

**APPLICATION FOR CERTIFICATION 07-AFC-7  
SUPPLEMENT A**

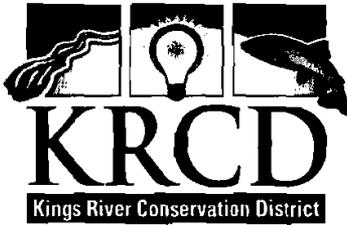


**KRCD COMMUNITY  
POWER PLANT**

*Energy for our Future*

**Submitted to:  
CALIFORNIA ENERGY COMMISSION**

**NOVEMBER 2007**



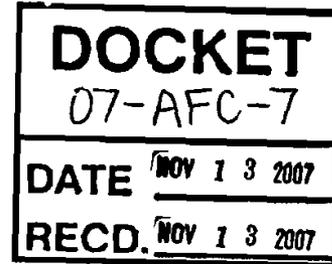
4886 East Jensen Avenue  
Fresno, California 93725

Tel: 559-237-5567  
Fax: 559-237-5560

[www.krccd.org](http://www.krccd.org)

November 13, 2007

Mr. B.B. Blevins  
Executive Director  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814



Re: Supplemental Information in Response to CEC Data Adequacy Request for the Kings River Conservation District Community Power Plant Application for Certification (07-AFC-07)

Dear Mr. Blevins:

Kings River Conservation District (KRCOD) hereby submits this supplemental information in response to CEC data adequacy requests for the Kings River Conservation District Community Power Plant (KRCOD CPP) Application for Certification (AFC). The KRCOD CPP is a nominal 565 megawatt (MW) natural gas-fired combined cycle base load power plant to be located near the City of Parlier, in Fresno County.

As General Manager of KRCOD, I hereby attest, under penalty of perjury, that the contents of this supplemental filing are true and accurate to the best of my knowledge. Please contact me at (559) 237-5567 or our consultant, Amy Cuellar of Navigant Consulting at (916) 631-3211 if you have any questions.

Sincerely,

David Orth  
General Manager,  
Kings River Conservation District

DO/JR/dr

File: 536.02  
L07-0336

**BOARD OF DIRECTORS**

Division I, NORMAN B. WALONER, Dinuba • Division II, MASARU YOSHIMOTO, Fowler • Division III, GILDO NONINI, Fresno • Division IV, MARK McKEAN, Riverdale • Division V, BRENT L. GRAHAM, Hanford  
Division VI, CEIL W. HOWE, JR., Stratford • At Large, ALVIN J. QUIST, Fresno

**OFFICERS**

MARK McKEAN, President • BRENT L. GRAHAM, Vice President • DAVID ORTH, General Manager-Secretary • RANDY SHILLING, Auditor • EDWARD J. TIEDEMANN, Attorney-At-Law

**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**TABLE OF CONTENTS**

---

<b><u>Data Request</u></b>	<b><u>Page</u></b>
<b>AIR QUALITY</b>	
AIR-1 .....	AIR 1
AIR-2 .....	AIR 2
AIR-3 .....	AIR 3
AIR-4 .....	AIR 7
AIR-5 .....	AIR 8
AIR-6 .....	AIR 16
AIR-7 .....	AIR 17
AIR-8 .....	AIR 18
AIR-9 .....	AIR 19
<b>BIOLOGICAL RESOURCES</b>	
BIO-1.....	BIO 1
BIO-2.....	BIO 3
BIO-3.....	BIO 17
BIO-4.....	BIO 19
<b>CULTURAL RESOURCES</b>	
CUL-1.....	CUL 1
CUL-2.....	CUL 2
<b>PROJECT OVERVIEW</b>	
PO-1 .....	Po 1
PO-2 .....	Po 2
PO-3 .....	Po 3
<b>SOCIOECONOMICS</b>	
SOCIO-1.....	SOCIO 1
SOCIO-2.....	SOCIO 2
SOCIO-3.....	SOCIO 3
<b>SOILS</b>	
SOILS-1 .....	SOILS 1
SOILS-2 .....	SOILS 2
SOILS-3 .....	SOILS 5



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**TRAFFIC & TRANSPORTATION**

TRAFFIC-1 .....	TRAFFIC 1
TRAFFIC-2 .....	TRAFFIC 4
TRAFFIC-3 .....	TRAFFIC 5
TRAFFIC-4 .....	TRAFFIC 6
TRAFFIC-5 .....	TRAFFIC 7
TRAFFIC-6 .....	TRAFFIC 8
TRAFFIC-7 .....	TRAFFIC 9

**TRANSMISSION SYSTEM DESIGN**

TSD-1 .....	TSD 1
TSD-2 .....	TSD 2

**VISUAL RESOURCES**

VIS-1 .....	Vis 1
-------------	-------



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Air Quality**

**Data Request Air-1:**

Please provide specific sources of emission reduction credits that would be used to mitigate the project emissions impacts. Response to this item can be incorporated in the responses to the information requested to satisfy Appendix B (g) (8) J (ii) and Appendix B (g) (8) (K).

**Response:**

The information requested was provided as part of the Confidential Offset Strategy for the KRCD CPP, which was provided to the CEC under Confidential Cover on October 10, 2007.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Air Quality**

**Data Request Air-2:**

Please provide a copy of the application for Authority to Construct and Permit to Operate submitted to the San Joaquin Valley Air Pollution Control District (District).

**Response:**

Five copies of the Application to Construct and Permit to Operate which were submitted to the San Joaquin Valley Air Pollution Control District, were docketed with the CEC on October 17, 2007.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Air Quality**

**Data Request Air-3:**

Please provide the District's written notification that the project is complete for permit processing, i.e. a "Completeness Notification".

**Response:**

The Completeness Notification from the San Joaquin Valley Air Pollution Control District is included as Attachment Air-3.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Attachment Air-3**

**Completeness Notification**



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**



Thor Hibbeler  
Navigant Consulting  
1910 Fell Street  
San Francisco, CA 94117

**Re: Notice of Receipt of Complete Application  
Project Number: C-1073935**

Dear Mr. Hibbeler:

The District has received your Authority to Construct application for a 565 MW combined cycle base load power plant, located at 9664 S. Bethel Ave in Selma, CA. Based on our preliminary review, the application appears to be complete. This means that your application contains sufficient information to proceed with our analysis. However, during processing of your application, the District may request additional information to clarify, correct, or otherwise supplement, the information on file.

Please note, preliminary calculations show that emissions offsets will be required for this project. The District requires that specific Emission Reduction Credit (ERC) certificates, along with justification that the facility has the right to use said ERCs, be proposed for all projects requiring emissions offsets. You have provided an emissions Offset Strategy that lists the sources of potential ERCs to be used for this project. The District has deemed this sufficient in satisfying the ERC proposal requirement for a completeness determination. However, the District will not be able to finalize the Determination of Compliance (DOC) until specific ERC certificate numbers that will be used to offset the project's emissions have been identified.

We will begin processing your application as soon as possible. In general, complete applications are processed on a first-come first-served basis.

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

---

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org)

**Southern Region**  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2373  
Tel: (661) 326-6900 FAX: (661) 326-6985

Printed on recycled paper. 



**KRCD COMMUNITY  
POWER PLANT**

*Energy for our Future*

AIR 5

**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

Mr. Hibbeler  
Page 2

**Please note that this letter is not a permit and does not authorize you to proceed with your project.** Final approval, if appropriate, will be in the form of an "Authority to Construct" permit after application processing is complete. If you have any questions, please contact Mr. Arnaud Marjollet at (559) 230-5900.

Sincerely,

David Warner  
Director of Permit Services



Arnaud Marjollet  
Permit Services Manager

DW:js

cc: David Orth, General Manager KRCD



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Air Quality**

**Data Request Air-4:**

Please provide the heat rate and capacity factor for the proposed facility.

**Response:**

The Heat Rate as identified in Chapter 3 – Engineering, Section 3.3.1, is 6,757 and 6,936 British thermal units per kilowatt hour for Siemens and General Electric, respectively. The capacity factor as identified in Chapter 3 – Engineering, Section 3.3.2 is 92 to 98 percent.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Air Quality**

**Data Request Air-5:**

Please provide an analysis showing the total dissolved solid (TDS) content of the cooling tower recirculation water.

**Response:**

The numerical value of the TDS concentration, which is 1,800 milligrams per liter (mg/l) is found in Table 1 of Appendices 8.1-5a & 8.1-5b, Operations Phase Emissions. Additional information regarding the cooling tower is also included in Attachment Air-5.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Attachment Air-5**

**Information Regarding KRCD CPP Cooling Tower**



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**SANGER**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>
Alkalinity (as CaCO3)	89	mg/L
Aluminum (Al)	0.49	mg/L
Ammonia (NH3-N)	0	mg/L
Antimony (Sb)	0	mg/L
Arsenic (As)	0	mg/L
Barium (Ba)	0.052	mg/L
Beryllium (Be)	0	mg/L
Bicarbonate (as CaCO3)	89	mg/L
Boron (B)	0.2	mg/L
Bromide (Br)	0.031	mg/L
Cadmium (Cd)	0	mg/L
Calcium (Ca)	24	mg/L
Carbonate (as CaCO3)	0	mg/L
Chloride (Cl)	64	mg/L
Chromium - Total (Cr)	0	mg/L
Conductivity - Specific (EC)	600	µmho/cm
Copper (Cu)	0.1	mg/L
Cyanide (CN)	0	mg/L
Fluoride	0.2	mg/L
Hardness (as CaCO3)	130	mg/L
Hydroxide (as CaCO3)	0	mg/L
Iron (Fe)	0.3	mg/L
Lead (Pb)	0	mg/L
Lithium (L)	0	mg/L
Magnesium (Mg)	17	mg/L
Manganese (Mn)	0.06	mg/L
MBAS, Calculated as LAS, mol wt 340	0.062	mg/L
Mercury (Hg)	0	mg/L
Molybdenum (Mo)	0.011	mg/L
Nickel (Ni)	0	mg/L
Nitrate (NO3)	86	mg/L
Nitrite (NO2-N)	0.3	mg/L
pH	7.6	
Phosphorous - total (P)	4	mg/L
Potassium (K)	12	mg/L
Selenium (Se)	0	mg/L
Silica - total (SiO2)	35	mg/L
Silver (Ag)	0	mg/L
Sodium (Na)	71	mg/L
Strontium (Sr)	0.16	mg/L
Sulfate (SO4)	44	mg/L
Thallium (Tl)	0	mg/L



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**SANGER**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>
Total Dissolved Solids (TDS)	420	mg/L
Turbidity	4.6	NTU
Zinc (Zn)	0.13	mg/L



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**PARLIER**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>
Alkalinity (as CaCO3)	190	mg/L
Aluminum (Al)	0.56	mg/L
Ammonia (NH3-N)	22	mg/L
Antimony (Sb)	0	mg/L
Arsenic (As)	0.0025	mg/L
Barium (Ba)	0	mg/L
Beryllium (Be)	0	mg/L
Bicarbonate (as CaCO3)	190	mg/L
Boron (B)	0.23	mg/L
Bromide (Br)	0.078	mg/L
Cadmium (Cd)	0	mg/L
Calcium (Ca)	22	mg/L
Carbonate (as CaCO3)	0	mg/L
Chloride (Cl)	45	mg/L
Chromium - Total (Cr)	0	mg/L
Conductivity - Specific (EC)	610	µmho/cm
Copper (Cu)	0.076	mg/L
Cyanide (CN)	0	mg/L
Fluoride	0	mg/L
Hardness (as CaCO3)	65	mg/L
Hydroxide (as CaCO3)	0	mg/L
Iron (Fe)	0.27	mg/L
Lead (Pb)	0	mg/L
Lithium (L)	0	mg/L
Magnesium (Mg)	2.5	mg/L
Manganese (Mn)	0.013	mg/L
MBAS, Calculated as LAS, mol wt 340	0	mg/L
Mercury (Hg)	0	mg/L
Molybdenum (Mo)	0.017	mg/L
Nickel (Ni)	0	mg/L
Nitrate (NO3)	0	mg/L
Nitrite (NO2-N)	0.1	mg/L
pH	7.8	
Phosphorous - total (P)	5	mg/L
Potassium (K)	9.2	mg/L
Selenium (Se)	0	mg/L
Silica - total (SiO2)	25	mg/L
Silver (Ag)	0	mg/L
Sodium (Na)	63	mg/L
Strontium (Sr)	0.19	mg/L
Sulfate (SO4)	33	mg/L
Thallium (Tl)	0	mg/L



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**PARLIER**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>
Total Dissolved Solids (TDS)	300	mg/L
Turbidity	34	NTU
Zinc (Zn)	0.065	mg/L



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT**  
**APPLICATION FOR CERTIFICATION (07-AFC-7)**  
**SUPPLEMENT A**

**MIXTURE**

Analyte	Units	CT			Average	mass flow mg/min	Blowdown concentration mg/L or ppm	cycles
		makeup	3204 gpm	Evaporation				
		Sanger	Parlier					
Alkalinity (as CaCO3)	mg/L	89	190	139.50	1691915	697.28	4.998	
Aluminum (Al)	mg/L	0.49	0.56	0.53	6367	2.62	4.998	
Ammonia (NH3-N)	mg/L	0	22	11.00	133413	54.98	4.998	
Antimony (Sb)	mg/L	0	0	0.00	0	0.00	0.000	
Arsenic (As)	mg/L	0	0.0025	0.00	15	0.01	4.998	
Barium (Ba)	mg/L	0.052	0	0.03	315	0.13	4.998	
Beryllium (Be)	mg/L	0	0	0.00	0	0.00	0.000	
Bicarbonate (as CaCO3)	mg/L	89	190	139.50	1691915	697.28	4.998	
Boron (B)	mg/L	0.2	0.23	0.22	2608	1.07	4.998	
Bromide (Br)	mg/L	0.031	0.078	0.05	661	0.27	4.998	
Cadmium (Cd)	mg/L	0	0	0.00	0	0.00	0.000	
Calcium (Ca)	mg/L	24	22	23.00	278954	114.96	4.998	
Carbonate (as CaCO3)	mg/L	0	0	0.00	0	0.00	0.000	
Chloride (Cl)	mg/L	64	45	54.50	660999	272.41	4.998	
Chromium - Total (Cr)	mg/L	0	0	0.00	0	0.00	0.000	
Copper (Cu)	mg/L	0.1	0.076	0.09	1067	0.44	4.998	
Cyanide (CN)	mg/L	0	0	0.00	0	0.00	0.000	
Fluoride	mg/L	0.2	0	0.10	1213	0.50	4.998	
Hardness (as CaCO3)	mg/L	130	65	97.50	1182521	487.35	4.998	
Hydroxide (as CaCO3)	mg/L	0	0	0.00	0	0.00	0.000	
Iron (Fe)	mg/L	0.3	0.27	0.29	3457	1.42	4.998	
Lead (Pb)	mg/L	0	0	0.00	0	0.00	0.000	
Lithium (L)	mg/L	0	0	0.00	0	0.00	0.000	
Magnesium (Mg)	mg/L	17	2.5	9.75	118252	48.73	4.998	
Manganese (Mn)	mg/L	0.06	0.013	0.04	443	0.18	4.998	



