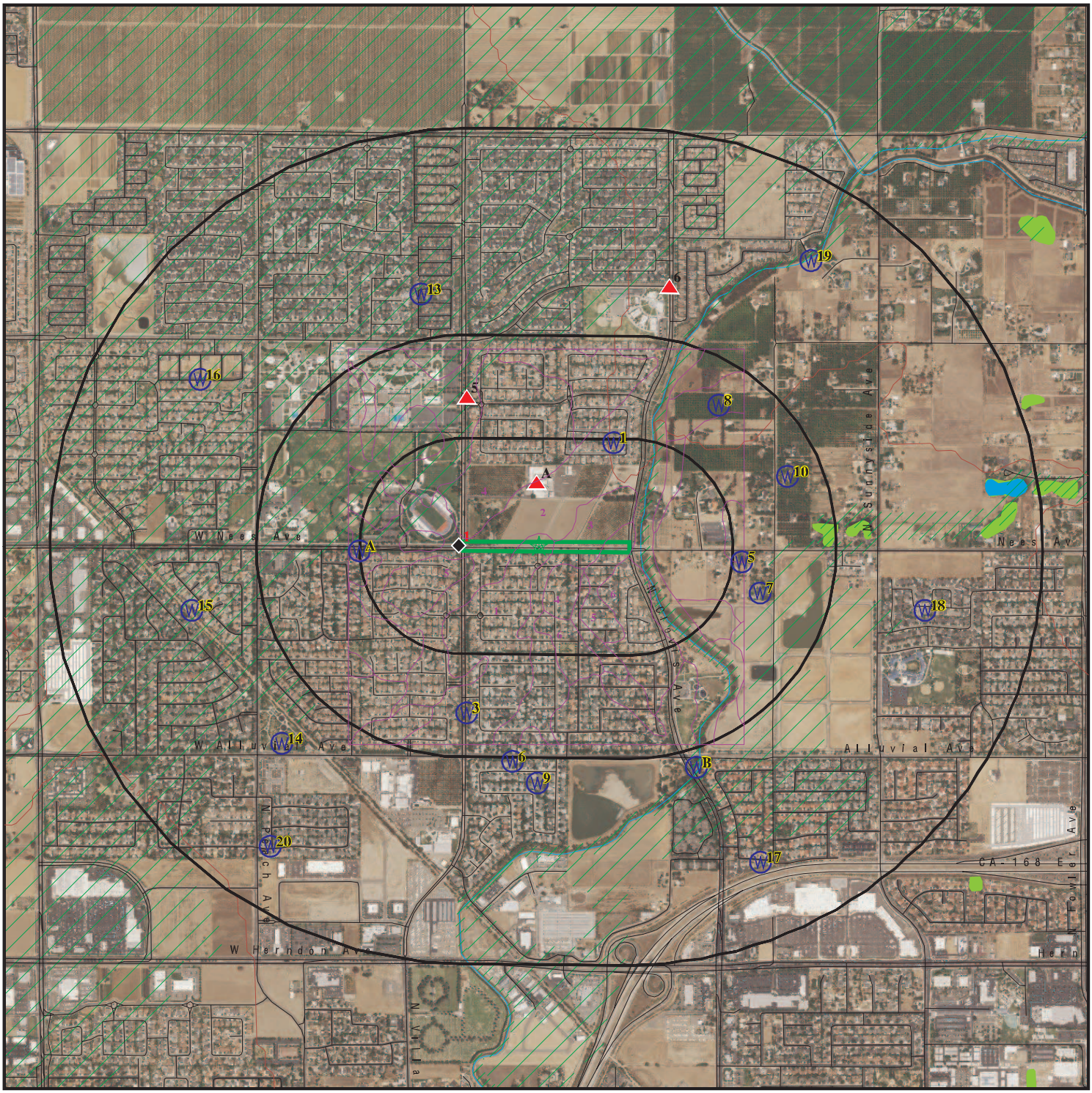
Facility Id: FA0278768

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
HERNDON AVE WIDENING WILLOW TO MIN	CIWQS CDL

OVERVIEW MAP - 5852839.2S



0 1/4 1/2 1 Miles

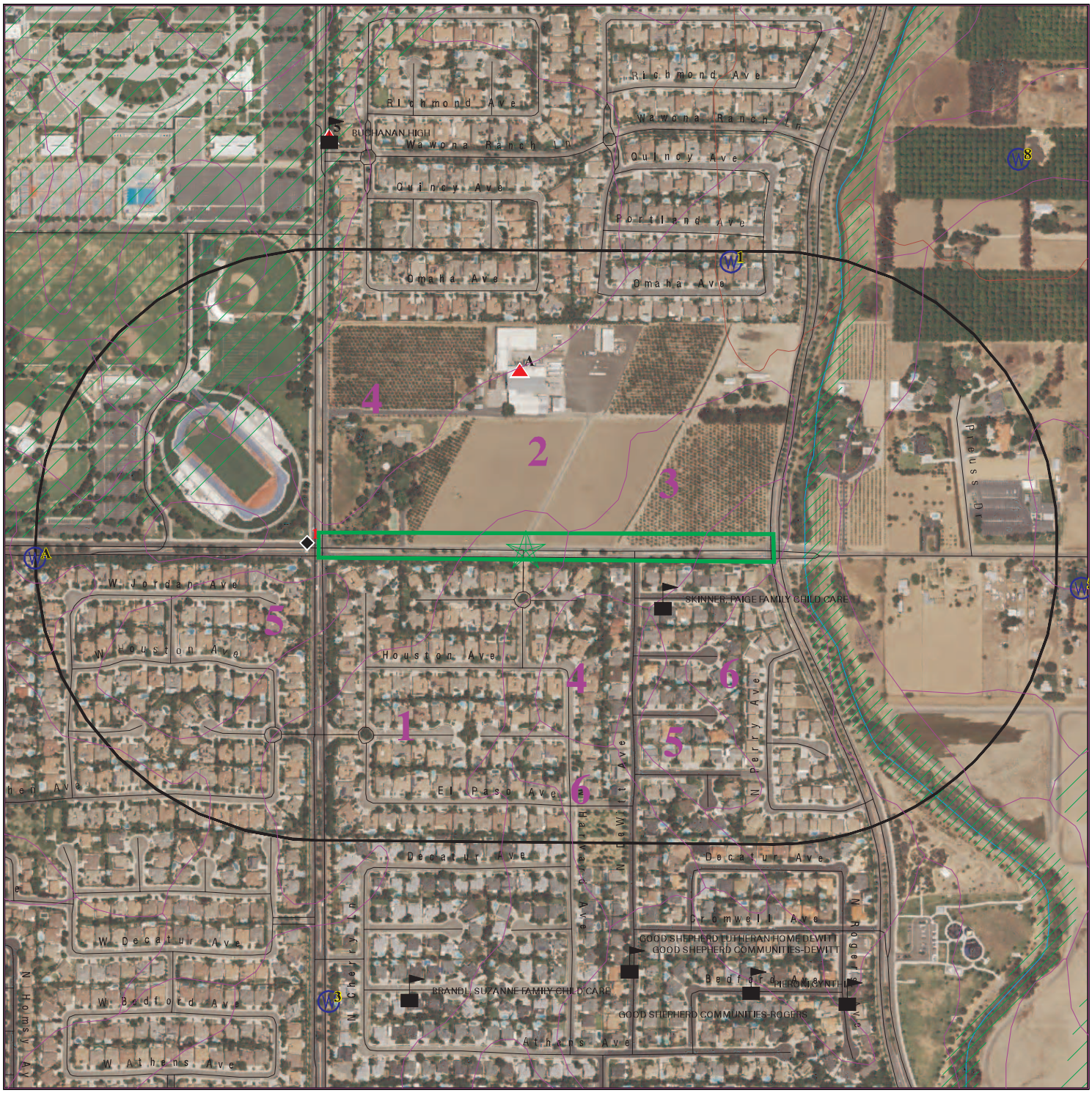
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Nees Ave. Widening From Minnewawa To Clovis	CLIENT:	Blackburn Consulting
ADDRESS:	Nees Ave./N. Harvard Ave Clovis CA 93619	CONTACT:	Rob Sandquist
		INQUIRY #:	5852839.2s
LAT/LONG:	36.85211 / 119.707861	DATE:	November 01, 2019 6:29 pm

Copyright © 2019 EDR, Inc. © 2015 TomTom Rel. 2015.

DETAIL MAP - 5852839.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Nees Ave. Widening From Minnewawa To Clovis	CLIENT:	Blackburn Consulting
ADDRESS:	Nees Ave./N. Harvard Ave Clovis CA 93619	CONTACT:	Rob Sandquist
LAT/LONG:	36.85211 / 119.707861	INQUIRY #:	5852839.2s
		DATE:	November 01, 2019 6:29 pm

Copyright © 2019 EDR, Inc. © 2015 TomTom Rel. 2015.

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	1	1	NR	2
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		0	2	NR	NR	NR	2
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		0	1	NR	NR	NR	1
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	1	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		1	2	NR	NR	NR	3

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	1	6	1	1	0	9

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
West
< 1/8
0.010 mi.
53 ft.

CITY OF CLOVIS WELL 25
105 W NEES AVE
CLOVIS, CA 93612

CUPA Listings **S108225999**
CERS **N/A**

Relative:
Lower

Actual:
374 ft.

CUPA FRESNO:

Name:	CITY OF CLOVIS WELL 25
Address:	105 W NEES AVE
City,State,Zip:	CLOVIS, CA 93612
Facility ID:	FA0278768
Cross Street:	MINNEWAWA
APM Number:	56002015T
CERS Id:	10693081
SWIS Number:	Not reported
GIS Latitude:	36.833388
GIS Longitude:	-119.688841
Program Element:	HAZARDOUS MATERIALS HANDLER - WELL SITE

CERS:

Name:	CITY OF CLOVIS WELL 25
Address:	105 W NEES AVE
City,State,Zip:	CLOVIS, CA 93612
Site ID:	378398
CERS ID:	10693081
CERS Description:	Chemical Storage Facilities

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-06-2015
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fresno County Department of Public Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	03-15-2018
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fresno County Department of Public Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	03-15-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Fresno County Department of Public Health
Eval Program:	HMRRP
Eval Source:	CERS

Affiliation:

Affiliation Type Desc:	Legal Owner
Entity Name:	CITY OF CLOVIS PUBLIC UTILITIES
Entity Title:	Not reported

CITY OF CLOVIS WELL 25 (Continued) **S108225999**

Affiliation Address:	155 SUNNYSIDE
Affiliation City:	CLOVIS
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93611
Affiliation Phone:	(559) 324-2607
Affiliation Type Desc:	CUPA District
Entity Name:	Fresno County Community Health Department
Entity Title:	Not reported
Affiliation Address:	1221 Fulton St., 3rd FloorP.O. Box 11867
Affiliation City:	Fresno
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93775
Affiliation Phone:	(559) 600-3271
Affiliation Type Desc:	Document Preparer
Entity Name:	Paul Armendariz
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Paul Armendariz
Entity Title:	Not reported
Affiliation Address:	155 N Sunnyside Ave
Affiliation City:	Clovis
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93611
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	155 N SUNNYSIDE
Affiliation City:	CLOVIS
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93611
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Paul Armendariz
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(559) 324-2649

CITY OF CLOVIS WELL 25 (Continued) **S108225999**

Affiliation Type Desc:	Parent Corporation
Entity Name:	City of Clovis Well Sites
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Paul Armendariz
Entity Title:	AssistantPublic Utilities Director
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

A2 **WAWONA FROZEN FOODS - RANCH** **CERS HAZ WASTE** **S121141079**
North **1265 N MINNEWAWA AVE** **CUPA Listings** **N/A**
1/8-1/4 **CLOVIS, CA 93619** **CERS**
0.144 mi.
761 ft. **Site 1 of 3 in cluster A**

Relative:
Higher

Actual:
376 ft.

CERS HAZ WASTE:

Name:	WAWONA FROZEN FOODS - RANCH
Address:	1265 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93619
Site ID:	517390
CERS ID:	10704550
CERS Description:	Hazardous Chemical Management

Name:	WAWONA FROZEN FOODS - RANCH
Address:	1265 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93619
Site ID:	517390
CERS ID:	10704550
CERS Description:	Hazardous Waste Generator

CUPA FRESNO:

Name:	WAWONA FROZEN FOODS - RANCH
Address:	1265 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93619
Facility ID:	FA0277034
Cross Street:	NEES
APM Number:	56005123
CERS Id:	10704550
SWIS Number:	Not reported
GIS Latitude:	36.854195
GIS Longitude:	-119.709641
Program Element:	RMP PROCESS - PROGRAM LEVEL 3

Name:	WAWONA FROZEN FOODS - RANCH
Address:	1265 N MINNEWAWA AVE

WAWONA FROZEN FOODS - RANCH (Continued) **S121141079**

City,State,Zip: CLOVIS, CA 93619
Facility ID: FA0277034
Cross Street: NEES
APM Number: 56005123
CERS Id: 10704550
SWIS Number: Not reported
GIS Latitude: 36.854195
GIS Longitude: -119.709641
Program Element: EXTREMELY HAZARDOUS SUBSTANCE HANDLER (EPCRA)

Name: WAWONA FROZEN FOODS - RANCH
Address: 1265 N MINNEWAWA AVE
City,State,Zip: CLOVIS, CA 93619
Facility ID: FA0277034
Cross Street: NEES
APM Number: 56005123
CERS Id: 10704550
SWIS Number: Not reported
GIS Latitude: 36.854195
GIS Longitude: -119.709641
Program Element: HAZARDOUS WASTE GENERATOR (CESQG)

CERS:
Name: WAWONA FROZEN FOODS - RANCH
Address: 1265 N MINNEWAWA AVE
City,State,Zip: CLOVIS, CA 93619
Site ID: 517390
CERS ID: 10704550
CERS Description: Chemical Storage Facilities

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 01-31-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Fresno County Department of Public Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-07-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fresno County Department of Public Health
Eval Program: CalARP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-07-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fresno County Department of Public Health
Eval Program: HMRRP
Eval Source: CERS

WAWONA FROZEN FOODS - RANCH (Continued) **S121141079**

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-07-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fresno County Department of Public Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-24-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fresno County Department of Public Health
Eval Program:	CalARP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-24-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fresno County Department of Public Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-24-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fresno County Department of Public Health
Eval Program:	HW
Eval Source:	CERS

Coordinates:

Site ID:	517390
Facility Name:	WAWONA FROZEN FOODS - RANCH
Env Int Type Code:	CalARP
Program ID:	10704550
Coord Name:	Not reported
Ref Point Type Desc:	Entrance point of a facility or station
Latitude:	36.854195
Longitude:	-119.709640

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	Fresno County Community Health Department
Entity Title:	Not reported
Affiliation Address:	1221 Fulton St., 3rd FloorP.O. Box 11867
Affiliation City:	Fresno
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93775
Affiliation Phone:	(559) 600-3271

WAWONA FROZEN FOODS - RANCH (Continued) **S121141079**

Affiliation Type Desc:	Document Preparer
Entity Name:	Erica Cardona
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	100 W ALLUVIAL
Affiliation City:	CLOVIS
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93611
Affiliation Phone:	Not reported

Affiliation Type Desc:	Environmental Contact
Entity Name:	Erica Cardona
Entity Title:	Not reported
Affiliation Address:	100 W ALLUVIAL
Affiliation City:	CLOVIS
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93611
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Erica Cardona
Entity Title:	Environmental Health & Safety Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	WAWONA FROZEN FOODS INC
Entity Title:	Not reported
Affiliation Address:	100 ALLUVIAL
Affiliation City:	CLOVIS
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93611
Affiliation Phone:	(559) 299-2901

Affiliation Type Desc:	Parent Corporation
Entity Name:	WAWONA FROZEN FOODS - RANCH
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported

WAWONA FROZEN FOODS - RANCH (Continued) **S121141079**

Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	William Smittcamp
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(559) 299-2901

A3 **LYONS TRANSPORTATION INC** **RCRA NonGen / NLR** **1024819459**
North **1265 N MINNEWAWA AVE** **CAL000329591**
1/8-1/4 **CLOVIS, CA 93619**
0.144 mi.
761 ft. **Site 2 of 3 in cluster A**

Relative: **Higher**

Actual: **376 ft.**

RCRA NonGen / NLR:

Date form received by agency:	2008-02-11 00:00:00.0
Facility name:	LYONS TRANSPORTATION INC
Facility address:	1265 N MINNEWAWA AVE CLOVIS, CA 93619-8738
EPA ID:	CAL000329591
Contact:	MARK PETERSEN
Contact address:	1265 N MINNEWAWA AVE CLOVIS, CA 93619
Contact country:	Not reported
Contact telephone:	559-299-0123
Contact email:	MPETERSEN@LYONSTRANSPORTATION.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	LYONS TRANSPORTATION INC
Owner/operator address:	1265 N MINNEWAWA AVE CLOVIS, CA 93619
Owner/operator country:	Not reported
Owner/operator telephone:	559-299-0123
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	MARK PETERSEN
Owner/operator address:	1265 N MINNEWAWA AVE CLOVIS, CA 93619
Owner/operator country:	Not reported
Owner/operator telephone:	559-299-0123
Owner/operator email:	Not reported
Owner/operator fax:	Not reported

LYONS TRANSPORTATION INC (Continued) **1024819459**

Owner/operator extension: Not reported
Legal status: Other
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

A4 **LYONS TRANSPORTATION** **CERS HAZ WASTE** **S121141513**
North **1265 N MINNEWAWA AVE** **CERS TANKS** **N/A**
1/8-1/4 **CLOVIS, CA 93619** **CUPA Listings**
0.144 mi. **CERS**
761 ft. **Site 3 of 3 in cluster A**

Relative: Higher
Actual: 376 ft.

CERS HAZ WASTE:
Name: LYONS TRANSPORTATION
Address: 1265 N MINNEWAWA AVE
City,State,Zip: CLOVIS, CA 93619
Site ID: 517803
CERS ID: 10699618
CERS Description: Hazardous Waste Generator

CERS TANKS:
Name: LYONS TRANSPORTATION
Address: 1265 N MINNEWAWA AVE
City,State,Zip: CLOVIS, CA 93619
Site ID: 517803
CERS ID: 10699618
CERS Description: Aboveground Petroleum Storage

CUPA FRESNO:
Name: LYONS TRANSPORTATION
Address: 1265 N MINNEWAWA AVE
City,State,Zip: CLOVIS, CA 93619
Facility ID: FA0279885
Cross Street: NEES
APM Number: 56005123
CERS Id: 10699618
SWIS Number: Not reported
GIS Latitude: 36.854402

LYONS TRANSPORTATION (Continued) **S121141513**

GIS Longitude: -119.707956
Program Element: WASTE TIRE FACILITY

Name: LYONS TRANSPORTATION
Address: 1265 N MINNEWAWA AVE
City,State,Zip: CLOVIS, CA 93619
Facility ID: FA0279885
Cross Street: NEES
APM Number: 56005123
CERS Id: 10699618
SWIS Number: Not reported
GIS Latitude: 36.854402
GIS Longitude: -119.707956
Program Element: AUTO REPAIR/MAINTENANCE MODEL PLAN

Name: LYONS TRANSPORTATION
Address: 1265 N MINNEWAWA AVE
City,State,Zip: CLOVIS, CA 93619
Facility ID: FA0279885
Cross Street: NEES
APM Number: 56005123
CERS Id: 10699618
SWIS Number: Not reported
GIS Latitude: 36.854402
GIS Longitude: -119.707956
Program Element: HAZARDOUS WASTE GENERATOR (SQG)

Name: LYONS TRANSPORTATION
Address: 1265 N MINNEWAWA AVE
City,State,Zip: CLOVIS, CA 93619
Facility ID: FA0279885
Cross Street: NEES
APM Number: 56005123
CERS Id: 10699618
SWIS Number: Not reported
GIS Latitude: 36.854402
GIS Longitude: -119.707956
Program Element: UST REMOVAL/CLOSURE W/1 TANK

CERS:
Name: LYONS TRANSPORTATION
Address: 1265 N MINNEWAWA AVE
City,State,Zip: CLOVIS, CA 93619
Site ID: 517803
CERS ID: 10699618
CERS Description: Chemical Storage Facilities

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-15-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fresno County Department of Public Health
Eval Program: HMRRP
Eval Source: CERS

LYONS TRANSPORTATION (Continued) **S121141513**

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-15-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fresno County Department of Public Health
Eval Program: HW
Eval Source: CERS

Coordinates:
Site ID: 517803
Facility Name: LYONS TRANSPORTATION
Env Int Type Code: APSA
Program ID: 10699618
Coord Name: Not reported
Ref Point Type Desc: Entrance point of a facility or station
Latitude: 36.854398
Longitude: -119.707950

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Fresno County Community Health Department
Entity Title: Not reported
Affiliation Address: 1221 Fulton St., 3rd FloorP.O. Box 11867
Affiliation City: Fresno
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 93775
Affiliation Phone: (559) 600-3271

Affiliation Type Desc: Document Preparer
Entity Name: Jacqui Wall
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 1265 N MINNEWAWA AVE
Affiliation City: CLOVIS
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 93619
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: LYONS TRANSPORTATION INC
Entity Title: Not reported
Affiliation Address: 1265 MINNEWAWA
Affiliation City: CLOVIS
Affiliation State: CA

LYONS TRANSPORTATION (Continued) **S121141513**

Affiliation Country:	United States
Affiliation Zip:	93619
Affiliation Phone:	(559) 299-0123
Affiliation Type Desc:	Identification Signer
Entity Name:	Mark Petersen
Entity Title:	GENERAL MANAGER
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Mark Petersen
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(559) 647-7344
Affiliation Type Desc:	Parent Corporation
Entity Name:	LYONS TRANSPORTATION
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Mark Petersen
Entity Title:	Not reported
Affiliation Address:	1265 N MINNEWAWA
Affiliation City:	CLOVIS
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93619
Affiliation Phone:	Not reported

---

5 **BUCHANAN HIGH SCHOOL** **ENVIROSTOR** **S106920634**
NNW **1560 N. MINNEWAWA** **SCH** **N/A**
1/4-1/2 **CLOVIS, CA 93619** **CERS HAZ WASTE**
0.350 mi. **CUPA Listings**
1848 ft. **EMI**
CERS

Relative:
Higher

Actual:
375 ft.

ENVIROSTOR:

Name:	BUCHANAN HIGH SCHOOL
Address:	1560 N. MINNEWAWA
City,State,Zip:	CLOVIS, CA 93619
Facility ID:	60001141
Status:	No Further Action

BUCHANAN HIGH SCHOOL (Continued) **S106920634**

Status Date:	10/08/2009
Site Code:	104671
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	0.75
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Mellan Songco
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Assembly:	23
Senate:	08
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	36.85782
Longitude:	-119.7140
APN:	560-020-17T, 560-020-18T
Past Use:	AGRICULTURAL - ROW CROPS, SCHOOL - HIGH SCHOOL
Potential COC:	Arsenic Chlordane DDD DDE DDT Endrin Toxaphene Aldrin Heptachlor Heptachlor epoxide HCH (alpha HCH (beta HCH (gamma) Lindane Methoxychlor
Confirmed COC:	30001-NO 30004-NO 30309-NO 30313-NO 30314-NO 30315-NO 30367-NO 30023-NO 30043-NO 30308-NO 30006-NO 30007-NO 30008-NO 30010-NO No Contaminants found
Potential Description:	SOIL
Alias Name:	560-020-17T
Alias Type:	APN
Alias Name:	560-020-18T
Alias Type:	APN
Alias Name:	104671
Alias Type:	Project Code (Site Code)
Alias Name:	60001141
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	08/17/2009
Comments:	DTSC executed EOA. Mailed 1 copy to District.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	10/26/2009
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	10/08/2009
Comments:	DTSC approved the PEA with a no further action determination
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

BUCHANAN HIGH SCHOOL (Continued) **S106920634**

Completed Document Type:	Environmental Oversight Agreement Application
Completed Date:	08/28/2009
Comments:	The EOA application was received.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Name:	BUCHANAN HIGH SCHOOL
Address:	1560 N. MINNEWAWA
City,State,Zip:	CLOVIS, CA 93619
Facility ID:	60001141
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	0.75
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Mellan Songco
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Site Code:	104671
Assembly:	23
Senate:	08
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	10/08/2009
Restricted Use:	NO
Funding:	School District
Latitude:	36.85782
Longitude:	-119.7140
APN:	560-020-17T, 560-020-18T
Past Use:	AGRICULTURAL - ROW CROPS, SCHOOL - HIGH SCHOOL
Potential COC:	Arsenic, Arsenic, Chlordane, DDD, DDE, DDT, Endrin, Toxaphene, Aldrin, Heptachlor, Heptachlor epoxide, HCH (alpha, HCH (beta, HCH (gamma) Lindane, Methoxychlor
Confirmed COC:	30001-NO, 30004-NO, 30309-NO, 30313-NO, 30314-NO, 30315-NO, 30367-NO, 30023-NO, 30043-NO, 30308-NO, 30006-NO, 30007-NO, 30008-NO, 30010-NO, No Contaminants found
Potential Description:	SOIL
Alias Name:	560-020-17T
Alias Type:	APN
Alias Name:	560-020-18T
Alias Type:	APN
Alias Name:	104671
Alias Type:	Project Code (Site Code)
Alias Name:	60001141

BUCHANAN HIGH SCHOOL (Continued) **S106920634**

Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 08/17/2009
Comments: DTSC executed EOA. Mailed 1 copy to District.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/26/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/08/2009
Comments: DTSC approved the PEA with a no further action determination

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement Application
Completed Date: 08/28/2009
Comments: The EOA application was received.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CERS HAZ WASTE:
Name: BUCHANAN HIGH SCHOOL
Address: 1560 N MINNEWAWA AVE
City,State,Zip: CLOVIS, CA 93619
Site ID: 378317
CERS ID: 10692094
CERS Description: Hazardous Waste Generator

CUPA FRESNO:
Name: BUCHANAN HIGH SCHOOL
Address: 1560 N MINNEWAWA AVE
City,State,Zip: CLOVIS, CA 93619
Facility ID: FA0269063
Cross Street: TEAGUE
APM Number: 56002018T
CERS Id: 10692094
SWIS Number: Not reported
GIS Latitude: 36.858442952
GIS Longitude: -119.71398598
Program Element: MEDIUM HAZARDOUS MATERIALS HANDLER

BUCHANAN HIGH SCHOOL (Continued) **S106920634**

Name:	BUCHANAN HIGH SCHOOL
Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93619
Facility ID:	FA0269063
Cross Street:	TEAGUE
APM Number:	56002018T
CERS Id:	10692094
SWIS Number:	Not reported
GIS Latitude:	36.858442952
GIS Longitude:	-119.71398598
Program Element:	HAZARDOUS WASTE GENERATOR (SQG)

EMI:

Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93611
Year:	2003
County Code:	10
Air Basin:	SJV
Facility ID:	3000
Air District Name:	SJU
SIC Code:	8211
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93611
Year:	2005
County Code:	10
Air Basin:	SJV
Facility ID:	3000
Air District Name:	SJU
SIC Code:	8211
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0019182502974977411
Reactive Organic Gases Tons/Yr:	.00160500002391636
Carbon Monoxide Emissions Tons/Yr:	.00510000007599592
NOX - Oxides of Nitrogen Tons/Yr:	.0234500003494322
SOX - Oxides of Sulphur Tons/Yr:	.000355500005297363
Particulate Matter Tons/Yr:	.0017161885501633606
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.00167500002495944

Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93611
Year:	2006

BUCHANAN HIGH SCHOOL (Continued) **S106920634**

County Code:	10
Air Basin:	SJV
Facility ID:	3000
Air District Name:	SJU
SIC Code:	8211
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0009591251487488729
Reactive Organic Gases Tons/Yr:	.000802500011958182
Carbon Monoxide Emissions Tons/Yr:	.00255000003799796
NOX - Oxides of Nitrogen Tons/Yr:	.0110700001649559
SOX - Oxides of Sulphur Tons/Yr:	.000177750002648681
Particulate Matter Tons/Yr:	.0002661372990477223
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.000259750003870577

Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA
Year:	2007
County Code:	10
Air Basin:	SJV
Facility ID:	3000
Air District Name:	SJU
SIC Code:	8211
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0009591251487488729
Reactive Organic Gases Tons/Yr:	.000802500011958182
Carbon Monoxide Emissions Tons/Yr:	.00255000003799796
NOX - Oxides of Nitrogen Tons/Yr:	.0110700001649559
SOX - Oxides of Sulphur Tons/Yr:	.0000053000000789761
Particulate Matter Tons/Yr:	.0002661372990477223
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.000259750003870577

Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93611
Year:	2008
County Code:	10
Air Basin:	SJV
Facility ID:	3000
Air District Name:	SJU
SIC Code:	8211
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0009591251487488729
Reactive Organic Gases Tons/Yr:	.000802500011958182
Carbon Monoxide Emissions Tons/Yr:	.00255000003799796
NOX - Oxides of Nitrogen Tons/Yr:	.0110700001649559
SOX - Oxides of Sulphur Tons/Yr:	.0000053000000789761
Particulate Matter Tons/Yr:	.0002661372990477223
Part. Matter 10 Micrometers and Smllr Tons/Yr:	.000259750003870577

Name:	CLOVIS UNIFIED SCHOOL DISTRICT

BUCHANAN HIGH SCHOOL (Continued) **S106920634**

Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93611
Year:	2009
County Code:	10
Air Basin:	SJV
Facility ID:	3000
Air District Name:	SJU
SIC Code:	8211
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9.5912514874887196E-4
Reactive Organic Gases Tons/Yr:	8.0250001195818199E-4
Carbon Monoxide Emissions Tons/Yr:	0.00255000003799796
NOX - Oxides of Nitrogen Tons/Yr:	0.0110700001649559
SOX - Oxides of Sulphur Tons/Yr:	5.3000000789761501E-6
Particulate Matter Tons/Yr:	2.6613729904772197E-4
Part. Matter 10 Micrometers and Smllr Tons/Yr:	2.5975000387057698E-4

Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93611
Year:	2010
County Code:	10
Air Basin:	SJV
Facility ID:	3000
Air District Name:	SJU
SIC Code:	8211
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.00095972272021035
Reactive Organic Gases Tons/Yr:	0.000803
Carbon Monoxide Emissions Tons/Yr:	2.5500000000000002E-3
NOX - Oxides of Nitrogen Tons/Yr:	0.0111
SOX - Oxides of Sulphur Tons/Yr:	5.3000000000000001E-6
Particulate Matter Tons/Yr:	2.6639344262294998E-4
Part. Matter 10 Micrometers and Smllr Tons/Yr:	2.5999999999999998E-4

Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93611
Year:	2011
County Code:	10
Air Basin:	SJV
Facility ID:	3000
Air District Name:	SJU
SIC Code:	8211
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.00067138759698
Reactive Organic Gases Tons/Yr:	0.00056175000239
Carbon Monoxide Emissions Tons/Yr:	0.0017850000076
NOX - Oxides of Nitrogen Tons/Yr:	0.0080503000336
SOX - Oxides of Sulphur Tons/Yr:	3.7100000158e-006
Particulate Matter Tons/Yr:	0.0004585963128

BUCHANAN HIGH SCHOOL (Continued) **S106920634**

Part. Matter 10 Micrometers and Smllr Tons/Yr:0.00044759000129

Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93611
Year:	2012
County Code:	10
Air Basin:	SJV
Facility ID:	3000
Air District Name:	SJU
SIC Code:	8211
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.00067138759698
Reactive Organic Gases Tons/Yr:	0.00056175000239
Carbon Monoxide Emissions Tons/Yr:	0.0017850000076
NOX - Oxides of Nitrogen Tons/Yr:	0.007749000033
SOX - Oxides of Sulphur Tons/Yr:	3.7100000158e-006
Particulate Matter Tons/Yr:	0.00018629610735
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.00018182500077

Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93611
Year:	2013
County Code:	10
Air Basin:	SJV
Facility ID:	3000
Air District Name:	SJU
SIC Code:	8211
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.00063972680706
Reactive Organic Gases Tons/Yr:	0.000562
Carbon Monoxide Emissions Tons/Yr:	0.001782
NOX - Oxides of Nitrogen Tons/Yr:	0.00775
SOX - Oxides of Sulphur Tons/Yr:	3.71e-006
Particulate Matter Tons/Yr:	0.00018575819672
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.0001813

Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93611
Year:	2014
County Code:	10
Air Basin:	SJV
Facility ID:	3000
Air District Name:	SJU
SIC Code:	8211
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.0006394422338
Reactive Organic Gases Tons/Yr:	0.00056175000239
Carbon Monoxide Emissions Tons/Yr:	0.0017850000076

BUCHANAN HIGH SCHOOL (Continued) **S106920634**

NOX - Oxides of Nitrogen Tons/Yr:	0.007749000033
SOX - Oxides of Sulphur Tons/Yr:	3.7100000158e-006
Particulate Matter Tons/Yr:	0.00018629610735
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.00018182500077

Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93611
Year:	2015
County Code:	10
Air Basin:	SJV
Facility ID:	3000
Air District Name:	SJU
SIC Code:	8211
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.00063972680706
Reactive Organic Gases Tons/Yr:	0.000562
Carbon Monoxide Emissions Tons/Yr:	0.001782
NOX - Oxides of Nitrogen Tons/Yr:	0.00775
SOX - Oxides of Sulphur Tons/Yr:	3.71e-006
Particulate Matter Tons/Yr:	0.00018575819672
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.0001813

Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93611
Year:	2016
County Code:	10
Air Basin:	SJV
Facility ID:	3000
Air District Name:	SJU
SIC Code:	8211
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.00063972680706
Reactive Organic Gases Tons/Yr:	0.000562
Carbon Monoxide Emissions Tons/Yr:	0.001782
NOX - Oxides of Nitrogen Tons/Yr:	0.00775
SOX - Oxides of Sulphur Tons/Yr:	3.71e-006
Particulate Matter Tons/Yr:	0.00018575819672
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.0001813

Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Address:	1560 N MINNEWAWA AVE
City,State,Zip:	CLOVIS, CA 93611
Year:	2017
County Code:	10
Air Basin:	SJV
Facility ID:	3000
Air District Name:	SJU
SIC Code:	8211
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported

BUCHANAN HIGH SCHOOL (Continued) **S106920634**

Total Organic Hydrocarbon Gases Tons/Yr: 0.00063972680706
Reactive Organic Gases Tons/Yr: 0.000562
Carbon Monoxide Emissions Tons/Yr: 0.001782
NOX - Oxides of Nitrogen Tons/Yr: 0.00775
SOX - Oxides of Sulphur Tons/Yr: 3.71e-006
Particulate Matter Tons/Yr: 0.00018575819672
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0.0001813

CERS:
Name: CLOVIS UNIFIED SCHOOL DISTRICT
Address: 1560 N MINNEWAWA AVE
City,State,Zip: CLOVIS, CA 93619-7600
Site ID: 461291
CERS ID: 110037993516
CERS Description: US EPA Air Emission Inventory System (EIS)

Name: BUCHANAN HIGH SCHOOL
Address: 1560 N. MINNEWAWA
City,State,Zip: CLOVIS, CA 93619
Site ID: 335371
CERS ID: 60001141
CERS Description: School Investigation

Affiliation:
Affiliation Type Desc: Supervisor
Entity Name: MARK MALINOWSKI
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Lead Project Manager
Entity Name: MELLAN SONGCO
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: SACRAMENTO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Name: BUCHANAN HIGH SCHOOL
Address: 1560 N MINNEWAWA AVE
City,State,Zip: CLOVIS, CA 93619
Site ID: 378317
CERS ID: 10692094
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 378317
Site Name: BUCHANAN HIGH SCHOOL
Violation Date: 01-21-2015
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)

BUCHANAN HIGH SCHOOL (Continued) **S106920634**

Violation Description:	Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 01/21/2015. minor labeling corrections made onsite to used oil drain collection containers
Violation Division:	Fresno County Department of Public Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	378317
Site Name:	BUCHANAN HIGH SCHOOL
Violation Date:	01-21-2015
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	Returned to compliance on 01/21/2015. inventory needs to add CO2 tanks for swimming pools, delete 64 RP and twister
Violation Division:	Fresno County Department of Public Health
Violation Program:	HMRRP
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-21-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fresno County Department of Public Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-21-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	need to manage 4 empty drums no empty container in tracking system
Eval Division:	Fresno County Department of Public Health
Eval Program:	HW
Eval Source:	CERS

Affiliation:

Affiliation Type Desc:	Parent Corporation
Entity Name:	Clovis Unified School District
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Document Preparer
Entity Name:	Stanely Kawaguchi

BUCHANAN HIGH SCHOOL (Continued) **S106920634**

Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Clovis Unified School District
Entity Title:	Not reported
Affiliation Address:	1450 HERNDON
Affiliation City:	CLOVIS
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	936110567
Affiliation Phone:	(559) 327-9000
Affiliation Type Desc:	CUPA District
Entity Name:	Fresno County Community Health Department
Entity Title:	Not reported
Affiliation Address:	1221 Fulton St., 3rd FloorP.O. Box 11867
Affiliation City:	Fresno
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93775
Affiliation Phone:	(559) 600-3271
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	1450 HERNDON AVE
Affiliation City:	CLOVIS
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93611
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Stan Kawaguchi
Entity Title:	Not reported
Affiliation Address:	1490 HERNDON AVENUE
Affiliation City:	CLOVIS
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93811
Affiliation Phone:	Not reported
Affiliation Type Desc:	Identification Signer
Entity Name:	Stanley Kawaguchi
Entity Title:	Stanley Kawaguchi
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

BUCHANAN HIGH SCHOOL (Continued) **S106920634**

Affiliation Type Desc:	Operator
Entity Name:	Clovis Unified School Distric
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(559) 327-9000

---

6 **NORTH CLOVIS AVENUE SCHOOL** **ENVIROSTOR** **S105840718**
NNE **CLOVIS AVENUE/TEAGUE AVENUE** **SCH** **N/A**
1/2-1 **CLOVIS, CA 93611**
0.627 mi.
3311 ft.

Relative:
Higher

Actual:
381 ft.

ENVIROSTOR:

Name:	NORTH CLOVIS AVENUE SCHOOL
Address:	CLOVIS AVENUE/TEAGUE AVENUE
City,State,Zip:	CLOVIS, CA 93611
Facility ID:	10010017
Status:	No Further Action
Status Date:	12/11/2003
Site Code:	104331
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	16.5
NPL:	NO
Regulatory Agencies:	DTSC
Lead Agency:	DTSC
Program Manager:	Not reported
Supervisor:	Jose Salcedo
Division Branch:	Northern California Schools & Santa Susana
Assembly:	23
Senate:	08
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	36.8595
Longitude:	-119.7072
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic DDD DDE DDT Toxaphene
Confirmed COC:	30023-NO 30001-NO 30006-NO 30007-NO 30008-NO No Contaminants found
Potential Description:	SOIL
Alias Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	CLOVIS USD-PROPOSED CLOVIS STREET SCHOOL
Alias Type:	Alternate Name
Alias Name:	NORTH CLOVIS AVENUE SCHOOL
Alias Type:	Alternate Name
Alias Name:	104331
Alias Type:	Project Code (Site Code)
Alias Name:	10010017
Alias Type:	Envirostor ID Number

NORTH CLOVIS AVENUE SCHOOL (Continued) **S105840718**

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	03/27/2003
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	12/19/2003
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	07/15/2003
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	12/11/2003
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Workplan
Completed Date:	07/22/2003
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Name:	NORTH CLOVIS AVENUE SCHOOL
Address:	CLOVIS AVENUE/TEAGUE AVENUE
City,State,Zip:	CLOVIS, CA 93611
Facility ID:	10010017
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	16.5
National Priorities List:	NO
Cleanup Oversight Agencies:	DTSC
Lead Agency:	DTSC
Lead Agency Description:	* DTSC
Project Manager:	Not reported

NORTH CLOVIS AVENUE SCHOOL (Continued) **S105840718**

Supervisor:	Jose Salcedo
Division Branch:	Northern California Schools & Santa Susana
Site Code:	104331
Assembly:	23
Senate:	08
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	12/11/2003
Restricted Use:	NO
Funding:	School District
Latitude:	36.8595
Longitude:	-119.7072
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic, Arsenic, DDD, DDE, DDT, Toxaphene
Confirmed COC:	30023-NO, 30001-NO, 30006-NO, 30007-NO, 30008-NO, No Contaminants found
Potential Description:	SOIL
Alias Name:	CLOVIS UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	CLOVIS USD-PROPOSED CLOVIS STREET SCHOOL
Alias Type:	Alternate Name
Alias Name:	NORTH CLOVIS AVENUE SCHOOL
Alias Type:	Alternate Name
Alias Name:	104331
Alias Type:	Project Code (Site Code)
Alias Name:	10010017
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	03/27/2003
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	12/19/2003
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	07/15/2003
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	12/11/2003
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Workplan
Completed Date:	07/22/2003

NORTH CLOVIS AVENUE SCHOOL (Continued) **S105840718**

Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

Count: 2 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CLOVIS	S107540545		S CLOVIS AVE, 2100 BLOCK,		CDL
CLOVIS	S121643812	HERNDON AVE WIDENING WILLOW TO MIN	HERNDON AVE WILLOW AVE TO MINN	93612	CIWQS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/04/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/26/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 113

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/26/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 113

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/26/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 113

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/26/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 113

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/26/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 113

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/13/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 6

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/07/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/19/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 08/19/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 14

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 07/29/2019
Date Data Arrived at EDR: 07/31/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 69

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/29/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 07/29/2019
Date Data Arrived at EDR: 07/31/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 69

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/29/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/12/2019
Date Data Arrived at EDR: 08/13/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 57

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 08/13/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/12/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 80

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/08/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 79
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/16/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 80
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 07/02/2019
Date Data Arrived at EDR: 10/16/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 8
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 80
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 80
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 80
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 08/05/2019
Number of Days to Update: 55

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/11/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 09/12/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 80

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 80

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/08/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 80

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 04/12/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 80

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/02/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 79

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/16/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 79

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 07/29/2019
Date Data Arrived at EDR: 07/31/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 69

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/29/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 57

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 09/24/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/03/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/12/2019
Date Made Active in Reports: 08/15/2019
Number of Days to Update: 64

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 03/26/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 34

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/07/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 08/02/2019
Next Scheduled EDR Contact: 11/11/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 07/29/2019
Date Data Arrived at EDR: 07/31/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 69

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/29/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/16/2019
Date Made Active in Reports: 09/24/2019
Number of Days to Update: 70

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 09/24/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 7

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 10/22/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 06/28/2019
Date Data Arrived at EDR: 06/28/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 26

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 08/20/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/11/2019
Number of Days to Update: 70

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 7

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/22/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 08/29/2019
Date Data Arrived at EDR: 08/30/2019
Date Made Active in Reports: 10/29/2019
Number of Days to Update: 60

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/30/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 65

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/26/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 89

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/24/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 05/15/2019
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 58

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 08/05/2019
Number of Days to Update: 55

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/26/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 113

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/15/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 79

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/23/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/11/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/07/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/16/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/26/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 89

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/24/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/09/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/23/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 09/30/2018
Date Data Arrived at EDR: 04/24/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 106

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/23/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019
Date Data Arrived at EDR: 05/02/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/21/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 08/20/2019
Date Data Arrived at EDR: 09/05/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 18

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2019
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 34

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/11/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 10/07/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/20/2019
Date Data Arrived at EDR: 06/20/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 49

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 09/06/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/03/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 08/09/2019
Next Scheduled EDR Contact: 11/04/2019
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/15/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/31/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 85

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/29/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2019
Date Data Arrived at EDR: 07/16/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 78

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/06/2019
Next Scheduled EDR Contact: 01/19/2020
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 07/30/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 06/06/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 140

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 09/12/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/03/2019
Date Data Arrived at EDR: 05/29/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 71

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/27/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/30/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/30/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2019
Date Data Arrived at EDR: 09/10/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 37

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/10/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 05/03/2019
Date Data Arrived at EDR: 06/05/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 90

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/10/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 07/06/2019
Date Data Arrived at EDR: 07/09/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 85
Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 10/08/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/20/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 79
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 57
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 09/24/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64
Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 08/15/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 68

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 08/28/2019
Date Data Arrived at EDR: 08/30/2019
Date Made Active in Reports: 10/29/2019
Number of Days to Update: 60

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 03/19/2019
Date Data Arrived at EDR: 03/22/2019
Date Made Active in Reports: 04/09/2019
Number of Days to Update: 18

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/28/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 55

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 59

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/18/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/22/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 66

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 69

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/16/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 08/07/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 05/29/2019
Date Made Active in Reports: 07/22/2019
Number of Days to Update: 54

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 10/11/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/19/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/19/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/08/2019
Date Data Arrived at EDR: 07/09/2019
Date Made Active in Reports: 09/20/2019
Number of Days to Update: 73

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 10/08/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 08/15/2019
Number of Days to Update: 65
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/17/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/09/2019
Number of Days to Update: 66
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 08/12/2019
Date Data Arrived at EDR: 08/13/2019
Date Made Active in Reports: 10/16/2019
Number of Days to Update: 64
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/13/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/09/2019
Number of Days to Update: 66
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/12/2019
Date Made Active in Reports: 08/15/2019
Number of Days to Update: 64
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 06/17/2019
Date Data Arrived at EDR: 06/18/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 65
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 04/27/2018
Date Data Arrived at EDR: 06/13/2018
Date Made Active in Reports: 07/17/2018
Number of Days to Update: 34
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 08/20/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 07/11/2018
Date Made Active in Reports: 09/13/2018
Number of Days to Update: 64
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 10/11/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/12/2019
Date Made Active in Reports: 08/15/2019
Number of Days to Update: 64

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 65

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 7

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/22/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 06/10/2019
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 08/30/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST ALAMEDA: Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 04/10/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 06/20/2019
Number of Days to Update: 70

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 09/10/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 51

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 08/05/2019
Date Data Arrived at EDR: 08/07/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 63

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/23/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 08/20/2019
Date Data Arrived at EDR: 08/23/2019
Date Made Active in Reports: 10/22/2019
Number of Days to Update: 60

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 07/30/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 68

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 09/12/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 49

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 07/11/2019
Date Data Arrived at EDR: 07/11/2019
Date Made Active in Reports: 09/20/2019
Number of Days to Update: 71

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 10/09/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/08/2019
Date Data Arrived at EDR: 07/10/2019
Date Made Active in Reports: 09/20/2019
Number of Days to Update: 72

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 08/19/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 65

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/06/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 63

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 08/16/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 10/15/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/22/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 65

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 09/12/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/09/2019
Date Data Arrived at EDR: 07/11/2019
Date Made Active in Reports: 09/20/2019
Number of Days to Update: 71

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/15/2019
Date Data Arrived at EDR: 07/17/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 71

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/16/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 10/09/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58
Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/27/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills
This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 42
Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 10/18/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory
A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58
Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/27/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory
A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58
Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/25/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 07/15/2019
Date Data Arrived at EDR: 07/17/2019
Date Made Active in Reports: 08/05/2019
Number of Days to Update: 19
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 10/29/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 10/09/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/27/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 64

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/22/2019
Date Data Arrived at EDR: 08/26/2019
Date Made Active in Reports: 10/29/2019
Number of Days to Update: 64

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 09/25/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/29/2019
Date Data Arrived at EDR: 05/30/2019
Date Made Active in Reports: 07/22/2019
Number of Days to Update: 53

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 10/18/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 08/21/2019
Date Data Arrived at EDR: 09/03/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 58

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 07/25/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 62

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 09/30/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/23/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 64

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 08/07/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 63
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/05/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 08/09/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 61
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/05/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 08/06/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 64
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/05/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 06/03/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/12/2019
Number of Days to Update: 69
Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64
Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 07/11/2019
Date Made Active in Reports: 09/20/2019
Number of Days to Update: 71
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 07/11/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 74

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/06/2019
Date Data Arrived at EDR: 06/28/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 55

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/01/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/06/2019
Date Data Arrived at EDR: 06/28/2019
Date Made Active in Reports: 09/13/2019
Number of Days to Update: 77

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/01/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 07/16/2019
Date Data Arrived at EDR: 07/16/2019
Date Made Active in Reports: 09/24/2019
Number of Days to Update: 70

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 08/29/2019
Date Data Arrived at EDR: 08/30/2019
Date Made Active in Reports: 10/29/2019
Number of Days to Update: 60

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 08/05/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 65

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/16/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 69

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 67

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/11/2019
Next Scheduled EDR Contact: 12/29/2019
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 08/06/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 08/15/2019
Number of Days to Update: 1

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 08/21/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 07/30/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 67

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/14/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 08/28/2019
Date Data Arrived at EDR: 08/30/2019
Date Made Active in Reports: 10/29/2019
Number of Days to Update: 60

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 06/18/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 29

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/02/2019
Date Data Arrived at EDR: 07/02/2019
Date Made Active in Reports: 09/20/2019
Number of Days to Update: 80

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 07/18/2019
Date Data Arrived at EDR: 07/18/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 70

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 06/03/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 07/23/2019
Number of Days to Update: 49

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 08/28/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 05/20/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 58

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 65

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 08/12/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 64

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 08/05/2019
Next Scheduled EDR Contact: 11/18/2019
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/29/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 63

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/21/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/25/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/07/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 05/29/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 63

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/21/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 07/26/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 09/25/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 30

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 09/25/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 07/26/2019
Date Data Arrived at EDR: 07/31/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 69

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/14/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 08/05/2019
Number of Days to Update: 83

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/07/2019
Next Scheduled EDR Contact: 11/25/2019
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 06/21/2019
Number of Days to Update: 51

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/29/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/09/2019
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 04/09/2018
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/16/2019
Next Scheduled EDR Contact: 12/02/2019
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/06/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

NEES AVE. WIDENING FROM MINNEWAWA TO CLOVIS
NEES AVE./N. HARVARD AVE
CLOVIS, CA 93619

TARGET PROPERTY COORDINATES

Latitude (North):	36.85211 - 36° 51' 7.60''
Longitude (West):	119.707861 - 119° 42' 28.30''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	258568.0
UTM Y (Meters):	4081687.0
Elevation:	375 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5603160 CLOVIS, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

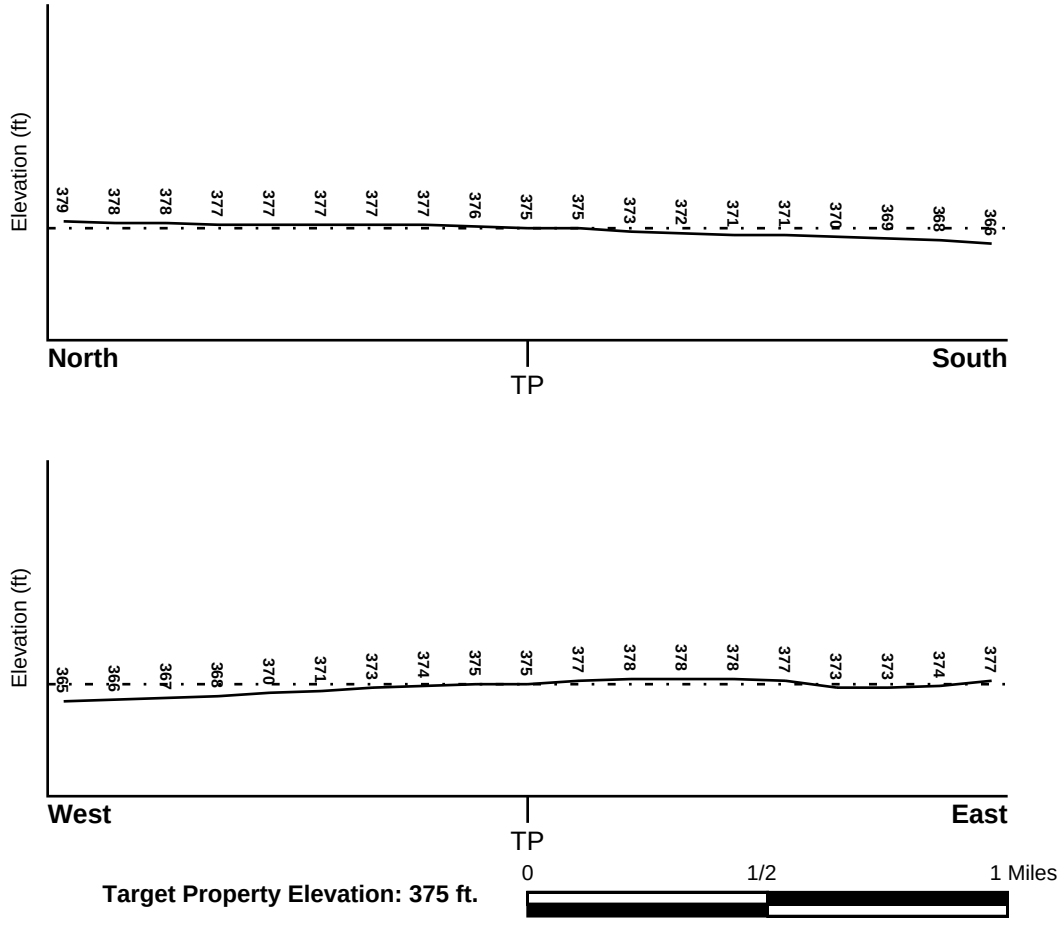
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06019C1580H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
Not Reported	

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CLOVIS	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

