

INITIAL STUDY

FOR THE

**WELDON REGIONAL WATER SYSTEM
IMPROVEMENT PROJECT**

Prepared for:

Kern County Local Agency Formation Commission
5300 Lennox Avenue, Suite 303
Bakersfield, California 93309

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ABBREVIATIONS / ACROYNMS

AQMP	Air Quality Management Plan
APE	Area of Potential Effect
bgs	below ground survey
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resource Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Species
CWA	Clean Water Act
dB	decibel
EKCAPCD	East Kern County Air Pollution Control District
FEMA	Federal Emergency Management Agency
FIRM	Federal Insurance Rate Map
GCC	Global Climate Change
GHG	Greenhouse Gas
GPEIR	General Plan Environmental Impact Report
HAS	Hydrologic Sub-Area
IPaC	Information, Plan and Conservation System
KCFD	Kern County Fire Department
KV	Kelso Valley
LAFCo	Local Agency Formation Commission
MBTA	Migratory Bird Treaty Act
MDAB	Mojave Desert Air Basin
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
PCEs	primary essential elements
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SCE	Southern California Edison
SIP	State Implementation Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resource Control Board
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	velocity decibel
WQMP	Water Quality Management Plan
WRWD	Weldon Regional Water District

ENVIRONMENTAL CHECKLIST FORM

INTRODUCTION

1. Project Title: Weldon Regional Water System Improvement Project
2. Lead Agency Name: Kern County Local Agency Formation Commission
Address: 5300 Lennox Avenue, Suite 303, Bakersfield, CA 93309
3. Contact Person: Blair Knox
Phone Number: (616) 716-1076
4. Project Location: The regional and site location are shown on Figure 1 and 2. The project will occur in the Weldon area of California at Highway 178, including several side streets, between Poplar Street to the east and the KOA campground to the west. Figure 1 depicts the project area at a regional level, and Figure 2 depicts the project area at a site-specific level. The project is located within Township 26 South, Range 24 East, Weldon USGS Quadrangle, 7.5 Minute Series topographic map, at the approximately Latitude/Longitude 35.652170, -118.320880.
5. Project Sponsor's Name and Address: Kern County Local Agency Formation Commission
5300 Lennox Avenue, Suite 303, Bakersfield, CA 93309
6. General Plan Designation: State or Federal Land, Accepted County Plan Areas, Specific Plan required, Residential (4 units/acre), Residential (1 unit/acre), Residential (2.5 gross acres/unit), Residential (5 gross acres/unit), Major Commercial, General Commercial, Highway Commercial, Intensive Agriculture, Resource management
7. Zoning: Exclusive Agriculture (A), Limited Agriculture (A-1), Estate 1/4 acre (E ¼), Estate ½ acre (E ½), Estate 1 (E 1), Estate 2½ acre (E 2½), Residential Suburban Combining (RS), Floodplain – Secondary Combining (FPS), Precise Development Combining (PD), Mobile Home (MH), and Highway Commercial (CH)
8. Project Description:

Background

Five water companies in the Weldon area of Kern County are forming a new public "Special District to provide a regional water supply to the local communities. The new water purveying entity will be called the Weldon Regional Water District (WRWD or District). The water purveyors consolidating to form this new district include Long Canyon Water Company, Tradewinds Water Association, Bella Vista Mutual Water Company, Lake Isabella KOA, and Rainbird Valley Mutual Water Company. These water purveyors supply water to about 929 customers, with about 436 service connections in the unincorporated community of Weldon. Currently, each of the small

residential neighborhoods within the community of Weldon have their own independent water system and each of them use groundwater supply wells extracting water from the Kern River Valley Groundwater Basin as their sole source of water supply. The Weldon Regional Water District, when formed, will assume all water system services provided by existing water providers that have agreed to consolidate the water supply under the WRWD.

In order to determine what water systems and entities within the area would participate in forming the new WRWD, several community outreach meetings were held. Of the water systems and entities within the community that participated in these outreach meetings, only the five water purveyors listed above, and three landowners—Prince, Haffenfeld, and Hochman—have made a commitment to participate in forming the WRWD. The Hochman property will serve as one of the well sites, the other well site is on the Prince property (Dave Prince owns the Long Canyon Water Company, which is one of the water purveyors that is participating in the formation of the District). The following water systems/entities have declined to participate in the Project: Hillview Acres Mutual Water Company, Lakeview Ranchos Mutual Water Company, South Fork Elementary School, Valley Estates P.O.A., South Fork Middle School, Weldon Methodist Church, and the South Fork Women's Club. Each of these entities were invited to participate in the formation of the new District, and each decided not to participate at this time.

The Tradewinds Water Association, Long Canyon Water Company, Rainbird, Valley Mutual Water Company, Bella Vista Mutual Water Company, and the Lake Isabella K.O.A. all rely solely on groundwater as the source of water supply. Each water system currently has two wells, with the exception of the Lake Isabella K.O.A. The K.O.A. has one well that is high in Nitrates. This is also problematic in the event the well is inoperable. Many of the existing water system wells have water quality issues and do not meet current Drinking Water Standards. Some of these water systems have water quality issues and exceed the regulated maximum contaminant levels (MCL) for Uranium, Nitrate, and Arsenic. In July of 2015, two casing hammer test wells were drilled to find better water quality for the area and both test wells were successful. A recommendation was therefore made to drill, construct, and equip a municipal water well at each test well location to serve a new consolidated community water system.

In order to form a new Special District (in this case the Weldon Regional Water District), an application has been submitted to the Kern County Local Agency Formation Commission (Kern LAFCo or LAFCo). LAFCo is the local agency that reviews and approves the formation of a new Special District, which in this case will assume responsibility for supplying water to customers within a define service area. Even though funding to implement the prospective District's new water system will initially be supplied by the State Water Resources Control Board (State Board), the two agencies agreed that LAFCo's action to form the new Special District is the first step in the chain of events leading to the consolidation of the existing agencies as the new Weldon Regional Water District.

In most cases the formation of the new water supply agency would focus solely on the consolidation of existing water supply entities into the new District, which would typically not result in any immediate changes to the physical environment. However, in this instance much of the new water agency's physical facilities are needed immediately and these facilities have been defined by the existing water agencies and the State Board for implementation immediately following approval of the formation of the Weldon Regional Water District. Because the action of approving the Weldon Regional Water District will lead to immediate water system improvements within the new District, this environmental document examines the impacts from both actions:

first, formation of the new Weldon Water District by the Kern County LAFCo; and second, the new physical facilities that will be installed by the Weldon Regional Water District as proposed to be funded by the State Board. LAFCo's action is procedural in nature and will not have any direct effects on the environment; however, LAFCo's approval of the new District's formation will enable the physical water system improvements described in the following text. It is these physical changes in the environment that are the primary focus of the analysis in this Initial Study and proposed Mitigated Negative Declaration (IS/MND).

Project Physical Characteristics

Assuming LAFCo approves formation of the new Weldon Regional Water District (a new Special District consolidating six existing water purveyors in the community of Weldon: The Tradewinds Water Association, Long Canyon Water Company, Rainbird, Valley Mutual Water Company, Bella Vista Mutual Water Company, and the Lake Isabella K.O.A.), the newly formed Weldon Regional Water District (District) will require several improvements to the existing water systems within the District to create a regional water system. These improvements will better serve customers within the new District by providing several new water transmission lines, water meters and service connections, two new wells, two new reservoirs and new and improved distribution pipelines. The project includes adequate new storage capacity that meets the recommended storage capacity for the system while also providing two new 750,000 gallons (GAL) or 0.75 million gallons (0.75 MG) storage tanks (Bella Vista and Kelso Valley Reservoirs (KV)). It is advantageous to have two separate storage tanks on each end of the water distribution system in the event of a major pipeline break or equipment failure that requires shutting down part of the system. The KV Reservoir location will require construction of an access road leading to the project might include wellhead treatment for each new well for the removal of Iron and Manganese, if present. Construction of these wellhead treatment systems may not be necessary and will depend on the final water quality results after completion of the construction of both new municipal wells. The estimated well capacity is approximately 400 gallons per minute (GPM) for each well.

The regional water system infrastructure is proposed to connect to the communities now served by the Long Canyon Water Company, Rainbird Valley Mutual Water Company, Tradewinds Water Association, Bella Vista Mutual Water Company, and the Lake Isabella K.O.A. The regional water system infrastructure would replace the existing water system pipelines, valves, hydrants, meters and appurtenances for the Long Canyon Water Company, Rainbird Mutual Water Company, and Bella Vista water systems and would install about 2,700 feet of new water main and utilize the remaining existing water system pipelines for the Tradewinds Water Association system. New meters, hydrants, and some valves will be installed in the Tradewinds area to replace broken, corroding, and non-working infrastructure. The existing infrastructure of each water system has been evaluated primarily on the basis of the age of the system pipelines, valves, hydrants, and appurtenances and it is recommended that any system piping, valves, and appurtenances that are over 30 years old be replaced. By replacing the older components of the existing infrastructure, the newly formed regional water system will have a new system that should not have a need for major repairs during the first several years of its operation.

The main features of the proposed water system project components are as follows, and are outlined in the preliminary engineering report provided as Appendix 1a; please refer to Figure 3 of this Initial Study for a depiction of the project components on a map (Note: these facilities are listed from West to East and are shown on Sheet 2 of the Engineering Drawings, which are provided in Appendix 1b):

- The project will construct a major 12" water transmission line from the KOA campground site east to just before Powers Lane within the State Highway (SH) 178 alignment. This segment will consist of approximately 34,675 Lineal Feet (LF) of the 12" pipeline within this segment of the pipeline alignment;
- The project will connect two existing wells which belonged to Tradewinds Water Association to the District's water system: Well Site No. 2 and Well Site No. 3;
- Tradewinds Existing Well No. 3 will be abandoned by the new District in accordance with Kern County Standards;
- The project will develop new District Well No. 1 and connect it to the District's new system once developed;
- The project will connect two existing wells which belong to Bella Vista Mutual Water Company: Well No. 1 & Well No. 2;
- The project will construct a new Bella Vista (BV) 750,000 GAL reservoir and booster pump station and connect these facilities to the District's water system;
- The project will connect an existing tank (Tank No. 1) and booster pump station which belonged to Bella Vista Mutual Water Company to the District's water system;
- The project will connect an existing tank (Tank No. 2) and two 15,000 GAL reservoirs to the District's water system;
- The project will construct transmission pipelines and distribution lines that will connect to the District's water system within the service area that previously belonged to Long Canyon Water Company;
- The project will construct transmission pipelines and distribution lines that will connect to the District's water system within the service area that previously belonged to Bella Vista Mutual Water Company;
- The project will construct a new KV 750,000 GAL reservoir on property between Kelso Valley Road and Paul's Place and will connect to the District's water system; due to the sensitive cultural resources located within and adjacent to the site upon which the KV Reservoir will be constructed, two alternative access road and tank locations have been proposed, as shown on Figure 4;
- The project will develop a new District Well No. 2 and connect it to the District's new system once developed;
- Rainbird existing Well No. 1 will be abandoned by the new District in accordance with Kern County Standards;
- Rainbird existing Well No. 2 will be abandoned by the new District in accordance with Kern County Standards; and
- The District will construct a new office for the newly developed Weldon Regional Water District at one of three locations on either Isabel Drive, Vista Grande Drive, or Hooper Road where the existing Tradewinds Office is located (refer to Figure 2, and Figures 5-6).

Details of the project components listed above are as follows:

The existing wells that the project proposes to incorporate into the District's water system will be reworked. Reworking of these wells will entail installation of new deep well pumps, vertical hollowshaft motors, and electrical at each well site. Based on the data from the drilling of the two casing hammer test wells, the new water well to be constructed at the Test Well #1 location is estimated to have a production rate of approximately 400 GPM, and the new water well to be constructed at the Test Well #2 location is estimated to have a production rate of approximately 400-600 GPM (refer to Appendix 1). The project will involve drilling, construction, and equipping

of a new municipal water well at each of the two test well sites. Both wells will be equipped with a chemical feed pump for chlorination of the raw groundwater in order to maintain a free chlorine residual of ± 0.5 ppm in the water system and a 1,000 GAL hydropneumatic tank. Furthermore, the well equipping piping will be designed to facilitate the addition of a water treatment system for the removal of iron and manganese from the raw groundwater should treatment be necessary in order to meet the secondary MCL standards.

The new water system supply requirements were assessed and will be met by the proposed project. These requirements are outlined in the table below:

Table 1
WATER SYSTEM SUPPLY AND REQUIREMENTS

System Supply Requirement		Flow Requirement (gpm)	Supply Available	Sources	Storage Used (gal)
1	½ PHD + F.F for 2 Hours	1,721	1,721 GPM	Well No.1, Well No.2 + Storage	110,520
2	2/3 of Item 1 with One Well Inoperative	1,147	1,147 GPM	Well No.1 + Storage	89,640
3	MDD (for Three Days)	220.9	800 GPM	Well No.1 & No.2	0
4	ADD (Continuous)	98.2	800 GPM	Well No.1 & No.2	0

MDD = Maximum Daily Demand

ADD = Average Daily Demand

PHD = Peak Hour Demand

F.F. = Fire Flow

The Project will construct approximately $\pm 34,675$ lineal feet (LF) of 12" piping (type: C900 PVC) to convey water from the two new wells to the two new 0.75 MG storage tanks and consolidated water system. In addition, approximately 26,525 LF of 8" piping (type: C900 PVC) will be installed to replace the aging infrastructure of existing water systems that are more than 30 years old including the piping, valving, and appurtenances for the Long Canyon Water Company, Rainbird Mutual Water Company, and the Bella Vista Mutual Water Company water systems. The project will utilize some of Tradewinds Water Association's existing water distribution system with the exception of about 2,700+ feet of new distribution main that will replace an existing water main. The existing Tradewinds Water Association storage tanks and booster station will not be incorporated as part of the new regional water system. The Project will construct two 0.75 MG welded steel water storage tanks (type: AWWA D100) and a booster station to pump water into the Bella Vista and north Tradewinds pressure zones; 3 alternative locations for the Bella Vista reservoir and booster pump station have been identified. The project, as it is proposed, will allow the five existing systems to disconnect and/or abandon the existing wells that have water quality violations from their water systems.

Construction Scenario

The project is expected to begin construction in 2019. It is estimated that the project will require 2 years to be construction, with an anticipated completion date in 2021. The project will require preparing and grading of the reservoirs and booster pump station, and finally installation of the

structures (2 reservoirs and a booster pump station). The construction staging areas will likely be at the two well sites, the two tank sites and then possibly at the office building location. The proposed pump station would be housed in a concrete masonry unit (CMU) block or metal building that may include a pump room, and electrical control room. Construction of the pump station would involve installation of piping and electrical equipment, excavation and structural foundation installation, pump house construction, pump and motor installation, and final site completion. The construction equipment needed for pump station installation would generally include auger truck, backhoe, boom lift truck, excavator, plate compactor, and scaffolding. Excavated soils would be reused onsite to the extent feasible and otherwise disposed offsite. Concrete would be required for construction of pump station foundation and pads.

The proposed reservoirs will be constructed on a concrete/aggregate/steel foundation. It is assumed that a maximum of five to twelve employees will be at each site during foundation construction for each reservoir. The new reservoirs will be constructed in the following fashion: floor; walls and columns; roof; and appurtenances. It is assumed that a maximum of twelve employees will be on each site during construction of each reservoir.

Construction of the proposed water pipeline would involve trenching using a conventional trench and backfill technique, and jacking and boring, where necessary. Dewatering is not anticipated. The trenching technique would include saw cutting of the pavement where applicable, trench excavation, pipe installation, backfill operations, and re-surfacing to the original condition. The trench would be approximately 5 feet deep and 5 feet wide, with some areas requiring a 10 feet wide trench as a result of crossing existing utilities. The pipeline would be installed a minimum of 4 feet below ground surface (bgs). Construction staging areas would be identified by the contractor for pipe lay-down, soil stockpiling, and equipment storage. On average, 300 to 600 linear feet of pipeline may be installed per day. Trenches would be temporarily closed at the end of each workday, by covering with steel trench plates and installing barricades to restrict access to staging areas. Installed pipeline will be capped during non-work time to prevent entry & entrapment of animals and debris inside the pipeline. The construction equipment needed for pipeline installation would include water trucks, backhoe, excavator, bracing, welding equipment, boom lift truck, steamroller, dump trucks and plate compactors. Approximately seven workers per day would be required for construction and installation of the distribution pipeline. Minimal off-site disposal would include construction related debris and spoils. Construction equipment for work on the new and old wells will include well drilling and pump rigs, backhoes, excavators, welding equipment, boom lift truck, cement and dump trucks, utility trucks and plate compactors. Construction equipment for work on the new and old water storage tanks include: backhoes, excavators, welding equipment, boom lift truck, cement and dump trucks, utility trucks and plate compactors.

Construction of the new office building, should this alternative be selected, would involve the site prep (grading/excavation), construction of a one-story wood frame office building, and construction of a septic system developed to provide on-site restrooms for employees working at the site. Delivery of construction supplies and removal of any excavated materials, if necessary, will be accomplished using trucks during normal working hours.

Ground disturbance activities not addressed above are anticipated to result in the following: the well sites and the office site will have ground disturbances at depths of approximately 18" to 24" for over-excavation and recompaction beneath concrete foundations and then the excavation of the on-site sumps; at the Kelso Valley (KV) Tank Site and Access Road grading there may be

spots where the ground disturbance depth would be approximately 20 feet; and, at the Bella Vista (BV) Tank Site the ground disturbance depth would be approximately 10 feet.

The existing water systems of Long Canyon, Rainbird, and Bella Vista are being replaced with new water mains, valves, hydrants, and meters. A pressure reducing station will be installed at the Long Canyon and Rainbird service areas. A connection to the existing Tradewinds system will be made at Bella Vista Drive and near Marcia Street with a pressure reducing station and at Bella Vista Drive. The old Tradewinds hydrants, valves and meters will also be replaced.

9. Surrounding land uses and setting: (Briefly describe the project's surroundings)

The land uses surrounding the proposed project footprint are as follows:

The proposed project is located within a rural area. The land uses and zoning classifications listed under item 6 and 7 of this Project Description represent the surrounding land uses and zoning classifications, as well as the project-related land uses and zoning classifications. Additionally, please refer to Figure 7, which depicts the land use designations within the project area.

10. Other agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

The Kern County LAFCo will serve as the CEQA lead agency for this Project. The whole of the project exceeds the threshold for a General Construction National Pollutant Discharge Elimination System (NPDES) permit. This requires notification to the State Water Board and preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). When the new facilities are integrated into the Weldon Regional Water District system, it is likely that a permit will be required from the State Board Division of Drinking Water. The project will require an encroachment permit from Caltrans due to the roadwork that will be required within SR-178. The project is located within Caltrans Fresno District and Caltrans Bishop District. Additional permits that will be required include, but are not limited to, a County of Kern well drilling permit, County of Kern building permit, County of Kern Encroachment permit, County of Kern grading permit and possible air pollution control district permits for project related emergency power generation equipment. This project will require permits from the United States Army Corps of Engineers, California Department of Fish and Wildlife, and the Central Valley Regional Water Quality Control Board. Since State responsible or trustee agencies have been identified for this project, the LAFCo will implement a 30-day review period for this Initial Study and proposed Mitigated Negative Declaration.

11. Have California Native American tribes traditionally and cultural affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun? No consultation has been conducted and it should be a part of the CEQA Initial Study. There are Native American tribes and sites located in and around the Weldon area.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per

Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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


DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

<input type="checkbox"/>	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	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.
<input type="checkbox"/>	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.

Tom Dodson & Associates
Prepared by _____

November 2019
Date _____


Lead Agency (signature) _____

03-09-2020
Date _____

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

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

SUBSTANTIATION

- a. *Less Than Significant Impact* – The proposed project consists of several improvements to and new features of the newly formed Weldon Regional Water System. Scenic vistas in this portion of the Kern River Valley are typically found in mountainous desert communities at the southern most points of the Sierra Nevada. The project footprint, which encompasses a large area within the Community of Weldon, has scenic vistas in all directions to various mountain ranges. The community of Weldon is located east of Lake Isabella and south of the Kern River and is surrounded by mountains and hills in all directions. Adverse impacts to scenic vistas can occur in one of two ways. First, an area itself may contain existing scenic vistas that would be altered by new development. A review of the project area determined that there are scenic vistas of the mountains located within the project footprint, but the features of the proposed project would not impact these scenic vistas, as many of the Weldon Regional Water System features will be developed below ground or will be developed near features with similar characteristics to that which the Project proposes to implement. However, the project will develop a reservoir (KV reservoir) and access road atop a hill just south of Highway 178 between Kelso Valley Road and Paul's Place Road. Once constructed, the reservoir atop the hill at this location will be visible from much of the area immediately surrounding this hill. Based on a review of the area, at ground level, the views from both the west and the east (at both Highway 178 and at nearby residences), the hilltop upon which the KV reservoir will be constructed is surrounded by hills and mountains higher in elevation and with more distinctive scenic qualities that will remain in view with the construction of the new reservoir. Furthermore, this particular hill consists of dirt and shrub with few other valuable scenic qualities.

A scenic vista impact can also occur when a scenic vista can be viewed from the project area or immediate vicinity and a proposed development may interfere with the view to a scenic vista. Views in all directions from anywhere within the project footprint consist of open space with agricultural land, rural residential and small commercial operations in the foreground and middle ground views, with mountains and hills in the background view. The proposed project will include the construction of reservoirs that will be of a height that could obstruct views in their immediate vicinity. The KV Reservoir will be located at the top of a hill, which would not obstruct views to nearby residents because none exist at this location as stated under the discussion above. The location of the Bella Vista reservoir is in a rural area that slopes slightly from south to north; due to the fact that this

reservoir site is surrounded by open space and is relatively far removed from the mountain/hill views to the south however, the presence of this reservoir would not substantially modify the referenced scenic vistas from that which already exists on the project sites. As a result, the scenic vistas from the project site and surrounding area will be altered but this change does not cause impacts to aesthetics to rise to a level of substantial adverse impact. Additionally, the proposed pipeline and other proposed facilities will be installed below ground, thus the impact to any scenic vistas would be less than significant. No mitigation is required.

- b. *Less Than Significant Impact* – The project footprint does not contain any scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway corridor. No scenic resources, such as historical buildings, trees, or rock outcropping, would be removed, altered, or obstructed as part of the proposed project. The project sites are either within existing roadways or surrounded by local roadways on land that has been developed in some manner; according to the California Department of Transportation website¹, none of these roadways have been designated as scenic highways. As a result, there is no potential to substantially damage scenic resources within a state scenic highway corridor. The hilltop upon which the KV reservoir will be constructed is the only potentially scenic resource that will be altered by the proposed project. However, as noted in the discussion under I(a), this hill is not distinctive when compared to the surrounding mountains that can be seen throughout the Highway 178 corridor. With no further scenic resources or visual qualities within the project footprint, the proposed project has a less than significant potential to substantially degrade the visual character or quality of the site or its surroundings. No impact can occur under this issue and no mitigation is required.
- c. *Less Than Significant Impact* – The project footprint varies in visual character as it encompasses various visual settings within the Community of Weldon. The proposed aboveground features of the new Weldon Regional Water System are located in fairly rural, non-urbanized areas with little surrounding development other than the surrounding roadways and single-family residences. The visual character of each of the components of the Project will not be substantially altered with the minor development of this necessary water infrastructure project. The change in visual character that will result from constructing these facilities is considered minimal, with the exception of the construction of the KV Reservoir atop a hill between the eastern and western portions of the overall District area. This change will introduce a new structure and access road that will be visible in the immediate vicinity of the hill, however it's placement would not impede views to mountains and hills surrounding the project area that are much greater in height than the Kelso Valley hill. Furthermore, this located was chosen based on the need for water storage to be located at a higher elevation than the area in which it serves. Thus, the proposed modifications to the existing environment area not anticipated to result in significant degradation of the site's visual character. The Community of Weldon requires this infrastructure to provide a reliable source of water to the residents and businesses in this rural community, and therefore the development of the Weldon Regional Water System is considered to be consistent with the evolution in the area landscape. Based on these findings, the proposed project is not forecasted to cause a substantial degradation of the area's visual character or quality. No mitigation is required.
- d. *Less Than Significant With Mitigation Incorporated* – The construction activities are limited to daylight hours unless an emergency occurs, and the amount of security lighting needed during construction will be minimal. However, the surrounding land uses within the project footprint include some residential uses. Thus, the proposed project has a potential to create a new source of substantial lighting or glare during construction that could adversely affect nighttime views at the adjacent residences, and residences can be considered a light sensitive land use. There may be some new permanent light sources to support operations of the booster pump, well, and reservoir facilities. This poses a potential to result in a substantial change to the area surrounding the project sites. To protect

¹ <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>

nearby residences from direct light and glare from new lighting, the following mitigation measure will be implemented.

AES-1 *A facilities lighting plan shall be prepared for facilities that require safety lighting and shall demonstrate that glare from operating and safety night lights that may create light and glare affecting adjacent occupied property are sufficiently shielded to prevent light and glare from spilling into occupied structures. This plan shall specifically indicate that the lighting doesn't exceed 1.0 lumen at the nearest residence to any lighting site within the project footprint. This plan shall be implemented by the District to minimize light or glare intrusion onto adjacent properties.*

With implementation of the above measure potential light and glare can be controlled to a less than significant impact level.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
II. AGRICULTURE AND FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Will the project:				
a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

a&b. *Less Than Significant Impact* – The proposed project would not convert prime farmland, unique farmland, or farmland of statewide importance, as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use. As shown in Figure II-1, the project sites are not located on or near any prime farmland or unique farmland. However, farmland of statewide importance exists throughout the project footprint. The Project itself will not prevent future use of these lands and the development of any of the features of the proposed project are considered a benefit to the Community through providing a reliable source of water to residents and businesses within Weldon. Additionally, water infrastructure projects, such as the proposed Weldon Regional Water System Project, are considered land use independent and can be constructed on any land use. Thus, any impacts to the farmland of statewide importance within the project alignment are considered less than significant. Additionally, implementation of the

Project will not conflict with existing zoning for agricultural use or a Williamson Act Contract. Based on a review of ArcGIS Kern County, CA Williamson Act Eligible Agricultural Preserve map of the project area, several Williamson Act Parcels exist within the project footprint. However, as previously stated, once implemented, the land within the project footprint will remain relatively unchanged for agricultural use once completed. The project is a water infrastructure project and the land use for this type of project is considered land use independent and thus the proposed project can be constructed on any land use. Thus, the potential for project implementation to either conflict with existing zoning for agricultural use or a Williamson Act contract or 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 is considered less than significant. No mitigation is required.

- c&d. *No Impact* – The project sites are not located within forest land, timberland or timberland zoned Timberland Production. Therefore, implementation of the project will not 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)). Also, implementation of the Project will not result in the loss of forest land or conversion of forest land to non-forest production use. No impacts are anticipated. No mitigation is required.
- e. *No Impact* – This project does not 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. Please reference Responses II(a-d), above. No impacts are anticipated. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Will the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: The following information utilized in this section was obtained from the technical study "Air Quality and GHG Impact Analysis for Weldon Water District Project, Weldon, CA" prepared by Giroux & Associates dated October 30, 2017 and is provided as Appendix 2 in this Initial Study.

Background

Climate

Away from the cooling effects of the Pacific Ocean, the climate of Kern County can be characterized as hot in summer and cold in winter, compared with the coastal basins where the climate is moderated by the adjacent ocean. Average temperatures AT Aerial Acres range from a low of 30 degrees Fahrenheit (°F) in December to highs of 97°F in July. Rainfall averages approximately 6.5 inches a year in nearby Boron, with infrequent snowfall in the winter months.

Winds blow primarily from west to east by day and northeast to southwest at night in response to the regional pattern of airflow up the Kern River by day and down river at night. There are no ambient air monitoring stations in the Lake Isabella area, but prevailing wind patterns suggest that dilute levels of smog and particulate matter from the Central Valley likely cause violations of clean air standards in the project vicinity. In addition to winds that control the rate and direction of pollution dispersal, Southern California is notorious for strong temperature inversions that limit the vertical depth through which pollution can be mixed. In summer, coastal areas are characterized by a sharp discontinuity between the cool marine air at the surface and the warm, sinking air aloft within the high-pressure cell over the ocean to the west. Such summer inversions, however, occur very infrequently, if at all, in the Mojave Desert. A second inversion type forms on clear, winter nights when cold air off the mountains sinks to the valley floor while the air aloft over the valley remains warm. This process forms radiation inversions. These inversions, in conjunction with calm winds, trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution "hot spots" in heavily developed coastal areas of Southern California, there is not enough traffic in inland valleys to cause any winter air pollution problems. Thus, while summers are periods of hazy skies and unhealthy air, winter is often a period of spectacular visibility and excellent air quality in the project vicinity.

Air Quality Standards

Existing air quality is measured at established EKCAPCD air quality monitoring stations. Monitored air quality is evaluated and in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table III-1.

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in Table III-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O₃, CO (except 8-hour Lake Tahoe), SO₂, NO₂, PM₁₀, PM_{2.5}, and visible reducing particles are not to be exceeded at any time in any consecutive three-year period; all other values are not to be equaled or exceeded. The air quality in a region is considered to be in attainment by federal standards if the measured ambient air pollutant levels for O₃, PM₁₀, PM_{2.5}, and those based on annual averages or arithmetic mean are not exceeded more than once per year. The O₃ standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

Baseline Air Quality

The project site is located in the eastern Kern County portion of the Mojave Desert Air Basin. The location of air quality monitoring is often predicted by population density or special local air pollution problems. The Lake Isabella area does not meet thresholds for maintaining a year-round air quality station. The closest data resources are therefore located at a considerable distance from Weldon.

The Eastern Kern County Air Pollution Control District (EKCAPCD) operates a regional monitoring network that measures the ambient concentration of criteria pollutants. Existing levels of criteria air pollutants in the project area can generally be inferred from measurements conducted by EKCAPCD at its Mojave (923 Poole Street) monitoring station. Although the Mojave Station does not monitor the complete spectrum of pollutants, data for NO₂ is available from the Antelope Valley Lancaster Station. There is no nearby station that monitors CO.

Table III-2 summarizes the monitoring history from the Mojave and Lancaster monitoring stations for the last 4 years. From these data one can infer that baseline air quality levels near the project site are occasionally unhealthful, but that such violations of clean air standards usually affect only those people most sensitive to air pollution exposure.

- a. Photochemical smog (ozone) levels occasionally exceed standards. The 8-hour state ozone standard has been exceeded an average of 14 percent of all days in the past four years near Mojave and the 8-hour federal was violated 7 percent during the same period. The 1-hour state standard has been violated only eleven times in the last four years.
- b. Respirable dust (PM-10) levels only rarely exceed the state standard, but the less stringent federal PM-10 standard was not violated for the same time period.
- c. The federal ultra-fine particulate (PM-2.5) standard of 35 µg/m³ only occasionally is exceeded. From the data observed, only one percent of all days exceeded the 35 µg/m³ standard. Maximum daily concentrations are similarly low and were the lowest on record in 2014.

