

Appendix B

Draft Engineering Designs

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Castle and Cooke, Inc.

Madera County, CA

Gateway Village In-Lieu Pipeline



BENCH MARKS

All elevations shown are based on the California Coordinate System, Zone 5, NAD 83, Epoch 1983, as determined by Station 1804-D-Ca-08-85 with an NAD 83 elevation of 430.00 feet.

U.S.C. & G.S. MONUMENT

The station is located near the State Highway 41 crossing of the Madera Canal. To reach the station from the junction of State Highway 41 and 99, go south on Highway 41 for 2.3 miles to the bridge over the Madera Canal. Continue south on Highway 41 for 0.1 mile to the station on the left at post mile 6.8. The station is a survey disk mounted in PVC pipe with access cover set in concrete flush with the ground. The station is about 500 FT south of the bridge over the Madera Canal, about 215 FT south of a concrete viaduct over the canal, 56.1 FT southwest of a road crossing sign, 54.0 FT east of the centerline of Highway 41, 22.5 FT east of the center of the access road on the west side of the canal, 2.3 FT east of a concrete release post and about 2 FT higher than Highway 41.

TOPOGRAPHY NOTE

Topography shown is photogrammetric data provided by Aerial Photographing Services August 2003 and supplemented by field surveys conducted March 2006.

BOUNDARY NOTE

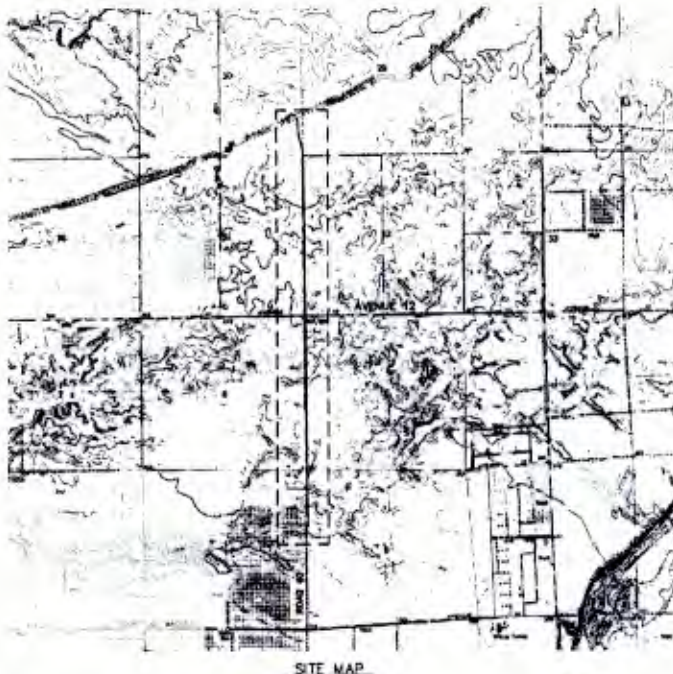
The boundary/assessors information shown on these plans is based upon record information last in physical monuments, and was prepared under the direction of Craig L. Baum, P.L.S. 7690.

CONSULTING ENGINEERS AND LAND SURVEYORS OF CALIFORNIA

Construction Contractor agrees to be in compliance with generally accepted construction practices, construction Contractor will be required to assume sole and complete responsibility for job site conditions during the course of construction of the project, including safety of all persons and property, that the Contractor shall be held to a very continuous and not be limited to normal working hours, and construction Contractor further agrees to defend, indemnify and hold design professional harmless from any and all liability, real and alleged, in connection with the performance of work on this project, accepting liability arising from the same negligence of design professional.

SPECIAL NOTE

Where underground and surface structures are shown on the plans, the locations, depth and dimensions of structures are believed to be reasonably correct, but are not guaranteed. Such structures are shown for the information of the Contractor, but information is given to be construed as a representation that such structures are, in all cases, as shown where shown, or that they represent all of the structures which may be encountered.



SITE MAP

SITE SAFETY AND PROTECTION NOTES

1. THE DUTY OF THE ENGINEER, OWNER OR ITS AGENTS TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE AND THE UNDERTAKING OF INSPECTIONS OR THE ISSUING OF INSTRUCTIONS AS AUTHORIZED HEREIN IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON, OR NEAR THE CONSTRUCTION SITE AND SHALL NOT BE CONSTRUED AS SUPERVISION OF THE ACTUAL CONSTRUCTION WORK MAKE THE ENGINEER, OWNER OR ITS AGENTS RESPONSIBLE FOR PROVIDING A SAFE PLACE FOR THE PERFORMANCE OF WORK BY THE CONTRACTOR, SUBCONTRACTORS, OR SUPPLIERS, OR FOR ACCESS, VISITS, USE, WORK, TRAVEL OR OCCUPANCY BY ANY PERSON.
2. THE CONTRACTOR SHALL HAVE AT THE WORK SITE, COPIES OF SUITABLE EXTRACTS OF CONSTRUCTION SAFETY ORDERS, ISSUED BY CAL-OSHA. HE SHALL COMPLY WITH PROVISIONS OF THESE AND ALL OTHER APPLICABLE LAWS, ORDINANCES AND REGULATIONS. THE CONTRACTOR MUST COMPLY WITH PROVISIONS OF THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, PRELIMINARY BY THE SECRETARY OF LABOR UNDER SECTION 107 OF THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT, AS SET FORTH IN TITLE 29 C.F.R.
3. TO PROTECT THE LIVES AND HEALTH OF HIS EMPLOYEES UNDER THE CONTRACT, THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION ISSUED BY THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC. AND SHALL MAINTAIN AN ACCURATE RECORD OF ALL CASES OF DEATH, OCCUPATIONAL DISEASE, AND INJURY REQUIRING MEDICAL ATTENTION OR CAUSING LOSS OF TIME FROM WORK, ARISING OUT OF AND IN THE COURSE OF EMPLOYMENT OR WORK UNDER THE CONTRACT.
4. THE CONTRACTOR ALONE SHALL BE RESPONSIBLE FOR THE SAFETY, EFFICIENCY, AND ADEQUACY OF HIS FACILITIES, APPLIANCES, AND METHODS AND FOR ANY DAMAGE, WHICH MAY RESULT FROM THEIR FAILURE OR THEIR IMPROPER CONSTRUCTION, MAINTENANCE OR OPERATION.
5. THE OWNER AND ITS AGENTS' SITE RESPONSIBILITIES ARE LIMITED SOLELY TO THE ACTIVITIES OF THEIR EMPLOYEES ON SITE. THESE RESPONSIBILITIES SHALL NOT BE IMPLIED BY ANY PARTY TO MEAN THAT THE OWNER OR ITS AGENTS HAVE RESPONSIBILITY FOR SITE SAFETY, SAFETY IN, ON, OR ABOUT THE SITE IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR ALONE. THE CONTRACTOR'S METHODS OF WORK, PERFORMANCE, SUPERINTENDENCE AND THE CONTRACTOR'S EMPLOYEES, AND SEQUENCES OF CONSTRUCTION ARE ALSO THE SOLE AND EXCLUSIVE RESPONSIBILITIES OF THE CONTRACTOR ALONE.

GENERAL NOTES

1. Madera Irrigation District (MID) 559-673-3514 shall be contacted at least 48 hours prior to commencement of work on or near existing District facilities.
2. Used material, rejects, debris, or seconds, etc. are not acceptable for use on facilities.
3. All construction shall be in accordance with these plans.
4. Contractor shall field verify the horizontal and vertical locations of all existing facilities prior to commencing work. Call Underground Service Alert (CUSA) at 811. Contractor shall make Engineer aware of any discrepancies.
5. MID shall inspect all work phases on irrigation facilities for conformance to MID specifications. Reinstalling shall not be allowed in concrete without prior MID inspection. Likewise, concrete shall not be covered with earth prior to MID inspection.
6. All steel pipe and fittings shall be furnished with a shop applied high solids epoxy coating on the interior and exterior, unless otherwise indicated. All exposed steel shall be primed with a pig-priming primer, an undercoat and a final coat of paint in accordance with MADERA IRRIGATION DISTRICT specifications.
7. All nuts, bolts, and washers used to secure underground fittings shall be stainless steel. After installation, all steel hardware shall be coated with a rust preventative, wrapped with a neoprene sheathing, and secured with PVC tape.
8. All construction shall be performed in accordance with applicable health and safety laws of the State of California and CAL/OSHA standards.
9. Concrete waste and boxes may be purchased from a precast manufacturer or Contractor may construct the structures if structural calculations and design is approved by the MADERA IRRIGATION DISTRICT and the Engineer.
10. All excess material and/or debris shall be removed upon completion of installation.
11. Contractor shall be responsible for providing adequate dust control on all times. A dust control permit form from SCAQMD is required.
12. Contractor shall prepare, file, and conform with all provisions of a Storm Water Pollution Prevention Plan.

DESIGN NOTES

1. TURNOUT DESIGN FLOW = 30 CFS
2. IRRIGATION LATERAL PIPELINES NOT A PART OF THESE DRAWINGS

APPROVALS

ROOT CREEK WATER DISTRICT	DATE
MADERA IRRIGATION DISTRICT	DATE
MADERA COUNTY	DATE

SHEET INDEX

SHEET NO.	DESCRIPTION
GN1	COVER SHEET
GN2	GENERAL NOTES
GN3	PLAN AND PROFILE
PP1	STA 10+00 TO 24+00
PP2	STA 24+00 TO 58+00
PP3	STA 58+00 TO 82+00
PP4	STA 82+00 TO 106+00
PP5	STA 106+00 TO 130+00
PP6	STA 130+00 TO 142+00
PP7	STA 142+00 TO 154+00 (END)
PP8	PIPELINE CONSTRUCTION DETAILS
ST1	36 INCH TURNOUT STRUCTURE
ST2	24 INCH TURNOUT STRUCTURE
ST3	36 INCH METERS STRUCTURE
ST4	24 INCH METERS STRUCTURE
ST5	OUTFALL STRUCTURE
DT1	TURNOUT DETAILS
DT2	AVE 12 CROSSING
DT3	STANDARD DETAILS
DT4	STANDARD DETAILS



PRELIMINARY
FOR REVIEW AND APPROVAL
01/26/2011



Gateway Village
In-Lieu Pipeline
Castle and Cooke, Inc.
Madera County, CA

COVER SHEET



DESIGN ENGINEER
Ready signature
USING M2
CREATED BY
DVS
CHECKED BY
VLS
SCALE AS SHOWN
DATE 01/26/2011
JOB NO: 1040-101
SHEET
GN1

ASSESSMENTS

4P	AMERICAN WOLF
4PM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
4C	BRAIN CLIMB
4A	CALIFORNIA
4B	CLIMB LEFT FOR SECOND
4D	CLIMB IN PLACE
4E	CLIMB
4F	CLIMB FOR PLACE

[illegible][illegible]