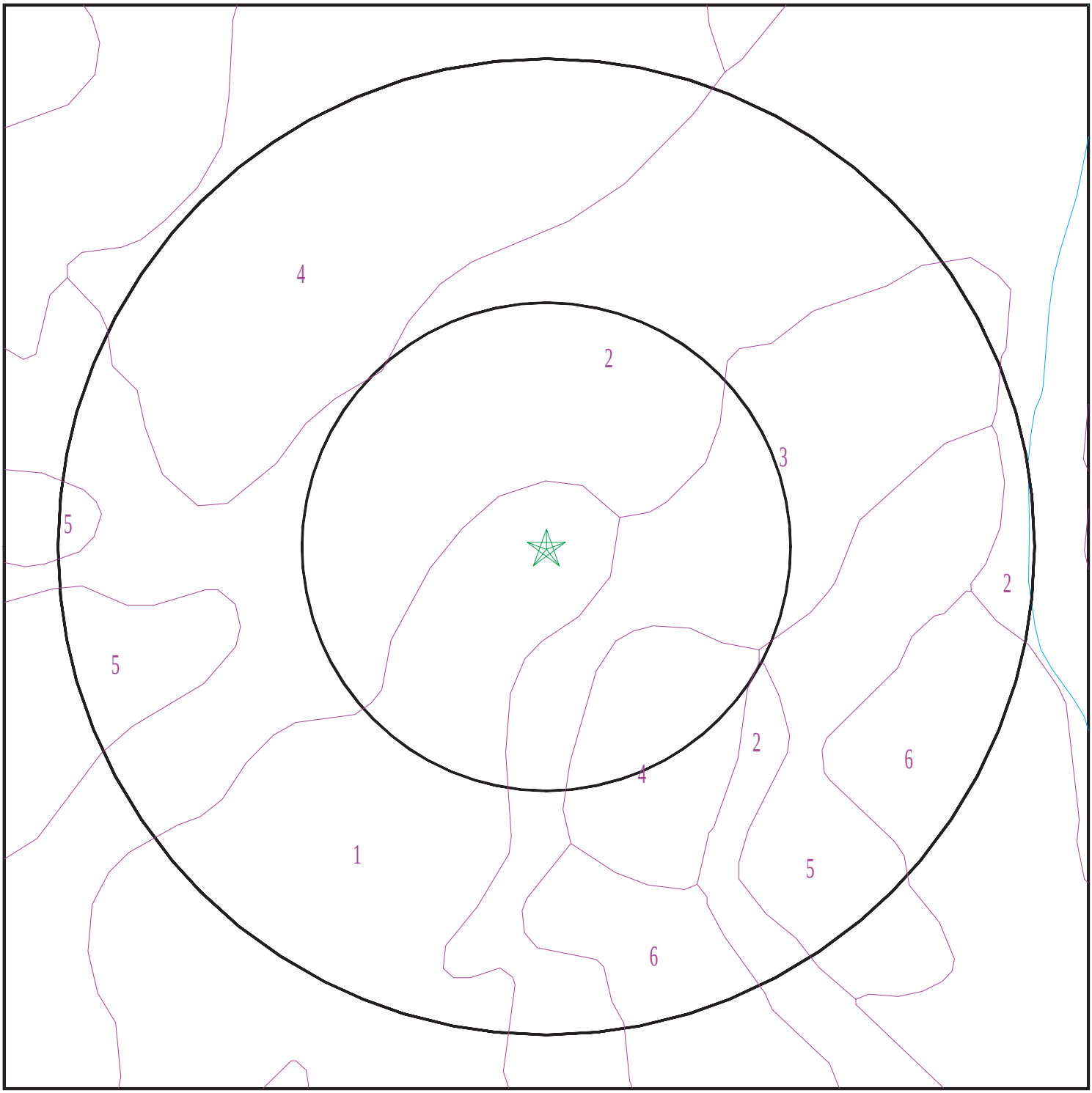
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5852839.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Nees Ave. Widening From Minnewawa To Clovis	CLIENT:	Blackburn Consulting
ADDRESS:	Nees Ave./N. Harvard Ave Clovis CA 93619	CONTACT:	Rob Sandquist
		INQUIRY #:	5852839.2s
LAT/LONG:	36.85211 / 119.707861	DATE:	November 01, 2019 6:29 pm

Copyright © 2019 EDR, Inc. © 2015 TomTom Rel. 2015.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: HANFORD

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
2	16 inches	72 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1

Soil Map ID: 2

Soil Component Name: TUJUNGA

Soil Surface Texture: stratified sand to loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	3 inches	59 inches	stratified sand to loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1
2	0 inches	3 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1

Soil Map ID: 3

Soil Component Name: HANFORD

Soil Surface Texture: sand

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	27 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
2	0 inches	16 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
3	16 inches	27 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1

Soil Map ID: 4

Soil Component Name: VISALIA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
2	9 inches	48 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
3	48 inches	59 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1

Soil Map ID: 5

Soil Component Name: HANFORD

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
2	16 inches	72 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1

Soil Map ID: 6

Soil Component Name: DELHI

Soil Surface Texture: loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: 141 Min: 42	Max: 7.3 Min: 6.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	7 inches	25 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: 141 Min: 42	Max: 7.3 Min: 6.1
3	25 inches	59 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: 141 Min: 42	Max: 7.3 Min: 6.1

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000178720	1/4 - 1/2 Mile NE
7	USGS40000178581	1/2 - 1 Mile ESE
9	USGS40000178514	1/2 - 1 Mile South
16	USGS40000178751	1/2 - 1 Mile WNW
19	USGS40000178814	1/2 - 1 Mile NE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

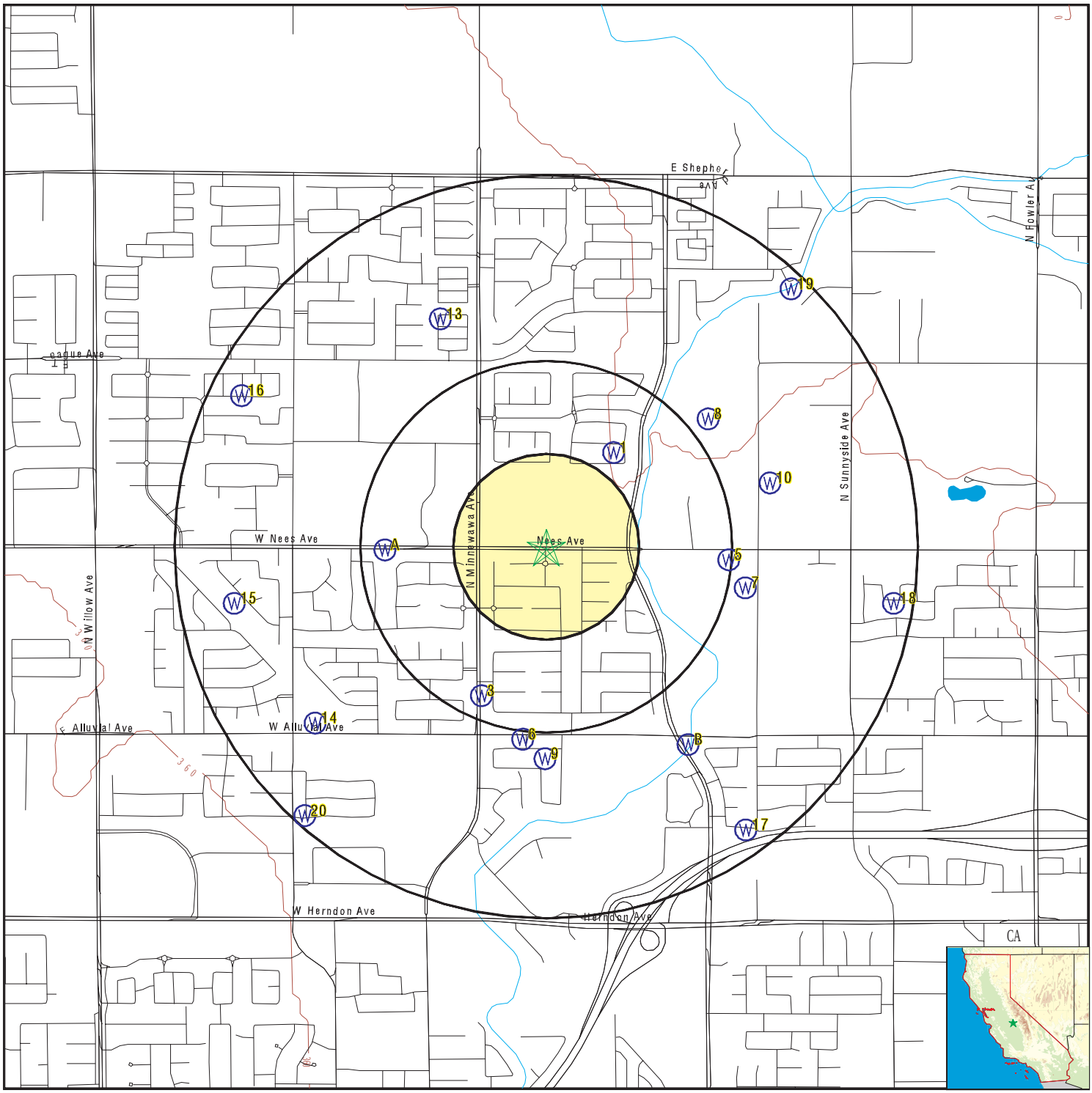
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	11152	1/4 - 1/2 Mile West
3	CADWR8000030468	1/4 - 1/2 Mile SSW
A4	CADWR8000030544	1/4 - 1/2 Mile West
5	CADWR8000030537	1/4 - 1/2 Mile East
6	CADWR8000030462	1/2 - 1 Mile South
8	CADWR8000030579	1/2 - 1 Mile NE
10	CADWR8000030565	1/2 - 1 Mile ENE
B11	11156	1/2 - 1 Mile SE
B12	23254	1/2 - 1 Mile SE
13	CADWR8000030621	1/2 - 1 Mile NNW
14	11154	1/2 - 1 Mile SW
15	CADWR8000030502	1/2 - 1 Mile West
17	11157	1/2 - 1 Mile SE
18	CADWR8000030501	1/2 - 1 Mile East
20	11155	1/2 - 1 Mile SW

PHYSICAL SETTING SOURCE MAP - 5852839.2s



County Boundary
Major Roads
Contour Lines
Earthquake Fault Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

Groundwater Flow Direction
Indeterminate Groundwater Flow at Location
Groundwater Flow Varies at Location
Closest Hydrogeological Data
Oil, gas or related wells

SITE NAME:	Nees Ave. Widening From Minnewawa To Clovis	CLIENT:	Blackburn Consulting
ADDRESS:	Nees Ave./N. Harvard Ave Clovis CA 93619	CONTACT:	Rob Sandquist
		INQUIRY #:	5852839.2s
LAT/LONG:	36.85211 / 119.707861	DATE:	November 01, 2019 6:29 pm

Copyright © 2019 EDR, Inc. © 2015 TomTom Rel. 2015.

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
NE
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000178720**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	012S021E29L001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19600506	Well Depth:	105
Well Depth Units:	ft	Well Hole Depth:	136
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1963-10-14
Feet below surface:	38.30	Feet to sea level:	Not Reported
Note:	Not Reported		

A2
West
1/4 - 1/2 Mile
Lower

CA WELLS **11152**

Seq:	11152	Prim sta c:	12S/21E-30R01 M
Frds no:	1010003035	County:	10
District:	11	User id:	AGE
System no:	1010003	Water type:	G
Source nam:	WELL 25	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	365108.0	Longitude:	1194252.0
Precision:	3	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010003	System nam:	City Of Clovis
Hqname:	Not Reported	Address:	1033 FIFTH STREET
City:	CLOVIS	State:	Not Reported
Zip:	93612	Zip ext:	Not Reported
Pop serv:	60004	Connection:	13527
Area serve:	CITY OF CLOVIS & DIST 8,TARPEY		

Sample date:	11-SEP-17	Finding:	240.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		

Sample date:	11-SEP-17	Finding:	2.6
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	11-SEP-17	Finding:	90.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		

Sample date:	11-SEP-17	Finding:	110.

Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-SEP-17	Finding:	97.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	22.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	10.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	13.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	2.1
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	3.4
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	8.9
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	11-SEP-17	Finding:	0.13
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	11-SEP-17	Finding:	180.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	11.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	180.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	0.25
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	09-SEP-16	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		

Sample date:	09-SEP-16	Finding:	3.1
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-SEP-16	Finding:	240.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	92.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	110.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	3.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-SEP-16	Finding:	100.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	23.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	11.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	2.4
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	4.2
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	12.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	09-SEP-16	Finding:	0.14
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	16-SEP-15	Finding:	11.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	16-SEP-15	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	16-SEP-15	Finding:	9.6
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	22.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	94.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	3.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	16-SEP-15	Finding:	110.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	89.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	240.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	4.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	0.11
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	16-SEP-15	Finding:	11.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	180.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	190.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	2.5
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		

Sample date:	12-SEP-14	Finding:	0.12
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	12-SEP-14	Finding:	12.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	12-SEP-14	Finding:	3.9
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	2.1
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	10.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	22.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	96.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	110.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	91.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	240.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	12-SEP-13	Finding:	230.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		

3
SSW
1/4 - 1/2 Mile
Lower

CA WELLS **CADWR8000030468**

State Well #:	12S21E31H001M	Station ID:	17832
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Kings	Well Completion Rpt #:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A4
West
1/4 - 1/2 Mile
Lower

CA WELLS **CADWR8000030544**

State Well #:	12S21E31A001M	Station ID:	17831
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Kings	Well Completion Rpt #:	Not Reported

5
East
1/4 - 1/2 Mile
Higher

CA WELLS **CADWR8000030537**

State Well #:	12S21E32B002M	Station ID:	17834
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Kings	Well Completion Rpt #:	Not Reported

6
South
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000030462**

State Well #:	12S21E32M002M	Station ID:	17835
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Kings	Well Completion Rpt #:	Not Reported

7
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS40000178581**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	012S021E32B001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	120
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

8
NE
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000030579**

State Well #:	12S21E29K001M	Station ID:	34827
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Kings	Well Completion Rpt #:	Not Reported

9
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000178514**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	012S021E32M001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19610310	Well Depth:	232
Well Depth Units:	ft	Well Hole Depth:	295
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1963-10-15
Feet below surface:	58.87	Feet to sea level:	Not Reported
Note:	Not Reported		

10
ENE
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000030565**

State Well #:	12S21E29Q001M	Station ID:	17829
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Kings	Well Completion Rpt #:	Not Reported

B11
SE
1/2 - 1 Mile
Lower

CA WELLS **11156**

Seq:	11156	Prim sta c:	12S/21E-32K01 M
Frds no:	1010003024	County:	10
District:	11	User id:	AGE
System no:	1010003	Water type:	G
Source nam:	WELL 22 - BEFORE GAC FILTER	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	365040.0	Longitude:	1194200.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported

Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1010003	System nam:	City Of Clovis
Hqname:	Not Reported	Address:	1033 FIFTH STREET
City:	CLOVIS	State:	Not Reported
Zip:	93612	Zip ext:	Not Reported
Pop serv:	60004	Connection:	13527
Area serve:	CITY OF CLOVIS & DIST 8,TARPEY		
Sample date:	07-MAR-18	Finding:	1.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-SEP-17	Finding:	90.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	14-SEP-17	Finding:	110.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	14-SEP-17	Finding:	1.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-SEP-17	Finding:	80.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	14-SEP-17	Finding:	18.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-SEP-17	Finding:	8.3
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-SEP-17	Finding:	14.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-SEP-17	Finding:	3.5
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	14-SEP-17	Finding:	5.1
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	14-SEP-17	Finding:	0.19
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	14-SEP-17	Finding:	2.5
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	14-SEP-17	Finding:	180.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		

Sample date:	14-SEP-17	Finding:	0.16
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	14-SEP-17	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	14-SEP-17	Finding:	1.3
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-SEP-17	Finding:	220.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	14-SEP-17	Finding:	7.9
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	230.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	96.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	120.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	1.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-16	Finding:	85.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	20.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	8.8
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	14.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	2.3
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	4.3
Chemical:	CHLORIDE	Report units:	MG/L

Dlr:	0.		
Sample date:	08-SEP-16	Finding:	6.1
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	08-SEP-16	Finding:	0.2
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	08-SEP-16	Finding:	180.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	1.7
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-SEP-15	Finding:	6.8
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	18-SEP-15	Finding:	2.1
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-15	Finding:	15.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-15	Finding:	9.6
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-15	Finding:	22.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-15	Finding:	94.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-15	Finding:	1.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-SEP-15	Finding:	120.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-15	Finding:	99.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-15	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		

Sample date:	18-SEP-15	Finding:	240.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	18-SEP-15	Finding:	180.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-15	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	18-SEP-15	Finding:	0.16
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	18-SEP-15	Finding:	4.6
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	18-SEP-14	Finding:	180.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-14	Finding:	0.17
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	18-SEP-14	Finding:	6.5
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	18-SEP-14	Finding:	3.6
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-14	Finding:	2.1
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-14	Finding:	14.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-14	Finding:	8.7
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-14	Finding:	19.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-14	Finding:	84.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-14	Finding:	110.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L

Dlr:	0.		
Sample date:	18-SEP-14	Finding:	92.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-14	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	18-SEP-14	Finding:	220.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	18-SEP-14	Finding:	7.3
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-SEP-13	Finding:	4.6
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-SEP-12	Finding:	4.7
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-SEP-12	Finding:	180.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		

B12
SE
1/2 - 1 Mile
Lower

CA WELLS **23254**

Seq:	23254	Prim sta c:	K10/003-22TRTED
Frds no:	1010003043	County:	10
District:	11	User id:	AGE
System no:	1010003	Water type:	G
Source nam:	WELL 22 - TREATED (GAC)	Station ty:	WELL/AMBNT
Latitude:	365040.0	Longitude:	1194200.0
Precision:	3	Status:	AT
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1010003	System nam:	City Of Clovis
Hqname:	Not Reported	Address:	1033 FIFTH STREET
City:	CLOVIS	State:	Not Reported
Zip:	93612	Zip ext:	Not Reported
Pop serv:	60004	Connection:	13527
Area serve:	CITY OF CLOVIS & DIST 8,TARPEY		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

13
NNW
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000030621**

State Well #:	12S21E30H001M	Station ID:	17830
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Kings	Well Completion Rpt #:	Not Reported

14
SW
1/2 - 1 Mile
Lower

CA WELLS **11154**

Seq:	11154	Prim sta c:	12S/21E-31G01 M
Frds no:	1010003036	County:	10
District:	11	User id:	AGE
System no:	1010003	Water type:	G
Source nam:	WELL 26	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	365043.0	Longitude:	1194305.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010003	System nam:	City Of Clovis
Hqname:	Not Reported	Address:	1033 FIFTH STREET
City:	CLOVIS	State:	Not Reported
Zip:	93612	Zip ext:	Not Reported
Pop serv:	60004	Connection:	13527
Area serve:	CITY OF CLOVIS & DIST 8,TARPEY		

Sample date:	08-MAR-18	Finding:	6.4e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		

Sample date:	07-DEC-17	Finding:	4.7e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		

Sample date:	11-SEP-17	Finding:	190.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		

Sample date:	11-SEP-17	Finding:	5.5e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		

Sample date:	11-SEP-17	Finding:	0.15
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		

Sample date:	11-SEP-17	Finding:	7.8
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		

Sample date:	11-SEP-17	Finding:	3.3
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	13.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	9.9
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	20.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	91.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	0.37
Chemical:	PHOSPHATE (AS PO4)	Report units:	UG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	2.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-SEP-17	Finding:	110.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	92.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	250.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	11.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-SEP-17	Finding:	2.9
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	05-JUN-17	Finding:	6.e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	09-MAR-17	Finding:	5.2e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	09-DEC-16	Finding:	6.3e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L

Dlr:	1.e-002		
Sample date:	12-SEP-16	Finding:	6.4e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	09-SEP-16	Finding:	0.16
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	09-SEP-16	Finding:	180.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	0.17
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	09-SEP-16	Finding:	8.9
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	09-SEP-16	Finding:	3.9
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	2.2
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	13.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	11.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	20.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	95.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	3.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-SEP-16	Finding:	110.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	91.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		

Sample date:	09-SEP-16	Finding:	230.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	3.2
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-SEP-16	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	20-JUN-16	Finding:	5.8e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	03-MAR-16	Finding:	6.9e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	04-DEC-15	Finding:	5.3e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	16-SEP-15	Finding:	240.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	88.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	110.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	3.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	16-SEP-15	Finding:	88.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	20.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	9.4
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	13.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	3.9
Chemical:	CHLORIDE	Report units:	MG/L

Dlr:	0.		
Sample date:	16-SEP-15	Finding:	8.8
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	16-SEP-15	Finding:	0.13
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	16-SEP-15	Finding:	5.9e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	16-SEP-15	Finding:	180.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	16-SEP-15	Finding:	11.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-JUN-15	Finding:	7.2e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	19-MAR-15	Finding:	6.6e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	08-DEC-14	Finding:	8.7e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	12-SEP-14	Finding:	90.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	190.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	8.4e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	12-SEP-14	Finding:	0.13
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	12-SEP-14	Finding:	12.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	12-SEP-14	Finding:	3.8
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	12-SEP-14	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	9.8
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	20.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	90.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	110.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	240.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	12-SEP-14	Finding:	8.1
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	13-JUN-14	Finding:	8.7e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	28-MAR-14	Finding:	3.7e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	13-DEC-13	Finding:	7.4e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	12-SEP-13	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-SEP-13	Finding:	240.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	12-SEP-13	Finding:	8.8e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	24-JUN-13	Finding:	7.e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	06-MAR-13	Finding:	3.1e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	03-DEC-12	Finding:	8.8e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L

Dlr:	1.e-002		
Sample date:	07-JUN-12	Finding:	6.8e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	05-MAR-12	Finding:	7.6e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		

15
West
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000030502**

State Well #:	12S21E31C001M	Station ID:	34829
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Kings	Well Completion Rpt #:	Not Reported

16
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000178751**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	012S021E30L001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	140
Well Depth Units:	ft	Well Hole Depth:	183
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1963-10-14
Feet below surface:	62.49	Feet to sea level:	Not Reported
Note:	Not Reported		

17
SE
1/2 - 1 Mile
Lower

CA WELLS **11157**

Seq:	11157	Prim sta c:	12S/21E-32K02 M
Frds no:	1010003025	County:	10
District:	11	User id:	AGE
System no:	1010003	Water type:	G
Source nam:	WELL 23	Station ty:	WELL/AMBNT
Latitude:	365028.0	Longitude:	1194150.0
Precision:	3	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

System no:	1010003	System nam:	City Of Clovis
Hqname:	Not Reported	Address:	1033 FIFTH STREET
City:	CLOVIS	State:	Not Reported
Zip:	93612	Zip ext:	Not Reported
Pop serv:	60004	Connection:	13527
Area serve:	CITY OF CLOVIS & DIST 8,TARPEY		

Sample date:	09-OCT-17	Finding:	170.
Chemical:	IRON	Report units:	UG/L
Dlr:	100.		

Sample date:	09-OCT-17	Finding:	41.
Chemical:	MANGANESE	Report units:	UG/L
Dlr:	20.		

Sample date:	20-SEP-17	Finding:	85.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		

Sample date:	20-SEP-17	Finding:	0.48
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	20-SEP-17	Finding:	0.51
Chemical:	PHOSPHATE (AS PO4)	Report units:	UG/L
Dlr:	0.		

Sample date:	20-SEP-17	Finding:	53.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		

Sample date:	20-SEP-17	Finding:	11.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	20-SEP-17	Finding:	6.3
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	20-SEP-17	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	20-SEP-17	Finding:	1.7
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	20-SEP-17	Finding:	3.6
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		

Sample date:	20-SEP-17	Finding:	0.24
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		

Sample date:	20-SEP-17	Finding:	150.
Chemical:	IRON	Report units:	UG/L
Dlr:	100.		

Sample date:	20-SEP-17	Finding:	53.
Chemical:	MANGANESE	Report units:	UG/L
Dlr:	20.		

Sample date:	20-SEP-17	Finding:	150.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	20-SEP-17	Finding:	1.2
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	20-SEP-17	Finding:	11.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	20-SEP-17	Finding:	0.48
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	20-SEP-17	Finding:	70.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	20-SEP-17	Finding:	160.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	20-SEP-17	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	190.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	85.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	100.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	0.69
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-16	Finding:	65.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	13.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	7.8
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	14.
Chemical:	SODIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	08-SEP-16	Finding:	2.4
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	4.1
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	08-SEP-16	Finding:	0.22
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	08-SEP-16	Finding:	2.5
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	08-SEP-16	Finding:	150.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	0.12
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	08-SEP-16	Finding:	11.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-SEP-16	Finding:	0.69
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-MAR-16	Finding:	180.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	25-SEP-15	Finding:	2.8
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	25-SEP-15	Finding:	14.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-SEP-15	Finding:	7.9
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-SEP-15	Finding:	14.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	25-SEP-15	Finding:	67.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	25-SEP-15	Finding:	0.78
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	25-SEP-15	Finding:	100.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	25-SEP-15	Finding:	85.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	25-SEP-15	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-SEP-15	Finding:	190.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	25-SEP-15	Finding:	160.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	25-SEP-15	Finding:	2.2
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	25-SEP-15	Finding:	11.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-SEP-15	Finding:	0.34
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	25-SEP-15	Finding:	0.18
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	25-SEP-15	Finding:	4.6
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	19-SEP-14	Finding:	6.9
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	19-SEP-14	Finding:	190.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-14	Finding:	0.17
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	19-SEP-14	Finding:	6.3
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	19-SEP-14	Finding:	4.4
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-14	Finding:	16.
Chemical:	SODIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	19-SEP-14	Finding:	11.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-14	Finding:	19.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-14	Finding:	91.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-14	Finding:	130.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-14	Finding:	110.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-14	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-SEP-14	Finding:	250.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	19-SEP-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	13-SEP-13	Finding:	5.8
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-SEP-13	Finding:	1.16
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	11-SEP-13	Finding:	0.191
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-SEP-12	Finding:	6.4
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-SEP-12	Finding:	230.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		

18
East
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000030501**

State Well #:	12S21E33D001M	Station ID:	17838
Well Name:	Not Reported	Well Use:	Unknown

Well Type:	Unknown	Well Depth:	0
Basin Name:	Kings	Well Completion Rpt #:	Not Reported

19
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000178814**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	012S021E29A001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

20
SW
1/2 - 1 Mile
Lower

CA WELLS **11155**

Seq:	11155	Prim sta c:	12S/21E-31K01 M
Frds no:	1010003037	County:	10
District:	11	User id:	AGE
System no:	1010003	Water type:	G
Source nam:	WELL 27	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	365030.0	Longitude:	1194307.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010003	System nam:	City Of Clovis
Hqname:	Not Reported	Address:	1033 FIFTH STREET
City:	CLOVIS	State:	Not Reported
Zip:	93612	Zip ext:	Not Reported
Pop serv:	60004	Connection:	13527
Area serve:	CITY OF CLOVIS & DIST 8,TARPEY		

Sample date:	07-DEC-17	Finding:	4.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	07-SEP-17	Finding:	14.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	07-SEP-17	Finding:	4.6
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	07-SEP-17	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported

Dlr:	0.		
Sample date:	07-SEP-17	Finding:	5.
Chemical:	COLOR	Report units:	UNITS
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	330.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	110.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	140.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	4.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-SEP-17	Finding:	120.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	26.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	16.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	2.1
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	4.8
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	17.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	07-SEP-17	Finding:	0.14
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	07-SEP-17	Finding:	240.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	16-JUN-17	Finding:	6.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	08-MAR-17	Finding:	5.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-DEC-16	Finding:	5.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-SEP-16	Finding:	16.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	4.8
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-SEP-16	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	0.15
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	09-SEP-16	Finding:	310.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	8.1
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	110.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	140.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	4.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-SEP-16	Finding:	130.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	29.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	15.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	2.5
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	5.2
Chemical:	CHLORIDE	Report units:	MG/L

Dlr:	0.		
Sample date:	09-SEP-16	Finding:	18.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	09-SEP-16	Finding:	0.14
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	09-SEP-16	Finding:	230.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-16	Finding:	7.7e-002
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-JUN-16	Finding:	4.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	04-MAR-16	Finding:	5.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-DEC-15	Finding:	5.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-SEP-15	Finding:	26.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	23-SEP-15	Finding:	11.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	23-SEP-15	Finding:	0.19
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	23-SEP-15	Finding:	220.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	23-SEP-15	Finding:	310.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	23-SEP-15	Finding:	7.5
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	23-SEP-15	Finding:	110.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	23-SEP-15	Finding:	140.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		

Sample date:	23-SEP-15	Finding:	4.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-SEP-15	Finding:	120.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	23-SEP-15	Finding:	13.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	23-SEP-15	Finding:	15.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	23-SEP-15	Finding:	2.1
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	23-SEP-15	Finding:	5.5
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	23-SEP-15	Finding:	17.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	23-SEP-15	Finding:	0.13
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	24-JUN-15	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	18-MAR-15	Finding:	7.6
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-DEC-14	Finding:	27.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-SEP-14	Finding:	15.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-SEP-14	Finding:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	05-SEP-14	Finding:	0.23
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	05-SEP-14	Finding:	22.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-SEP-14	Finding:	530.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US

Dlr:	0.		
Sample date:	05-SEP-14	Finding:	8.4
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	05-SEP-14	Finding:	200.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	05-SEP-14	Finding:	240.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	05-SEP-14	Finding:	3.8
Chemical:	CARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	05-SEP-14	Finding:	120.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	05-SEP-14	Finding:	27.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-SEP-14	Finding:	13.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-SEP-14	Finding:	2.1
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	05-SEP-14	Finding:	4.8
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	05-SEP-14	Finding:	18.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	05-SEP-14	Finding:	0.12
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	05-SEP-14	Finding:	1.2
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	05-SEP-14	Finding:	230.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	05-SEP-14	Finding:	0.61
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-JUN-14	Finding:	22.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	26-MAR-14	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-DEC-13	Finding:	23.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-SEP-13	Finding:	27.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-SEP-13	Finding:	310.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	24-JUN-13	Finding:	22.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-MAR-13	Finding:	22.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	06-DEC-12	Finding:	23.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-SEP-12	Finding:	22.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-JUN-12	Finding:	21.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	01-MAR-12	Finding:	22.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
93619	5	2

Federal EPA Radon Zone for FRESNO County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for FRESNO COUNTY, CA

Number of sites tested: 100

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.251 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.433 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

PHASE 1 INITIAL SITE ASSESSMENT

Nees Avenue Improvement Project – CIP 17-13 (Minnewawa to Clovis Avenues)

City of Clovis, California

APPENDIX E

City Directory Search

Nees Ave. Widening From Minnewawa To Clovis
Nees Ave./N. Harvard Ave
Clovis, CA 93619

Inquiry Number: 5852839.5
November 01, 2019

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2017 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc. or its affiliates is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

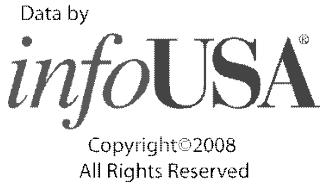
Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1922 through 2014. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

EDR is licensed to reproduce certain City Directory works by the copyright holders of those works. The purchaser of this EDR City Directory Report may include it in report(s) delivered to a customer. Reproduction of City Directories without permission of the publisher or licensed vendor may be a violation of copyright.



RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2014	EDR Digital Archive	-	X	X	-
2010	EDR Digital Archive	-	X	X	-
2005	EDR Digital Archive	-	X	X	-
2002	R.L. Polk & Co Publishers	-	X	X	-
1996	R.L. Polk & Co Publishers	-	X	X	-
1990	R.L. Polk & Co Publishers	-	-	-	-
1986	R.L. Polk & Co Publishers	-	-	-	-
1980	R.L. Polk & Co Publishers	-	-	-	-
1975	R.L. Polk & Co Publishers	-	-	-	-
1970	R.L. Polk & Co Publisher	-	-	-	-
1965	R.L. Polk & Co Publisher	-	-	-	-
1962	Pacific Telephone	-	-	-	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1958	R.L. Polk & Co Publishers	-	-	-	-
1952	R.L. Polk & Co Publishers	-	-	-	-
1947	R.L. Polk & Co Publishers	-	-	-	-
1942	R.L. Polk & Co Publishers	-	-	-	-
1937	R.L. Polk & Co Publishers	-	-	-	-
1932	R.L. Polk & Co Publishers	-	-	-	-
1927	R.L. Polk & Co Publishers	-	-	-	-
1922	Polk: Husted Directory Co.	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

Nees Ave./N. Harvard Ave
Clovis, CA 93619

FINDINGS DETAIL

Target Property research detail.

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

HOUSTON AVE

191 HOUSTON AVE

Year	Uses	Source
2002	Gilpin Lass I Stephanie L	R.L. Polk & Co Publishers

196 HOUSTON AVE

Year	Uses	Source
2002	Lee Charles E Jr A	R.L. Polk & Co Publishers
	Lee Adam G	R.L. Polk & Co Publishers

221 HOUSTON AVE

Year	Uses	Source
2002	Horasanian Michael D	R.L. Polk & Co Publishers
	Horasanlan Constance C A	R.L. Polk & Co Publishers

226 HOUSTON AVE

Year	Uses	Source
2002	Newberry Jon S 0 M	R.L. Polk & Co Publishers
	Newberry Coralee I	R.L. Polk & Co Publishers
	HOUSTON AVE	R.L. Polk & Co Publishers
	Jon Coralee	R.L. Polk & Co Publishers
	Jon Newberry S	R.L. Polk & Co Publishers

251 HOUSTON AVE

Year	Uses	Source
2002	Casey Patricia D 0 A	R.L. Polk & Co Publishers

Houston Ave

256 Houston Ave

Year	Uses	Source
2005	ROBERT A HIEB MD INC	EDR Digital Archive

FINDINGS

HOUSTON AVE

281 HOUSTON AVE

Year	Uses	Source
2002	Abele John W & Bobbi I A	R.L. Polk & Co Publishers

286 HOUSTON AVE

Year	Uses	Source
2002	Schellenberg Suzanne J	R.L. Polk & Co Publishers
	SC n n	R.L. Polk & Co Publishers
	Schellenberg Kevin L A	R.L. Polk & Co Publishers

Houston Ave

306 Houston Ave

Year	Uses	Source
2014	TANDALAY CURRICULUM LLC	EDR Digital Archive
2010	TANDALAY CURRICULUM LLC	EDR Digital Archive
2005	TANDALAY CURRICULUM LLC	EDR Digital Archive

HOUSTON AVE

306 HOUSTON AVE

Year	Uses	Source
2002	Phillips Michael D & Tami 0 + A	R.L. Polk & Co Publishers

331 HOUSTON AVE

Year	Uses	Source
2002	Rickard Linda J	R.L. Polk & Co Publishers
	Rickard Dennis A 01 A	R.L. Polk & Co Publishers

Houston Ave

336 Houston Ave

Year	Uses	Source
2014	GODS DESIGNS	EDR Digital Archive
2010	GODS DESIGNS	EDR Digital Archive
2005	GODS DESIGNS	EDR Digital Archive

FINDINGS

HOUSTON AVE

336 HOUSTON AVE

Year	Uses	Source
2002	Wagenman Carolyn A	R.L. Polk & Co Publishers
	Wagenman Mickey J E A	R.L. Polk & Co Publishers

361 HOUSTON AVE

Year	Uses	Source
2002	Sahakian John A Jr B A	R.L. Polk & Co Publishers

366 HOUSTON AVE

Year	Uses	Source
2002	Margolin Marcela	R.L. Polk & Co Publishers
	Margolin Louis J 01 A	R.L. Polk & Co Publishers

Houston Ave

381 Houston Ave

Year	Uses	Source
2010	STAIN FMLY SPPRTING ORGNZATION	EDR Digital Archive

HOUSTON AVE

381 HOUSTON AVE

Year	Uses	Source
2002	Stain Michael D & Janice 01 A	R.L. Polk & Co Publishers

JORDAN AVE

126 JORDAN AVE

Year	Uses	Source
2002	Wood Karen A	R.L. Polk & Co Publishers

Jordan Ave

130 Jordan Ave

Year	Uses	Source
2005	HOOK KEVIN CLIFTON	EDR Digital Archive

FINDINGS

135 Jordan Ave

Year	Uses	Source
2005	CALDERON FRANCES	EDR Digital Archive

JORDAN AVE

135 JORDAN AVE

Year	Uses	Source
2002	2 Leon David C A	R.L. Polk & Co Publishers
	Leon Frances	R.L. Polk & Co Publishers

156 JORDAN AVE

Year	Uses	Source
2002	Morales Lourdes	R.L. Polk & Co Publishers
	Morales Jose M A	R.L. Polk & Co Publishers

165 JORDAN AVE

Year	Uses	Source
2002	Burrough Marilyn	R.L. Polk & Co Publishers
	Burrough Linn V Jr 21 A I	R.L. Polk & Co Publishers

166 JORDAN AVE

Year	Uses	Source
2002	DRussell Michael A	R.L. Polk & Co Publishers

Jordan Ave

190 Jordan Ave

Year	Uses	Source
2014	HR FERNANDEZ MD INC	EDR Digital Archive
2010	HR FERNANDEZ MD INC	EDR Digital Archive

JORDAN AVE

195 JORDAN AVE

Year	Uses	Source
2002	Reed Howard A & Bonnie 81 A	R.L. Polk & Co Publishers

FINDINGS

Jordan Ave

220 Jordan Ave

Year	Uses	Source
2014	DTA TRUCKING LLC	EDR Digital Archive

JORDAN AVE

250 JORDAN AVE

Year	Uses	Source
2002	CASTANOS building contractors	R.L. Polk & Co Publishers
	BUCHANAN ESTATES W	R.L. Polk & Co Publishers

Jordan Ave

280 Jordan Ave

Year	Uses	Source
2014	DAN A ADAMS AND TERESA D ADAMS	EDR Digital Archive
2010	DAN A ADAMS AND TERESA D ADAMS	EDR Digital Archive

330 Jordan Ave

Year	Uses	Source
2010	RAVEN COMPANY	EDR Digital Archive

JORDAN AVE

330 JORDAN AVE

Year	Uses	Source
2002	Goodman Johnnie D RD A I	R.L. Polk & Co Publishers
	Goodman Drofn	R.L. Polk & Co Publishers

Jordan Ave

335 Jordan Ave

Year	Uses	Source
2014	HENDY 5 LLC	EDR Digital Archive
2010	HENDERSON CONSTRUCTION	EDR Digital Archive
	HENDY 5 LLC	EDR Digital Archive
2005	HENDERSON CONSTRUCTION CO	EDR Digital Archive

FINDINGS

JORDAN AVE

335 JORDAN AVE

Year	Uses	Source
2002	HENDERSON CONSTRUCTION paving contractors	R.L. Polk & Co Publishers
	Henderson Michael D & Pamela	R.L. Polk & Co Publishers
	JORDAN AVE	R.L. Polk & Co Publishers

360 JORDAN AVE

Year	Uses	Source
2002	I 365 Morrow Tim B & Carol 12 I	R.L. Polk & Co Publishers
	j 380 Butler Robert T & Tim 82+ A i	R.L. Polk & Co Publishers
	Large Theodore R & Donna 21 A	R.L. Polk & Co Publishers
	S 362 Ouirsone 2 Reyes L Sr & Ceciiia A	R.L. Polk & Co Publishers
	E 385 Hutton Daniel B & Thresa 3 A f	R.L. Polk & Co Publishers

Jordan Ave

380 Jordan Ave

Year	Uses	Source
2010	RENBERG CMPLNCE INSUR SVCS INC	EDR Digital Archive

385 Jordan Ave

Year	Uses	Source
2014	ABC INTERPRETING INC	EDR Digital Archive
2010	ABC INTERPRETING INC	EDR Digital Archive

JORDAN AVE

390 JORDAN AVE

Year	Uses	Source
2002	Duran Oi ia	R.L. Polk & Co Publishers
	Qi Duran Ysidro N A	R.L. Polk & Co Publishers

540 JORDAN AVE

Year	Uses	Source
2002	Not Verified	R.L. Polk & Co Publishers
	I 550 Jones Aaron 3 A	R.L. Polk & Co Publishers
	545 Gonzales Michael C & Linda E 5 A	R.L. Polk & Co Publishers
1996	EAGLE GATE HOMES 7038 R	R.L. Polk & Co Publishers

FINDINGS

555 JORDAN AVE

Year	Uses	Source
2002	Piere DOn C 32 A	R.L. Polk & Co Publishers
	Pierce Charlotte A	R.L. Polk & Co Publishers

N DEWITT AVE

1110 N DEWITT AVE

Year	Uses	Source
2002	Not Verified	R.L. Polk & Co Publishers

1115 N DEWITT AVE

Year	Uses	Source
2002	Rogers Rory S	R.L. Polk & Co Publishers
	Rogers Debbie Y 1 A	R.L. Polk & Co Publishers

1120 N DEWITT AVE

Year	Uses	Source
2002	Mommer Gorden J & Rhonda 91 A	R.L. Polk & Co Publishers

1140 N DEWITT AVE

Year	Uses	Source
2002	Hardcastle Christine A	R.L. Polk & Co Publishers
	Hardcastle Randall B D a	R.L. Polk & Co Publishers

1150 N DEWITT AVE

Year	Uses	Source
2002	Rosenbaum Robert W M 1 a	R.L. Polk & Co Publishers
	Rosenbaum B W	R.L. Polk & Co Publishers

1160 N DEWITT AVE

Year	Uses	Source
2002	MOBILE OIL & LUBE auto lubrication serv	R.L. Polk & Co Publishers

1180 N DEWITT AVE

Year	Uses	Source
2002	Schumacher Bruce A MI i	R.L. Polk & Co Publishers
1996	COLONY 7029 R	R.L. Polk & Co Publishers

1190 N DEWITT AVE

Year	Uses	Source
2002	BUSINESSES 6 HOUSEHOLDS	R.L. Polk & Co Publishers

Year	Uses	Source
2002	Bavin Roberta A & Terry 121 A	R.L. Polk & Co Publishers

N HARVARD AVE

1031 N HARVARD AVE

Year	Uses	Source
2002	Clark Kelly D 81 A	R.L. Polk & Co Publishers
	Clark Patti A	R.L. Polk & Co Publishers

1041 N HARVARD AVE

Year	Uses	Source
2002	Koop Patrick D 81 A	R.L. Polk & Co Publishers
	Koop Jennifer R	R.L. Polk & Co Publishers

1051 N HARVARD AVE

Year	Uses	Source
2002	Fujihara Glenn A & Mary 81 A	R.L. Polk & Co Publishers

1071 N HARVARD AVE

Year	Uses	Source
2002	Watson Daniel K & Janet 81 A	R.L. Polk & Co Publishers

1081 N HARVARD AVE

Year	Uses	Source
2002	ORorke Kevin M 13 A	R.L. Polk & Co Publishers
	ORorke Mary G	R.L. Polk & Co Publishers

1113 N HARVARD AVE

Year	Uses	Source
2002	Harris Alice	R.L. Polk & Co Publishers
	ZHarris David W A	R.L. Polk & Co Publishers

1123 N HARVARD AVE

Year	Uses	Source
2002	I Lewkowitz Marc A A	R.L. Polk & Co Publishers
	Lewkowitz Kathleen	R.L. Polk & Co Publishers

FINDINGS

W HOUSTON AVE

343 W HOUSTON AVE

Year	Uses	Source
2002	Sitolini Ana C & Luciano El	R.L. Polk & Co Publishers

354 W HOUSTON AVE

Year	Uses	Source
2002	1 Giovannetti Diana R	R.L. Polk & Co Publishers
	Thomas Diana K	R.L. Polk & Co Publishers

363 W HOUSTON AVE

Year	Uses	Source
2002	Graham Cathy	R.L. Polk & Co Publishers
	DGraham Hazel J a	R.L. Polk & Co Publishers

364 W HOUSTON AVE

Year	Uses	Source
2002	Graham Edna L ID	R.L. Polk & Co Publishers

373 W HOUSTON AVE

Year	Uses	Source
2002	Volpp Louis D & Hollace t a	R.L. Polk & Co Publishers

384 W HOUSTON AVE

Year	Uses	Source
2002	Gi!bert Gerald A & Eloise A	R.L. Polk & Co Publishers

FINDINGS

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
1031 N HARVARD AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
1041 N HARVARD AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
1051 N HARVARD AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
1071 N HARVARD AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
1081 N HARVARD AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
1110 N DEWITT AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
1113 N HARVARD AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
1115 N DEWITT AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
1120 N DEWITT AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
1123 N HARVARD AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
1140 N DEWITT AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
1150 N DEWITT AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
1160 N DEWITT AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
1180 N DEWITT AVE	2014, 2010, 2005, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
1190 N DEWITT AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
126 JORDAN AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
130 Jordan Ave	2014, 2010, 2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
135 Jordan Ave	2014, 2010, 2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
135 JORDAN AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
156 JORDAN AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
165 JORDAN AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922

FINDINGS

Address Researched	Address Not Identified in Research Source
166 JORDAN AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
190 Jordan Ave	2005, 2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
191 HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
195 JORDAN AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
196 HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
220 Jordan Ave	2010, 2005, 2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
221 HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
226 HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
250 JORDAN AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
251 HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
256 Houston Ave	2014, 2010, 2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
280 Jordan Ave	2005, 2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
281 HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
286 HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
306 HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
306 Houston Ave	2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
330 Jordan Ave	2014, 2005, 2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
330 JORDAN AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
331 HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
335 JORDAN AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
335 Jordan Ave	2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
336 HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
336 Houston Ave	2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
343 W HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922

FINDINGS

Address Researched	Address Not Identified in Research Source
354 W HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
360 JORDAN AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
361 HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
363 W HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
364 W HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
366 HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
373 W HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
380 Jordan Ave	2014, 2005, 2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
381 Houston Ave	2014, 2005, 2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
381 HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
384 W HOUSTON AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
385 Jordan Ave	2005, 2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
390 JORDAN AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
540 JORDAN AVE	2014, 2010, 2005, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922
555 JORDAN AVE	2014, 2010, 2005, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
Nees Ave./N. Harvard Ave	2014, 2010, 2005, 2002, 1996, 1990, 1986, 1980, 1975, 1970, 1965, 1962, 1958, 1952, 1947, 1942, 1937, 1932, 1927, 1922

PHASE 1 INITIAL SITE ASSESSMENT

Nees Avenue Improvement Project – CIP 17-13 (Minnewawa to Clovis Avenues)

City of Clovis, California

APPENDIX F

Site Photographs

Photo 1: Looking east at ROW acquisition area. Intersection of Clovis and Nees Avenues in the background.

Photo 2: Looking west at ROW acquisition area. Nees Avenue pictured left.

Photo 3: Looking at intersection of N. DeWitt and Nees Avenues. Part of ROW acquisition area in foreground.

Photo 4: Standing on north edge of Nees Avenue looking northeast at road on the east side of Helm Colony South canal.

Photo 5: Helm Colony South Bridge no. 116 inlet structure on north side of Nee Avenue.

Photo 6: Looking west at ROW acquisition area from existing driveway on APN 560-051-010

PHASE 1 INITIAL SITE ASSESSMENT

Nees Avenue Improvement Project – CIP 17-13 (Minnewawa to Clovis Avenues)

City of Clovis, California

APPENDIX G

Geoprofessional Business Association's Important Information about This Geoenvironmental Report

Important Information about This

Geoenvironmental Report

Geoenvironmental studies are commissioned to gain information about environmental conditions on and beneath the surface of a site. The more comprehensive the study, the more reliable the assessment is likely to be. But remember: Any such assessment is to a greater or lesser extent based on professional opinions about conditions that cannot be seen or tested. Accordingly, no matter how many data are developed, risks created by unanticipated conditions will always remain. *Have realistic expectations.* Work with your geoenvironmental consultant to manage known and unknown risks. Part of that process should already have been accomplished, through the risk allocation provisions you and your geoenvironmental professional discussed and included in your contract's general terms and conditions. This document is intended to explain some of the concepts that may be included in your agreement, and to pass along information and suggestions to help you manage your risk.

Beware of Change; Keep Your Geoenvironmental Professional Advised

The design of a geoenvironmental study considers a variety of factors that are subject to change. Changes can undermine the applicability of a report's findings, conclusions, and recommendations. *Advise your geoenvironmental professional about any changes you become aware of.* Geoenvironmental professionals cannot accept responsibility or liability for problems that occur because a report fails to consider conditions that did not exist when the study was designed. Ask your geoenvironmental professional about the types of changes you should be particularly alert to. Some of the most common include:

- modification of the proposed development or ownership group,
- sale or other property transfer,
- replacement of or additions to the financing entity,
- amendment of existing regulations or introduction of new ones, or
- changes in the use or condition of adjacent property.

Should you become aware of any change, *do not rely on a geoenvironmental report.* Advise your geoenvironmental professional immediately; follow the professional's advice.

Recognize the Impact of Time

A geoenvironmental professional's findings, recommendations, and conclusions cannot remain valid indefinitely. The more time that passes, the more likely it is that important latent changes will occur. *Do not rely on a geoenvironmental report if too much time has elapsed since it was completed.* Ask your environmental professional to define "too much time." In the case of Phase I Environmental Site Assessments (ESAs), for example, more than 180 days after submission is generally considered "too much."

Prepare To Deal with Unanticipated Conditions

The findings, recommendations, and conclusions of a Phase I ESA report typically are based on a review of historical information, interviews, a site "walkover," and other forms of noninvasive research. When site subsurface conditions are not sampled in any way, the risk of unanticipated conditions is higher than it would otherwise be.

While borings, installation of monitoring wells, and similar invasive test methods can help reduce the risk of unanticipated conditions, *do not overvalue the effectiveness of testing.* Testing provides information about actual conditions only at the precise locations where samples are taken, and only when they are taken. Your geoenvironmental

professional has applied that specific information to develop a general opinion about environmental conditions. *Actual conditions in areas not sampled may differ (sometimes sharply) from those predicted in a report.* For example, a site may contain an unregistered underground storage tank that shows no surface trace of its existence. *Even conditions in areas that were tested can change*, sometimes suddenly, due to any number of events, not the least of which include occurrences at adjacent sites. Recognize, too, that *even some conditions in tested areas may go undiscovered,* because the tests or analytical methods used were designed to detect only those conditions assumed to exist.

Manage your risks by retaining your geoenvironmental professional to work with you as the project proceeds. Establish a contingency fund or other means to enable your geoenvironmental professional to respond rapidly, in order to limit the impact of unforeseen conditions. And to help prevent any misunderstanding, identify those empowered to authorize changes and the administrative procedures that should be followed.

Do Not Permit Any Other Party To Rely on the Report

Geoenvironmental professionals design their studies and prepare their reports to meet the specific needs of the clients who retain them, in light of the risk management methods that the client and geoenvironmental professional agree to, and the statutory, regulatory, or other requirements that apply. The study designed for a developer may differ sharply from one designed for a lender, insurer, public agency...or even another developer. *Unless the report specifically states otherwise, it was developed for you and only you.* Do not unilaterally permit any other party to rely on it. The report and the study underlying it may not be adequate for another party's needs, and you could be held liable for shortcomings your geoenvironmental professional was powerless to prevent or anticipate. Inform your geoenvironmental professional when you know or expect that someone else—a third-party—will want to use or rely on the report. *Do not permit third-party use or reliance until you first confer with the geoenvironmental professional who prepared the report.* Additional testing, analysis, or study may be required and, in any event, appropriate terms and conditions should be agreed to so both you and your geoenvironmental professional are protected from third-party risks. *Any party who relies on a geoenvironmental report without the express written permission of the professional who prepared it and the client for whom it was prepared may be solely liable for any problems that arise.*

Avoid Misinterpretation of the Report

Design professionals and other parties may want to rely on the report in developing plans and specifications. They need to be advised, in writing, that their needs may not have been considered when the study's scope was developed, and, even if their needs were considered, they might misinterpret geoenvironmental findings, conclusions, and recommendations. *Commission your geoenvironmental professional to explain pertinent elements of the report to others who are permitted to rely on it, and to review any plans, specifications or other instruments of professional service that incorporate any of the report's findings, conclusions, or recommendations.* Your geoenvironmental professional has the best understanding of the issues involved, including the fundamental assumptions that underpinned the study's scope.

Give Contractors Access to the Report

Reduce the risk of delays, claims, and disputes by giving contractors access to the full report, *providing that it is accompanied by a letter of transmittal that can protect you* by making it unquestionably clear that: 1) the study was not conducted and the report was not prepared for purposes of bid development, and 2) the findings, conclusions, and recommendations included in the report are based on a variety of opinions, inferences, and assumptions and are subject to interpretation. Use the letter to also advise contractors to consult with your geoenvironmental professional to obtain clarifications, interpretations, and guidance (a fee may be required for this service), and that—in any event—they should conduct additional studies to obtain the specific type and extent of information each prefers for preparing a bid or cost estimate. Providing access to the full report, with the appropriate caveats, helps prevent formation of adversarial attitudes and claims of concealed or differing conditions. If a contractor elects to ignore the warnings and advice in the letter of transmittal, it would do so at its own risk. Your geoenvironmental professional should be able to help you prepare an effective letter.

Do Not Separate Documentation from the Report

Geoenvironmental reports often include supplemental documentation, such as maps and copies of regulatory files, permits, registrations, citations, and correspondence with regulatory agencies. If subsurface explorations were performed, the report may contain final boring logs and copies of laboratory data. If remediation activities occurred on site, the report may include: copies of daily field reports; waste manifests; and information about the disturbance of subsurface materials, the type and thickness of any fill placed on site, and fill placement practices, among other types of documentation. *Do not separate supplemental documentation from the report. Do not, and do not permit any other party to redraw or modify any of the supplemental documentation for incorporation into other professionals' instruments of service.*

Understand the Role of Standards

Unless they are incorporated into statutes or regulations, standard practices and standard guides developed by the American Society for Testing and Materials (ASTM) and other recognized standards-developing organizations (SDOs) are little more than aspirational methods agreed to by a consensus of a committee. The committees that develop standards may not comprise those best-qualified to establish methods and, no matter what, no standard method can possibly consider the infinite client- and project-specific variables that fly in the face of the theoretical "standard conditions" to which standard practices and standard guides apply. In fact, these variables can be so pronounced that geoenvironmental professionals who comply with every directive of an ASTM or other standard procedure could run afoul of local custom and practice, thus violating the standard of care. Accordingly, when geoenvironmental professionals indicate in their reports that they have performed a service "in general compliance" with one standard or another, it means they have applied professional judgement in creating and implementing a scope of service designed for the specific client and project involved, and which follows some of the general precepts laid out in the referenced standard. To the extent that a report indicates "general compliance" with a standard, you may wish to speak with your geoenvironmental professional to learn more about what was and was not done. *Do not assume a given standard was followed to the letter.* Research indicates that that seldom is the case.