**Table III-1
AMBIENT AIR QUALITY STANDARDS**

Pollutant	Average Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O3) ⁸	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM10) ⁹	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		–		
Fine Particulate Matter (PM2.5) ⁹	24 Hour	–	–	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15.0 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	–	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9 ppm (10 mg/m³)		9 ppm (10 mg/m³)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		–	–	
Nitrogen Dioxide (NO2) ¹⁰	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	–	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO2) ¹¹	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	–	Ultraviolet Flourescence; Spectrophotometry (Paraosaniline Method)
	3 Hour	–		–	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas) ¹¹	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas) ¹¹	–	
Lead 8 ^{12,13}	30-Day Average	1.5 µg/m³	Atomic Absorption	–	–	–
	Calendar Quarter	–		1.5 µg/m³ (for certain areas) ¹²	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Avg	–		0.15 µg/m³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No Federal Standards		
Sulfates	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Footnotes

- ¹ California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter – PM₁₀, PM_{2.5}, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

- 2 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year, with a 24-hour average concentration above 150 µg/m³, is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
- 3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- 4 Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
- 5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- 6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- 7 Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
- 8 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- 9 On December 14, 2012, the national PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- 10 To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- 11 On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- 12 The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- 13 The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- 14 In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Although complete attainment of every clean air standard is not yet imminent, extrapolation of the steady improvement trend suggests that such attainment could occur within the reasonably near future.

Table III-2
AIR QUALITY MONITORING SUMMARY (2012-2015)
(PREDICTED NUMBER OF DAYS STANDARDS WERE EXCEEDED, AND
MAXIMUM LEVELS DURING SUCH VIOLATIONS)

Pollutant/Standard	2012	2013	2014	2015
Ozone				
1-Hour > 0.09 ppm (S)	1	0	9	1
8-Hour > 0.07 ppm (S)	52	29	95	33
8- Hour > 0.075 ppm (F)	29	9	57	15
Max. 1-Hour Conc. (ppm)	0.096	0.094	0.104	0.104
Max. 8-Hour Conc. (ppm)	0.086	0.086	0.095	0.084
Nitrogen Dioxide				
1-Hour > 0.18 ppm (S)	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.049	0.048	0.052	0.042
Inhalable Particulates (PM-10)				
24-hour > 50 µg/m ³ (S)	19.1	26	12.5	5.1
24-hour > 150 µg/m ³ (F)	0	0	11	0
Max. 24-Hr. Conc. (µg/m ³)	96.6	131.5	171.0	74.9
Ultra-Fine Particulates (PM-2.5)				
24-Hour > 35 µg/m ³ (F)	2.1	6.0	1.0	2.0
Max. 24-Hr. Conc. (µg/m ³)	49.5	76.2	36.5	42.2

Source: Mojave Desert Poole Street Station: Ozone, PM-10, PM-2.5

Lancaster Station: NO₂

data: www.arb.ca.gov/adam/

Air Quality Planning

East Kern County Air Pollution Control District

The proposed project is located within the EKCAPCD (East Kern County Air Pollution Control District) boundary. The EKCAPCD district regulates air pollutant emissions for all sources throughout the portion of the Mojave Desert Air Basin (MDAB) that falls within Kern County other than motor vehicles. The EKCAPCD enforces regulations and administers permits governing stationary sources. The following rules and regulations would apply to the proposed project:

Rule 402 – Fugitive Dust. The purpose of this rule is to reduce the amount of PM-10 emitted from significant man-made fugitive dust sources in an amount sufficient to maintain NAAQS. The rule applies to bulk storage, earthmoving, construction and demolition, and man-made conditions resulting in wind erosion. According to the requirements of this rule, no person shall cause or allow emissions of fugitive dust to remain visible beyond the property line of the emissions sources and requires that for any large operations, a person shall not cause or allow downwind PM-10 concentrations to increase more than 50 micrograms per cubic meter above upwind concentrations.

Rule 419 – Nuisance. This rule prohibits the discharge of air contaminants or other materials in such quantities that may cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public.

As shown in Table III-3, as required by the federal CAA, air basins or portions thereof have been classified as either “attainment” or “nonattainment” for each criteria air pollutant based on whether the standards have

been achieved. Jurisdictions of nonattainment areas are also required to prepare an air quality management plan (AQMP) that includes strategies for achieving attainment. The EKCAPCD originally published its Ozone AQMP in 1991 and in 1994 this plan was amended to reflect findings showing that there were no self-generated exceedances of ozone CAAQS in the EKCAPCD, but rather all exceedances occurred during transport days. As a moderate ozone nonattainment area, EKCAPCD is required to adopt retrofit Reasonably Available Control Technology rules for all sources of ozone precursor emissions. EKCAPCD has fulfilled this mandate by adopting a number of rules which aim to reduce ozone precursor emissions.

The EKCAPCD is currently classified as moderate non-attainment for the one-hour state ozone standard as well as non-attainment for the federal and state eight-hour ozone standards. Additionally, the EKCAPCD is classified as non-attainment for the state 24-hour PM-10 standard. The EKCAPCD is currently in attainment and/or unclassified status for all other ambient air quality standards.

**Table III-3
EAST KERN COUNTY AIR BASIN ATTAINMENT STATUS**

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone – 1 Hour	Attainment	Moderate Nonattainment
Ozone – 8 Hour	Nonattainment	Nonattainment
PM-10	Unclassifiable/Attainment	Nonattainment
PM 2.5	Unclassifiable/Attainment	Unclassified
Carbon Monoxide	Unclassifiable/Attainment	Unclassified
Nitrogen Dioxide	Unclassified	Attainment
Sulfur Dioxide	Unclassified	Attainment
Lead Particulates	No Designation	Attainment

Standards of Significance

Air quality impacts are considered “significant” if they cause clean air standards to be violated where they are currently met, or if they “substantially” contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following five tests of air quality impact significance. A project would have a potentially significant impact if it:

- Conflicts with or obstructs implementation of the applicable air quality plan.
- Violates any air quality standard or contributes substantially to an existing or projected air quality violation.
- Results in a cumulatively considerable net increase of any criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- Exposes sensitive receptors to substantial pollutant concentrations.
- Creates objectionable odors affecting a substantial number of people.

Many air quality impacts occur miles from the source after the initial emissions have undergone complex photochemical reactions. Because many project-related emissions come from a dispersed traffic network, and because turbulent mixing further dilutes the individual impact from any single project during several

hours of transport, there is often no reasonable way to correlate project emissions with observed air quality unless the emissions are highly concentrated near one single location.

To overcome this difficulty, the Kern County Air Pollution Control District (KCAPCD), in its CEQA responsibility for Eastern Kern County, developed a CEQA Implementation Document (2004), that assigned an emissions level that it recommends should be considered as creating a potentially significant air quality impact even if the individual regional ambient air quality degradation is immeasurably small. These levels are as follows:

Operational and area sources:

- ROG – 25 tons per year
- NOx – 25 tons per year

Significance could also derive from emissions of odors or hazardous air pollutants. Development of a clean water treatment, storage and conveyance system would not typically generate any hazardous air pollutants or odors because system components are all enclosed.

Federal Thresholds

NEPA guidelines do not encourage designation of impacts as (in)significant. However, Section 176(c) of the Clean Air Act Amendments of 1990 prohibits federal participation in projects that would impede implementation of the state implementation plan (SIP) for federal non-attainment pollutants. “Participation” includes project funding as well as granting any federal permits. If the project-related emissions from construction and operations are less than specified “*de minimis*” levels, no further SIP consistency demonstration is required. Eastern Kern County is designated as a non-attainment area for the federal 8-hour ozone standard. The basin is unclassified for PM-2.5, and for PM-10. Based upon these designations, the following emissions levels are presumed evidence of SIP conformity:

VOC/ROG	-	50 tons/year
NOx	-	50 tons/year

These *de minimis* thresholds are less stringent than the KCAPCD CEQA thresholds. If project air quality impacts in the basin are less-than-significant under CEQA, they are automatically in conformance under NEPA.

Impact Analysis

- Less Than Significant Impact* – Projects, such as the proposed development of a new water system, do not directly relate to the AQMP in that there are no specific air quality programs or regulations governing general development. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use are the primary yardsticks by which impact significance of planned growth is determined. Based on the analysis of the County’s General Plan Land Use section, the proposed project is consistent with the adopted General Plan. Thus, the proposed project is consistent with regional planning forecasts maintained by the State of California. The East Kern County Air Pollution Control District (EKCAPCD) originally published its Ozone AQMP in 1991 and in 1994 this plan was amended to reflect findings showing that there were no self-generated exceedances of ozone CAAQS in the EKCAPCD, but rather all exceedances occurred during transport days. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis. According to the data compiled in the Air Quality Analysis Report (Appendix 2), project related emissions do not exceed regional thresholds. The analysis of project-related emissions provided below indicates, the proposed project will not cause or be exposed to significant air pollution, and is, therefore, consistent with the applicable air quality plan.
- Less Than Significant With Mitigation Incorporated* – Air pollution emissions associated with the proposed project would occur over both a short and long-term time period. Short-term emissions

include fugitive dust from construction activities (i.e., site prep, demolition of the existing asphalt, and exhaust emission) at the proposed Project site. Long-term emissions generated by future operation of the proposed project primarily include energy consumption. However, there is no direct nexus between consumption and the type of power source or the air basin where the source is located. Operational air pollution emissions from electrical generation are therefore not attributable on a project-specific basis. The construction and operational emissions were estimated and compared to the EKCAPCD/KCAPCD significance thresholds using the CalEEMod model. Although exhaust emissions will result from on and off-site construction equipment, the exact types and numbers of equipment will vary among contractors such that such emissions cannot be quantified with certainty. Estimated construction emissions were modeled using CalEEMod2016.3.1 to identify maximum daily emissions for each pollutant during project construction. The proposed project entails construction of two 750,000-gallon storage tanks, wells, booster station, and connecting pipeline. Construction is estimated to occur over an approximate 2-year period. The following construction scenario was modeled:

- **Pipeline (6 months):** Trencher, Backhoe, Excavator, Welder, Compactor, Roller
- **Wells and Pump Station (8 months):** Drill Rig, Bore Rig, Pump, 2 Backhoes, Excavator, Welder, Dozer, Forklift
- **Water Storage Tanks (12 months):** 3 Backhoes, Excavator, 2 Welders, Compactor, 2 Aerial Lifts, 2 Air Compressors

Utilizing this indicated equipment fleet and durations the following worst-case annual construction emissions are calculated by CalEEMod and are listed below in Table III-4.

**Table III-4
CONSTRUCTION ACTIVITY EMISSIONS
MAXIMUM ANNUAL EMISSIONS (TONS/YEAR)**

Maximum Construction Emissions	ROG	NOx	CO	SO ₂	PM-10	PM-2.5
Pipelines	0.1	0.5	0.5	0.0	0.2	0.1
Reservoirs	0.4	4.0	2.7	0.0	1.0	0.6
Wells and Pump Stations	0.1	1.3	1.0	0.0	0.3	0.2
Total All Components	0.6	5.8	4.2	0.0	1.5	0.9
KCAPCD Regional Emissions Threshold	25	25	-	-	-	-

Source: CalEEMod output in appendix

Even if all three project components were to occur in the same calendar year, annual construction activity emissions are estimated be below CEQA thresholds without the need for added mitigation. However, the following mitigation measures shall be implemented as part of the proposed project to minimize construction-related air quality emissions:

AIR-1 *Fugitive Dust Control. The following measures shall be incorporated into Project plans and specifications for implementation:*

- ***Apply soil stabilizers or moisten inactive areas;***
- ***Prepare a high wind dust control plan;***
- ***Address previously disturbed areas is subsequent construction is delayed;***
- ***Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically 2-3 times/day);***
- ***Cover all stock piles with tarps at the end of each day or as needed;***

- ***Provide water spray during loading and unloading of earthen materials;***
- ***Minimize in-out traffic from construction zone;***
- ***Cover all trucks hauling dirt, sand, or loose material and require all trucks to maintain at least two feet of freeboard; and***
- ***Sweep streets daily if visible soil material is carried out from the construction site.***

Ozone precursor emissions (ROG and NO_x) are calculated to be below KCAPCD thresholds during construction. However, the use of reasonably available control measures for diesel exhaust is recommended. The following mitigation measures shall be implemented:

AIR-2 Exhaust Emissions Control

- ***Utilize well-tuned off-road construction equipment.***
- ***Establish a preference for contractors using Tier 3-rated or better heavy equipment.***
- ***Enforce 5-minute idling limits for both on-road trucks and off-road equipment.***

With the implementation of these mitigation measures, any Project-related construction impacts will remain less than significant.

Operational Impacts

Operational air pollution emissions will be minimal except for those associated with electrical generation of power used for pumping to operate the conveyance system. Minor amounts of exhaust pollution will result from occasional delivery of treatment chemicals. Electrical consumption has no single uniquely related air pollution emissions source because power is supplied to and drawn from a regional grid. Electrical power is generated regionally by a combination of non-combustion (nuclear, hydroelectric, solar, wind, geothermal, etc.) and fossil fuel combustion sources. There is no direct nexus between consumption and the type of power source or the air basin where the source is located. Operational air pollution emissions from electrical generation are therefore not attributable on a project-specific basis.

- c. ***Less Than Significant With Mitigation Incorporated*** – The evaluation presented under issue III(b) above addresses cumulative impacts of project emissions and the findings remain the same as outlined in the preceding text. Construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. The KCAPCD does not generally require the analysis of construction-related diesel emissions relative to health risk due to the short period for which the majority of diesel exhaust would occur. Health risk analyses are typically assessed over a 9-, 30-, or 70-year timeframe and not over a relatively brief construction period due to the lack of health risk associated with such a brief exposure. Additionally, as discussed above, implementation of the proposed project will not result in substantial pollutant concentrations and therefore will not expose sensitive receptors in the area to such impacts, particularly due to the brief exposure to such pollutants during construction. Therefore, with the implementation of Mitigation Measures **AIR-1** through **AIR-2** outlined under issue III(b), implementation of the Weldon Regional Water System Project is anticipated to have a less than significant potential to expose sensitive receptors to substantial pollutant concentrations.
- d. ***Less Than Significant Impact*** – Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational source odor impacts. A new water storage and distribution system is generally

not associated with odor impacts such as those often found in wastewater treatment. There are few biological organisms in the water supply and any such sources of odor are further removed in the pre-treatment process. The chlorination system will utilize sodium hypochlorite for disinfection. Some treatment chemicals have strong pungent odors. However, they are injected into the water stream and have no airborne pathways; furthermore, sensitive receptors are not located within 100 feet of any location in which chemicals are used. Thus, odor impacts are considered less than significant. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
IV. BIOLOGICAL RESOURCES: Will the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION: The "Biological Resources Assessment and Jurisdictional Delineation, Weldon Regional Water District, Weldon Regional Water System Improvement Project, Unincorporated Area of Weldon, Kern County, California," prepared by Jericho Systems, Inc. dated February 2018 is provided as Appendix 3, was utilized for the following analysis. The following information is abstracted from Appendix 3.

Background

Data regarding biological resources in the Project area were obtained through database review and field investigations. Background information from various databases was gathered prior to visiting this Project area to determine which species would be expected in the Project area. These databases include the

following: USFWS Information, Planning, and Conservation System (IPaC), and the California Natural Diversity Database (CNDDDB) *Rarefind 5*, CNPS *Electronic Inventory of Rare, Endangered, and Threatened Plants of California* were each reviewed for the *Weldon* and *Woolstalf Creek* USGS quadrangles.

Hydrologically, the project site is located within the sub watershed Isabella Lake-South Fork Kern River, within the Hydrologic Sub-Area (HSA 554.22) which comprises a 439,758-acre drainage area within the larger Lower South Fork Kern River Watershed (HUC 180300020702).

The Project area within the Kern River watershed contains three of California's major bioregions. These three major bioregions are the San Joaquin Valley Bioregion; the Sierra Bioregion; and the Mojave Bioregion. The South Fork Kern River Valley contains elements of all of these ecological zones. Other major habitat communities include Joshua Tree woodland, wet meadow, freshwater marsh, Mojave Desert scrub, desert chaparral, and annual grassland.

The general habitat communities within and immediately adjacent to the Project area include cropland, annual grasslands, sage-brush scrub, cottonwood riparian habitat, wetlands and disturbed residential. Wetland plant communities are considered sensitive due to their assemblages, associations, or sub-associations that support concentrations of sensitive plant or wildlife species. Wetlands are of relatively limited distribution and are of particular value to wildlife. Wetlands in the area support nesting tricolored blackbird (*Agelaius tricolor*), and wet grasslands support white-tailed kite (*Elanus caeruleus*).

Special Status Species and Habitats

Table IV-1 below provides a list of all State- and/or federally-listed threatened and endangered species documented locally (mostly within the KRP). No suitable habitat for these species exists within the Project area.

Table IV-1
LISTED SPECIES AND CRITICAL HABITAT DOCUMENTED WITHIN THE PROJECT VICINITY

Common Name	Scientific Name	Status	Found Locally within 3 miles	Found Adjacent within 500 feet	Found onsite	Suitable Habitat on site	Project Affect
Birds							
southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	FE/SE	Yes	No	No	No	No Affect
least Bell's vireo	<i>Vireo bellii pusillus</i>	FE/SE	Yes	No	No	No	No Affect
yellow-billed cuckoo	<i>Coccyzus americanus</i>	FT/SE	Yes	No	No	No	No Affect
California Condor	<i>Gymnogyps californianus</i>	FE/ S-Fully Protected	Yes	No	No	No	No Affect
Fish							
Delta Smelt	<i>Hypomesus transpaciocus</i>	FT	Yes	No	No	No	No Affect
Critical Habitat							
yellow-billed cuckoo		Proposed	Yes	No	No	No	No Affect
southwestern willow flycatcher		Final	Yes	Yes	Yes	No	No Adverse Mod.

Although the special status species listed above do occur locally, they are absent from Project area. The Project area does not support habitat with the primary essential elements (PCEs) required by these species. Therefore, implementation of this Project will not result in adverse impacts to listed species either directly or indirectly. There will be no affect to listed species.

Small segments of the Project alignment within the SH 178 easement will occur within the southwestern willow flycatcher habitat critical habitat overlay. All pipeline work will occur in an existing paved or compacted road easement. No habitat elements that define the critical habitat will be removed or impacted, as such, no adverse modification to critical habitat will result from implementation of this Project.

Vegetation suitable for nesting birds does exist within the Project area and adjacent areas. As discussed, most birds are protected by the MBTA. In general, impacts to all bird species (common and special status) can be avoided by conducting work outside of the nesting season, which is generally September through March, and by conducting a worker environmental awareness training. However, if all work cannot be conducted outside of nesting season, a Project-specific Nesting Bird Management Plan can be prepared to determine suitable buffers.

Preconstruction Nesting Bird Surveys are recommended prior to the commencement of any Project activities that may occur within the nesting season (February to September), to avoid any potential Project-related impacts to nesting birds within the Project area.

Jurisdictional Waters

Wetlands are the transition between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. In general, wetlands have one or more of the following three attributes: 1) at least periodically, the land supports predominantly hydrophytes; 2) soils are hydric meaning undrained; and 3) the substrate is saturated with water or covered by shallow water at some time during the growing season of each year. Under current guidelines, a jurisdictional wetland under the CWA's Section 404, must display all three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. In California however, a jurisdictional wetland needs to meet only one of these parameters. The wetland habitats found on site supported hydrophytic vegetation, hydric soils, and wetland hydrology. Therefore, these habitat areas are subject to State and federal jurisdictions and impacts to wetland habitat will require regulatory permits.

Wetlands are located adjacent to the Project area on the south side of SR 178 between Sierra Way and Fay Ranch Road. Installation of the pipeline in this area will occur on existing paved and compacted dirt rights-of-way. However, approximately 0.5 acre of wetland habitat will be impacted temporarily as a result of the new well construction. Permanent impacts will be less than 0.01 acre and as such, project-related impacts are not cumulatively significant relative to wetland/riparian habitat.

Impact Analysis

- a. *Less Than Significant Impact* – Implementation of the Project does not have a potential for a significant adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) (*formerly Department of Fish and Game*) or U.S. Fish and Wildlife Service (USFWS). The California Natural Diversity Database (CNDDB) found 5 listed species within 3 miles of the project area, but none of these species are located within 500 feet of the project footprint. Although special status species do occur locally—as shown on Table IV-1—the site survey concluded that they are each absent from the project footprint. Therefore, no sensitive species would be impacted by implementation of the proposed project. Therefore, no significant impacts under this issue are anticipated, and no mitigation is required.
- b. *Less Than Significant Impact* – Implementation of the proposed project will not have an adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. Though the project APE contains suitable habitat for several

sensitive species, it does not contain any known riparian habitat or any other sensitive natural community identified by any agency. The project area is not within the designated critical habitat of any species, though as stated in the discussion above, the project is located within 500 feet of critical habitat for southwestern willow flycatcher, no habitat elements that define the critical habitat will be removed or impacted, as such, no adverse modification to critical habitat will result from implementation of this Project. Impacts under this issue are considered less than significant.

- c. *Less Than Significant With Mitigation Incorporated* – As stated in the discussion above, the project contains wetland habitat. The wetland habitat found within the project footprint meets the parameters for both the Clean Water Act's (CWA) Section 404 criteria and California's jurisdictional wetland parameters. Therefore, these habitat areas are subject to State and federal jurisdictions and impacts to wetland habitat will require regulatory permits. Wetlands are located adjacent to the Project area on the south side of SR 178 between Sierra Way and Fay Ranch Road. Installation of the pipeline in this area will occur on existing paved and compacted dirt rights-of-way. However, approximately 0.5 acre of wetland habitat will be impacted temporarily as a result of the new well construction. Permanent impacts will be less than 0.01 acre and as such, project-related impacts are not cumulatively significant relative to wetland/riparian habitat. However, in order to ensure that no significant adverse impacts occur to wetlands as a result of the proposed project, the following mitigation measure shall be implemented:

BIO-1 *The District shall prepare and submit a Section 404 Permit to the U.S. Army Corps of Engineers (USACE), a 401 Permit from the Regional Water Quality Control Board (RWQCB), and a Streambed Alteration Agreement (SAA) to the California Department of Fish and Wildlife (CDFW). No ground disturbance shall occur until the District obtains the above permits. Note that the final compensation package contained in the permit shall be implemented by the District.*

With implementation of mitigation measure **BIO-1**, the proposed project would have a less than significant potential to 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. *Less Than Significant With Mitigation Incorporated* – Based on the field survey of the overall project area, the Project will not substantially interfere with the movement of any native resident or migratory species or with established native or migratory wildlife corridors, or impede the use of native nursery sites. However, the State does protect all migratory and nesting native birds. Though no impacts to nesting or migratory birds have been identified in Appendix 3, the project footprint may include locations that function as nesting locations for native birds. As such, it is mandatory and required by law that the project comply with the Migratory Bird Treaty Act (MBTA), which the State of California interprets as a prohibition on incidental take of migratory birds, notwithstanding the recent reinterpretation of the Migratory Bird Treaty Act. As such, it is mandatory that the proposed project avoid an illegal take of active bird nests, and any grubbing, brushing or tree removal should be conducted outside of the State identified nesting season (Raptor nesting season is February 15 through July 31; and migratory bird nesting season is March 15 through September 1). No activity shall occur within the 300-foot buffer until the young have fledged the nest. Thus, through compliance with the MBTA and the State of California's interpretation of the MBTA, impacts to migratory birds would be less than significant and effects on wildlife movement or the use of wildlife nursery sites can be reduced to a less than significant impact through the implementation of the following mitigation measure:

BIO-2 *The State of California prohibits the "take" of active bird nests. To avoid an illegal take of active bird nests, any grubbing, brushing or tree removal should be conducted outside of the State identified nesting season (Raptor nesting*

season is February 15 through July 31; and migratory bird nesting season is March 15 through September 1). Alternatively, the site shall be evaluated by a qualified biologist prior to the initiation of ground disturbance to determine the presence or absence of nesting birds. Active bird nests MUST be avoided during the nesting season. If an active nest is located in the project construction area it will be flagged and a 300-foot avoidance buffer placed around it. No activity shall occur within the 300-foot buffer until the young have fledged the nest.

With implementation of mitigation measure BIO-2, the proposed project will not 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. *No Impact* – The project is located within Kern County, and according to the data contained in the Biological Resources Assessment (Appendix 3), the project does not contain any biological resources, such as trees, that might be protected by local policies or ordinances. Based on the location of the various components of the project, much of which occurs within paved or dirt roadways, no locally protected resources exist that might be affected by the project. With no potential for conflicts with local policies or ordinances, no mitigation is required.
- f. *No Impact* – The project area is not subject to any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no potential exists to conflict with such plans. With no potential for conflicts with such plans, no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
V. CULTURAL RESOURCES: Will the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: A cultural resources report has been prepared to evaluate the potential for cultural resources to occur within the project area of potential effect titled "Identification and Evaluation of Historic Properties Weldon Regional Water System Improvement Project, Weldon Area, Kern County, California," prepared by CRM TECH dated April 19, 2018, and provided as Appendix 4a. The following summary information has been abstracted from this report. It provides an overview and findings regarding the cultural resources found within the project area. A follow up report was prepared by CRM TECH on June 17, 2019 to update the findings from their original report titled "Addendum to Historic Property Identification and Evaluation Report, Weldon Regional Water System Improvement Project, Weldon Area, Kern County, California, CRM TECH Project No. 3238B" and provided as Appendix 4b.

Resource Summary

As the lead agency for the undertaking, the State Water Resources Control Board (SWRCB) required the study in compliance with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act. The purpose of the Cultural Resources Study is to provide the SWRCB with the necessary information and analysis to determine whether the undertaking would have an effect on any "historic properties," as defined by 36 CFR 800.16(l), or "historical resources"/"tribal cultural resources," as defined by Calif. PRC §5020.1(j) and §21074, that may exist in or near the APE.

In order to accomplish this objective, CRM TECH conducted a cultural resources records search, historical and geoarchaeological background research, Native American consultation, and an intensive-level field survey. The results of the records search indicate that seven historical/ archaeological sites were previously recorded as lying partially within or in close proximity to the APE, as listed below:

15-004625 (CA-KER-4625)	Lithic scatter with obsidian flakes
15-004628 (CA-KER-4362)	Bedrock milling features
15-015989	Andrew Brown Ranch, ca. 1880s-1960s
15-015990	Prince Ranch, ca.1920s-1930s
15-017740 (CA-KER-9795H)	Kelso Valley Road
15-018210 (CA-KER-9958H)	Hillside Ditches, late 19th century
15-019103 (CA-KER-10418H)	Barbed wire fence line

During the field survey, it was ascertained that five of these seven sites, namely 15-004625, 15-004628, 15-015990, 15-017740, and 15-019103, are located well outside the APE boundaries. Of the two sites confirmed to be located partially within the APE, 15-018210 is determined not to meet the definition of a "historic property" or a "historical resource," while 15-015989 is presumed to be a "historic property" and a "historical resource" for the purpose of this undertaking since the proposed underground pipeline installation along SR 178 across the site will have no effect on its significance or integrity.

As a result of the field survey, two additional cultural resources, including one site and two isolates of prehistoric—i.e., Native American—origin and one site of historic-period origin, were identified and recorded within the APE:

15-019604	Isolate: lithic flake
15-019605	Isolate: lithic flake

By definition, Isolates 15-019604 and 15-019605 do not qualify as archaeological sites due to the lack of contextual integrity. As such, they do not constitute potential “historic properties,” “historical resources,” or “tribal cultural resources,” and require no further consideration in the Section 106- and CEQA-compliance processes.

Addendum Summary

CRM TECH surveyed the area of potential effects (APE) for the proposed KV Reservoir site, that required redefinition after the original CRM TECH report concluded that the project would have a potential to impact cultural resources at the original KV Reservoir site. The additional APE consists of two alternative locations for the proposed Kelso Valley (KV) Tank Site and an associated access route for each. The original KV Tank Site is located on the northern tip of a rugged hill on the south side of State Route 178, between Kelso Valley Road and Paul’s Place Drive, while the two alternatives are located on the western and eastern slopes of the same hill (see Figures in Project Description). The original KV Tank Site was included in our 2018 study for the proposed undertaking (Tang et al. 2018), which covered a total of 28 acres and 61,200 linear feet of pipeline alignment. As a result of the study, two large archaeological sites, subsequently designated 15-019603 (CA-KER-10732H) and 15-019606 (CA-KER-10733), were recorded as lying partially within the boundaries of the original KV Tank Site.

15-019603, a historic-period site, consists of the remains of a mill that was in operation during the mid-20th century in conjunction with mining activities in the nearby Weldon Tungsten District. 15-019606, a prehistoric—i.e., Native American—site, was recorded at that time as a cluster of 30 bedrock milling features with a total of 48 grinding slicks and 39 mortars, along with a possible rock shelter and two lithic artifacts found on the surface.

At the completion of 2018 study, it was concluded that both of these sites had the potential to meet the definition of “historic properties,” “historical resources,” or “tribal cultural resources,” as outlined by Section 106 of the National Historic Preservation Act and the California Environmental Quality Act. Therefore, CRM TECH’s report recommended that the KV Tank Site be relocated to avoid impact on 15-019603 and 15-019606. If physical impact could not be avoided, additional research procedures would become necessary to evaluate their historic significance in more detail, including focused historical background research on 15-019603 and archaeological testing at 15-019606.

The two alternatives for the KV Tank Site represent the results of redesign efforts by the project proponent to avoid any potentially adverse effect on 15-019603 and 15-019606 (the alternatives and original site for the Kelso Valley Tank site are shown on Figure V-1). Besides these two previously recorded sites, an additional bedrock milling feature and two prehistoric isolates—i.e., localities with fewer than three artifacts—were also identified within the addition to the APE, while two more bedrock milling features were found outside but close to the APE boundaries (Figure V-2).

In summary, two previously recorded archaeological sites, three newly identified sites, and two isolates are known to be located within, partially within, or near the additional APE (Figure 2), as listed below:

15-019603 (CA-KER-10732H)	Historic-period mill site, ca. 1940s-1960s
15-019606 (CA-KER-10733)	Large group of bedrock milling features with lithic artifacts
15-019892 (CA-KER-10890)	Bedrock milling feature
15-019893 (CA-KER-10891)	Bedrock milling feature

15-019894 (CA-KER-10892)	Bedrock milling feature
15-020013	Lithic flake
15-020014	Lithic core fragment

In light of the preliminary findings of this survey, the project proponent has selected Alternative 2 on the eastern slope of the hill for the construction of the KV Tank and the access road, while the original KV Tank Site on the northern slope and Alternative 1 on the western slope are no longer under consideration for the undertaking. Given the current footprint of the undertaking at this location (Figure V-2), three of the five sites, namely 15-019606, 15-019892, and 15-019894, will not receive any impact from the proposed undertaking and thus require no further consideration during this study.