0001	CONSTRUCTION
0002	CHLORINE
0003	CHLORINE
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0100	CHLORINE

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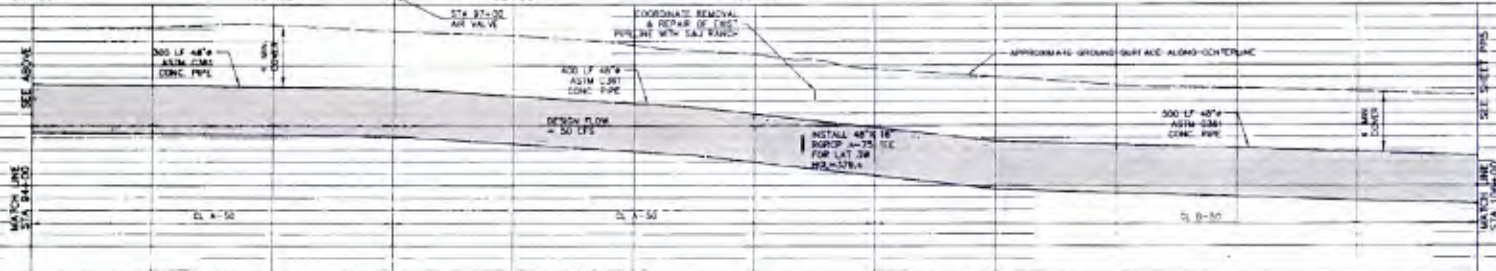
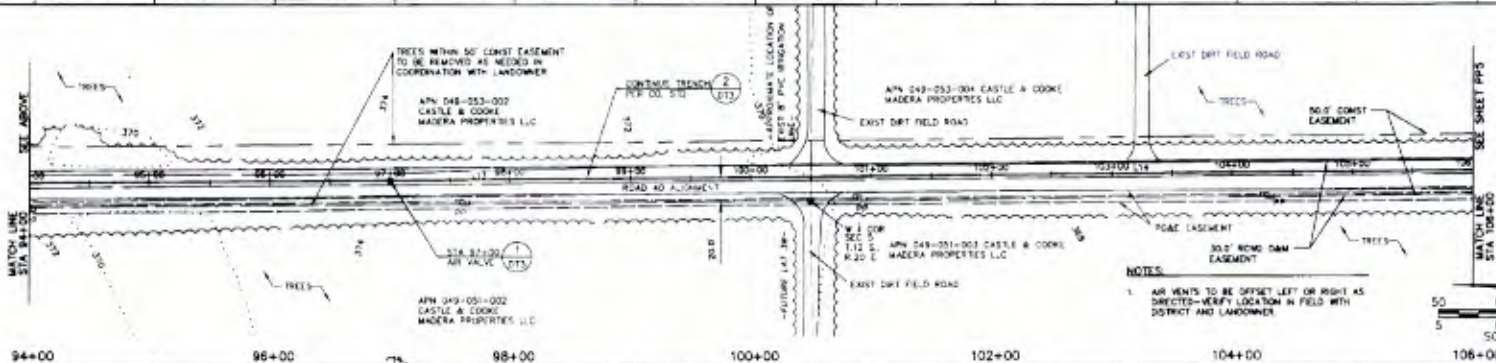
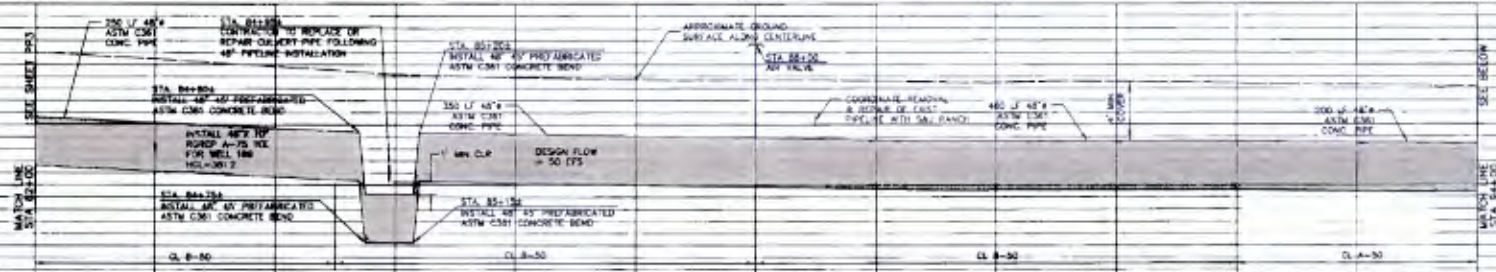
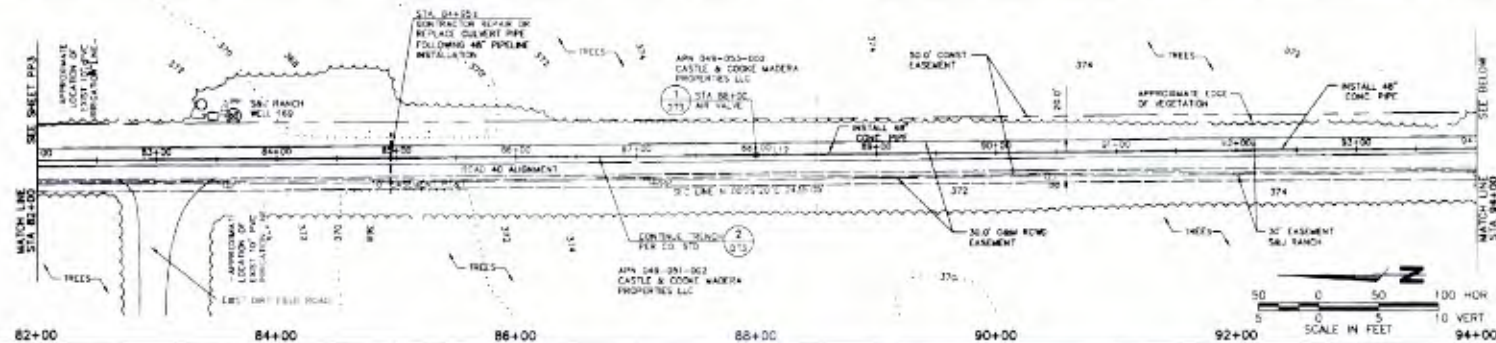


PROVOST & PRITCHARD
an independent financial consultancy
200 WEST GERRARD STREET
WEST, SCARBOROUGH, ONTARIO
M1H 3Z5 CANADA
TEL: (416) 291-1000 FAX: (416) 291-1001
www.provostpritchard.com

[illegible]



Know what's below.
Call before you dig.



LINE	TABLE	SCALE
LINE	TABLE	SCALE

LINE	TABLE	SCALE
LINE	TABLE	SCALE



PROVOST & PRITCHARD
1000 S. GATEWAY AVENUE
MADERA, CA 93750
(510) 835-1100
WWW.PROVOST-PRITCHARD.COM

PRELIMINARY
FOR REVIEW AND APPROVAL
01/26/2011



Gateway Village
In-Lieu Pipeline
Castle & Cooke, Inc.
Madera County, CA



DESIGN ENGINEER
Randy Hopkins
LICENSE NO. 81035
DRAFTED BY: VLS
CHECKED BY: VLS
SCALE: AS SHOWN
DATE: 01/26/2011
JOB NO: 1249101
SHEET: 10

PP4



PROVOST & PRITCHARD

ENGINEERS

10000 E. 1st Ave. Suite 100

Denver, CO 80231

303.755.1111

www.provostpritchard.com

Gateway Village In-Lieu Pipeline

Castle and Cooke, Inc.

Modesto County, CA

PLAN & PROFILE

STA 106+00 TO 130+00

PRELIMINARY

FOR REVIEW AND APPROVAL

01/28/2011

DATE

BY

REVISION

NO.

DATE

BY

REVISION

NO.

SCALE: AS SHOWN

DATE: 1/28/2011

DESIGNED BY: JPD

CHECKED BY: JPD

DATE: 1/28/2011

SCALE: 1" = 100'

DATE: 1/28/2011

SCALE: 1" = 100'

PROVOST & PRITCHARD

ENGINEERS

10000 E. 1st Ave. Suite 100

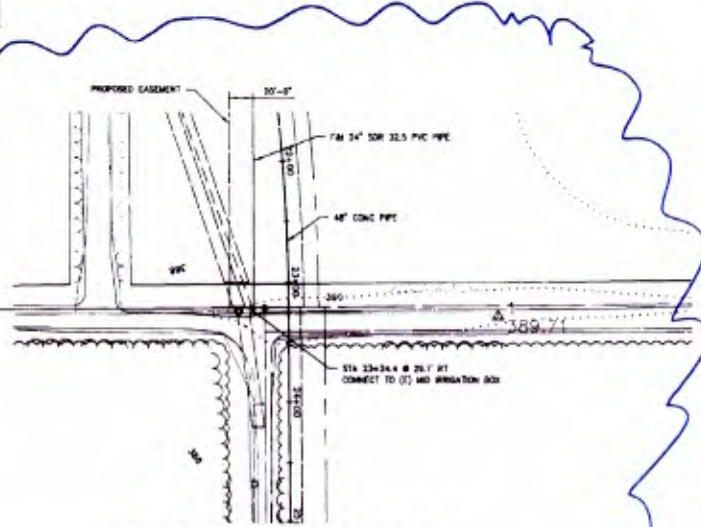
Denver, CO 80231

303.755.1111

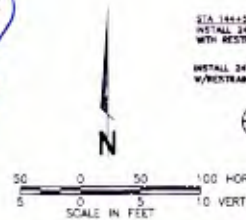
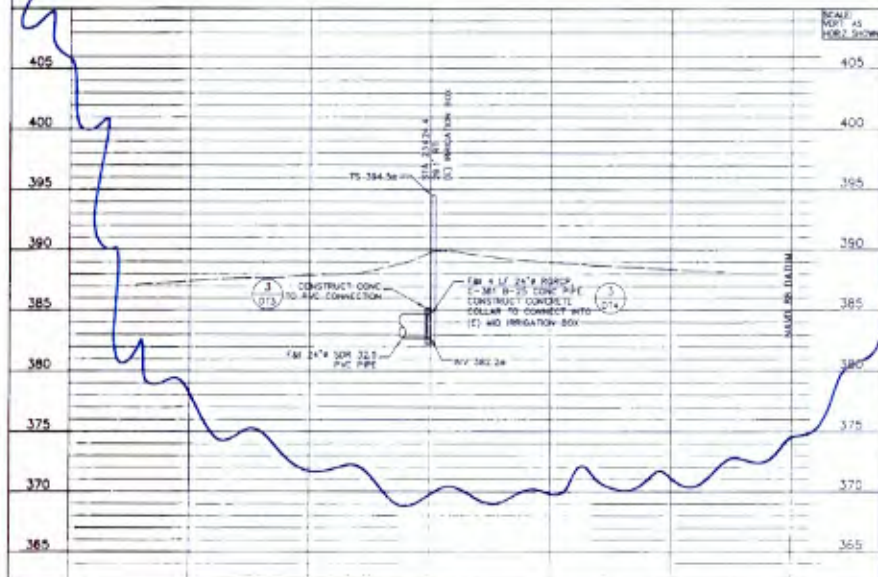
www.provostpritchard.com



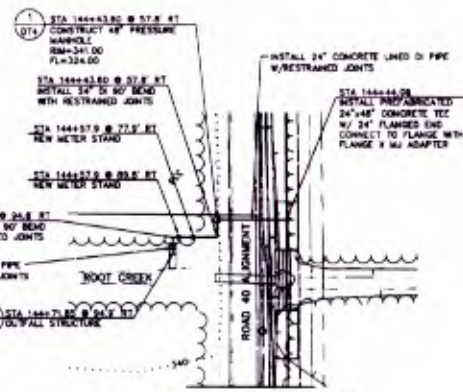
Know what's below.
Call before you dig.



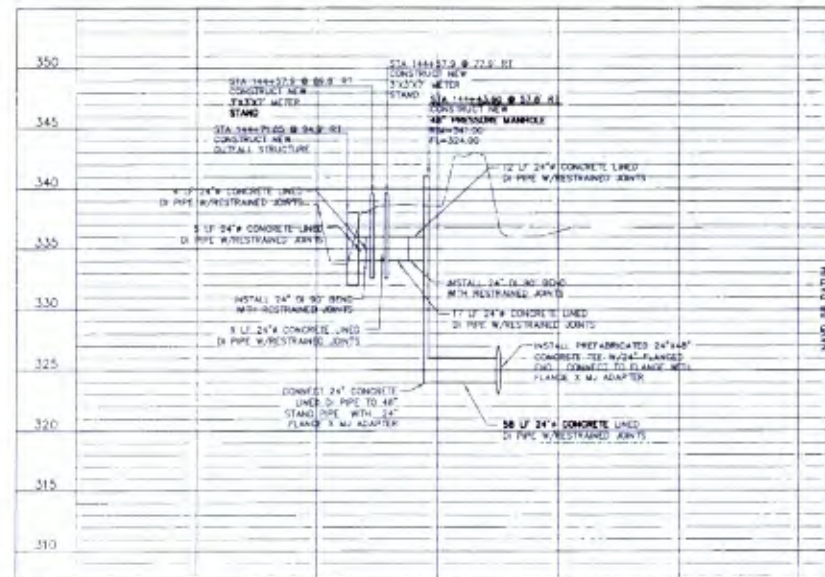
IRRIGATION DISTRIBUTION BOX AND PIPELINE
SCALE: AS SHOWN



NOTE:
ALL CONNECTIONS FROM DI PIPE TO
CONCRETE SHALL USE FLANGE X M,
WITH RESTRAINED JOINTS.



OUTFALL TO ROOT CREEK
SCALE: AS SHOWN



PROVOST & PRITCHARD
10000 N. 100th Ave., Suite 100
Edmonds, WA 98148
Phone: (206) 765-1111
Fax: (206) 765-1112
www.provostpritchard.com

PRELIMINARY
FOR REVIEW AND APPROVAL
01/26/2011



Gateway Village
In-Line Pipeline
Castle and Cooke, Inc.
Modesto, CA
PIPELINE CONSTRUCTION DETAILS



DESIGN ENGINEER:
Gary M. Provost
LICENSE NO.
124811
DRAFTED BY: CHECKED BY:
DVS VSL
SCALE: AS SHOWN
DATE: 01/26/2011
JOB NO: 12481101
DWG NO:
SHEET

PP8



811
Know what's below.
Call before you dig.

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01/26/2011

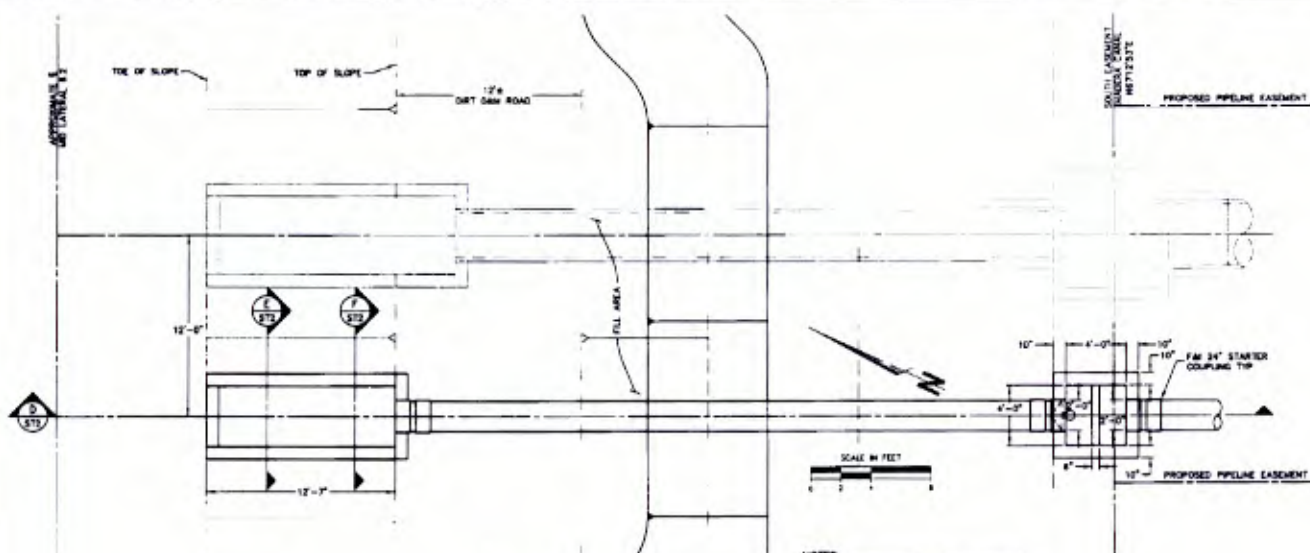


Gateway Village
In-Lieu Pipeline
Castle and Cooke, Inc.
Modesto County, CA



DESIGN ENGINEER:
Gary L. Smith
LICENSE NO.
51358
CHECKED BY:
DVS
SCALE: AS SHOWN
DATE: 01/26/2011
JOB NO: 1246107
SHEET
24 INCH TURNOUT STRUCTURE