Realize That Recommendations May Not Be Final

The technical recommendations included in a geoenvironmental report are based on assumptions about actual conditions, and so are preliminary or tentative. Final recommendations can be prepared only by observing actual conditions as they are exposed. For that reason, you should retain the geoenvironmental professional of record to observe construction and/or remediation activities on site, to permit rapid response to unanticipated conditions. *The geoenvironmental professional who prepared the report cannot assume responsibility or liability for the report's recommendations if that professional is not retained to observe relevant site operations.*

Understand That Geotechnical Issues Have Not Been Addressed

Unless geotechnical engineering was specifically included in the scope of professional service, a report is not likely to relate any findings, conclusions, or recommendations about the suitability of subsurface materials for construction purposes, especially when site remediation has been accomplished through the removal, replacement, encapsulation, or chemical treatment of on-site soils. The equipment, techniques, and testing used by geotechnical engineers differ markedly from those used by geoenvironmental professionals; their education, training, and experience are also significantly different. If you plan to build on the subject site, but have not yet had a geotechnical engineering study conducted, your geoenvironmental professional should be able to provide guidance about the next steps you should take. The same firm may provide the services you need.

Read Responsibility Provisions Closely

Geoenvironmental studies cannot be exact; they are based on professional judgement and opinion. Nonetheless, some clients, contractors, and others assume geoenvironmental reports are or certainly should be unerringly precise. Such assumptions have created unrealistic expectations that have led to wholly unwarranted claims and disputes. To help prevent such problems, geoenvironmental professionals have developed a number of report provisions and contract terms that explain who is responsible for what, and how risks are to be allocated. Some people mistake these for "exculpatory clauses," that is, provisions whose purpose is to transfer one party's rightful responsibilities and liabilities to someone else. Read the responsibility provisions included in a report and in the contract you and your geoenvironmental professional agreed to. *Responsibility provisions are not "boilerplate."* They are important.

Rely on Your Geoenvironmental Professional for Additional Assistance

Membership in the Geoprofessional Business Association exposes geoenvironmental professionals to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a geoenvironmental project. Confer with your GBA-member geoenvironmental professional for more information.

GEOPROFESSIONAL BUSINESS ASSOCIATION

8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@geoprofessional.org www.geoprofessional.org

Copyright 2015 by the Geoprofessional Business Association (GBA). Duplication, reproduction, copying, or storage of this document, in whole or in part, by any means whatsoever, is strictly prohibited, except with GBA's specific written permission. Excerpting, quoting, or otherwise extracting wording from this document is permitted only with the express written permission of GBA, and only for purposes of scholarly research or book review. Only GBA-Member Firms may use this document as a complement to or as an element of a geoenvironmental report. Any other firm, individual, or entity that so uses this document without being a GBA-Member Firm could be committing negligent or intentional (fraudulent) misrepresentation.

Appendix F

Water Quality Assessment Report

Water Quality Assessment Report
Nees Avenue Improvements Project
Minnewawa to Clovis Avenues

Fresno County, California
Clovis 7.5-Minute Quadrangle,
Township 12 South, Range 21 East, Sections 29 & 32
Caltrans, District 6
STPL-5208(160)

October 2019

CITY of CLOVIS

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Department of Transportation, Attn: Shane Gunn, San Joaquin Valley Management Branch, 855 “M” Street, Ste. 200, Fresno, CA 93721, (559) 445-6310 (Voice), or use the California Relay Service 1(800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

Water Quality Assessment Report

Nees Avenue Improvements Project

Minnewawa to Clovis Avenues

Fresno County, California

Caltrans District 6 – Fresno County

STPL-5208 (160)

October 2019

STATE OF CALIFORNIA
Department of Transportation

Prepared by: Becky Rozumowicz Date: 10/7/19

Becky Rozumowicz
(916) 987-3362
Area West Environmental, Inc.
6248 Main Avenue, Suite C,
Orangevale, CA 95662

From: Gunn, Shane M@DOT [mailto:shane.gunn@dot.ca.gov]
Sent: Monday, October 07, 2019 11:38 AM
To: Claudia Cazares <claudiac@ci.clovis.ca.us>
Subject: RE: City of Clovis, Nees Avenue Improvement - Water Quality Tech Memo

Good morning Claudia,

The Water Quality Assessment Report for the Nees Avenue Improvements Project has been accepted. Based on the conclusions of the report no further analysis is required for NEPA. Please keep a copy of this email for your records.

Shane Gunn, Branch Chief
Environmental Analysis
District 6 Planning/Local Programs/Maintenance/Permits
Desk: (559) 445-6310
Cell: (559) 417-8016

EXECUTIVE SUMMARY

The City of Clovis (City) Public Works Department is proposing to conduct the Nees Avenue Improvements Project (Project), located in the northwest portion of the City. The City will receive funding for this Project as part of the Federal Highway Administration (FHWA) Surface Transportation Program-Local (STPL) administered by the California Department of Transportation (Caltrans). The City of Clovis proposes the widening of approximately one-half mile of Nees Avenue between Clovis Avenue and Minnewawa Avenue to include a fourth arterial lane. The Project would construct a new 12-foot outside travel lane on the north side of Nees Avenue and repair the failing pavement as needed. Installation of Class II bicycle lanes and an improved sidewalk to complete the connectivity between nearby Garfield Elementary, Alta Sierra Intermediate School, and Buchanan High School to residences and the surrounding neighborhood will also be included.

Existing Conditions

The existing Nees Avenue roadway between Clovis Avenue and Minnewawa Avenue currently consists of a three-lane arterial with no existing sidewalk connectivity on the north side of Nees Avenue. The existing irrigation ditch (Helm Colonial South Br. No. 116) runs through the Project Area and is culverted underground to continue south across Nees Avenue. Elevation within the Project area is relatively flat with elevations between approximately 370 to 380 feet. Water quality within Helm Colonial South Br. No. 116 is primarily dependent upon upstream flows. There are known sources of pollution upstream of the Project Area.

Water Quality Impacts

Construction activities would result in ground disturbance within and adjacent to the irrigation ditch (Helm Colonial South Br. No. 116). The Project will involve earthwork, asphalt concrete paving, installation of sidewalk, curb returns and ramps, gutters, storm drain inlets, street lighting and retaining walls that could result in a temporary increase in sediment loads, turbidity, and siltation if water is present during construction. Additionally, the relocation of the existing irrigation ditch (Helm Colonial South Br. No. 116) and extension of associated underground water conveyance facilities operated by Fresno Irrigation District. The Project design would not change the rate of peak stormwater runoff appreciably.

A stormwater pollution prevention plan (SWPPP) will be prepared and will identify Project-specific best management practices (BMPs) to protect water quality from construction activities. The City will comply with the construction general permit (CGP) and SWPPP to ensure that water quality standards are not violated.

The cumulative effect of this Project on waters of the U.S. and State would not be considerable. The Project is not part of a larger project, and other known projects in the Project vicinity would be subject to laws and permit processes requiring consideration of and mitigation for impacts to waters of the U.S. and State. These laws and regulations require that the impacts of such undertakings be mitigated as appropriate. Avoidance and minimization measures required for the Project and other projects in the region would ensure that a cumulatively considerable effect on waters of the U.S. and State would not occur.

Anticipated Permits

The following permits may be required for the Project:

- Water quality certification from the Regional Water Quality Control Board
- National Pollutant Discharge Elimination System permit from the State Water Resources Control Board under the Clean Water Act, Section 402
- Streambed Alteration Agreement from the California Department of Fish and Wildlife under California Fish and Game Codes Section 1602

Table of Contents

List of Figures

List of Tables

List of Appendices

Acronyms and Abbreviations

°F	degrees Fahrenheit
AGR	Agriculture Irrigation
APS	accessible pedestrian signal
Basin Plan	Central Valley RWQCB Water Quality Control Plan
BMP	best management practice
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CGP	Construction General Permit
COLD	Cold Freshwater Habitat
Corps	U.S. Army Corps of Engineers
City	City of Clovis
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
DSA	disturbed soil area
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FID	Fresno Irrigation District
FIRM	Flood Insurance Rate Map
FRSH	Freshwater Replenishment
GWR	Ground Water Recharge
HUC	Hydrologic Unit Code
MS4	Municipal Separate Storm Sewer System
MUN	Municipal Supply
NEPA	National Environmental Policy Act
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NTU	nephelometric turbidity units
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
POW	Hydropower Generation
Project	Nees Avenue Improvements Project
QSD	Qualified SWPPP Developer
Rare	Rare, Threatened, or Endangered Species
REC-1	Water Contact Recreation
REC-2	Non-water Contact Recreation
RWQCB	Regional Water Quality Control Board
SMARTS	Stormwater Multiple Application and Reporting Tracking System
SPWN	Spawning, Reproduction, and/or Early Development
SR	State Route
STPL	Surface Transportation Program-Local
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan

SWRCB	State Water Resources Control Board
TMDL	total maximum daily load
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
WARM	Warm Freshwater Habitat
WDR	Waste Discharge Requirements
WILD	Wildlife Habitat
WRCC	Western Regional Climate Center
WPCP	Water Pollution Control Plan

Chapter 1 INTRODUCTION

The City of Clovis (City) Public Works Department is proposing to conduct the Nees Avenue Improvements Project (Project), located in the northwest portion of the City. The City will receive funding for this Project as part of the Federal Highway Administration (FHWA) Surface Transportation Program-Local (STPL) administered by the California Department of Transportation (Caltrans).

Since the Project will be funded by Federal STPL, it will require both compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). The lead agency for CEQA compliance is the City; the federal lead agency for NEPA compliance is Caltrans as described in the NEPA assignment Memorandum of Understanding between the FHWA and Caltrans (effective October 1, 2012, and renewed on March 30, 2017).

1.1 Approach to Water Quality Assessment

The primary purpose of this Water Quality Assessment Report is to fulfill the requirements of NEPA and CEQA, and provide information, to the extent possible, for the National Pollution Discharge Elimination System (NPDES) permitting. The document includes a discussion of the proposed Project, the general environmental setting of the Project area, and the regulatory framework with respect to water quality; it also provides data on surface water and groundwater resources within the Project area and the water quality of these waters, describes water quality impairments and beneficial uses, and identifies potential water quality impacts/benefits associated with the proposed Project, and recommends avoidance and/or minimization measures for potentially adverse impacts.

1.2 Project Description

The Project is located in Fresno County within the City of Clovis (Figure 1-1). The Project occurs within Township 12 South, Range 21 East, and Sections 29 & 32 of the *Clovis* U.S. Geological Survey (USGS) 7.5-minute quadrangle (Figure 1-2).

Overall, the purpose of this Project is to:

- Increase the safety and security of the transportation system,
- Reduce traffic congestion and vehicle delays,
- Improve service capacity during peak travel times, and
- Provide complete street improvements for all modes of transportation.

1.2.1 Project Components

The City of Clovis proposes to widen approximately one-half mile of Nees Avenue between Clovis Avenue and Minnewawa Avenue from a three-lane arterial to a four-lane arterial (Figure 1-3). The Project will construct a new 12-foot outside travel lane on the north side of Nees Avenue and replace failing pavement as needed. It also includes installation of a Class II bicycle lane and improved sidewalk that will complete the pedestrian and bicycle connectivity between nearby Garfield Elementary, Alta Sierra Intermediate School, and Buchanan High School to residences and neighborhoods in the vicinity (Figure 1-4).

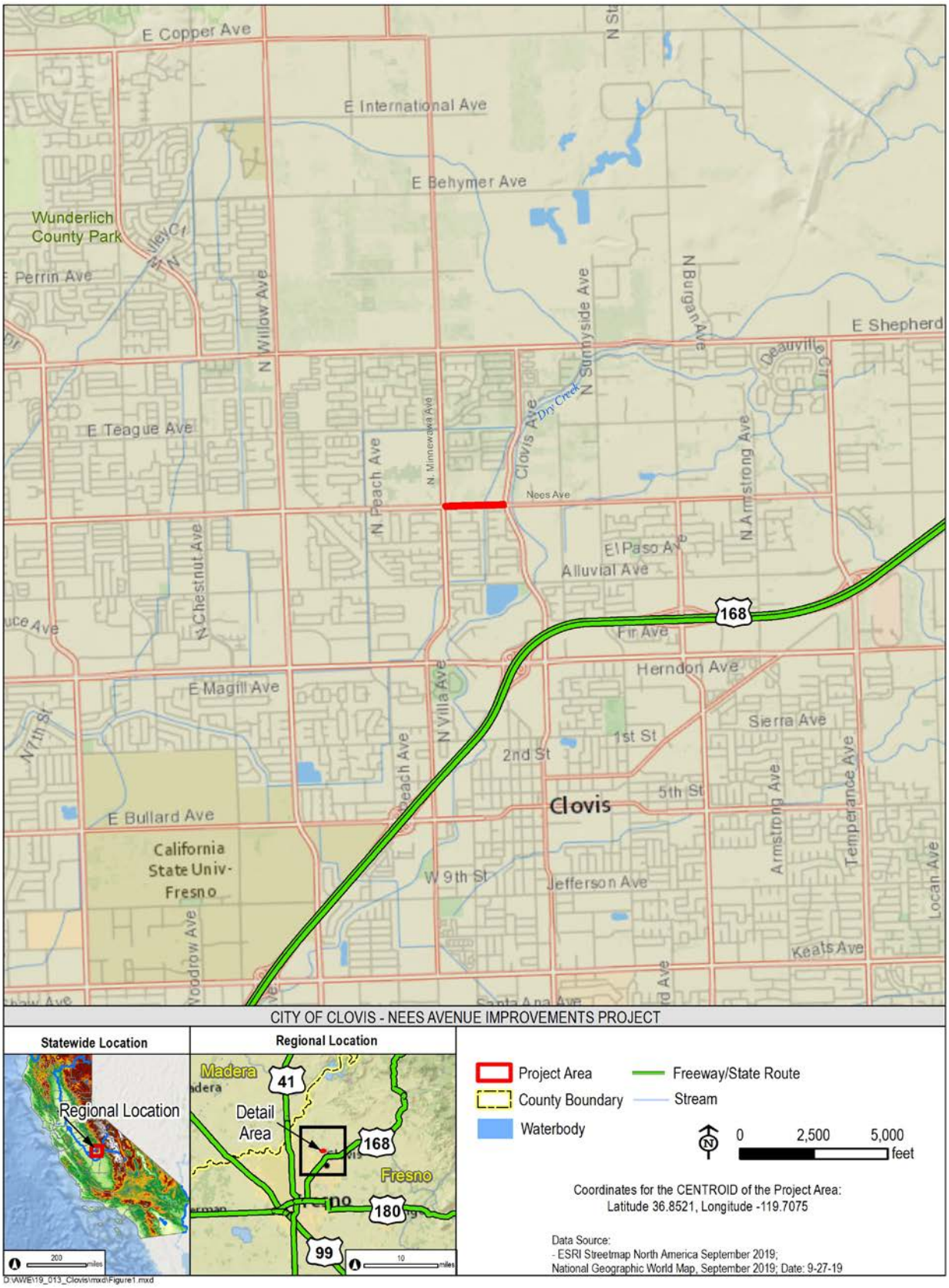


Figure 1-1. Project Vicinity

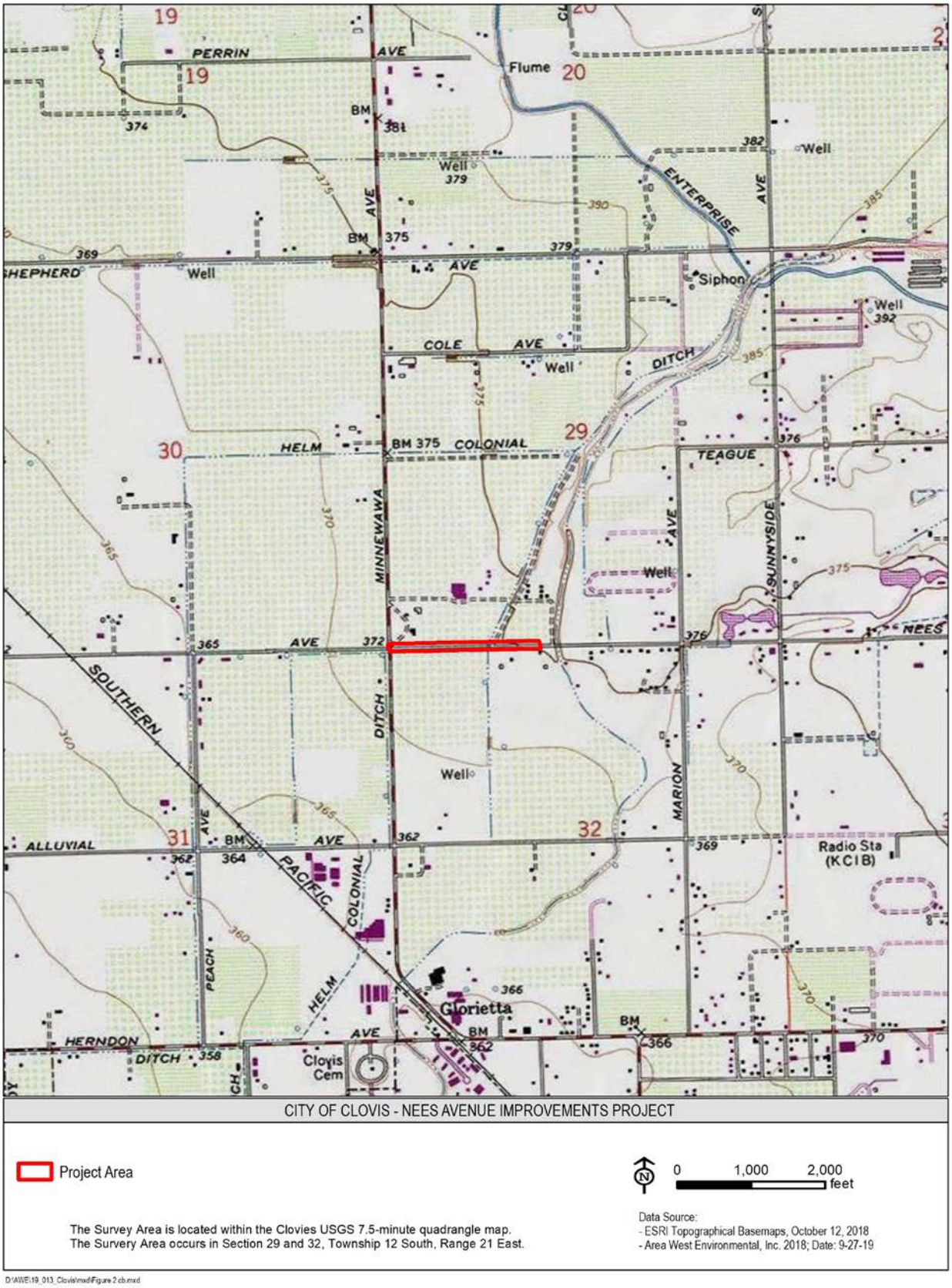


Figure 1-2. Project Location

Page Intentionally Blank

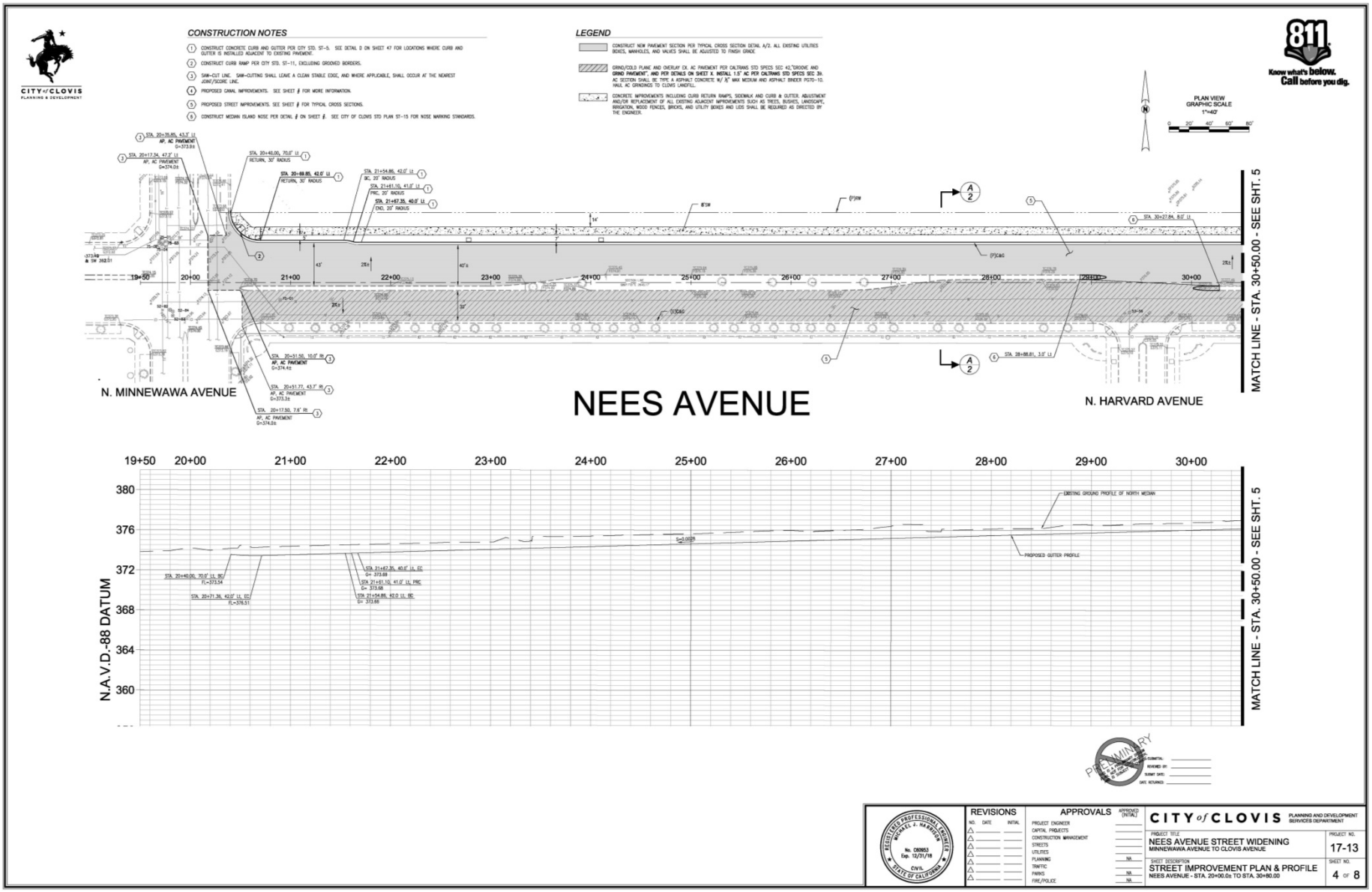


Figure 1-3. Project Plans

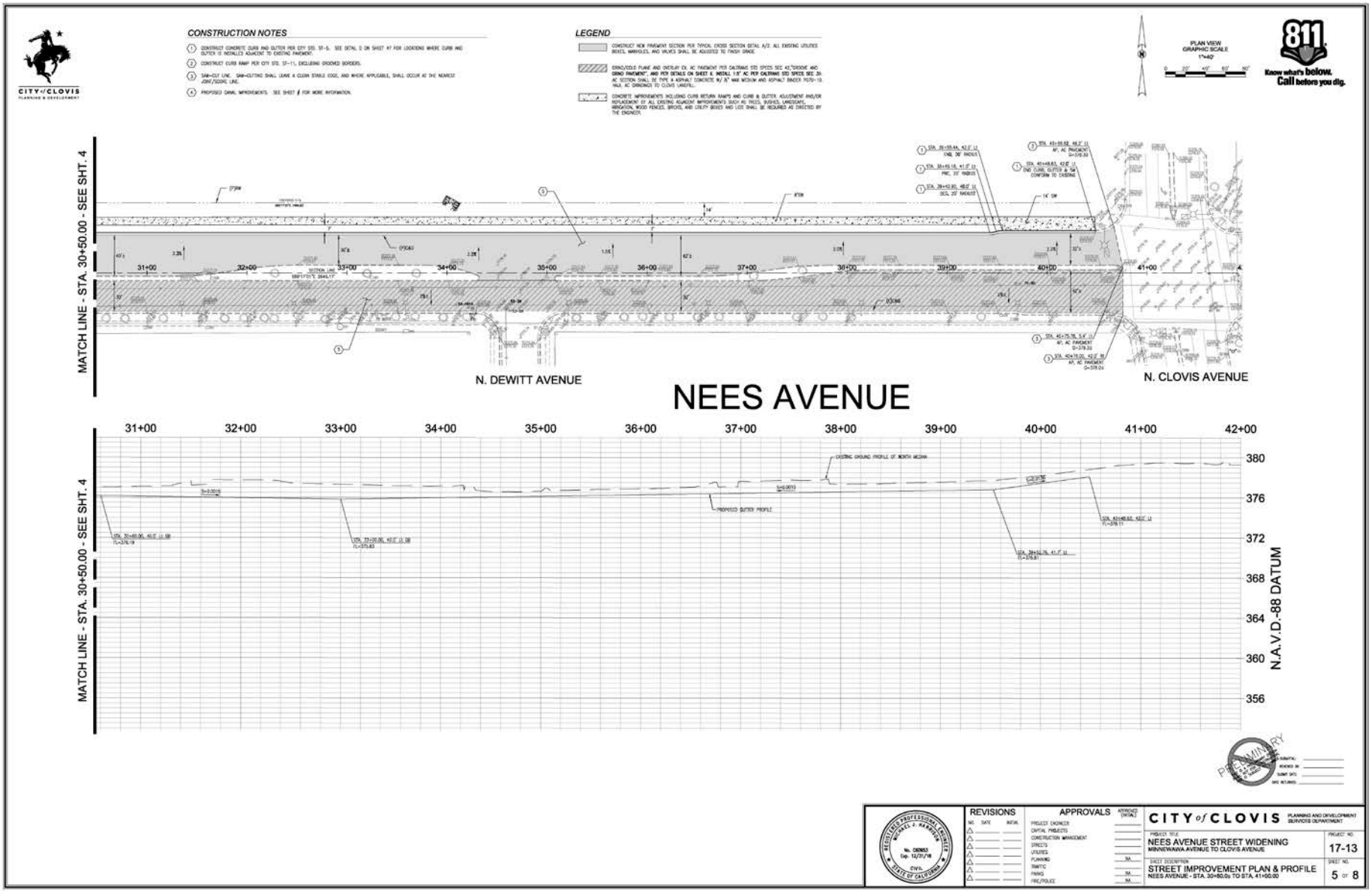


Figure 1-3. Project Plans (continued)