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT**  
**APPLICATION FOR CERTIFICATION (07-AFC-7)**  
**SUPPLEMENT A**

**MIXTURE**

Analyte	Units	CT			Average	mass flow mg/min	Blowdown concentration mg/L or ppm	cycles
		makeup	3204 gpm	Evaporation				
		Sanger	Parlier					
MBAS, Calculated as LAS, mol wt 340	mg/L	0.062	0	0.03	376	0.15	4.998	
Mercury (Hg)	mg/L	0	0	0.00	0	0.00	0.000	
Molybdenum (Mo)	mg/L	0.011	0.017	0.01	170	0.07	4.998	
Nickel (Ni)	mg/L	0	0	0.00	0	0.00	0.000	
Nitrate (NO3)	mg/L	86	0	43.00	521522	214.93	4.998	
Nitrite (NO2-N)	mg/L	0.3	0.1	0.20	2426	1.00	4.998	
Phosphorous - total (P)	mg/L	4	5	4.50	54578	22.49	4.998	
Potassium (K)	mg/L	12	9.2	10.60	128561	52.98	4.998	
Selenium (Se)	mg/L	0	0	0.00	0	0.00	0.000	
Silica - total (SiO2)	mg/L	35	25	30.00	363853	149.95	4.998	
Silver (Ag)	mg/L	0	0	0.00	0	0.00	0.000	
Sodium (Na)	mg/L	71	63	67.00	812604	334.90	4.998	
Strontium (Sr)	mg/L	0.16	0.19	0.18	2122	0.87	4.998	
Sulfate (SO4)	mg/L	44	33	38.50	466944	192.44	4.998	
Thallium (Tl)	mg/L	0	0	0.00	0	0.00	0.000	
Total Dissolved Solids (TDS)	mg/L	420	300	360.00	4366232	1799.44	4.998	
Zinc (Zn)	mg/L	0.13	0.065	0.10	1183	0.49	4.998	



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Air Quality**

**Data Request Air-6:**

Please provide additional detailed description of the cooling tower, including the number of cells, the air flow rate, and whether additional on-site water treatment is proposed to treat the waste water used in the cooling tower.

**Response:**

Please see Appendix 8.3-1, Seasonal/Annual Cooling Tower Impact Program Analysis, Table 1, page 3, for additional data on the cooling tower.

The KRCD CPP will utilize on-site water treatment of the cooling water as described in Section 2.5.9 of Chapter 2, Project Description and in Section 6.7 of Chapter 6, Water Supply.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Air Quality**

**Data Request Air-7:**

If on-site water treatment equipment is proposed, please provide an assessment of whether these equipment would result in air contaminants.

**Response:**

As described in Section 2.6.9 of Chapter 2, Project Description, and in Section 6.7 of Chapter 6, Water Supply, the KRCD CPP will include an on-site tertiary treatment system to filter and disinfect the wastewater used as circulating water in the cooling tower. However, this water treatment system will not result in significant air emissions. The KRCD CPP on-site water treatment system will use various chemicals to disinfect and maintain the circulating water system. These chemicals, which are listed in Section 8.8, Hazardous Materials - Tables 8.8-2 and 8.8-3, provide an inventory of the hazardous materials to be used during KRCD CPP operations. While nominal amounts of fugitive emissions (e.g., vent emissions of sodium hypochlorite or bleach) may result from the use of these chemicals, no significant off-site emissions are anticipated.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Air Quality**

**Data Request Air-8:**

Please provide specific emission reduction credits, including their specific locations and quantities that are earmarked for the project.

**Response:**

The information requested was provided as part of the Confidential Offset Strategy for the KRCD CPP, which was provided to the CEC under Confidential Cover on October 10, 2007.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Air Quality**

**Data Request Air-9:**

Please provide specific information on the proposed mitigation and the progress of acquiring the mitigation.

**Response:**

The information requested was provided as part of the Confidential Offset Strategy for the KRCD CPP, which was provided to the CEC under Confidential Cover on October 10, 2007.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Biological Resources**

**Data Request Bio-1:**

Provide a discussion that includes the reasoning behind the absence of protocol level surveys for sensitive species where these protocols are currently in place. If advised that these protocol level surveys were not necessary, provide the names and phone numbers of agency contacts that gave this advice.

If protocol surveys are pending, indicate the appropriate seasons in which they will occur.

**Response:**

In Spring 2007, the U. S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), and U. S. Army Corps of Engineers (Corps) were sent an information packet on the KRCD CPP. The packet of information included a description of the proposed power project, details of pipeline construction methods for the Cross Creek and Kings River crossings, aerial maps, and maps of the project areas locations relative to the California Natural Diversity Data Base (CNDDDB) polygons (sensitive species and habitat locales). Numerous emails and phone conversations occurred with these agencies and KRCD biologist Mr. Tracy Purpuro. A summary of agency contacts is provided in Table 8.16-2 in Section 8.16, Biological Resources In summary and as noted in the Record of Agency Correspondence (AFC, Appendix 8.16-5), the USFWS did not response with advise on surveys, what types or levels of surveys, or whether protocol surveys were required. The CDFG replied that surveys should be conducted in areas designed cropland and pasture, idle farmland, and all lay down areas. The CDFG did not state their desire for a reconnaissance or a protocol level of survey. The Corps recommended surveys for Red-legged frog, listed shrimp species, California Tiger Salamander, Mexican Elderberry Bushes that are potential habitat for the Valley Elderberry Longhorn Beetle, and San Joaquin Kit Fox. The Corps did not state their desire for a reconnaissance or a protocol level of survey.

Non-native grassland habitat for Vernal Pool Tadpole Shrimp, Vernal Pool Fairy Shrimp, and California Tiger Salamander occurs in the Cross Creek area on private property adjacent to the project footprint along frontage Road 60/Highway 99. The grasslands will not be impacted by the KRCD CPP due to the implementation of preventive avoidance measures. Protocol surveys are not necessary for these species because they are assumed or known to be present in the



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT**  
**APPLICATION FOR CERTIFICATION (07-AFC-7)**  
**SUPPLEMENT A**

grasslands, and they or their habitat will be avoided and not impacted by the KRCD CPP. For species with protocols or guidelines such as Giant Garter Snake, Valley Elderberry Longhorn Beetle, and Delta Smelt, these species either do not occur in the project general region or their habitat is not present in the project action area, and thus they are not present. None of these species or their habitats will be impacted by the project. Regardless, reconnaissance level surveys were conducted by KRCD biologists and their consultant Halstead & Associates, Environmental/Biological Consultants in spring and winter 2006 and in spring 2007. The reconnaissance level surveys showed three sensitive areas in the project action area: Kings River near the City of Kingsburg, Cross Creek near the City of Traver, and the Manning Recharge Basin near the City of Selma.

To ensure sensitive species do not move onto and inhabit the project action area, the following protocol surveys will be conducted. The seasons in which the surveys will be conducted are noted below:

Project Area

Swainson's Hawk – Spring 2008

Nesting Raptors – Spring 2008

Cross Creek and Manning Recharge Areas

Burrowing Owl – Winter 2007 and Spring/Summer 2008

San Joaquin Kit Fox – Spring 2008

No evidence of these species was found during the reconnaissance level surveys, but potential habitat does occur in and/or adjacent to the project area and therefore the protocol level surveys will be conducted.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Biological Resources**

**Data Request Bio-2:**

Provide copies of field survey forms showing raw data that are the basis for the summary information presented in Volume 1, Section 8.16.3.5 of the AFC.

**Response:**

The wetland delineation data forms as noted in Section 8.16.3.5 are included as Attachment Bio-2.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Attachment Bio-2**

**Wetland Delineation Data Forms**



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

(KRCO CPP)

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Kings River @ Gas Pipeline Crossing City/County: Fresno Co. Sampling Date: 5/17/07  
 Applicant/Owner: State owns river State: CA Sampling Point: KR - Wetland  
 Investigator(s): H & A Section, Township, Range: Sec. 19, T16S, R23E  
 Landform (hillslope, terrace, etc.): River Local relief (concave, convex, none): river channel Slope (%): 0  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: N/A NWI classification: Riverine/Forested Wetland  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No Soil No or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation No Soil No or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____	
Remarks: <u>Sample point is the Kings River and its riparian and wetland habitats.</u>		

**VEGETATION**

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>Salix gooddingii</u>	<u>60</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Quercus lobata</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>	
3. <u>Platanus racemosa</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>	
4. _____	_____	_____	_____	
Total Cover: <u>100</u>				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
Sapling/Shrub Stratum				
1. _____	_____	_____	_____	
2. <u>N/A</u>	_____	_____	_____	
3. _____	_____	_____	_____	
Total Cover: <u>0</u>				
Herb Stratum				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. <u>Juncus sp.</u>	<u>40</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Cyperus sp.</u>	<u>30</u>	<u>Yes</u>	<u>OBL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: <u>70</u>				
Woody Vine Stratum				
1. <u>N/A</u>	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: <u>200</u>				
% Bare Ground in Herb Stratum <u>30</u> % Cover of Biotic Crust <u>0</u>				
Remarks: <u>Riparian &amp; wetland vegetation along banks &amp; islands of Kings River. Indicators present.</u>				



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**SOIL**

Sampling Point: KR-Wetland

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
<i>No samples collected - Assumed present.</i>								
<i>Sampling point is bank and islands of Kings River in riparian + wetland habitat.</i>								

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup>Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<b>Hydric Soil Indicators:</b> (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input checked="" type="checkbox"/> Sandy Mucky Mineral (S1) <input checked="" type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b> <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
--	---	--

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present.

**Restrictive Layer (if present):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:  
*Soil assumed present as area is riparian w/ riparian + wetland vegetation. Indicators present.*

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators (any one indicator is sufficient)</b> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<b>Secondary Indicators (2 or more required)</b> <input checked="" type="checkbox"/> Water Marks (B1) (Riverine) <input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine) <input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
--	--

**Field Observations:**

Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2'</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0"</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
*Aerial photos show area as river channel.*

Remarks:  
*Kings River is a waters of the U.S.  
Indicators present.*



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

KRCD CPP

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Kings River @ Gas Pipeline Crossing City/County: Fresno Co. Sampling Date: 5/17/07  
 Applicant/Owner: Private - Agricultural land outside Riparian State: CA Sampling Point: KR - Upland  
 Investigator(s): H+A Section, Township, Range: Sec. 17, T16S, R23E  
 Landform (hillslope, terrace, etc.): Agric. Orchard Local relief (concave, convex, none): Levelled Slope (%): 0  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: N/A NWI classification: 0

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation Yes Soil No or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No \_\_\_\_\_  
 Are Vegetation No Soil No or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present? Yes _____ No <u>✓</u>	
Wetland Hydrology Present? Yes _____ No <u>✓</u>	
Remarks: <u>Sample point is actively farmed almond orchard adjacent to the riparian bank along the Kings River.</u>	

**VEGETATION**

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Almonds</u>	<u>60</u>	<u>Yes</u>	<u>UP<sup>1</sup></u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Total Cover: _____				
Sapling/Shrub Stratum				
1. <u>0</u>	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: _____				
Herb Stratum				
1. <u>0</u>	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Total Cover: _____				
Woody Vine Stratum				
1. <u>0</u>	_____	_____	_____	
2. _____	_____	_____	_____	
Total Cover: <u>60</u>				
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <u>0</u>	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>		
Remarks: <u>Sampling point is an actively farmed almond orchard, No indicators present.</u>				

**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**SOIL**

Sampling Point: *KR - Upland*

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
<i>No samples collected - Assumed absent.</i>								

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup>Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.

**Restrictive Layer (if present):**  
Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:  
*Soil is sandy loam in actively farmed almond orchard.  
No indicators present.*

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (any one indicator is sufficient)</b>	<b>Secondary Indicators (2 or more required)</b>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <i>&gt; 1'</i>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <i>&gt; 1'</i>	
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <i>&gt; 1'</i>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.  
*Aerial photos show area as an orchard.*

Remarks:  
*No indicators present.*



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

KRCD CIP

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Manning Recharge Basin City/County: Fresno Co. Sampling Date: 5/17/07  
 Applicant/Owner: Consolidated I.D., Private State: CA Sampling Point: MRB - Wetland  
 Investigator(s): H + A Section, Township, Range: Sec. 21, T15S, R22E  
 Landform (hillslope, terrace, etc.): recharge basin Local relief (concave, convex, none): basin Slope (%): 0  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: N/A NWI classification: pund  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		
Remarks: <u>Sample point is a groundwater recharge basin w/ sparse low quality wetland vegetation/habitat.</u>			

**VEGETATION**

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>1</u> (A)
2. <u>0</u>				Total Number of Dominant Species Across All Strata:	<u>1</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)
4. _____				Prevalence Index worksheet:	
Total Cover: _____				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum				OBL species _____	x 1 = _____
1. _____				FACW species _____	x 2 = _____
2. <u>0</u>				FAC species _____	x 3 = _____
3. _____				FACU species _____	x 4 = _____
4. _____				UPL species _____	x 5 = _____
5. _____				Column Totals:	(A) _____ (B) _____
Total Cover: _____				Prevalence Index = B/A = _____	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <u>Juncus</u>	<u>90</u>	<u>Yes</u>	<u>OBL</u>	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. _____				<input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup>	
3. _____				<input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
5. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.	
6. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
7. _____					
8. _____					
Total Cover: <u>90</u>					
Woody Vine Stratum					
1. <u>0</u>					
2. _____					
Total Cover: <u>100</u>					
% Bare Ground in Herb Stratum <u>10</u> % Cover of Biotic Crust <u>0</u>					
Remarks: <u>Bed of recharge basin has sparse low quality rush (Juncus sp.) vegetation in its bed.</u>					





**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Manning Recharge Basin City/County: Fresno Co. Sampling Date: 5/17/07  
 Applicant/Owner: Consolidated F.D., Private State: CA Sampling Point: MRB-Upland  
 Investigator(s): H+A Section, Township, Range: Sec. 21, T15S, R22E  
 Landform (hillslope, terrace, etc.): Recharge Basin Bank Local relief (concave, convex, none): Basin Bank Slope (%): 20  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: N/A NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No Soil No or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation No Soil No or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		
Remarks: <u>Sample point is upland bank of the Manning Recharge Basin.</u>			

**VEGETATION**

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u>	(A)
2. <u>0</u>				Total Number of Dominant Species Across All Strata: <u>2</u>	(B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u>	(A/B)
4. _____				Prevalence Index worksheet:	
Total Cover: _____				Total % Cover of:	Multiply by:
Saoling/Shrub Stratum				OBL species _____ x 1 = _____	
1. _____				FACW species _____ x 2 = _____	
2. <u>0</u>				FAC species _____ x 3 = _____	
3. _____				FACU species _____ x 4 = _____	
4. _____				UPL species _____ x 5 = _____	
5. _____				Column Totals: _____ (A) _____ (B)	
Total Cover: _____				Prevalence Index = B/A = _____	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <u>Bromus rigidus</u>	<u>40</u>	<u>Yes</u>	<u>Upl</u>	___ Dominance Test is >50%	
2. <u>Bromus mollis</u>	<u>40</u>	<u>Yes</u>	<u>Upl</u>	___ Prevalence Index is $\leq 3.0$ <sup>1</sup>	
3. _____				___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
4. _____				___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
5. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.	
6. _____				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
7. _____					
8. _____					
Total Cover: <u>80</u>					
Woody Vine Stratum					
1. _____					
2. <u>0</u>					
Total Cover: <u>80</u>					
% Bare Ground in Herb Stratum <u>20</u> % Cover of Biotic Crust <u>0</u>					
Remarks: <u>Upland grasses on bank of groundwater recharge basin. No indicators present.</u>					



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**SOIL**

Sampling Point: MRB-Upland

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
	<i>No samples collected - Assumed absent.</i>							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup>Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

<b>Hydric Soil Indicators:</b> (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b> <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
--	---	--

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present.

**Restrictive Layer (if present):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:  
*Soil is sandy loam in upland bank of groundwater recharge basin. No indicators present.*

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (any one indicator is sufficient)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
---	---	--

**Field Observations:**

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>&gt;1'</u>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>&gt;1'</u>
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>&gt;1'</u>

Wetland Hydrology Present? Yes \_\_\_\_\_ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
*Aerial photos show even as bank of recharge pond.*

Remarks:  
*No indicators present.*



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

KRCO CPP

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Cross Creek Area\* City/County: Tulare Co. Sampling Date: 5/17/07  
 Applicant/Owner: Private State: CA Sampling Point: CC-Wetland  
 Investigator(s): H + A Section, Township, Range: Sec. 34, T17S, R23E  
 Landform (hillslope, terrace, etc.): Non-native grassland w/ small mounds + drainages Local relief (concave, convex, none): Flat Slope (%): 0  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: N/A NWI classification: stream + pond  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No Soil No or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation No Soil No or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? * Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: ** Intermittent drainages of Cross Creek, ponds, + vernal pools have the 3 indicators of wetland during the winter/ wet season. Wetland check conducted during dry season.	

**VEGETATION**

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)
2. <u>0</u>				Total Number of Dominant Species Across All Strata:	<u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> * (see Remarks) (A/B)
4. _____				Prevalence Index worksheet:	
Total Cover: _____				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum				OBL species _____	x 1 = _____
1. _____				FACW species _____	x 2 = _____
2. <u>0</u>				FAC species _____	x 3 = _____
3. _____				FACU species _____	x 4 = _____
4. _____				UPL species _____	x 5 = _____
5. _____				Column Totals:	_____ (A) _____ (B)
Total Cover: _____				Prevalence Index = B/A = _____	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <u>Bromus rigidus</u>	<u>40</u>	<u>Yes</u>	<u>Upl</u>	___ Dominance Test is >50%	
2. <u>Bromus mollis</u>	<u>25</u>	<u>Yes</u>	<u>Upl</u>	___ Prevalence Index is >3.0 <sup>1</sup>	
3. <u>Amsinckia intermedia</u>	<u>10</u>	<u>No</u>	<u>Upl</u>	___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
4. <u>Brassica nigra</u>	<u>10</u>	<u>No</u>	<u>Upl</u>	___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
5. <u>Lactuca scariola</u>	<u>5</u>	<u>No</u>	<u>Upl</u>	___	
6. <u>Helianthus annuus</u>	<u>5</u>	<u>No</u>	<u>Upl</u>	___	
7. <u>Xanthium strumarium</u>	<u>5</u>	<u>No</u>	<u>FAC+</u>	___	
8. _____				___	
Total Cover: <u>100</u>				Indicators of hydric soil and wetland hydrology must be present.	
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
1. <u>0</u>				___	
2. _____				___	
Total Cover: <u>100</u>				___	
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>		___	
Remarks: ** See Remarks above.					

US Army Corps of Engineers

Arid West – Version 11-1-2006

\* This area has 6 intermittent drainages, 2 small ponds, + vernal pools on adjacent private land. The area is @ 2600' in length along the gas pipeline route.



**KRCO COMMUNITY  
POWER PLANT**

Energy for our Future

**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**SOIL**

Sampling Point: CC - Wetland.

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>			
<i>No samples collected - Assumed present.</i>									
<i>Sampling point is intermittent drainages, 2 small ponds, and vernal pools on adjacent private land.</i>									

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup>Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

**Hydric Soil Indicators:** (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input checked="" type="checkbox"/> Sandy Redox (S5)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.

**Restrictive Layer (If present):**

Type: \_\_\_\_\_  
Depth (inches):   

Hydric Soil Present? Yes  No

Remarks:  
*Soil assumed present as areas are intermittent drainages, small ponds, and vernal pools.*

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (any one indicator is sufficient)</b>	<b>Secondary Indicators (2 or more required)</b>
<input checked="" type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquifer (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
Water Table Present? Yes  No  Depth (inches): > 1'  
Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): > 1'

Wetland Hydrology Present? Yes  No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
*Aerial photos show intermittent drainages, ponds, + vernal pool wetlands.*

Remarks:  
*Intermittent drainages + ponds receive water from the Saint John's River via the Kaweah River. Vernal pools receive their water from rainfall. Drainages + pond also receive water from local area rainfall + runoff. Indicators present.*



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Cross Creek Area City/County: Tulare Co. Sampling Date: 5/17/07  
 Applicant/Owner: Private State: \_\_\_\_\_ Sampling Point: CC-Upland  
 Investigator(s): H + A Section, Township, Range: Sec. 34, T17S, R23E  
 Landform (hillslope, terrace, etc.): Non-native Grassland Local relief (concave, convex, none): Flat Slope (%): \_\_\_\_\_  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: N/A NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No Soil No or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No \_\_\_\_\_  
 Are Vegetation No Soil No or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Hydric Soil Present? Yes _____ No <u>✓</u>	
Wetland Hydrology Present? Yes _____ No <u>✓</u>	
Remarks: <u>Sample is upland habitat of non-native grassland. No indicators present.</u>	

**VEGETATION**

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u>	(A)
2. <u>0</u>				Total Number of Dominant Species Across All Strata: <u>2</u>	(B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u>	(A/B)
4. _____				Prevalence Index worksheet:	
Total Cover: _____				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum				OBL species _____ x 1 = _____	
1. _____				FACW species _____ x 2 = _____	
2. <u>0</u>				FAC species _____ x 3 = _____	
3. _____				FACU species _____ x 4 = _____	
4. _____				UPL species _____ x 5 = _____	
5. _____				Column Totals: _____ (A) _____ (B)	
Total Cover: _____				Prevalence Index = B/A = _____	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. <u>Bromus mollis</u>	<u>40</u>	<u>Yes</u>	<u>Upl</u>	___ Dominance Test is >50%	
2. <u>Bromus rigidus</u>	<u>40</u>	<u>Yes</u>	<u>Upl</u>	___ Prevalence Index is ≤3.0 <sup>1</sup>	
3. _____				___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
4. _____				___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
5. _____				___ Indicators of hydric soil and wetland hydrology must be present.	
6. _____				Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>	
7. _____					
8. _____					
Total Cover: <u>80</u>					
Woody Vine Stratum					
1. <u>0</u>					
2. _____					
Total Cover: <u>80</u>					
% Bare Ground in Herb Stratum <u>20</u> % Cover of Biotic Crust <u>0</u>					
Remarks: <u>Upland grasses in non-native grassland. No indicators present.</u>					





**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Biological Resources**

**Data Request Bio-3:**

Provide a discussion of a Worker Environmental Awareness Program that would be implemented for employees.

**Response:**

Section 6 in Appendix 8.16-3, Wetland and Waters Evaluation, contains information on a Worker Environmental Awareness Program to be incorporated into the project as a mitigation or measure to protect and preserve biological resources. Specifically, these measures are as follows:

Cross Creek

An educational program shall be conducted by a qualified biologist for all project managers, engineers, contractors, and construction crews prior to work to inform them of the wetlands, waters, and wildlife resources on the adjacent private land, the need to avoid damaging any pools, drainages, ponds, and/or the endangered tadpole shrimp, and the possible penalties for not complying with these measures.

Manning Recharge Basin

An educational program shall be conducted by a qualified biologist for all project managers, engineers, contractors, and construction crews prior to work to inform them of the wetlands and wildlife resources, the need to avoid damaging the wetlands, and the possible penalties for not complying with these measures.

The Worker Environmental Awareness Program will include on-site, tail-gate field meetings for both existing and new field employees working on the project. The employees will receive the training before any field work is conducted. Upon receiving the training, employees will sign a form of understanding and compliance. The forms will be kept on record at the KRCD main office. The meeting(s) will educate employees about the what, where, why, and how of the protective measures. A tour of the three sensitive resource areas, including the Kings River natural gas pipeline crossing area, will be conducted. The location of sensitive resource areas, buffer zones, protective fencing, and no equipment operating zones will be discussed. All



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

preventive avoidance measures or mitigation measures noted in Section 8.16 and the applicable appendices will be reviewed, explained, and discussed with the employees.

Employees will learn why these habitats are sensitive and what types of sensitive wildlife and plants occur or could potential occur in the area. They will be shown color pictures of the sensitive habitats, wildlife, and plants and their features and life history will be briefly discussed. They will be informed of the laws, ordinances, regulations, and standards (LORS) protecting these resources. Their individual and company liability for penalties and fines under the LORS for non-compliance will be stressed. They will be introduced to the biologist that will be on-site with them while working in or near sensitive resource areas. They will also be given the biologist's cell phone number for questions, assistance, or in case of an emergency.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Biological Resources**

**Data Request Bio-4:**

Provide a discussion of proposed compliance monitoring for biological resources to be incorporated into the project.

**Response:**

Section 6 in Appendix 8.16-3, Wetland and Waters Evaluation, contains information on a Compliance and Mitigation Monitoring Program to be incorporated into the project as a mitigation measure to protect and preserve biological resources. Specifically, these measures are as follows:

Cross Creek

A qualified biologist shall be on-site at all times during construction and visually view and inspect that the measures are implemented.

Manning Recharge Basin

Prior to construction, photographs shall be taken by a qualified biologist to document the existing condition of the biological habitat resources. After the completion of construction activities, the same-direction photographs shall be taken for comparative purposes and to document post-construction conditions.

A post-construction monitoring survey shall be conducted by a qualified biologist to evaluate the implementation of and compliance with the measures. A report, including the above photographs, shall be prepared and sent to the CEC upon completion of construction.

For the Compliance and Mitigation Monitoring Program, a monitoring biologist will be on-site at all times during construction activities in the Cross Creek area and Manning Recharge Basin. This biologist will work alongside the construction crews to check and ensure that all mitigation or preventive avoidance measures are being implemented. Should issues arise, the field construction supervisor and KRCD construction supervisor will be immediately notified to remedy the issue. The pre- and post-construction monitoring measures noted above, including the site photographs and preparation of a compliance report, will evaluate and document that the



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

measures were enacted, complied with, and successful in protecting and preserving biological resources. The report will be sent to KRCD and the CEC as part of the record for the project. Should any biological resources be accidentally impacted, measures in Section 8.16 and applicable appendices call for the consultation with the applicable resource or regulatory agencies. Specifically, these measures are as follows:

Cross Creek and Manning Recharge Basin

If biological habitats or resources are accidentally impacted, state and federal resource and regulatory agencies having jurisdiction over the impacted resource shall be consulted.

Thus the above measures will monitor, evaluate, and report upon the compliance of measures and additionally, a measure is incorporated into the project to provide consultation should an unlikely and accidental event occur.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Cultural Resources**

**Data Request Cul-1:**

Because no legend was provided, it is not clear whether the submitted “Southern San Joaquin Valley Information Center Record Search Results Map Nos.1-11,” are intended to depict the literature search area and the coverage of past surveys, as required in the Regulations. If that was the intention, please add a color-coded legend for these maps indicating the literature search area and the coverage of past surveys (with report numbers).

**Response:**

The response to Cul-1 was submitted under separate cover due to confidentiality requirements.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Cultural Resources**

**Data Request Cul-2:**

Please prepare a map(s) at a scale of 1:24,000 U.S. Geological Survey quadrangle depicting the locations of all previously known and newly identified cultural resources. Please clearly indicate previously recorded sites by tri-nominal or CHRIS temporary number.

**Response:**

The response to Cul-1 was submitted under separate cover due to confidentiality requirements.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Project Overview**

**Data Request PO-1:**

Provide a more detailed schedule which shows the duration of the project from initiation to completion of construction.

**Response:**

More detailed project schedule dates are provided below:

<b><u>Activity</u></b>	<b><u>Start</u></b>	<b><u>Finish</u></b>
Perform Plant Construction	Sep-09	Apr-11
First Synchronization of Plant	Apr-11	Apr-11
Performance Testing	Apr-11	May-11
Substantial Completion (Commercial Operation)	May-11	May-11



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Project Overview**

**Data Request PO-2:**

Provide the section, township, range, county, and county assessor's parcel number for the proposed water, gas, or transmission interconnection routes.

**Response:**

Included as Attachment PO-2, are revised Figure 1-3 - KRCD CPP Project Area and revised Figure 2-7 - KRCD CPP Site and Land Description. The revised figures include applicable section, township, and range information as well as the county assessor's parcel numbers for areas where the KRCD CPP project area crosses private property. The attached revised Figures 1-3 and 2-7 should replace Figures 1-3 and 2-7 in KRCD CPP AFC Volume 3.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Project Overview**

**Data Request PO-3:**

Please provide the width of right-of-way necessary to construct and operate the proposed transmission lines.

**Response:**

As provided in Chapter 4 – Electric Transmission, the proposed KRCD CPP transmission line will be constructed and operated in a 100 foot right-of-way.



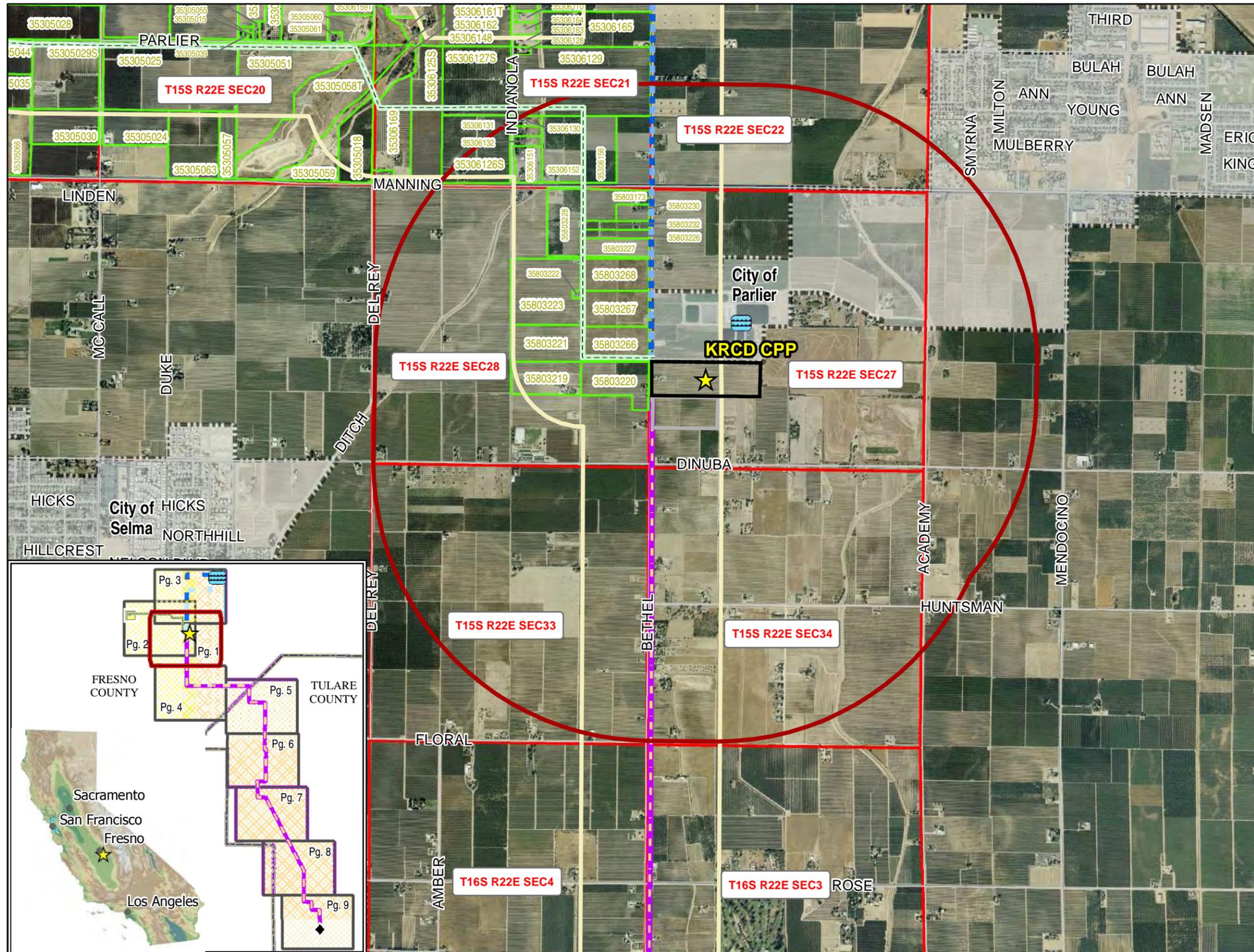
**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Attachment PO-2**

**Revised AFC Figure 1-3, KRCD CPP Project Area and  
Figure 2-7, KRCD CPP Site and Land Description**



# Kings River Conservation District Community Power Plant

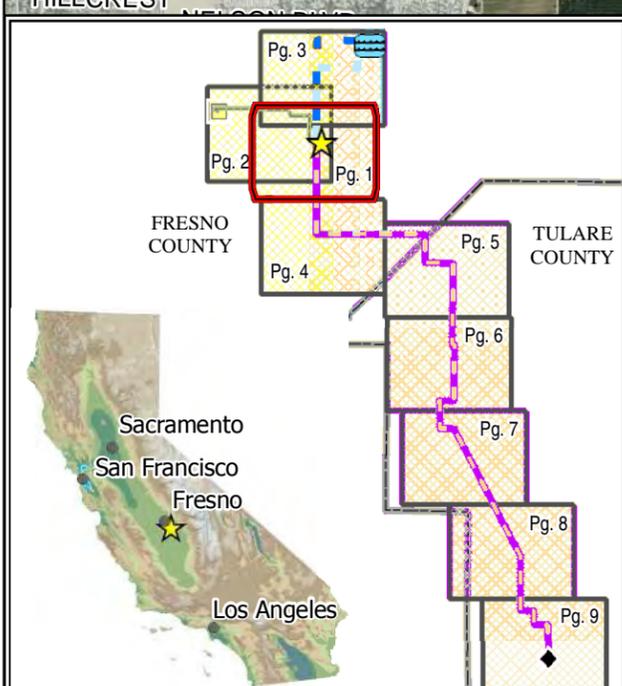
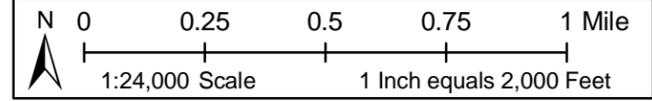



**KRCD COMMUNITY POWER PLANT**  
*Energy for our Future*

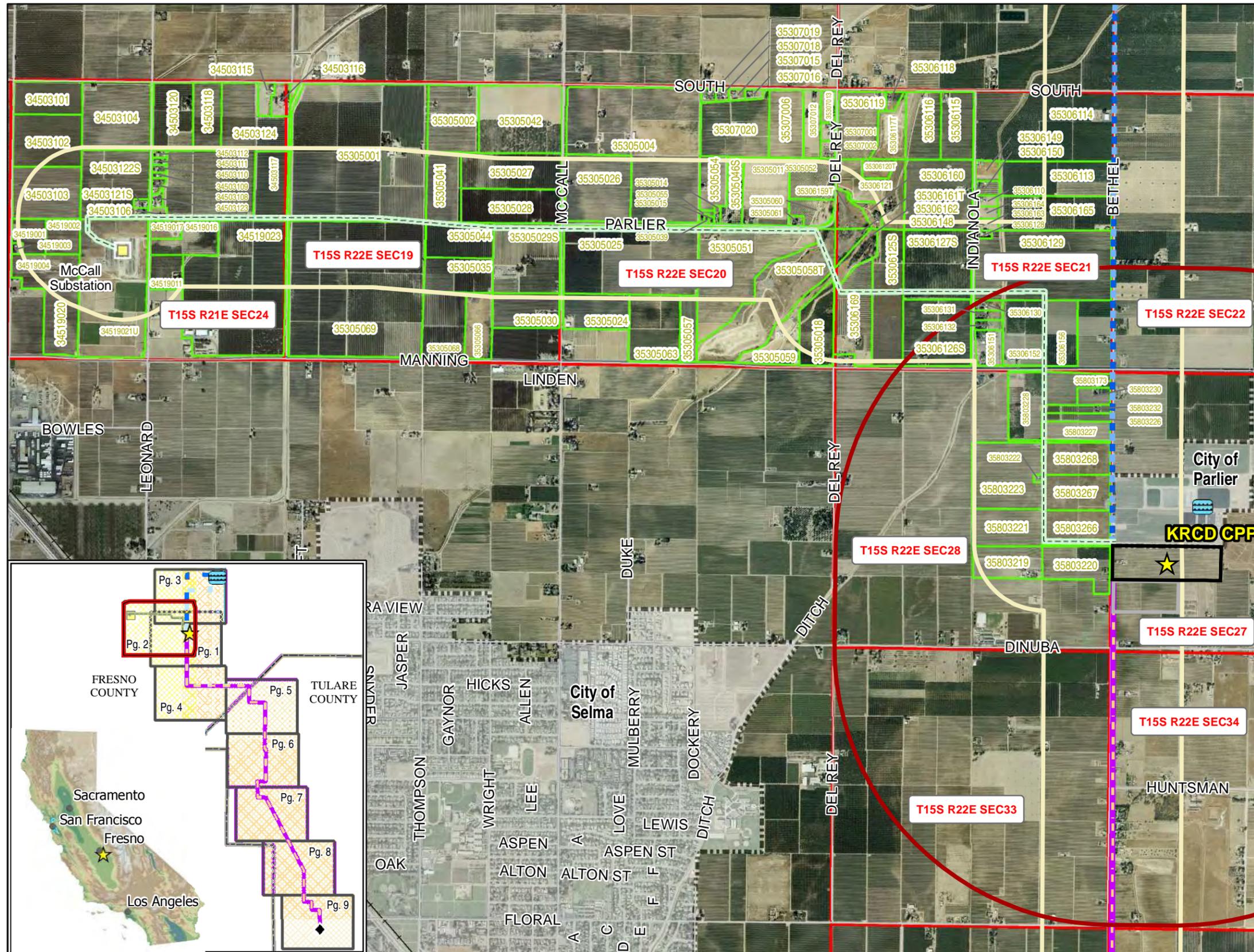
FIGURE: 1-3 Rev.1  
**KRCD CPP Project Area**  
Page: 1 of 9

-  KRCD Community Power Plant
-  KRCD CPP Project Site
-  KRCD CPP Project Laydown
-  KRCD CPP Site 1 Mile Buffer
-  Linear 1/4 Mile Buffer
-  Substation
-  Proposed 230KV Transmission Line
-  Waste Water Percolation Ponds
-  Proposed Water Supply Pipeline - Option 1
-  Proposed Water Supply Pipeline - Option 2
-  Natural Gas Connection Point
-  Proposed Natural Gas Laydown Area
-  Proposed Natural Gas Pipeline
-  SoCal Gas 7000 Line
-  Freeway
-  Street
-  Railroad
-  Parcel
-  Section
-  Waterway
-  County Boundary
-  City Boundary

NOTE: Potable Water and Sewer Connections are on the project site.



# Kings River Conservation District Community Power Plant





**KRCDD COMMUNITY  
POWER PLANT**

*Energy for our Future*

---

FIGURE: 1-3 Rev.1

**KRCDD CPP Project Area**  
Page: 2 of 9

---

	KRCDD Community Power Plant
	KRCDD CPP Project Site
	KRCDD CPP Project Laydown
	KRCDD CPP Site 1 Mile Buffer
	Linear 1/4 Mile Buffer
	Substation
	Proposed 230KV Transmission Line
	Waste Water Percolation Ponds
	Proposed Water Supply Pipeline - Option 1
	Proposed Water Supply Pipeline - Option 2
	Natural Gas Connection Point
	Proposed Natural Gas Laydown Area
	Proposed Natural Gas Pipeline
	SoCal Gas 7000 Line
	Freeway
	Street
	Railroad
	Parcel
	Section
	Waterway
	County Boundary
	City Boundary

NOTE: Potable Water and Sewer Connections are on the project site.

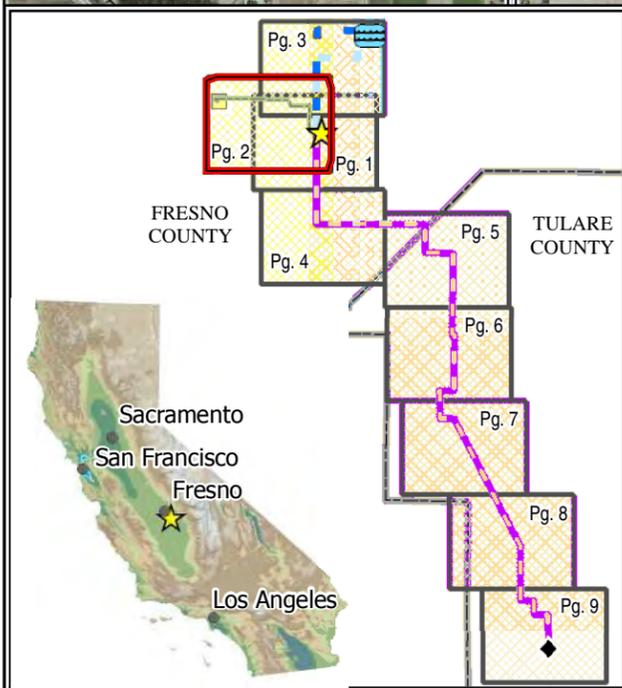
---

N

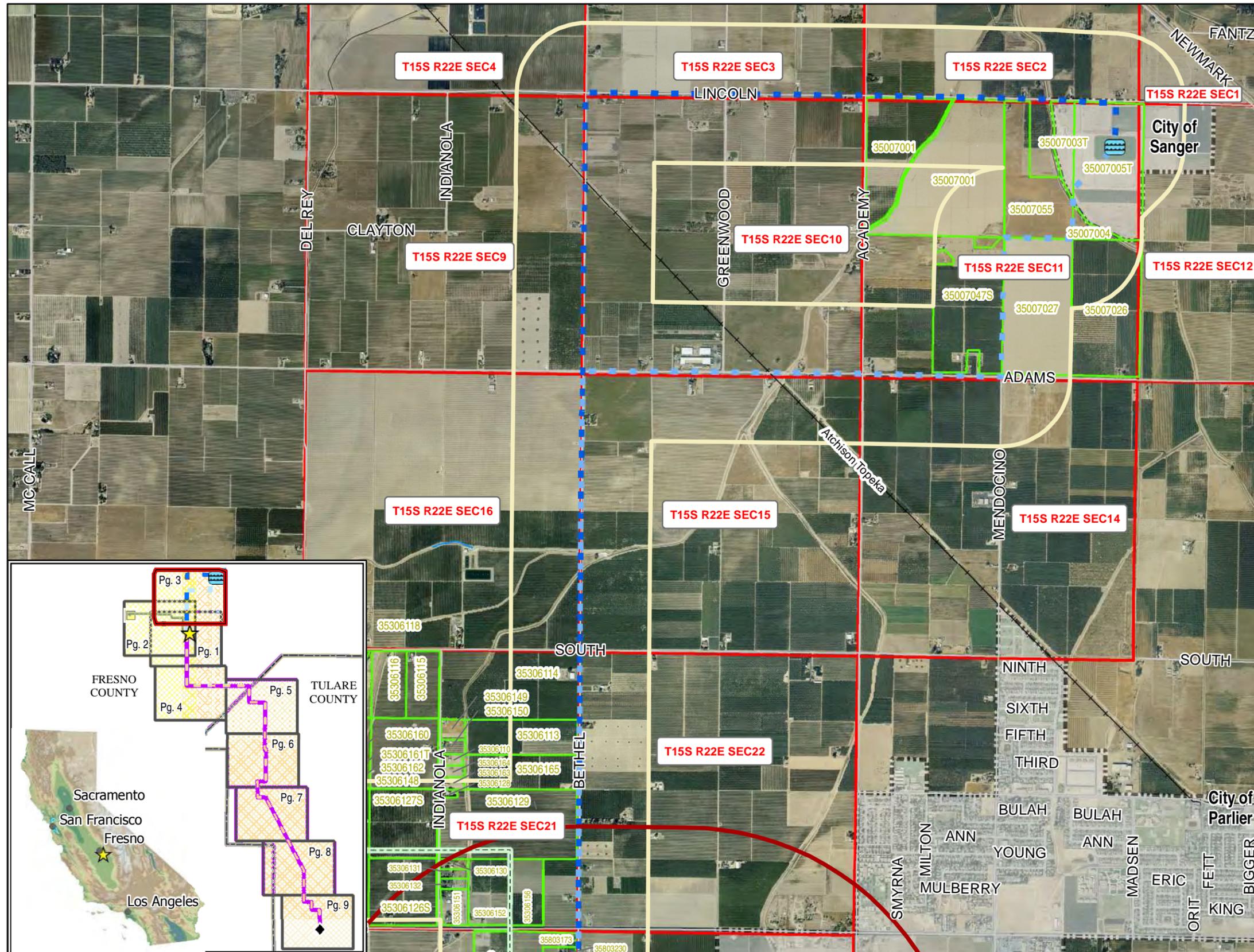


1:24,000 Scale

1 Inch equals 2,000 Feet



# Kings River Conservation District Community Power Plant





**KRCDD COMMUNITY POWER PLANT**  
*Energy for our Future*

FIGURE: 1-3 Rev.1

**KRCDD CPP Project Area**  
Page: 3 of 9

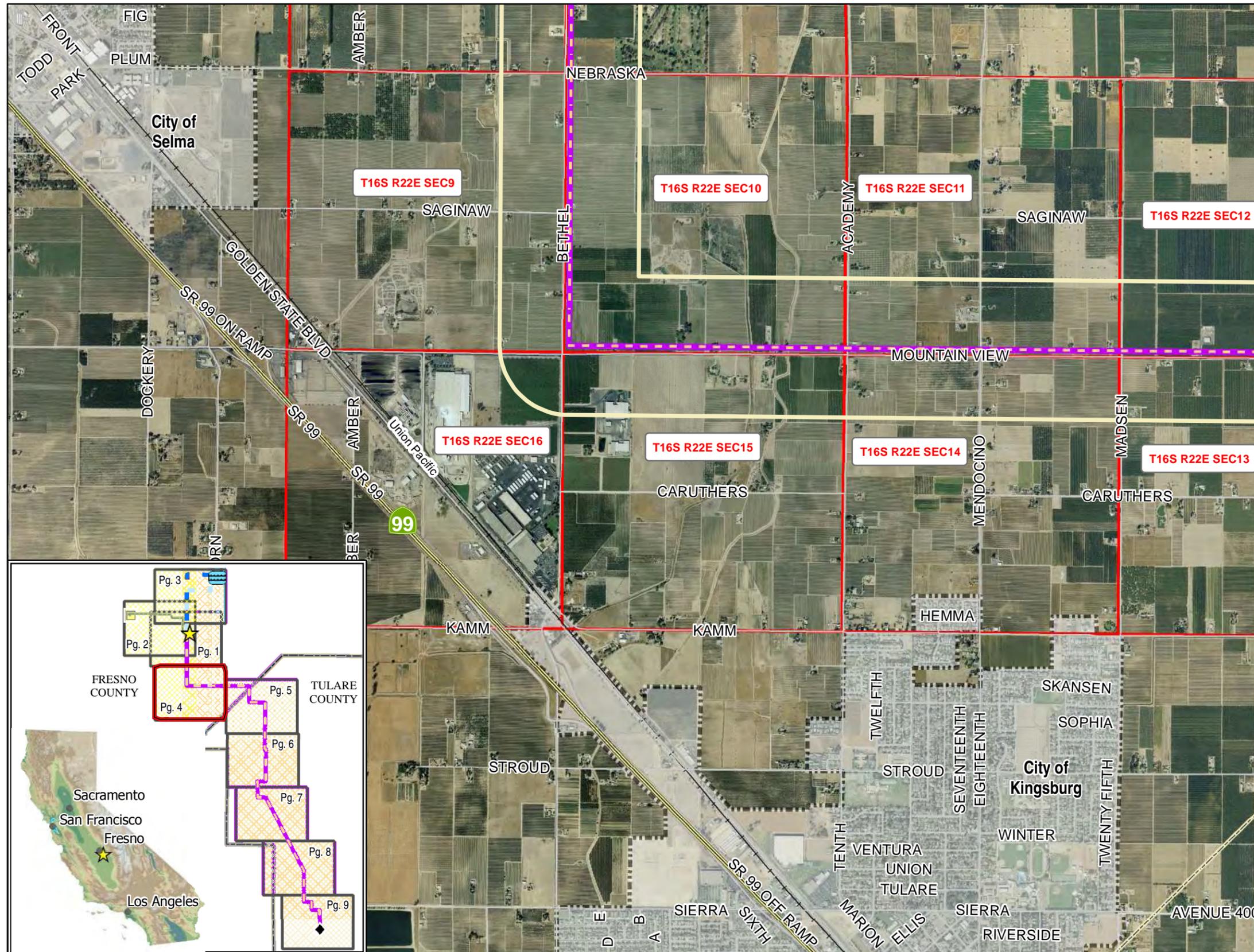
-  KRCDD Community Power Plant
-  KRCDD CPP Project Site
-  KRCDD CPP Project Laydown
-  KRCDD CPP Site 1 Mile Buffer
-  Linear 1/4 Mile Buffer
-  Substation
-  Proposed 230KV Transmission Line
-  Waste Water Percolation Ponds
-  Proposed Water Supply Pipeline - Option 1
-  Proposed Water Supply Pipeline - Option 2
-  Natural Gas Connection Point
-  Proposed Natural Gas Laydown Area
-  Proposed Natural Gas Pipeline
-  SoCal Gas 7000 Line
-  Freeway
-  Street
-  Railroad
-  Parcel
-  Section
-  Waterway
-  County Boundary
-  City Boundary

NOTE: Potable Water and Sewer Connections are on the project site.

N 0 0.25 0.5 0.75 1 Mile

1:24,000 Scale 1 Inch equals 2,000 Feet

# Kings River Conservation District Community Power Plant





**KRCDD COMMUNITY POWER PLANT**  
*Energy for our Future*

FIGURE: 1-3 Rev.1

**KRCDD CPP Project Area**  
Page: 4 of 9

-  KRCDD Community Power Plant
-  KRCDD CPP Project Site
-  KRCDD CPP Site 1 Mile Buffer
-  Linear 1/4 Mile Buffer
-  Substation
-  Proposed 230KV Transmission Line
-  Waste Water Percolation Ponds
-  Proposed Water Supply Pipeline - Option 1
-  Proposed Water Supply Pipeline - Option 2
-  Natural Gas Connection Point
-  Proposed Natural Gas Laydown Area
-  Proposed Natural Gas Pipeline
-  SoCal Gas 7000 Line
-  Freeway
-  Street
-  Railroad
-  Parcel
-  Section
-  Waterway
-  County Boundary
-  City Boundary

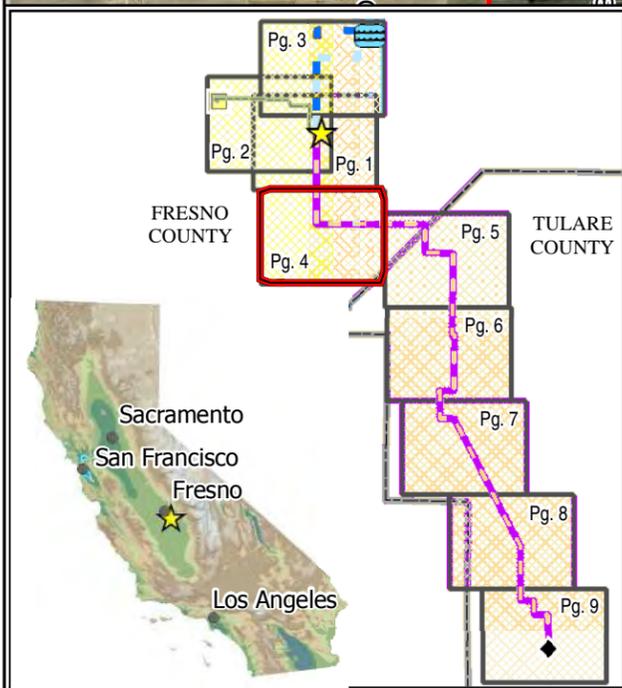
NOTE: Potable Water and Sewer Connections are on the project site.

N

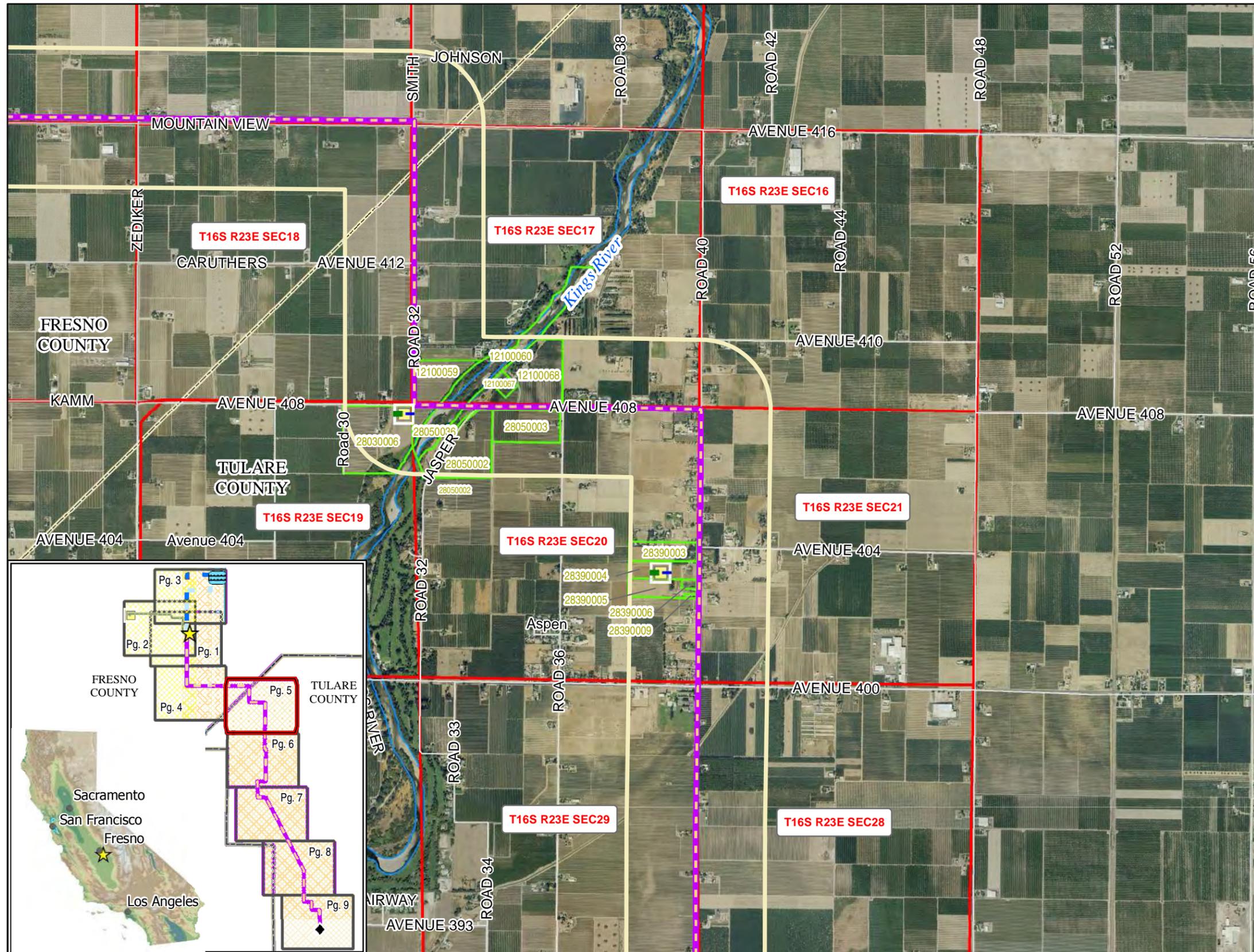
0 0.25 0.5 0.75 1 Mile

1:24,000 Scale

1 Inch equals 2,000 Feet



# Kings River Conservation District Community Power Plant



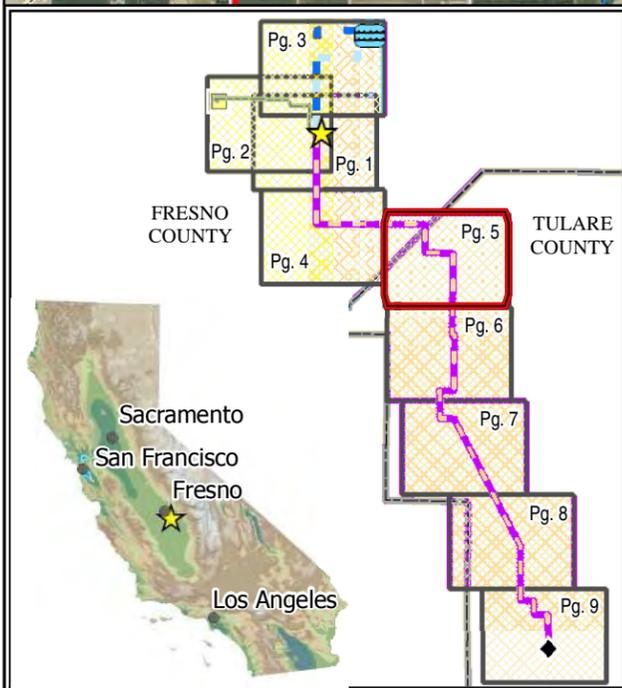
**KRCDD COMMUNITY POWER PLANT**  
*Energy for our Future*

FIGURE: 1-3 Rev.1  
**KRCDD CPP Project Area**  
Page: 5 of 9

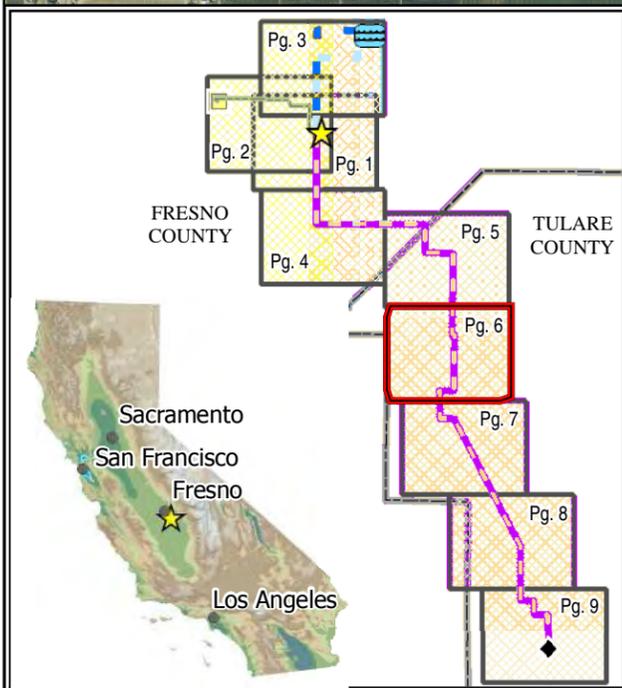
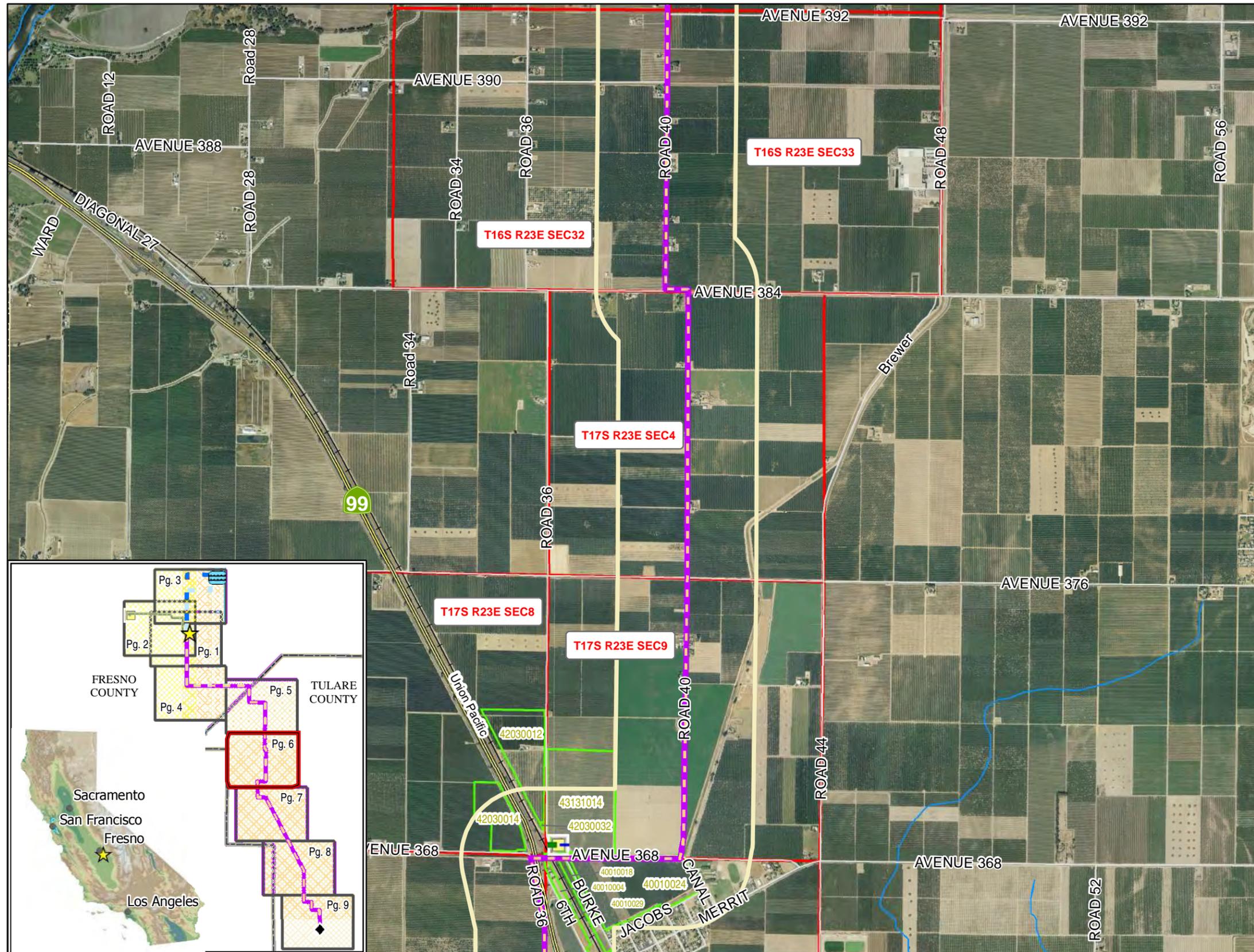
- KRCDD Community Power Plant
- KRCDD CPP Project Site
- KRCDD CPP Project Laydown
- KRCDD CPP Site 1 Mile Buffer
- Linear 1/4 Mile Buffer
- Substation
- Proposed 230KV Transmission Line
- Waste Water Percolation Ponds
- Proposed Water Supply Pipeline - Option 1
- Proposed Water Supply Pipeline - Option 2
- Natural Gas Connection Point
- Proposed Natural Gas Laydown Area
- Proposed Natural Gas Pipeline
- SoCal Gas 7000 Line
- Freeway
- Street
- Railroad
- Parcel
- Section
- Waterway
- County Boundary
- City Boundary

NOTE: Potable Water and Sewer Connections are on the project site.

N 0 0.25 0.5 0.75 1 Mile  
1:24,000 Scale 1 Inch equals 2,000 Feet



# Kings River Conservation District Community Power Plant



## KRCD COMMUNITY POWER PLANT

*Energy for our Future*

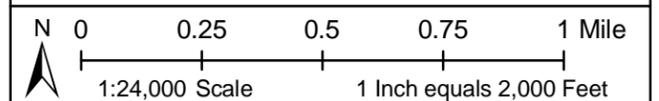
FIGURE: 1-3 Rev.1

### KRCD CPP Project Area

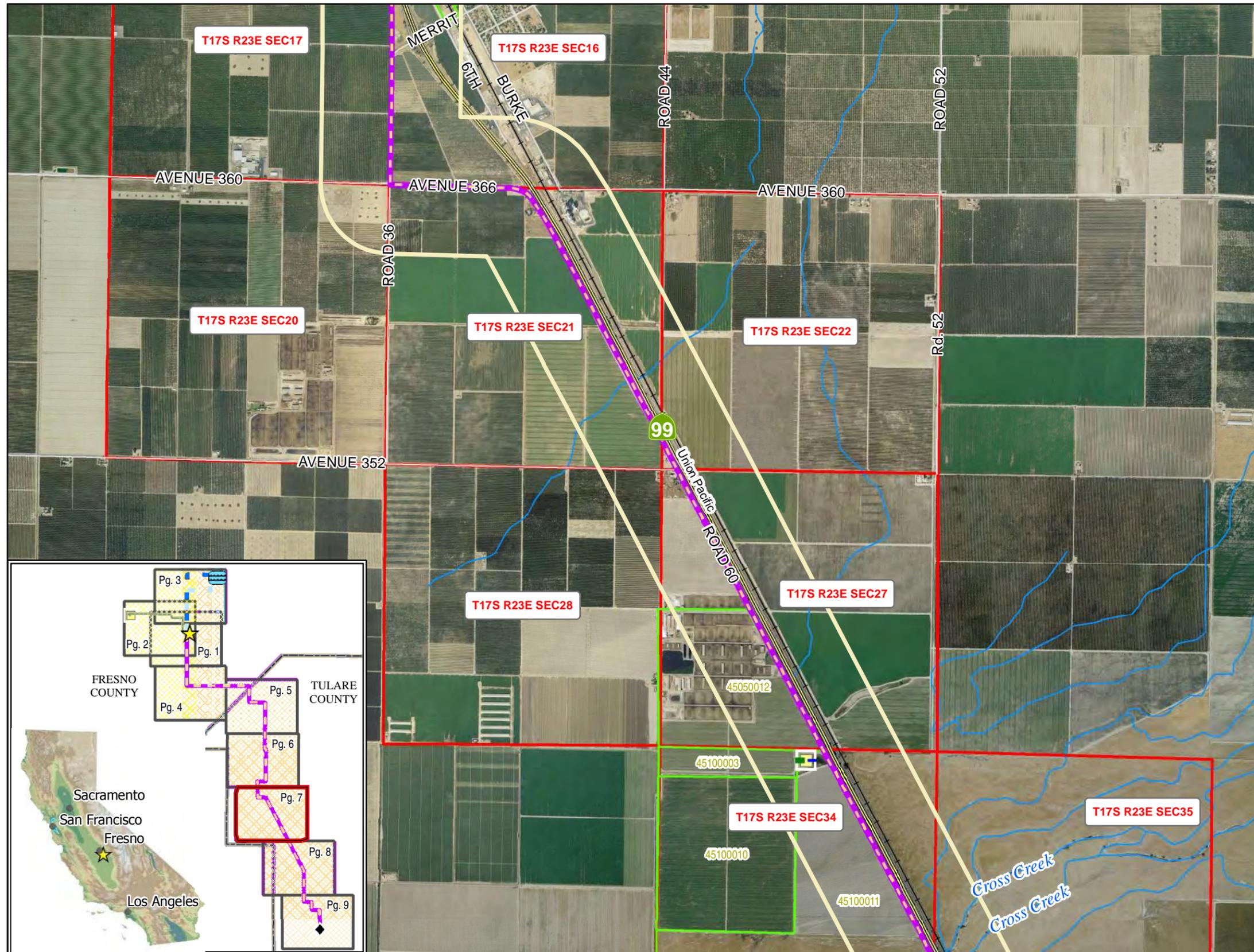
Page: 6 of 9

- KRCD Community Power Plant
- KRCD CPP Project Site
- KRCD CPP Project Laydown
- KRCD CPP Site 1 Mile Buffer
- Linear 1/4 Mile Buffer
- Substation
- Proposed 230KV Transmission Line
- Waste Water Percolation Ponds
- Proposed Water Supply Pipeline - Option 1
- Proposed Water Supply Pipeline - Option 2
- Natural Gas Connection Point
- Proposed Natural Gas Laydown Area
- Proposed Natural Gas Pipeline
- SoCal Gas 7000 Line
- Freeway
- Street
- Railroad
- Parcel
- Section
- Waterway
- County Boundary
- City Boundary

NOTE: Potable Water and Sewer Connections are on the project site.



# Kings River Conservation District Community Power Plant



**KRCDD COMMUNITY  
POWER PLANT**

*Energy for our Future*

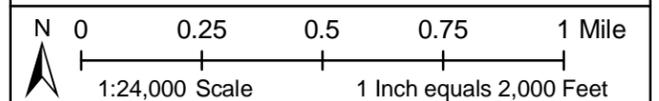
FIGURE: 1-3 Rev.1

**KRCDD CPP Project Area**

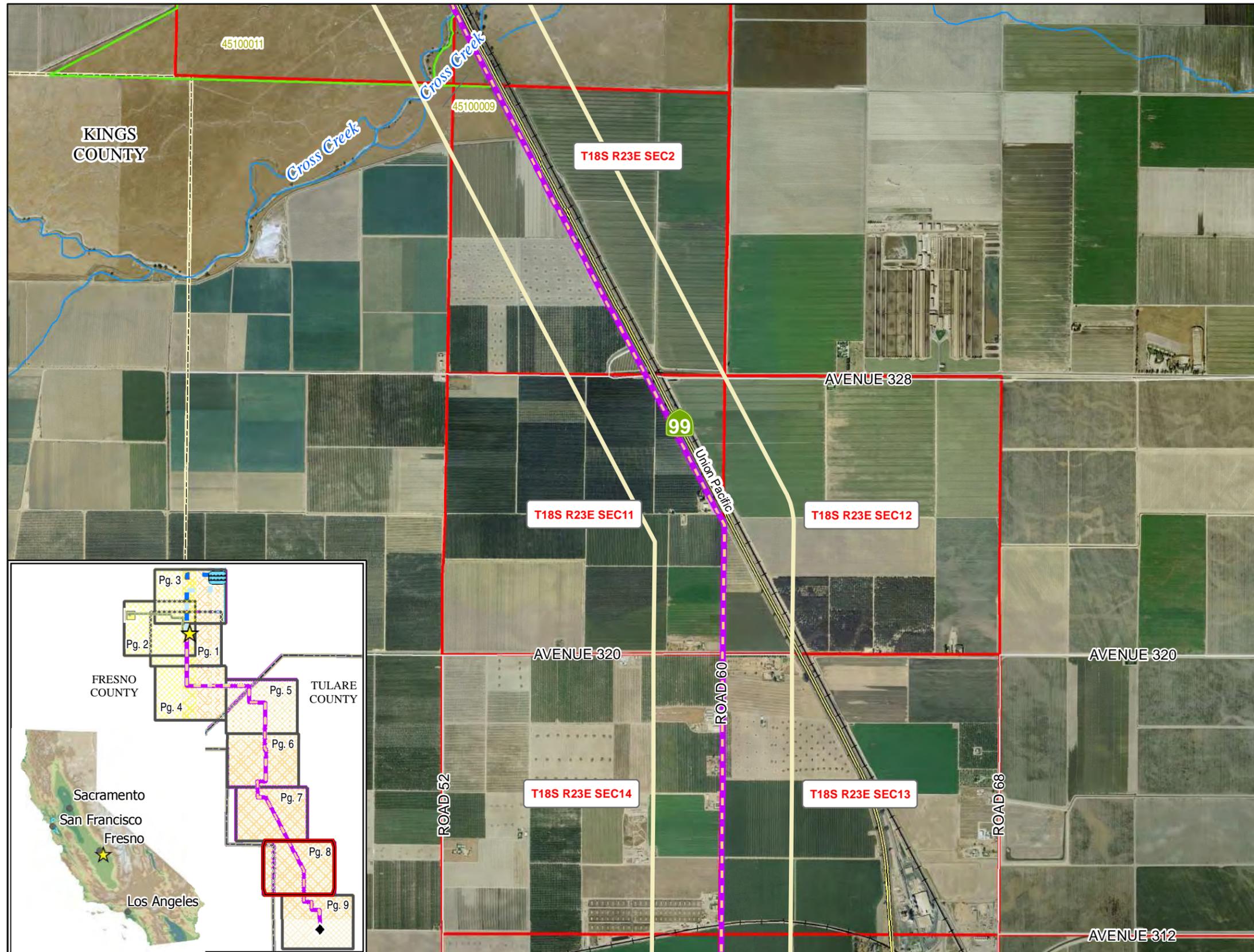
**Page: 7 of 9**

-  KRCDD Community Power Plant
-  KRCDD CPP Project Site
-  KRCDD CPP Project Laydown
-  KRCDD CPP Site 1 Mile Buffer
-  Linear 1/4 Mile Buffer
-  Substation
-  Proposed 230KV Transmission Line
-  Waste Water Percolation Ponds
-  Proposed Water Supply Pipeline - Option 1
-  Proposed Water Supply Pipeline - Option 2
-  Natural Gas Connection Point
-  Proposed Natural Gas Laydown Area
-  Proposed Natural Gas Pipeline
-  SoCal Gas 7000 Line
-  Freeway
-  Street
-  Railroad
-  Parcel
-  Section
-  Waterway
-  County Boundary
-  City Boundary

NOTE: Potable Water and Sewer Connections are on the project site.



# Kings River Conservation District Community Power Plant



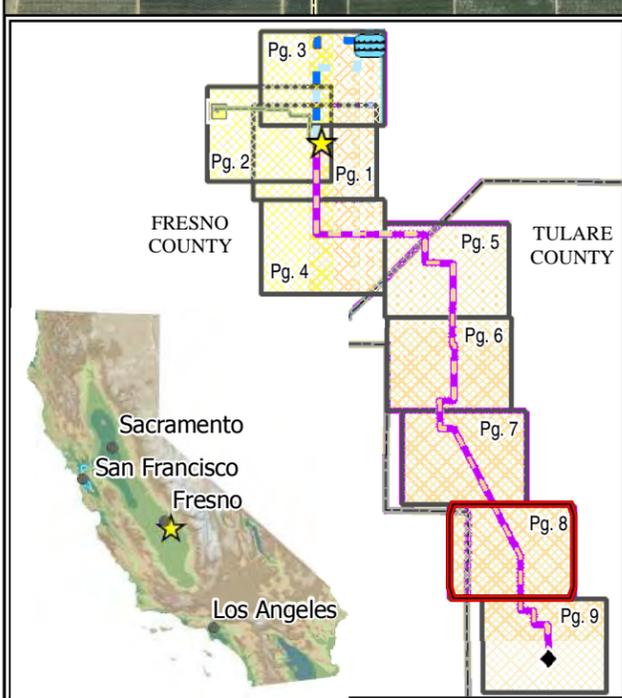
**KRCDD COMMUNITY POWER PLANT**  
*Energy for our Future*

FIGURE: 1-3 Rev.1  
**KRCDD CPP Project Area**  
Page: 8 of 9

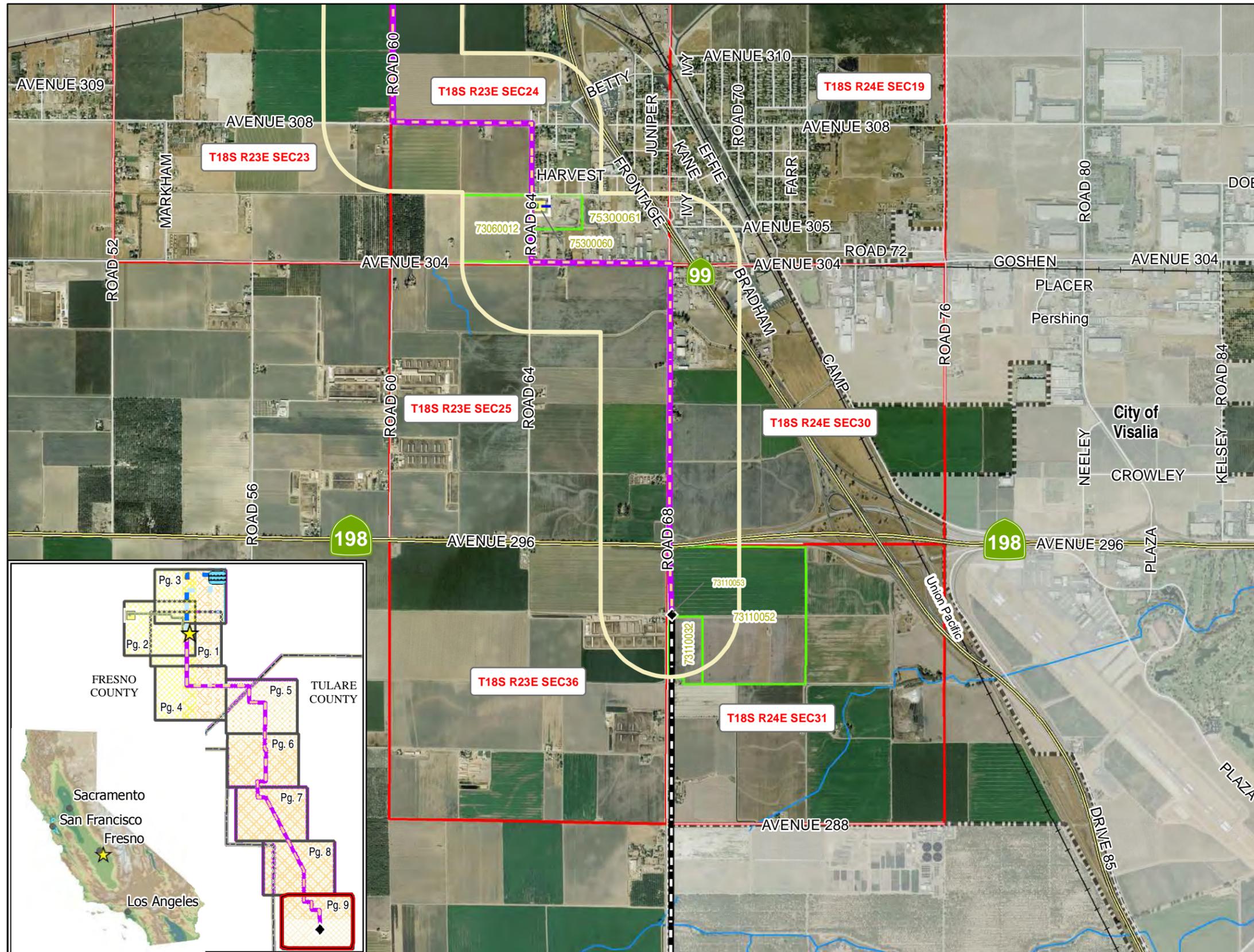
- KRCDD Community Power Plant
- KRCDD CPP Project Site
- KRCDD CPP Project Laydown
- KRCDD CPP Site 1 Mile Buffer
- Linear 1/4 Mile Buffer
- Substation
- Proposed 230KV Transmission Line
- Waste Water Percolation Ponds
- Proposed Water Supply Pipeline - Option 1
- Proposed Water Supply Pipeline - Option 2
- Natural Gas Connection Point
- Proposed Natural Gas Laydown Area
- Proposed Natural Gas Pipeline
- SoCal Gas 7000 Line
- Freeway
- Street
- Railroad
- Parcel
- Section
- Waterway
- County Boundary
- City Boundary

NOTE: Potable Water and Sewer Connections are on the project site.

N 0 0.25 0.5 0.75 1 Mile  
1:24,000 Scale 1 Inch equals 2,000 Feet



# Kings River Conservation District Community Power Plant



## KRCD COMMUNITY POWER PLANT

*Energy for our Future*

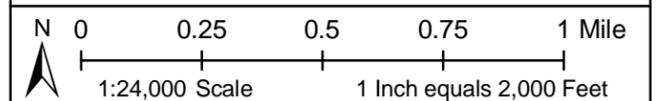
FIGURE: 1-3 Rev.1

### KRCD CPP Project Area

Page: 9 of 9

- KRCD Community Power Plant
- KRCD CPP Project Site
- KRCD CPP Project Laydown
- KRCD CPP Site 1 Mile Buffer
- Linear 1/4 Mile Buffer
- Substation
- Proposed 230KV Transmission Line
- Waste Water Percolation Ponds
- Proposed Water Supply Pipeline - Option 1
- Proposed Water Supply Pipeline - Option 2
- Natural Gas Connection Point
- Proposed Natural Gas Laydown Area
- Proposed Natural Gas Pipeline
- SoCal Gas 7000 Line
- Freeway
- Street
- Railroad
- Parcel
- Section
- Waterway
- County Boundary
- City Boundary

NOTE: Potable Water and Sewer Connections are on the project site.



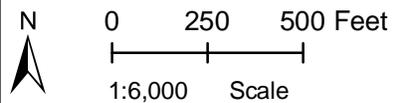
# Kings River Conservation District Community Power Plant



-  KRCD Community Power Plant
-  KRCD CPP Proposed Project Site
-  Adjacent Parcel
-  Section
-  Major Street

FIGURE: 2-7 rev.1

KRCD CPP Site  
 Land Description



**KRCD COMMUNITY  
 POWER PLANT**

*Energy for our Future*

**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Socioeconomics**

**Data Request Socio-1:**

Please provide the current vacancy rates for temporary housing (and date) i.e., the 700 hotel/motel rooms in the City of Fresno discussed in the AFC.

**Response:**

According to the Fresno Convention and Visitor's Bureau, there are currently more than 7,500 hotel/motel rooms available in the City of Fresno. The 2006 vacancy rate for these hotel/motel rooms was between 40-43% (Cogdill, 2007). Vacancy rates are calculated on an annual basis. Since the 2006 vacancy rate determination there have been an additional three hotels built in the City of Fresno, totaling approximately 250 rooms and three additional hotels are expected to be constructed in the following year totaling approximately 200 additional rooms. Based on the current vacancy rate and the additional hotels that have been built or are being constructed, the 40 to 43 percent vacancy rate is expected to continue (Cogdill, 2007).

**References:**

Cogdill, Orin, 2007. Personal communication between Orin Cogdill, President, Fresno Convention and Visitors Bureau and Amy Cuellar, Navigant Consulting. October 31, 2007.

Fresno Convention and Visitor's Bureau, 2007. website at:  
<http://www.fresnocvb.org/>.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Socioeconomics**

**Data Request Socio-2:**

Please provide an estimate of applicable school impact fees.

**Response:**

The following law, ordinance, regulation or standard (LOR) should be included in Section 8.13.5.2, State, in Section 8.13 - Socioeconomics:

**Government Code Sections 65995-65997 and Education Code Sections 17620-17626**

In accordance with Government Code Section 65995-65997 and Education Code Sections 17620 and 17626, the governing board of any school district is authorized to levy a fee against the any construction within the boundaries of the district, for the purposes of funding the construction or reconstruction of school facilities. The fee applies to new residential, commercial and industrial construction. For new commercial and industrial construction, the fee is calculated based on the square footage of any structures on the site.

As stated in Section 8.13.2.6 in Section 8.13, Socioeconomics, the KRCD CPP is located within the boundaries of the Selma Unified School District. The KRCD CPP will be reviewed by the Selma Unified School District and will be assessed a developer fee, if it is determined that the fees are applicable to KRCD as a local public agency. KRCD will complete a Certification of Compliance form at the Building Department. The Building Department will then verify the square footage of the KRCD CPP to confirm fees which are then payable to the Selma Unified School District. Fees assessed by the Selma Unified School District for commercial and industrial developments are \$.42 per square foot (Martinez, 2007). Based on preliminary assessments of the current structural dimensions of the KRCD CPP as shown on AFC Figure 2-1 – General Arrangement, estimated fees are \$11,967 (28,492 square feet x \$.42 per square foot). If KRCD, as a local public agency, is subject to developer fees, then they will be paid in full.

**Reference:**

Martinez, Cathy. 2007. Personal Communication between Cathy Martinez, Selma Unified School District and Amy Cuellar, Navigant Consulting. October 31, 2007.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Socioeconomics**

**Data Request Socio-3:**

Please provide separate estimates of the total operation payroll for permanent and short-term (contract) operation employees.

**Response:**

The estimated annual payroll costs for permanent operating staff is \$2.5 million. The estimated annual payroll for short-term contract employees is \$250,000. Both of these estimates are inclusive employer's payroll costs.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Soils**

**Data Request Soils-1:**

A discussion of the method for measuring the effectiveness of the proposed mitigation measures and any monitoring plans proposed to verify the effectiveness of the mitigation is required. If no monitoring plan is proposed, please explain the rationale.

**Response:**

No significant soil impacts are projected to result from construction, operation, and maintenance; hence no mitigation measures are proposed in Section 8.12, Soils. The outline for the Storm Water Pollution Prevention Plan (SWPPP) found in Appendix 8.5-3 accounts for the best management practices, a monitoring program, and accompanying reports and verification for all potential soil erosion.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Soils**

**Data Request Soils-2:**

Please provide a quantification of soil loss due to wind and water erosion.

**Response:**

**Water Erosion:** Please see the Attachment Soils-2, which quantifies soil loss due to water erosion.

**Wind Erosion:** Please see Appendix 8.1-3, Construction Phase Emissions and Impacts, which includes tables showing total estimated fugitive dust emissions generated on-site during construction (Tables CE4 and 5), and estimated fugitive dust emissions generated for the three linears (Tables CE19, 20 and 21). These tables indicate that most of the estimated fugitive dust results from vehicle activities. The subset of emissions due to wind erosion is relatively small. Maximum daily on-site fugitive dust (assumed as Particulate Matter 10 micrograms diameter and smaller (PM10) is estimated 22-23 pounds per day (lbs/day) of which 1-2 lbs/day is due to direct wind erosion. Annually on-site fugitive dust is estimated as 3,287 pounds per year (lbs/yr), of which 134 lbs/yr is due to direct wind erosion. For the linears maximum daily fugitive dust is estimated 2-3 lbs/day (for all three linears) of which 0.02 lbs/day is due to direct wind erosion. (Since linear construction activity will not stay in one place, we did not provide an estimate of annual fugitive dust for the linears.) Note these estimates assume a dust suppression level of 90%, which is high but achievable. Also, note that the figures above are for PM<sub>10</sub> (of interest for air emissions impacts). Some of the soil particles will have a mean diameter of greater than 10 microns and this soil is not accounted for in the fugitive dust estimates. The high level of suppression should have a greater retarding action of these larger particles.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Attachment Soils-2**

**Quantification of Soil Loss Due to Water Erosion**



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

<b>Soils-2 Estimated Soil Loss From Water Erosion Using Revised Universal Soil Loss Equation (RUSLE2) KRCDD CPP</b>				
<b>Features</b>	<b>Activity</b>	<b>Duration (Months)</b>	<b>Soil Loss (tons) without BMPs</b>	<b>Soil Loss (tons) with BMPs</b>
Site (32 acres)	Grading / Construction	2	1427	0.040
Laydown Area (15 acres)	Grading	1	0.350	0.010
Gas Pipeline (16.21 acres)	Grading / Excavation	6	1859	0.053
Gas Line Staging Areas (3.7 acres)	Grading / Excavation	6	.0410	0.012
Water Line (3.03 acres)	Grading / Excavation	6	0.420	0.010
Total Site, Linears, and Staging Areas			4.466	0.125
<b>Notes:</b>				
<p>a. Soil losses (tons/acre/year) are estimated using RUSLE2 software available on line at:  <a href="http://fargo.nserl.purdue.edu/rusle2_dataweb/RUSLE2_index.htm">http://fargo.nserl.purdue.edu/rusle2_dataweb/RUSLE2_index.htm</a>.</p> <ul style="list-style-type: none"> <li>• The soil mapping unit data specific to each county were downloaded directly from the above-cited on line source.</li> <li>• Soil loss (R-factors) were estimated using 2-year, 6-hour point precipitation frequency amount for the nearest National Weather Service station to the project site [on line at <a href="http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html">http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html</a>].</li> <li>• Estimates of actual soil losses use the RUSLE2 soil loss times the duration and the affected area.</li> </ul> <p>b. The estimate of total project time is derived from the general construction schedule shown in Table 2-2.            Project Assumptions as follows:</p> <ul style="list-style-type: none"> <li>• The portion of the site that will be disturbed is 32 acres which includes the Project Site and laydown area.</li> <li>• The pipeline trenches are estimated at 5-foot width over their entire lengths and the estimates of soil loss along the lines were calculated by measuring the lineal feet of each soil map unit, calculating corresponding acreages, and applying the erosion rate from RUSLE2 to each unit-segment.</li> </ul> <p><b>RUSLE2 Assumptions as follows:</b>            100-ft slope length. Estimated soil unit slope is the midpoint of the minimum and maximum of the unit slope class. Rock cover percent estimated to be zero throughout project area.            Construction soil losses assume the following inputs: Management - Bare ground; Contouring - None, rows up and down hill; Diversion/terracing - None; Strips and Barriers - None.            Grading soil losses assume the following inputs: Management - Bare ground/rough surface; Contouring - None, rows up and down hill; Diversion/terracing - None; Strips and Barriers - None.            Construction with BMP soil losses assume the following inputs: Management - Silt fence; Contouring - Perfect, no row grade; Diversion/terracing - None; Strips and Barriers - 2 fences, 1 at end of RUSLE slope.</p>				



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Soils**

**Data Request Soils-3:**

Please provide a discussion of the effect of the power plant emissions on the surrounding soil-vegetation systems.

**Response:**

Sections 3.0 and 4.0 of Appendix 8.1-3, Construction Phase Emissions and Impacts, include a listing of available mitigation measures for on- and off-site construction emissions, including nitrogen oxide (NO<sub>x</sub>), carbon monoxide (CO), volatile organic carbons (VOCs), sulfur oxide (SO<sub>x</sub>), PM<sub>10</sub>, and PM<sub>2.5</sub>. Also see the last paragraph of Section 8.12.3.3, in Section 8.12 – Soils for a discussion of the effect of power plant emissions on the surrounding soil-vegetation systems.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Traffic & Transportation**

**Data Request Traffic-1:**

Please provide road design capacities.

**Response:**

The traffic analysis completed in Section 8.6, Traffic and Transportation focused on AM and PM Peak Hour conditions at select intersections which, based on the premise that intersections typically set the capacity of the network, set the capacity of the roadway network in the project vicinity. Intersections generally act as the constriction points where vehicles can be required to yield the right-of-way to others versus traveling unchecked at speed. Attachment Traffic-1 has provides the requested information on road design capacities. Attachment Traffic-1 includes roadway classification existing daily and peak hour volumes, design capacities, project related daily and peak construction volumes and project operational volumes.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Attachment Traffic-1**

**Roadway Segment Design Classification, Daily and  
Peak Hour Design Capacity, and Construction and  
Operational Daily and Peak Hour Traffic Volumes**



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT**  
**APPLICATION FOR CERTIFICATION (07-AFC-7)**  
**SUPPLEMENT A**

<b>Traffic-1</b>						
<b>Roadway Segment Design Classification, Daily and Peak Hour Design Capacity, and Construction and Operational</b>						
<b>Daily and Peak Hour Traffic Volumes</b>						
<b>KRCD CPP AFC</b>						
<b>Roadway/Location</b>	<b>Classification (1)</b>	<b>Time Period (Daily/ Peak Hour)</b>	<b>Design Capacity (1)</b>	<b>Existing 2-Way Traffic (2)/ Level of Service</b>	<b>Existing Plus Peak Month Construction Two-Way Traffic / Level of Service</b>	<b>Existing Plus Project Operational Two-Way Traffic / Level of Service</b>
US 99 at Selma	6-Lane Freeway	Daily Peak Hour	95,700 9,570	62,000/ LOS B 5,800/ LOS B(3)	62,700/ LOS B 6,150/ LOS B	62,020/ LOS B 5,813/ LOS B
Manning Avenue West of Bethel	4-Lane Divided Expressway	Daily AM Peak Hour PM Peak Hour	29,400 2,940 2,940	16,215/ LOS A 1,520/ LOS A 1,725/ LOS A	13,563/ LOS A 1,870/ LOS B 1,725/ LOS A	16,237/ LOS A 1,533/ LOS A 1,734/ LOS A
Golden State Boulevard South of Manning Avenue	4- Lane Divided Expressway	Daily AM Peak Hour PM Peak Hour	29,400 2,940 2,940	8,110/ LOS A 660/ LOS A 950/ LOS A	8,110/ LOS A 660/ LOS A 950/ LOS A	8,110/ LOS A 660/ LOS A 950/ LOS A
Bethel Avenue North of Project Site	2-Lane Collector	Daily AM Peak Hour PM Peak Hour	10,600 1,600 1,600	1,060/ LOS A 95/ LOS A 74/ LOS A	1,502/ LOS A 445/ LOS A 120/ LOS A	1,085/ LOS A 110/ LOS A 85/ LOS A
1) Fresno County General Plan, January 2000; Selma General Plan, 1997 2) Manual Turn Movement Counts, 2006 and 2007, Peak hour counts expanded to assume peak hour at 10% of daily traffic 3) Caltrans, 2007 – Traffic Volumes available at <a href="http://traffic-counts.dot.ca.gov/">http://traffic-counts.dot.ca.gov/</a>						
LOS – Level of Service						



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Traffic & Transportation**

**Data Request Traffic-2:**

Please provide current daily average and peak traffic counts.

**Response:**

Attachment Traffic-1 includes requested average daily traffic volumes and peak hour volumes. Existing peak hour turn movement volumes at select intersections are also summarized in Figure 8.6-3 of the KRCD CPP AFC.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Traffic & Transportation**

**Data Request Traffic-3:**

Please provide weight and load limitations.

**Response:**

Roadways providing access to the site include US 99, Manning Avenue and Bethel Avenue. All of these roadways are governed by the California Vehicle Code relative to allowable weights, lengths, widths, and heights. In accordance with the California Vehicle Code, the maximum legal load limit is 80,000 pounds; the maximum length for a semi-trailer is 65 feet and 75 feet for a set of doubles; the maximum allowable width is 108 inches; and the maximum allowable height is 14 feet. If those limits are to be exceeded, a special permit is required and will be obtained as discussed in Section 8.6.7, of Section 8.5, Traffic and Transportation.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Traffic & Transportation**

**Data Request Traffic-4:**

Please provide estimated percentage of current traffic flows for passenger vehicles and trucks.

**Response:**

Available truck percentages on roadways in the project vicinity are limited. Fresno County indicated the traffic stream on US 99 near Selma includes about 24% trucks. Similarly, traffic streams on sections of Golden State Boulevard can include upwards of 52% trucks.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Traffic & Transportation**

**Data Request Traffic-5:**

Please identify any road features affecting public safety.

**Response:**

No roadway features were identified that might affect public safety relative to the proposed project. The roadway network follows a basic grid pattern with tangent sections, limited vertical grade changes and close to right angle intersections. Railroad crossings on access roads are fully controlled with gates and signals.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT**  
**APPLICATION FOR CERTIFICATION (07-AFC-7)**  
**SUPPLEMENT A**

**Technical Area: Traffic & Transportation**

**Data Request Traffic-6:**

Please provide an assessment of the construction and operation impacts of the proposed project on the Union Pacific rail line, school bus routes, and Selma Airport. Also include anticipated project-specific traffic estimated changes to daily average and peak traffic counts.

**Response:**

Construction and operation of the KRCD CPP will not impact operations of the Union Pacific Railroad, school routes or the Selma Airport. The active crossings where project traffic might cross the Union Pacific Railroad are the crossings on Manning Avenue and Mountain View Avenue near Highway 99. These railroad crossings are controlled with gates and lights and will not be impacted. AFC Figure 8.6-2 (page 3 of 9) also shows the Atchison Topeka Railroad as crossing the proposed route for proposed water supply pipeline Option 1 and Option 2. This rail line, while identified in Geographic Information System information used to create Figure 8.6-2, no longer exists in these areas. Based on a recent field investigation, there are no railroad crossings associated with water pipeline route. Some buses from the Selma Unified School District do follow Bethel and Manning avenues but safety and circulation will not be adversely impacted by the KRCD CPP since all traffic is required to stop and wait when a school bus stopping to pick up or drop off a student extends a stop sign and illuminates flashing red lights. Additional information on school bus routes is included in Section 8.6.2.8, in Section 8.6, Traffic and Transportation. The Selma Airport is located approximately three miles from the project site and west of US 99 (See Section 8.6.2.10). Traffic associated with the KRCD CPP will not occur in the area of the airport; therefore it will not be impacted.

Estimates of changes in average daily and peak hour traffic counts associated with project construction and long term operation are summarized in the Attachment Traffic-1.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Traffic & Transportation**

**Data Request Traffic-7:**

Please provide a discussion of project-related hazardous materials to be transported to or from the project during construction, including the types, estimated quantities, estimated number of trips, anticipated routes, means of transportation, and any transportation hazards associated with such transport.

**Response:**

Hazardous materials used during construction will be limited to vehicle fuels, oil, grease, welding flux, acetylene, and paints and solvents which will all be transported to and from the site in approved containers and properly licensed vehicles (in accordance with the vehicle code). Vehicles are expected to follow US 99 to Manning Avenue and Manning Avenue east to Bethel Avenue and Bethel south to the site. The transport of hazardous material during construction will be limited, be done in accordance with the California Vehicle Code and should not have a significant impact on traffic safety.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Transmission System Design**

**Data Request TSD-1:**

Provide a one-line diagram for the McCall Substation before the interconnection of the project.

**Response:**

As described in Section 4.2, Transmission Interconnection, in Chapter 4, Electric Transmission, detailed McCall design drawings were requested from Pacific Gas and Electric Company (PG&E), including a one-line diagram for the substation before the interconnection of the KRCD CPP. Unfortunately, PG&E has responded that this level of detailed design drawing cannot be provided due to security reasons. Therefore, such detailed drawings cannot be provided.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Transmission System Design**

**Data Request TSD-2:**

Provide a one-line diagram for the McCall Substation before the interconnection of the project.

**Response:**

As described in Section 4.2, Transmission Interconnection, in Chapter 4, Electric Transmission, detailed McCall design drawings were requested from Pacific Gas and Electric Company (PG&E), including a one-line diagram for the substation before the interconnection of the KRCD CPP. Unfortunately, PG&E has responded that this level of detailed design drawing cannot be provided due to security reasons. Therefore, such detailed drawings cannot be provided.



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Technical Area: Visual Resources**

**Data Request Vis-1:**

The KOP images are not presented at life-size scale. The purpose behind the use of a life-size (approximately tabloid size) photo is that if an individual extended it to a normal reading range and lined it up with the horizon at the KOP location, the photo simulation if accurate will lineup/match the actual physical setting providing a true to life view of the proposed power plant. Please provide individual life-size photos of Figure 8.3-7, Figure 8.3-8, Figure 8.3-9, and Figure 8.3-10.

**Response:**

KRCD representatives respectfully disagree that 11 by 17 inch (tabloid-size) images held at a distance of 10 inches from the viewer's eyes are necessary to provide a "life-size" view of the project. As presented Section 8.3, Visual Resources, the KOP images effectively convey the change in existing visual conditions that would be brought about by the project including the scale of the project as seen in relationship to the surrounding landscape. Nonetheless the KOP images presented on AFC Volume 3 Figures 8.3-7, Figure 8.3-8, Figure 8.3-9, and Figure 8.3-10 have been resized to fit individually on 11 by 17 inch sheets (tabloid size) and are included as Attachment Vis-1.

AFC Figures 8.3-7, 8.3-8, 8.3-9 and 8.3-10 can be replaced with new Figures 8.3-7a, 8.3-7b, 8.3-7c, 8.3-8a, 8.3-8b, 8.3-9a, 8.3-9b, 8.3-10a and 8.3-10b. The figures showing the existing views are labeled with an "a" and the simulation images have been labeled with a "b".



**KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PLANT  
APPLICATION FOR CERTIFICATION (07-AFC-7)  
SUPPLEMENT A**

**Attachment Vis-1**

**Revised Figures 8.3-7, 8.8-8, 8.3-9, and 8.3-10**





Existing view from S. Bethel Avenue near E. Dinuba Avenue (KOP-1)

Refer to Figure 9.3-2a for viewpoint location



Visual simulation of proposed project at 5 years (KOP-1)



Visual simulation of proposed project at 10 years (KOP-1)



Existing view from S. Bethel Avenue north of the site (KOP-2)  
Refer to Figure 9.3-2a for viewpoint location

ENVIRONMENTAL VISION  
102807

**Figure 9.3-8a Visual Simulation**  
Kings River Conservation District Community Power Plant  
Parlier, California



Visual simulation of proposed project at 5 years (KOP-2)

**Figure 9.3-8b Visual Simulation**  
Kings River Conservation District Community Power Plant  
Parlier, California



Existing view from E. Manning Avenue at Kingsburg Branch Canal (KOP-3)  
Refer to Figure 9.3-2a for viewpoint location

ENVIRONMENTAL VISION  
102807

**Figure 9.3-9a Visual Simulation**  
Kings River Conservation District Community Power Plant  
Parlier, California



Visual simulation of proposed project at 5 years (KOP-3)



Existing view from E. Manning Avenue between S. Indianola and S. Bethel Avenues looking east (KOP-4)

Refer to Figure 9.3-2b for viewpoint location

ENVIRONMENTAL VISION

102807

**Figure 9.3-10a Visual Simulation**  
Kings River Conservation District Community Power Plant  
Parlier, California



Visual simulation of proposed project (KOP-4)

**Figure 9.3-10b Visual Simulation**  
Kings River Conservation District Community Power Plant  
Parlier, California