One of the newly recorded bedrock milling feature sites, 15-019893, and both of the isolates are located within the portion of the APE associated with the access route for Alternative 2 and will be impacted by the undertaking as currently proposed. None of these localities, however, appears to meet the definition of a "historic property," "historical resource," or "tribal cultural resource." The isolates, by definition, do not qualify as archaeological sites due to the lack of contextual integrity. Therefore, they do not constitute potential "historic properties," "historical resources," or "tribal cultural resources," and require no further study.

Site 15-019893 consists of a granitic boulder with three grinding slicks. Unlike the large, concentrated groups of milling features with deep mortars at Site 15-019606, isolated bedrock milling features with only lightly used slicks are generally indicative of temporary, opportunistic resource processing activities and may result from as few as one single use. They do not represent areas of long-term habitation or repeated visits by the native population, and subsurface excavations at similar sites in the past typically did not encounter a substantial subsurface component. As such, Site 15-019893 does not hold the promise for any new or important archaeological data and does not appear to qualify as a "historic property," "historical resource," or "tribal cultural resource."

At Site 15-019603, the historic-period mill site, a small area within the previously established site boundary will be impacted by proposed slope adjustment along the access road, but none of the features or artifacts recorded at the site is located in that area, although some of the structural remains are in close proximity. At this time, Site 15-019603 may be presumed to be significant for the purpose of this undertaking, as the undertaking will have no effect on the contributing elements of the site pursuant to 36 CFR 800.16(i) and Calif. PRC §21084.1. However, if any of the contributing elements becomes subject to disturbance due to future revisions to the project plans, Site 15-019603 will need to be formally evaluated.

a&b. *Less Than Significant With Mitigation Incorporated* – CEQA establishes that "a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (PRC §21084.1). "Substantial adverse change," according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired."

Per the above discussion and definition, as well as the information contained in Appendices 4a and 4b, several historic/cultural/tribal cultural resources were identified within the KV Reservoir site, under both alternative roadway alignments proposed to reach the reservoir site. Based on the information and analysis summarized in the Addendum to CRM TECH's initial report, and in consultation with representatives of the Kern Valley Indian Council, the following mitigation measures are required to ensure compliance with Section 106 and CEQA provisions by the proposed undertaking:

CUL-1 *Among the structural remains and artifact deposits previously recorded at Site 15-019603, those located closest to the access route for Alternative 2 shall be protected in a designated Environmentally Sensitive Area (ESA) and clearly demarcated in the field during construction to prevent inadvertent impact.*

- CUL-2** *If project plans undergo any changes that may result in potential effects on the archaeological features or artifact deposits at Sites 15-019603 or 15-019606, additional research procedures will be needed to evaluate their historic significance properly, as recommended in the 2018 study (Tang et al. 2018:22).*
- CUL-3** *All earth-moving operations associated with the construction of the KV Tank and the associated access road shall be monitored by a qualified archaeologist and a representative of the Kern Valley Indian Council to ensure proper protection of Site 15-019603 and the timely identification and evaluation of any subsurface cultural remains.*
- CUL-4** *If possible, the bedrock milling feature at Site 15-019893 shall be moved to a location outside the construction footprint for the access road for preservation.*
- CUL-5** *Under the conditions presented in mitigation measure CUL-1 through CUL-4 conditions, the construction of the KV Tank and the access road may be cleared to proceed in compliance with provisions of Section 106 and CEQA on cultural resources.*

With implementation of the above mitigation measures, the proposed project would not have a significant impact on the identified resources within the KV Reservoir and access road footprint.

- c. *Less Than Significant Impact* – The available information does not suggest that human remains occur within the Area of Potential Effect (APE); therefore, the potential for such an occurrence is considered very low. Because human remains are typically located below ground, discovery of such remains typically occurs during ground disturbing activities and cannot easily be predicted prior to such activities. Human remains discovered during the project will need to be treated in accordance with the provisions of HSC §7050.5 and PRC §5097.98, which is mandatory. State law (Section 7050.5 of the Health and Safety Code) as well as local laws requires that the Police Department, County Sheriff and Coroner's Office receive notification if human remains are encountered. Compliance with these laws is considered adequate mitigation for potential impacts and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VI. ENERGY: Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

- a. *Less Than Significant Impact* – The proposed water system improvement project, includes the construction of a booster pump, development of two new wells, water transmission pipeline, and two 0.75 MG reservoirs. Energy consumption encompasses many different activities. For example, construction can include the following activities: delivery of equipment and material to a site from some location (note it also requires energy to manufacture the equipment and material, such as harvesting, cutting and delivering wood from its source); employee trips to work, possibly offsite for lunch (or a visit by a catering truck), travel home, and occasionally leaving a site for an appointment or checking another job; use of equipment onsite (electric or fuel); and sometimes demolition and disposal of construction waste. For the proposed project the number of employees will be limited due to the small size of the project and site. Also, demolition will be required for this site. To minimize energy costs of construction debris management, mitigation has been established to require diversion of all material subject to recycling. Energy consumption by equipment will be reduced by requiring shutdowns when equipment is not in use after five minutes and ensuring equipment is being operated within proper operating parameters (tune-ups) to minimize emissions and fuel consumption. These requirements are consistent with State and regional rules and regulations. Under the construction scenario outlined above, the proposed project will not result in wasteful, inefficient, or unnecessary energy consumption during construction.

The proposed project will ultimately distribute water to customers within the new Weldon Regional Water District and will employ up to 20 persons in support of the new water district. The project will be supplied power from Southern California Edison (SCE) to each of the well sites and tank sites. The District plans to install emergency backup generators at each site – an 8 kW Diesel Generator at the KV Tank Site, a 125 kW Diesel Generator at each of the Well Sites, and a 200 kW Diesel Generator at the BV Tank and Booster Station Site. As such, the Project is not anticipated to require a significant amount of electricity. The new structures must be constructed in conformance with a variety of existing energy efficiency regulatory requirements or guidelines including:

- Compliance California Green Building Standards Code, AKA the CALGreen Code (Title 24, Part 11), which became effective on January 1, 2017. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of building through the use of building concepts encouraging sustainable construction practices.
- The provisions of the CALGreen code apply to the planning, design, operation, construction, use, and occupancy of every newly construction building.
- Compliance The Building Energy Efficiency Standards (CBSC) would ensure that the building energy use associated with the proposed project would not be wasteful or unnecessary.
- Compliance with Indoor Water use consumption reduced through the maximum fixture water use rates.
- Compliance with diversion of construction and demolition materials from landfills.
- Compliance with AQMD Mandatory use of low-pollutant emitting finish materials.
- Compliance with AQMD Rules 431.1 and 431.2 to reduce the release of undesirable emissions.

- Compliance with diesel exhaust emissions from diesel vehicles and off-road diesel vehicle/equipment operations.
- Compliance with these regulatory requirements for operational energy use and construction energy use would not be wasteful or unnecessary use of energy.

Further, Southern California Edison (SCE) is presently in compliance with State renewable energy supply requirements and SCE will supply electricity to the project. Under the operational scenario for the proposed project, the proposed project will not result in wasteful, inefficient, or unnecessary energy consumption that could result in a significant adverse impact to energy issues based on compliance with the referenced laws, regulations and guidelines. No mitigation is required.

- b. *Less Than Significant Impact* – Based on the analysis in the preceding discussion, the proposed project will not conflict with current State energy efficiency or electricity supply requirements or any local plans or programs for renewable energy or energy efficiency requirements. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VII. GEOLOGY AND SOILS: Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

a. Ground Rupture

No Impact – According to the Regulatory Map obtained from the California Department of Conservation showing Alquist-Priolo Earthquake Fault Zones and other seismic hazards (Figure VII-1), the project footprint and general area do not have any known faults, active or inactive. Therefore, no potential exists for the proposed project to experience any fault rupture along a delineated active fault.

Strong Seismic Ground Shaking

Less Than Significant With Mitigation Incorporated – The proposed project site, as with most of California, is within a seismically active area, and will most likely be subject to groundshaking during the life of the facilities proposed as part of the project. There are several active faults to the east, west, and south of the Sierra Nevada and Piute Mountains, approximately 20 miles from the project area, as shown on the United States Geological Survey (USGS) map showing faults within the vicinity of the project (Figure VII-2). These active faults include the White Wolf Fault (southeast), the Southern Sierra Nevada Fault Zone, the Kern County Fault, and the Garlock Fault Zone. Faults within the whole of Kern County are depicted on the Earthquake Fault map prepared for the Kern County General Plan (Figure VII-3), which indicates that the project is located between Kern Canyon and Sierra Nevada faults (these faults each are situated in a north-south direction). Wells and underground pipelines are not typically susceptible to severe damage from ground shaking. Many such facilities exist within areas susceptible to strong ground shaking effects. The facilities associated with the reservoir and booster pump station do not contain structures or presence of human occupied structures that will be occupied by or attract humans to the site other than for operations and maintenance on a “drop-in” basis, and therefore would not expose people to potentially substantial adverse impacts. However, as a contingency measure to protect future above ground structures from severe damage due to ground shaking, the following mitigation measure will be implemented by the District for construction of the reservoir to prevent a catastrophic failure of this facility during a future regional seismic event.

GEO-1 *The District shall retain a qualified engineering geologist to investigate sites proposed for water storage reservoirs. The recommendations of the engineering geologist relative to mitigating the potential for seismically induced ground rupture, strong ground shaking and expansive soils shall be incorporated in the design and construction of these facilities. Design of such facilities shall follow the following design performance criteria. Comprehensive geotechnical investigation shall be required prior to engineering and design development or structural and/or substantial rehabilitation of structures identified under Risk Class I & II, e.g., public facilities, as identified below:*

Risk Class I & II, Structures Critically Needed after Disaster: Structures which are critically needed after a disaster include important utility centers, fire stations, police stations, emergency communication facilities, hospitals, and critical infrastructure elements such as bridges and overpasses, water storage reservoirs, and smaller dams.

Acceptable Damage: Minor non-structural; facility should remain operational and safe or be suitable for quick restoration of service.

Risk Class III: High occupancy structures; uses are required after disasters, i.e., places of assembly such as schools and churches.

Acceptable Damage: Some impairment of function acceptable; structure needs to remain operational.

Risk Class IV, Ordinary Risk Tolerance: The vast majority of structures in urban areas; most commercial and industrial buildings, small hotels and apartment buildings, and single-family residences.

Acceptable Damage: An “ordinary” degree of risk should be acceptable. The criteria envisioned by the Structural Engineers Association of California

provide the best definition of the "ordinary" level of acceptable risk. These criteria require that structures be able to:

- a. Resist minor earthquakes without damage;***
- b. Resist moderate earthquakes without structural damage, but with some non-structural damage; or***
- c. Resist major earthquakes, of the intensity or severity of the strongest experienced in California, without collapse, but with some structural, as well as non-structural damage.***

Risk Class V, moderate to High Tolerance: Open space uses, such as farms, ranches and parks without high occupancy structures; warehouses with low intensity employment; and the storing of non-hazardous materials.

Acceptable Damage: Not applicable.

With implementation of the above mitigation measure, any impacts under this issue are considered less than significant.

Seismic-related Ground Failure Including Liquefaction

Less Than Significant With Mitigation Incorporated – According to the Kern County General Plan, within the County, liquefaction can occur in certain types of soils that are associated with a shallow groundwater table. According to the Overlay Constraints: Flooding and Shallow Ground Water map prepared for the Kern County General Plan (Figure VII-4), the project area is not located in an area with shallow ground water, and therefore, the any impacts related to seismic-related ground failure related to liquefaction are considered less than significant. Pipelines and wells are not generally susceptible to seismic-related ground failure. Proper trench bedding and soil preparation at the reservoir sites and within pipeline alignments are considered adequate measures to reduce the remote potential for ground failure at the proposed facilities to a less than significant level. The storage reservoirs will be constructed to meet the current seismic safety standards of the Uniform Building Code.

As with other ground failure potential, wells and pipelines are not susceptible to significant adverse effects associated with liquefaction. Damage to pipelines and reservoirs can occur, but they can be repaired and placed back into operation with no loss of human life. Potential impacts associated with seismic-related ground failure would be considered less than significant with implementation of mitigation measure GEO-1. No other mitigation is required.

Landslides

No Impact – According to the Overlay Constraints: Seismic, Landslides, and Steep Slope Hazards map prepared for the Kern County General Plan, the Project footprint is not located in an area that is considered susceptible to landslides (Figure VII-5). Therefore, the Project will not expose people or structures to potential substantial adverse landslide effects, including the risk of loss, injury, or death involving landslides. No impacts under this issue are anticipated and no mitigation is required.

- b. Less Than Significant With Mitigation Incorporated*** – During construction, the project sites have potential for soil erosion. Due to the area of disturbance associated with site clearing and grading, as well as trenching the pipeline alignment within both dirt and paved roadways, there is a potential for substantial soil erosion. However, because most of the project sites are already developed or will occur within existing rights-of-way or within compacted dirt throughways, the potential for substantial soil erosion or loss can be controlled to a less than significant impact level with the implementation

of erosion mitigation measures. Based on the mitigation listed below, best management practices (BMPs) will be employed during construction to minimize the potential for soil erosion impacts.

GEO-2 *Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of the material. If covering is not feasible, then measures such as the use of straw bales or sandbags shall be used to capture and hold eroded material on the project site for future cleanup.*

GEO-3 *Excavated areas shall be properly backfilled and compacted. Paved areas disturbed by this project will be repaved in such a manner that roadways and other disturbed areas are returned to as near the pre-project condition as is feasible.*

GEO-4 *All exposed, disturbed soil (trenches, stored backfill, etc.) will be sprayed with water or soil binders twice a day or more frequently if fugitive dust is observed migrating from the site within which the water facilities are being installed.*

GEO-5 *The length of trench which can be left open at any given time will be limited to that needed to reasonably perform construction activities. This will serve to reduce the amount of backfill stored onsite at any given time.*

The following mitigation measure will be implemented to ensure the discharge of surface runoff from the sites does not result in significant soil erosion or loss of topsoil.

GEO-6 *The District shall identify any additional BMPs to ensure that the discharge of surface water does not cause erosion downstream of the discharge point. This shall be accomplished by reducing the energy of any site discharge through an artificial energy dissipater or equivalent device. If any substantial erosion or sedimentation occurs, any erosion or sedimentation damage shall be restored to pre-discharge conditions.*

Implementation of the above measures in conjunction with mitigation measures identified in the Hydrology/Water Quality Section, as well as implementation of the Water Quality Management Plan (WQMP), will adequately mitigate potential impacts associated with the water-related erosion of soil.

- c. *Less Than Significant Impact* – The project area consists predominantly of the following soil types: Kernfork series, Kelval series, and Pilotwell Series; a complete list of soils within the project alignment are shown in Appendix 5 to this document. Kernfork series soils consist of very deep, somewhat poorly drained soils that have formed in alluvium dominantly from granite sources. Kelval series soil consists of very deep, well-drained soils that have formed from alluvium derived from granite type rocks. Pilotwell series soils are well-drained soils that have formed from colluvium derived from granite type rocks². As previously stated, the Project is not located in an area considered susceptible to landslides, therefore no impacts associated with landslides are anticipated. According to the Seismic Hazard Atlas: Land Subsidence map prepared for the Kern County General Plan, provided as Figure VII-6, the project area is not located in an area considered susceptible to land subsidence, therefore no impacts are anticipated to occur under this issue. BMPs have been identified in the preceding discussion to manage the wind and water erosion issues. Based on the analysis above, and the stability of the soils underlying the project area, the proposed project does not pose known unstable geological hazards. No additional mitigation measures are required.

² https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA668/0/Kern_CA.pdf

- d. *No Impact* – According to the Kern County General Plan, the majority of expansive soils within the County consist of various clay types. As none of the soils underlying the project are within a clay soil series, the project will not be located on expansive soil. Thus, due to the low shrink-swell potential for the soils underlying the project footprint, development of the various stages of the project have no potential to be exposed to substantial risks to life or property due to presence of expansive soils. No mitigation is required.
- e. *Less Than Significant Impact* – The Project has the potential to result in the development of a septic tank, should the District select an alternative that would result in the construction of a new office building. The proposed locations for the new office building are adjacent to existing residents or businesses that are supported by septic tanks or other alternative wastewater system as a means to dispose of household wastewater. As previously stated the proposed project is supported by stable soils, and based on the nearly exclusive use of septic tanks or other alternative wastewater systems within the area (no municipal wastewater collection or treatment systems exist), the soils are capable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. Furthermore, the Project will be required to comply with the 2016 California Plumbing Code (Part 5, Title 24, California Code of Regulations), which sets parameters for private sewage disposal, and with the Kern County Development Standards, Division 6, Chapter 2, Section 602-1³. Thus, with compliance of applicable California Code, any impacts under this issue are considered less than significant. No mitigation is required.
- f. *Less Than Significant With Mitigation Incorporated* – There is some potential for discovering paleontological resources during development of the Project because several portions of the project have not been previously disturbed. Appendix 4a (CRM TECH's Cultural Resources Report) states the following regarding the Project area's Geoarchaeological Profile:

"The surface sediments in and near the APE have been identified as Holocene-age alluvium resting on mostly buried Mesozoic-age igneous rocks (Smith 1964). The granitic outcrops found in the vicinity were often used by the Native people for resource processing in prehistoric times, as demonstrated by the many bedrock milling feature sites recorded in the surrounding area, and the Kern River nearby undoubtedly provided a favorable setting for hunting, fishing, and gathering. In general, prehistoric cultural remains associated with these activities are likely to occur on the surface or at least have surface manifestations.

The proposed pipeline alignment lies almost entirely within the existing rights-of-way of public roadways, where the surface and near-surface sediments have been extensively disturbed in the past. Along the paved major roads, in particular, the subsurface sediments are typically disturbed to the depths of five to six feet below surface by construction activities associated with the roads and the accompanying underground utilities, and largely consist of engineered fill. These sediments are generally considered to be relatively low in sensitivity for buried deposits of intact, potentially significant archaeological remains. The subsurface archaeological sensitivity of the portions of the APE located on undeveloped and less disturbed land, on the other hand, appears to range from low to high depending on the presence or absence of surface manifestations."

Based on the analysis contained in Appendix 4a, and because paleontological and geology resources are generally located beneath the surface and can only be discovered as a result of ground disturbance activities, the following measure shall be implemented:

GEO-7 *Should any paleontological resources be accidentally exposed during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for*

³ <http://esps.kerndsa.com/engineering/development-standards/environmental-health?showall=&start=1>

making this determination shall be with Lead Agency's onsite inspector. The paleontological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.

With incorporation of this contingency mitigation, the potential for impact to paleontological resources will be reduced to a less than significant level. No additional mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VIII. GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: The following information utilized in this section was obtained from the technical study "Air Quality and GHG Impact Analysis for Weldon Water District Project, Weldon, CA" prepared by Giroux & Associates dated October 30, 2017 and is provided as Appendix 2 in this Initial Study.

a&b. *Less Than Significant Impact –*

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. Many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and greater magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of greenhouse gases resulting from human activity and industrialization over the past 200 years.

An individual project like the Project evaluated in the Greenhouse Gas Analysis cannot generate enough greenhouse gas emissions to effect a discernible change in global climate. However, the Project may participate in the potential for GCC by its incremental contribution of greenhouse gasses combined with the cumulative increase of all other sources of greenhouse gases, which when taken together constitute potential influences on GCC.

GCC refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO₂ (Carbon Dioxide), N₂O (Nitrous Oxide), CH₄ (Methane), hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages. According to the California Air Resources Board (CARB), the climate change since the industrial revolution differs from previous climate changes in both rate and magnitude.

CARB compiles GHG inventories for the State of California. CARB GHG inventory data indicates that in 2014 (the most recent inventory of record) California GHG emissions totaled approximately 441.5 Million

Metric Tons of Carbon Dioxide Equivalent (MMTCO₂e). “In 2010, California accounted for 6.8 percent of all emissions in the country [United States], and ranked second highest among the states with total emissions of 453 MMTCO₂e, only behind Texas with 763 MMTCO₂e. From a per capita standpoint, California has the 45th lowest emissions with 12.1 MMTCO₂e /person in 2010.”

In February of 2012, the EKAPCD drafted project specific CEQA significance for GHG emissions for which EKAPCD is the Lead Agency. According to the draft, a project is considered to have a less than significant or cumulatively considerable impact on GHG emissions if the project specific GHG emissions are less than 25,000 metric tons of CO₂-equivalent emissions per year (tpy). This 25,000 tpy recommendation has been used as a guideline for this analysis.

Construction Activity GHG Emissions

The project is assumed to require two years for construction. During project construction, the CalEEMod2016.3.1 computer model predicts that the construction activities will generate the annual CO₂e emissions identified below.

**Table VIII-1
CONSTRUCTION EMISSIONS (METRIC TONS CO₂e)**

	CO₂e
Pipelines	448.2
Reservoirs	200.0
Wells and Pump Stations	94.6
Total	742.8

CalEEMod Output provided in Appendix 2

Even if all construction occurred in a single year, GHG impacts from construction are considered individually less-than-significant.

With regard to consistency with existing air quality plans, because the proposed project would not generate population, residences, or substantial employment, it would neither conflict with nor interfere with the County's adopted growth forecast. Furthermore, as shown in the GHG Impact Analysis Report (Appendix 2), the proposed project's contribution to regional air emissions in Kern County would be very small. When compliance with applicable rules, such as the EKAPCD's required emissions controls is considered, the proposed project's regional contribution to cumulative air quality impacts would be almost negligible.

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

SUBSTANTIATION

a&b. *Less Than Significant With Mitigation Incorporated* – The Project should not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; but it may create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment during construction. During construction there is a potential for accidental release of petroleum products in sufficient quantity to pose a significant hazard to people and the environment. The following mitigation measure will be incorporated into the SWPPP prepared for the Project and it can reduce such a hazard to a less than significant level.

HAZ-1 *All spills or leakage of petroleum products during construction activities will be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately licensed disposal or treatment facility. This measure will be incorporated into the SWPPP prepared for the Project development.*

The Project will consist of constructing two 0.75 MG reservoirs, a booster pump station, approximately 34,675 LF of 12" piping, approximately 26,525 LF of 8" piping, and two new wells to convey water throughout the new regional water system. The two new wells and booster pump station will each have backup generators to ensure sufficient power is available to operate the pumps and provide water in the event of a power outage. These backup generators require the use of fuel, which is considered a potentially hazardous material. In order to prevent fuel contamination from occurring during operation, the backup generators will be constructed on concrete pads. The two new wells may require treatment to prevent excess levels of Iron and Magnesium within the new water source. In the event that this is required, the treatment will include routine use of 12.5% sodium hypochlorite, which is a potentially hazardous substance. The new Weldon Regional Water District will develop safety standards and operational procedures for safe transport and use of its operational and maintenance materials that are potentially hazardous. These procedures will comply with all federal, state and local regulations will ensure that the Project operates in a manner that poses no substantial hazards to the public or the environment. No additional mitigation is necessary to ensure the impact of managing these chemicals result in a less than significant impact on the environment. The activities associated with remaining facilities within the new regional water system will not involve significant potential for routine transport or use of substantial volumes of hazardous materials or routine generation of hazardous wastes.

- c. *Less Than Significant Impact* – The Project will not emit hazardous emissions or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The nearest school is the South Fork Elementary School located at 6401 Fay Ranch Rd, Weldon, CA 93283, which is just north of the pipeline alignment proposed to be located along Highway 178. The activities associated with the proposed water improvement project are not anticipated to involve the use of or emissions of hazardous or potentially hazardous materials once constructed, with the exception of the potential use of sodium hypochlorite as discussed under issue VIII(c). As previously stated, the Project will comply with all federal, state and local regulations, which will ensure that no existing or proposed schools will be impacted by the use of this material within the new Weldon Regional Water District. Substantial hazards to the public or the environment involving the use of petroleum products and exhaust emissions with construction activities are will be minimal, as stated under the Air Quality Section of this document. All hazardous or potentially hazardous materials would comply with all applicable federal, state, and local agencies and regulations pertaining to the handling and use of hazardous materials. Adherence to these policies and regulations, as well as the implementation of the above mitigation measures will ensure that the Project will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school during either construction or operations of the Project. Any impacts under this issue are considered less than significant, and no mitigation is required.
- d. *Less Than Significant Impact* – According to the California State Water Board's GEOTRACKER site, which provides information regarding Leaking Underground Storage Tanks (LUST), there are no active LUST locations within or around the project alignment (Figure IX-1). There is one remediated location that is a LUST Cleanup site within the project alignment; however, the case has been closed since July of 1999, and therefore does not pose any concern to the implementation of the proposed project (Figure IX-2). As stated in the Preliminary Engineering Report, there are contaminants of concern within the groundwater at some of the existing well locations, and potentially at the new well locations. However, in regards to the existing wells, any well locations that exceed the MCL for Uranium, Nitrate, and Arsenic will not be connected to the new water system without treatment to reduce concentrations below potable water quality standards. In regards to the two new wells, both well locations have been tested and analyzed for contaminants, and in the event that excessive Iron and/or Manganese are present, a wellhead treatment for each new well for the removal of Iron and Manganese will be installed. Therefore, with the implementation of the above design features of the proposed project, the possibility of introducing contaminated water from the groundwater underlying the project is considered less than significant and no mitigation is required.

- e. *No Impact* – According to a review of Google Maps (July 21, 2017), the closest public airport to the project alignment is the Kern Valley Airport, which is located approximately 7.5 miles to the northwest of the Project alignment. Based on this information, implementation of the Project will not result in a safety hazard for people residing or working in the project area. According to a review of Google Maps (July 21, 2017), there are no private airstrips within the vicinity of the project. Based on this information, implementation of the Project will not result in a safety hazard for people residing or working in the project area. No impacts are anticipated, and no mitigation is required.
- f. *Less Than Significant With Mitigation Incorporated* – The Project will be located within or adjacent to existing access roads. A limited potential to interfere with an emergency response or evacuation plan will occur during construction. Control of access during construction will ensure emergency access to the sites and project areas during construction. No known emergency response or evacuation plans or routes are known to exist in the vicinity of the Project and no such plans will be affected by this Project. Refer to the Transportation/Traffic Section of this document, Section XVI. Mitigation Measures TRA-1 and TRA-2 addresses potential short-term traffic disruption and emergency access. Impacts are reduced to a less than significant level with mitigation incorporated.
- g. *Less Than Significant Impact* – The proposed project is located in a high fire hazard area according to the Hazardous Fire Area map prepared for the Kern County General Plan (Figure IX-3). The water storage reservoirs, booster pump station, two new wells, and pipeline alignments would not expose people or structures to a significant risk of loss, injury or death involving wildland fires as the various project sites are listed in areas without sufficient fuel load to pose a wildland fire hazard. The facilities proposed are not of a type that would be highly susceptible to fire hazards. Furthermore, the Project would allow a more reliable source of water to the Community of Weldon, and the new system will supply the area with reliable “fire flow” (refer to Preliminary Engineering Report) in the event of a wildfire. Any impacts under this issue are considered less than significant and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
X. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation onsite or offsite?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?; or,	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *Less Than Significant With Mitigation Incorporation* – The proposed project is a water system improvement project in which a regional water system will be put in place within the rural community of Weldon to provide a more reliable source of water to customers of the new Weldon Regional Water District. The project will install a booster pump station, two 0.75 MG reservoirs, two new wells, and several miles of pipeline to connect existing private water systems to the new public water system and to replace existing aging infrastructure within the new District infrastructure. The project will also disconnect from three wells within the existing water systems due to water quality violations; however, the project will comply with the Kern County Public Health Services Department's regulations for water well destruction. Additionally, the existing wells that the project proposes to incorporate into the District's new water system will be reworked. Reworking of these wells will entail installation of new deep well pumps, vertical hollowshaft motors, and electrical connections at each well site. The Project is located within the Central Valley Regional Water Quality Control Board (RWQCB), the Tulare Lake Hydraulic Region, and the Kern River Valley Groundwater Basin. The proposed project footprint extends throughout the Community of Weldon, the surface of the proposed area consisting

mainly of asphalt, compacted or loosely compacted dirt, or compacted grassy area. The project ranges in elevation from approximately 2,600 feet minimum to 3,100 feet maximum; the surface areas upon which above ground structures will be placed are on mostly level parcels of land. However, the Engineering Drawings provided as Appendix 2 include grading plans for the sites that are not flat. The feature for which the drainage and grading plans are most important is the “Kelso Valley” reservoir site, which is located near the top a hill and will require construction of an access road as well as a net amount of cut from the hill of 7,025.11 cubic yards (CY). The area of disturbance from the installation of the pipeline will occur within existing rights-of-way and within roadway adjacent properties in which pipelines will connect to either new water system features or existing features of the new water system.

Typically, the main sources of potential violation of water quality standards or waste discharge requirements are from generation of municipal wastewater; from stormwater runoff; and potential discharges of pollutants, such as accidental spills. The project will not generate municipal wastewater, particularly as no municipal wastewater systems exist within the project footprint. Due to the rural nature of the Community of Weldon, the future customers within the new District generally dispose of household sewage through septic tanks and leach lines or through a cesspool system. The proposed project will require the development of or reuse of existing office space for the new District. In the event that a new office space is the preferred alternative, the locations proposed each would require new septic system installation. However, the installation of this new septic tank will not violate any water quality standards or waste discharge requirements because the Project will comply with the Kern County Public Health Services Department, Environmental Health Division’s Standards and Rules and Regulations for Land Development⁴. Compliance with County standards regarding Sewage Disposal is considered sufficient to prevent any significant impacts from occurring as a result of project implementation.

To address stormwater and accidental spills within this environment, any new project must ensure that site development implements a Storm Water Pollution Prevention Plan (SWPPP) to control potential sources of water pollution that could violate any standards or discharge requirements during construction and a Water Quality Management Plan (WQMP) to ensure that project-related surface runoff meets discharge requirements over the short- and long-term. In the short term, construction activities will have some potential to affect the quality of stormwater discharged from the project sites. Land disturbance activities could result in erosion and sedimentation immediately adjacent to the project sites. Spills or leaks of petroleum products used by construction equipment could also potentially affect the quality of surface water. The project will be required to obtain a general construction National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit prior to the start of construction. Obtaining coverage under the General Construction NPDES permit requires the preparation and implementation of a SWPPP, which specifies Best Management Practices (BMPs) that must be implemented during construction. Compliance with the terms and conditions of the NPDES and the SWPPP, as well as the WQMP, is mandatory and is judged adequate mitigation by the regulatory agencies for potential impacts to stormwater during construction activities. Implementation of the following mitigation measure is also considered adequate to reduce potential impacts to stormwater runoff to a less than significant level.