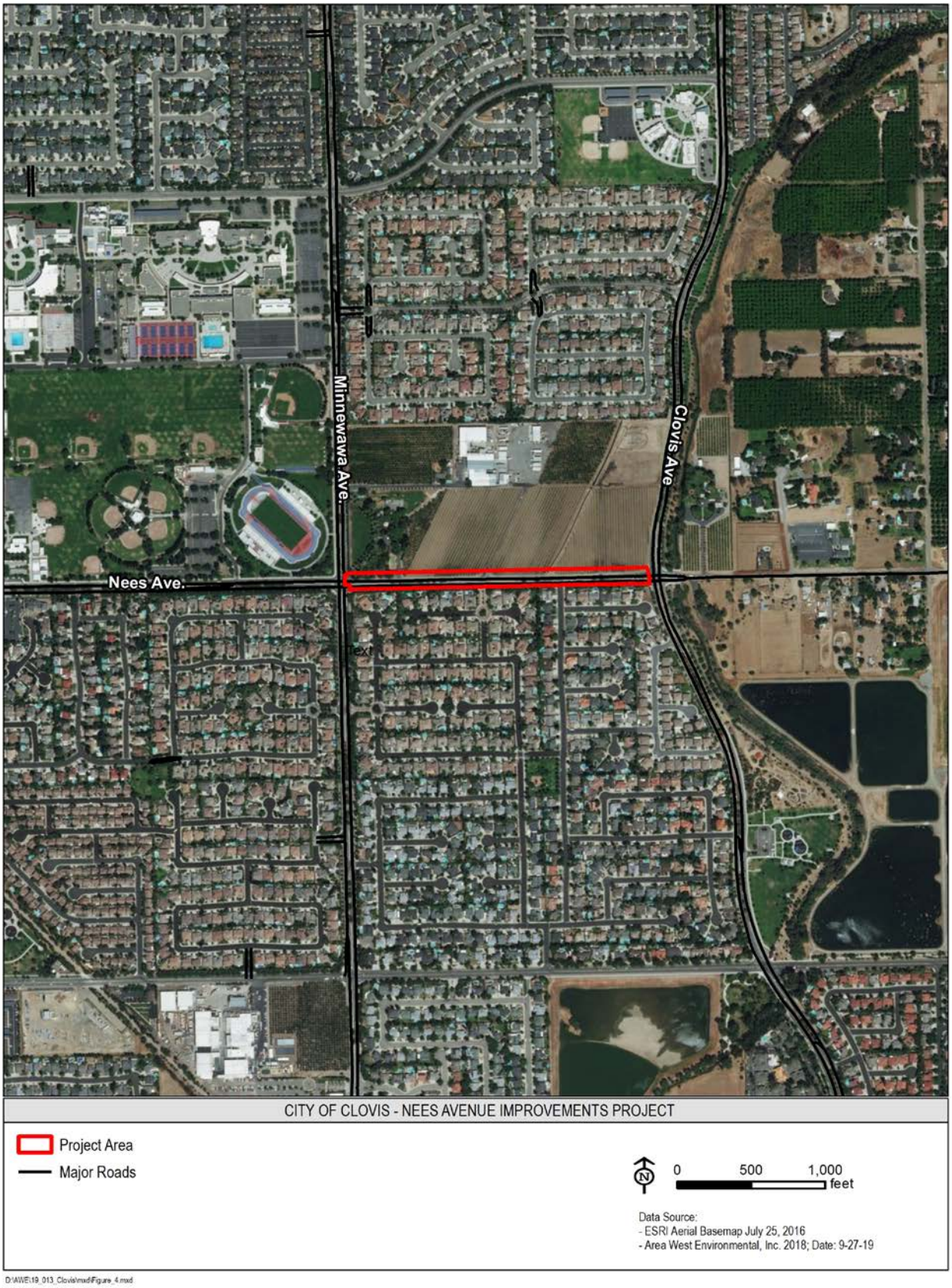


Figure 1-4. Project Area

The Project will involve earthwork, asphalt concrete paving, and installation of sidewalk, curb, curb returns and ramps, gutters, storm drain inlets, street lighting and retaining walls, and accessible pedestrian signal (APS) modifications to the street signal at Nees and Minnewawa Avenues. It will involve modifications to traffic loop detectors, striping, markings, and signage as well as relocation of overhead utilities (PG&E, AT&T, and cable wires) to underground conduits. New water valve covers and manholes will be installed in areas of new pavement and existing features will be brought up to grade to match the new pavement surface. Additional related activities include relocating an existing irrigation ditch (Helm Colonial South Br. No. 116) and extension of associated underground water conveyance facilities operated by Fresno Irrigation District (FID). The Project will also improve the sewer system by connecting sewer mains from Clovis Avenue to Minnewawa Avenue.

The Circulation Element of the Clovis Herndon-Shepherd Specific Plan identifies the need for additional street right-of-way totaling 24,283 square feet across APN 560-051-10 and 54,691 square feet across APN 560-051-25 to accommodate the outside travel lane and greenbelt/sidewalk.

Widening Nees Avenue to accommodate an additional west-bound travel lane and install pedestrian and bicycle facilities will increase the safety and security of the transportation system, reduce traffic congestion and vehicle delays, improve service capacity during peak travel times, and provide complete street improvements for all modes of transportation. Completing this road section will improve traffic flow to the Buchannan Educational Complex and provide additional transportation options for non-motorized usage.

The area of potential effect is approximately 9.5 acres. Earthwork and grading is expected to disturb 2.41 acres of disturbed soil area.

1.2.2 Tree Removal

The Project will involve the removal of 235 peach trees from the orchard within the Project area, in addition to several ornamental trees (one crepe myrtle tree, one crepe myrtle bush, one Chinese pistachio tree, four olive trees, three palms, two magnolias, one ash, three alders, and five pine trees). The Project will include implementation of a landscape and irrigation plan that utilizes native drought-tolerant species and water-saving fixtures.

1.2.3 No Build Alternative (No Project)

The No-Build Alternative (No Project) maintains the existing conditions on Nees Avenue. Under the No-Build Alternative, the existing traffic congestion would likely increase, pedestrian facilities would not connect nearby schools with residences and neighborhoods, and the congestion could pose a threat to roadway and pedestrian safety.

Chapter 2 REGULATORY SETTING

Water resource protection in California is governed by a complex network of federal and State regulations, enforced by the State and U.S. Environmental Protection Agency (USEPA). Both federal and State laws have been created to protect surface water and groundwater quality for use as domestic, agricultural, industrial supply, recreation, freshwater fish, and aquatic invertebrate habitat. Water quality protection regulations relevant to this Project are summarized below.

2.1 Federal Laws and Requirements

2.1.1 Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to waters of the U.S. from any point source unlawful unless the discharge is in compliance with a NPDES permit. Known today as the Clean Water Act (CWA), Congress has amended it several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the NPDES permit requirements. Important CWA sections include:

- Sections 303 and 304 require states to promulgate water quality standards, criteria, and guidelines. The federal Clean Water Act requires states to identify and make a list of surface water bodies that are polluted. These water bodies, referred to in law as "water quality limited segments," do not meet water quality standards even after discharges of wastes from point sources have been treated by the minimum required levels of pollution control technology. States must compile these waterbodies into a list, referred to as the "Clean Water Act Section 303(d) list of Water Quality Limited Segments," and develop Total Maximum Daily Loads (TMDLs) to improve water quality.
- Section 401 requires applicants for a federal license or permit to conduct any activity, which may result in a discharge to waters of the U.S., to obtain certification from the State that the discharge would comply with other provisions of the act (most frequently required in tandem with a Section 404 permit request; see below). The 401 permit certifications are obtained from the appropriate Regional Water Quality Control Board (RWQCB), dependent on the project location, and are required before U.S. Army Corps of Engineers (Corps) issues a 404 permit.

  In some cases the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may prescribe a set of requirements known as Waste Discharge Requirements (WDRs) under the State Water Code. WDRs may specify the inclusion of additional project features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. The Federal Environmental Protection Agency delegated to the California State Water Resources Control Board (SWRCB) the implementation and administration of the NPDES program in California. The SWRCB established nine RWQCBs. The SWRCB enacts and enforces the Federal NPDES program and all water quality programs and regulations that cross

Regional boundaries. The nine RWQCBs enact, administer and enforce all programs, including NPDES permitting, within their jurisdictional boundaries. Section 402(p) requires permits for discharges of stormwater from industrial, construction, and Municipal Separate Storm Sewer Systems (MS4s).

- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the Corps.

The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

The Corps issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects.

There are also two types of Individual permits: Standard Individual permit and Letter of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of Corps' Individual permits. For Standard Individual permit, the Corps decision to approve is based on compliance with USEPA Section 404 (b)(1) Guidelines (U.S. EPA Code of Federal Regulations [CFR] 40 Part 230), and whether permit approval is in the public interest. The 404(b)(1) Guidelines were developed by the USEPA in conjunction with Corps, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that Corps may not issue a permit if there is a least environmentally damaging practicable alternative, to the proposed discharge that would have less effects on waters of the U.S., and not have any other significant adverse environmental consequences. Per Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures have been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the Corps, even if not subject to the 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4.

There are no wetlands or waters of the U.S. within the Project Area. The irrigation ditch does not qualify as a water of the U.S., per concurrence with Caltrans on August 26, 2019. Therefore, work within the irrigation ditch does not require Section 404 CWA clearance from the Corps.

2.2 State Laws and Requirements

The SWRCB adjudicates water rights; sets water pollution control policy; issues water board orders on matters of statewide application; and oversees water quality functions throughout the state by approving water control plans, TMDLs, and NPDES permits. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility. The California Department of Fish and Wildlife (CDFW) has responsibility for lakes and streambeds under the California Fish and Game Code (CFGC).

2.2.1 Porter-Cologne Water Quality Control Act

California's Porter-Cologne Water Quality Control Act (Porter-Cologne Act), enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge, or proposed discharge, of waste (liquid, solid, or gas) to land or surface waters that could affect the quality of waters of the State. It predates the CWA and regulates discharges to waters of the State. The Porter-Cologne Act defines waters of the State as "any surface water or ground water, including saline waters, within the boundaries of the state." Some waters that qualify as waters of the State, such as isolated wetlands, do not necessarily qualify as waters of the U.S. Additionally, the Porter-Cologne Act prohibits discharges of "waste," with a broader definition than the CWA definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by WDRs and may be required even when the discharge is already permitted or exempt under the CWA.

The SWRCB and RWQCBs are responsible for establishing the water quality standards as required by the CWA, and regulating discharges to protect beneficial uses of water bodies. Details regarding water quality standards in a project area are contained in the applicable RWQCB Water Quality Control Plan (Basin Plan). In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions, and then set standards necessary to protect these uses. Consequently, the water quality standards developed for particular water body segments are based on the designated use and vary depending on such use. Water body segments that fail to meet standards for specific pollutants are included in a Statewide List in accordance with CWA Section 303(d). If a Regional Board determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-source point controls (NPDES permits or Waste Discharge Requirements), the CWA requires the establishment of TMDLs. TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed. The SWRCB implemented the requirements of CWA Section 303(d) through Attachment IV of the Caltrans Statewide MS4, as it includes specific TMDLs for which Caltrans is the named stakeholder.

2.2.2 State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB adjudicates water rights, sets water pollution control policy, issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWQCBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility. The project is within the Central Valley Regional Water Quality Control Board (CVRWQCB) boundaries. The CVRWQCB adopted the current amended edition of the Basin Plan on December 9, 1994, which became effective following approval by the State Water Board on February 16, 1995. While several revisions of the Basin Plan have been adopted and approved since 1995, the most recent update of the Basin Plan went into effect on July 8, 2016 (CVRWQCB 2016).

The irrigation ditch is expected to qualify as a water of the State (i.e. any surface water or groundwater, including saline waters, within the boundaries of the state). Work within the irrigation ditch may be regulated by the CVRWQCB, and may require a Water Quality Certification.

2.2.3 NPDES Program: Construction General Permit

The Construction General Permit (CGP) (NPDES No. CAS000002, SWRCB Order No. 2009-0009-DWQ, adopted on November 16, 2010) became effective on February 14, 2011 and was amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ. The permit regulates stormwater discharges from construction sites which result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development.

For all projects subject to the CGP, the applicant is required to use a Qualified Stormwater Pollution Prevention Plan (SWPPP) Developer (QSD) to develop and implement an effective SWPPP. All Project Registration Documents, including the SWPPP, are required to be uploaded into the SWRCB's on-line Stormwater Multiple Application and Report Tracking System (SMARTS), at least 30 days prior to construction.

Projects that disturb over 1.0 acre but less than 5 acres of soil, may qualify for waiver of CGP coverage. This occurs whenever the R factor of the Watershed Erosion Estimate (=RxKxLS) in tons/acre is less than 5. Within this CGP formula, there is a factor related to when and where the construction will take place. This factor, the 'R' factor, may be low, medium or high. When the R factor is below the numeric value of 5, projects can be waived from coverage under the CGP.

Construction activity that results in soil disturbances of less than one acre is subject to this CGP if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop a SWPPP, to implement soil erosion and pollution prevention control measures, and to obtain coverage under the CGP.

The CGP contains a risk-based permitting approach by establishing three levels of risk possible for a construction site. Risk levels are determined during the planning, design, and construction phases, and are based on project risk of generating sediments and receiving water risk of becoming impaired. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory stormwater runoff pH and turbidity monitoring, and pre- and post-construction aquatic biological assessments during specified seasonal windows.

Preliminary investigation into the risk assessment for this Project using the Caltrans Water Quality Planning Tool produced a Low level of risk (Risk Level 1) (Appendix A) (Caltrans 2012). A more accurate assessment will be made by Project engineers prior to Project ground disturbance.

2.2.4 California Department of Fish and Wildlife

Under the CFGC Section 1602(a), "an entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake" without prior authorization from the CDFW. Therefore, if any of the above referenced activities is planned to occur, the CDFW must be notified and a lake or streambed alteration agreement must be

acquired before the start of construction. The lake or streambed alteration agreement includes reasonable conditions necessary to protect natural resources and must comply with the CEQA.

Work within the irrigation ditch may be regulated by the CDFW, and may require a Section 1602 streambed alteration agreement.

2.3 Regional and Local Requirements

2.3.1 City of Clovis General Plan

The City of Clovis General Plan (Clovis 2014) Open Space and Conservation Element identifies various policies for protecting the use and quality of water resources. The following relevant policies relate to water quality from the City of Clovis General Plan:

- **Policy 3.1 Stormwater management.** Encourage the use of low impact development techniques that retain or mimic natural features for stormwater management.
- **Policy 3.2 Stormwater pollution.** Minimize the use of non-point source pollutants and stormwater runoff.

Page Intentionally Blank

Chapter 3 AFFECTED ENVIRONMENT

3.1 General Environmental Setting

The following sections describe the existing conditions within the Project area and surrounding region.

3.1.1 Population and Land Use

The City of Clovis General Plan estimated the 2013 population to be approximately 115,000 and the U.S. Census Bureau estimated the 2018 population at approximately 112,022 residents (City of Clovis 2014, U.S. Census Bureau 2018).

The City has classified land use adjacent to the Project as Low Density Residential, Medium High Density Residential, and Medium Density Residential. Nees Avenue is a paved arterial east-west road that connects Clovis and the regional transportation network (State Routes [SR] 41 and 168). Nees Avenue is used primarily for access to commercial facilities, schools, neighborhoods, and residences. Areas adjacent to the Project include a peach orchard and private residence to the north and a residential development to the south.

3.1.2 Topography

Elevation within the Project area is relatively flat with elevations between approximately 370 to 380 feet. There is one aquatic feature within the Project area; an irrigation ditch, Helm Colonial South Br. No. 116, maintained and operated by FID. The ditch is open through the orchard north of Nees Avenue and is culverted underground to continue south across Nees Avenue (Figure 3-1).

3.1.3 Hydrology

3.1.3.1 Regional and Local Hydrology

The Project lies within the South Valley Floor, part of the Tulare Lake Basin (Watershed Boundary Dataset 2018). The Project is located in the James Bypass watershed, and the Gates Lake subwatershed (Figure 3-2; USGS Hydrologic Unit Code [HUC] 180300090701). The basin is essentially closed in and only in years of extreme rainfall, surface waters from the Tulare Lake Basin drain into the San Joaquin River and into the Pacific Ocean via Suisun and San Francisco Bay (CVWQCB 2016).

3.1.3.2 Precipitation and Climate

The region around Nees Avenue has hot dry summers with mild winters. Climate details in the Project area are based on historical data collected by the Western Regional Climate Center (WRCC) monitoring station at the Fresno Yosemite International Airport, located approximately 8 miles south of the Project area at approximately the same elevation. The warmest month, on average, is July with an average high temperature of 98.3 °F. The coolest month on average is December, with an average low of 37.3 °F. Average annual rainfall is 10.89 inches, mostly occurring from October through April. Humidity readings of 15 percent are common on summer

afternoons. In contrast, humidity readings average 90 percent during the morning hours of December and January (WRCC 2015).

3.1.3.3 Surface Waters

The Basin Plan identifies water quality objectives, standards, and beneficial uses for surface water in the Tulare Lake Basin, but not within the culvert itself. Water quality objectives for the Tulare Lake Basin, are discussed below.

Surface water quality objectives/standards for the Tulare Lake Basin come from the Basin Plan, unless otherwise noted. These objectives/standards are summarized in Table 3-1 (CVWQCB 2016).

3.1.3.4 Municipal Supply

Drinking water for the City of Clovis is provided by the City, through both surface and groundwater. Surface water is provided to the City of Clovis Surface Water Treatment Plant via the Enterprise Canal, which diverts water from the Kings River (City of Clovis 2019). Groundwater is pumped from wells, and the City operates a number of groundwater recharge facilities (City of Clovis 2019).

3.1.3.5 Groundwater Hydrology

The Project area is located within the Kings Groundwater Subbasin, which is part of the Kings Groundwater Basin (City of Clovis 2014). The Kings Groundwater Subbasin has been identified as critically overdrafted (City of Clovis 2014).

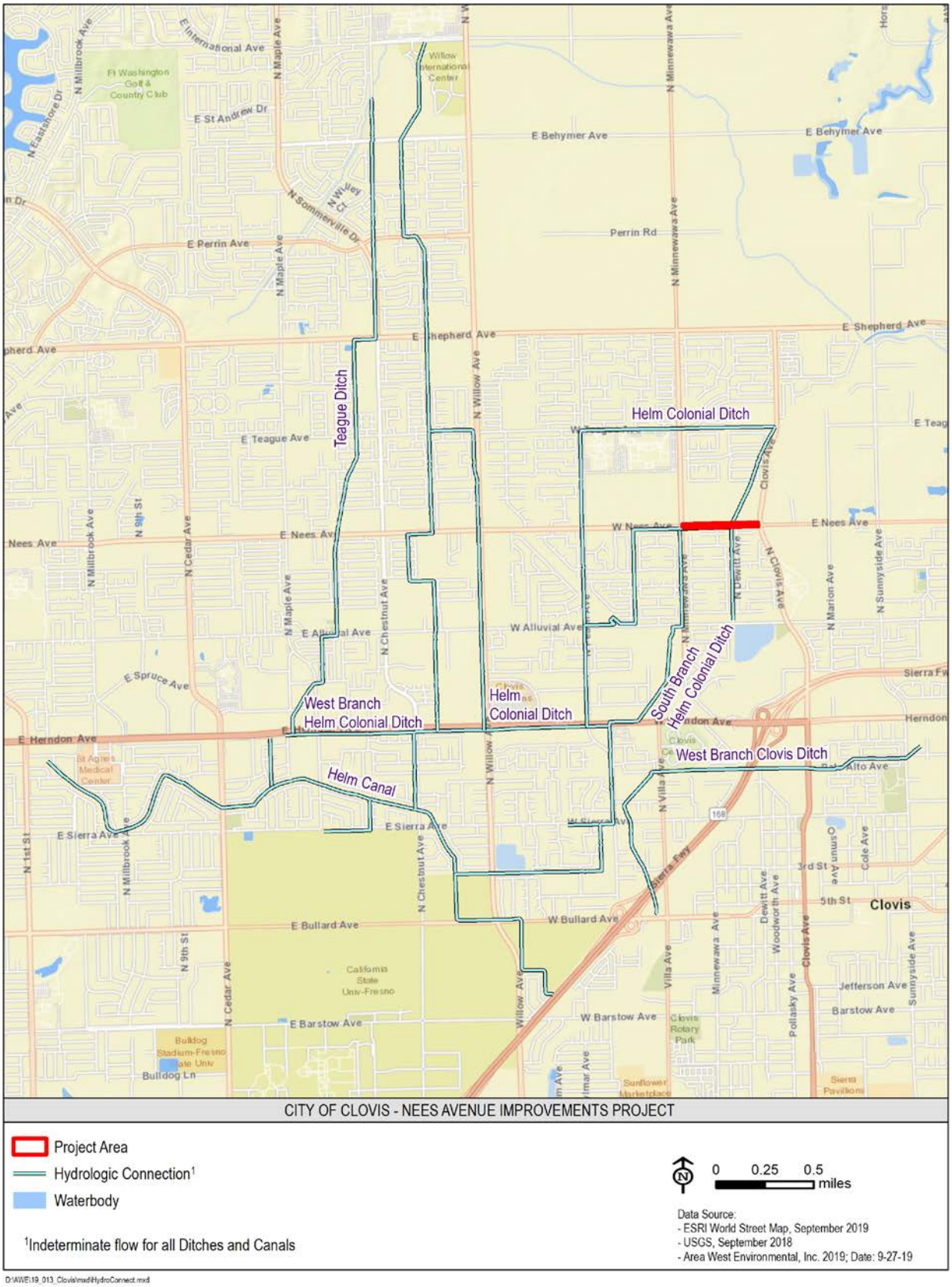


Figure 3-1. Hydrologic Connection to Nearest Navigable Waterway

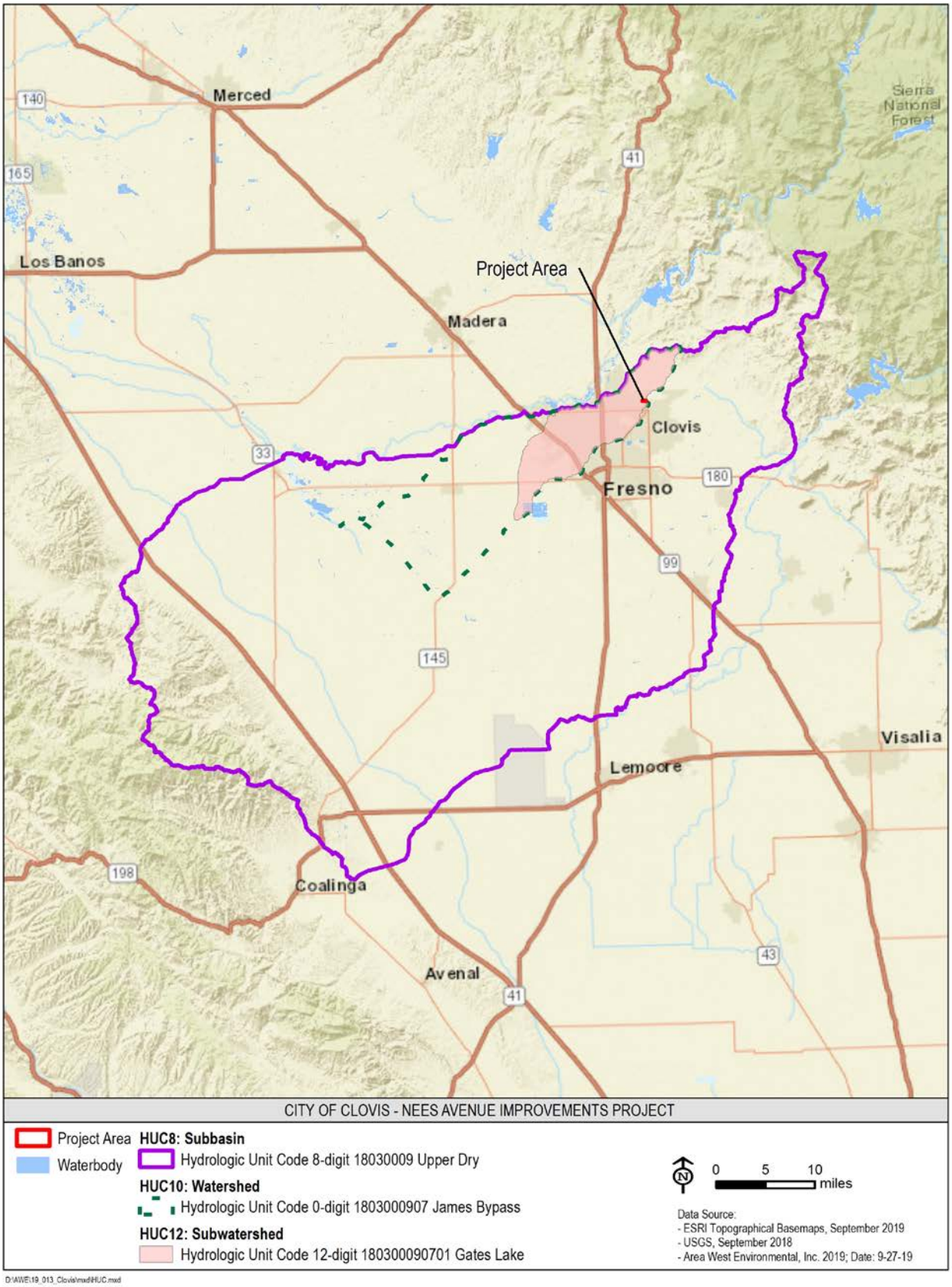


Figure 3-2. Hydrologic Unit Watershed Map

Table 3-1. Surface Water Quality Objectives of the Basin Plan

Constituent	Water Quality Objective
Ammonia	Waters shall not contain un-ionized ammonia in amounts which adversely affect beneficial uses. In no case shall the discharge of wastes cause concentrations of un-ionized ammonia (NH3) to exceed 0.025 mg/l (as N) in receiving waters.
Bacteria	In waters designated for contact recreation (REC-1), the fecal coliform concentration based on a minimum of not less than five samples for any 30-day period shall not exceed 200/100 milliliters (ml), nor shall more than 10 percent of the total number of samples taken during any 30-day period exceed 400/100 ml.
Bio stimulatory Substances	Water shall not contain biostimulatory substances in concentrations that promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.
Chemical Constituents	Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title 22, Section 64431, 64444, and 64449. At a minimum, waters designated MUN shall not contain lead in excess of 0.015 mg/l.
Color	Water shall be free of discoloration that causes nuisance or adversely affects beneficial uses.
Dissolved Oxygen	For surface waters, the monthly median of the mean daily dissolved oxygen concentration shall not fall below 85 percent saturation, and the 95 percentile shall not fall below 75 percent saturation. At no time shall the concentrations be reduced below the following minimum levels at any time: ▪ Waters designated WARM 5.0 mg/L ▪ Waters designated COLD 7.0 mg/L
Floating Material	Water shall not contain floating material in amounts that cause nuisance or adversely affect beneficial uses.
Oil and Grease	Waters shall not contain oils, greases, waxes, or other materials in concentrations that cause nuisance, result in a visible film or coating on the surface of the water, or otherwise adversely affect beneficial uses.
Pesticides	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. There shall be no bioaccumulation of pesticide concentrations found in bottom sediments or aquatic life.
pH	The pH shall not go below 6.5 or above 8.3, or changed at any time more than 0.3 units from normal ambient pH.
Pesticides	Waters shall not contain pesticides in concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses. At a minimum, waters designated MUN shall not contain concentrations of pesticide constituents in excess of the maximum contaminant levels (MCLs) specified in Table 64444-A (Organic Chemicals) of Section 64444 of Title 22 of the California Code of Regulations, which is incorporated by reference into this plan. In waters designated COLD, total identifiable chlorinated hydrocarbon pesticides shall not be present at concentrations detectable within the accuracy of analytical methods prescribed in Standard Methods for the Examination of Water and Wastewater, 18th Edition, or other equivalent methods approved by the Executive Officer.
Radioactivity	Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal or aquatic life, nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal or indigenous aquatic life. Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of radionuclides in excess of the limits specified in California Code of Regulations, Title 22, Section 64442 and 64443 of the California Code of Regulations.