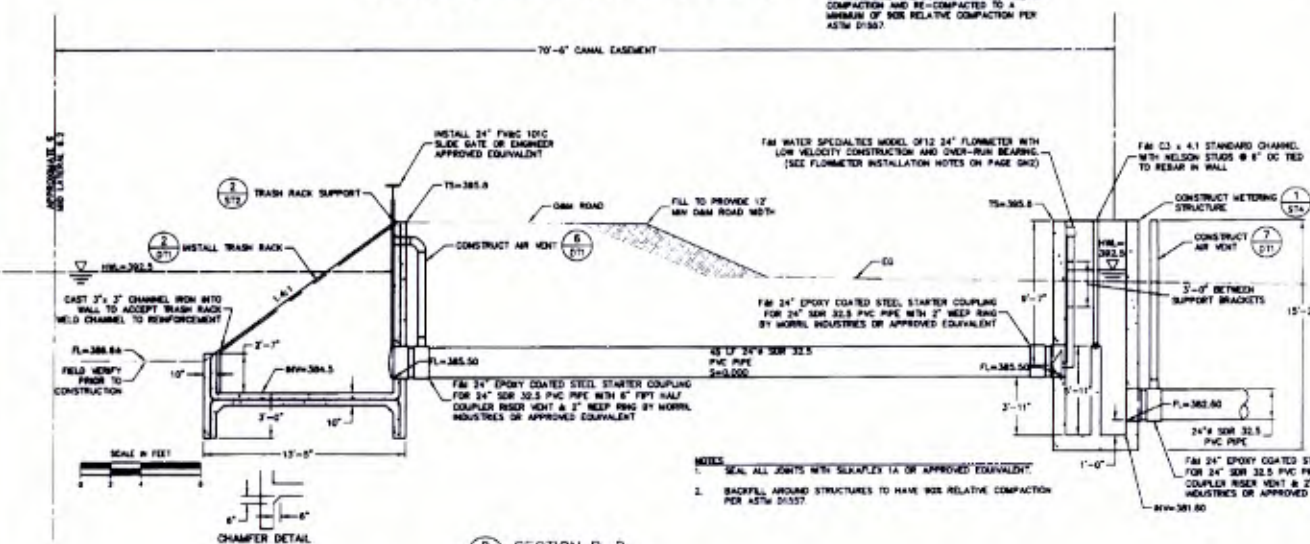
ST2



1 TURNOUT PLAN
ST2 SCALE: AS SHOWN

PLAN VIEW OF NEW TURNOUT AND METER BOX FROM MID LATERAL 6.2

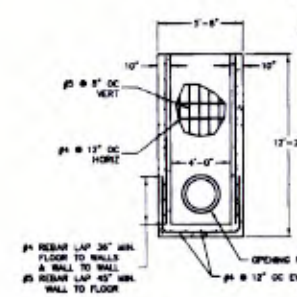
- NOTES:
1. RESTORE CANAL BANK AND ROAD TO ORIGINAL GRADE AND CONDITION.
 2. BACKFILL SHALL BE PLACED IN LOOSE LIFTS NO THICKER THAN 8 INCHES AND UNIFORMLY MOISTURE COMPRESSED TO AT OR ABOVE OPTIMUM MOISTURE CONTENT AT THE TIME OF COMPACTION AND RE-COMPACTION TO A MINIMUM OF 90% RELATIVE COMPACTION PER ASTM D1557.



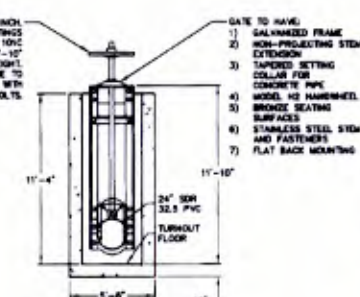
D SECTION D-D
ST2 SCALE: AS SHOWN

PROFILE VIEW OF NEW TURNOUT AND METER BOX FROM MID LATERAL 6.2

- NOTES:
1. SEAL ALL JOINTS WITH SILICONE TA OR APPROVED EQUIVALENT.
 2. BACKFILL AROUND STRUCTURES TO HAVE 90% RELATIVE COMPACTION PER ASTM D1557.

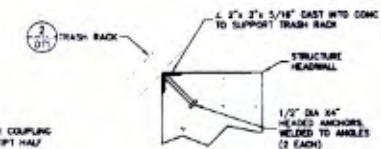


E SECTION E-E
ST2 SCALE: NTS



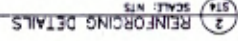
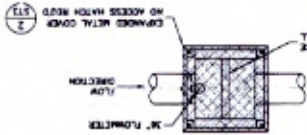
F SECTION F-F
ST2 SCALE: NTS

- NOTES:
1. GATE TO HAVE:
a) GALVANNEZED FRAME
b) NON-PRODUCING STEEL
c) TAPERED SETTING
d) COLLAR FOR
e) CONCRETE PIPE
f) MODEL HS HARDWARE
g) BRIDGE SEATING
h) SURFACES
i) STAINLESS STEEL STEW
j) AND FASTENERS
k) FLAT BACK MOUNTING

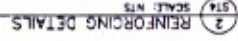


2 TRASH RACK SUPPORT
ST2 SCALE: NTS

ST2



2 REINFORCING DETAILS

[illegible]

Know what's best.
Call before you dig.

DESMO CHAIRMAN	
Gary Hooper	
LEADER NO.	
83338	
NAME LAST, FIRST, MIDDLE	INITIALS
JOHN B. CHANDLER	JB
DATE: 07/28/2001	
JOB NO. 1215110	
ORG. NO.	

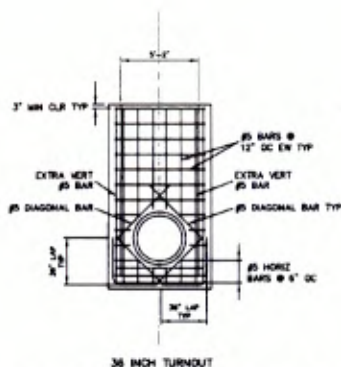
PROYOST & PRITCHARD
An Engineering Consulting Company
20 WEST ORCHARD, SUITE 200
MILPITAS, CALIFORNIA 95035-5023
408/945-2200 FAX 408/945-8798
www.proyost.com

24 INCH METERING STRUCTURE

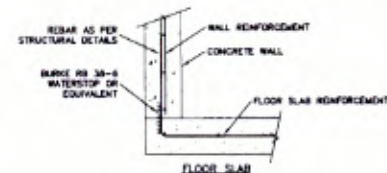
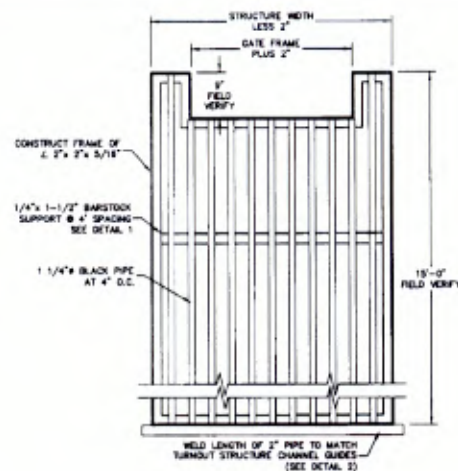
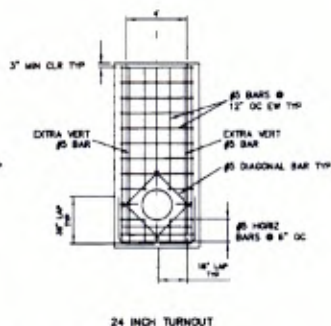


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01/26/2011

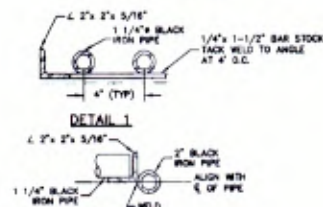
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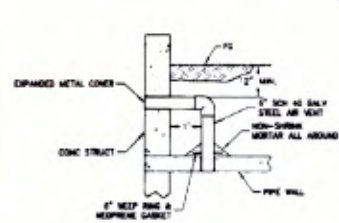
1 TURNOUT CONCRETE OPENING REINFORCEMENT
DT1 SCALE: NTS



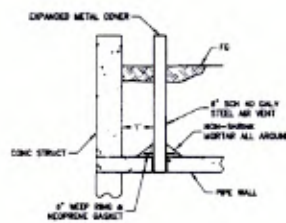
3 STRUCTURE COLD JOINT
DT1 SCALE: NTS



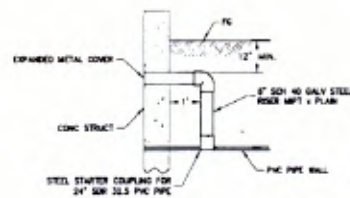
2 TRASH RACK
DT1 SCALE: NTS



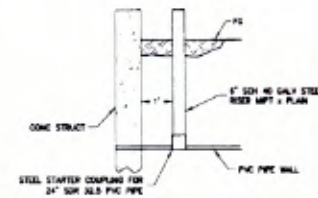
4 AIR VENT-CONCRETE PIPE
DT1 SCALE: NTS



5 STRAIGHT AIR VENT-CONCRETE PIPE
DT1 SCALE: NTS



6 AIR VENT-PVC PIPE
DT1 SCALE: NTS



7 STRAIGHT AIR VENT-PVC PIPE
DT1 SCALE: NTS



811
Know what's below.
Call before you dig.

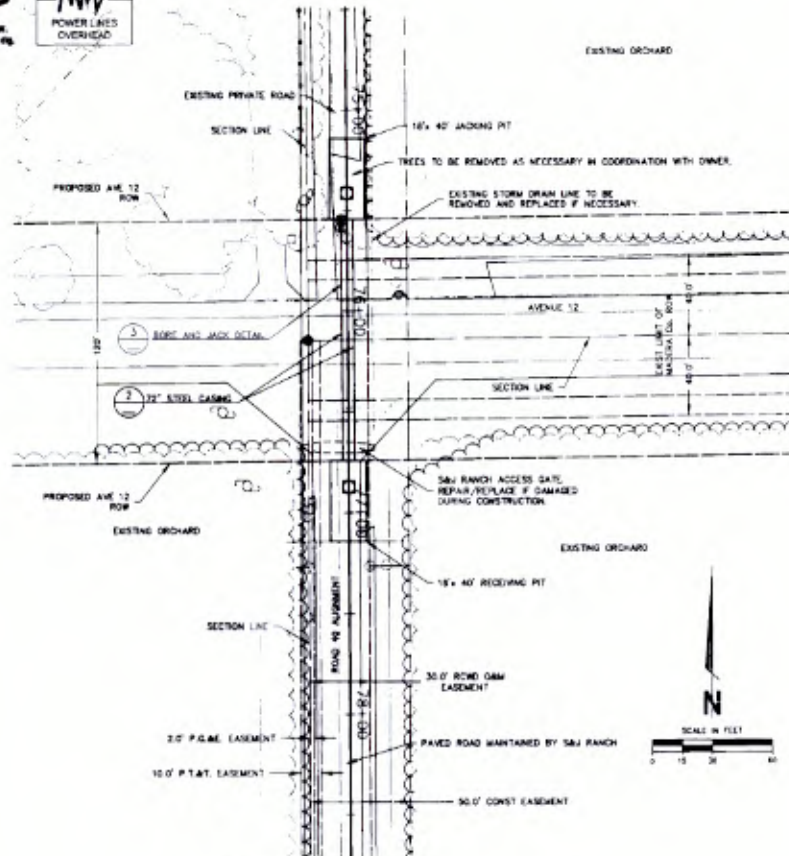
PRELIMINARY
FOR REVIEW AND APPROVAL
01/26/2011



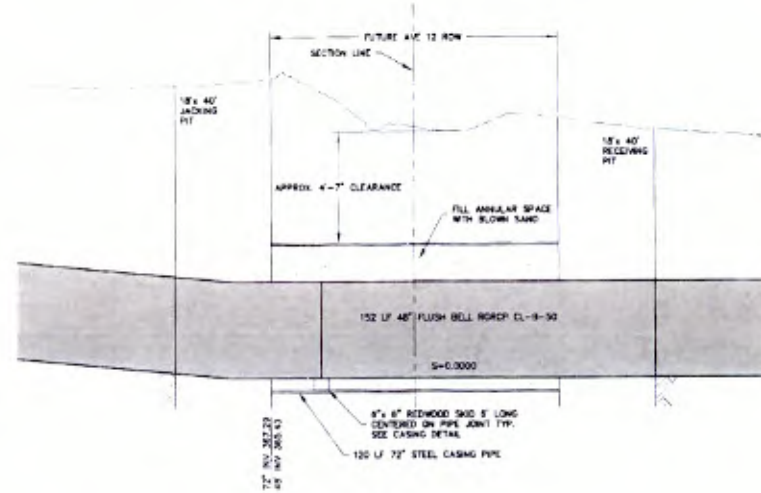
Gotway Village
In-Lieu Pipeline
Cottle and Cooke
Modesto County, CA

PROVOST & PRITCHARD
INC.
1000 N. G Street
Modesto, CA 95201
TEL: 209.521.1111
FAX: 209.521.1112

DESIGN ENGINEER
Randy Hopkins
LICENSE NO.
43538
DRAWN BY
DVS
CHECKED BY
VBL
SCALE: AS SHOWN
DATE: 01/26/2011
JOB NO: 12481101
DWG NO:
SHEET
DT1



1 AVE 12 CROSSING
SCALE: AS SHOWN



3 CASING DETAIL
SCALE: NTS

BORE AND JACKING NOTES

1. CASING ENDS SHALL BE PLUGGED WITH JACKBOOTS BRICKS, OR ANOTHER APPROVED MATERIAL.
2. GROUTING MAY BE REQUIRED BETWEEN THE OUTSIDE OF THE CASING AND THE ROADBED TO FILL VOIDS CAUSED BY THE WORK. GROUT PRESSURE SHALL NOT EXCEED 5 PSI FOR A DURATION SUFFICIENT TO FILL THE VOIDS.
3. IF BING CUTTERS ARE USED, THEY SHALL ONLY ADD A MAXIMUM OF 1 INCH DIAMETER TO THE OUTSIDE DIAMETER OF THE CASING PIPE.
4. A BAND WELDED TO THE LEADING EDGE OF THE CASING SHOULD BE PLACED SQUARE TO THE ALIGNMENT. THE BAND SHOULD NOT BE PLACED ON THE BOTTOM EDGE. FLAMING THE LEAD SECTION SHALL NOT BE PERMITTED.
5. CASING LENGTH SHALL EQUAL AUGER LENGTH.
6. FENCING WILL BE REQUIRED AROUND THE JACKING AND RECEIVING PITS.
7. SHORING IF REQUIRED SHALL CONFORM TO OR EXCEED CAL-OSHA MINIMUM REQUIREMENTS.
8. A MINIMUM OF 2 INCHES OF CLEARANCE IS REQUIRED BETWEEN THE INTERIOR OF THE CASING PIPE AND THE EXTERIOR OF THE PIPELINE.

THIS DOCUMENT IS THE PROPERTY OF PROVOST & PRITCHARD. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF PROVOST & PRITCHARD.

PRELIMINARY
FOR REVIEW AND APPROVAL
01/26/2011



Gateway Village
In-Lieu Pipeline
Castle and Cooke, Inc.
Madiera County, CA

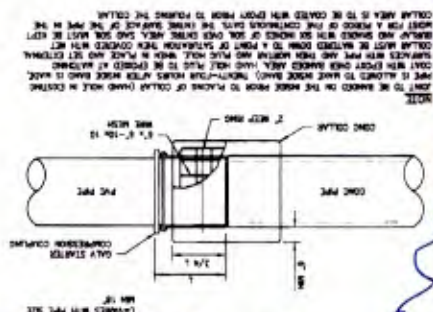
AVE 12 CROSSING



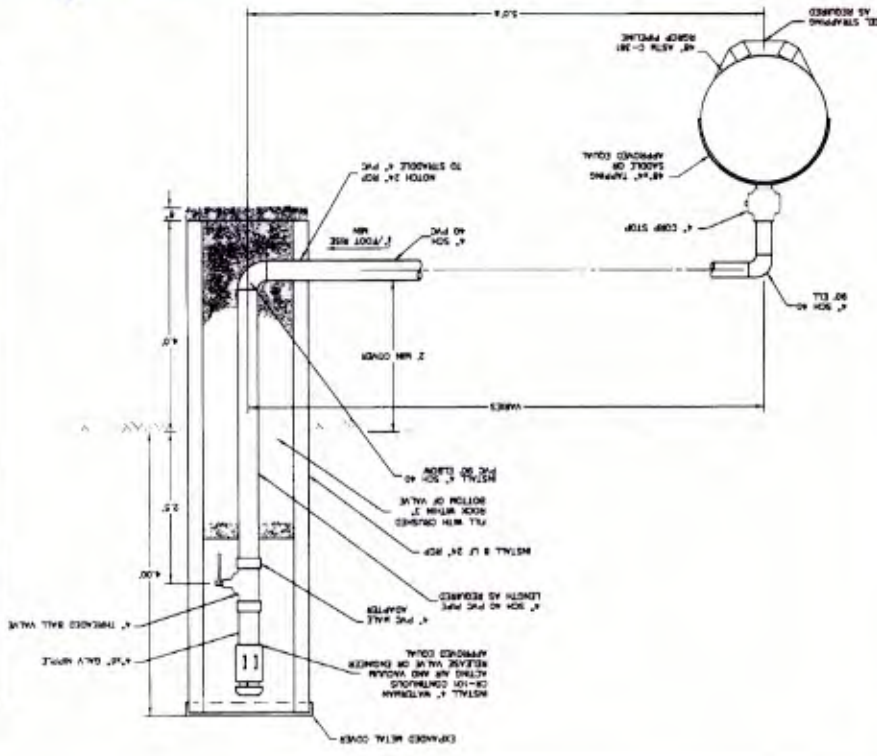
DESIGN ENGINEER
Robert Hopkins
LICENSE NO.
62558
DRAFTED BY: CHENED BY: DVS
SCALE: AS SHOWN
DATE: 01/26/2011
JOB NO: 12-08-01
DWG NO:
SHEET

DT2

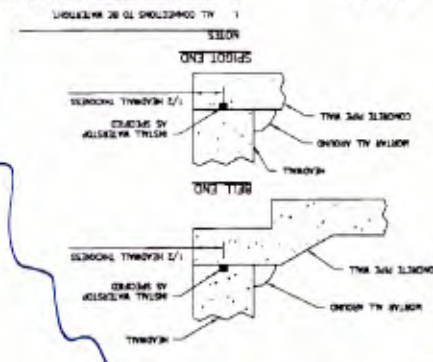
3 CONCRETE TO PVC PIPE CONNECTION
SCALE: NTS



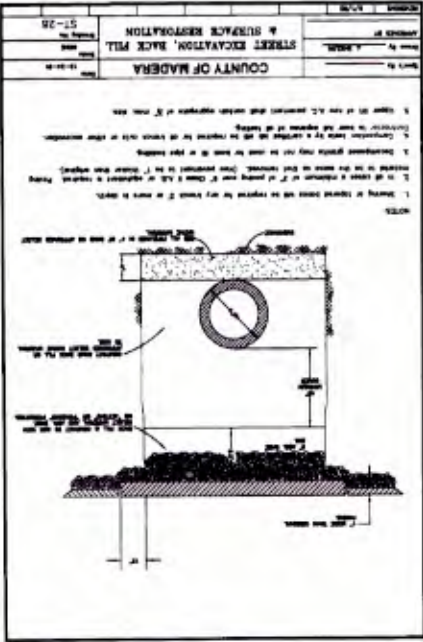
1 OFFSET AIR VENT
SCALE: NTS



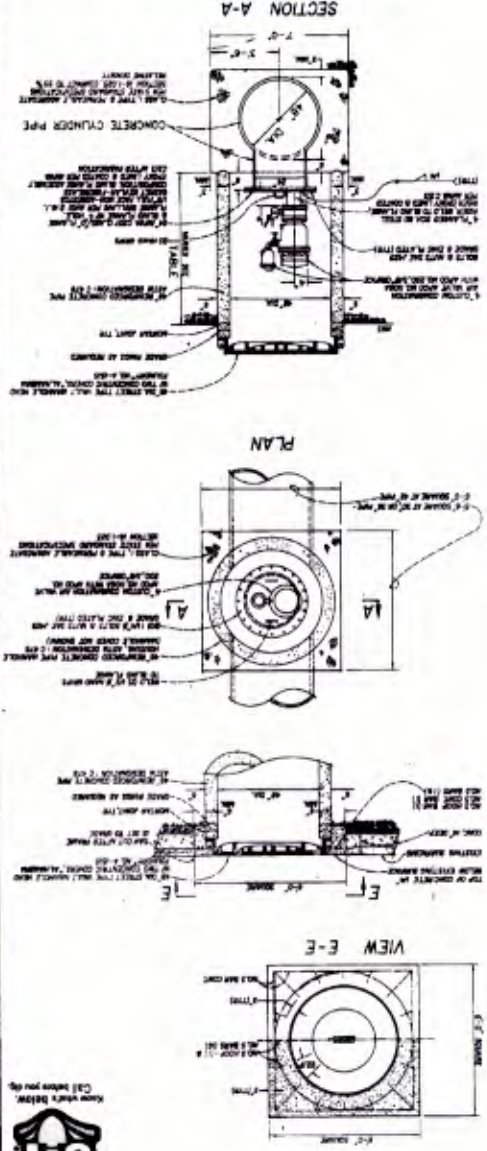
4 CONCRETE PIPE HEADWALL CONNECTION
SCALE: NTS



2 MADERA CO TRENCH DETAILS
SCALE: NTS



5 CUSTOM COMBINATION AIR VALVE
SCALE: NTS



PROVOST & PRITCHARD
In-Lieu Pipeline
Costa and Cooke, Inc.
Madro County, CA

STANDARD DETAILS

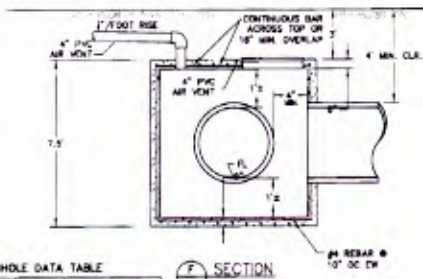
PRELIMINARY FOR REVIEW AND APPROVAL
01/26/2011

811

Call before you dig.

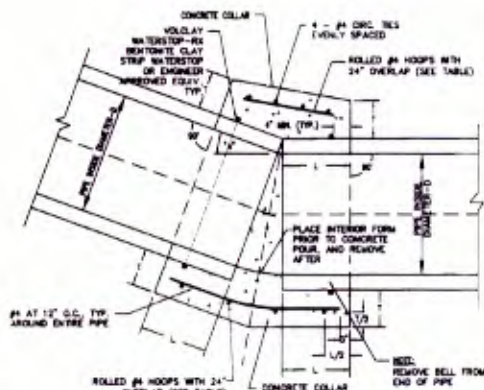


Annex

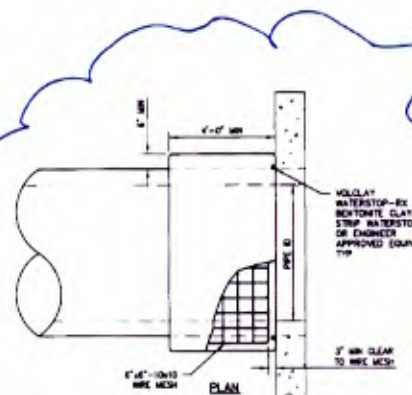


SECTION
SCALE: 1/4" = 1'-0"

LOCATION	STATION	MP#	MP# SIZE	MP# FL	REAL ELEV.
NORTH OF AVE 12	26+20	48	37.5	37.5	383.22
NORTH OF AVE 17	63+00	47	37.0	36.5	362.94
NEAR MP# 189	89+00	42	36.5	37.5	371.71
ROAD 40 ALIGNMENT	115+50	42	36.5	36.5	366.49
NORTH OF ROAD CROKER	141+25	42	36.5	36.5	344.71
ROAD CROKER	145+00	48	32.0	32.0	337.83
END OF ROAD 40	153+00	48	32.0	32.0	340.33



1 PRESSURE MANHOLE
DT4 SCALE: NTS



JOINT TO BE DAMAGED TO THE INSIDE PRIOR TO PLACING OF COLLAR (SHOULD HAVE IN CLOSING PIPE IS ALLOWED TO MAKE WEDGE BANDS). TWENTY-FOUR HOURS AFTER WEDGE BAND IS MADE, COLLAR IS TO BE PLACED ON INSIDE AREA, HAND HOLED PLUS TO BE EXPOSED AT WATCHING SURFACES WITH PIPE AND THEN MORTAR AND PLUM HOLE WHEN IN PLACE, AND SET EXTERNAL COLLAR MUST BE WATERED DOWN TO A POINT OF SATURATION THEN COVERED WITH WET DIRT/CLAY AND SHAKED WITH SIX INCHES OF SOIL OVER ENTIRE AREA. WEDG SOIL MUST BE KEPT MOIST FOR A PERIOD OF THE CONTINUOUS DAYS. THE ENTIRE SURFACE OF THE PIPE IN THE COLLAR AREA IS TO BE COATED WITH EPOXY PRIOR TO POURING THE COLLAR.

3 CONCRETE PIPE COLLAR
DT4 SCALE: NTS

1. ANGLE "x" SHALL BE DETERMINED IN THE FIELD AND REBAR PLACEMENT APPROVED BY THE ENGINEER PRIOR TO CONCRETE PLACEMENT.

CONCRETE SHALL BE 3000 PSI @ 28 DAYS OR BETTER AND CONFORM TO CONCRETE SPECIFICATIONS.

CONCRETE SHALL BE VIBRATED AROUND PIPE JOINT DURING PLACEMENT.

3. INSIDE JOINT TO BE SMOOTH FINISH (BRUSHED) & FLUSH.

8. DIAMETER OF ROLLED HOOPS SHALL BE $D + [2t \text{ WALL THICKNESS}] + 1$

7. PREPARE SURFACE OF EXISTING STRUCTURES BY WIRE BRUSHING, WATER BLASTING, OR SANDBLASTING AS

PROVIDE WATER TIGHT JOINT.

8. CONCRETE PIPE SHALL BE CLEANED AND TREATED WITH AN APPROVED CONCRETE BONDING AGENT PRIOR TO CONCRETE.

PLACEMENT AS REQUIRED BY THE ENGINEER.

FORMS USED TO POUR CONCRETE COLLAR TO BE REMOVED

PRIOR TO BACKFILL:

PIPE DIAMETER, D	L	T	MIN. NO. HOOPS
LESS THAN OR EQUAL TO 24"	18"	8"	3
LESS THAN OR EQUAL TO 48"	24"	10"	4
LESS THAN OR EQUAL TO 72"	30"	12"	5
GREATER THAN 72"	BY DESIGN	BY DESIGN	BY DESIGN

2 ANGLED PIPE JOINT COLLAR
DTA SCALE: NTS

the Supreme Court, various litigants have argued that the statute violates the First Amendment's guarantee of free speech. The Supreme Court has not yet ruled on the constitutionality of the statute, but it has heard oral arguments on the issue. The Court is expected to issue a decision in the near future.

PRELIMINARY
FOR REVIEW AND APPROVAL
01/28/2011



Gateway Village
In-Lieu Pipeline
Castle and Cooke, Inc.
Madera County, CA

STANDARD DETAILS



DESIGN ENGINEER	
Randy Hopkins	
LICENSE NO.	
63536	
DRAWN BY	CHECKED
DVS	
SCALE: AS SHOWN	
DATE: 01/28/11	
JOB NO: 124811	
DWG. NO.	
SHEET	

DT4 of 19

Appendix C – Environmental Protection Measures

1. A biologist shall provide training to construction project workers to familiarize them with listed species before project activities are begun at RCWD. The biologist shall provide images of, and describe the identifying characters, life history characteristics, biology and ecology, of SJKF and CTS, as well as for vernal pool plants including San Joaquin Valley orcutt grass (*Orcuttia inaequalis*), hairy orcutt grass (*Orcuttia pilosa*) and for succulent owl's clover (*Castilleja campestris* ssp. *succulenta*). Additionally, the protections afforded for listed species and designated critical habitat and penalties for violations under the ESA shall be described, including the definition of "take" as defined under the ESA (U.S.C. 16 Sect. 1531 et. seq.). The U.S. Code states: "Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by impairing behavioral patterns including breeding, feeding, or sheltering." If a listed vernal pool plant is encountered during the construction phase of this project, the Service and DFG would be notified, and the response described in item #3 of this Appendix would be carried out.
2. The work foreman, or person on site in charge of construction (i.e. Responsible Person), shall be the person designated as responsible for contacting USFWS (Service), DFG and Reclamation biologists, should a listed species be encountered during project activities in RCWD. This person also will be the contact person for any biologist working on the project. The name and contact information of this person shall be provided to Service, DFG and Reclamation biologists prior to beginning any construction.
3. If a listed species is observed in the Action Area at RCWD, the Responsible Person shall immediately contact biologists at the Sacramento Fish and Wildlife Office (SFWO), DFG and at Reclamation SCCAO. No further work in RCWD may be taken on the Proposed Action until appropriate consultation with Service and DFG has been completed.
4. A standard survey for San Joaquin kit fox (SJKF; Service 2011) shall be conducted between 14 and 30 days before activities on the project begin and a report on the findings filed with Reclamation and the SFWO. Pending the results of that survey, if no evidence of kit fox, their sign, or other evidence of their presence is detected, work may proceed

pending completion of environmental compliance and notification of such by Reclamation.

5. Standard avoidance measures for SJKF (Service 2011) shall be implemented for the project.
6. Rodent burrows shall be avoided and may not be destroyed. At the time when specific locations for facilities are being identified by on the ground personnel, and also prior to beginning earth disturbing work, all burrows that could be affected by construction activities shall be flagged by a biologist (such as with a surveyor flag). Hi-viz barrier fencing at least 3 feet high shall be erected and maintained around burrows or burrow complexes to identify these sensitive areas which shall be avoided during the period of construction.
7. From June until the first rain event occurring on or after October 1, if an open hole or trench in the earth 6 inches deep or greater is created during construction, and it must remain open overnight, the opening to the trench or hole must either be covered to preclude entry by animals, or escape ramps suitable for CTS and SJKF must be placed at least every 50 lineal feet. If construction occurs between October 1 and May 31, for any hole or trench greater than 6 inches deep that must be left open overnight, such hole or trench must be completely covered to prevent access by animals, including CTS, if any work is conducted subsequent to a rain event. A rain event is one where measurable precipitation has been recorded at Fresno Yosemite International Airport, or, if the event is not sufficiently widespread to have been measured at this station, but otherwise is “commonly recognized” as to have occurred over the RCWD project area, the latter condition would be defining. No construction is permitted during periods of rain.
8. Any open pipe within a trench or hole shall have its opening(s) capped. Each day before work activity occurs in such areas (e.g. for laying pipe), the hole or trench shall be inspected for the presence of listed species. If CTS, SJKF or other listed species is present, Reclamation biologists, the CDFG and SFWO shall be contacted immediately and no further action may be taken until further appropriate consultation with the Service and DFG are completed.
9. Any pipe or similar tubular material staged or stored overnight at RCWD in an area which could be accessed by SJKF or CTS, shall be capped or covered to preclude entry. Before it is moved or installed, the openings of these materials and the area surrounding the materials must be examined for the presence of SJKF and CTS or other listed species. If a listed species is present, they must be allowed to leave of their own accord. If the animal does not immediately leave the area or there is risk of take, SFWO, DFG and Reclamation biologists shall be contacted immediately and no further action may be taken until further appropriate consultation with the Service and DFG are completed.

Additionally, daily, before equipment is operated, the areas underneath such equipment shall be inspected by the operator for the presence of SJKF or CTS.

10. All “take” of migratory birds associated with the Proposed Action is prohibited and must be avoided. In addition to the pre-activity survey for SJKF, a pre-activity survey prior to construction shall be made for burrowing owls. As applicable, measures for avoidance (DFG 1995) of “take” under MBTA shall be applied (Attention is directed to the Federal Migratory Bird Treaty Act (16 U.S.C. 703-712) 50 CFR Part 10 and California Fish and Game Code Sections 3503, 3513 and 3800, which protect migratory birds, occupied nests and eggs from disturbance and destruction. With regard to “take” under MBTA, 16 U.S.C. § 703 states that “Unless and except as permitted by regulations made as hereinafter provided in this subchapter, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or eggs of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof, included in the terms of the conventions between the United States and Great Britain for the protection of migratory birds concluded August 16, 1916 (39 Stat. 1702), the United States and the United Mexican States for the protection of migratory birds and game mammals concluded February 7, 1936, the United States and the Government of Japan for the protection of migratory birds and birds in danger of extinction, and their environment concluded March 4, 1972 <http://www.fws.gov/permits/mbpermits/regulations/mbta.html> - N_1_#N_1_and the convention between the United States and the Union of Soviet Socialist Republics for the conservation of migratory birds and their environments concluded November 19, 1976.”
11. Furthermore, should construction be required in February through August, a biologist shall conduct a survey to locate nesting birds in the Action Area at RCWD. Those areas in RCWD, where birds or their nests, etc. that may be subjected to “take”, as defined under the MBTA as consequence of the Proposed Action, shall be identified and avoidance measures implemented under the guidance of a biologist.
12. No water conveyed in federal facilities and applied to lands in RCWD would be applied to native lands, or to lands fallowed or left untilled for 3 or more years until such lands are first surveyed for listed species. If such lands are determined to be inhabited by listed species, then no water may be applied on them until effects to listed species are consulted upon.

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Appendix D – ITA, Cultural Resources, and ESA Determinations

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Inthavong, Michael T

From: Rivera, Patricia L
Sent: Friday, June 03, 2011 9:12 AM
To: Inthavong, Michael T
Subject: RE: ITA Request Form (EA-06-117)

Michael,

I reviewed the proposed action to approve the following requests made by Madera Irrigation District (MID), Root Creek Water District (RCWD), and Shafter-Wasco Irrigation District (SWID):

- Issuance of an MP-620 permit to MID for two turnouts on Lateral 6.2;
- Approval of long-term annual transfers of up to 10,000 acre-feet (AF) of Central Valley Project (CVP) water from MID to RCWD;
- Execution of a temporary contract for Section 215 water with RCWD for Contract Year 2011; and
- Approval of long-term annual exchanges of up to 7,000 AF of CVP water between MID and SWID for ultimate delivery to RCWD via an agreement with Westside.

The MP-620 permit would be issued to MID and would cover both turnouts and easements for the pipelines within Reclamation easement and right-of-way (ROW) for Lateral 6.2. Each turnout would involve excavation and typical concrete structure on Lateral 6.2. MID's new turnout would include a 24-inch diameter pipeline which would then extend towards MID's existing distribution system approximately 0.25 miles south of Lateral 6.2. Excavation to bury the pipeline would be approximately 5 feet (ft) deep and 10 ft wide. RCWD's new turnout would include a 36-inch diameter pipeline, which would transition to a 48-inch diameter pipeline at the meter vault, and then extend towards RCWD's existing distribution system roughly 2.75 miles south of Lateral 6.2. Excavation would be roughly 10 ft wide and up to 11 ft deep depending on elevation to allow at least 3 ft of cover. At Avenue 12 and Root Creek, excavation would involve jack and boring underneath the road and creek.

The long-term annual transfers between MID and RCWD would occur through Contract Year 2035. More specifically, MID would annually transfer up to 25 cubic-feet per second (cfs) from May 1 to August 31 and up to 50 cfs from September 1 to April 30. When available, MID would deliver a portion of its CVP supplies to RCWD via the Madera Canal, Lateral 6.2, and then through the newly built RCWD turnout and pipeline.

The Section 215 contract for RCWD would be for Contract Year 2011, ending on February 29, 2012. As declared available by Reclamation, the Section 215 water would be conveyed through the Madera Canal, Lateral 6.2, and then the newly built RCWD turnout and pipeline by MID.

The annual exchanges between MID and SWID would occur through Contract year 2035. More specifically, Westside would transfer to SWID up to 3,500 AF for years 1-4, up to 5,000 AF for years 5-9, and up to 7,000 AF for years 10+ of non-CVP. SWID would then exchange and make available a like amount of its CVP supplies to MID, which would in turn make a like amount (minus conveyance losses) of its CVP supplies available to RCWD. When available, the CVP water would be conveyed through the Madera Canal, Lateral 6.2, and then the newly built RCWD turnout and pipeline.

The proposed action does not have a potential to affect Indian Trust Assets. The nearest ITA is Table Mountain Rancheria approximately 10 miles NE of the project location.

Patricia

Inthavong, Michael T

From: Nickels, Adam M
Sent: Wednesday, June 08, 2011 2:08 PM
To: Inthavong, Michael T
Cc: Barnes, Amy J; Bruce, Brandee E; Dunay, Amy L; Fogerty, John A; Goodsell, Joanne E; Overly, Stephen A; Perry, Laureen (Laurie) M; Soule, William E; Williams, Scott A
Subject: RE: Root Creek project (07-SCAO-222)
Attachments: 07-SCAO-222 SHPO Consultation Letter0001.pdf; BUR070809A CONSTRUCT TURNOUT NEW PIPE OFF LATERAL 6 2 MADERA CANAL ROOT CK WATER DIST (3).doc

Project No. 07-SCAO-222

Michael,

I have reviewed Draft EA-06-117 and only one small comment changing the CR determination in the environmental consequences in Section 3.4.2 (correction highlighted). Reclamation consulted on this action in 2007 and retained SHPO concurrence (letters attached). The proposed action will have no adverse effect to historic properties resulting in no impacts to cultural resources. After reviewing the EA in comparison to the consultations, I have determined that the existing consultations are sufficient enough for this EA. You have no further obligation for review under Section 106 of the National historic Preservation Act. Please note that in the event that cultural resources are uncovered during project implementation, Reclamation may have further responsibilities under Section 106 as defined by the regulations at 36 CFR Part 800.6 (Post Review Discovery). Thank you for providing the opportunity to comment.

Sincerely,

Adam Nickels

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov
www.ohp.parks.ca.gov



August 22, 2007

In Reply Refer To: BUR070809A

Susan M. Fry
Regional Environmental Officer
United States Department of the Interior
Bureau of Reclamation
Mid-Pacific Regional Office
2800 Cottage Way
Sacramento, CA 95825-1898

Re: Approval of a Section 215 Contract for the Root Creek Water District, Madera County, California (Project No. 07-SCAO-222).

Dear Ms. Fry:

Thank you for seeking consultation with me regarding the above noted undertaking. Pursuant to 36 CFR Part 800 (as amended 8-05-04) regulations implementing Section 106 of the National Historic Preservation Act (NHPA), the Bureau of Reclamation (BUR) is the lead Federal agency for this undertaking and is seeking my comments on the effects that the proposed project will have on historic properties. The BUR is proposing to approve a Section 215 contract to deliver water from the BUR's Central Valley Project, for irrigation and direct ground water recharge, to the Root Creek Water District (RCWD). The BUR has determined that their approval of this contract constitutes an undertaking pursuant to the NHPA.

The project will entail the construction, by the RCWD, of a new turnout on the southeast bank of Lateral 6.2, a component of the Madera Canal distribution system operated by the Madera Irrigation District. From the new turnout, a 48-inch diameter buried pipeline will be installed that will extend approximately 2.75 south of Lateral 6.2. The RCWD will additionally construct nine sub-lateral pipelines of 12-15-inch diameters off this main line. The BUR has determined that the location of the proposed turnout on Lateral 6.2, the main 48-inch RCWD pipeline route, and the routes of the nine sub-laterals comprise the project Area of Potential Effects (APE). This linear APE extends for approximately six miles (9.7 kilometers). In addition to your letter of August 7, 2007, you have submitted the following document as evidence of your efforts to identify historic properties in the project APE:

- *A Cultural Resources Survey for the Root Creek Water District In-Lieu Groundwater Recharge Facilities Project Avenue 12 at Road 40, Madera County, California* (C.K. Roper; Sierra Valley Cultural Planning: February 6, 2007).

The identification efforts by the BUR have concluded that the only historic property located in the APE is Lateral 6.2. Lateral 6.2 receives water from the Madera Canal, a major water distribution element of the Central Valley Project (CVP), and is thus a component of the CVP itself. The BUR has completed a draft National Register of Historic Places nomination for the CVP that is currently under review at my office.

Pending the finalization of the CVP NRHP nomination, and the consensus determination of its contributing elements, the BUR is assuming that Lateral 6.2 is eligible for the NRHP as a component of the CVP, for the purposes of this undertaking only. Accordingly, the BUR has concurred with this analysis of the subject undertaking, in an email (dated 8/22/07) from Patrick Welch of the Mid-Pacific Regional Office, and has agreed that a finding of No Adverse Effect is appropriate for this undertaking.

Based on my review of your letter, supporting documentation, and a phone contact of 8/20/07 and subsequent email contacts between William Soule of my Staff and Patrick Welch of your staff, I have the following comments:

- 1) I concur that the Area of Potential Effects is appropriate pursuant to 36 CFR Parts 800.4(a)(1) and 800.16(d) and that the efforts made to identify historic properties have been appropriate pursuant to 36 CFR Part 800.4(b).
- 2) I further concur that a finding of No Adverse Effect is appropriate pursuant to 36 CFR Part 800.5(b).
- 3) Be advised that under certain circumstances, such as unanticipated discovery or a change in project description, the BUR may have additional future responsibilities for this undertaking under 36 CFR Part 800.

Thank you for seeking my comments and for considering historic properties in planning your project. If you require further information, please contact William Soule, Associate State Archeologist, at phone 916-654-4614 or email wsoule@parks.ca.gov.

Sincerely,

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer



IN REPLY REFER TO

SCC-423
ENV-7.00
General/Friant

United States Department of the Interior

BUREAU OF RECLAMATION
South-Central California Area Office
1243 N Street
Fresno, California 93721-1813



JUL 05 2011

VIA FEDERAL EXPRESS

MEMORANDUM

To: Field Supervisor, U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office
Attn: Mr. Thomas Leeman

From: Dave Hyatt
Supervisory Biologist **David E. Hyatt**

Subject: Request for concurrence that the Root Creek Water District (RCWD) Surface Water Supply Project may affect, but is not likely to adversely affect San Joaquin kit fox and California tiger salamander

The Bureau of Reclamation (Reclamation) requests concurrence from the U.S. Fish and Wildlife Service (Service) pursuant to Section 7(a)(2) of the Endangered Species Act, with Reclamation's determination that Reclamation's approval of the following requests made by Madera Irrigation District (MID), RCWD, and Shafter Wasco Irrigation District (SWID) under the RCWD Surface Water Supply Project, including:

- Issuance of an MP-620 permit (for alteration or modification of Reclamation facilities) to MID to construct two turnouts on Lateral 6.2 of the Madera Canal (one turnout would be for RCWD and the other would replace an existing MID turnout located approximately 260 feet (ft) from the replacement turnout;
- Approval of long-term annual transfers of up to 10,000 acre feet (AF) of Central Valley Project (CVP) water from MID to RCWD;
- Execution of a temporary contract for Section 215 water with RCWD for Contract Year 2011; and
- Approval of long-term annual exchanges of up to 7,000 AF of water between SWID and RCWD facilitated by Westside and MID for ultimate delivery of CVP water to RCWD.

are not likely to adversely affect San Joaquin kit fox (*Vulpes macrotis mutica*) or California tiger salamander (*Ambystoma californiense*).

Reclamation used the California Natural Diversity Database (CNDDDB, 2011), the Ventura Fish and Wildlife Service website and the Carlsbad Fish and Wildlife Service Office to identify listed species and critical habitat in the Action Area

An Environmental Assessment is attached describing the Proposed Action. Based on Reclamation's analysis, and in consideration of the avoidance and protection measures to be implemented as detailed in the Environmental Assessment, Reclamation has determined that the Proposed Action is Not Likely to Adversely Affect (NLAA) SJKF and CTS. Reclamation has made no effect determinations for listed species other than for SJKF and CTS. Reclamation also has made a no effect determination for critical habitat and therefore is requesting concurrence only on our NLAA determination for SJKF and CTS.

If you have any questions please contact Ned Gruenhagen, Wildlife Biologist, of my staff at 559-487-5227 or 800-735-2929 or by electronic mail at NGruenhagen@usbr.gov.

Attachment

cc: Mr. Mike Welsh
U.S. Fish and Wildlife Service
San Joaquin Valley Branch
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(w/o attachment)

bc: MP- 3730
SCC-423, SCC-425, SCC-414
(all w/o attachment)

References

California Natural Diversity Database (CNDDDB). 2011. Natural Heritage Division, California Department of Fish and Game's Natural diversity Database. Rare Find. June 2, 2007.

WBR:NGruenhagen:ASullivan:7/5/2011 12:58 PM:559-487-5227
V:\RMD\NEPA\Ned\Draft LOC to Service for RCWD Turnouts Pipelines and Actions 07012011 updated



United States Department of the Interior
FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846



In Reply Refer To:
81420-2011-I-0783

21 December 2011

Memorandum

To: Chief, Resources Management Division, U.S. Bureau of Reclamation, South
Central California Area Office, Fresno, California

From: *for* Assistant Field Supervisor, Sacramento Fish and Wildlife Office, Sacramento,
California

Subject: Informal Consultation on Root Creek Water District Surface Water Supply
Project

This memorandum transmits the U.S. Fish and Wildlife Service's (Service) concurrence with the U.S. Bureau of Reclamation's (Reclamation) July 5, 2011, determination that the proposed Root Creek Surface Water Supply Project, may affect, but is not likely to adversely affect (NLAA) the federally-listed San Joaquin kit fox (*Vulpes macrotis mutica*) or central California distinct population segment of the California tiger salamander (central California tiger salamander) (*Ambystoma californiense*). The project involves construction of two conveyance structures (turnouts) and surface water deliveries for Root Creek Water District (RCWD) in Madera County. Surface water would be made available for agricultural use within RCWD by a number of different sources including long-term annual transfers of up to 10,000 acre-feet from Madera Irrigation District in Madera County, long-term annual exchanges of up to 7,000 acre-feet involving Shafter Wasco Irrigation District and Westside Mutual Water Company in Kern County and Madera Irrigation District in Madera County, and execution of a temporary contract for Section 215 water (i.e., non-storable flood flows) from the Friant Division for Contract Year 2011. A Draft Environmental Assessment (DEA) for this project was prepared by Reclamation as the lead federal agency and made available for a 30-day public comment period July 6, 2011. Under the California Environmental Quality Act, a Notice of Determination for this project was filed on January 12, 2011, by RCWD as the lead Agency to the County Clerk's Office, County of Madera.

This response is provided pursuant to section 7(a)(2) of the Endangered Species Act of 1973 (Act) (16 U.S.C. 1531 *et seq.*), and in accordance with the regulations governing interagency consultations (50 CFR §402). We received your July 5, 2011, request for concurrence with NLAA memo on July 6, 2011. We requested additional information from Reclamation regarding this project via e-mail on July 13, August 10, August 11, and September 7, 2011. Reclamation provided additional information via e-mail on July 18, August 17, August 24 and September 13, 2011. A conference call between the Service and Reclamation was conducted on

August 17, 2011, to clarify a number of issues including discrepancies in the project description between the DEA and Biotic Evaluation for the project. Our concurrence is based on the information you provided in the mail and e-mails, as well as in the documents provided including the June 2011 DEA RCWD Surface Water Supply Project, EA-06-117; a Biotic Evaluation RCWD Pipeline Project Gateway Village, Madera County, California dated February 6, 2007; a draft Initial Study Proposed Madera Irrigation District/Root Creek Water District Construction of Conveyance Facilities, Contract for Temporary Receipt of Section 215 Waters, Water Transfer and Exchanges that is undated. Further information was gathered from the Draft Water Supply Assessment for Gateway Village by Provost and Pritchard dated July 2006; and comments of the California Department of Fish and Game dated January 9, 2007, on the Draft Environmental Impact Report for the Gateway Village Specific Plan SCH#2005091071.

Project Description

Background

Root Creek Water District (RCWD) is an agricultural district formed in 1996 and serves approximately 9,200 acres in Madera County. The lands within RCWD and the surrounding area have relied primarily on groundwater for irrigation and as a result, the groundwater basin underlying the district has experienced severe overdraft conditions. RCWD was formed for the purpose of obtaining surface water supplies and utilizing conjunctive use to reduce overdraft conditions within the district (USBR DEA).

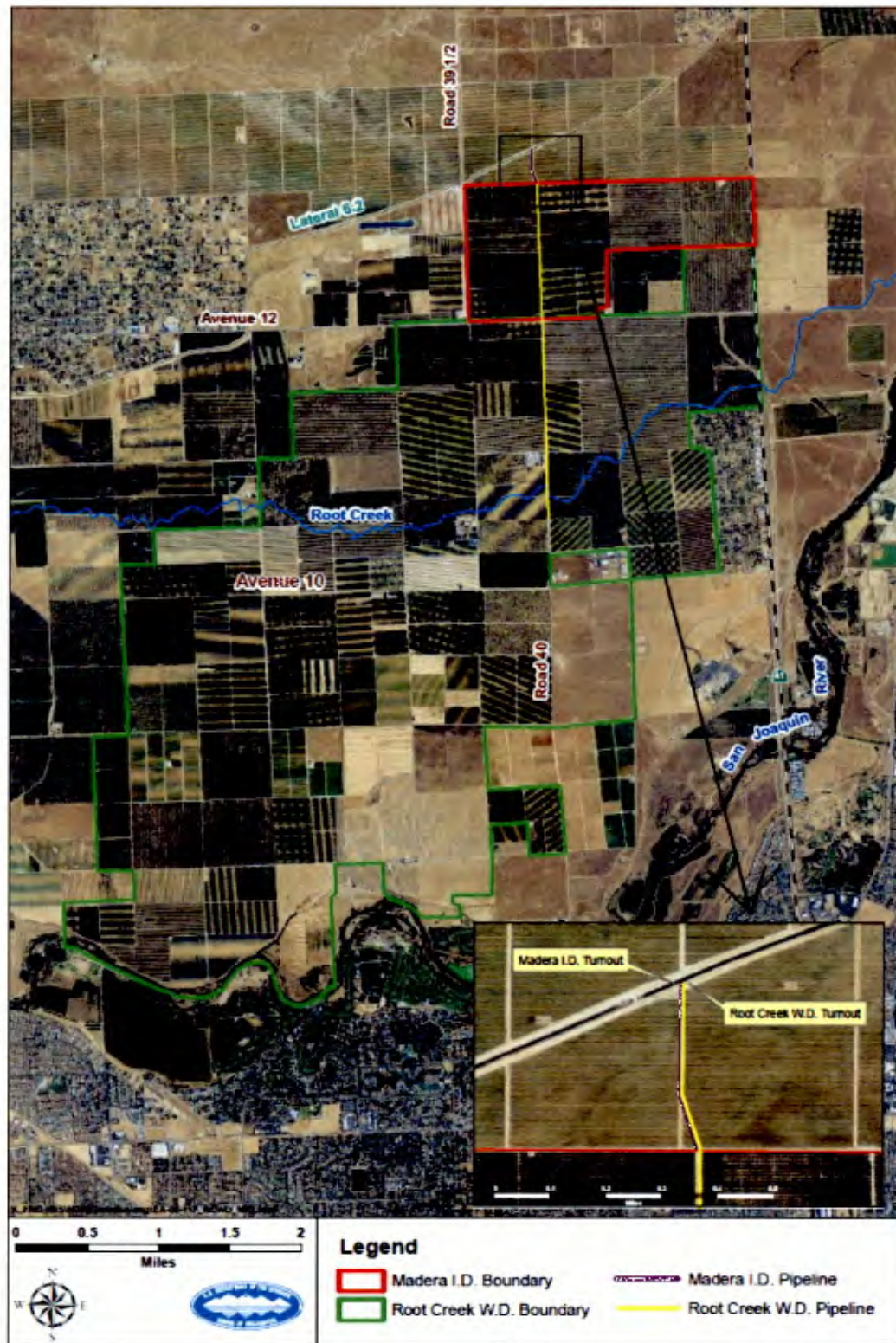
Conveyance

A map of the proposed conveyance to be constructed is presented in Figure 1. The proposed action includes the construction of two new turnouts, one for Madera Irrigation District and one for RCWD. Each turnout would involve excavation and a concrete structure on Lateral 6.2 of the federally-owned Madera Canal. Each pipeline from the turnouts would pass through a meter vault at the edge of Reclamation's right-of-way of the Madera Canal.

Madera Irrigation District's new turnout would include a 24-inch diameter pipeline (excavation to bury the new pipeline would be approximately 5-feet deep and 10-feet wide) which would then extend to an existing distribution box and system approximately 0.25 miles south of Lateral 6.2 (purple line on map depicted in Figure 1). This new turnout would replace Madera I.D.'s existing turnout, which is located approximately 250 feet downstream along Lateral 6.2. Madera Irrigation District's existing turnout and associated pipeline would be abandoned and left in place.

Root Creek Water District's new turnout would include a 36-inch diameter pipeline, which would transition to a 48-inch diameter pipeline at the meter vault, and then extend towards District's existing distribution system roughly 2.75 miles south of Lateral 6.2 (red line on the map depicted in Figure 1). The pipeline alignment would extend through Reclamation property for Lateral 6.2, private property, and along an existing, earthen farm field road and along the earthen County Road #40. Excavation would be roughly 10-feet wide and up to 11-feet deep depending on elevation to allow for at least 3-feet of cover. The pipeline alignment would be installed using jack and bore at Avenue 12 and under Root Creek. No activities such as dredging or filling of wetlands or surface waters would be required for implementation of the proposed action.

Figure 1. Map of RCWD Surface Water Supply Project Turnouts and Pipeline



Water Transfers and Exchanges

The proposed action includes approvals of: 1) annual transfers for 25-years from Madera Irrigation District for up to 10,000 acre-feet/year when available; 2) annual exchanges for 25-years involving Shafter Wasco Irrigation District, Westside Mutual Water Company and Madera Irrigation District for up to 7,000 acre-feet/year when available; and, 3) execution of a temporary contract for Section 215 water (i.e., non-storable flood flows) from the Friant Division for Contract Year 2011 (March 1, 2011 to February 29, 2012).

Reclamation will have conditions in their letters approving the water transfers and exchanges authorized through this action, stating that the water provided will be for agricultural purposes only. If, during the life of these transfers and exchanges, RCWD intends to deliver some of this water for a purpose other than agriculture (as this change will involve a rate change for the cost of this water), RCWD will notify Reclamation of a change to contracted purpose of use. Should such a request be made by RCWD for delivery of this project water for municipal and industrial use, Reclamation will analyze and address the effects to the environment, and to listed species and designated critical habitat protected under the Act (D. Hyatt *in litt*, 8.24.2011).

Effects to Listed Species

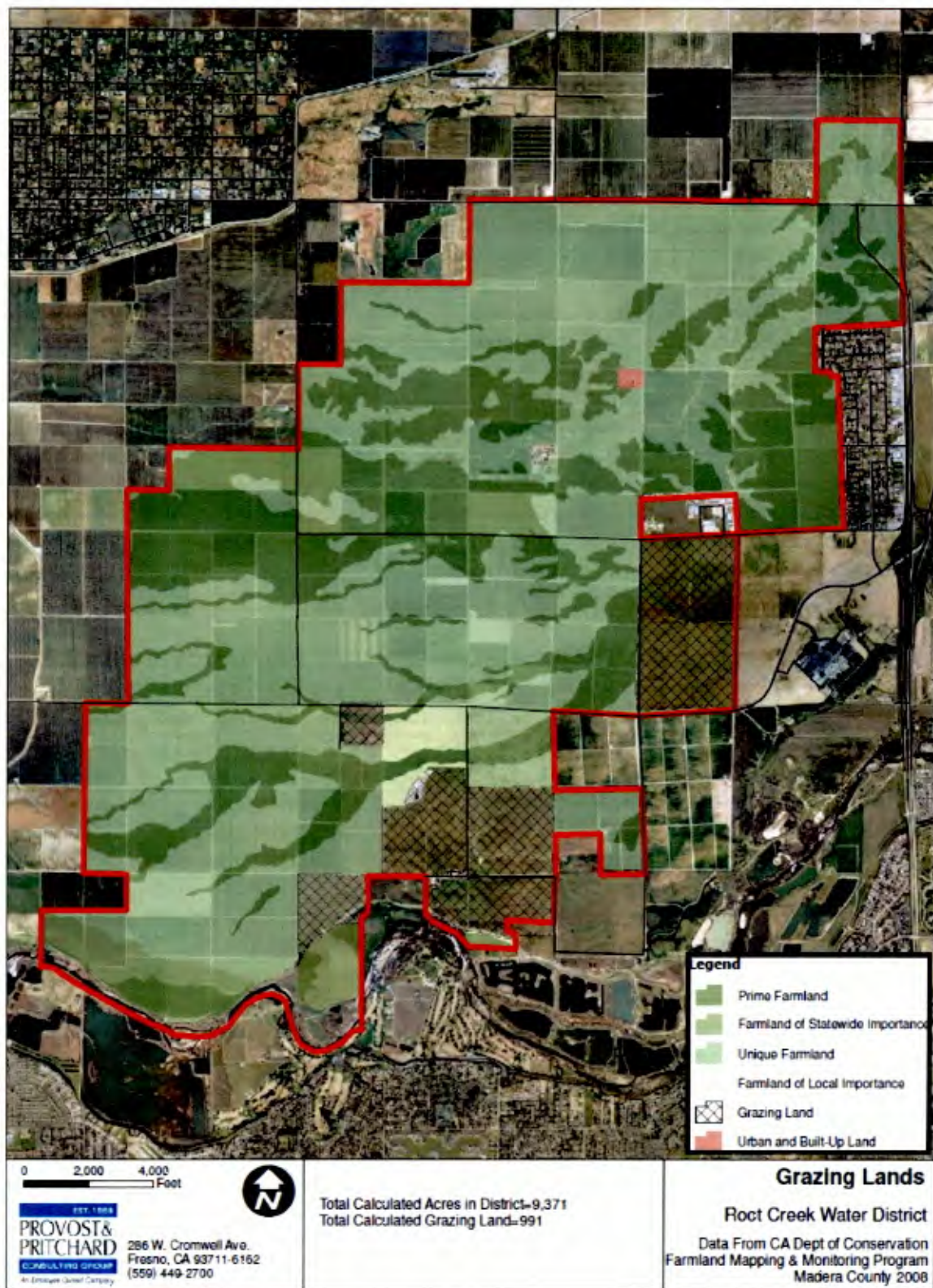
Appendix C of the DEA for this project includes Environmental Protection Measures to reduce environmental consequences of the proposed action, and is incorporated to this memo as Attachment A.

The proposed action would result in temporary land disturbance for construction within Reclamation property and along an existing dirt farm road during excavation. These areas would be returned to pre-construction conditions upon completion of the Proposed Action. Land disturbance would be temporary and limited primarily to vineyard, citrus, olive, and pistachio orchards, roadways and a small section of a canal levee.

Although the footprint of the proposed conveyance structures will fall within existing agricultural habitats, there are areas of native grasslands that include vernal pool habitats within the RCWD based on information provided by Reclamation (N. Gruenhagen *in litt*, July 18, 2011) (Figure 2). As was noted in a letter from Christopher Campbell (attorney for Baker, Manock and Jensen, PC) to Ned Gruenhagen (Reclamation) dated July 15, 2011, there are approximately 991 acres of grazing land within RCWD. Of that amount, approximately 160 acres are leveled and have historically been intensively farmed as irrigated pasture. The remaining acreage is native pasture as depicted in Figure 2. This letter provides the following clarification of the effects of the Proposed Action within RCWD, *"The current water supply project is not intended to allow for conversion of any of the grazing lands to other uses. As stated in the Project Description, the current irrigated crops within RCWD all rely on well water. That has resulted in a significant annual overdraft and a cumulative drop in groundwater levels. As a result, the owners of the orchard properties are funding this water project to maintain the viability of their current operations. Conversion of the existing dry land areas will require additional water supplies and approvals."*

Federally-listed plant species are known to occur in the vicinity of RCWD and could potentially occur within the dry land farmed or grazing land portions of the RCWD. Vernal pool habitats in RCWD were identified in the Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (USFWS 2005) as Zone 1 core areas. Core areas identified as Zone 1 are occupied by very narrowly endemic species (with few populations and narrow or disjunct

Figure 2. Grazing lands within RCWD



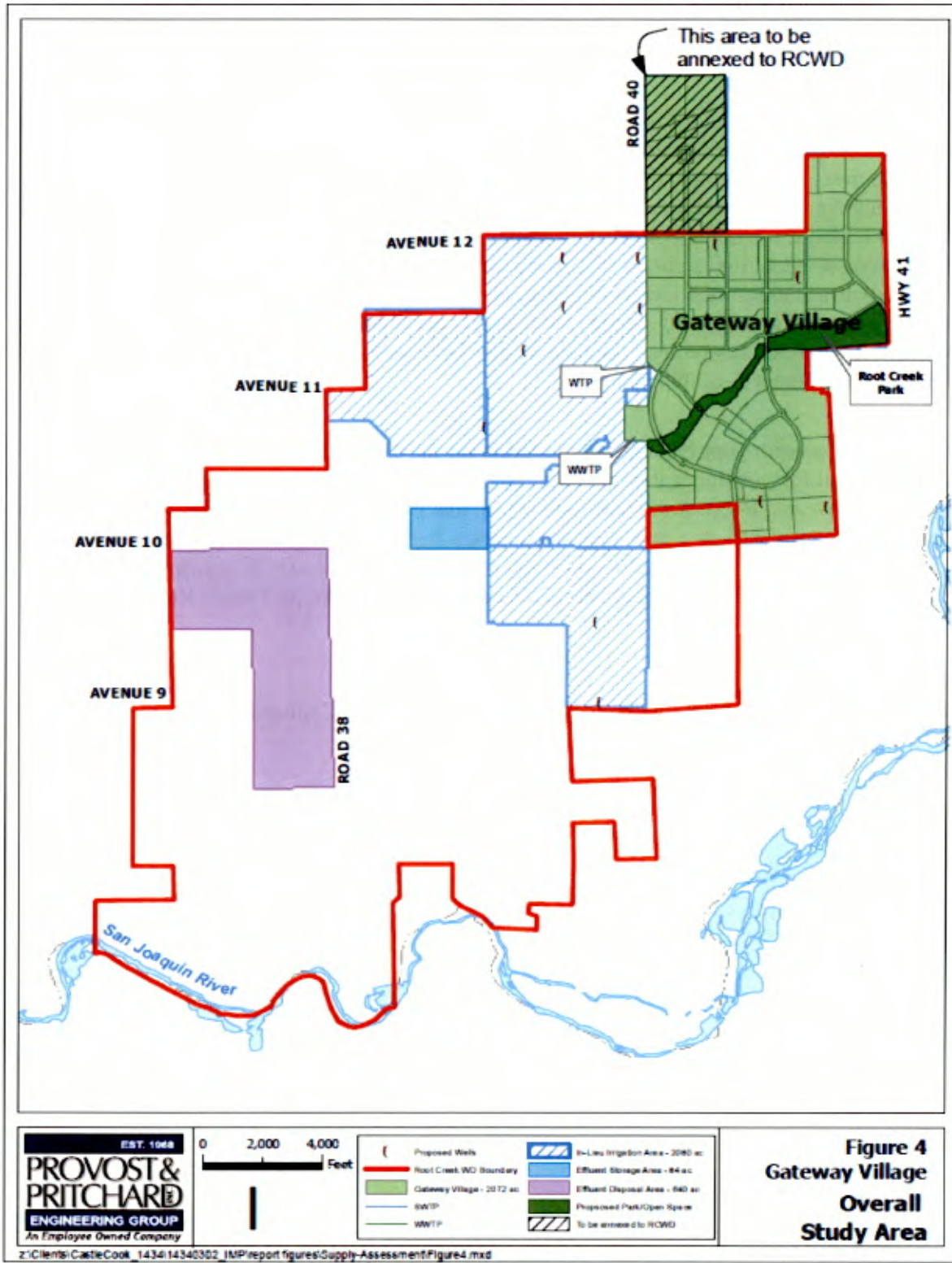
distributions that are known to be, or are likely to be, genetically or ecologically distinct) or are denoted where the core area supported a high diversity of the species covered by the recovery plan. Protection of Zone 1 core areas is necessary to prevent the extinction or irreversible decline of one or more species (USFWS 2005). In addition, designated vernal pool critical habitat for the federally-listed as threatened San Joaquin Orcutt Grass (*Orcuttia inaequalis*), Unit 3, is present just to the west of RCWD and bisected by Avenue 12.

Potential Changes to Use of Surface Water in RCWD

According to the Water Supply Assessment for Gateway Village (Water Assessment; Provost and Pritchard, 2006), nearly the entire proposed Gateway Village lies within RCWD. The Gateway Village as planned would cover approximately 2,072 acres. The estimated population at total build out is 19,734. Located in southeast Madera County, the site is generally bordered on the east by State Route 41 and the community of Rolling Hills, on the north by Avenues 12, 12-1/2, and 13, on the south by Avenue 10, and on the west by Road 40. The Water Assessment identifies that RCWD will be the potable water purveyor and the provider of wastewater collection and treatment services for Gateway Village. RCWD does not currently have the facilities required to produce or distribute potable water or collect and treat wastewater or storm drainage. However, it has the authority under State law to assume those responsibilities and to construct or acquire the necessary infrastructure. The District has indicated its willingness to provide water, wastewater, and storm drainage services to Gateway Village. According to the Water Assessment, wells, water storage, pumping and transmission facilities will be designed and constructed by the developer of Gateway Village, and will be dedicated to the RCWD for its ownership, operation, and maintenance upon completion.

Certain infrastructure improvements related to Gateway Village are planned to be constructed on lands outside of the Village boundary but within RCWD. These include domestic water wells, wastewater effluent storage and reclamation areas, direct groundwater recharge facilities, and an in-lieu groundwater recharge system. A map of the Gateway Village project footprint is shown in Figure 3. Because the RCWD Water Supply Project could in the future deliver water to Gateway Village, the proposed action could have "indirect effects" to listed species and falls within the definition of interrelated and interdependent actions, as specified in the Joint Regulations on Endangered Species (50 CFR § 402.02). Any future conversion of natural lands (grassland and vernal pool habitats) within the District even if associated with the RCWD Water Supply Project (e.g., via indirect effects), does not have incidental take coverage and would require separate ESA consultation with the Service. The process for handling New and Continuing Reclamation Actions was specified in the Service's biological opinion on the Central Valley Improvement Project Act (CVPIA BO; Service File No. 98-F-0124), section VI. I. Service and Reclamation Strategy Statement to Ensure Compliance with the Endangered Species Act, #7: *"CVP or CVPIA actions or parts of actions, which may affect listed species or for which there is not enough information available to estimate take or make a not likely to adversely affect determination, will receive future tiered analysis and consultation. Reclamation or the Service will provide to the Service's Sacramento Fish and Wildlife Office, Endangered Species Division, dependent on lead agency status, clear descriptions of proposed CVP or CVPIA actions, specific areas that may be affected directly or indirectly by these actions, the manner in which the actions may affect any listed species or designated critical habitat, and other relevant reports and information. Reclamation and the Service will also identify any and all interrelated and interdependent actions and measures related to the proposed CVP or CVPIA action. In those situations where the lead agency, or the Service's SFWO Endangered Species*

Figure 3. Gateway Development Project Footprint (from Provost and Pritchard 2006).



Division, determines that an action may affect listed species or may adversely modify designated critical habitat, Reclamation and/or the Service will initiate informal or formal consultation as appropriate."

Conclusion

Because there are documented occurrences of federally-listed vernal pool plant species near the vicinity of the project, the Service recommends that Reclamation expand their environmental protection measures to protect these species. We recommend that environmental protection measure number 1 in Attachment A be expanded to include training of construction workers on vernal pool plants, including San Joaquin Valley orcutt grass, hairy orcutt grass (*Orcuttia pilosa*), and succulent owl's clover (*Castilleja campestris* ssp. *succulenta*). The training would provide images and describe identifying characteristics of these species such as life history characteristics and biology and ecology. If a listed vernal pool plant is encountered during the construction phase of this project, the Service and DFG would be notified, as described in number 3 Attachment A of this memo.

Our concurrence with your NLAA determination for the Central California tiger salamander and San Joaquin kit fox concludes this consultation for this action. Therefore, unless new information reveals effects of the proposed action that may affect listed species in a manner or to an extent not considered, or a new species or critical habitat is designated that may be affected by the proposed action, no further action pursuant to the Act is necessary. If you have questions regarding this action, please contact Thomas Leeman, Joy Winckel or Daniel Russell at (916) 414-6600.

cc:

Lisa Gymer, California Department of Fish and Game, Fresno, California

Literature Cited

Provost and Pritchard, Inc., July 2006. Water Supply Assessment for Gateway Village, A Castle and Cooke Development. Prepared for Root Creek Water District by Provost and Pritchard Inc., Fresno CA., 35 pp. and 5 appendices. Available at: http://www.madera-county.com/rma/archives/uploads/1166046302_Document_upload_watersupplyassessment_gatewayvillagewithappendices.pdf

(USFWS) U.S. Fish and Wildlife Service. 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Portland, OR. 606 pp.

(USFWS) U.S. Fish and Wildlife Service. 2011. Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance. Sacramento Fish and Wildlife Office, Sacramento, CA. 9 pp. Available at: http://www.fws.gov/sacramento/PDFs/kitfox_standard_rec_2011.pdf

In Litteris

Campbell, C. (2011). Letter to N. Gruenhagen regarding Root Creek Water District Grazing Lands. Christopher L. Campbell of BAKER MANOCK & JENSEN, Fresno, CA, 2 pp., July 15, 2011.

Gruenhagen, N. (2011). Electronic mail providing information on grazing land within Root Creek Water District, July 18, 2011.

Hyatt, D. (2011). Electronic mail providing environmental commitment language for Root Creek Water Supply Project consultation, August 24, 2011.

Attachment A**From: Appendix C of the DEA RCWD Surface Water Supply Project****Environmental Protection Measures**

1. A biologist shall provide training to construction project workers to familiarize them with listed species before project activities are begun at RCWD. The biologist shall provide images of, and describe the identifying characters, life history characteristics, biology and ecology, of SJKF and CTS. Additionally, the protections afforded for listed species and designated critical habitat and penalties for violations under the ESA shall be described, including the definition of "take" as defined under the ESA (U.S.C. 16 Sect. 1531 et. seq.). The U.S. Code states: "Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by impairing behavioral patterns including breeding, feeding, or sheltering."
2. The work foreman, or person on site in charge of construction (i.e. Responsible Person), shall be the person designated as responsible for contacting USFWS (Service), DFG and Reclamation biologists, should a listed species be encountered during project activities in RCWD. This person also will be the contact person for any biologist working on the project. The name and contact information of this person shall be provided to Service, DFG and Reclamation biologists prior to beginning any construction.
3. If a listed species is observed in the Action Area at RCWD, the Responsible Person shall immediately contact biologists at the Sacramento Fish and Wildlife Office (SFWO), DFG and at Reclamation SCCAO. No further work in RCWD may be taken on the Proposed Action until appropriate consultation with Service and DFG has been completed.
4. A standard survey for San Joaquin kit fox (SJKF; Service 2011) shall be conducted between 14 and 30 days before activities on the project begin and a report on the findings filed with Reclamation and the SFWO. Pending the results of that survey, if no evidence of kit fox, their sign, or other evidence of their presence is detected, work may proceed pending completion of environmental compliance and notification of such by Reclamation.
5. Standard avoidance measures for SJKF (Service 2011) shall be implemented for the project.
6. Rodent burrows shall be avoided and may not be destroyed. At the time when specific locations for facilities are being identified by on the ground personnel, and also prior to beginning earth disturbing work, all burrows that could be affected by construction activities shall be flagged by a biologist (such as with a surveyor flag). Hi-viz barrier fencing at least 3 feet high shall be erected and maintained around burrows or burrow complexes to identify these sensitive areas which shall be avoided during the period of construction.

7. From June until the first rain event occurring on or after October 1, if an open hole or trench in the earth 6 inches deep or greater is created during construction, and it must remain open overnight, the opening to the trench or hole must either be covered to preclude entry by animals, or escape ramps suitable for CTS and SJKF must be placed at least every 50 lineal feet. If construction occurs between October 1 and May 31, for any hole or trench greater than 6 inches deep that must be left open overnight, such hole or trench must be completely covered to prevent access by animals, including CTS, if any work is conducted subsequent to a rain event. A rain event is one where measurable precipitation has been recorded at Fresno Yosemite International Airport, or, if the event is not sufficiently widespread to have been measured at this station, but otherwise is "commonly recognized" as to have occurred over the RCWD project area, the latter condition would be defining. No construction is permitted during periods of rain.
8. Any open pipe within a trench or hole shall have its opening(s) capped. Each day before work activity occurs in such areas (e.g. for laying pipe), the hole or trench shall be inspected for the presence of listed species. If CTS, SJKF or other listed species is present, Reclamation biologists, the CDFG and SFWO shall be contacted immediately and no further action may be taken until further appropriate consultation with the Service and DFG are completed.
9. Any pipe or similar tubular material staged or stored overnight at RCWD in an area which could be accessed by SJKF or CTS, shall be capped or covered to preclude entry. Before it is moved or installed, the openings of these materials and the area surrounding the materials must be examined for the presence of SJKF and CTS or other listed species. If a listed species is present, they must be allowed to leave of their own accord. If the animal does not immediately leave the area or there is risk of take, SFWO, DFG and Reclamation biologists shall be contacted immediately and no further action may be taken until further appropriate consultation with the Service and DFG are completed. Additionally, daily, before equipment is operated, the areas underneath such equipment shall be inspected by the operator for the presence of SJKF or CTS.
10. All "take" of migratory birds associated with the Proposed Action is prohibited and must be avoided. In addition to the pre-activity survey for SJKF, a pre-activity survey prior to construction shall be made for burrowing owls. As applicable, measures for avoidance (DFG 1995) of "take" under MBTA shall be applied (Attention is directed to the Federal Migratory Bird Treaty Act (16 U.S.C. 703-712) 50 CFR Part 10 and California Fish and Game Code Sections 3503, 3513 and 3800, which protect migratory birds, occupied nests and eggs from disturbance and destruction. With regard to "take" under MBTA, 16 U.S.C. § 703 states that "Unless and except as permitted by regulations made as hereinafter provided in this subchapter, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or eggs of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof, included in the terms of the conventions between the United States and Great Britain for the protection of migratory birds concluded August 16, 1916 (39 Stat. 1702), the United

States and the United Mexican States for the protection of migratory birds and game mammals concluded February 7, 1936, the United States and the Government of Japan for the protection of migratory birds and birds in danger of extinction, and their environment concluded March 4, 1972

<http://www.fws.gov/permits/mbpermits/regulations/mbta.html> - N 1 #N 1 and the convention between the United States and the Union of Soviet Socialist Republics for the conservation of migratory birds and their environments concluded November 19, 1976.”

11. Furthermore, should construction be required in February through August, a biologist shall conduct a survey to locate nesting birds in the Action Area at RCWD. Any migratory birds that may be affected by. Those areas in RCWD, where birds or their nests, etc. that may be subjected to “take”, as defined under the MBTA as consequence of the Proposed Action, shall be identified and avoidance measures implemented under the guidance of a biologist. No water conveyed in federal facilities and applied to lands in RCWD would be applied to native lands, or to lands fallowed or left untilled for 3 or more years until such lands are first surveyed for listed species. If such lands are determined to be inhabited by listed species, then no water may be applied on them until effects to listed species are consulted upon.

Appendix E – Public Comments Received



RUDELL
COCHRAN
STANTON
SMITH
BIXLER &
WISEHART, LLP

VIA E-MAIL

ATTORNEYS AT LAW

August 4, 2011

Gary H. Ruddell

Richard H. Cochran

Glenn A. Stanton

D. Zackary Smith

Matthew W. Bixler

Derek P. Wischart

Bureau of Reclamation
South-Central California Area Office
1243 N Street
Fresno, CA 93721

Attention: Michael Inthavong

Re: Draft Environmental Assessment Root Creek Water District
Surface Water Supply Project

Dear Mr. Inthavong:

I serve as General Counsel for the Friant Water Authority ("Friant"). On behalf of my client, I am writing to comment on the Draft Environmental Assessment Report ("DEA") on the proposed Root Creek Water District Surface Water Supply Project ("Proposed Project").

Please be advised that Friant, Madera Irrigation District ("MID"), Chowchilla Water District and Root Creek Water District ("RCWD") are all parties to a document entitled "AGREEMENT CONCERNING AGRICULTURAL MUNICIPAL AND INDUSTRIAL WATER USE WITHIN ROOT CREEK WATER DISTRICT," dated December 30, 1999 (the "Agreement"). (Friant is the assignee of Friant Water Users Authority, an original party to the Agreement.) Please be advised that Paragraph 3 of Article III of the Agreement permits RCWD to purchase surface water supplies from other sources, **so long as it honors "its commitment to purchase MID water to the extent that it is reasonably available."**

It is unclear from the DEA whether the Proposed Project recognizes the aforementioned restriction on the purchase by RCWD of water supplies from other sources. We ask that the DEA be revised to reflect the restriction and any other requirements set forth in the Agreement, a copy of which accompanies this letter and is incorporated herein by this reference.

Email:

rcssbw@visaliaalaw.com

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Michael Inthavong
August 4, 2011
Page 2

RUDELL
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Friant often has concerns when it becomes aware of a potentially wrongful diversion of water from the San Joaquin River. The Proposed Project does not appear to be planning on such a diversion. However, if Friant becomes aware of such an effort or any violation of the Agreement, it may augment this comment letter.

Sincerely,

RUDELL, COCHRAN, STANTON,
SMITH, BIXLER & WISEHART, LLP

By


D. Zackary Smith

DZS/mmb
Enclosure
20977



RUDELL
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VIA E-MAIL

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August 4, 2011

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South-Central California Area Office
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FWA Comment #1

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Michael Inthavong
August 4, 2011
Page 2

RUDELL
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FWA Comment #2

Sincerely,

RUDELL, COCHRAN, STANTON,
SMITH, BIXLER & WISEHART, LLP

By 
D. Zackary Smith

DZS/mmb
Enclosure
20977