HYD-1 The District shall require that the construction contractor prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters. The SWPPP shall include a Spill Prevention and Cleanup Plan that identifies the methods of containing, cleanup, transport and proper disposal of hazardous chemicals

⁴ <http://kernpublichealth.com/wp-content/uploads/2016/03/Standards-and-Rules-and-Regulations-for-Land-Development.pdf>

or materials released during construction activities that are compatible with applicable laws and regulations. BMPs to be implemented in the SWPPP may include but not be limited to:

- ***The use of silt fences;***
- ***The use of temporary stormwater desilting or retention basins;***
- ***The use of water bars to reduce the velocity of stormwater runoff;***
- ***The use of wheel washers on construction equipment leaving the site;***
- ***The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads;***
- ***The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and***
- ***Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles.***

Once constructed, the features of the proposed project will create some change in surface water runoff because the surface upon which these structures are placed will be altered. However, the project design has addressed surface runoff within these sites to ensure that the grading of the sites is done in such a manner that surface water flows into nearby roadway channels or remains onsite. The new 0.75 MG reservoir located on a hilltop (Kelso Valley) will construct several catch basins along the new access road leading to the reservoir site, a tapered inlet and flume downdrain per Caltrans Standard D87D, as well as catch basins with a storm drain discharge outlet on the reservoir site itself. These onsite drainage provisions are considered adequate to control stormwater runoff within the project alignment once the features of the proposed water system improvements are in place. With implementation of the above mitigation measure, these mandatory Plans and their BMPs, as well as mitigation measure HAZ-1 above which addresses remediation and contamination concerns from any potential leakage or spills of petroleum products onsite, the Project would have a less than significant potential to violate any water quality standards or waste discharge requirements. No further mitigation is required.

- b. ***Less Than Significant Impact*** – The project is located within the Kern River Valley Groundwater Basin, which has a surface area of 124 square miles. The project will install two new water wells that will extract groundwater from the Kern River Valley Groundwater Basin; however, these two new water wells will be replacing three existing water wells that will be abandoned and destructed as part of the project due to contaminants within the water extracted from these wells. Because these new wells will replace the existing wells within the new Weldon Regional Water District service area, it is not anticipated to alter groundwater levels in the basin as water drawn from the basin will remain similar to that which is currently being withdrawn. The new water well to be constructed at the Test Well #1 location is estimated to have a production rate of approximately 400 GPM and is anticipated to be drilled to 230 feet bgs, and the new water well to be constructed at the Test Well #2 location is estimated to have a production rate of approximately 400-600 GPM, and is anticipated to be drilled to 250 feet bgs. The project is not anticipated to pump a greater or substantially greater amount of water from the Basin. Furthermore, the project is located in close proximity to Lake Isabella, which has influenced the area to produce high production wells within the Groundwater Basin; thus, the groundwater in the project area has a consistent recharge source⁵. Therefore, based on the above information, the proposed project is not anticipated to substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a substantial lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for

⁵ <http://www.water.ca.gov/groundwater/bulletin118/basindescriptions/5-25.pdf>

which permits have been granted). Impacts under this issue are considered less than significant. No mitigation is required.

- c(i-iii) *Less Than Significant With Mitigation Incorporation* – Please refer to the discussion under issue X(a) above. – Impacts to the existing drainage pattern of the site or area could occur if development of the Project results in substantial on- or off- site erosion or siltation, or on or offsite flooding. The proposed project involves the construction of several miles of pipeline within existing paved rights-of-way, dirt roadways, and on properties in which the water system features of the new District will either be constructed and require pipeline connection or exist and require new connections to replace aging infrastructure. The improved roadways will handle the same amount of stormwater and the drainage pattern will remain essentially the same. Within the compacted dirt roadways, implementation of mitigation measure TRA-2 (Transportation section below) will ensure that the condition of the roadway will be re-compacted and repaired to original or better conditions, which will allow drainage and surface water runoff within the pipeline alignment to function in effectively the same manner as it does at present.

Due to the rural nature of the proposed project, within a majority of the alignment, surface water and stormwater runoff percolate into the soil within the vast open spaces of the area or flow to nearby drainage ditches. Drainage in the area generally flows south to north due to the location of the hills, or in the eastern portion of the alignment east to west/northwest. Flow generally settles in the valley portion of the South Fork Valley, which is where Highway 178 is located. Additionally, drainage flows into drainage ditches throughout the alignment, which are designed to deliver water to nearby agricultural properties for farming. None of the proposed features of the Weldon Regional Water District Interceptor will be located within an active flow line of any channel or watercourse. Once constructed, the alignment will continue to discharge surface water in a manner similar to what presently occurs, i.e. the discharge remains on the project sites, or if it flows offsite, sheet flow is discharged to the adjacent drainage systems. It is anticipated that the aboveground features of the proposed project that will cover a more substantial surface area—such as the reservoir sites, and the booster pump station—will have some potential to alter the drainage pattern of the site or area once developed. However, for each of these sites, a drainage plan will be implemented as part of the WQMP to ensure that in substantial on- or off- site erosion or siltation, or on or offsite flooding does not occur. The Project will require the implementation of a SWPPP during construction and WQMP for long term drainage and water quality management, and implementation of mitigation measure HYD-1 above, and HAZ-1, which will ensure that any potential discharge of polluted material does not occur or is remediated in the event of an accidental spill.

The new 0.75 MG reservoir located on a hilltop (Kelso Valley) includes construction of several catch basins along the new access road leading to the reservoir site, a tapered inlet and flume downdrain per Caltrans Standard D87D, as well as catch basins with a storm drain discharge outlet on the reservoir site itself. These onsite drainage provisions are considered adequate based on engineering calculations to control stormwater runoff within the project alignment once the features of the proposed water system improvements are in place. The second reservoir site, where the new booster pump will also be constructed, is located on a relatively flat surface sloping no more than a few feet in elevation from south to north. Construction of the proposed reservoir will result in less pervious areas within the reservoir site due to the surface area which the reservoir will cover. However, with implementation of on-site drainage management, and the limited amount of pervious surface onsite that will become impervious as a result of the overall project, implementation of the Project will not substantially alter the drainage pattern of the site in a manner that would result in substantial erosion or siltation onsite or offsite, or flooding onsite or offsite due to the construction of onsite drainage. Thus, it is concluded that through implementation of mitigation measures that this project will not substantially alter the existing drainage pattern of the site or area; will not substantially alter the course of a stream or river in such a manner that will result in substantial erosion or siltation either on or off the Project sites; or contribute runoff water that could exceed the capacity of the existing

drainage facilities. Impacts are less than significant with mitigation incorporation. No additional mitigation is required.

- c(iv). *Less Than Significant Impact* – According to the Federal Emergency Management Agency (FEMA) Federal Insurance Rate Map (FIRM) panels 06029C0912E, 06029C0915E, 06029C0916E, 06029C0917E, and 06029C0920E (Figures X-1 through X-5), which cover the entire project area, the project alignment is mostly located within either Zone X (less than 0.2% annual exposure to flood hazard) or is within the Special Flood Hazard Areas Subject to Inundation by the 1% Annual Chance Flood. This is due to the proximity of the Project to the Kern River and Lake Isabella. However, the proposed water system improvement project would not construct or modify any housing within these flood hazard zones. Additionally, the proposed above ground structures are not human occupancy structures and are not of substantial size that they would impede or redirect flow such that other structures would be impacted in the event of a 100-year flood. Therefore, construction of the proposed water system improvement project is not anticipated to impede or redirect flood flows. Impacts under this issue are considered less than significant. No mitigation is required.
- d. *Less Than Significant Impact* – The proposed project is located just south of the Kern River, which flows into Lake Isabella to the west of the project alignment. Lake Isabella was formed through the construction of a dam on the Kern River. The Lake Isabella Dam is located at the southwestern terminus of the lake where the Kern River then resumes flow downstream the Dam. Because the project is located east of and at a higher elevation than the dam, the proposed project is not in the dam inundation area and would not risk release of pollutants due to project inundation, as shown on Figure X-6, which depicts the Peak Inundation Depth southwest of the Dam. The Kern County General Plan and GPEIR state that seiche is possible in the immediate vicinity of Lake Isabella, however it states the residential housing near the lake is the main concern in the event of a seiche. The project does not propose any housing and is not immediately adjacent to the lake; furthermore, the entirety of the project is at least 100 feet above the lake in elevation, therefore no impacts from seiche are anticipated to occur as a result of project implementation. Mudflow within the project area is not anticipated to occur throughout the majority of the alignment; however, the proposed KV Reservoir will be located atop a hill. However, the reservoir will be constructed on a stable foundation that will be cable of withstanding impacts from extreme storm events that could result in mudflow. Thus, any impacts under this issue are considered less than significant under the proposed project design.
- e. *No Impact* – The project is located within the Kern River Valley Groundwater Basin, which has a surface area of 124 square miles. The project will install two new water wells that will extract groundwater from the Kern River Valley Groundwater Basin. There is no adopted sustainable groundwater management plan that is in effect in the Kern River Valley Groundwater Basin. The analysis of water extraction for the basins indicates that the proposed project's water demand is considered to be less than significant. By controlling water quality during construction and operations through implementation of both short (SWPPP) and long (WQMP) term best management practices at the site. No potential for conflict or obstruction of the Regional Board's water quality control plan has been identified.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XI. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *No Impact* – According to the Kern County General Plan Land Use map (Figure 4), the Land Use designations within and surrounding the project footprint range from State or Federal Land, Accepted County Plan Areas, Specific Plan required, Residential (4 units/acre), Residential (1 unit/acre), Residential (2.5 gross acres/unit), Residential (5 gross acres/unit), Major Commercial, General Commercial, Highway Commercial, Intensive Agriculture, Resource Management. The proposed water system improvement project will occur mostly within areas owned and managed by existing water purveyors, which will be consolidated into the new District. The District will obtain easements for any land not currently owned or leased by the newly formed District within which the new water system improvements will be constructed. The types of improvements proposed by this project are considered land use independent and can be constructed within any land use district. Additionally, several features of the proposed project, such as the water transmission pipelines, will be constructed below ground within existing roadway rights-of-way, and will have no permanent effect on the efficiency of the surrounding roadway systems. Thus, since the proposed project occurs within and supports existing land use designations, no potential exists for the proposed project to physically divide an existing community. No impact will result, and no mitigation is required.
- b. *No Impact* – Please reference discussion XI(a) above. Implementation will not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. There is no specific plan or local coastal program that would apply to the Project alignment. No impact will result, and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XII. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION:

a&b. *No Impact* – According to the map prepared by Data Basin—a science-based mapping and analysis platform—of the Mineral Resources in Kern County⁶ (Figure XII-1), no valuable mineral resources existing within the project alignment. Furthermore, the Kern County General Plan has not designated any land within the project alignment for Mineral Resource use. Therefore, the development of the Project will not cause any loss of mineral resource values to the region or residents of the state, nor would it result in the loss of any locally important mineral resources identified in the County General Plan. No impacts have been identified and no mitigation is required.

⁶ <https://databasin.org/datasets/26c92d3ecbe541ec81451f9de4e1e0e4>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIII. NOISE: Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of a project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

Background

Noise is generally described as unwanted sound. The proposed water system improvement project includes the construction of a booster pump, development of two new wells, water transmission pipeline, and two 0.75 MG reservoirs. Several areas throughout the alignment are immediately adjacent to residences.

The unit of sound pressure ratio to the faintest sound detectable to a person with normal hearing is called a decibel (dB). Sound or noise can vary in intensity by over one million times within the range of human hearing. A logarithmic loudness scale, similar to the Richter scale for earthquake magnitude, is therefore used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all sound frequencies within the entire spectrum. Noise levels at maximum human sensitivity from around 500 to 2,000 cycles per second are factored more heavily into sound descriptions in a process called "A-weighting," written as "dBA."

Leq is a time-averaged sound level; a single-number value that expresses the time-varying sound level for the specified period as though it were a constant sound level with the same total sound energy as the time-varying level. Its unit is the decibel (dB). The most common averaging period for Leq is hourly.

Because community receptors are more sensitive to unwanted noise intrusion during more sensitive evening and nighttime hours, state law requires that an artificial dBA increment be added to quiet time noise levels. The State of California has established guidelines for acceptable community noise levels that are based on the Community Noise Equivalent Level (CNEL) rating scale (a 24-hour integrated noise measurement scale). The guidelines rank noise land use compatibility in terms of "normally acceptable," "conditionally acceptable," and "clearly unacceptable" noise levels for various land use types. The State Guidelines, Land Use Compatibility for Community Noise Exposure, single-family homes are "normally acceptable" in exterior noise environments up to 60 dB CNEL and "conditionally acceptable" up to 70 dB CNEL based on this scale. Multiple family residential uses are "normally acceptable" up to 65 dB CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries and churches are "normally acceptable" up to 70 dB CNEL, as are office buildings and business, commercial and professional uses with some structural noise attenuation. The County of Kern utilizes State standards as the baseline for noise regulations within unincorporated areas, such as the Community of Weldon.

- a. *Less Than Significant With Mitigation Incorporated* – The project sites are located in relatively low background noise environment. Local sources of noise consist mainly of traffic along Highway 178, which traverses through the length of the project alignment. Based on the limited traffic, background noise is estimated at about 50-55 dBA over a 24-hour period using the Community Noise Equivalent Level (CNEL), though this estimate would be significantly less in portions of the project alignment that are not adjacent to Highway 178.

The proposed project will introduce new short-term noise generating activities into the project area, but minimal long-term noise activities will occur in support of the proposed pipelines and reservoir facilities. First, construction activities will require development of the two new wells and outfitting the two new wells with pumps; new deep well pumps, vertical hollowshaft motors, and electrical at each existing well site as well as a chemical feed pump for chlorination of the raw groundwater, a 1,000 GAL hydropneumatic tank, and the potential for a wellhead treatment system at each well site. The project will also construct two 0.75 MG reservoirs; ±34,675 lineal feet (LF) of 12" piping; approximately 26,525 LF of 8" piping; and a booster pump. Above ground wells and pump stations have a potential to generate substantial noise to nearby sensitive receptors. Several other features of the Project are located within a close range to nearby sensitive receptors, including throughout the pipeline alignment, and near the reservoir, booster pump, existing wells, and other features of the existing water system that require modification as part of the project. In these locations, sensitive receptors may be as close as 25 feet from the project alignment noise generating construction activities, or approximately 100 feet from features of the proposed project that will generate noise in the long-term (booster pump, new well motors for existing wells, etc.).

Generally, well drilling equipment can generate noise levels of about 70 to 90 dBA at a distance of 50 feet from the equipment. Well No. 1 will construct a 230-ft deep well with a perforated interval from 100-ft to 220-ft. Well No. 2 will construct a 250-ft deep well with a perforated interval from 170-ft to 240-ft. These wells would be constructed using reverse circulation methods. Well drilling would occur for several days for 24 hours a day. Stationary source noise diminishes at a rate of about 6 dB for each doubling of the distance from the source. Due to the remote location of the proposed well locations, with the nearest residence or sensitive use located more than 1,000 feet from either well location (refer to Figure 3), well drilling is not anticipated to exceed the County's noise standards of 65 dBA at the exterior of the nearest sensitive receptor. Any increase in noise level will not be severe enough to pose a health or hearing hazard but could be considered a short-term nuisance. Once the well becomes operational, the above ground pump motor will generate noise, however the distance from either well location to the nearest sensitive receptor will mitigate this noise. However, should the well drilling be considered a nuisance to residences nearby, which is unlikely, but could occur due to the rural nature of the Community in which the project is location, several mitigation measures are outlined in the sections below.

Occasional visits for maintenance are another noise source of consideration that the project facilities will generate. These changes in noise levels during construction and operation have the potential to pose an adverse noise impact on the sensitive receptors near the project facilities, though there are not many sensitive receptors in close proximity to the construction sites as the population density within this part, and most of the Community of Weldon, is low. The construction noise impacts and mitigation measures are discussed in the following sections.

Short-Term Noise

The proposed project will involve construction activities that have the potential to cause short-term significant noise impacts. In the short term, pipeline construction, reservoir, pump station, well development, and well modification construction activities will result in noise generated by excavators, dozers, pavers, air compressors, drilling rig/drilling equipment (mast and draw-works, air compressors, drilling fluid pumps, drill pipe, etc), welders, generators, trenchers, and other noise making equipment required to complete construction. Noise generated from a drill rig will reach approximately 80 dBA at a receptor located at a distance of 50 feet. Refer to Table XII-1, which

shows construction equipment noise levels at 25, 50 and 100 feet from the noise source. However, noise generation from construction activities is exempt from County performance standards if construction does not occur from 9 p.m. through 6 a.m. Well drilling, which will be limited in duration, may occur outside of these hours. This mitigation is incorporated below, along with several other measures that can control construction noise activities to a less than significant impact level.

The noise generated by the proposed pipeline alignment construction within roadways in residential or rural areas with sensitive receptors nearby would normally be considered a significant noise impact. However, contingency mitigation is provided below to reduce noise levels at residences and/or minimize or address complaints from local sensitive noise receptors.

The short-term noise impacts associated with Project construction activities are forecast to be less than significant through implementing the following measures. As construction activities may be a nuisance to nearby residents, the following mitigation is recommended:

- NOI-1** *Where applicable, the District shall use noise reducing barriers and other devices to reduce exterior noise levels at the nearest sensitive receptor to 60 CNEL or less during the night-time construction hours (in the event that any emergency night-time construction hours become necessary) and 65 CNEL or less during the daytime construction hours.*
- NOI-2** *No construction activities other than well drilling shall occur during the hours of 9 pm through 6 am, Monday through Saturday and at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists.*
- NOI-3** *The District shall establish a noise complaint response program and shall respond to any noise complaints received for this Project by measuring noise levels at the affected receptor site. If the noise level exceeds an Ldn of 60 dBA exterior or an Ldn of 45 dBA interior at the receptor, the applicant will implement adequate measures (which may include portable sound attenuation walls, use of quieter equipment, shift of construction schedule to avoid the presence of sensitive receptors, etc.) to reduce noise levels to the greatest extent feasible.*
- NOI-4** *The District will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by applicant personnel during construction activities.*
- NOI-5** *Equipment not in use for five minutes shall be shut off.*
- NOI-6** *Equipment shall be maintained and operated such that loads are secured from rattling or banging.*
- NOI-7** *Where available, electric-powered equipment shall be used rather than diesel equipment and hydraulic-powered equipment shall be used instead of pneumatic power.*
- NOI-8** *Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.*

NOI-9 *No radios or other sound equipment shall be used at this site unless required for emergency response by the contractor.*

NOI-10 *Public notice shall be given prior to initiating construction. This notice shall be provided to all property owners/residents within 300 feet of the project site and shall be provided to property owners/residents at least one week prior to initiating construction. The notice shall identify the dates of construction and the name and phone number of a construction supervisor (contact person) in case of complaints. One contact person shall be assigned to the project. The public notice shall encourage the adjacent residents to contact the supervisor in the case of a complaint. Resident's would be informed if there is a change in the construction schedule. The supervisor shall be available 24/7 throughout construction by mobile phone. If a complaint is received, the contact person shall take all feasible steps to remove the sound source causing the complaint.*

Thus, with implementation of the above mitigation measure, the potential for implementation of the project to result in substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project is considered less than significant. No further mitigation is required.

Table XII-1
NOISE LEVELS OF CONSTRUCTION EQUIPMENT AT
25, 50, AND 100 FEET (IN dBA LEQ) FROM THE SOURCE

Equipment	Noise Levels at 25 feet	Noise Levels at 50 feet	Noise Levels at 100 feet
Earthmoving			
Front Loader	85	79	73
Backhoes	86	80	74
Dozers	86	80	74
Tractors	86	80	74
Scrapers	91	85	79
Trucks	91	85	79
Material Handling			
Concrete Mixer	91	85	79
Concrete Pump	88	82	76
Crane	89	83	77
Derrick	94	88	82
Stationary Sources			
Pumps	82	79	70
Generator	84	78	72
Compressors	87	81	75
Other			
Saws	84	78	72
Vibrators	82	76	70

Source: U.S. Environmental Protection Agency "Noise"

Long-Term Noise

This Project includes a new booster pump station and new well pumps for existing wells within the new District's water system that will generate noise during operation. The nearest sensitive receptors to these sites are at a minimum distance of approximately 100 feet from any of these facility's locations. The District proposes to install a booster pump station. Based on this information, the proposed booster pump station can result in a new source of significant long-term noise. The noise generated by operation this facility would not result in noise levels that exceed the standards deemed acceptable by Kern County. However, the following mitigation will be implemented as a contingency:

NOI-11 The wells and booster pump station shall have noise levels attenuated to 50 dBA CNEL at the nearest sensitive noise receptor location. This can be accomplished through several methods, including, but not limited to the following method: installing surface well/booster pump housing, which can be housed in a block masonry structure that attenuates noise to meet this performance standard.

Thus, with implementation of the above mitigation measure, the potential for implementation of the project to result in substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project is considered less than significant. No further mitigation is required.

- b. *Less Than Significant With Mitigation Incorporated* – Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by vibration of room surfaces is called structure borne noises. Sources of groundborne vibrations include natural phenomena (e.g. earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g. explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous or transient. Vibration is often described in units of velocity (inches per second) and discussed in decibel (dB) units in order to compress the range of numbers required to describe vibration. Vibration impacts related to human development are generally associated with activities such as train operations, construction, and heavy truck movements.

The background vibration-velocity level in residential areas is generally 50 VdB; levels would generally be considered even less in rural areas such as the area surrounding the project footprint. Groundborne vibration is normally perceptible to humans at approximately 65 VdB, while 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible. Construction activity can result in varying degrees of groundborne vibration but is generally associated with pile driving and rock blasting. Other construction equipment, such as air compressors, light trucks, hydraulic loaders, etc. generates little or no ground vibration. While no enforceable regulations for vibration exist within Kern County, the Federal Transit Association (FTA) guidelines identify a level of 80 VdB for sensitive land uses. This threshold provides a basis for determining the relative significance of potential Project related vibration impacts.

In the short term, pipeline alignment, reservoirs, and booster pump station construction activities have some potential to create some vibration to the nearest sensitive receptors at some sites within the project footprint. However, any short-term impacts to the nearest sensitive receptors would be considered less than significant through implementing the following mitigation measure:

NOI-12 During future construction activities with heavy equipment within 300 feet of occupied residences, vibration field tests should be conducted at the nearest occupied residences. If vibrations exceed 72 VdB, the construction activities shall be revised to reduce vibration below this threshold.

With implementation of the above mitigation measure, impacts from project related vibration would be considered less than significant. No further mitigation is required.

- c. *No Impact* – The proposed project facilities are not 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. According to a review of Google Maps (July 21, 2017), the closest public airport to the project alignment is the Kern Valley Airport, which is located approximately 7.5 miles to the northwest of the Project alignment. According to a review of Google Maps (July 21, 2017), there are no private airstrips within the vicinity of the project. Based on this information, the Project will have no potential to expose people residing or working in the project area to excessive noise levels generated by nearby aircraft or airport operations. No impacts are anticipated, and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIV. POPULATION AND HOUSING: Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *Less Than Significant Impact* – Implementation of the Project will not induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). This project proposes to improve the water system within the Community of Weldon through several improvements and through consolidating several local water companies into the new Weldon Regional Water District. The Project is considered a vital infrastructure project that would provide a more reliable source of water to the Community of Weldon by accomplishing the following: ensuring that all water in the new District meets Drinking Water Standards, providing new water transmission pipelines to replace older pipes, and providing adequate water storage that meets the minimum storage requirement for the area. It is anticipated that construction will require a temporary work force, however, this is short-term and with a maximum of about 20 employees will not induce substantial population growth. Additionally, the number of employees needed to operate the new District will be nominal, due to the existing employees employed by the 5 water companies that will be consolidated into the new Weldon Regional Water District. However, there is a potential for a marginal new number of employees (<20 persons) necessary to operate the consolidated District, but this number would be well within the County's forecast population growth as outlined in the Kern County General Plan Environmental Impact Report (GPEIR). According to the GPEIR, the unincorporated area surrounding Lake Isabella—which includes Weldon—had a population of 15,561 in 2000, which was 7.538% of the County's overall unincorporated population of 206,442 in 2000. The GPEIR forecast that the County's overall unincorporated population in 2020 would be 270,000, and therefore the population of the area surrounding Lake Isabella is projected to increase to 20,352 by 2020 (this number reflects 7.538% of the County's unincorporated area population). Therefore, this potential nominal change in the work force within the area is well within the County's GPEIR population projections. Therefore, impacts under this issue are considered less than significant and no mitigation is required.

- b. *No Impact* – Implementation of the Project will not displace substantial numbers of existing housing or persons necessitating the construction of replacement housing elsewhere. There is no housing located within the project footprint. Therefore, there will be no need to construct replacement housing. No impacts are anticipated, and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XV. PUBLIC SERVICES: Will 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) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *Less Than Significant Impact* – The proposed project is located in a rural area, with fewer than 500 residents in the proposed Weldon Regional Water District service area. The nearest fire station to the project alignment is Kern County Fire Department Station 71, located at 9000 Navajo Avenue, Weldon 93283, which is approximately 1 mile from the westernmost point in the project alignment. The Kern County Fire Department (KCFD) is an organization comprised of over 625 permanent employees protecting an area which spans over 8,000 square miles, and serves over 500,000 citizens living in the unincorporated areas of Kern County and the cities of Arvin, Delano, Maricopa, McFarland, Ridgecrest, Shafter, Taft, Tehachapi and Wasco. The fire services provided by the KCFD include the following: fire suppression, emergency medical services, hazardous materials mitigation, fire prevention, rescue, air operations, training and public education, and arson investigation apparatus maintenance. The proposed project includes water infrastructure that will meet fire flow requirements, and therefore is considered a benefit to fire protection services within the area. Most of the proposed components of the project do not present a fire hazard because they are made of block, steel, and concrete, which are considered fire-resistant. If the proposed project requires the development of a new office building, the office building will be required to incorporate all current fire protection measures included in the current building code. This requirement and the size and nature of the small office building will ensure that no substantial fire risk occurs as a result of the development of the Weldon Regional Water System office. Thus, with no substantial potential for fire risk, no new or altered fire protection facilities will be required to serve this Project. Any impact to the existing fire protection system is considered random and less than significant. No additional mitigation is required.
- b. *Less Than Significant Impact* – The Community of Weldon receives police services through the Kern County Sheriff's Department. The Department enforces local, state, and federal laws; performs investigations and makes arrests; administers emergency medical treatment; and responds to City

emergencies. The Kern Valley Substation is located at 7046 Lake Isabella Blvd, Lake Isabella, CA 93240, which is 8 miles from the project alignment. The Kern Valley Substation encompasses an area of 804 square miles and has a full-time population estimated at about 22,000 people, and is staffed by one Lieutenant, one Sergeant, two Senior Deputies and nine Deputy Sheriffs. The proposed project will not include the kind of uses or facilities that would likely attract criminal activity, except for random trespass and theft; however, construction equipment will be stored in such a manner that public will not have access to it, and the existing and new above ground components of the project will be fenced once constructed. The project is not anticipated to generate population growth within the Project area that would create a new demand for police protection. Thus, due to the type of project, no new or expanded police facilities would need to be constructed as a result of the project. Therefore, impacts to police protection resources from implementation of the proposed project are considered less than significant; no mitigation measures are required.

- c. *Less Than Significant Impact* – The proposed project is located within the area served by the South Fork Union School District, which has three schools at two locations within the Weldon area. The enrollment within the School District is currently at 270 students, though the School District has had over 400 students enrolled in the past. As addressed under issue XIII—Population and Housing—above, the proposed project does not include any land uses that would substantially induce population growth and will not require a substantial temporary or permanent labor force. Infrastructure improvements are exempt from payment of development impact fees as they are generally vital to providing services—in this case water delivery service—to the community. Thus, the development of the Weldon Regional Water System would have a beneficial use to the community and is therefore not forecast to result in a significant impact to schools within the project area. No mitigation is required.
- d. *Less Than Significant Impact* – As stated in the preceding sections, the proposed Project is not anticipated to create a substantial increase in population through providing employment at the new Weldon Regional Water District office. Furthermore, the proposed project is a vital infrastructure project that would serve the Weldon area by providing reliable water service to residents and the small number of commercial businesses in the area. Thus, the proposed project will be exempt from payment of any fees to develop parkland within the County. With no designated parks in the vicinity of the project alignment, implementation of the components of the proposed project is not forecast to physically impact any parks. Thus, with no potential to substantially increase the Community's population, the Project's impact to park and recreation facilities within the County is considered less than significant. No mitigation is required.
- e. *No Impact* – Please refer to the discussion under XIV(d) above. Other public facilities include library and general municipal services. Since the Project will not directly induce substantial population growth, it is not forecast that the use of such facilities will substantially increase as a result of the proposed project. As a result, the implementation of the Project will not 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 public services, such as libraries and general municipal services. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XV. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *Less Than Significant Impact* – As previously discussed in Section XIV, Population and Housing and Issue XV(d), this Project will not contribute to an increase in the population beyond that already allowed or planned for by local and regional planning documents. Because the proposed project is an infrastructure development project, any development fees imposed by the County to park/recreation development are not required. The project would provide a reliable regional water service to residents and businesses within the Weldon area, which is considered a benefit to the Community. Thus, the potential for the proposed project to increase the use of recreational facilities or result in the physical deterioration of other surrounding facilities is considered less than significant. No mitigation is required.
- b. *No Impact* – The proposed project does not include recreational facilities, nor does it require the construction or expansion of recreational facilities. The proposed water system improvement project includes the construction of a booster pump, development of two new wells, water transmission pipeline, and two 0.75 MG reservoirs, as well as improvements to existing infrastructure within the new system service area. These facilities will be installed and operated by the new District and does not include the provision of recreational facilities. Thus, there will be no adverse physical effects on the environment or recreational facilities and uses from implementing this project. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVII. TRANSPORTATION: Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

- a. *Less Than Significant With Mitigation Incorporated* – The project sites are located throughout the Community of Weldon. The project will occur in the Weldon area of California at Highway 178, including several side streets, between Poplar Street to the east and the KOA campground to the west. The pipeline alignment will consist of ±34,675 LF of 12" piping and ±26,525 LF of 8" piping and will be constructed within the existing paved or compacted dirt roadway segments. Highway 178 is maintained by Caltrans, while the Kern County Public Works Department maintains the other public roadway segments. There are no congestion management programs or policies identified within the Kern County General Plan and GPEIR that would apply directly to the project. The Project will construct water system infrastructure within existing road rights-of-way, and the roadways will be returned to original or better condition than that which exists at present. Thus, once constructed, conditions of the roadways within the project alignment will remain unchanged because the transmission pipelines will be located underground. Once the project complies with Caltrans standards for construction within roadways, as well as with County Standards, the proposed water system improvement project will comply current standards for road design once the construction has been completed.