Table 3-1. Surface Water Quality Objectives of the Basin Plan

Constituent	Water Quality Objective
Salinity	Waters shall be maintained as close to natural concentrations of dissolved matter as is reasonable considering careful use of the water resources.
Sediment	The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
Settleable Material	Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affect beneficial uses.
Suspended Material	Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.
Tastes and Odors	Water shall not contain taste- or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, or that cause nuisance or adversely affect beneficial uses.
Temperature	Natural water temperatures should not be altered in a way that adversely affects beneficial uses. At no time or place shall the temperature of any COLD or WARM water be increased by more than 5ºF above natural receiving water temperature.
Toxicity	All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. This objective applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances. Compliance with this objective would be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration, or other appropriate methods as specified by the RWQCB.
Turbidity	Where natural turbidity is between 0 and 5 nephelometric turbidity units (NTU), increases in turbidity shall not exceed 1 NTU. Where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent. Where natural turbidity is equal to or between 50 and 100 NTUs, increases shall not exceed 10 NTUs. Where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

Source: CVWQCB 2016

The Basin Plan does not list Helm Colonial South Br. No. 116; however this waterway receives water from the Kings River, which is identified in the Basin Plan. The Basin Plan designates beneficial uses specific for the Kings River (Pine Flat Dam to Friant-Kern Canal) segment (Table 3-2).

Table 3-2. Existing and Potential Beneficial Uses for Waters of the Kings River (Pine Flat Dam to Friant-Kern Canal)

Beneficial Use	Description
Municipal and Domestic Supply (MUN)	Uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply
Cold Freshwater Habitat (COLD)	Uses of water that support cold water ecosystems, including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
Agriculture Irrigation (AGR)	Uses of water for farming, horticulture, or ranching.

Table 3-2. Existing and Potential Beneficial Uses for Waters of the Kings River (Pine Flat Dam to Friant-Kern Canal)

Beneficial Use	Description
Hydropower Generation (POW)	Uses of water for hydropower generation
Water Contact Recreation (REC-1)	Recreational activities involving body contact with water. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs.
Rare, Threatened, or Endangered Species (RARE)	Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened or endangered.
Spawning, Reproduction, and/or Early Development (SPWN)	Uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish.
Ground Water Recharge (GWR)	Uses of water for natural or artificial recharge of ground water for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.
Freshwater Replenishment (FRSH)	Uses of water for natural or artificial maintenance of surface water quantity or quality.
Non-Contact Water Recreation (REC-2)	Recreational activities involving proximity to water, but where there is generally no body contact with water, nor any likelihood of ingestion of water. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tide pool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.
Warm Freshwater Habitat (WARM)	Warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
Wildlife Habitat (WILD)	Terrestrial or wetland ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats or wetlands, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

Source: CVWQCB 2016

Water quality within Helm Colonial South Br. No. 116 is primarily dependent upon upstream flows. There are known sources of pollution upstream of the Project area.

Waters within the Project area are not listed on the CWA Section 303(d) list of impaired waters (CVWQCB 2016). While Helm Colonial South Br. No. 116 is not a CWA Section 303(d) water, water is received from a segment of the Kings River which is a Section 303(d) water. Kings River is impaired by Alkalinity, Carbonate as $CaCO_3$ and for Toxicity. There are currently no TMDLs along this segment of the Kings River.

3.1.3.6 Floodplains

The Project area is located within the 06019C1580H Flood Insurance Rate Map (FIRM). The area along Nees Avenue is designated as Zone X, which is defined as, "Area of Minimal Flood Hazard" (Figure 3-3) (Federal Emergency Management Agency [FEMA] 2017). However, the area about 0.5 miles east, along Dry Creek, is designated as Zone A, which is defined as "Areas subject to inundation by the 1-percent-annual-chance flood event".

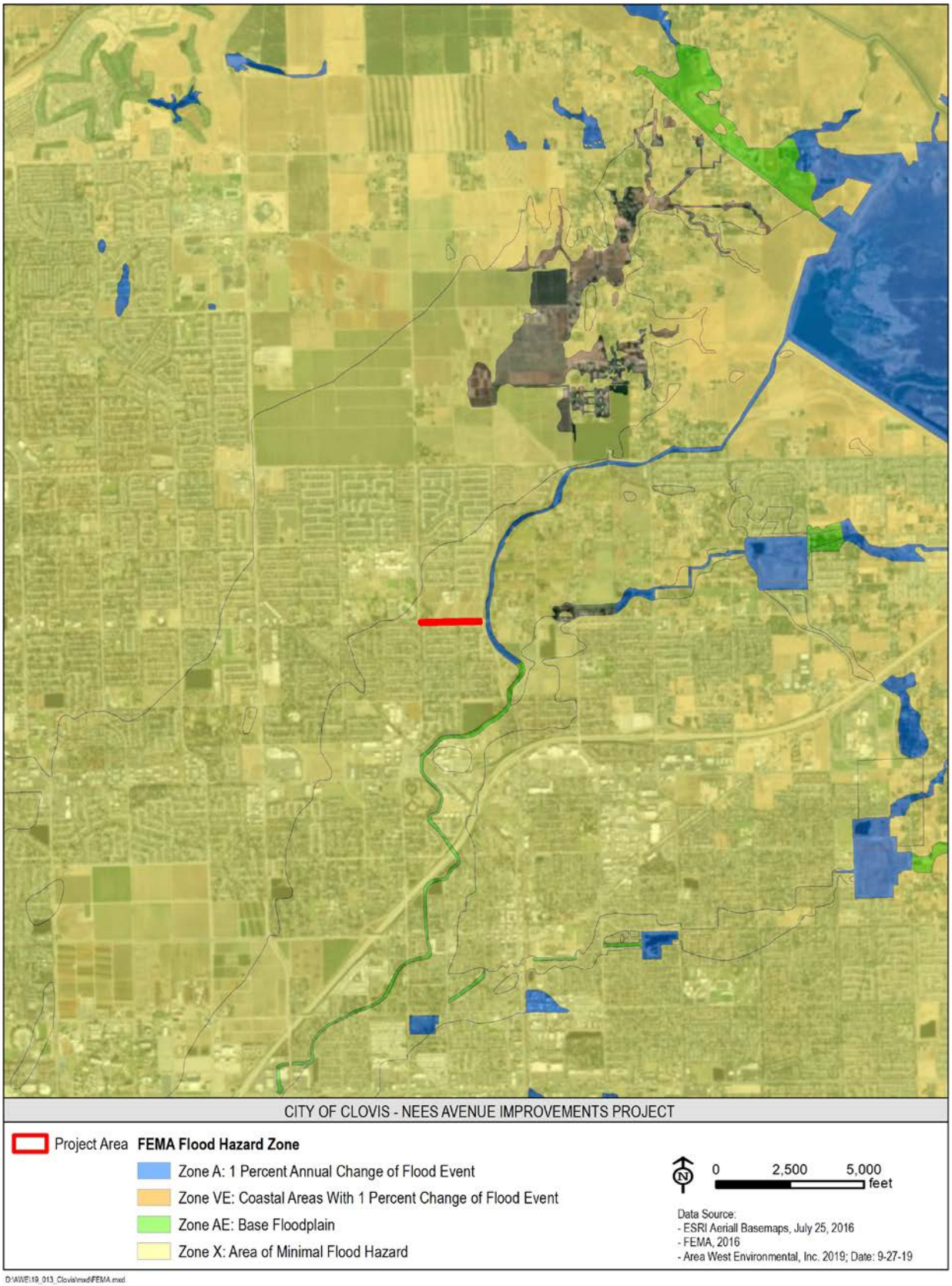


Figure 3-3. FEMA Flood Hazard Map

3.1.4 Geology and Soil Erosion Potential

The Web Soil Survey indicates that the Project area has four soil map units (Figure 3-4). The soils are classified as Hanford sandy loam (Hc), Hanford sandy loam, sandy substratum (Hf), Hanford fine sandy loam (Hm), and Tujunga loamy sand (Tzba) 0-3 percent slopes. (Natural Resources Conservation Service [NRCS] 2019)

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation and the Revised Universal Soil Loss Equation to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. (NRCS 2019)

Overall, the Project has a moderate erosion hazard rating. The Revised Universal Soil Loss Equation erosivity factor (K) was 0.24. Low K values are approximately 0.02 to 0.24, moderate K values are approximately 0.25 to 0.45, and high K values typically exceed 0.45 (U.S. Department of Agriculture [USDA 2001]). Refer to Table 3-3 for more information about the soils within the Project Area (NRCS 2019).

Table 3-3. Soil Map Units within the Project Area

Soil Map Unit Symbol and Name	Parent Material	Soil Profile	Depth to Restrictive Layer (inches)	Drainage Class	K factor
Hanford sandy loam	Alluvium derived from granite	0 to 16 inches: sandy loam 16 to 72 inches: sandy loam	Greater than 80 inches	Well drained	0.24
Hanford sandy loam, sandy substratum	Alluvium derived from granite	0 to 16 inches: sandy loam 16 to 27 inches: sandy loam 27 to 60 inches: sand	Greater than 80 inches	Well drained	0.24
Hanford fine sandy loam	Alluvium derived from granite	0 to 16 inches: fine sandy loam 16 to 72 inches: fine sandy loam	Greater than 80 inches	Well drained	0.24
Tujunga loamy sand, 0 to 3 percent slopes	Alluvium derived from granite	0 to 4 inches: loamy sand 4 to 60 inches: stratified sand to loamy sand	Greater than 80 inches	Somewhat excessively drained	0.17

Source: NRCS 2019

Figure 3-4. Soils within the Project Area

3.1.5 Biological Communities

The Project Area supports three habitat types, one of which is aquatic: irrigation ditch (Helm Colonial South Br. No. 116). The remaining habitats are upland and consist of developed and orchard (Figure 1-4).

3.1.5.1 Aquatic Habitat

Aquatic habitat exists within the Project area in the form of an irrigation ditch within the orchard north of Nees Avenue. This irrigation ditch is culverted underneath Nees Avenue via an existing culvert with stand pipe.

3.1.5.2 Special-status Species

More information about special-status species can be found in the Natural Environment Study document.

3.1.5.3 Stream and Riparian Habitats

There are no streams or riparian habitats within the Project area.

3.1.5.4 Wetlands

There are no wetlands or “other waters” within the Project area, as defined by the Corps.

Page Intentionally Blank

Chapter 4 ENVIRONMENTAL CONSEQUENCES

4.1 Introduction

This section provides an overview of the potential impacts of the Project on surface water and groundwater quality as well as site drainage. Based on the analysis, the Project is not anticipated to cause or contribute to the permanent violation of water quality standards or water quality objectives, nor would it affect the beneficial use of downstream receiving waters.

4.2 Impact Assessment Methods

In order to assess the difference between existing conditions and the proposed Project's conditions related to water quality, the following were taken into consideration:

- Construction methods
- Changes in impervious surface
- Potential pollutant sources
- Standard and likely required BMPs

4.3 Potential Impacts to Water Quality

Construction activities would result in minor disturbance within and adjacent to the irrigation ditch. Earthmoving, excavation, and demolition needed to remove the existing culvert and standpipe, extend the culvert, and install the new standpipe could result in a temporary increase in sediment loads, turbidity, and siltation. There is potential for erosion to occur from areas adjacent to the ditch where orchard trees will be removed for the new road alignment and sidewalks. The total disturbed soil area is expected to be approximately 2.41 acres.

The proposed Project would comply with the CGP, including preparing and implementing a SWPPP that identifies project-specific erosion, sediment, and stormwater BMPs to protect water quality during Project construction (see Chapter 5, "Avoidance and Minimization Measures"). The SWPPP would identify Project specific BMPs to protect water quality from construction activities. Compliance with the CGP and the SWPPP would ensure that water quality standards would not be violated.

4.3.1 Anticipated Changes to the Physical and Chemical Characteristics of the Aquatic Environment

Permanent changes to the irrigation ditch would occur from the extension of the culvert and installation of the new standpipe. Temporary impacts would include soil disturbance from vegetation removal, removal of the existing culvert and standpipe, construction of the new culvert and standpipe, and water diversion (if water is present during construction).

4.3.1.1 Substrate

In general, existing conditions of the substrate will remain the same post-construction.

4.3.1.2 Currents, Circulation or Drainage Patterns

There are no anticipated changes in flow volume or depth.

4.3.1.3 Suspended Particulates (Turbidity)

There is no anticipated long-term change to turbidity. Short-term changes in turbidity could occur during installation and removal of the culvert and standpipe and during installation and removal of the stream diversion, if water is standing or flowing during construction. However, application of Caltrans standard plans and specifications and water quality BMPs would minimize the potential for adverse water quality affects resulting from short-term changes in turbidity resulting from the Project

4.3.1.4 Oil, Grease and Chemical Pollutants

There is no anticipated long-term change in amounts of oil, grease, or chemical pollutants. There is potential for short-term increases in oil, grease, or other chemical pollutants from equipment leaks or minor spills during the construction process. However, application of Caltrans standard plans and specifications and BMPs would minimize the potential for accidental spills and ensure that a spill cleanup plan is in place.

4.3.1.5 Temperature, Oxygen, Depletion and Other Parameters

There is no anticipated permanent change to temperature or oxygen levels within the irrigation ditch due to the Project.

4.3.1.6 Flood Control Functions

The Project area is located outside the 100-year floodplain and the irrigation ditch does not function as a flood control facility.

4.3.1.7 Erosion and Accretion Patterns

There is no anticipated change to erosion or accretion patterns as a result of the Project. Application of Caltrans standard plans and specifications along with site revegetation/soil stabilization measures would minimize Project-related erosion effects.

4.3.1.8 Aquifer Recharge/Groundwater and Baseflow

There is no anticipated change to aquifer or groundwater recharge, or baseflow (sustained flow of a stream in the absence of direct runoff) as a result of the Project.

4.3.2 Anticipated Changes to the Biological Characteristics of the Aquatic Environment

4.3.2.1 Special Aquatic Sites

There are no special aquatic sites within the Project area; there are no sanctuaries and refuges, wetlands, mud flats, vegetated shallows, coral reefs, or riffle and pool complexes. There are no anticipated changes to any special aquatic sites.

4.3.2.2 Habitat for Fish, Wildlife, and Other Aquatic Organisms

There is no anticipated change to fish or wildlife habitat or passage or beneficial uses due to the Project.

4.3.2.3 Endangered or Threatened Species

The irrigation ditch provides suitable habitat for species-status amphibian species such as western pond turtle. Change in the topography within the Project area due to the extension of the culvert and relocation of the standpipe will not substantially change habitat for endangered or threatened species. There will be potential temporary impacts to habitat, if water is present within the Project area during construction and when temporary water diversion is needed.

4.3.2.4 Invasive Species

The Project area is along a developed corridor with landscaped medians and sidewalks to the south, and the orchard to the north is well maintained. Executive Order 13112 requires that weed abatement measures be implemented to minimize the risk of spreading invasive and non-native plants during and after construction. Therefore, in compliance with Executive Order 13112, construction of the Project is not anticipated to adversely impact the Project through the spread of invasive terrestrial or aquatic plants.

4.3.3 Anticipated Changes to the Human Use Characteristics of the Aquatic Environment

There are no anticipated changes to the human use characteristics of the aquatic environment within or near the Project area. The Project would not affect the beneficial uses of waters in downstream waters, including agricultural irrigation (AGR), hydropower generation (POW), Municipal and Domestic Supply (MUN), and water contact and non-contact recreation (REC-1 and REC-2).

4.3.4 Temporary Impacts to Water Quality

Temporary impacts to the irrigation ditch would include disturbance by vegetation removal, removal of the existing standpipe, extension of the existing culvert, installation of the new standpipe, and water diversion (if necessary). The water diversion system may include screened pumps, a temporary pipe network, siltation baffles, and installation of cofferdams in the form of water bladder, sheet piling, stacked sand bags, or clean rock/gravel with a plastic liner below and on the sides to route flow through and around the immediate work area, maintain dewatered conditions, and return flow to the downstream channel network without causing harm to biological resources or affecting water quality. Waters located in the Project Area would either be treated per SWPPP requirements, or disposed of per RWQCB requirements.

The use of construction equipment and other vehicles could result in accidental spills of oil, grease, gasoline, brake fluid, antifreeze, or other vehicle-related pollutants. Improper handling, storage, or disposal of materials and fuels could cause water quality degradation.

Construction activities could also introduce pollutants from spilled sediments, trash, concrete waste, or sanitation waste. Oils and chemicals from concrete or asphalt work during roadway widening and sidewalk construction could reach the irrigation ditch, creating a change in pH

levels immediately downstream. Saw cutting, grinding, drilling, concrete mixing, painting, and paving during construction can produce chemical residues. Additionally, portable sanitation facilities used at the construction site could leak, increasing potential for *E. coli* within the water. During construction, construction materials and wastes could be tracked offsite by construction vehicles and then deposited onto roads where it may be picked up and transported into waterways.

Potential for temporary water quality impacts would be reduced through the implementation of BMPs through a CGP required SWPPP, therefore there is a low likelihood of adverse temporary impacts to water quality.

4.3.5 Long-term Impacts During Operation and Maintenance

There are no anticipated long-term water quality impacts during operation and maintenance of the Project.

There will be an increase in impervious surface area by approximately 49,900 square feet (1.2 acre) due to the addition of a vehicular lane, sidewalk, curbs, and gutters on the northern side of Nees Avenue. This increased surface area would not significantly increase runoff volume or significantly alter stormwater flow. There is no anticipated change or increase in vehicular traffic through the Project Area, therefore there is no anticipated long-term increase in oil, grease, fuel, lubricants, metals, or other detrimental chemicals and toxic materials.

Implementation of the Project would only slightly alter the configuration of the irrigation ditch and would not modify sources of water pollutants. The Project is not expected to significantly alter the number of vehicles traveling on Nees Avenue, nor would it change the rate of peak stormwater runoff appreciably, therefore there would not be an increase in the load of pollutants as a result of the Project.

There will be no permanent loss of wetlands or waters of the U.S. the proposed Project. The irrigation ditch is expected to qualify as a water of the State, and the proposed Project would result in the loss of approximately 0.16 acre of waters of the State.

4.4 Cumulative Impacts

There are no projects in the vicinity that could potentially temporarily affect water quality in the irrigation ditch.

Chapter 5 AVOIDANCE AND MINIMIZATION MEASURES

To prevent potential impacts on receiving waters resulting from Project construction activities and operations, temporary and permanent measures will be implemented in accordance with applicable stormwater regulations and standards.

Stormwater management for the Project would include both short-term and long-term measures. Short-term measures would focus on scheduling and implementing construction site BMPs aimed at reducing erosion and subsequent sediment transport as well as preventing accidental spills during construction. Long-term permanent measures would consider factors such as permanent stabilization of disturbed soil areas. These measures would reduce erosion and sediment transport to receiving waters, address the potential for accidental spills and leaks during construction, and avoid and minimize impacts on aquatic habitat.

The overall BMP measures for potential water quality impacts are a condition of the NPDES permit and other permits and agreements anticipated for the Project. Permanent treatment BMP measures to control stormwater discharges must be considered for new or reconstructed facilities. The measures would be incorporated into the final design of the Project. Before any ground-disturbing activities, the contractor shall prepare and implement a SWPPP that includes erosion control measures and construction waste management measures to ensure that waters of the State are protected during and after Project construction. Per requirements of the CGP, site conditions would be stabilized before the Project is considered complete and the NPDES permit is closed through a notice of termination.

5.1 Best Management Practices

In addition to the Caltrans standards outlined in the Caltrans SWMP (Caltrans 2016) and the Construction Site BMP Manual (Caltrans 2017), the following avoidance and minimization measures will be implemented.

Avoidance and Minimization Measure 1: Restore Temporarily Disturbed Areas
Immediately after construction is complete, all exposed soil shall be stabilized. Soil stabilization may include, but is not limited to, seeding with a native grass seed mix, planting native plants, and placement of rock. These areas will be properly protected from washout and erosion using appropriate erosion control devices including coir netting, hydroseeding, and revegetation.

Avoidance and Minimization Measure 2: Implement Water Quality Best Management Practices (BMPs)
Before any ground-disturbing activities, the County shall prepare and implement a SWPPP (as required under the SWRCB's General Construction Permit Order 2009-0009-DWQ [and as amended by most current order(s)]) that includes erosion control measures and construction waste containment measures to ensure that waters of the State are protected during and after Project construction. The Plan (a SWPPP) shall include site design to minimize offsite stormwater runoff that might otherwise affect adjacent aquatic habitat.

The Plan (a SWPPP) shall be prepared with the following objectives: (a) to identify pollutant sources, including sources of sediment, that may affect the quality of stormwater discharges from the construction of the proposed Project; (b) to identify BMPs to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the Project during construction; (c) to outline and provide guidance for BMP monitoring; (d) to identify proposed project discharge points and receiving waters; to address post-construction BMP implementation and monitoring; and (f) to address sedimentation, siltation, and turbidity.

The SWPPP will require BMPs including, but not limited to:

- Conduct ground disturbing activities adjacent to and within the irrigation ditch during the low-flow period (generally between June 1 and October 15).
- Install sediment fencing, fiber rolls, or other equivalent erosion and sediment control measures between the designated work area and the irrigation ditch, as necessary, to ensure that construction debris and sediment does not inadvertently enter the drainage. The City will also cover or otherwise stabilize all exposed soil 48 hours prior to potential precipitation events of greater than 0.5 inch.
- No refueling, storage, servicing, or maintenance of equipment shall take place within 100 feet of aquatic habitat.
- All machinery used during construction of the Project shall be properly maintained and cleaned to prevent spills and leaks that could contaminate soil or water.
- Any spills or leaks from construction equipment (i.e., fuel, oil, hydraulic fluid, and grease) shall be cleaned up in accordance with applicable local, state, and/or federal regulations.

Chapter 6 REFERENCES

California Department of Transportation. 2012. Caltrans Water Quality Planning Tool. Available: http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx Accessed: September 2019.

_____. 2016. Statewide Storm Water Management Plan (CTSW-RT-16-316.05.1).

_____. 2017. Construction Site Best Management Practices (BMP) Manual (CTSW-RT-17-314.18.1).

Caltrans. See California Department of Transportation.

Central Valley Regional Water Quality Control Board. 2016. Water Quality Control Plan for the Central Valley Region Fourth Edition.

CVRWQCB. See Central Valley Regional Water Quality Control Board.

FEMA Flood Map Service Center. 2016. Available: <https://msc.fema.gov/portal>. Accessed: September 2019.

The City of Clovis. 2017. The City of Clovis General Plan. Available: https://cityofclovis.com/planning-and-development/planning/master-plans/general-plan/. Accessed September 2019.

Natural Resources Conservation Service. 2019. Web Soil Survey. Available: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed September 2019

NRCS. See Natural Resources Conservation Service.

U.S. Census Bureau. Fresno County, California QuickFacts. Available: https://www.census.gov/quickfacts/fact/table/fresnocountycalifornia/PST045218. Accessed September 2019.

USDA. See U.S. Department of Agriculture.

U.S. Department of Agriculture. 2001. Revised Universal Soil Loss Equation, Version 2, (RUSLE2) Handbook. May 2001.

Watershed Boundary Dataset for HUC#180400080307, California. 2018. Available: http://datagateway.nrcs.usda.gov. Accessed September 2019

Western Regional Climate Center. 2015. Fresno Yosemite International Airport: Period of Record Monthly Climate Summary. Available: https://wrcc.dri.edu/Climate/Monthly_Summaries/west_summaries.php. Accessed September 2019

WRCC. See Western Regional Climate Center.