However, the pipeline construction may result in lane closure within the roadways shown in Figure 3, this includes lane closure within Highway 178, which is a two-lane highway within the project alignment. The pipeline trench will be 6 feet deep and 5 feet wide and would be installed a minimum of 4 feet below ground surface (bgs). Thus, in the short term, construction of the pipeline within these existing roadways has the potential to disrupt traffic. To mitigate the potential impacts to traffic flow, the following mitigation measure shall be implemented:

TRA-1 *The construction contractor will provide adequate traffic management resources, as determined by Caltrans and Kern County. The District shall require a construction traffic management plan for work in public roads that complies with the Work Area Traffic Control Handbook, or other applicable standard, to provide adequate traffic control and safety during excavation activities. At a minimum this plan shall include how to minimize the amount of time spent on construction activities; how to minimize disruption of vehicle and alternative modes of transport traffic at all times, but particularly during periods of high traffic volumes; how to maintain safe traffic flow on local streets affected by construction at all times, including through the use of adequate signage, protective devices, flag persons or police assistance to ensure that traffic can flow adequately during construction; the identification*

of alternative routes that can meet the traffic flow requirements of a specific area, including communication (signs, webpages, etc.) with drivers and neighborhoods where construction activities will occur; and at the end of each construction day roadways shall be prepared for continued utilization without any significant roadway hazards remaining.

TRA-2 The District shall require that all disturbances to public roadways be repaired in a manner that complies with the Standard Specifications for Public Works Construction (green book) or other applicable Caltrans or County standard design requirements.

Construction activities proposed by this Project will generate a temporary increase in traffic as a result of delivery and removal of construction materials. It is forecast that these temporary increases could amount to a maximum of about 60 additional trips on a given day over a period of about two. These trips will be associated with the delivery of equipment, materials (pipeline, concrete, asphalt, etc.), worker commutes and the removal of material and wastes for disposal. They will occur throughout the workday and are not considered sufficient to adversely affect traffic or the transportation/circulation system with implementation of mitigation measure **TRA-1** above. Thus, with implementation of the above mitigation measures, the project is not forecast to conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highway. No further mitigation is required.

Based on a review of the Kern County General Plan and GPEIR, the Project footprint is not located in an area with provisions for public transit, bicycle, or pedestrian facilities due to the fact that it is extremely rural in nature. Therefore, neither construction nor operation of the proposed project are anticipated to impact public transit, bicycle, or pedestrian facilities, and could otherwise decrease the performance or safety of such facilities. No impacts are anticipated to public transit, bicycle facilities or pedestrian facilities and no additional mitigation for these facilities is required.

- b. *Less Than Significant Impact* – The project would install a new water system within the community of Weldon. The County of Kern has not developed a threshold for vehicle miles travelled; however, the proposed project will not require a significant amount of operational traffic beyond maintenance trips and employee trips (a maximum of 20 round-trips per day, though it is forecast that the actual number of employee round trips will be around 10 per day). Construction of the proposed project will require a maximum of about 25 trips to and from the site each day as a result of employee and construction related trips. Given that these trips are temporary and are not anticipated 100 miles round trip per day during the anticipated two years period required to construct the water system, construction related vehicle miles traveled impacts are considered less than significant. As such, development of the Weldon Regional Water System Project is not anticipated to result in significant impact related to vehicle miles travelled, and thus would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Impacts under this issue are considered less than significant
- c. *Less Than Significant With Mitigation Incorporated* – The Project will temporarily alter existing roadways during construction of the proposed pipeline. However, this alteration will not create any hazards due to design features of incompatible uses. The proposed project will install approximately ±34,675 LF of 12" pipeline and ±26,525 LF of 8" pipeline within existing rights-of-way, but with implementation of the mitigation measures **TRA-1** and **TRA-2** above, which require implementation of a construction traffic management plan, any potential increase in hazards due to design features or incompatible use will be considered less than significant in the short term. In the long term, no impacts to any hazards or incompatible uses in existing roadways are anticipated because once the pipeline is constructed, the roadway will be returned to its original condition, or better. Thus, any impacts are considered less than significant with implementation of mitigation. No additional mitigation is required.

- d. *Less Than Significant With Mitigation Incorporated* – The Project sites each include direct access to public roadways, which is considered adequate for emergency purposes. According to the Kern County General Plan, no known emergency access plans or routes or emergency response or evacuation plans will be affected by this Project in the long term. During construction, a potential exists for short-term hazards and constraints on both normal and emergency access within the affected area, especially due to the construction of the proposed pipeline alignment, as it will require partial lane closure within existing rights-of-way solely on 2 lane roadways. However, implementation of mitigation measures **TRA-1** and **TRA-2** will cause impacts to be reduced to a less than significant level. No additional mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVIII. TRIBAL CULTURAL RESOURCES: Will the project:				
a) Would the project cause a substantial change in the significance of tribal cultural resources, 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 the California Native American Tribe, and that is?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: A cultural resources report has been prepared to evaluate the potential for cultural resources to occur within the project area of potential effect titled "Identification and Evaluation of Historic Properties Weldon Regional Water System Improvement Project, Weldon Area, Kern County, California," prepared by CRM TECH dated April 19, 2018, and provided as Appendix 4a. The following summary information has been abstracted from this report. It provides an overview and findings regarding the cultural resources found within the project area. A follow up report was prepared by CRM TECH on June 17, 2019 to update the findings from their original report titled "Addendum to Historic Property Identification and Evaluation Report, Weldon Regional Water System Improvement Project, Weldon Area, Kern County, California, CRM TECH Project No. 3238B" and provided as Appendix 4b.

A Tribal Resources is defined in the Public Resources Code section 21074 and includes the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following: included or determined to be eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources as defined in subdivision (k) of Section 5020.1;
- 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purpose of this paragraph, the lead agency shall consider the significance of the resources to a California American tribe;
- A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape;

- A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “non-unique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal resource if it conforms with the criteria of subdivision (a).

a&b. *Less Than Significant With Mitigation Incorporated* – Under PRC section 21080.3.1 and 21082.3, the State must consult with tribes traditionally and culturally affiliated with the project area who have requested formal notification and responded with a request for consultation. The parties must consult in good faith. Consultation is deemed concluded when the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource when one is present or when a party concludes that mutual agreement cannot be reached. Mitigation measures agreed on during the consultation process must be recommended for inclusion in the environmental document.

PRC Section 5024.1 establishes the California Register of Historic Resources (CRHR), which is the authoritative guide for identifying the state’s historical resources to indicate what properties are to be protected, if feasible, from substantial adverse change. For a resource to be eligible for the CRHR, it must be more than 50 years old, retain its historic integrity, and satisfy all of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

The State Water Resources Control Board (SWRCB) initiated AB 52 consultation with the two appropriate tribes who have previously notified the SWRCB: Big Pine Paiute of Owens Valley, and the Santa Rosa Rancheria Band of Tachi Indians. Notification was provided to the tribes via an AB 52 consultation letter, which was initiated on November 1, 2017. No responses were received within the initial AB-52 consultation period, which concluded December 1, 2017. Although no additional consultation was initiated by Kern LAFCo, pursuant to AB 52 the lead agency is not obligated to conduct additional consultation. Tribes with known affiliations in the area were afforded adequate opportunities for consultation.

Please refer to the discussion under Cultural Resources (Section V, above). CRM TECH staff consulted with Native American monitors Robert Robinson and Hanna Reed from the Kern Valley Indian Council in the field to assess the resources located within the KV Reservoir site. Several features within the KV Reservoir site and access road were determined to be “tribal cultural resources”; however, mitigation measures **CUL-1** through **CUL-5** would reduce impacts to these resources to a level of less than significant. Therefore, with implementation of mitigation measures **CUL-1** through **CUL-5**, impacts to under Tribal Cultural Resources are anticipated to be less than significant. No further mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

a. Water

Less Than Significant Impact – The proposed project would, in, and of itself, construct a new water system. The project would provide reliable water service to the community of Weldon. Therefore, this project is considered a project in which new water facilities and expansion of such facilities are being constructed and/or modified; however, the ultimate function of the Project is to consolidate water systems within a rural community and provide reliable water to customers of the new District. The environmental effects of implementing this project are discussed throughout this document and impacts from the Weldon Regional Water System Improvement Project have been deemed less than significant with incorporation of identified mitigation measures.

Wastewater

Less Than Significant Impact – As addressed under the Hydrology and Water Quality Section of this document, the project will not result or require new wastewater treatment facilities as a part of the proposed project. The Project is located in a rural area in which municipal wastewater connections are not available to residents and businesses. Therefore, the Project may require the construction of one septic tank or other alternative wastewater disposal mechanism to serve a new office building, should the District select an alternative in which a new office building is constructed rather than reuse of an existing Water Company office building within the District. The Project will be required to comply with the Kern County Public Health Services Department, Environmental Health Division's Standards and Rules and Regulations for Land Development. Once the new septic tank has been constructed and is in use, it would be self-contained and will not require treatment at a wastewater treatment facility. As such, the development of the new septic system would not result in a significant impact.

Stormwater

Less Than Significant With Mitigation Incorporated – Please refer to the discussion under issue X(c)(i-iii)). The Project will require the implementation of a SWPPP and WQMP, and implementation of mitigation measures **HAZ-1** and **HYD-1**, which will ensure that any potential discharge of polluted material does not occur or is remediated in the event of an accidental spill. Thus, the development of the Project will not require or result in the construction of new or expansion of existing stormwater drainage facilities which would cause a significant environmental impact. No further mitigation is required.

Electric Power

Less Than Significant Impact – The project will be supplied power from Southern California Edison (SCE) to each of the well sites and tank sites. The District plans to install emergency backup generators though at each site – an 8 kW Diesel Generator at the KV Tank Site, a 125 kW Diesel Generator at each of the Well Sites, and a 200 kW Diesel Generator at the BV Tank and Booster Station Site. SCE is expanding and upgrading its transmission and distribution networks to meet the region's growing demand for electricity, and improve grid performance, while meeting California's ambitious renewable-power goals. As such, it is anticipated that SCE would have ample power supply to serve the project without the need for additional electrical capacity. Installation of the emergency backup generators and connection the SCE's system is not anticipated to result in a significant environmental effect related to the relocation or construction of new or expanded energy facilities. Impacts are less than significant.

Natural Gas

No Impact – Development of the Weldon Regional Water System would not require installation of natural gas. Therefore, the project would not result in a significant environmental effect related to the relocation or construction of new or expanded natural gas facilities. No impacts are anticipated.

Telecommunications

No Impact – Development of the Weldon Regional Water System would not installation of wireless internet service or phone serve. Therefore, the project would not result in a significant environmental effect related to the relocation or construction of new or expanded telecommunication facilities. No impacts are anticipated.

- b. *Less Than Significant Impact* – As previously stated under the Hydrology and Water Quality Section of this document, the Project is not anticipated to extract a significantly greater amount of groundwater as a result of project implementation. The Project will abandon and destroy 3 wells through the Kern County Public Health Services Department Water Well Destruction procedures. Through consolidating several small water companies into one Regional Water District, the water needs of the area will be provided more reliably. The Project will construct 2 new wells with better water quality to replace the abandoned wells, which currently exceed Drinking Water Standards. Thus, as shown in the Preliminary Engineering Report (Appendix 1), the proposed project will implement a water system that would have sufficient water supplies available to serve the project from existing entitlements and resources, and no new or expanded entitlements not outlined in this document are required.
- c. *No Impact* – The project would not 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, because no municipal wastewater providers exist in the area, so none serve the project alignment. No impacts are anticipated, and no mitigation is required.
- d&e. *Less Than Significant With Mitigation Incorporation* – This project will result in construction waste from the removal of asphalt, concrete, and similar materials. The inert wastes can be disposed of at existing municipal solid waste facilities, which have adequate capacity to accept inert wastes generated by this project or can be recycled onsite. The nearest landfill to the Project area is the

Kern Valley Transfer Station, which accepts waste from both residential self-haulers as well as commercial refuse haulers. This facility collects material that is later “transferred” to the nearest landfill site. According to CalRecycle, the maximum permitted capacity is 300 tons per day. The waste from this facility is then transferred to one of the nearby Kern County Landfills. The closest landfill to the Transfer station, which is the Bakersfield Metropolitan (Bena) Landfill, located approximately 50 miles to the southwest of the Kern Valley Transfer Station. The Bena Landfill is capable of accepting 4,500 Tons per day, with a remaining capacity of 32,808,260 cubic yards (CY), with a maximum permitted capacity of 53,000,000 CY. The proposed project will not result in a substantial amount of operational solid waste, as the features of the project will function as a new water system.

Additionally, any hazardous materials collected on the project site during either construction of the Project will be transported and disposed of by a permitted and licensed hazardous materials service provider. Therefore, the Project is expected to comply with all regulations related to solid waste under federal, state, and local statutes. To further reduce potential impacts to solid waste facilities due to the large scale of the materials that may require disposal or recycling, the following mitigation measure will be implemented:

UTIL-1 The contract with demolition and construction contractors shall include the requirement that all materials that can feasibly be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, and asphalt. The contractor shall submit a recycling plan to the County for review and approval prior to the start of demolition/construction activities to accomplish this objective.

Therefore, with the above mitigation measure, the Project is expected to comply with all regulations related to solid waste under federal, state, and local statutes and be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs. No further mitigation is necessary.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

- a. *Less Than Significant With Mitigation Incorporated* – The proposed project is located in a high fire hazard area according to the Hazardous Fire Area map prepared for the Kern County General Plan (Figure IX-3) and as designated on California Department of Forestry and Fire Protection (CalFire) maps. The Project will be located within or adjacent to existing access roads. A limited potential to interfere with an emergency response or evacuation plan will occur during construction. Control of access during construction will ensure emergency access to the sites and project areas during construction. No known emergency response or evacuation plans or routes are known to exist in the vicinity of the Project and no such plans will be affected by this Project. Implementation of mitigation measures **TRA-1** and **TRA-2** will cause impacts to be reduced to a less than significant level. No additional mitigation is required.
- b. *Less Than Significant Impact* – The proposed project includes the development of water storage reservoirs, booster pump station, two new wells, and pipeline alignments. One of the water storage reservoirs would be located atop a hill; however, the surrounding area does not have adequate vegetative fuel load to exacerbate fire risk. Furthermore, the facilities proposed are not of a type that would be highly susceptible to fire hazards. The Project would allow a more reliable source of water to the Community of Weldon, and the new system will supply the area with reliable “fire flow” (refer to Preliminary Engineering Report) in the event of a wildfire. Because the proposed project would develop a reliable water system to an area without a municipal water supply, and because the provision of water storage is considered a benefit to the prevention of the spreading of wildfire in high risk areas, it is not anticipated that development within this Community would expose occupants to pollutant concentrations from a wildfire. Therefore, given that the proposed project’s only human occupancy structure is located in an area amongst other residential development away from nearby high-fire risk hillsides, it is not anticipated that the project would exacerbate fire risks thereby exposing project occupants to pollutant concentrations from a wildfire or uncontrolled spread of wildfire. Impacts under this issue are considered less than significant and no mitigation is required.
- c. *Less Than Significant With Mitigation Incorporated* – The proposed project would develop a new municipal water system to serve the Community of Weldon. The area surrounding the project

footprint, and in places, within the project footprint contains vegetation within which construction and maintenance activities could exacerbate fire risk. The Community of Weldon is in a fairly rural area, surrounded by hills/mountains and grassy fields. Therefore, the proposed project requires the following mitigation measure, which would minimize fire risk during activities that would utilize electric equipment by requiring construction/maintenance crews to carry fire prevention equipment during activities involving electrical equipment.

WF-1 *During construction of the water system, and during any maintenance activities within 50 feet of highly vegetated areas within the water system's footprint, the construction/maintenance crew shall have fire prevention equipment (such as fire extinguishers, emergency sand bags, etc.) to put out any accidental fires that could occur from the use of electrical construction/maintenance equipment.*

With the implementation of mitigation measure **WF-1** above, the project would not have a significant potential to exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Impacts under this issue are considered less than significant.

- d. *Less Than Significant With Mitigation Incorporated* – According to the Overlay Constraints: Flooding and Shallow Ground Water map prepared for the Kern County General Plan (Figure VII-4), the project footprint is not located in an area with shallow ground water, and therefore, the any impacts related to ground failure related to wildfire are considered less than significant. Proper trench bedding and soil preparation at the reservoir sites and within pipeline alignments are considered adequate measures to reduce the remote potential for wildfire related ground failure at the proposed facilities to a less than significant level. According to the Overlay Constraints: Seismic, Landslides, and Steep Slope Hazards map prepared for the Kern County General Plan, the Project footprint is not located in an area that is considered susceptible to landslides (Figure VII-5). The majority of the project would be constructed within the flat area of the valley within which the Community of Weldon is located. Mitigation measure **GEO-1** would ensure that the KV Reservoir, which will be developed atop a hill, would remain stable and have sufficient drainage such that should a wildfire occur, this structure would remain stable. Much of the project would be developed belowground (water pipelines and wells), and the remainder of the above ground structures—excluding the KV Reservoir—would be located in areas with less fire risk and located in relatively flat areas. Therefore, the potential in these areas to 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, would be less than significant. Impacts under this issue are considered less than significant with the implementation of mitigation measure **GEO-1**.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIV. MANDATORY FINDINGS OF SIGNIFICANCE:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

The analysis in this Initial Study and the findings reached indicate that the proposed project can be implemented without causing any new project specific or cumulatively considerable unavoidable significant adverse environmental impacts. Mitigation is required to control potential environmental impacts of the proposed project to a less than significant impact level. The following findings are based on the detailed analysis of the Initial Study of all environmental topics and the implementation of the mitigation measures identified in the previous text and summarized following this section.

- a. *Less Than Significant With Mitigation Incorporated* – The Project has no potential to cause a significant impact any biological or cultural resources. The Project has been identified as having no potential to degrade the quality of the natural environment, substantially reduce 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, or reduce the number or restrict the range of a rare or endangered plant or animal. The Project requires mitigation to prevent significant impacts from occurring as a result of implementation of the Project. The potential to impact cultural resources was determined to be high without the implementation of mitigation; however, with implementation of measures to protect these resources, impacts to cultural, historical, and tribal cultural resources are considered less than significant. Additionally, because it is not known what could be unearthed upon any excavation activities, contingency mitigation measures are provided to ensure that, in the unlikely event that any resources are found, they are protected from any potential impacts. Please see biological and cultural sections of this Initial Study.
- b. *Less Than Significant With Mitigation Incorporated* – The Project has 12 potential impact categories that are individually limited, but may be cumulatively considerable. These are: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology & Soils, Hazards & Hazardous Materials, Hydrology & Water Quality, Noise, Transportation, Tribal Cultural Resources, Utilities & Service Systems, and Wildfire. The Project is not considered growth-inducing, as defined by *State CEQA Guidelines* (<http://ceres.ca.gov/ceqa/guidelines/>). These issues require the implementation of

mitigation measures to reduce impacts to a less than significant level and ensure that cumulative effects are not cumulatively considerable. All other environmental issues were found to have no significant impacts without implementation of mitigation. The potential cumulative environmental effects of implementing the proposed project have been determined to be less than considerable and thus, less than significant impacts.

- c. *Less Than Significant With Mitigation Incorporated* – The proposed Project includes activities that have a potential to cause direct substantial adverse effects on humans. The issues of Air Quality, Geology and Soils, Hazards & Hazardous Materials, Noise, and Wildfire require the implementation of mitigation measures to reduce human impacts to a less than significant level. All other environmental issues were found to have no significant impacts on humans without implementation of mitigation. The potential for direct human effects from implementing the proposed Project have been determined to be less than significant.

Conclusion

This document evaluated all CEQA issues contained in the latest Initial Study Checklist form. The evaluation determined that either no impact or less than significant impacts would be associated with the issues of Agriculture and Forestry Resources, Energy, Greenhouse Gases, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, and Recreation. The issues of Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology & Soils, Hazards & Hazardous Materials, Hydrology & Water Quality, Noise, Transportation, Tribal Cultural Resources, Utilities & Service Systems, and Wildfire require the implementation of mitigation measures to reduce Project specific and cumulative impacts to a less than significant level. The required mitigation has been proposed in this Initial Study to reduce impacts for these issues to a less than significant impact level.

Based on the findings in this Initial Study, Kern LAFCo proposes to adopt a Mitigated Negative Declaration (MND) for the Weldon Regional Water System Project. A Notice of Intent to Adopt a Mitigation Negative Declaration (NOI) will be issued for this Project by Kern LAFCo. The Initial Study and NOI will be circulated for 30 days of public comment.

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; *Sundstrom v. County of Mendocino*, (1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors*, (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

Revised 2019

Authority: Public Resources Code sections 21083 and 21083.09

Reference: Public Resources Code sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3/ 21084.2 and 21084.3

SUMMARY OF MITIGATION MEASURES

Aesthetics

AES-1 A facilities lighting plan shall be prepared for facilities that require safety lighting and shall demonstrate that glare from operating and safety night lights that may create light and glare affecting adjacent occupied property are sufficiently shielded to prevent light and glare from spilling into occupied structures. This plan shall specifically indicate that the lighting doesn't exceed 1.0 lumen at the nearest residence to any lighting site within the project footprint. This plan shall be implemented by the District to minimize light or glare intrusion onto adjacent properties.

Air Quality

AIR-1 Fugitive Dust Control. The following measures shall be incorporated into Project plans and specifications for implementation:

- Apply soil stabilizers or moisten inactive areas;
- Prepare a high wind dust control plan;
- Address previously disturbed areas is subsequent construction is delayed;
- Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically 2-3 times/day);
- Cover all stockpiles with tarps at the end of each day or as needed;
- Provide water spray during loading and unloading of earthen materials;
- Minimize in-out traffic from construction zone;
- Cover all trucks hauling dirt, sand, or loose material and require all trucks to maintain at least two feet of freeboard; and
- Sweep streets daily if visible soil material is carried out from the construction site.

AIR-2 Exhaust Emissions Control

- Utilize well-tuned off-road construction equipment.
- Establish a preference for contractors using Tier 3-rated or better heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

Biological Resources

BIO-1 The District shall prepare and submit a Section 404 Permit to the U.S. Army Corps of Engineers (USACE), a 401 Permit from the Regional Water Quality Control Board (RWQCB), and a Streambed Alteration Agreement (SAA) a to the California Department of Fish and Wildlife (CDFW). No ground disturbance shall occur until the District obtains the above permits. Note that the final compensation package contained in the permit shall be implemented by the District.

BIO-2 The State of California prohibits the "take" of active bird nests. To avoid an illegal take of active bird nests, any grubbing, brushing or tree removal should be conducted outside of the the State identified nesting season (Raptor nesting season is February 15 through July 31; and migratory bird nesting season is March 15 through September 1). Alternatively, the site shall be evaluated by a qualified biologist prior to the initiation of ground disturbance to determine the presence or absence of nesting birds. Active bird nests MUST be avoided during the nesting season. If an active nest is located in the project construction area it will be flagged and a 300-foot avoidance buffer placed around it. No activity shall occur within the 300-foot buffer until the young have fledged the nest.

Cultural Resources

- CUL-1 Among the structural remains and artifact deposits previously recorded at Site 15-019603, those located closest to the access route for Alternative 2 shall be protected in a designated Environmentally Sensitive Area (ESA) and clearly demarcated in the field during construction to prevent inadvertent impact.
- CUL-2 If project plans undergo any changes that may result in potential effects on the archaeological features or artifact deposits at Sites 15-019603 or 15-019606, additional research procedures will be needed to evaluate their historic significance properly, as recommended in the 2018 study (Tang et al. 2018:22).
- CUL-3 All earth-moving operations associated with the construction of the KV Tank and the associated access road shall be monitored by a qualified archaeologist and a representative of the Kern Valley Indian Council to ensure proper protection of Site 15-019603 and the timely identification and evaluation of any subsurface cultural remains.
- CUL-4 If possible, the bedrock milling feature at Site 15-019893 shall be moved to a location outside the construction footprint for the access road for preservation.
- CUL-5 Under the conditions presented in mitigation measure CUL-1 through CUL-4 conditions, the construction of the KV Tank and the access road may be cleared to proceed in compliance with provisions of Section 106 and CEQA on cultural resources.

Geology and Soils

- GEO-1 The District shall retain a qualified engineering geologist to investigate sites proposed for water storage reservoirs. The recommendations of the engineering geologist relative to mitigating the potential for seismically induced ground rupture, strong ground shaking and expansive soils shall be incorporated in the design and construction of these facilities. Design of such facilities shall follow the following design performance criteria. Comprehensive geotechnical investigation shall be required prior to engineering and design development of structural and/or substantial rehabilitation of structures identified under Risk Class I & II, e.g., public facilities, as identified below:

Risk Class I & II, Structures Critically Needed after Disaster: Structures which are critically needed after a disaster include important utility centers, fire stations, police stations, emergency communication facilities, hospitals, and critical infrastructure elements such as bridges and overpasses, water storage reservoirs, and smaller dams.

Acceptable Damage: Minor non-structural; facility should remain operational and safe or be suitable for quick restoration of service.

Risk Class III: High occupancy structures; uses are required after disasters, i.e., places of assembly such as schools and churches.

Acceptable Damage: Some impairment of function acceptable; structure needs to remain operational.

Risk Class IV, Ordinary Risk Tolerance: The vast majority of structures in urban areas; most commercial and industrial buildings, small hotels and apartment buildings, and single-family residences.

Acceptable Damage: An "ordinary" degree of risk should be acceptable. The criteria envisioned by the Structural Engineers Association of California provide the best definition of the "ordinary" level of acceptable risk. These criteria require that structures be able to:

- a. Resist minor earthquakes without damage;
- b. Resist moderate earthquakes without structural damage, but with some non-structural damage; or
- c. Resist major earthquakes, of the intensity or severity of the strongest experienced in California, without collapse, but with some structural, as well as non-structural damage.

Risk Class V, moderate to High Tolerance: Open space uses, such as farms, ranches and parks without high occupancy structures; warehouses with low intensity employment; and the storing of non-hazardous materials.

Acceptable Damage: Not applicable.

- GEO-2 Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of the material. If covering is not feasible, then measures such as the use of straw bales or sandbags shall be used to capture and hold eroded material on the project site for future cleanup.
- GEO-3 Excavated areas shall be properly backfilled and compacted. Paved areas disturbed by this project will be repaved in such a manner that roadways and other disturbed areas are returned to as near the pre-project condition as is feasible.
- GEO-4 All exposed, disturbed soil (trenches, stored backfill, etc.) will be sprayed with water or soil binders twice a day or more frequently if fugitive dust is observed migrating from the site within which the water facilities are being installed.
- GEO-5 The length of trench which can be left open at any given time will be limited to that needed to reasonably perform construction activities. This will serve to reduce the amount of backfill stored onsite at any given time.
- GEO-6 The District shall identify any additional BMPs to ensure that the discharge of surface water does not cause erosion downstream of the discharge point. This shall be accomplished by reducing the energy of any site discharge through an artificial energy dissipater or equivalent device. If any substantial erosion or sedimentation occurs, any erosion or sedimentation damage shall be restored to pre-discharge conditions.
- GEO-7 Should any paleontological resources be accidentally exposed during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with Lead Agency's onsite inspector. The paleontological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.

Hazards and Hazardous Materials

- HAZ-1 All spills or leakage of petroleum products during construction activities will be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately licensed disposal or treatment facility. This measure will be incorporated into the SWPPP prepared for the Project development.

Hydrology and Water Quality

HYD-1 The District shall require that the construction contractor prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters. The SWPPP shall include a Spill Prevention and Cleanup Plan that identifies the methods of containing, cleanup, transport and proper disposal of hazardous chemicals or materials released during construction activities that are compatible with applicable laws and regulations. BMPs to be implemented in the SWPPP may include but not be limited to:

- The use of silt fences;
- The use of temporary stormwater desilting or retention basins;
- The use of water bars to reduce the velocity of stormwater runoff;
- The use of wheel washers on construction equipment leaving the site;
- The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads;
- The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and
- Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles.

Noise

NOI-1 Where applicable, the District shall use noise reducing barriers and other devices to reduce exterior noise levels at the nearest sensitive receptor to 60 CNEL or less during the night-time construction hours (in the event that any emergency night-time construction hours become necessary) and 65 CNEL or less during the daytime construction hours.

NOI-2 No construction activities other than well drilling shall occur during the hours of 6 pm through 7 am, Monday through Saturday and at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists.

NOI-3 The District shall establish a noise complaint response program and shall respond to any noise complaints received for this Project by measuring noise levels at the affected receptor site. If the noise level exceeds an Ldn of 60 dBA exterior or an Ldn of 45 dBA interior at the receptor, the applicant will implement adequate measures (which may include portable sound attenuation walls, use of quieter equipment, shift of construction schedule to avoid the presence of sensitive receptors, etc.) to reduce noise levels to the greatest extent feasible.

NOI-4 The District will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by applicant personnel during construction activities.

NOI-5 Equipment not in use for five minutes shall be shut off.

NOI-6 Equipment shall be maintained and operated such that loads are secured from rattling or banging.

NOI-7 Where available, electric-powered equipment shall be used rather than diesel equipment and hydraulic-powered equipment shall be used instead of pneumatic power.

NOI-8 Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.

- NOI-9 No radios or other sound equipment shall be used at this site unless required for emergency response by the contractor.
- NOI-10 Public notice shall be given prior to initiating construction. This notice shall be provided to all property owners/residents within 300 feet of the project site and shall be provided to property owners/residents at least one week prior to initiating construction. The notice shall identify the dates of construction and the name and phone number of a construction supervisor (contact person) in case of complaints. One contact person shall be assigned to the project. The public notice shall encourage the adjacent residents to contact the supervisor in the case of a complaint. Resident's would be informed if there is a change in the construction schedule. The supervisor shall be available 24/7 throughout construction by mobile phone. If a complaint is received, the contact person shall take all feasible steps to remove the sound source causing the complaint.
- NOI-11 The wells and booster pump station shall have noise levels attenuated to 50 dBA CNEL at the nearest sensitive noise receptor location. This can be accomplished through several methods, including, but not limited to the following method: installing surface well/booster pump housing, which can be housed in a block masonry structure that attenuates noise to meet this performance standard.
- NOI-12 During future construction activities with heavy equipment within 300 feet of occupied residences, vibration field tests should be conducted at the nearest occupied residences. If vibrations exceed 72 VdB, the construction activities shall be revised to reduce vibration below this threshold.

Transportation

- TRA-1 The construction contractor will provide adequate traffic management resources, as determined by Caltrans and Kern County. The District shall require a construction traffic management plan for work in public roads that complies with the Work Area Traffic Control Handbook, or other applicable standard, to provide adequate traffic control and safety during excavation activities. At a minimum this plan shall include how to minimize the amount of time spent on construction activities; how to minimize disruption of vehicle and alternative modes of transport traffic at all times, but particularly during periods of high traffic volumes; how to maintain safe traffic flow on local streets affected by construction at all times, including through the use of adequate signage, protective devices, flag persons or police assistance to ensure that traffic can flow adequately during construction; the identification of alternative routes that can meet the traffic flow requirements of a specific area, including communication (signs, webpages, etc.) with drivers and neighborhoods where construction activities will occur; and at the end of each construction day roadways shall be prepared for continued utilization without any significant roadway hazards remaining.
- TRA-2 The District shall require that all disturbances to public roadways be repaired in a manner that complies with the Standard Specifications for Public Works Construction (green book) or other applicable Caltrans or County standard design requirements.

Utilities and Service Systems

- UTIL-1 The contract with demolition and construction contractors shall include the requirement that all materials that can feasibly be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, and asphalt. The contractor shall submit a recycling plan to the County for review and approval prior to the start of demolition/construction activities to accomplish this objective.

Wildfire

- WF-1 During construction of the water system, and during any maintenance activities within 50 feet of highly vegetated areas within the water system's footprint, the construction/maintenance crew shall have fire prevention equipment (such as fire extinguishers, emergency sand bags, etc.) to put out any accidental fires that could occur from the use of electrical construction/maintenance equipment.

REFERENCES

CRM TECH, "Identification and Evaluation of Historic Properties, Weldon Regional Water System Improvement Project" dated April 19, 2018

CRM TECH, "Addendum to Historic Property Identification and Evaluation Report" dated June 17, 2019

Giroux & Associates, "Air Quality and GHG Impact Analyses, Weldon Water District Project, Kern County, California" dated October 30, 2017

Dee Jasper & Associates, Inc., "Preliminary Engineering Report for the Weldon Regional Consolidation Project" dated April 22, 2016

Jericho Systems, Inc., "Biological Resources Assessment and Jurisdictional Delineation, Weldon Regional Water District, Weldon Regional Water System Improvement Project" dated February 2018

Kern County General Plan, September 22, 2009

<https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>

https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA668/0/Kern_CA.pdf

<http://esps.kerndsa.com/engineering/development-standards/environmental-health?showall=&start=1>

<http://kernpublichealth.com/wp-content/uploads/2016/03/Standards-and-Rules-and-Regulations-for-Land-Development.pdf>

<http://www.water.ca.gov/groundwater/bulletin118/basindescriptions/5-25.pdf>

<https://databasin.org/datasets/26c92d3ecbe541ec81451f9de4e1e0e4>

FIGURES

FIGURE 1
Regional Location

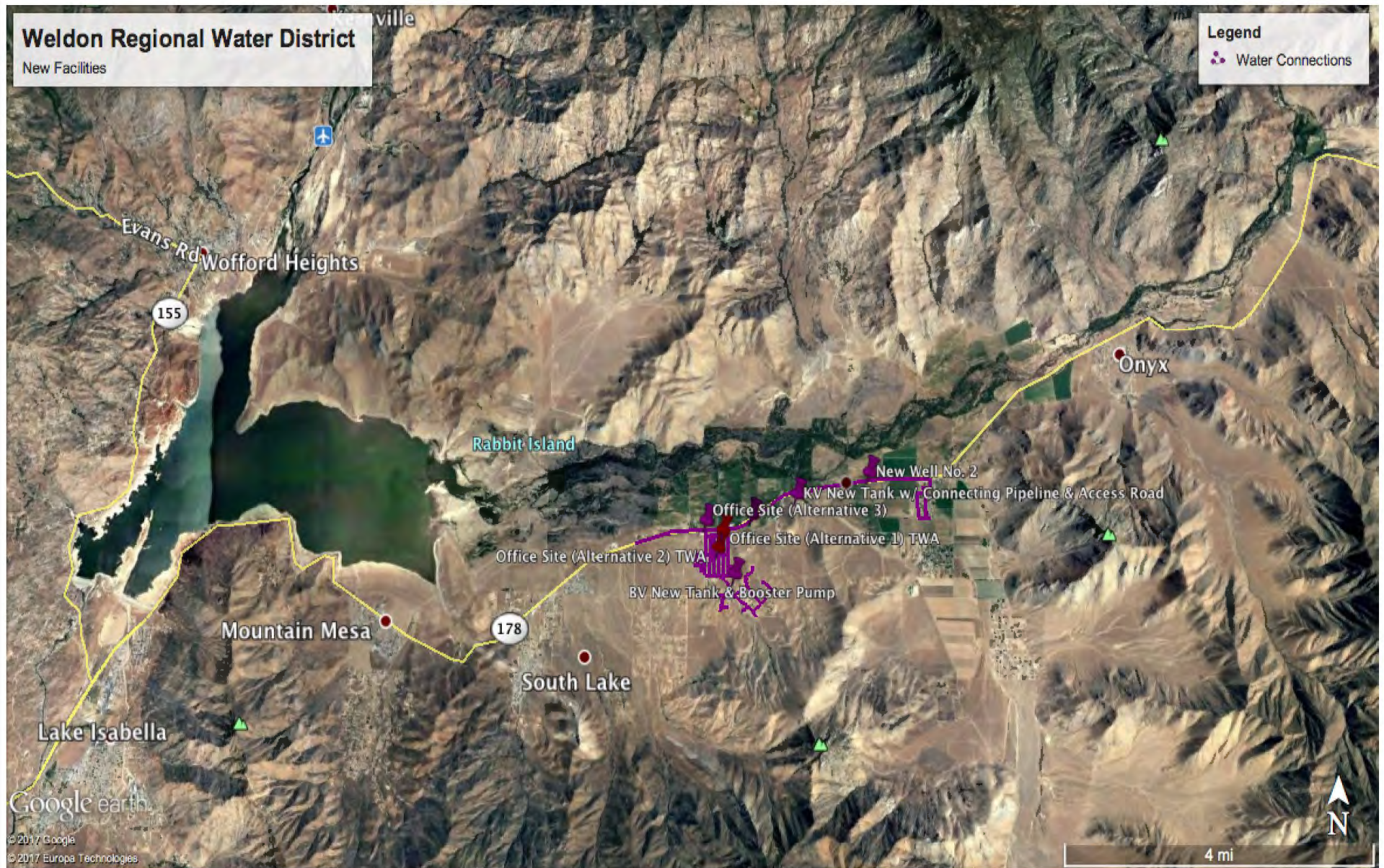


FIGURE 2
Site Location

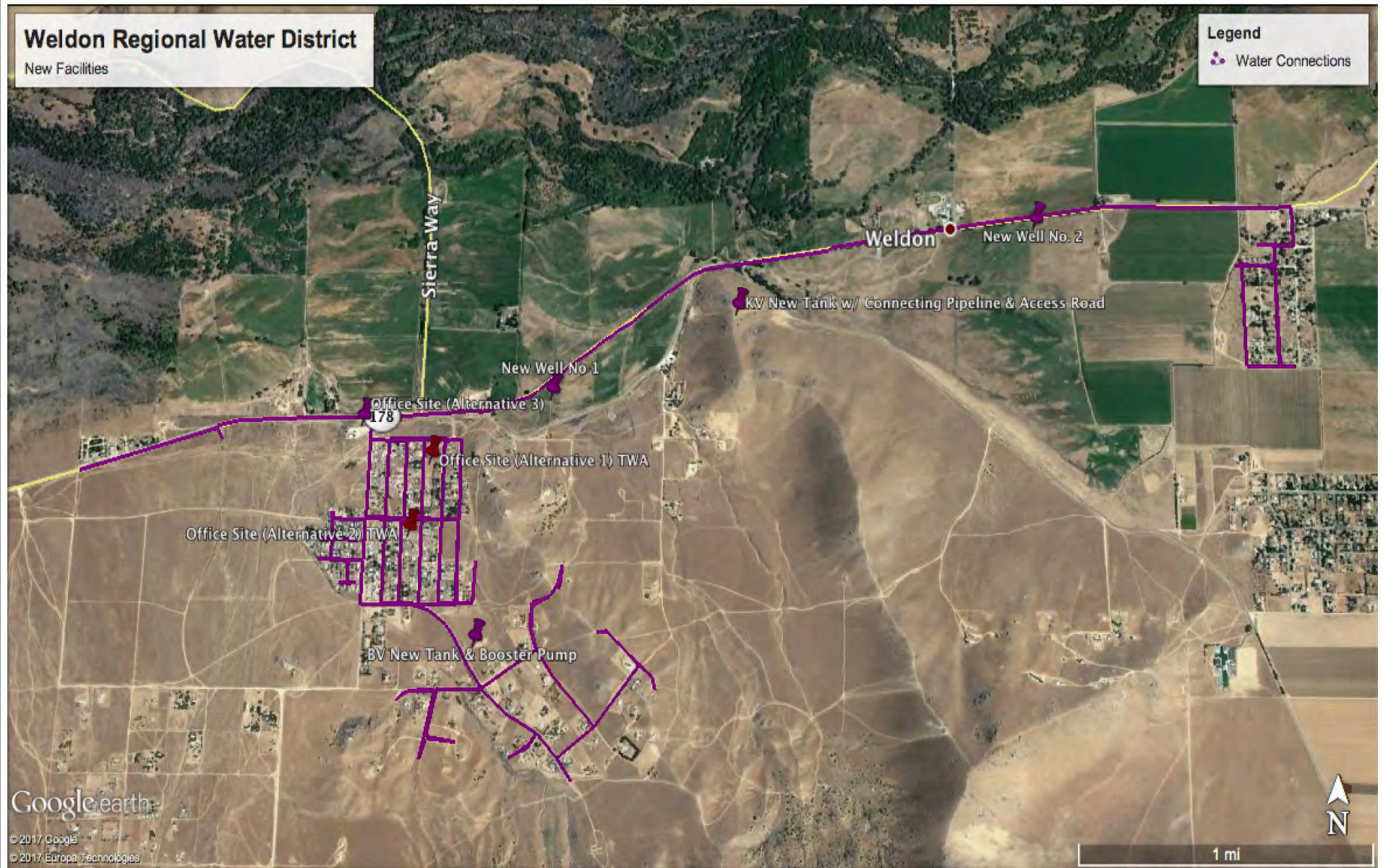
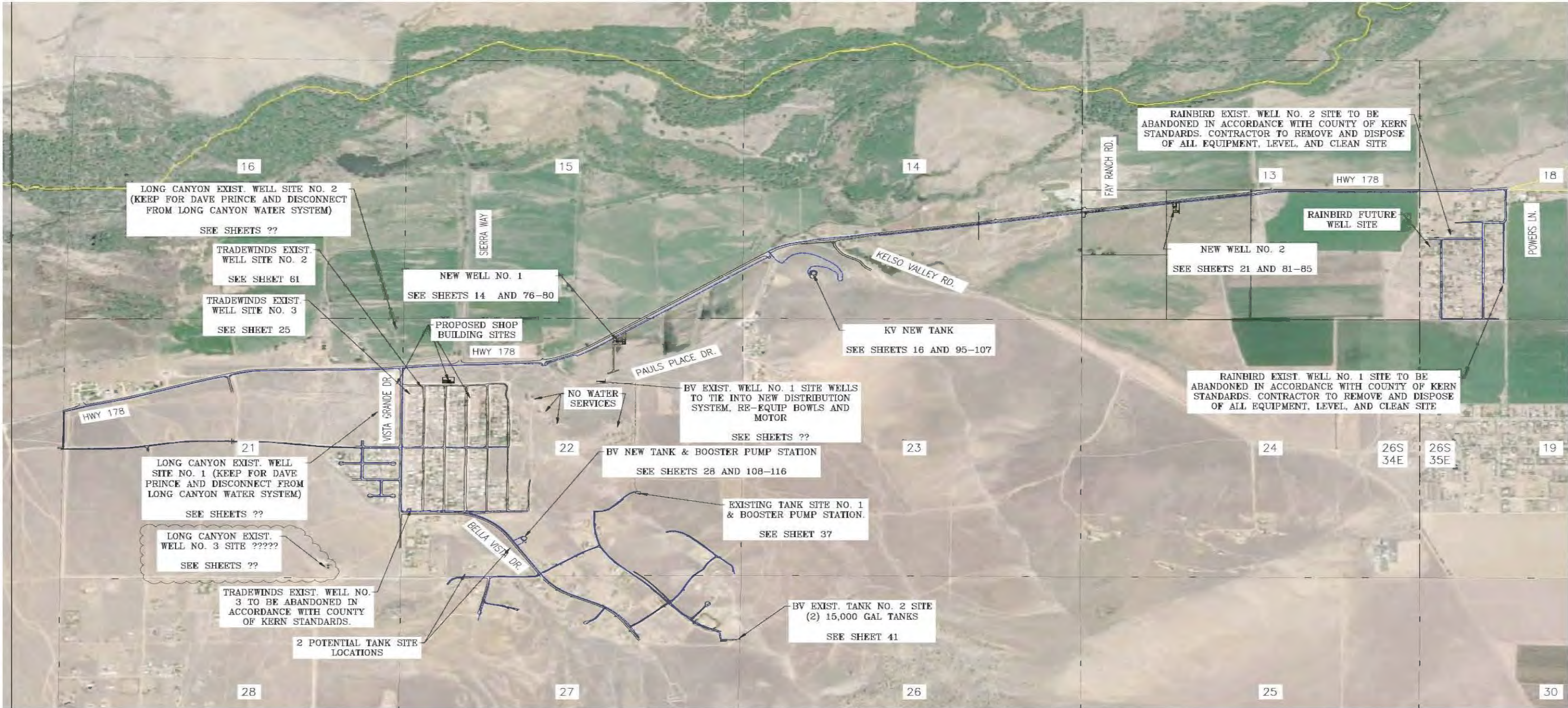


FIGURE 3
Site Plan



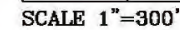
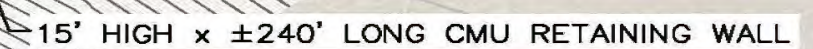
VICINITY MAP
1"=800'

LEGEND:
--- NEW PVC WATER MAIN
--- SECTION LINE
26 SECTION NUMBER



SCALE 1"=800'
0 800' 1600' 2400'

Kelso Valley Alternate Tank Layouts



WELDON REGIONAL WATER SYSTEM PROJECT

FIGURE 5
Aerial – Office Site 1

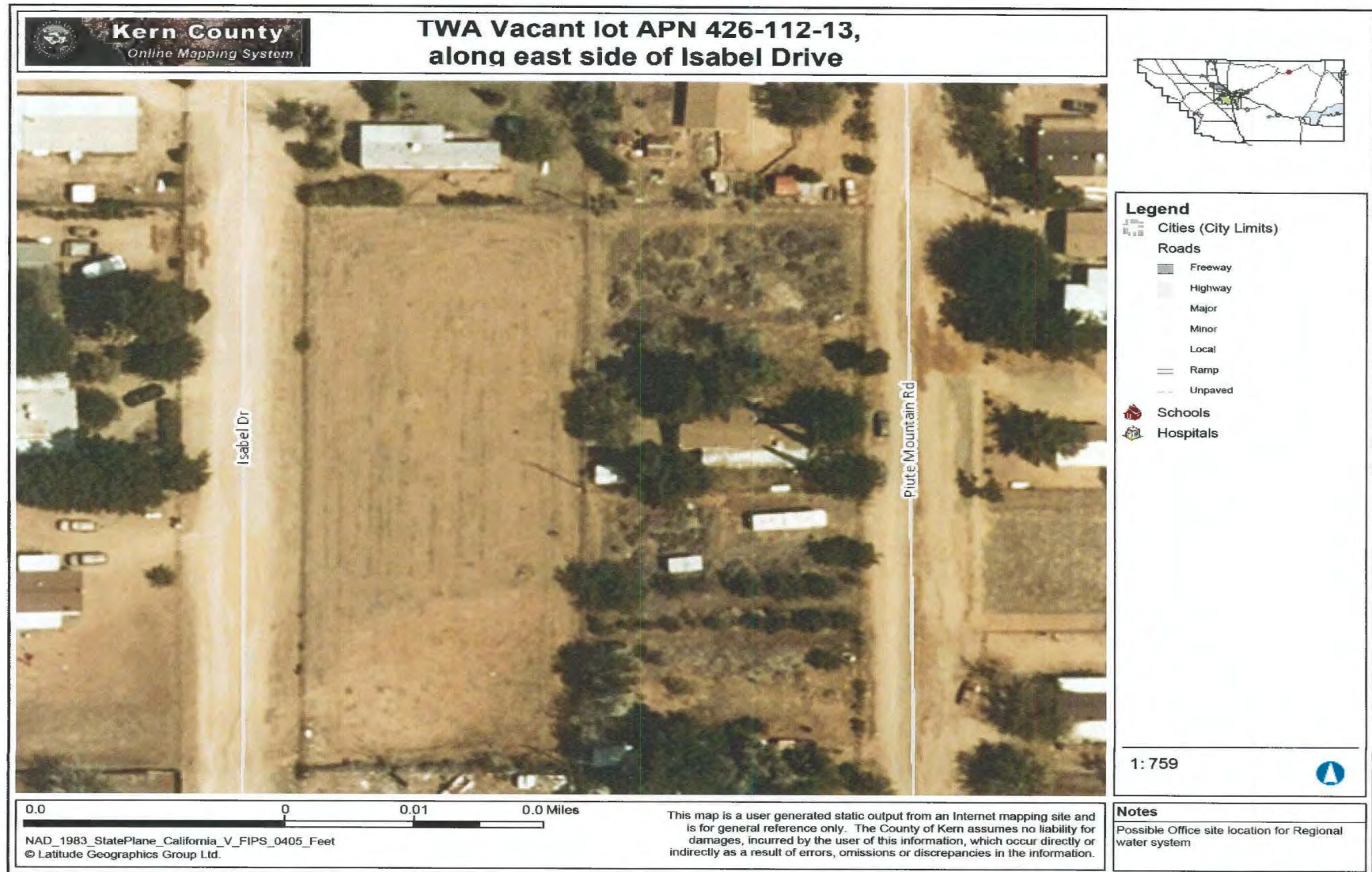


FIGURE 6
Aerial – Office Site 2

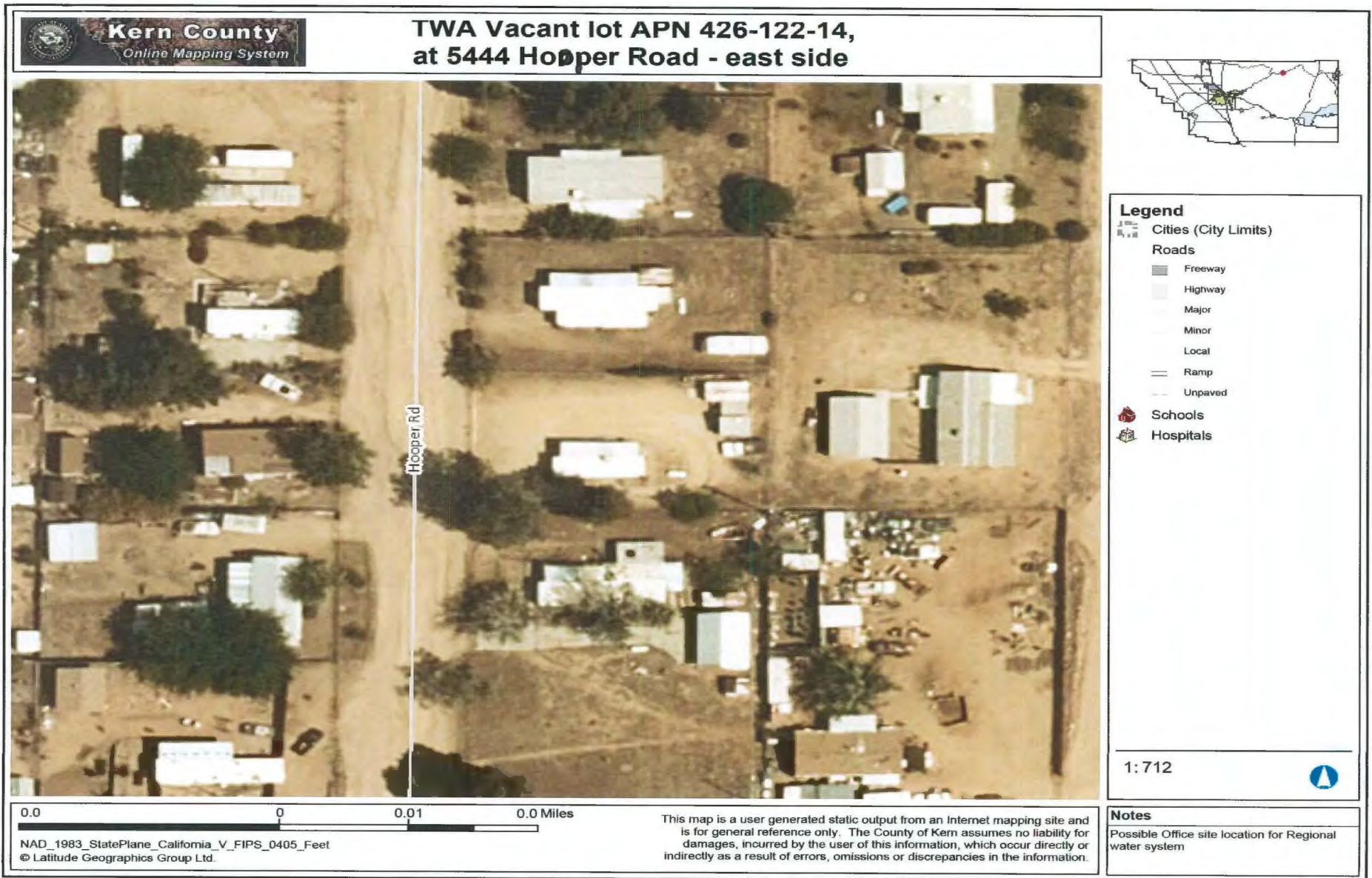
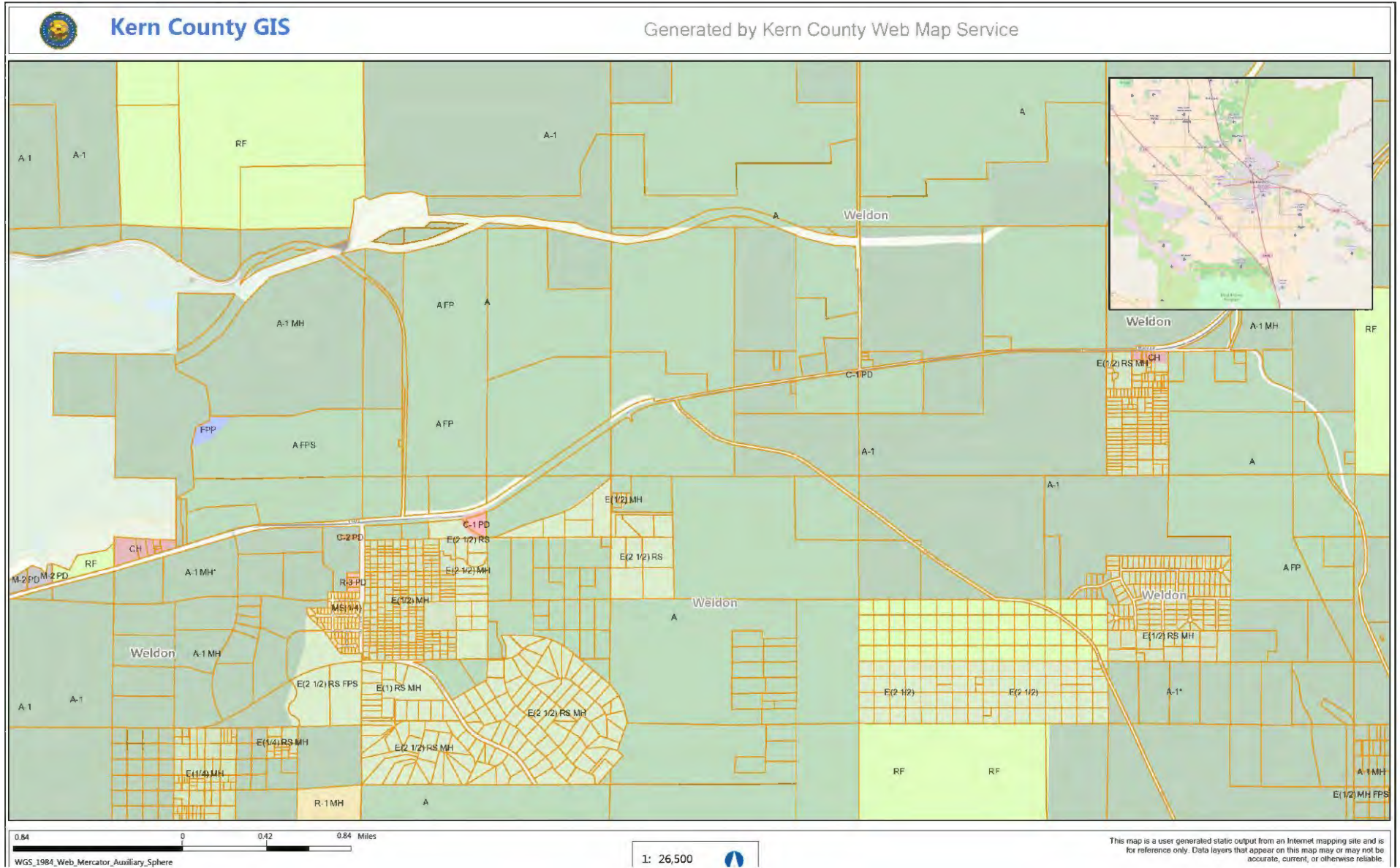


FIGURE 7
Land Use Designations Within Project Area



**FIGURE II-1
Farmland Map**

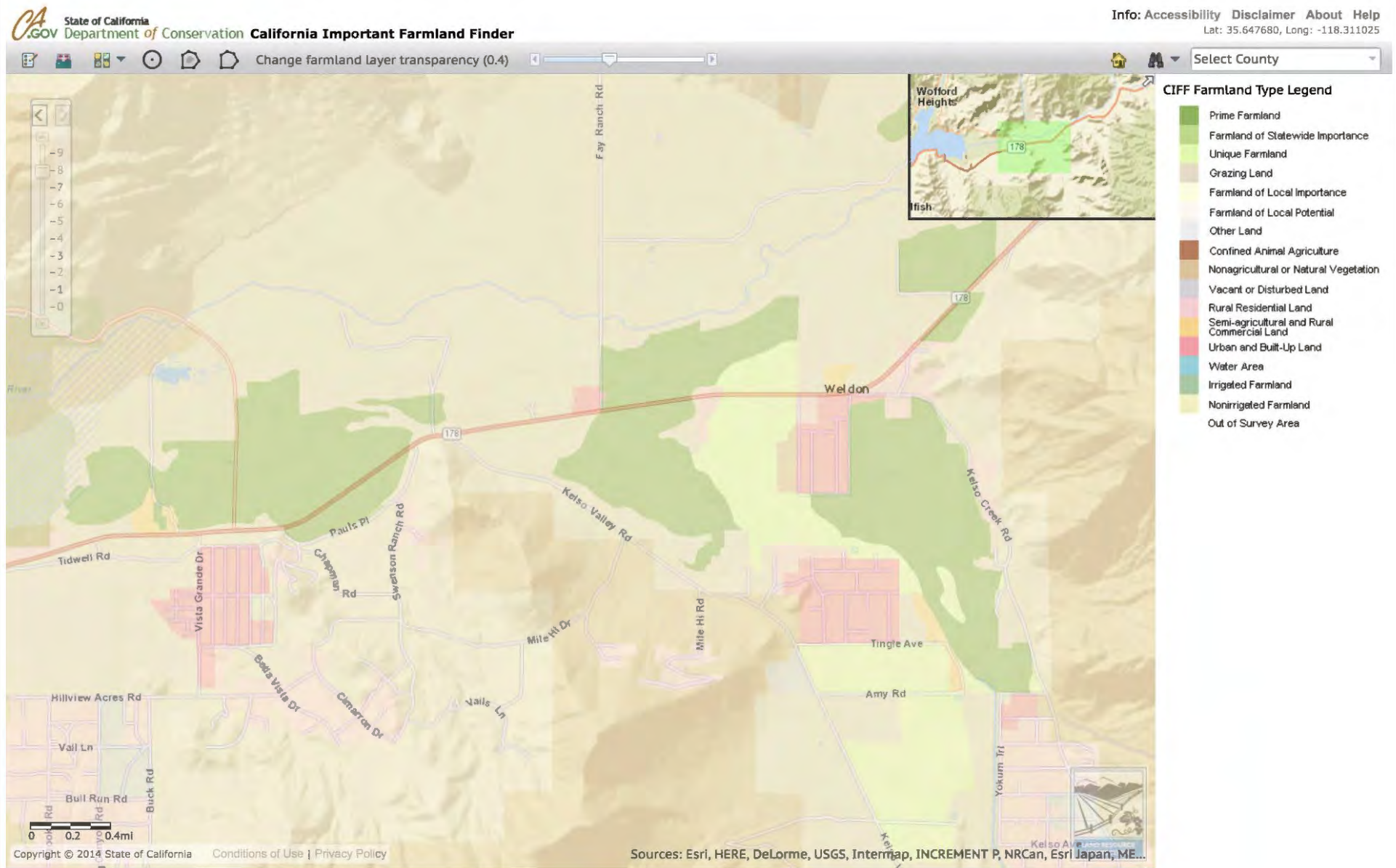
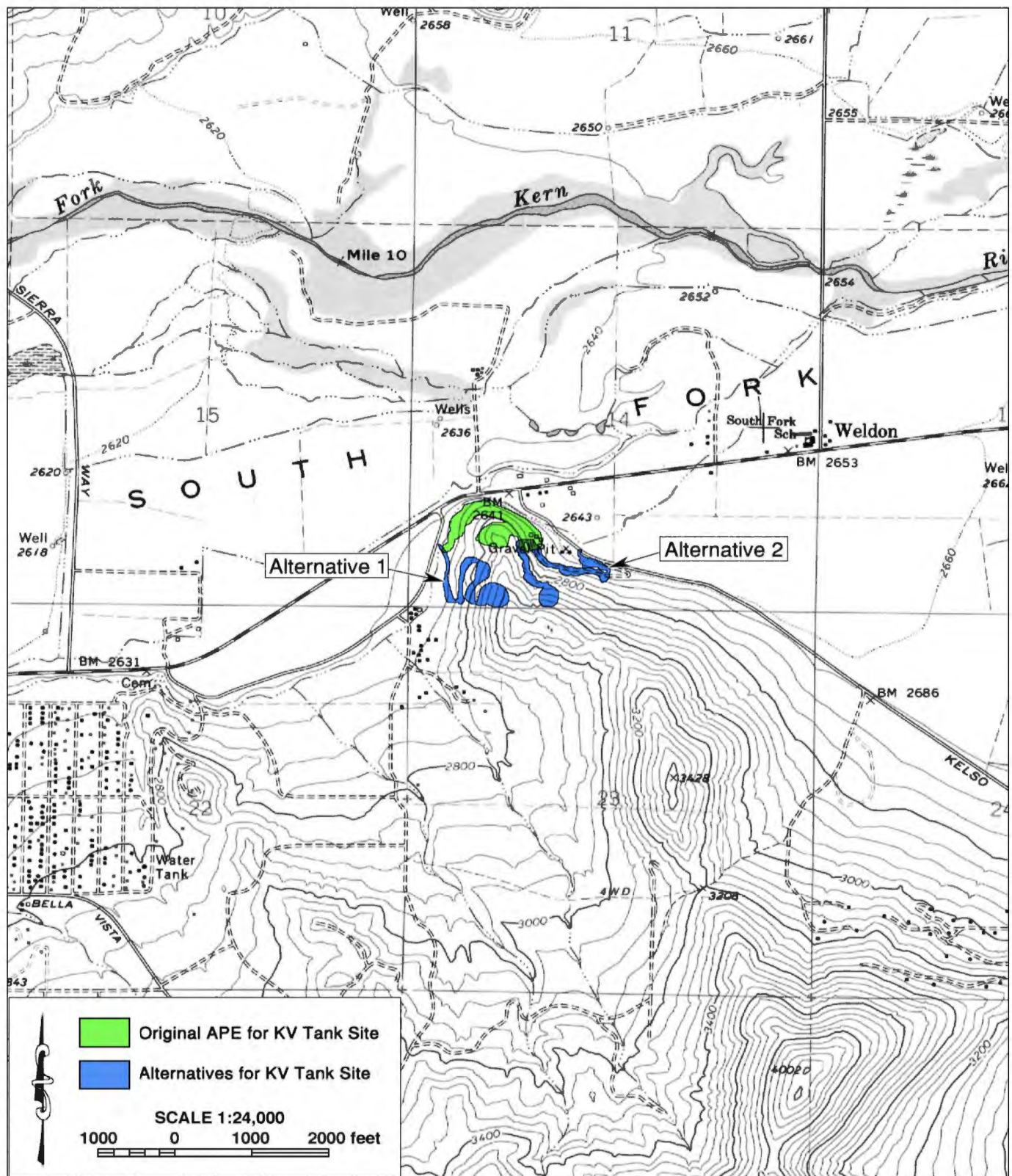
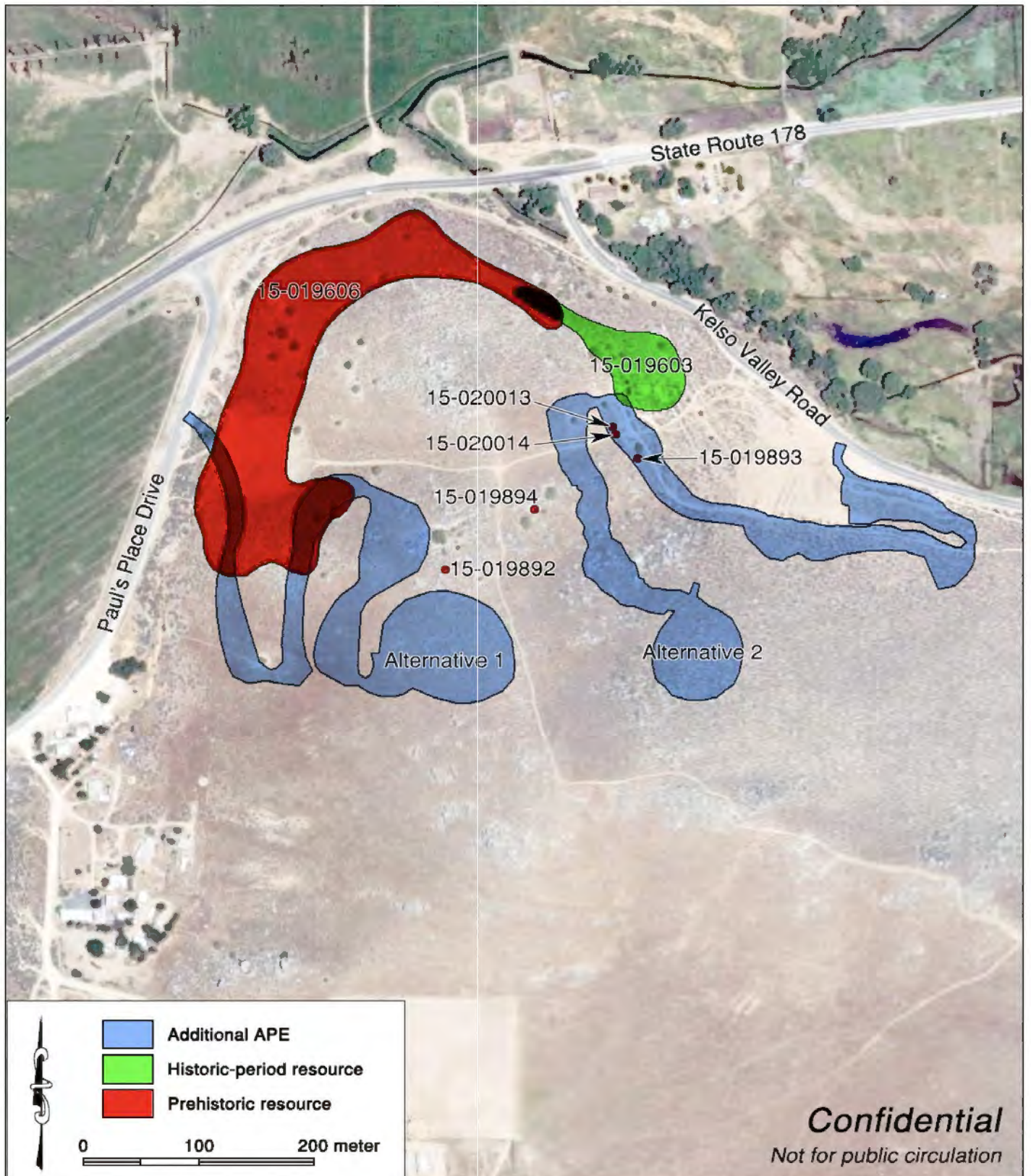


FIGURE V-1
Two Alternative for KV Tank Site



**FIGURE V-2
APE Boundaries**



**FIGURE VII-1
Alquist Priolo Map**

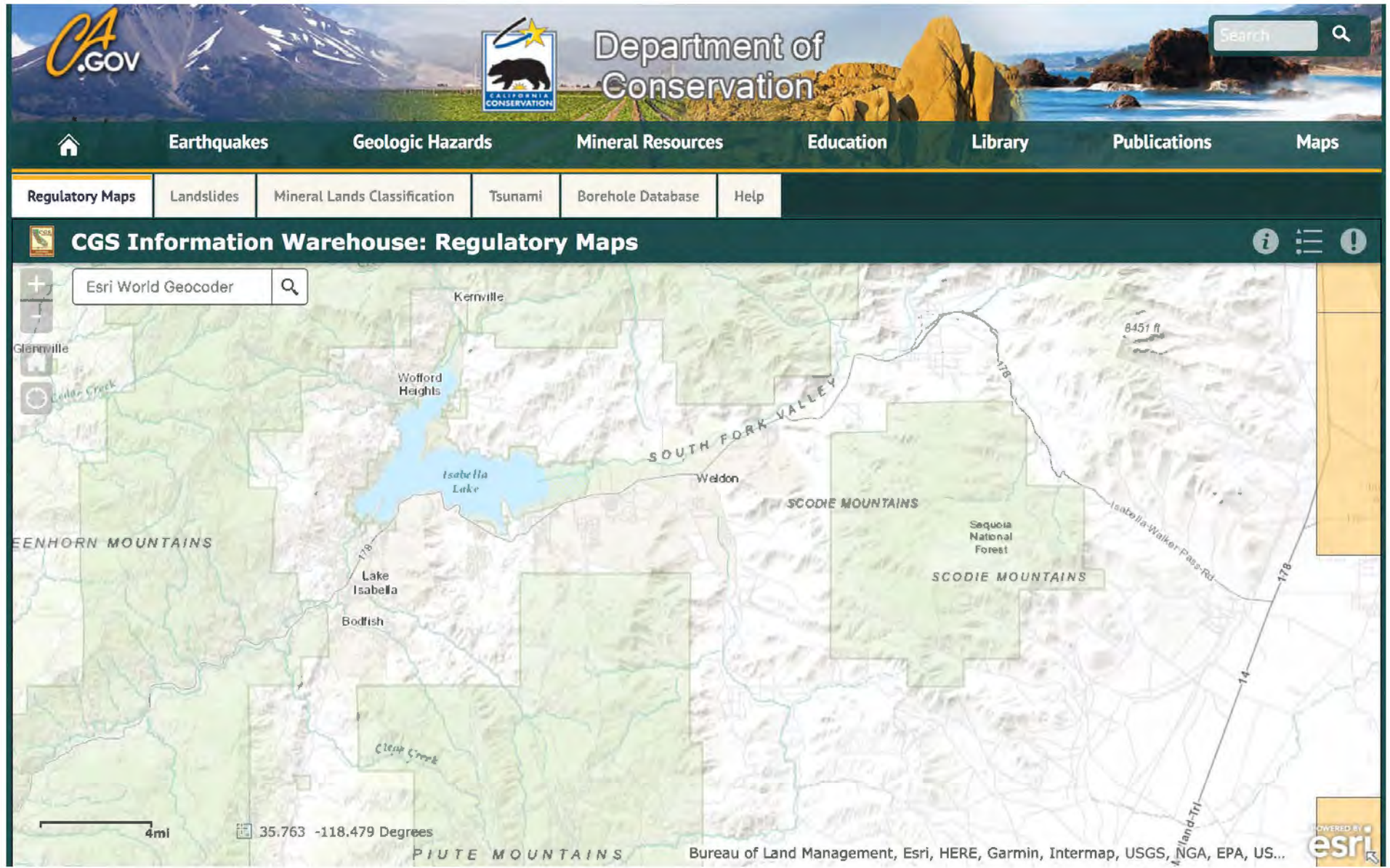
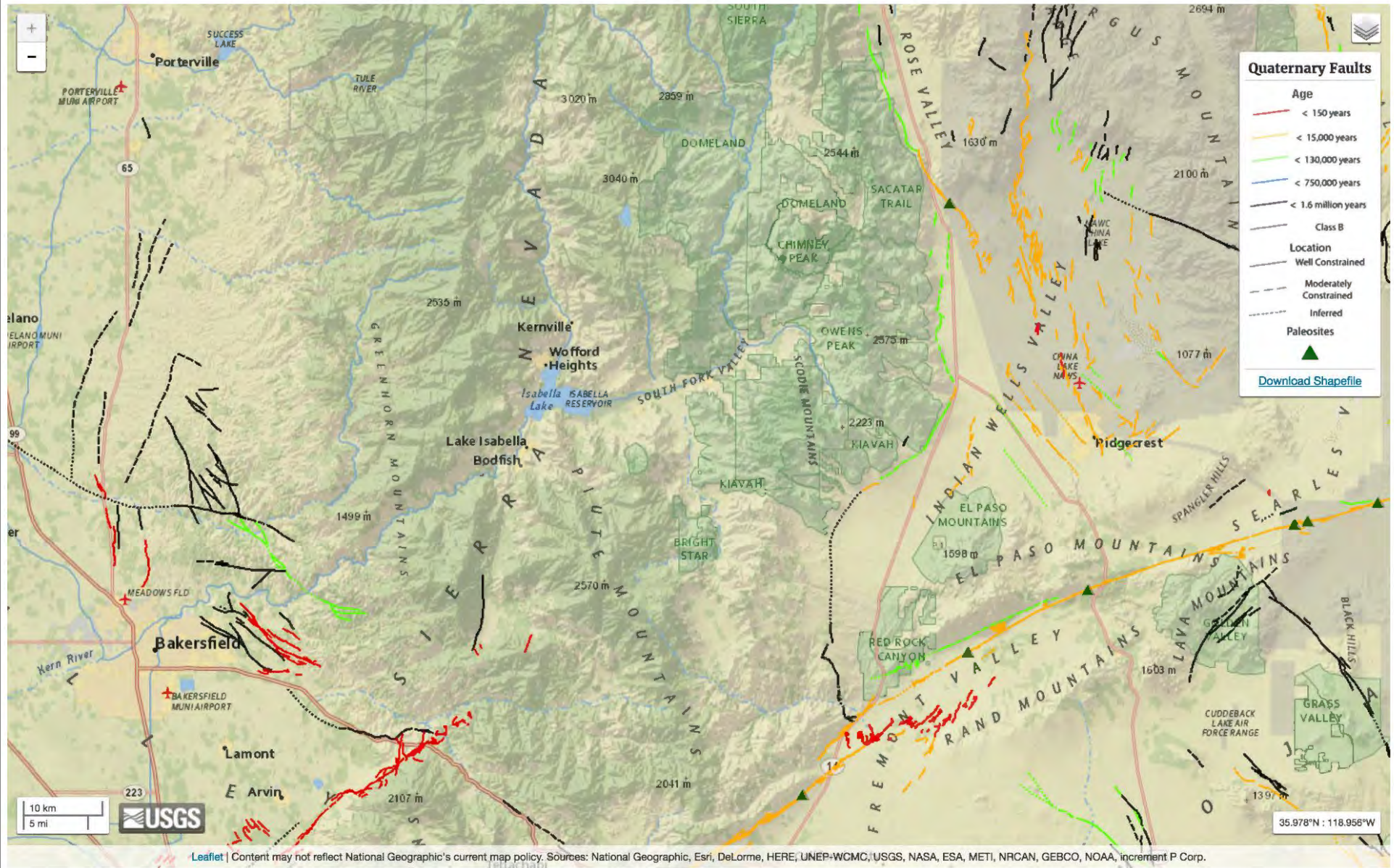
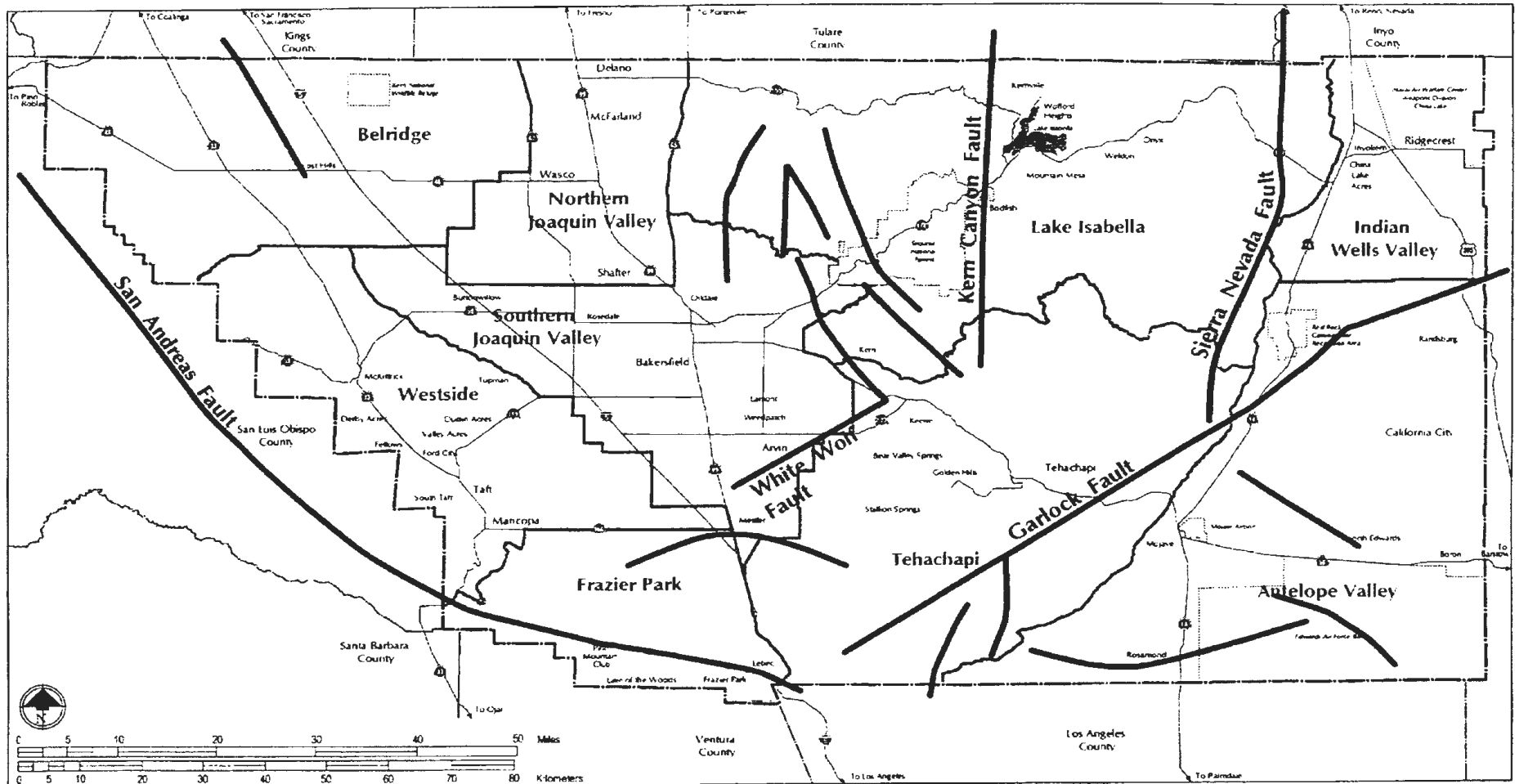


FIGURE VII-2
USGS Quarternary Faults



**FIGURE VII-3
Earthquake Faults Map**



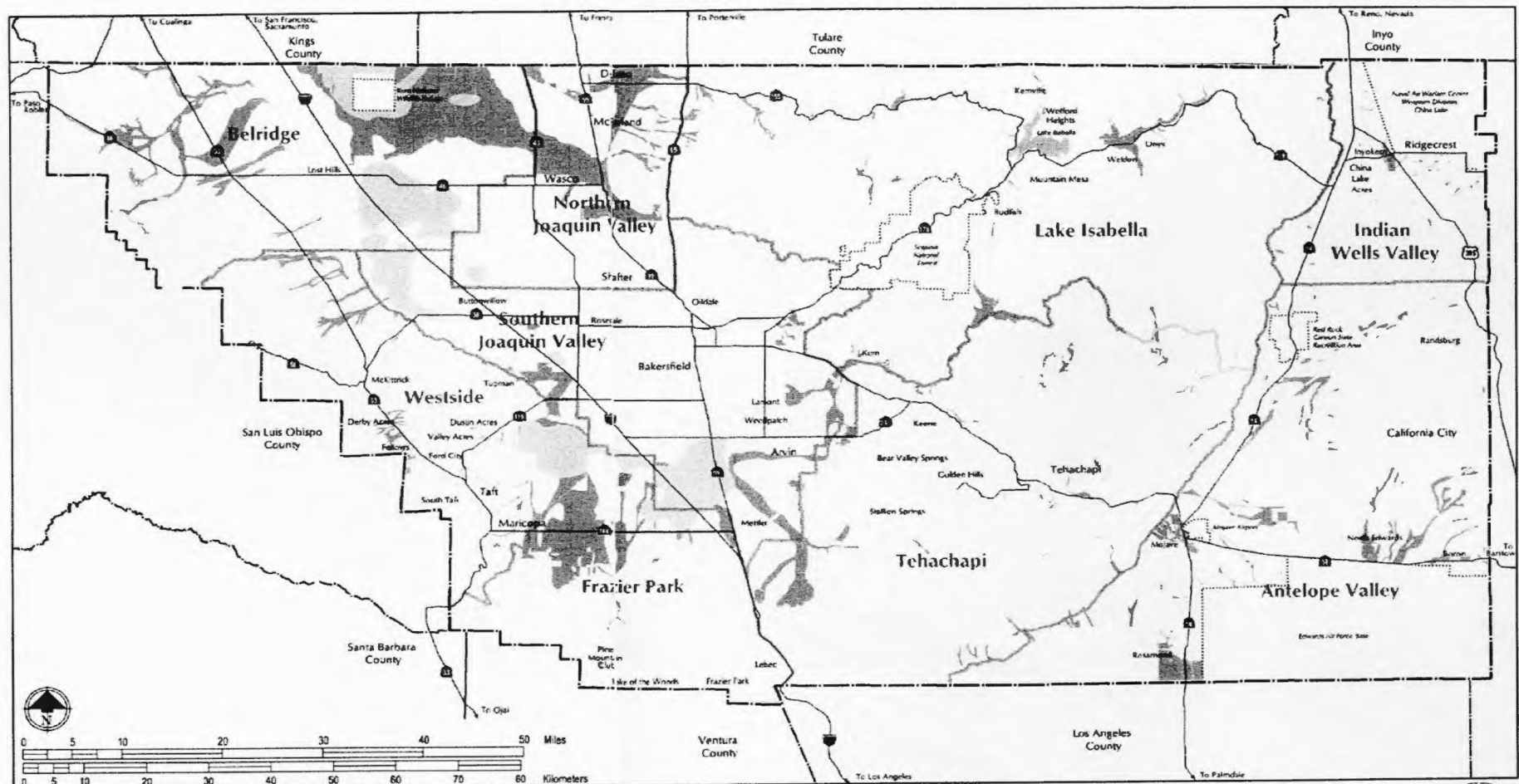
Sources: Kern County

Base Map Information

-  Highways and arterials
-  Kern County boundary
-  County boundaries
-  Regional Planning Area boundaries
-  Earthquake Faults

Westside: Regional Planning Area names

FIGURE VII-4
Overlay Constraints: Flooding and Shallow Groundwater



Sources: Kern Council of Governments, CBA, Inc., 2001

Base Map Information

- Highways and arterials
- Kern County boundary
- County boundaries
- Regional Planning Area boundaries
- Regional Planning Area names

Flood Hazards

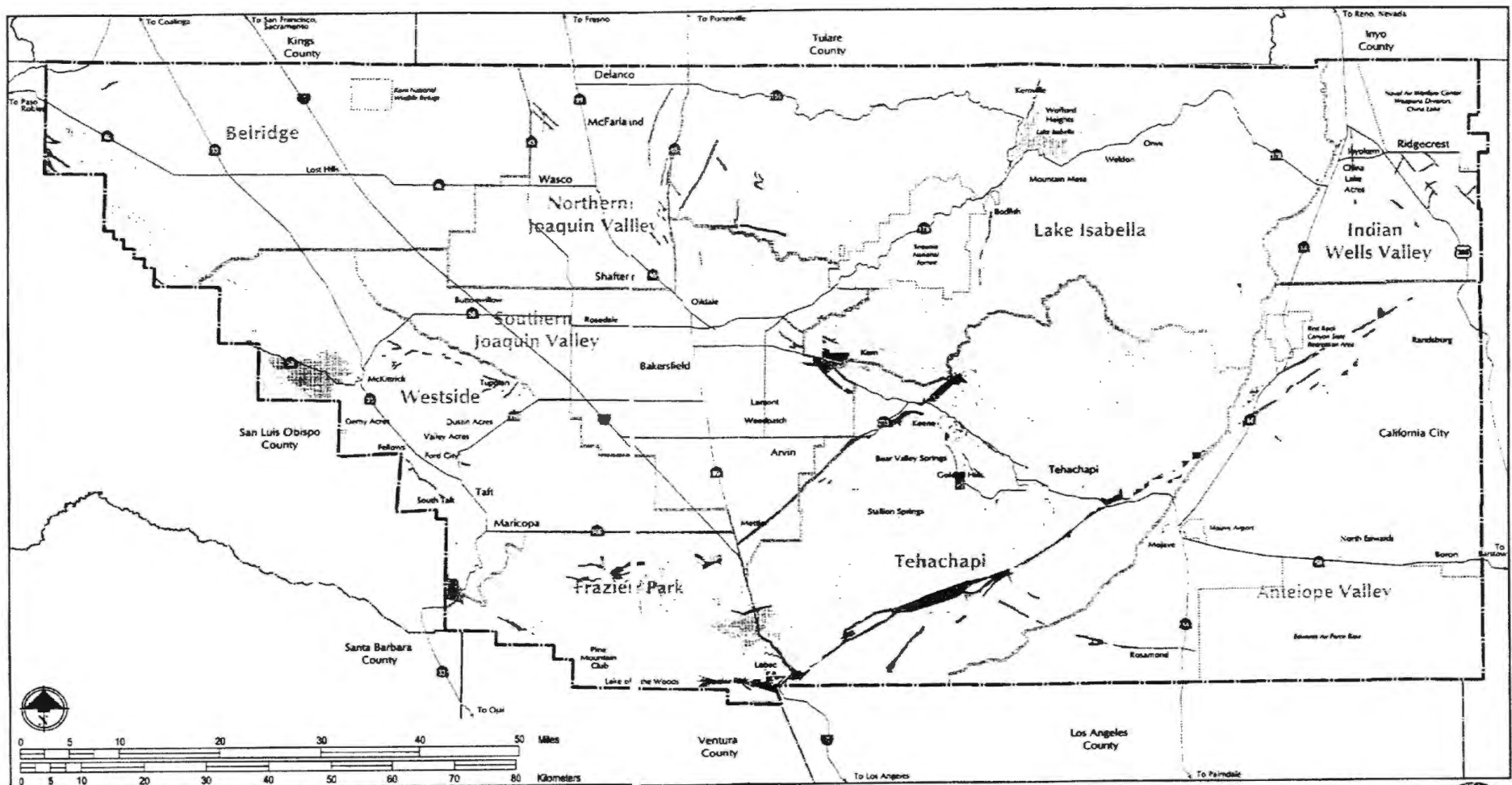
- Flood Hazards (2.5)

Shallow Ground Water

- Shallow Ground Water (2.3)

Note: Flood Hazards within the Metro Bakersfield areas are addressed separately through zoning or maps.

FIGURE VII-5
Overlay Constraints: Seismic, Landslide and Steep Slope Hazards



Sources: Kern Council of Governments, CBA, Inc., 2001

Base Map Information

- Highways and arterials
- Kern County boundary
- County boundaries
- Regional Planning Area boundaries
- Regional Planning Area names

Seismic Hazards

- Seismic Hazards (2.1)
- Seismic Hazards (2.1-4.4)

Landslides

- Landslides (2.2)

Steep Slopes

- Steep Slopes (2.4)

FIGURE VII-6
Land Subsidence

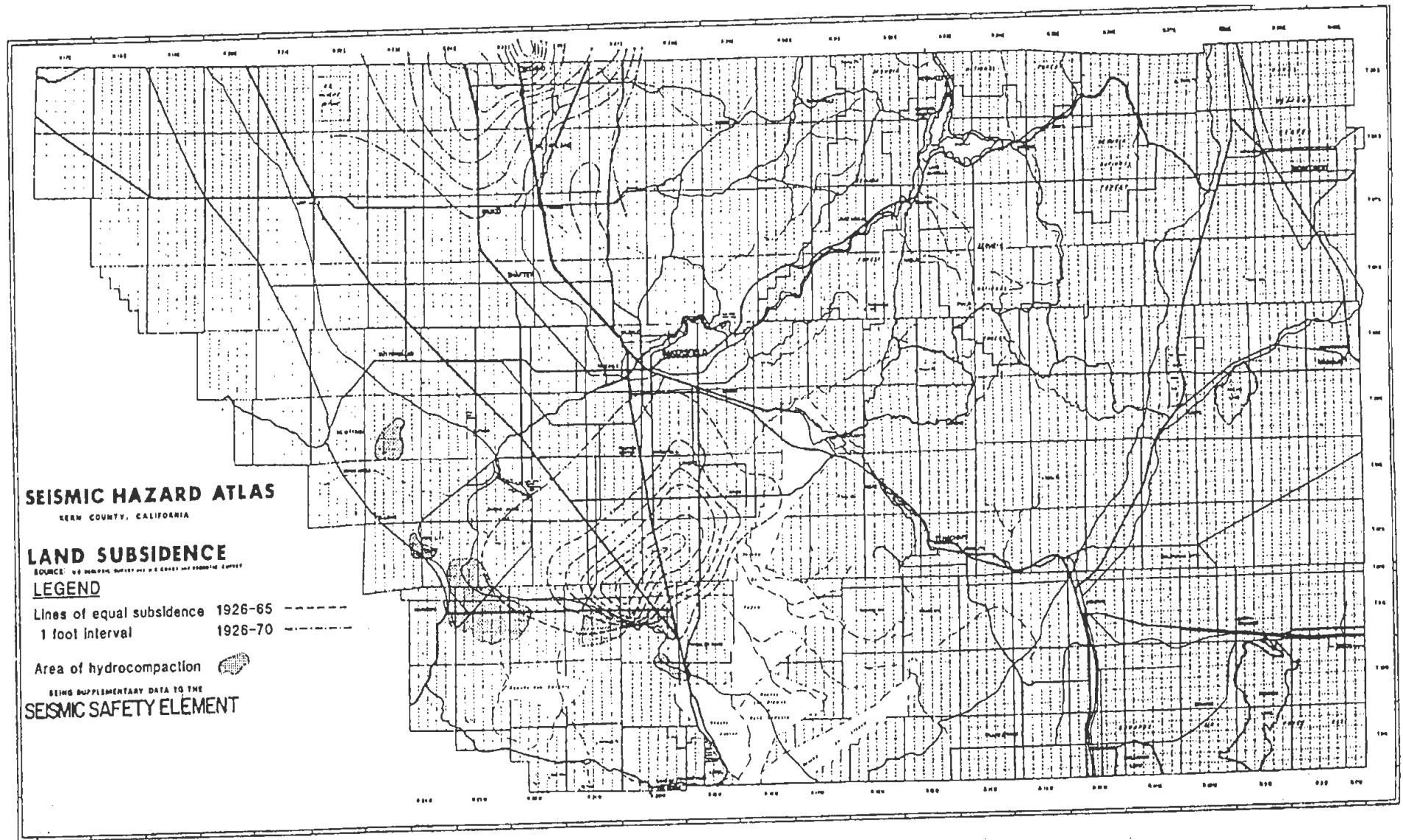


FIGURE IX-1
GeoTracker, page 1

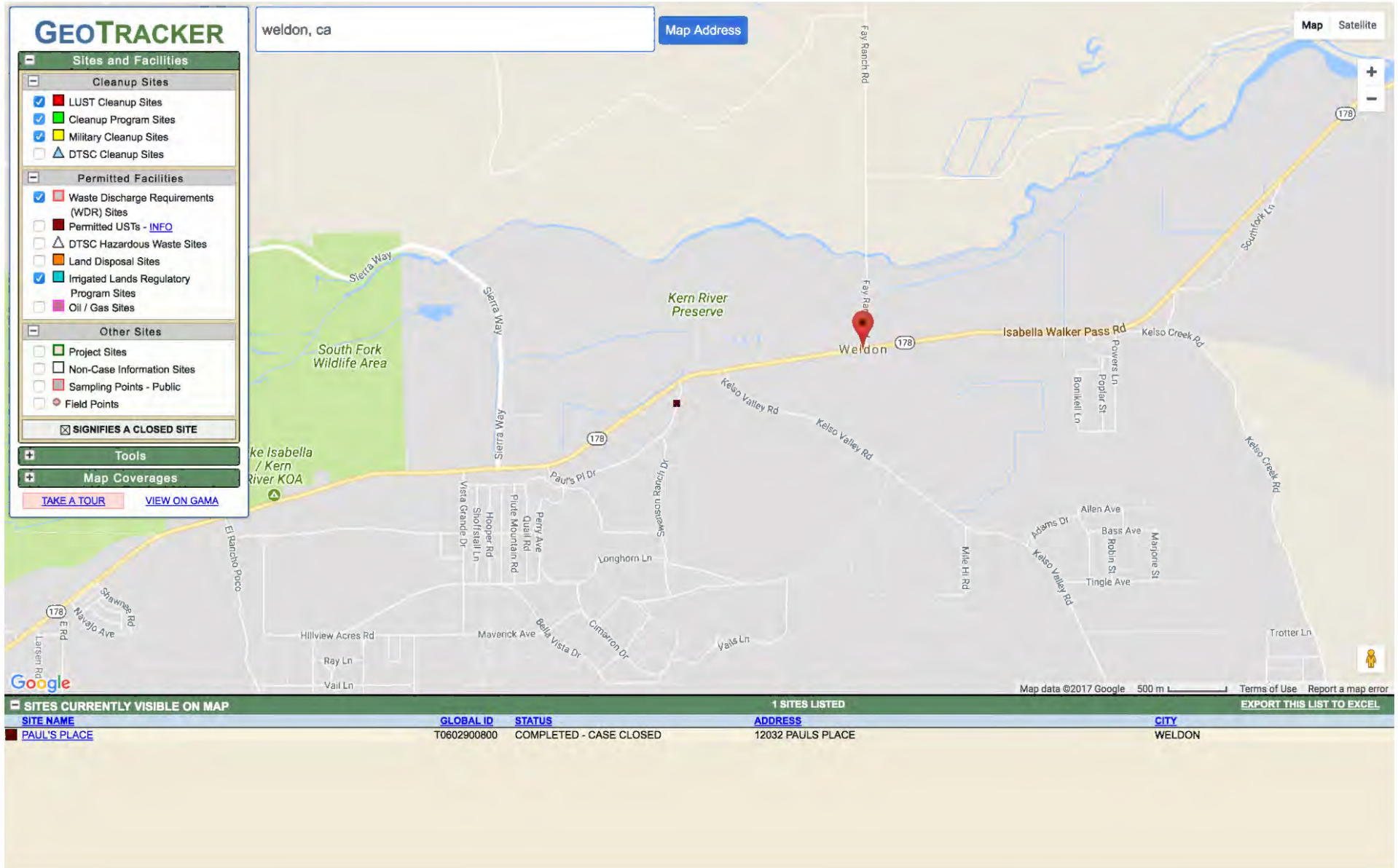





FIGURE IX-2
GeoTracker, page 2



STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER

ToolsReportsUST Case ClosuresInformation

PAUL'S PLACE (T0602900800) - [\(MAP\)](#)

SIGN UP FOR EMAIL ALERTS

12032 PAULS PLACE
WELDON, CA 93283
KERN COUNTY
LUST CLEANUP SITE
[PRINTABLE CASE SUMMARY / CSM REPORT](#)

[CLEANUP OVERSIGHT AGENCIES](#)
KERN COUNTY (**LEAD**) - CASE #: 520027
CASEWORKER: [MARTY BROWNFIELD](#)
CENTRAL VALLEY RWQCB (REGION 5F) - CASE #: 5T15000847
CASEWORKER: [JOHN WHITING](#)

SummaryCleanupAction ReportRegulatory ActivitiesEnvironmental Data (ESI)Site Maps / DocumentsCommunity InvolvementRelated Cases

Regulatory Profile

[PRINTABLE CASE SUMMARY](#)

[CLEANUP STATUS](#) - [DEFINITIONS](#)
COMPLETED - CASE CLOSED AS OF 7/7/1999 - [CLEANUP STATUS HISTORY](#)

[POTENTIAL CONTAMINANTS OF CONCERN](#)
GASOLINE
[FILE LOCATION](#)

[DWR GROUNDWATER SUB-BASIN NAME](#)
Kern River Valley (5-25)

[POTENTIAL MEDIA OF CONCERN](#)
AQUIFER USED FOR DRINKING WATER SUPPLY
[DESIGNATED BENEFICIAL USE\(S\)](#) - [DEFINITIONS](#)
MUN, AGR, IND

[USER DEFINED BENEFICIAL USE](#)
NONE SPECIFIED
[CALWATER WATERSHED NAME](#)
Kern River - Upper Kern - Kernville (554.22)

Site History

No site history available

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NOTES TO USERS

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To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **Floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

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Boundaries of the **floodways** were compiled at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

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NGS Information Services
NCEA, N15512
National Geodetic Survey
SSM-C-3, #5207
1315 East-West Highway
Silver Spring, MD 20910-3225

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

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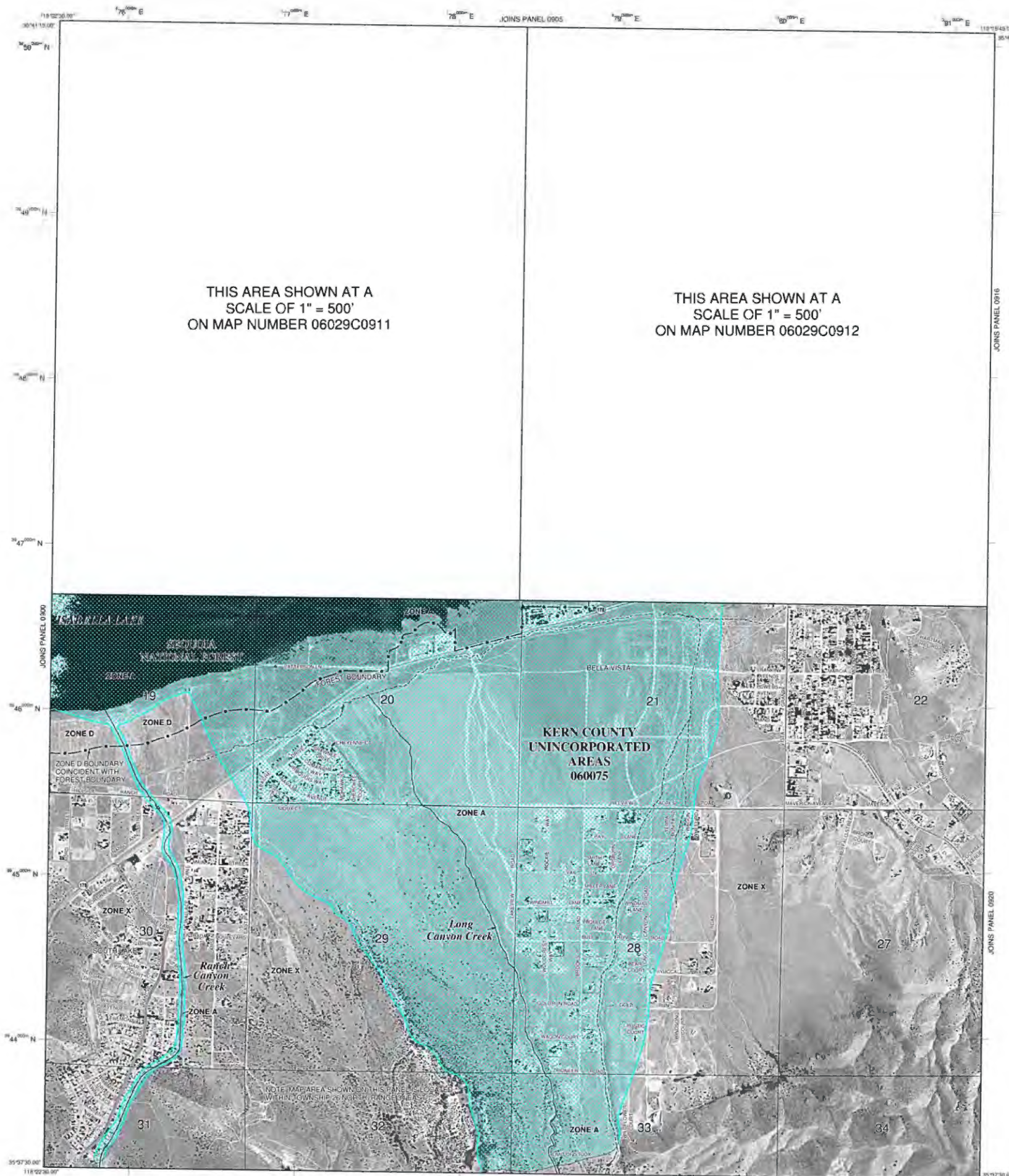
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If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov>.



THIS AREA SHOWN AT A
SCALE OF 1" = 500'
ON MAP NUMBER 06029C0911

THIS AREA SHOWN AT A
SCALE OF 1" = 500'
ON MAP NUMBER 06029C0912

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of abutment fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently determined to be inadequate. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Areas to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevation determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevation determined.

FLOODWAY AREAS IN ZONE AE

The Floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE D Areas determined to be outside the 0.2% annual chance floodplain. Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities
- Base Flood Elevation line and value; elevation in feet
- Base Flood Elevation value where uniform within zone; elevation in feet

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid ticks, zone 11
- 5000-foot grid ticks; California State Plane coordinate system, V zone (FPSZONE 0465), Lambert Conformal Conic
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

MAP REPOSITORIES

Refer to Map Repository list on Map Index

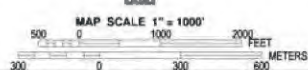
EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP

September 26, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-635-6624.



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0915E

FIRM FLOOD INSURANCE RATE MAP KERN COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 915 OF 4125
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:
COMMUNITY: KERN COUNTY
NUMBER: 06029C0915
PANEL: 0915
SUFFIX: E

Notice to Users: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
06029C0915E
EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

FIGURE X-2

NOTES TO USERS

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NGS Information Services
NCAA, NWCS12
National Geospatial Survey
SSMC-3, #5202
1315 East-West Highway
Silver Spring, MD 20910-3282

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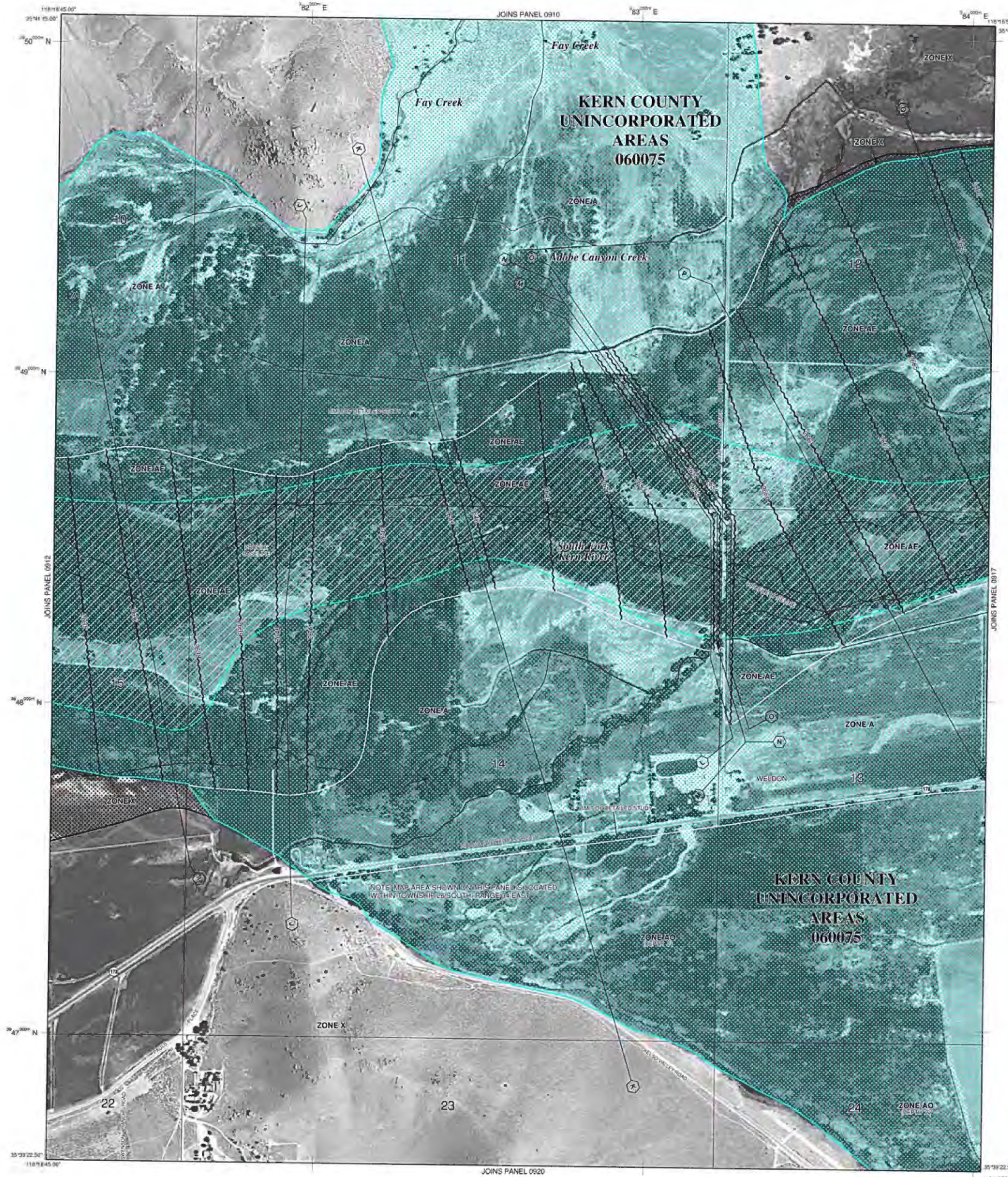
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- ZONE AO** Flood depths of 1 to 3 feet (usually short flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently deteriorated. Zone AR indicates that the former flood control system is being retained to provide protection from the 1% annual chance or greater flood.
- ZONE AR9** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

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- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary

Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
Base Flood Elevation line and value; elevation in feet.
Base Flood Elevation value where uniform within zone; elevation in feet.

* Referenced to the North American Vertical Datum of 1988 (NAVD 88).

— Cross section line

— Transient line

97°17'30" 32°22'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)

49°15'00" N 1000-meter Universal Transverse Mercator grid lines, zone 11

5000000 M 5000-foot grid ticks: California State Plane coordinate system, V zone (FIPS/ZONE 5405), Lambert Conformal Conic

DX5510 Bench mark (see explanation in Notes to Users section of this FIRM panel)

M1.5 River Mile

MAP REPOSITORIES

Refer to Map Repositories list on Map Index

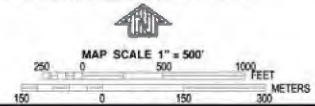
EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP

September 26, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFP

PANEL 0916E

FIRM

FLOOD INSURANCE RATE MAP

KERN COUNTY,

CALIFORNIA

AND INCORPORATED AREAS

PANEL 916 OF 4125

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY NUMBER PANEL SUFFIX

KERN COUNTY 060075 0916 E

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER

06029C0916E

EFFECTIVE DATE

SEPTEMBER 26, 2008

Federal Emergency Management Agency

FIGURE X-3

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only to landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on the FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The horizontal datum was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services
NCA, INKCS12
National Geodetic Survey
SSMC-3, #5202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3248, or visit its website at <http://www.ngs.noaa.gov>.

Base map information shown on this FIRM was derived from USDA - Farm Service Agency - Aerial Photography Field Office dated 2005 and from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1992 or later.

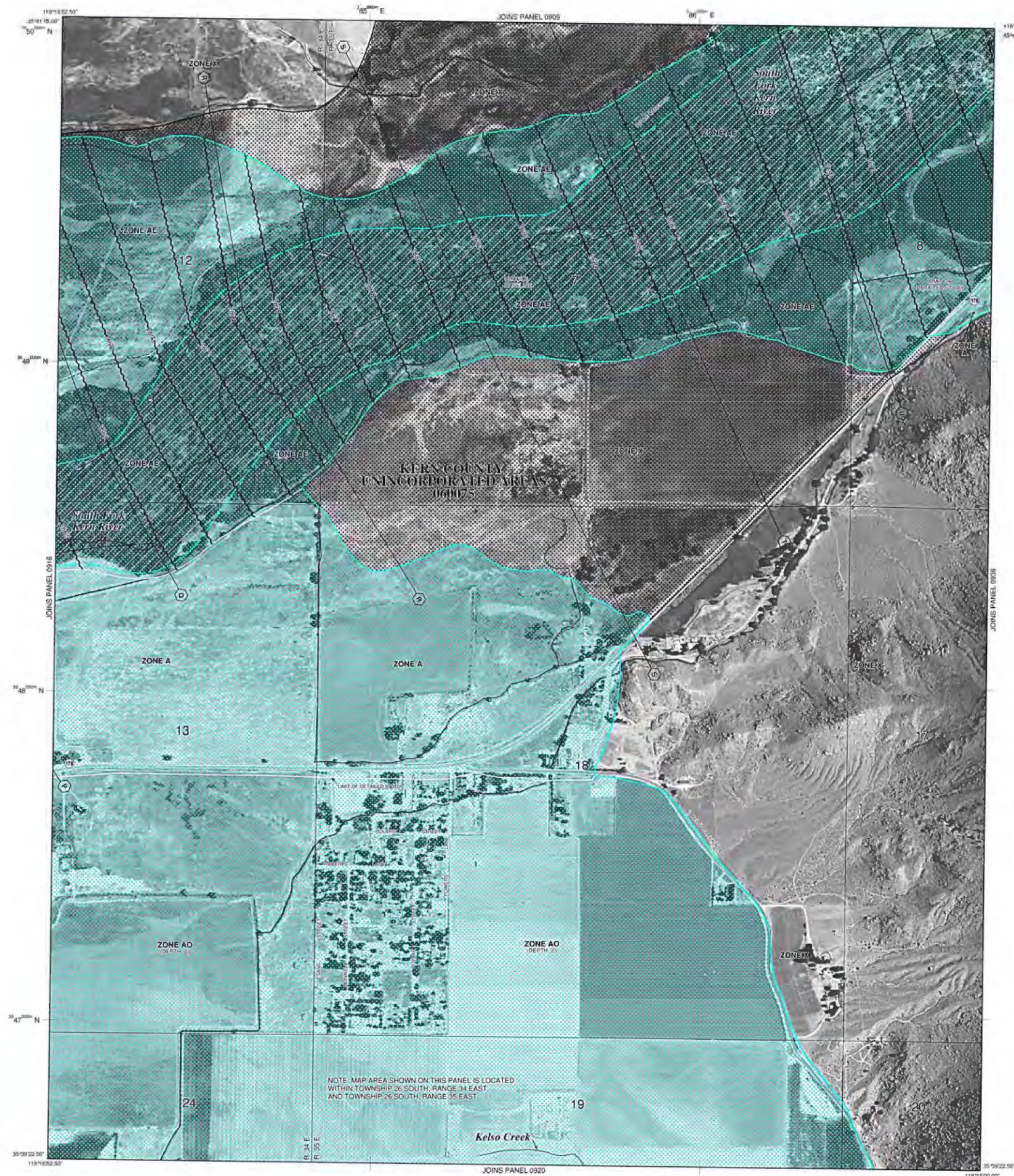
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at <http://www.msc.fema.gov>.

If you have **questions about this map** or **questions concerning the National Flood Insurance Program** in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov>.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, AS, V, and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.

ZONE A
No Base Flood Elevations determined.

ZONE AE
Base Flood Elevations determined.

ZONE AH
Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO
Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of shallow fan flooding, velocities also determined.

ZONE AR
Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently determined to be inadequate to provide protection from the 1% annual chance or greater flood.

ZONE AS
Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V
Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE
Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X
Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE D
Areas determined to be outside the 0.2% annual chance floodplain. Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary
0.2% annual chance floodplain boundary
Floodway boundary
Zone D boundary
CBRS and OPA boundary

Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
Base Flood Elevation line and value; elevation in feet
Base Flood Elevation value; where uniform within zone; elevation in feet

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

1:5000 Scale
Geographic coordinates (referenced to the North American Datum of 1983 (NAD 83))
1000-meter Universal Transverse Mercator grid ticks, NAD 83
5000-foot grid ticks: California State Plane coordinate system, V zone (FIPSZONE 5405), Lambert Conformal Conic

DX5510
Bench mark (see explanation in Notes to Users section of this FIRM panel)

M1.5
River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
September 26, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'
0 250 500 1000
FEET
0 150 300
METERS

NFIP

PANEL 0917E

FIRM
FLOOD INSURANCE RATE MAP
KERN COUNTY,
CALIFORNIA
AND INCORPORATED AREAS

PANEL 917 OF 4125
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
KERN COUNTY	060075	0917	E

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
06029C0917E

EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

FIGURE X-4

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1989 (NAVD 89). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The horizontal datum was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1989. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1989, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NCS Information Services
NCEM, NCEM-12
National Geodetic Survey
SSM-C-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-0282

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (800) 715-3248, or visit its website at <http://www.ngs.noaa.gov/>.

Base map information shown on the FIRM was derived from USDA - Farm Service Agency - Aerial Photography Field Office dated 2005 and from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1992 or later.

This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

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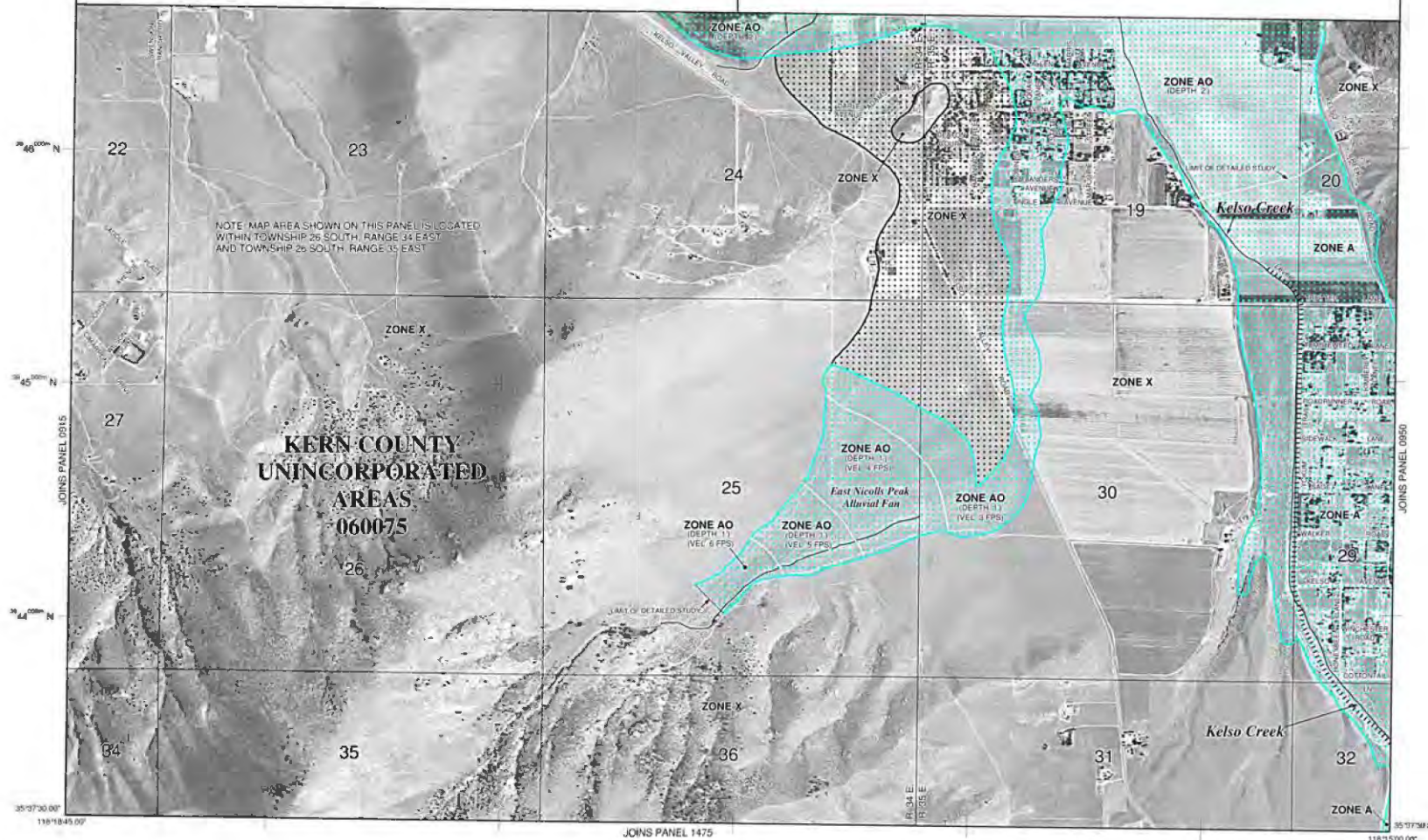
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If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov/>.

THIS AREA SHOWN AT A
SCALE OF 1" = 500'
ON MAP NUMBER 06029C0916

THIS AREA SHOWN AT A
SCALE OF 1" = 500'
ON MAP NUMBER 06029C0917



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, X, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of shallow fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently determined. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- ZONE D** Areas determined to be outside the 0.2% annual chance floodplain. Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different base flood elevations, flood depths in flood velocities
- Base Flood Elevation line and value; elevation in feet
- State Flood Elevation (note where uniform within panel; elevation in feet)

* Referenced to the North American Vertical Datum of 1989 (NAVD 89)

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid, zone 11
- 5000-foot grid, zone 11
- State Plane coordinate system, N zone (NAD 83)
- State Plane coordinate system, S zone (NAD 83)
- Bench mark (note explanation in Notes to Users section of the FIS report)
- Water Mile

MAP REPOSITORIES

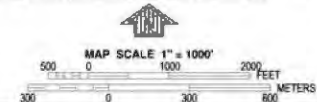
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP: September 26, 2008

EFFECTIVE DATES OF REVISIONS TO THIS PANEL:

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-358-9620.



MAP SCALE 1" = 1000'

PANEL 0920E

FIRM

FLOOD INSURANCE RATE MAP

KERN COUNTY,

CALIFORNIA

AND INCORPORATED AREAS

PANEL 920 OF 4125

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY: KERN COUNTY

NUMBER: 06029C0920E

SUFFIX: E

Notice to Users: The Map Number shown below should be used when posting map orders. The Community Number shown above should be used on insurance applications for the subject community.

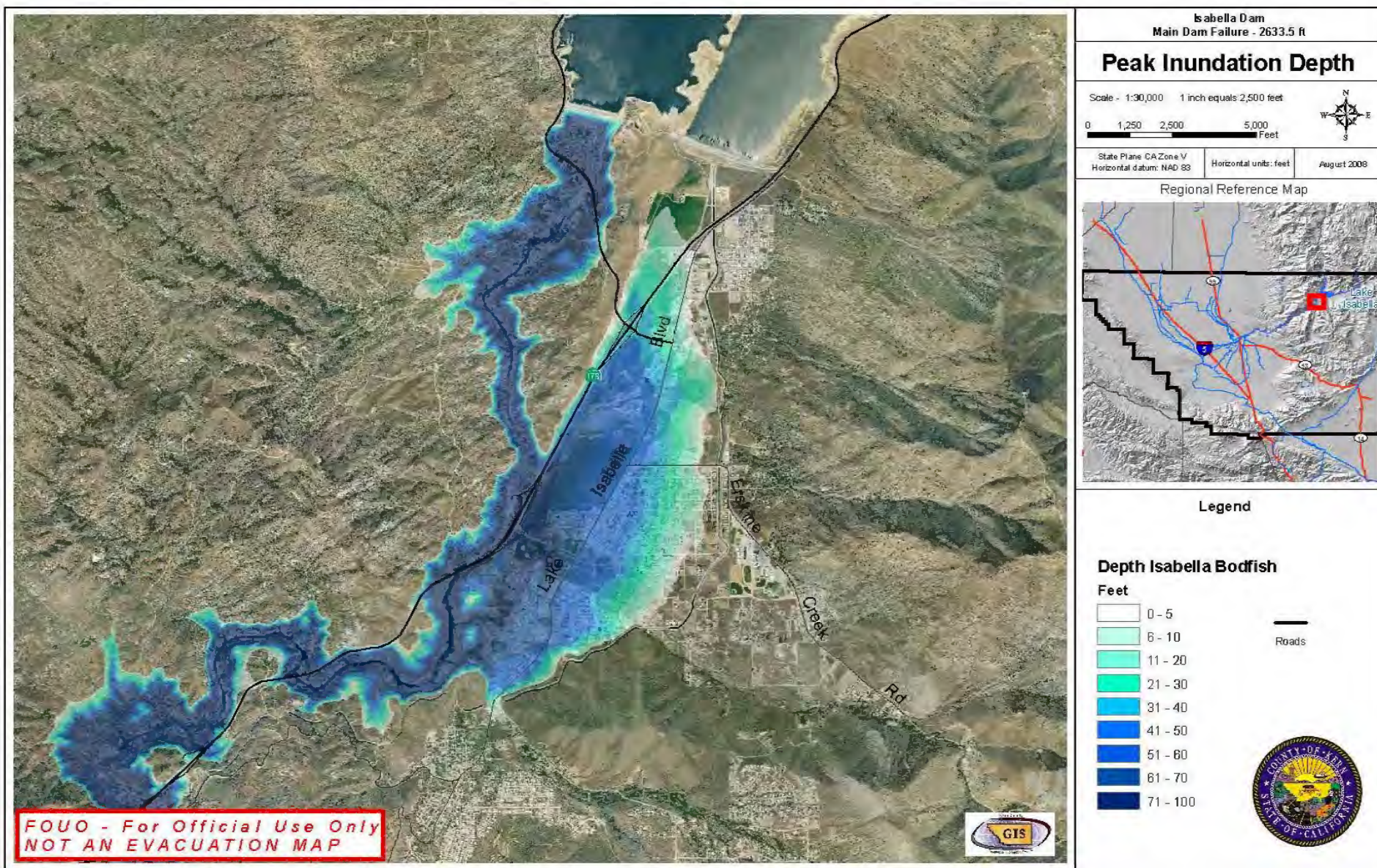
MAP NUMBER 06029C0920E

EFFECTIVE DATE SEPTEMBER 26, 2008

Federal Emergency Management Agency

FIGURE X-5

FIGURE X-6
Peak Inundation Depth



Mineral Resource Zones