Page intentionally left blank

Chapter 7 REPORT CONTRIBUTORS

Organization/ Individual	Years of Experience	Qualifications
City of Clovis		
Claudia Cazares, Management Analyst, Project Manager		
Area West Environmental, Inc.		
Becky Rozumowicz, Senior Reviewer, Technical Advisor	23	QSP/QSD (#2099); CPESC (#6472); B.S., Soil and Water Science
Cory Brinkman, Environmental Planner, Researcher	8	B.S., Environmental Science
Chrissy Russo, Environmental Planner, Researcher	2	B.S., Environmental Science and Management

Page Intentionally Blank

Appendix A Preliminary Risk Level Assessment

Sediment Risk Factor Worksheet	**Entry**
A) R Factor	
Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.	
http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm	
R Factor Value	1.12
B) K Factor (weighted average, by area, for all site soils)	
The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.	
Site-specific K factor guidance	
K Factor Value	0.32
C) LS Factor (weighted average, by area, for all slopes)	
The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.	
LS Table	
LS Factor Value	0.14
Watershed Erosion Estimate (=RxKxLS) in tons/acre	0.050176
Site Sediment Risk Factor	**Low**
Low Sediment Risk: < 15 tons/acre	
Medium Sediment Risk: >=15 and <75 tons/acre	
High Sediment Risk: >= 75 tons/acre	

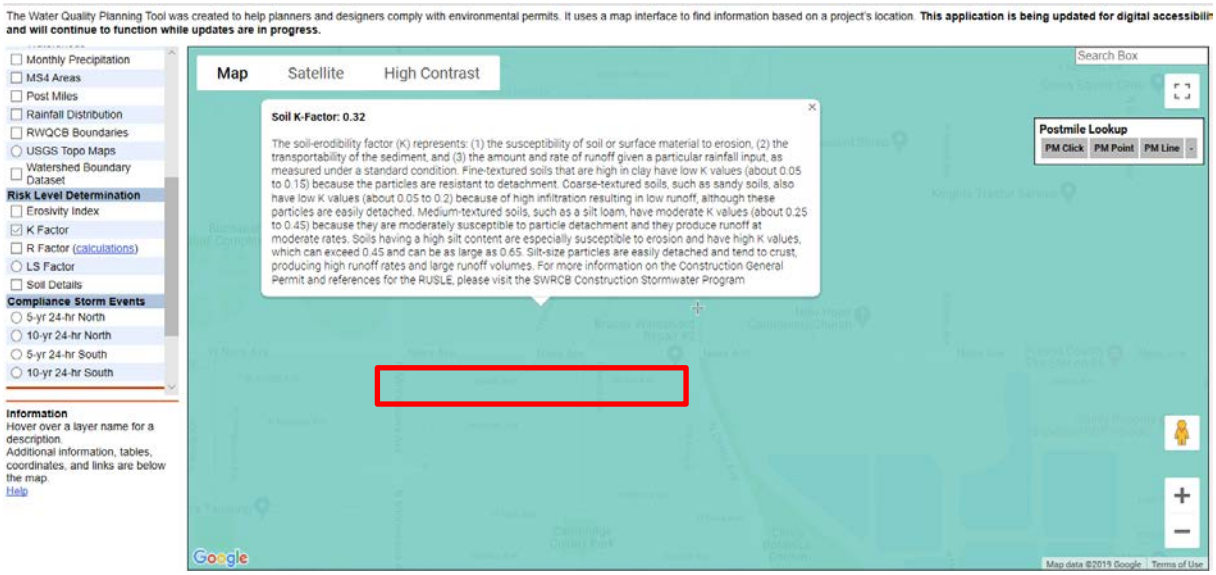
Receiving Water (RW) Risk Factor Worksheet	**Entry**	**Score**
A. Watershed Characteristics	**yes/no**	
A.1. Does the disturbed area discharge (either directly or indirectly) to a **303(d)-listed waterbody impaired by sediment** (For help with impaired waterbodies please visit the link below) or has a **USEPA approved TMDL implementation plan for sediment**?: http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml **OR** A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY? (For help please review the appropriate Regional Board Basin Plan) http://www.waterboards.ca.gov/waterboards_map.shtml	**no**	**Low**

Combined Risk Level Matrix

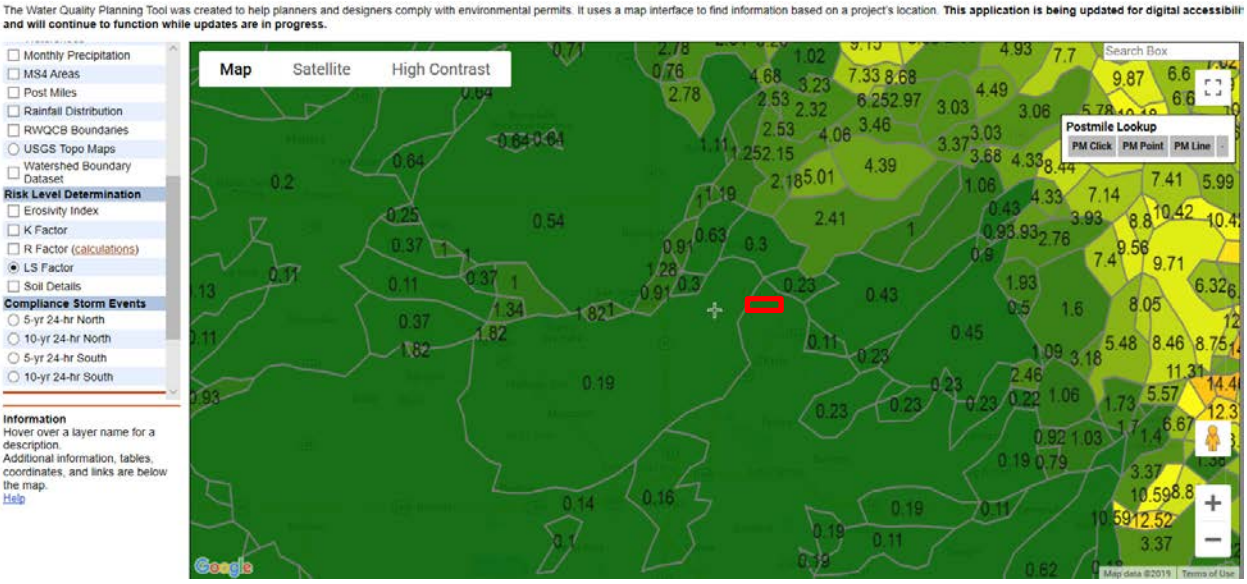
Receiving Water Risk	Sediment Risk: Low	Sediment Risk: Medium	Sediment Risk: High
Low	Level 1	Level 2	
High	Level 2		Level 3

Project Sediment Risk:	**Low**
Project RW Risk:	**Low**
Project Combined Risk:	**Level 1**

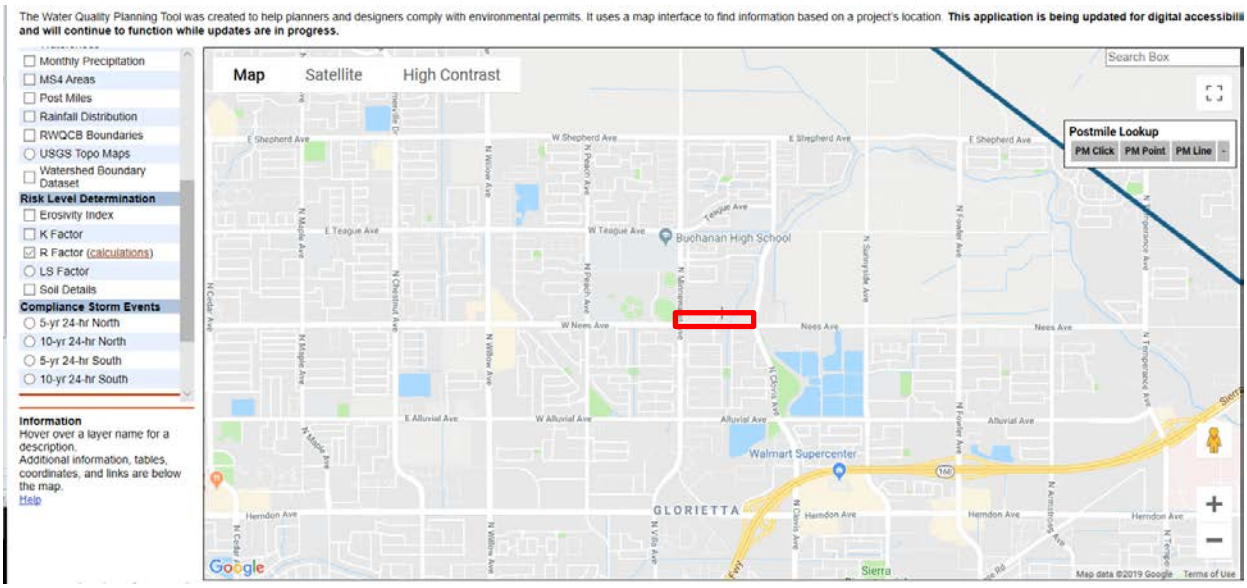
K Factor



LS Factor



R Factor


The Water Quality Planning Tool was created to help planners and designers comply with environmental permits. It uses a map interface to find information based on a project's location. This application is being updated for digital accessibili
and will continue to function while updates are in progress.
Monthly Precipitation
MS4 Areas
Post Miles
Rainfall Distribution
RWQCB Boundaries
USGS Topo Maps
Watershed Boundary Dataset
Risk Level Determination
Erosivity Index
K Factor
R Factor (calculations)
LS Factor
Soil Details
Compliance Storm Events
5-yr 24-hr North
10-yr 24-hr North
5-yr 24-hr South
10-yr 24-hr South
Information
Hover over a layer name for a description.
Additional information, tables, coordinates, and links are below the map.
Help
Map
Satellite
High Contrast
Search Box
Postmile Lookup
PM Click
PM Point
PM Line
Buchanan High School
Walmart Supercenter
GLORIETTA
Google
Map data ©2019 Google
Terms of Use

Appendix B Representative Photographs

Irrigation ditch on the north side of Nees Avenue

Peach orchard on the north side of Nees Aveue

Landscaped median on Nees Avenue

Landscaped sidewalk, curb, and gutter on the south side of Nees Avenue

Appendix G

NRCS Soils Report

United States Department of Agriculture

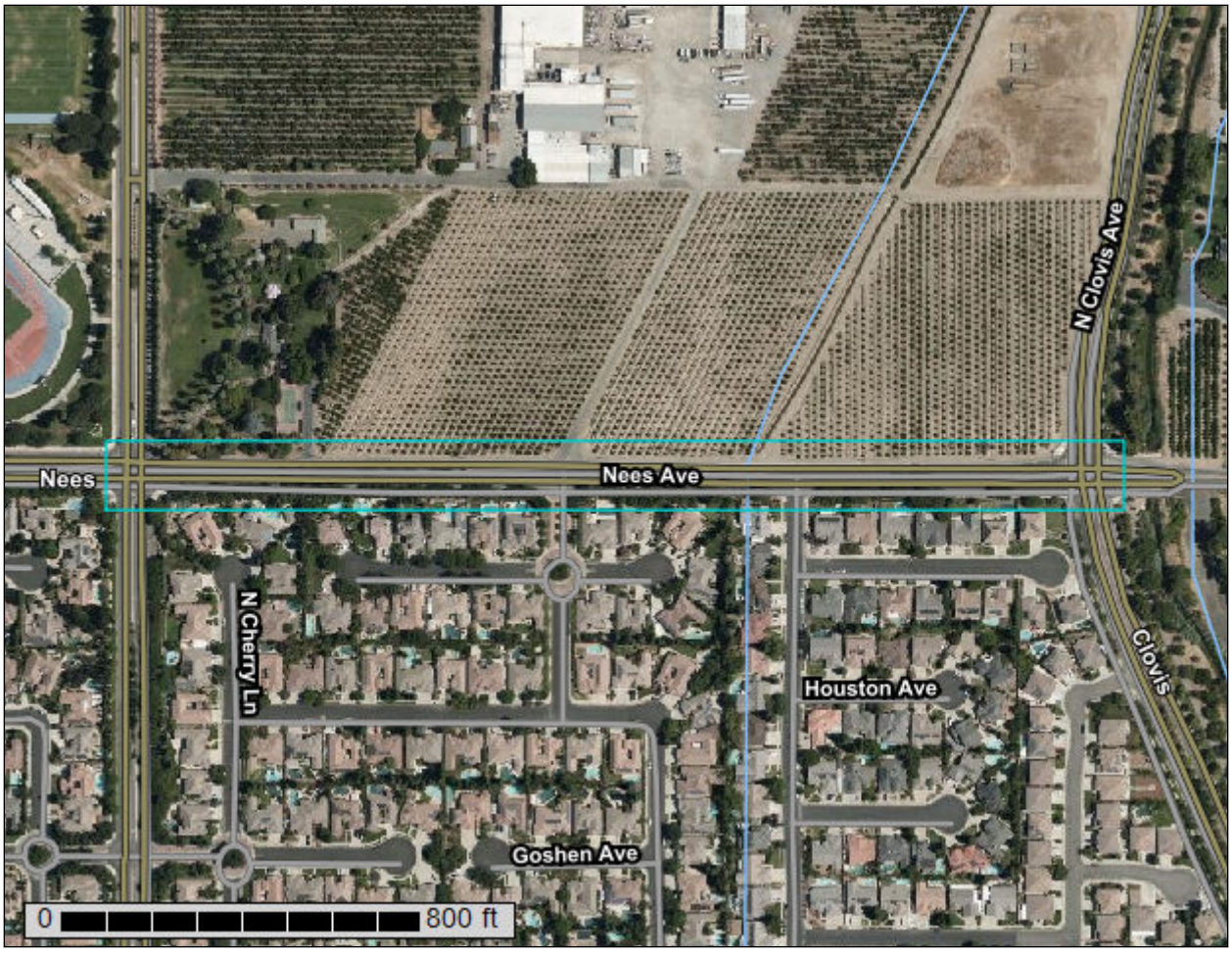
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Eastern Fresno Area, California

Nees Avenue Improvements



November 4, 2019

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eastern Fresno Area, California
Survey Area Data: Version 12, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 1, 2018—Jul 1, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Hc	Hanford sandy loam	1.4	16.9%
Hf	Hanford sandy loam, sandy substratum	2.2	27.6%
Hm	Hanford fine sandy loam	1.7	20.7%
TzbA	Tujunga loamy sand, 0 to 3 percent slopes	2.8	34.8%
Totals for Area of Interest		**8.0**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Eastern Fresno Area, California

Hc—Hanford sandy loam

Map Unit Setting

National map unit symbol: hl5f
Elevation: 200 to 500 feet
Mean annual precipitation: 8 to 15 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 275 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Hanford and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hanford

Setting

Landform: Alluvial fans, flood plains
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope, rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

Ap - 0 to 16 inches: sandy loam
C - 16 to 72 inches: sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 10 percent
Landform: Alluvial fans, flood plains
Hydric soil rating: No

Unnamed, channeled

Percent of map unit: 5 percent
Landform: Channels on alluvial fans
Hydric soil rating: No

Hf—Hanford sandy loam, sandy substratum

Map Unit Setting

National map unit symbol: hl5j
Elevation: 200 to 500 feet
Mean annual precipitation: 8 to 15 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 275 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Hanford and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hanford

Setting

Landform: Alluvial fans, flood plains
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope, rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

Ap - 0 to 16 inches: sandy loam
C - 16 to 27 inches: sandy loam
2C - 27 to 60 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 4s

Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Unnamed, fine sandy loam surface
Percent of map unit: 15 percent
Landform: Flood plains, alluvial fans
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Hm—Hanford fine sandy loam

Map Unit Setting
National map unit symbol: hl5p
Elevation: 200 to 500 feet
Mean annual precipitation: 8 to 15 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 275 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition
Hanford and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hanford

Setting
Landform: Alluvial fans, flood plains
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope, rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile
A - 0 to 16 inches: fine sandy loam
C - 16 to 72 inches: fine sandy loam

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Available water storage in profile: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Unnamed, loam

Percent of map unit: 10 percent
Landform: Flood plains
Hydric soil rating: No

Unnamed, steeper slopes

Percent of map unit: 4 percent
Landform: Benches
Hydric soil rating: No

Unnamed

Percent of map unit: 1 percent
Landform: Drainageways on flood plains
Hydric soil rating: Yes

TzbA—Tujunga loamy sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: hlc1
Elevation: 180 to 400 feet
Mean annual precipitation: 8 to 12 inches
Mean annual air temperature: 62 to 64 degrees F
Frost-free period: 225 to 275 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Tujunga and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tujunga

Setting

Landform: Flood plains, alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

A - 0 to 4 inches: loamy sand

C - 4 to 60 inches: stratified sand to loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): 4s
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Unnamed, loamy coarse sand

Percent of map unit: 12 percent
Landform: Flood plains, alluvial fans
Hydric soil rating: No

Unnamed, compact substratum

Percent of map unit: 2 percent
Landform: Alluvial fans, flood plains
Hydric soil rating: No

Unnamed, flooded

Percent of map unit: 1 percent
Landform: Flood plains
Hydric soil rating: Yes

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Land Classifications

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

California Revised Storie Index (CA) (Nees Avenue Improvements)

The Revised Storie Index is a rating system based on soil properties that govern the potential for soil map unit components to be used for irrigated agriculture in California.

The Revised Storie Index assesses the productivity of a soil from the following four characteristics:

- Factor A: degree of soil profile development

- Factor B: texture of the surface layer

- Factor C: steepness of slope

- Factor X: drainage class, landform, erosion class, flooding and ponding frequency and duration, soil pH, soluble salt content as measured by electrical conductivity, and sodium adsorption ratio

Revised Storie Index numerical ratings have been combined into six classes as follows:

- Grade 1: Excellent (81 to 100)

- Grade 2: Good (61 to 80)

- Grade 3: Fair (41 to 60)

- Grade 4: Poor (21 to 40)

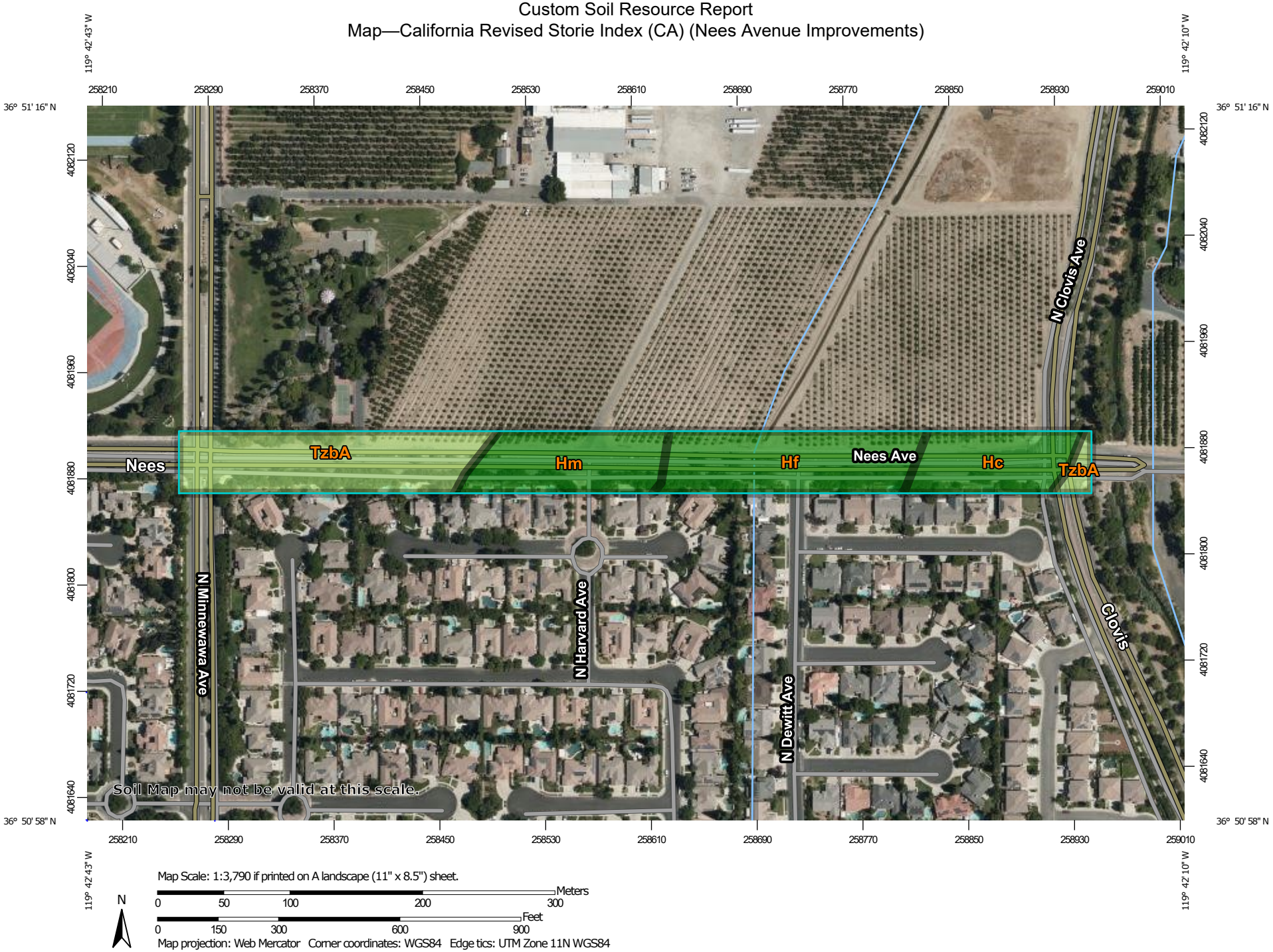
- Grade 5: Very poor (11 to 20)

- Grade 6: Nonagricultural (10 or less)

The components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as the one shown for the map unit. The percent composition of each component in a particular map unit is given to help the user better understand the extent to which the rating applies to the map unit.

Other components with different ratings may occur in each map unit. The ratings for all components, regardless the aggregated rating of the map unit, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Map—California Revised Storie Index (CA) (Nees Avenue Improvements)



Map Scale: 1:3,790 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Grade 1 - Excellent
- Grade 2 - Good
- Grade 3 - Fair
- Grade 4 - Poor
- Grade 5 - Very Poor
- Grade 6 - Nonagricultural
- Not rated
- Not rated or not available

Soil Rating Lines

- Grade 1 - Excellent
- Grade 2 - Good
- Grade 3 - Fair
- Grade 4 - Poor
- Grade 5 - Very Poor
- Grade 6 - Nonagricultural
- Not rated
- Not rated or not available

Soil Rating Points

- Grade 1 - Excellent
- Grade 2 - Good
- Grade 3 - Fair
- Grade 4 - Poor
- Grade 5 - Very Poor
- Grade 6 - Nonagricultural
- Not rated
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eastern Fresno Area, California
Survey Area Data: Version 12, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 1, 2018—Jul 1, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—California Revised Storie Index (CA) (Nees Avenue Improvements)

Map unit symbol	Map unit name	Rating	Component name (percent)	Acres in AOI	Percent of AOI
Hc	Hanford sandy loam	Grade 1 - Excellent	Hanford (85%)	1.4	16.9%
Hf	Hanford sandy loam, sandy substratum	Grade 1 - Excellent	Hanford (85%)	2.2	27.6%
Hm	Hanford fine sandy loam	Grade 1 - Excellent	Hanford (85%)	1.7	20.7%
TzbA	Tujunga loamy sand, 0 to 3 percent slopes	Grade 2 - Good	Tujunga (85%)	2.8	34.8%
Totals for Area of Interest				**8.0**	**100.0%**

Rating Options—California Revised Storie Index (CA) (Nees Avenue Improvements)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Irrigated Capability Class (Nees Avenue Improvements)

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels-capability class, subclass, and unit. Only class and subclass are included in this data set.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have few limitations that restrict their use.

Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

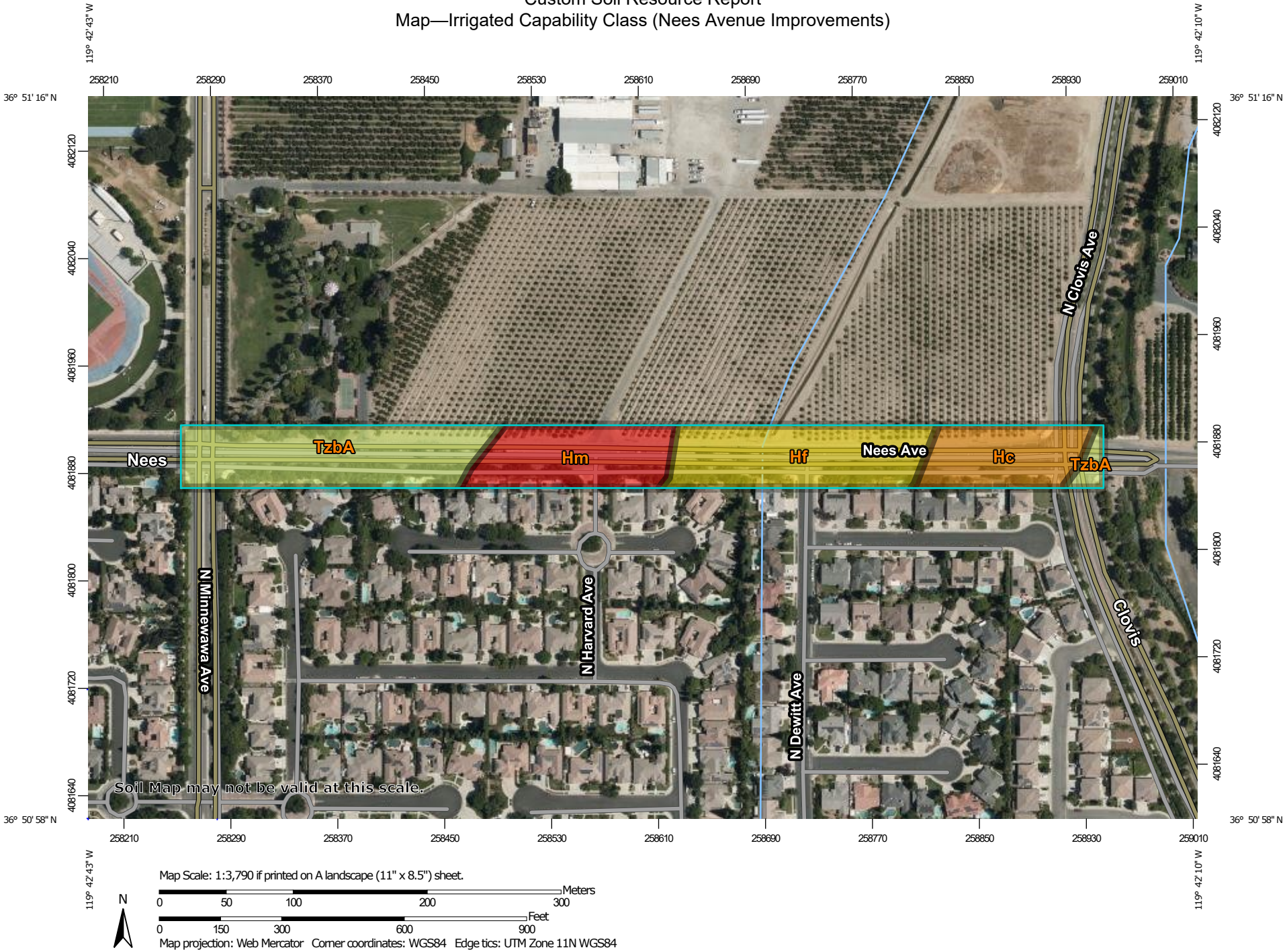
Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Map—Irrigated Capability Class (Nees Avenue Improvements)



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Capability Class - I
- Capability Class - II
- Capability Class - III
- Capability Class - IV
- Capability Class - V
- Capability Class - VI
- Capability Class - VII
- Capability Class - VIII
- Not rated or not available

Soil Rating Lines

- Capability Class - I
- Capability Class - II
- Capability Class - III
- Capability Class - IV
- Capability Class - V
- Capability Class - VI
- Capability Class - VII
- Capability Class - VIII
- Not rated or not available

Soil Rating Points

- Capability Class - I
- Capability Class - II
- Capability Class - III
- Capability Class - IV
- Capability Class - V
- Capability Class - VI
- Capability Class - VII
- Capability Class - VIII
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eastern Fresno Area, California
Survey Area Data: Version 12, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 1, 2018—Jul 1, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Irrigated Capability Class (Nees Avenue Improvements)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Hc	Hanford sandy loam	2	1.4	16.9%
Hf	Hanford sandy loam, sandy substratum	3	2.2	27.6%
Hm	Hanford fine sandy loam	1	1.7	20.7%
TzbA	Tujunga loamy sand, 0 to 3 percent slopes	4	2.8	34.8%
Totals for Area of Interest			**8.0**	**100.0%**

Rating Options—Irrigated Capability Class (Nees Avenue Improvements)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Erosion Factors

Soil Erosion Factors are soil properties and interpretations used in evaluating the soil for potential erosion. Example soil erosion factors can include K factor for the whole soil or on a rock free basis, T factor, wind erodibility group and wind erodibility index.

T Factor (Nees Avenue Improvements)

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Map—T Factor (Nees Avenue Improvements)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- 1
- 2
- 3
- 4
- 5
- Not rated or not available

Soil Rating Lines
- 1
- 2
- 3
- 4
- 5
- Not rated or not available

Soil Rating Points
- 1
- 2
- 3
- 4
- 5
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eastern Fresno Area, California
Survey Area Data: Version 12, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 1, 2018—Jul 1, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—T Factor (Nees Avenue Improvements)

Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
Hc	Hanford sandy loam	5	1.4	16.9%
Hf	Hanford sandy loam, sandy substratum	5	2.2	27.6%
Hm	Hanford fine sandy loam	5	1.7	20.7%
TzbA	Tujunga loamy sand, 0 to 3 percent slopes	5	2.8	34.8%
Totals for Area of Interest			**8.0**	**100.0%**

Rating Options—T Factor (Nees Avenue Improvements)

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf