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OPERATIONS BRANCH  
FLOOD CONTROL SECTION

Volume C

Revised 29 Dec 2016

SUPPLEMENT TO STANDARD  
OPERATION AND MAINTENANCE  
MANUAL

LOWER SAN JOAQUIN RIVER AND  
TRIBUTARIES PROJECT, CALIFORNIA

UNIT NO. 2

RIGHT BANK LEVEE OF SAN JOAQUIN RIVER  
AND LEFT BANK OF FRENCH CAMP SLOUGH  
WITHIN RECLAMATION DISTRICT NO. 17



U. S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
SACRAMENTO, CALIFORNIA

Incl

**SUPPLEMENT TO STANDARD  
OPERATION AND MAINTENANCE MANUAL  
LOWER SAN JOAQUIN RIVER AND TRIBUTARIES PROJECT, CALIFORNIA**

UNIT NO. 2

RIGHT BANK LEVEE OF SAN JOAQUIN RIVER  
AND LEFT BANK OF FRENCH CAMP SLOUGH  
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<b>LOCATION</b>	<b>ADDITION OR REVISION</b>	<b>DATE</b>
1-02	Add to existing paragraph	Oct 2001
1-04	Add subparagraph 1-04, k.	Oct 2001
1-07	Add to existing paragraph	Oct 2001
2-05	Add paragraph 2-05	Oct 2001
2-06	Add paragraph 2-06	Oct 2001
Exhibit A-2	Add exhibit A-2, project information form (5 pages)	Oct 2001
Exhibit B	Add drawing no. 7-4-1864 (17 sheets)	Oct 2001
Exhibit F	Add letter of acceptance dated 18 Jul 2003	Oct 2001
Exhibit F	Add copy of letter of transfer dated 4 Apr 1957	24 May 2011
Exhibit F	Add copy of letter of transfer dated 10 Sep 1957	24 May 2011
Exhibit F	Add copy of letter of transfer dated 3 Dec 1958	24 May 2011
Exhibit F	Add copy of letter of acceptance dated 29 Dec 1958	24 May 2011
Exhibit F	Add copy of letter of acceptance dated 15 Jan 1962	24 May 2011
Exhibit F	Add copy of letter of transfer dated 14 Dec 1962	24 May 2011
Exhibit F	Add copy of letter of transfer dated 26 Feb 2003	24 May 2011
Exhibit F	Add copy of letter of transfer dated 1 Oct 2004	19 Feb 2015
Exhibit F	Add copy of letter of transfer dated 11 Mar 2005	19 Feb 2015
1-04	Add paragraph l	31 Mar 2016
2-07	Add paragraph 2-07	31 Mar 2016
Exhibit B	Add drawing number 50-4-6338	31 Mar 2016
Exhibit H	Add copy of USFWS Biological Opinion dated 19 Jun 2012	31 Mar 2016
Exhibit A	Add exhibit A-3, Willow Planting Map	31 Mar 2016
Exhibit F	Add copy of letter of transfer dated 15 Jul 2016	19 Jul 2016
Exhibit F	Add copy of letter of transfer dated 29 Nov 2016	29 Dec 2016

CORPS OF ENGINEERS  
U.S. ARMY

SUPPLEMENT TO STANDARD  
OPERATION AND MAINTENANCE MANUAL  
LOWER SAN JOAQUIN RIVER & TRIBUTARIES PROJECT

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U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS, SACRAMENTO,  
CALIFORNIA – MAY 1963

SUPPLEMENT TO STANDARD  
OPERATION AND MAINTENANCE MANUAL  
SAN JOAQUIN RIVER & TRIBUTARIES PROJECT

UNIT NO. 2

RIGHT BANK LEVEE OF SAN JOAQUIN RIVER  
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A-2	Project Information Form	Sheets 1 thru 5
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B	“As Constructed” Drawings	Unattached
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H	Rules and Regulations for Operation and Maintenance of Recreation Area	1 Sheet
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SUPPLEMENT TO STANDARD  
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LOWER SAN JOAQUIN RIVER & TRIBUTARIES PROJECT

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SECTION I

INTRODUCTION

1-01. Location. – The improvement covered by this manual is that part of the Lower San Joaquin River and Tributaries Project that lies along the right bank of the San Joaquin River from French Camp Slough to Walthall Slough. Also, that part of the left bank levee of French Camp Slough that extends from the junction of French Camp Slough with the San Joaquin River upstream to the French Camp Turnpike. Location by levee mileage for R.D. 17; Unit No. 1 starts near the French Camp Turnpike (Mile 0.0), thence downstream 1.81 miles to the junction with the San Joaquin River; Unit No. 2 starts at said junction (Mile 0.0), thence upstream 14.37 miles along the San Joaquin River to Walthall slough. The area is located within reclamation District No. 17 in the County of San Joaquin, California and in the general vicinity as shown on the Location Map, EXHIBIT A-1.

1-02. Project Works. – The project works covered by this manual is that part of the Lower San Joaquin River and Tributaries Project as authorized by the Flood Control Act of 22 December 1944, Public Law 534, 78<sup>th</sup> Congress, 2<sup>nd</sup> Session, Section 10 and consists of the left bank and channel of French Camp Slough from the French Camp turnpike to the San Joaquin River and the right bank and channel of the San Joaquin River from French Camp Slough to Walthall Slough, a total distance of about 16.18 miles. The levee repair works was completed in 2001 under Contract No. DACW05-00-C-0033 was performed under the general authority of the Flood and Coastal Storm Emergencies Act, Public Law 84-99, and special authority granted under the Fiscal Year 1997 Emergency Supplemental Appropriations Act, Public Law 105-18. Furthermore, this construction was cost-shared with the non-Federal sponsor in accordance with the Project Cooperation Agreement dated 15 October 1999.

1-03. Project Provided. – Levees along the left bank of French Camp Slough and right bank of the San Joaquin River, as described in this unit, provide direct protection to about 12,000 acres of agricultural. Industrial and residential lands within Reclamation District No. 17. Along French Camp Slough the grade of the adopted flood plane profile is level at elevation 11.0 from the San Joaquin River to the French Camp Turnpike. Along the right bank of the San Joaquin River, the grade of the adopted flood plane profile varies from elevation 11.0 at French Camp Slough to elevation 23.5 at Walthall Slough. All elevations are referred to mean sea level datum (1929) adjustment. Levee grades within this unit provide for a freeboard of at least 3 feet above the adopted flood plane profile. Within this unit, the project design flood for French Camp Slough is 3,000 cubic feet per second and for the San Joaquin River about 18,000 cubic feet per second from French Camp Slough to Old River and 37,000 cubic feet

per second from Old River to Walthall Slough. The flow in French Camp Slough coincidental with the San Joaquin River design flood would be about 2,000 cubic feet per second.

1-04. Construction Data and Contractor. – Construction required by the Corps of Engineers to bring this unit to project standards and to perform repair work to locally built levees was accomplished under the following job orders and contracts:

- a. Bank protection at Site “C” was accomplished under Job Order No. 920, and completed on 31 January 1944. Drawing No. 7-4-1181.
- b. Bank protection at site “F” was accomplished under Job Order No. 942, and completed on 15 February 1944. Drawing No. 7-4-1182.
- c. Bank protection 3.5 miles downstream from Mossdale (Mile 55.5 rt.) was accomplished under Job Order No. 984, and completed on 30 June 1945. Drawing No. 7-4-1199.
- d. Bank protection at mile 52.2 was accomplished under Job Order No. 990, and completed on 30 June 1945. Drawing No. 7-4-1205.
- e. Bank protection 1.2 miles upstream from Brandt Bridge (Mile 51.5 rt.) was accomplished under Job Order No. 999, and completed on 3 June 1945. Drawing No. 7-4-1208.
- f. Bank protection along the San Joaquin River from Head of Old River to Brandt Bridge was accomplished under Contract No. DA-04-167-CIVENG-56-252 by M. Malfitano & Son, Inc., during the period from 17 July 1956 to 28 December 1956. Specification No. 2125, Drawing No. 7-4-1440.
- g. Bank protection along the San Joaquin River from Brandt Bridge to the Stockton Channel was accomplished under Contract No. DA-04-167-CIVENG-57-97 by the Basalt Rock Company, Inc., during the period from 10 December 1956 to 20 June 1957. Specification No. 2220, Drawing No. 7-4-1490.
- h. Bank protection along the San Joaquin River between Walthall Slough and Head of Old River was accomplished under Contract No. DA-04-167-CIVENG-58-69 by M. Malfitano & Son, Inc., during the period from 14 July 1958 to 28 November 1958. Specification No. 2435, Drawing No. 7-4-1518.
- i. Bank protection along the San Joaquin River from Walthall Slough to Old River was accomplished under Contract No. DA-04-167-CIVENG-61-72 by A. Teichert & Son, Inc., during the period from 8 May 1961 to 17 November 1961. Specification No. 2656, Drawing No. 7-4-1554.
- j. Bank protection along the San Joaquin River from Head of Old River to the Old Stockton Deep Water Ship Channel was accomplished under Contract No. DA-04-167-CIVENG-62-54 by M. Malfitano & Son, Inc., during the period from 26 March 1962 to 10 January 1963. Specification No. 2697, Drawing No. 7-4-1621.

k. All construction activities including the installation of drainpipe, construction of stability and seepage berms, placement of stone protection, boil excavation, ditch backfill, and embankment fill was completed along the right bank of the San Joaquin River between L.M. 0.61 and L.M. 13.08 of Unit No.2. The project was accomplished under Contract No. DACW05-00-C-0033 by Steelhead Construction. A final inspection was conducted on 23 October 2001. Specification No.1047E, Drawing No. 7-4-1864. Additional information on the 23 damage locations and their associated repairs is shown on the attached Project Information Form, EXHIBIT A-2.

l. Willow poles were planted as part of mitigation efforts required under consultation with the U.S. Fish and Wildlife Service (08FBDT00-2012-I-0021) for construction effects on endangered species as a result of PL 84-99 repair efforts. The work was accomplished by Erick Ammon Inc. under Contract No. W91238-12-C-0048 and W91238-14-P-0091, Drawing No. 50-4-6338. The work was completed Feb 2015. As constructed drawings are contained in Exhibit B. The USFWS Biological Opinion is contained in Exhibit H.

1-05. Flood Flows. – For purposes of this manual, the term “flood” or “high water period” shall refer to flows when the water surface reaches or exceeds a reading of 17.0 on the State Department of Water Resources continuous water stage recorder and staff gage on the right bank of the San Joaquin River immediately downstream from the Mossdale Bridge on the U.S. Highway No. 50. Gage is set with zero at elevation 3.27 U.S. Corps of Engineers datum and 0.00 feet U.S.G.S. mean sea level datum.

1-06. Assurances Provided by Local Interests. – Assurance of cooperation by local interests is provided by State legislation as contained in Chapters 1 and 2, part 4, Division 5 of the State Water Code (see paragraph 2-02a of the Standard Manual).

1-07. Acceptance by the State Reclamation Board – Responsibility for operating and maintaining this unit was officially accepted by the State Reclamation Board by letter dated 3 January 1963, as shown on the attached letter, EXHIBIT F. The State of California Reclamation Board officially accepted responsibility for operating and maintaining the construction completed in 2001 under Contract No. DACW05-00-C-0033 through a letter dated 18 July 2003, included as EXHIBIT F-1.

1-08. Inspection Procedure. – Since the enactment by State Legislation of Chapter 1528, Statutes of 1947, the Department of Water Resources, State of California, has made semi-annual inspection of all levees authorized flood control projects in the Sacramento San Joaquin drainage basin pursuant to the Federal Regulations of 16 August 1944 (Title 33), and reports its findings to the local agency, the State Reclamation Board and the Sacramento District, Corps of Engineers, U.S. Army. This activity, initiated pursuant to section 208.10(a) of the Federal Regulations, has in effect provided for transfer from the local agencies to the State Department of Water Resources the obligations of compliance with Sections 8371, 8372, and 8373 of the Water Code of the State of California. These sections of the Code require the local responsible agencies to submit a report to the State Department of Water Resources on or before 1 June of each year on the condition of the levees within their jurisdiction. Supervisory powers and duties of the Department are applicable to all works of the Lower San Joaquin River and Tributaries Flood Control Project maintained and operated by the local agencies without regard to status of completion, or expenditure of Federal funds on the construction of such works.

The following procedure is used in inspecting the levees of the responsible maintaining agency:

The personnel of the State Department of Water Resources make a detailed inspection in the spring and fall of each year and make a report on any required maintenance. The inspection objectives are to determine if the following items which are a condensation of Federal Regulations are being adhered to:

a. That all brush, trees and wild growth other than sod are removed from the levee crown and slopes.

b. That all weeds, grass and debris on the levee have been burned during the appropriate season, where not dangerous or impractical.

c. That all grass and weeds on the levee have been mowed where removal by burning is dangerous or impracticable. This applies only on peat levees or where burning would constitute a hazard to improvements.

d. That all burrowing animals have been exterminated.

e. That all caves, sloughs, burrows, holes, slips or other damaged portions of the levee have been repaired.

f. That all irrigation and drainage structures through the levee are in good working condition.

g. That no revetment work or riprap have been displaced, washed out or removed.

h. That the crown of the levee is well shaped and maintained and that unauthorized vehicular travel is restricted.

i. That stock grazing on the levee is restricted to conditions and seasons when the levee would not be seriously scarred or otherwise damaged thereby.

j. That encroachments are not being erected on the levee which would hinder travel by authorized patrol vehicles.

k. Prevent the erection of structures on, additions to, or alterations of, the levee unless authorized by permit from the State Reclamation Board.

Following this detailed inspection a joint field inspection is made with representatives of the responsible maintaining agency and the State Department of Water Resources to review and discuss the inspection report.

Upon completion of the full inspection, the State Department of Water Resources publishes an annual report entitled, "Status of Project Levee Maintenance" which indicates the degree of proficiency attained by each obligated local agency in providing required maintenance.

## SECTION II

### FEATURES OF THE PROJECT SUBJECT TO FLOOD CONTROL REGULATIONS

#### 2-01. Levees.

a. The levee described in this manual lies along the south side of French Camp Slough and the east side of the San Joaquin River and extends for a total distance of about 16.16 miles. The levee has been reconstructed with slopes of 1 on 3 waterside (1 on 2 downstream from Old River) and 1 on 2 landside with a crown width of 20 feet and 12 feet downstream from Old River. The necessary drainage structures, road approaches, bank protection, and appurtenances were also included in the work. For more complete detail in construction of the above-mentioned levee, refer to the "As Constructed" drawings of EXHIBIT B.

b. For pertinent Requirements of the Code of Federal Regulations and other requirements see the following:

- (1) Maintenance-paragraph 4-02 of the Standard Manual.
- (2) Suggested Check Lists - EXHIBIT E of this Supplement Manual.
- (3) Operation-paragraph 4-04 of the Standard Manual.
- (4) Special Instructions-paragraph 4-05 of the Standard Manual.

#### 2-02. Drainage and Irrigation Structures.

a. Description. Drainage and irrigation structures which extend through the levee are listed as follows:

Levee: Mile:	Size of Pipe	Other Description	: Feet Below : Crown
<u>Unit No. 1 - South Levee of French Camp Slough</u>			
0.49	6" & 2"		2.0
0.53	8"	Pump on W.S. berm	3.0
0.57	9"	Pump on W.S. slope	5.0
0.86	12"	Pump on W.S. slope	2.0
1.32	6"	Pump I.S.	2.0
<u>Unit No. 2 - East Levee of San Joaquin River</u>			
0.14	12"	Pumphouse W.S.	5.0
0.70	12"	Pump W.S.	5.0
0.77	6" & 8"	Siphon Breaker W.S.	1.5
0.86	16"	Valve W.S.	2.0

Levee : Mile :	Size : of Pipe :	Other Description	: Feet Below Crown
Unit No. 2 - East Levee of San Joaquin River (Cont'd)			
1.16	8"	Pumphouse W.S.	3.0
1.24	16"	Pumphouse W.S.	10.0
1.50	16"	Pumphouse W.S.	6.0
2.06	18"	Slidegate W.S.	15.0
2.25	18"	Pump on piling W.S.	6.0
2.51	6"	Pumphouse W.S.	3.0
2.68	6"	Pumphouse W.S.	2.0
2.68	8"	Slant pump W.S.	6.0
2.69	8"	Pump W.S.	4.0
2.79	10"	Pumphouse W.S.	3.0
3.02	12"	Pump W.S.	10.0
3.18	10"	Pump L.S.	3.0
3.44	18"	Pump on piling W.S.	3.0
3.64	14"	Pumphouse W.S.	6.5
3.66	12"	Pump L.S.	9.5
3.67	10"	Pump L.S.	3.0
3.97	12"	Pumphouse W.S.	12.0
4.31	10"	Pumphouse W.S.	3.0
4.33	8"	Gate valve W.S.	10.0
4.40	6"	Pump W.S.	3.0
4.46	10"	Pumphouse W.S.	3.0
4.62	6"	Pumphouse W.S.	3.0
4.82	14"	Pump on piling W.S.	3.5
4.97	6"	Abandoned	3.0
5.21	12"	Pump on piling W.S.	4.0
5.45	2-10"	Pump W.S.	2.5
5.95	8"	Pumphouse W.S.	3.0
6.18	8"	Flapgate W.S.	5.0
6.18	12"	Pumphouse W.S.	6.0
6.63	6" & 12"	Siphon breaker L.S.	6.0
6.84	16"	Pump on piles W.S.	8.0
6.84	12"	Overflow pipe	3.0
7.18	12"	Pump L.S.	12.0
7.22	12"	Pump on piles W.S.	3.0
7.26	3"	Abandoned	4.0
7.50	12"	Pump on piles W.S.	2.0
7.51	6"	Pump on L.S. slope	3.0
7.64	6"	Pump on W.S. slope	2.5
7.66	5"	Open both ends	1.0
7.78	16"	Pump on piles W.S.	6.0
7.82	14"	Pump on piles W.S.	12.0
7.96	10"	Pump on L.S. slope	7.0
9.04	24"	Flapgate W.S.	7.0
9.06	12"	Pumphouse L.S.	14.0
9.07	2-12"	Flapgates W.S.	6.0

Levee : Mile :	Size : of Pipe :	Other Description	:Feet Below : Crown
Unit No. 2 - East Levee of San Joaquin River (Cont'd)			
11.28	18"	Gate Valve W.S.	13.0
11.55	12"	Pumphouse L.S.	8.0
11.73	6"	Pump W.S.	2.0
11.95	8"	Pump W.S. slope	8.0
12.12	12"	Pumphouse L.S.	10.0
12.16	20"	Flapgate W.S.	5.0
12.36	6"	Pumphouse L.S.	12.0
12.45	6"	Pump on W.S. berm	2.0
12.48	6"	Pump W.S.	2.5
12.74	22"	54" Manhole at centerline of levee	8.0
13.09	12"	Pumphouse W.S.	4.4
13.12	16"	Pumphouse W.S. slope	4.4
13.36	18"	Gatevalve W.S.	5.8
13.91	8"	Pumphouse on W.S. slope	12.0
14.30	20"	Pump on piles W.S.	6.0

Note on abbreviations: W.S. = Waterside  
L.S. = Landside

b. For pertinent Requirements of the Code of Federal Regulations and other requirements, see the following:

- (1) Maintenance-paragraph 5-02 of the Standard Manual.
- (2) Suggested Check Lists-EXHIBIT E of this Supplement Manual.
- (3) Operation-paragraph 5-04 of the Standard Manual.
- (4) Additional Requirements - paragraph 5-04 of the Standard Manual.
- (5) Safety Requirements - paragraph 5-06 of the Standard Manual.

### 2-03. Channels.

a. Description. The main channels and floodways of the San Joaquin River and French Camp Slough for this unit lie adjacent to the levees as described in paragraph 1-02. The project design capacities of said channels are as listed in paragraph 1-03 of this manual.

b. For pertinent Requirements of the Code of Federal Regulations and other requirements, see the following:

- (1) Maintenance - paragraph 6-02 of the Standard Manual.
- (2) Suggested Check Lists - EXHIBIT E of this Supplement Manual.
- (3) Operation - paragraph 6-04 of the Standard Manual.
- (4) Safety Requirements - paragraph 6-05 of the Standard Manual.

It shall be the duty of the local agency responsible for maintenance to keep in contact with the State Department of Water Resources' Flood Operation Center during all periods of flood danger, and maintain a patrol of the project works in their area during periods of flood in excess of a reading of 17.0 on the gage located on the right bank of the San Joaquin River immediately downstream from the Mossdale Bridge on U. S. Highway No. 50.

The Flood Operation Center is responsible for Data Collection and issuance of a joint river forecast with the U. S. Weather Bureau and coordinates with the Sacramento District Engineer, and other agencies to keep appraised of the current situation in accordance with terms of the Memorandum of Understanding dated 1 November 1956, between the Division Engineer, U. S. Army Engineer Division, South Pacific, and the Director, Department of Water Resources, State of California for cooperative action during flood emergencies.

#### 2-04. Miscellaneous Facilities.

a. Description. Miscellaneous structures or facilities which were constructed as a part of, or in conjunction with, the protective works, and which might affect their functioning, include the following:

- (1) Utility Relocation. Because of the nature of the construction of structures by local interests, records of utility relocations are not available.
- (2) Hydrologic Facilities. Hydrologic facilities provided in the vicinity of this unit consists of the State Department of Water Resources continuous water stage recorder and staff gage located on the right bank of the San Joaquin River immediately downstream from the Mossdale Bridge on U. S. Highway No. 50.
- (3) Bridges.
  - (a) Brandt bridge on the Bowman road (levee mile 4.11).

- (b) Southern Pacific R.R. bridge (levee mile 12.59).
- (c) U.S. Highway No. 50 bridge (levee mile 12.73).
- (d) Western Pacific R.R. bridge (levee mile 13.32).

b. For pertinent Requirements of the Code of Federal Regulations and other requirements, are the following:

- (1) Maintenance – paragraph 7-02 of the Standard Manual.
- (2) Suggested Check Lists – paragraph 7-03 of the Standard Manual.
- (3) Operation – paragraph 7-04 of the Standard Manual.

#### 2-05. Berms.

a. Description. The berms constructed in 2001 under the Contract No. DACW05-00-C-0033 are located along the landside slope of the existing levee. This construction contract included the installation of a berm at 21 separate sites between L.M. 0.98 and L.M. 13.08 of Unit No.2. A berm is generally constructed to satisfy one or both of the following objectives: 1) Stability - Compacted fill is placed along the toe and slope of the levee as a buttress to stabilize the levee against sloughing or rotational slipping; or, 2) Seepage - Fill is placed over a layer of pervious drainage material or other drainage feature as a counterweight to uplift pressures associated with heavy seepage or boils. The height, width, cross-slope, and side-slope of each berm varies based on which objective it has been designed to satisfy. For information specific to anyone of the berms constructed in 2001, refer to the attached Project Information Form, EXHIBIT A-2, or the As-Built Drawings, EXHIBIT B. In general, all berms should be operated in maintained in accordance with the principles that govern the operation and maintenance of a levee.

b. For pertinent Requirements of the Code of Federal Regulations and other requirements, see the following:

- (1) Sand Boils paragraph 8-09 of the Standard Manual.
- (2) Sub-levees or Bow Levees paragraph 8-10 of the Standard Manual.

#### 2-06. Drainage Pipes.

a. Description. Due to the proximity of residential properties to the levee, drainage pipes were installed in 2001 under Contract No. DACW05-00-C-0033 to evacuate water accumulated from seepage. This system was installed along the landside levee toe between L.M. 0.61 and L.M. 0.81. From information specific to this site, refer to Paragraph 1 of

the attached Project Information Form, EXHIBIT A-2, or Sheet C6.0 and C7.0 of the As-Built Drawings, EXHIBIT B.

b. For pertinent Requirements of the Code of Federal Regulations and other requirements, see the following:

- (1) Maintenance-paragraph 5-02 of the Standard Manual.
- (2) Operation-paragraph 5-04 of the Standard Manual.
- (3) Additional Requirements-paragraph 5-05 of the Standard Manual.
- (4) Safety Requirements-paragraph 5-06 of the Standard Manual.

#### 2-07 Environmental Protection

a. For locations with a vegetation variance zone designation in Exhibit A-3:

(1) The vegetation variance zone is defined as the levee prism plus 15 feet extending beyond the levee toes for a height of eight feet vertically. Laterally, the vegetation variance zone extends the distance of the willow planting site. Arroyo and Sandbar willow species planted within the vegetation variance zone, identified in Exhibit A-3, will be permitted to grow without intervention until the willows meet the following:

(a) reach between two and four inches in diameter as measured 12 inches above the ground. Willow trunks shall be severed 12 inches above ground when between two and four inches. Willows shall not be permitted to grow in diameter greater than four inches when measured 12 inches above the ground. Decaying willow stumps within the vegetation variance zone shall not be removed to minimize disturbance to the riprap structure and adjacent willows. Care should be taken to minimize disturbance to the riprap structure during maintenance.

(b) impair visibility of the levee toe as detailed in the as-constructed drawings. When visibility of the toe is impaired or lost, willow branches shall be trimmed vertically from the ground up at the levee toe until the toe is visible for inspection. Vertical trimming shall not exceed eight feet in height from the ground up and will not be trimmed in such a way that threatens their survival (i.e. 'heading'. Trimming branches shorter or higher than what is reasonably necessary to monitor and inspect). This trimming is necessary to ensure an adequate access corridor without unnecessarily over trimming the willows.

(2) When maintained in accordance with this section of the O&M manual, the sponsor is not obligated to replant willow poles in the vegetation variance zone that do not survive.

(3) In the vegetation variance zone, only O&M manual compliant vegetation, arroyo and sandbar willows are allowed. The arroyo and sandbar willows shall be maintained such that the vegetation does not grow beyond the boundaries of the vegetation variance zone.

(4) The riprap placed below the planting shall be visually inspected to ensure no erosion, settling or scouring has occurred. If visual inspection is not possible, then hydrographic surveys or mechanical probing from the waterside by either waders or by boat shall be conducted. Examples of waterward soundings are included in Engineering Manual 1110-2-1003 or the most current USACE publication regarding hydrographic surveying. Repair of riprap shall be conducted in accordance with normal maintenance standards.

## SECTION III

### REPAIR OF DAMAGE TO PROJECT WORKS AND METHODS OF COMBATING FLOOD CONDITIONS

3-01. Repair of Damage. – In the event of serious damage to the project works, whether due to flood conditions or other causes, and which may be beyond the capability of local interest to repair, the local agency responsible for maintenance will contact a representative of the Department of Water Resources, State of California, who coordinates maintenance of project works of the Lower San Joaquin River and Tributaries Flood Control Project. The State representative will give assistance or advise, or will determine appropriate action to be taken.

3-02. Applicable methods of Combating Floods. – For applicable methods of combating flood conditions, reference is made to Section VIII of the Standard Operation and Maintenance Manual, where the subject is fully covered.

EXHIBIT A

FEDERAL FLOOD CONTROL REGULATIONS

(SEE STANDARD MANUAL.)



**Exhibit A-2**

**PROJECT INFORMATION FORM  
RD-17 (SJ4) 1997 Cost-Shared Levee Repairs  
San Joaquin County, California**

**PROJECT INFORMATION FORM**  
**RD-17 (SJ4) 1997 Cost-Shared Levee Repairs**  
**San Joaquin County, California**

**Basin Number / Reclamation District / Maintenance Area No.**  
 SJ-4 (Reclamation District 17)

**Location / Levee Mile / Damage:** San Joaquin River Basin, L.M. 0.61 of Unit 1 to L.M. 13.08 of Unit 2. All damage existed on the rightbank of the San Joaquin River.

<b><u>Location (Length)</u></b>	<b><u>LS/WS</u></b>	<b><u>DAMAGE</u></b>	<b><u>REPAIR</u></b>
1. L.M. 0.61-0.81 (1,056')	LANDSIDE	SEEPAGE	Drainpipe
2. L.M. 0.98-1.00 (106')	LANDSIDE	SEEPAGE	Seepage Berm
3. L.M. 1.50-1.52 (106')	WATERSIDE	EROSION	Riprap
4. L.M. 2.01-2.07 (317')	LANDSIDE	BOILS	Stabilization Berm
5. L.M. 2.17-2.23 (317')	LANDSIDE	BOILS	Seepage Berm
6. L.M. 2.48-2.54 (317')	LANDSIDE	BOILS	Seepage Berm
7. L.M. 2.82-2.90 (422')	LANDSIDE	BOILS	Stabilization Berm
8. L.M. 3.51-3.55 (211')	LANDSIDE	BOILS	Seepage Berm
9. L.M. 3.83-3.92 (475')	LANDSIDE	BOILS	Seepage Berm
10. L.M. 4.14-4.25 (581')	LANDSIDE	BOILS	Seepage Berm
11. L.M. 5.26-5.43 (898')	LANDSIDE	BOILS	Seepage Berm
12. L.M. 5.80-5.95 (792')	LANDSIDE	BOILS	Seepage Berm
13. L.M. 7.11-7.19 (422')	LANDSIDE	BOILS	Seepage Berm
14. L.M. 8.63-8.90 (1,426')	LANDSIDE	BOILS	Seepage Berm / Boil Excavation
15. L.M. 9.37-9.67 (1,584')	LANDSIDE	BOILS	Seepage Berm
16. L.M. 9.76-9.95 (1,003')	LANDSIDE	BOILS	Seepage Berm / Ditch Backfill
17. L.M. 10.33-10.38 (264')	LANDSIDE	BOILS	Seepage Berm
18. L.M. 10.47-10.52 (264')	LANDSIDE	BOILS	Seepage Berm
19. L.M. 11.57-11.62 (264')	LANDSIDE	BOILS	Seepage Berm
20. L.M. 11.68-11.75 (370')	LANDSIDE	BOILS	Seepage Berm
21. L.M. 11.77-12.69 (4,858')	LANDSIDE	BOILS	Seepage Berm
22. L.M. 12.95-13.08 (686')	LANDSIDE	BOILS	Seepage Berm

**Contract Modification**

23. L.M. 12.94	LANDSIDE	SEEPAGE	Embankment Fill / Seepage Berm / Drainage Ditch
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## **Repair Description:**

### **1. DRAINPIPE - LANDSIDE**

L.M. 0.61 – 0.81 (1.056')

The seepage along levee toe was repaired with 8" Diameter Rigid Perforated Pipe placed between 30 to 36-inches deep along the levee toe. The pipe was encapsulated in Geotextile Fabric and covered with approximately 18 to 24-inches of drain rock. The remainder of the ditch was filled with compacted soil. At L.M. 0.70, the 8-inch perforated pipe was T-joined to a 12-inch rigid pipe to carry the seepage water to existing storm drain manhole on Carrie Street. Reference Sheet C6.0 of Design File No. 7-4-1864 for additional information.

### **2. SEEPAGE BERM - LANDSIDE**

L.M. 0.98 – 1.00 (106')

L.M. 2.17 – 2.23 (317')

L.M. 2.48 – 2.54 (317')

L.M. 3.51 – 3.55 (211')

L.M. 4.14 – 4.25 (581')

L.M. 5.26 – 5.43 (898')

L.M. 5.80 – 5.95 (792')

L.M. 7.11 – 7.19 (422')

L.M. 8.62 – 8.89 (1,426')

L.M. 9.37 – 9.67 (1,584')

L.M. 10.33 – 10.38 (264')

L.M. 10.47 – 10.52 (264')

L.M. 12.95 – 13.08 (686')

These seepage berms are generally 42-foot wide. The height of the berm varies from 3.5-feet at the levee slope to 2.5-feet at the exterior edge. Each seepage berm consists of a 12-inch layer of drain rock encapsulated in geotextile fabric, which is covered with compacted embankment fill. Reference Sheet C1.0 of Design File No. 7-4-1864 for additional information.

### **3. RIPRAP - WATERSIDE**

L.M. 1.50 – 1.52 (106')

This erosion site was repaired with 18-inch riprap placed in a layer approximately 3-feet deep and 23- feet wide along waterside levee slope. There is an existing access road to service an irrigation pump at this location and the riprap extends below this road along the levee slope as shown in Sheet No. C1.0 of File Drawing No. 7-4-1864.

#### **4. STABILITY BERM - LANDSIDE**

L.M. 2.01 – 2.07 (317')

The stability berm is 7-feet wide. The height of the berm varies from 6-feet at the levee slope to 5-feet at the exterior edge. The berm consists of an 18-inch layer of drain rock encapsulated in geotextile fabric, which is covered with compacted embankment fill. Reference Sheet C2.0 of Design File No. 7-4-1864 for additional information.

#### **5. STABILITY BERM (NEAR TOWERS) - LANDSIDE**

L.M. 2.82 – 2.90 (422')

The stability berm varies from 17 to 37-feet wide. The height of the berm varies from 6-feet at the levee slope to 5-feet at the exterior edge. The berm consists of an 18-inch layer of drain rock encapsulated in geotextile fabric, which is covered with compacted embankment fill. Reference Sheet C2.0 of Design File No. 7-4-1864 for additional information.

#### **6. STABILITY BERM - LANDSIDE**

L.M. 2.01 – 2.07 (317')

The stability berm is 7-feet wide. The height of the berm varies from 6-feet at the levee slope to 5-feet at the exterior edge. The berm consists of an 18-inch layer of drain rock encapsulated in geotextile fabric, which is covered with compacted embankment fill. Reference Sheet C2.0 of Design File No. 7-4-1864 for additional information.

#### **7. SEEPAGE BERM AND DRAINAGE DITCH BACKFILL - LANDSIDE**

L.M. 9.76 – 9.95 (1,003')

This site included an existing drainage ditch at the toe of the levee approximately 7-feet deep and 6-feet wide. This ditch was backfilled with compacted embankment fill. A 42-foot wide seepage berm was installed over the ditch. The height of the berm varies from 3.5-feet at the levee slope to 2.5-feet at the exterior edge. The berm consists of a 12-inch layer of drain rock encapsulated in geotextile fabric, which is covered with compacted embankment fill. Reference Sheet C3.0 of Design File No. 7-4-1864 for additional information.

## **8. SEEPAGE BERM (NEAR EXISTING HOUSES) - LANDSIDE**

L.M. 11.57 – 11.62 (264')

L.M. 11.68 – 11.75 (370')

The design of these sites is similar to the seepage berm previously described in Item Number 2. Reference Sheet C3.0 of Design File No. 7-4-1864 for additional information.

## **9. SEEPAGE BERM (NEAR LEVEE RAMPS) - LANDSIDE**

L.M. 11.77 – 12.69 (4,858')

The existing levee access ramps were coated with a 6-inch layer of aggregate base course over a 10-foot width. These ramps are located at the following levee miles: 11.83, 11.94, 12.13, 12.28, 12.53, and 12.69. The berm design at this site is similar to the seepage berm previously described in Item Number 2. Reference Sheet C4.0 of Design File No. 7-4-1864 for additional information.

## **10. SEEPAGE BERM AND BOIL EXCAVATION - LANDSIDE**

L.M. 8.63 – 8.90 (1,426')

The boil was located between two stands of existing oak trees approximately midway between the above limits. An area measuring approximately 25-feet by 25-feet and 4-feet deep was excavated around the boil and replaced with a 24-inch layer of drain rock encapsulated in geotextile fabric. The remainder of the excavation was backfilled with a 24-inch layer of compacted embankment fill. The berm design at this site is similar to the seepage berm previously described in Item Number 2. Reference Sheet C8.0 of Design File No. 7-4-1864 for additional information.

## **11. SEEPAGE BERM AT EXISTING SEEPAGE BERM - LANDSIDE**

L.M. 3.83 – 3.92 (475')

The original site included a stability berm approximately 12-feet wide and 4-feet deep at the toe of the levee. This stability berm was extended with a seepage berm approximately 36-feet wide for a total width of 48-feet. The seepage berm extension consists of a 12-inch layer of drain rock encapsulated in geotextile fabric, which is covered with a 3-foot layer of compacted embankment fill tapering to 2.5-feet at the exterior edge. Reference Sheet C9.0 of Design File No. 7-4-1864 for additional information.

## **12. EMBANKMENT FILL, SEEPAGE BERM, & DRAINAGE DITCH - LANDSIDE**

L.M. 12.94

An additional site was added in May 2001 by contract modification based on a request by the State of California in a letter dated 9 November 2000. The repair included embankment fill for a depressed area, a seepage berm along the landside levee slope, and a drainage ditch. Reference Supplemental Sheets 1-5 of Design File No. 7-4-1864 for additional information.

**Project Completion Date:** 23 October 2001

**Contract Number:** DACW05-00-C-0033

**Specification Number:** 1047E

**Drawing File Number:** 7-4-1864

**Date of Transfer:** January 2003

**Contractor:** Steelhead Construction  
P.O. Box 997  
Palo Cerdo, CA 96073  
(530) 226-6400

# Willow Planting



See Exhibit B As-Built Drawing 50-4-6338 for Contracts W91238-12-C-0048 & W91238-14-P-0091 for the Site Numbering

## Legend

- No Vegetation Variance Zone
- Vegetation Variance Zone & Willow Planting Locations

## San Joaquin Unit 2

- RD 0017 - Mossdale - Unit 1, French Camp-Walker Slough left bank
- RD 0017 - Mossdale - Unit 2, San Joaquin River right bank

By: Kaylee Peterson  
March 2016

Exhibit A-3 - Summary of As Constructed Drawings (50-4-6338) Willow Planting - RD 17

NAD83				length (ft)	Punches	Vegetation Variance Zone
W91238-12-C-0048						
RD 17-12c	Start	37.828890 N	121.31032 W	202	68	No
	End	37.828366 N	121.31006 W			
RD 17-13	Start	37.808550 N	121.32638 W	66	23	No
	End	37.808440 N	121.32635 W			
RD 17-14	Start	37.806770 N	121.31665 W	386	386	No
	End	37.806070 N	121.31473 W			
RD 17-15	Start	37.795660 N	121.30800 W	146	146	No
	End	37.794950 N	121.30676 W			
RD 17-16a	Start	37.784619 N	121.30367 W	41	121	No
	End	37.783948 N	121.30282 W			
RD 17-16b	Start	37.783150 N	121.30228 W	203	203	No
	End	37.781640 N	121.30135 W			
W91238-14-P-0091						
RD 17-01a	Start	37.914621 N	121.32213 W	37	13	Yes
	End	37.914533 N	121.32219 W			
RD 17-01b	Start	37.913760 N	121.32300 W	32	12	Yes
	End	37.913700 N	121.32307 W			
RD 17-02a	Start	37.910915 N	121.32413 W	159	55	Yes
	End	37.910516 N	121.32436 W			
RD 17-03	Start	37.906637 N	121.32372 W	385	128	Yes
	End	37.905801 N	121.32291 W			
RD 17-04	Start	37.903017 N	121.32486 W	302	102	Yes
	End	37.902346 N	121.32544 W			
RD 17-06a	Start	37.900088 N	121.32558 W	233	79	Yes
	End	37.899467 N	121.32575 W			
RD 17-06b	Start	37.899053 N	121.32593 W	135	46	Yes
	End	37.898708 N	121.32611 W			
RD 17-06c	Start	37.897490 N	121.32669 W	77	27	Yes
	End	37.897299 N	121.32677 W			
RD 17-06e	Start	37.896230 N	121.32738 W	149	51	Yes
	End	37.896600 N	121.32716 W			
RD 17-06f	Start	37.895129 N	121.32814 W	226	76	Yes
	End	37.894533 N	121.32832 W			
RD 17-09	Start	37.886623 N	121.33088 W	267	90	Yes
	End	37.885893 N	121.33113 W			
RD 17-10a	Start	37.880048 N	121.33203 W	68	24	Yes
	End	37.879872 N	121.33209 W			
RD 17-10b	Start	37.873892 N	121.33127 W	118	40	Yes
	End	37.873770 N	121.33090 W			

Exhibit A-3 - Summary of As Constructed Drawings (50-4-6338) Willow Planting - RD 17

RD 17-11a	Start End	37.865202 N 37.865089 N	121.32430 W 121.32384 W	143	49	Yes
RD 17-11b	Start End	37.864474 N 37.864385 N	121.32231 W 121.32207 W	76	26	Yes
RD 17-11c	Start End	37.863564 N 37.862953 N	121.32031 W 121.31985 W	272	92	Yes
RD 17-11d	Start End	37.862108 N 37.861881 N	121.31995 W 121.32005 W	90	31	Yes
RD 17-11e	Start End	37.861134 N 37.860765 N	121.31983 W 121.31868 W	350	118	Yes
RD 17-12a	Start End	37.856495 N 37.856407 N	121.31967 W 121.31981 W	55	19	Yes

EXHIBIT B

“AS CONSTRUCTED”  
DRAWINGS

(See separate folder for the following drawings:)

<u>File No.</u>	<u>Title</u>
7-4-1181	Levee Setback and Bank Protection – Rt. Bank Between W.P.R.R. Bridge and Walthall Slough, in 1 sheet.
7-4-1182	Rt. Bank – One Mile Below Mossdale Bridge, in 1 sheet.
7-4-1199	Rock Paving and Timber Mattress – Right Bank 0.7 Mile Below Head of Old River, in 1 sheet.
7-4-1205	Paving and Timber Mattress – Rt. Bank 2.2 Miles Above Brandt Bridge, in 1 sheet.
7-4-1208	Stone Protection – Rt. and Lt. Banks from Head of Old River to Brandt Bridge, in 15 sheets.
7-4-1440	Stone Protection – Rt. and Lt. Banks from Head of Old River to Brandt Bridge, in 15 sheets.
7-4-1490	Stone Protection – Rt. and Lt. Banks from Brandt Bridge to Stockton Channel, in 14 sheets.
7-4-1518	Stone Protection – Rt. Bank – Walthall Slough to Head of Old River, in 9 sheets.
7-4-1554	Stone Protection – Rt. and Lt. Banks – Walthall Slough to Old River and Banta Carbona Intake to Old River in 20 sheets.
7-4-1621	Stone Protection – Rt. and Lt. Banks – Head of Old River to Stockton Channel, in 32 sheets.
7-4-1864	Stability Berm, Seepage Berm, Bank Protection and Drain Pipe Installation – Right bank of the San Joaquin River, L.M. 0.61 to L.M. 13.08, in 17 sheets.
50-4-6338	PL 84-99 Willow Plantings (Total of 75 sheets, for RD 3, RD 17, RD 150, RD 551 and RD 755)

EXHIBIT C

PLATES OF SUGGESTED FLOOD FIGHTING METHODS

(SEE STANDARD MANUAL.)

EXHIBIT C  
Unattached

EXHIBIT D

SUGGESTED CHECK LIST NO. 1

LEVEE INSPECTION REPORT

(SEE STANDARD MANUAL)

EXHIBIT D

EXHIBIT E

SUGGESTED CHECK LISTS OF LEVELS,

CHANNEL AND STRUCTURES

For definition of "flood" or "high water period", see paragraph 1-05 of this manual.

SUGGESTED CHECK LIST NO. 2  
UNIT NO. ?  
SAN JOAQUIN RIVER

Inspector's Report Sheet No. \_\_\_\_\_ Inspector \_\_\_\_\_

Date \_\_\_\_\_ Superintendent \_\_\_\_\_

Item	Remarks
(a) Location by Station	
(b) Settlement, sloughing, or loss of grade	
(c) Erosion of both levee slopes	
(d) Condition of roadways, including ramps	
(e) Evidence of seepage	
(f) Condition of farm gates and fencing	
(g) Maintenance measures taken since last inspection	
(h) Comments	

SUGGESTED CHECK LIST NO. 3  
 CHANNEL AND RIGHT-OF-WAY  
 UNIT NO. 2  
 SAN JOAQUIN RIVER

Inspector's Report Sheet No. \_\_\_\_\_ Inspector \_\_\_\_\_

Date \_\_\_\_\_ Superintendent \_\_\_\_\_

Item	Remarks
(a) Name of Channel and location by Stations	
(b) Vegetal growth in channel	
(c) Debris and refuse in channel	
(d) New construction within right-of-way	
(e) Extent of a aggradation or degradation	
(f) Condition or riprapped section	
(g) Condition of bridges	
(h) Measures taken since last inspection	
(i) Comments	

Instructions for Completing Sheet 2, EXHIBIT E  
(To be printed on back of Sheet 2)

- Item (a) Indicate levee station of observation, obtained by pacing from nearest reference point; indicate right or left bank.
- Item (b) If sufficient settlement of cartwork has taken place to be noticeable by visual observation, indicate amount of settlement in tenths of a foot. If sloughing has caused a change in slope of the embankment sections, determine the new slope. Note areas where erosion or gullyng of the section has occurred.
- Item (c) If sufficient erosion or gullyng of back face of back toe of levee has taken place to be noticeable by visual inspection, indicate area affected and depth.
- Item (d) Note any natural change in any section of roadway or ramps. Indicate any inadequacy in surface drainage system.
- Item (e) Indicate any evidence of seepage through the embankment section.
- Item (f) Indicate the serviceability of all farm gates across the embankments and roadway, and indicate if repainting is required.
- Item (g) Indicate maintenance measures that have been performed since last inspection and their condition at the time of this inspection.
- Item (h) Record opinion, if any, of contributory causes for conditions observed and also any observations not covered under other columns.

NOTE: One copy of the Inspector's Report is to be mailed to the District Engineer immediately on completion, and one copy is to be attached to and submitted with the Superintendent's semi-annual report.

Instructions for Completing Sheet 4, EXHIBIT E  
(To be printed on back of Sheet 4)

- Item (a) Indicate station of observation obtained by pacing from nearest reference point.
- Item (b) Note nature, extent, and size of vegetal growth within the limits of flood flow channel.
- Item (c) Note nature and extent of debris and refuse that might cause clogging of the conduits of the irrigation intake works, fouling of the tainter gates, or the bridges over the channel.
- Item (d) Report any construction along the diversion channel or above the diversion channel or above the diversion works that has come to the attention of the inspector and that might affect the functioning of the project.
- Item (e) Indicate any change in grade or alignment of the channels, either by deposition or sediment or scour, that is noticeable by visual inspection. Estimate amount and extent.
- Item (f) Indicate any change that has taken place in the riprap such as disintegration of the rock, erosion, or movement of the rock. Note the presence of vegetal growth through the riprap.
- Item (g) Note any damage or settlement of the footings of the bridges. Indicate condition of wooden structures and if repainting is required. Indicate condition of bridge approaches, headwalls, and other appurtenances.
- Item (h) Indicate maintenance measures that have been performed since the last inspection and their condition at time of this inspection.
- Item (i) Record opinion, if any, of contributory causes for conditions observed, also any observations not covered under other columns.

NOTE: One copy of the Inspector's Report is to be mailed to the District Engineer immediately on completion and one copy is to be attached to and submitted with the Superintendent's semi-annual report.

SUGGESTED CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES

UNIT NO. 2

SAN JOAQUIN RIVER

Inspector's Report Sheet No. \_\_\_\_\_

Inspector \_\_\_\_\_

Date \_\_\_\_\_

Superintendent \_\_\_\_\_

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Location by levee Mileage	Bank	Debris or other obstruc- tion to flow	Damage or settlement of pipe or conduit	Condition of concrete headwall or invert paving	Condition of right-of-way adjacent to structure	Repair measures taken since last inspection	Comments
0.49	lit.						
0.53							
0.57							
0.86							
1.32							
Unit No. 1 - South Levee of French Camp Slough							
0.14							
0.70							
0.77							
0.86							
1.16							
1.20							
1.50							
Unit No. 2 - East Levee of San Joaquin River							



SUGGESTED CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES

UNIT NO. 2  
 SAN JOAQUIN RIVER

Inspector's Report Sheet No. \_\_\_\_\_

Inspector \_\_\_\_\_

Date \_\_\_\_\_

Superintendent \_\_\_\_\_

(a) Location by Levee Mileage	(c) Bank	(e) Debris or other obstruction to flow	(c) Damage or settlement of pipe or conduit	(e) Condition of concrete head-wall or invert paving	(f) Condition of right-of-way adjacent to structure	(e) Repair Measures taken since last inspection	(a) Comments
2.97	As.						
3.31	"						
4.33	"						
4.40	"						
4.46	"						
4.62	"						
4.82	"						
4.97	"						
5.21	"						
5.45	"						
5.95	"						
6.18	"						
6.25	"						

Unit No. 2 - East Levee of San Joaquin River, Continued



SUGGESTED CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES

Unit No. 2  
SAN JOAQUIN RIVER

Inspector's Report Sheet No. \_\_\_\_\_

Inspector \_\_\_\_\_

Date \_\_\_\_\_

Superintendent \_\_\_\_\_

(a) Location by Levee mileage	(b) Bank	(c) Debris or other obstruction to flow	(d) Damage or settlement of pipe or conduit	(e) Condition of concrete headwall or invert paving	(f) Condition of right-of-way adjacent to structure	(g) Repair Measures taken since last inspection	(h) Comments
9.06							
9.07							
11.25							
11.55							
11.75							
11.95							
12.12							
12.40							
12.50							
12.75							
12.90							
13.10							
13.40							
13.45							
13.46							
Unit No. 2 - East Levee of San Joaquin River. Continued							

SUGGESTED CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES

Unit No. 2  
SAN JOAQUIN RIVER

Inspector's Report Sheet No. \_\_\_\_\_

Inspector \_\_\_\_\_

Date \_\_\_\_\_

Superintendent \_\_\_\_\_

(a) Location by Levee mileage	(b) Bank	(c) Debris or other construction to flow	(d) Damage or settlement of pipe or conduit	(e) Condition of concrete head-wall or invert paving	(f) Condition of right-of-way adjacent to structure	(g) Repair Measures taken since last inspection	(h) Comments
12.74 13.09 13.12 13.36 13.91 14.30	Rt. . . . .						

Unit No. 2 - East Levee of San Joaquin River, Continued

Instructions for Completing Sheets 6-11, EXHIBIT E  
(To be printed on back of Sheets 6-11)

- (1) Enter station of all structures under Column (a) for check list.
- (2) Inspect inlet, barrel, and outlet for accumulation of sediment, rubbish, and vegetal matter. Note condition under Column (c).
- (3) If any settlement or damage to the pipe, barrel, or invert of the drain has occurred, estimate the location and amount. Note particularly if any backfill has come into the pipe or been disturbed. Record observations under Column (d).
- (4) Inspect the concrete portions of the structures for evidence of settlement, cracks, "pop-outs", spaces, abrasive wear, or other deterioration. Record conditions under Column (e).
- (5) Inspect backfill area adjacent to structure for evidence of erosion caused by overflow of the drainage structure and note conditions in Column (f).
- (6) Under Column (g) indicate physical measures that have been taken to correct conditions reported in last inspection, and their condition at time of this inspection.
- (7) Under Column (h) record opinion, if any, of contributory causes for conditions observed, also any observations not covered under other columns.
- (8) A copy of the Inspector's Report is to be mailed to the District Engineer immediately on completion, and a record copy shall be attached to the Superintendent's semi-annual report.

EXHIBIT F  
LETTER OF ACCEPTANCE BY  
THE STATE RECLAMATION BOARD

EXHIBIT F



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT  
1325 J STREET  
SACRAMENTO CA 95814-2922

NOV 29 2016

Ms. Leslie M. Gallagher  
Executive Officer  
Central Valley Flood Protection Board  
3310 El Camino Avenue, Room 151  
Sacramento, CA 95821

Dear Ms. Gallagher:

The purpose of this letter is to notify the Central Valley Flood Protection Board of the completion of an effort to update the Operation and Maintenance Manual Supplements for the Sacramento River Flood Control Project and the Lower San Joaquin River Levees and Lower San Joaquin River and Tributaries Project. These updates are a compilation of revisions made to the project over time and where we had record of a transfer letter to the Board. These updated supplements are the most current version and should be utilized as the baseline version for any future project modifications.

This process and the compiled updates have been coordinated with the Central Valley Flood Protection Board and Department of Water Resources staffs for review and comment. All comments have been addressed or incorporated into the manuals.

The Board staff has been provided a copy of the manuals in electronic format. Future updates will include entire unit supplements so updates can be seen in context with the entire unit supplement. The list of completed supplements, by the unit number and title, are attached. If you have any questions regarding this transmittal, please contact Gary Kamei at 916-557-6845.

Sincerely,

A handwritten signature in black ink, appearing to read "D. G. Ray", written over a horizontal line.

David G. Ray, P.E.  
Colonel, U.S. Army  
District Commander

Enclosures

<b>Standard O&amp;M Manual Sacramento River Flood Control Project</b>	
<b>Unit No.</b>	<b>Project Name</b>
101	RD 341 Sherman Island
102	E. Levee of Sac River, Isleton to Threemile Slough & N. Levee of Threemile Slough from Sac River to SJ River
103	Both Levees of Georgiana Slough & E. Levee of Sac River from Walnut Grove to Isleton
104	Levees around Grand Island
105	Levees Around Reyer Island
106	S. Levee Lindsey Slough & W. Levee of Yolo BP from Lindsey Slough to Watson Hollow and N. Levee of Watson Hollow Drain
107	Levees Around Hastings Tract
108	Levees Around Peters Tract
109	West Levee of Yolo Bypass & E. Levee of Cache Slough
110	Levees Around Sutter Island
111	E. Levee of Sac River from Freeport to Walnut Grove
112	Levees Around Merritt Island
113	E. Levee Yolo Bypass, N. Levee Miner Slough, W. Levees Sutter Slough, Elkhorn Slough & Sac River, All Bordering RD 999
114	W. Levee of Sac River from Northern Boundary of RD 765 to Southern Boundary of RD 307
115	E. Levee of Sac River from Sutterville Rd to Northern Boundary of RD 744
116	W. Levee of Sac River from Sac Weir to Mi 51.2 & S. Levee of Sac Bypass & E. Levee of Yolo Bypass from Sac Bypass to Southern Boundary of RD 900
117	E. Levee Sac River through City of Sac from Tower Bridge to Sutterville Rd
118.1	E. Levee of Sac River from American River to Tower Bridge & S. Levee of American River from Mayhews Downstream to Sac River
118.2	N. Levee American River, E. Levee Natomas Canal, Both Levees Arcade Creek, S. Levee Linda Creek, & Magpie Creek Diversion Channel
118.2 Sup	Vegetation on Mitigation Sites E. Levee of Sac River from American River to Tower Bridge & S. Levee of American River from Mayhews Downstream to Sac River
119	Putah Creek Channel & Levees & W. Levee of Yolo Bypass from Yolo Causeway Downstream 3 mi. Includes O&M manual for the Yolo Basin wetlands, and South Fork Putah Creek Preserve Restoration Section 1135 Authorization.
120	Relocated Willow Slough Channel & Levees & W. Levee Yolo Bypass from mouth of Relocated Willow Slough to Yolo Causeway
121	R. Levee of Yolo Bypass from Willow Slough Bypass to Woodland Rd RD2035
122.1	W. Levee of Sac River from Mi 70.8 to Sac Weir & N. Levee of Sac Bypass & E. Levee of Yolo Bypass from Woodland Hwy to Sac Bypass
123	W. Levee of Sac River from East End of Fremont Weir to Mi 70.8 & E. Levee of Yolo Bypass from East End Fremont Weir to Woodland Hwy RD 1600

124	N. Levee of American River from Natomas E. Canal to Sac River & E. Levee of Sac River from Natomas Cross Canal to American River. Includes supplement, Vegetation on Mitigation Sites.
125	Back Levee of RD 1000
126	Cache Creek Levees & Settling Basin Yolo Bypass to High Ground
127	Knights Landing Ridge Cut & Sac River & Yolo BP Levees of RD's 730 and 819 & S. Levee of Sycamore Slough
128	E. Levee of Sac River from Sutter Bypass to Tisdale Weir all within RD 1500
129	S. Levee of Tisdale By-Pass from E. Levee Sac River to W. Levee Sutter BP & W. Levee of Sutter BP Downstream to E. Levee of Sac River
130	W. Levee Sac River from Sycamore Slough to Wilkins Slough (Mi. 89.9 to Mi. 117.8)
131	W. Levee Sac River from Wilkins Slough to Colusa (Mi. 117.8 to Mi. 143.5)
132	Back Levees of RD 108
133	E. Levee of Sac River from Winship School to Tisdale BP & N. Levee of Tisdale BP & W. Levee of Sutter BP from Long Bridge to Tisdale BP
134	Levees of RD 70, E. Levee of Sac River from Butte Slough Outfall Gates to Winship School & W. Levee of Sutter BP from Butte Slough Outfall Gates to Long Bridge
135	E. Levee of Sutter BP from Sutter Buttes Southerly to Junction with Feather River & E. & W. Levees of Wadsworth Canal & Levee of Intercepting Canals
136	E. Levee of Sac River from Butte Slough Outfall Gates to the Princeton-Afton Rd (Mi. 138.3 to Mi. 164.4)
137	W. Levee of Sac River from North End of Princeton Warehouse to Colusa Bridge
138	E. Levee of Sac River from Parrott-Grant Line to Princeton-Afton Rd
139	W. Levee of Sac River from N. Boundary of LD 2 to North End of Princeton Warehouse
140	W. Levee of Sac River in LD 1 (Mi. 170.5 to Mi. 184.7). Includes mitigation site O&M manual, Yuba County
141.1	E. Levee of Feather River from Bear River to Natomas CC & S. Levee of Bear River & Both Levees of Yankee Slough. Parts 1 and 2
141.2	E. Levee of Feather River from Bear River to Natomas CC & S. Levee of Bear River & Both Levees of Yankee Slough. Parts 1 and 2
142	Back Levee of RD 1001
143	W. Levee of Feather River from North Boundary of RD 823 to E. Levee of Sutter Bypass
144	W. Levee of Feather River from North Boundary of LD 1 to North Boundary of RD 823
145	E. Levee of Feather River, S. Levee of Yuba River, Both Levees of WPRR Intercepting Channel, W. Levee of South Dry Creek & N. Levee of Bear River
146	N. Levee of Bear River & S. Levee of South Dry Creek RD 817 & Vicinity of Wheatland
147	Levee Around the City of Marysville & N. Levee of Yuba River to a Point 1.8 Mi. Upstream from Marysville

148	W. Levee of Feather River from North Boundary of RD 777 to North Boundary of LD 1
149	S. Levee of Yuba River Maintenance Area No. 8
151	E. Levee Feather River from Honcut Creek to Marysville & S. Levee of Honcut Creek & E. Levee of RD 10
152	W. Levee of Feather River from N. Boundary of RD 777 to Western Canal Intake (Levee of Drainage District No. 1)
153	Lower Butte Creek Channel Improvement, Colusa, Glenn & Butte Counties
154	Moulton Weir & Training Levee Sacramento River
155	Colusa Weir & Training Levee Sacramento River
156	Tisdale Weir & Bypass
157	Fremont Weir, Sacramento River
158	Sacramento Weir, Sacramento River
159	Pumping Plants No. 1, 2 & 3, Sutter Bypass
160	Sutter Butte Canal Headgate
161	Butte Slough Outfall Gates
162	Knights Landing Outfall Gates, Sacramento River

**Standard O&M Manual San Joaquin River**

<b>Unit No.</b>	<b>Project Name</b>
1	Right Bank Levee of the San Joaquin River & French Camp Slough within RD 404
2	Right Bank Levee of the San Joaquin River & French Camp Slough within RD 17
3	North Levee of Stanislaus River & East Levee of the San Joaquin River within RD 2064, 2075, 2094 and 2096
4	East Levee of San Joaquin River within RD 2031
5	East Levee of the San Joaquin River Within RD No. 2092
6	East Levee of the San Joaquin River in RD Nos. 2063 & 2091
7	West Levee of San Joaquin River & North Levee of Old River RD Nos. 524 & 544
8	Right Banks of Old River & Salmon Slough Within RD No. 1 & RD No. 2089
9	Levees Around RD No. 2062 & San Joaquin County Flood Control District Area No.2
10	West Levee of Paradise Cut RD No. 2058 & SJ County Flood Control District, Area No.2
11	West Levee of San Joaquin River from Durham Bridge to Paradise Dam Within RD No. 2085 & 2095
12	West Levee of San Joaquin River From Opposite Mouth of Tuolumne River Downstream to Stanislaus County Line Within RD Nos. 2099, 2100, 2101, & 2102
13	West Levee of the San Joaquin River in RD No. 1602

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

4 APR 1957

SPKNO-P 82h.3 (Lower S.J. Riv. & Trib. Proj.)

The Reclamation Board  
State of California  
1215 "W" Street  
Sacramento, California

Gentlemen:

Reference is made to Reclamation Board letter dated 9 February 1956 in reply to Sacramento District letter dated 3 November 1955 relative to the State's responsibility for the acceptance for maintenance of individual project units pertaining to the Lower San Joaquin River and Tributaries Project constructed by the Corps of Engineers.

Further reference is made to Sacramento District letter dated 21 June 1955 relative to plans and specifications No. 2125, Stone Protection Along San Joaquin River from Head of Old River to Grand Bridge and your Board's reply thereto dated 22 June 1956.

The required work consisting of stone protection at various sites on the right and left banks of the San Joaquin River was completed 28 December 1956 in accordance with Specification No. 2125, Contract No. DA-04-167-DIV-33-56-252 and Drawing No. 7-4-1140.

In accordance with the understandings in the above referenced correspondence the levee units listed below, together with the interway banks contiguous thereto, are hereby transferred to the jurisdiction of the State of California for operation and maintenance.

The levee units are listed as follows:

<u>Levee Unit No.</u>	<u>Site No.</u>	<u>River Mile Points</u>	<u>Right or Left Bank</u>
✓ 1	26 & 27	47.73 to 48.19	Right
✓ 2	29A	48.69 to 48.87	Right

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Cont 56-252  
Units 1-10

*Proposed*

SAC OPNS OFC

SPKCO-P 524.3 (Lower S.J. Riv. & Trib. Proj.)  
The Reclamation Board

<u>Lower Unit No.</u>	<u>Site No.</u>	<u>River Mile Points</u>	<u>Right or Left Bank</u>
3	11 & 12	51.07 to 51.59	Right
4	15	52.03 to 52.31	Right
5	18	52.51 to 52.76	Right
6	30	49.03 to 49.23	Left
7	24	49.33 to 49.60	Left
8	35 & 36	49.73 to 50.30	Left
9	13	51.60 to 51.87	Left
10	17	52.11 to 52.60	Left

The maintenance work required under the provisions of the Lower San Joaquin River and Tributaries Project shall be performed in accordance with existing Flood Control Regulations, inclosed herewith, which have been prescribed by the Secretary of the Army pursuant to Section 3 of the Act of Congress, approved 22 June 1936, as amended and supplemented by a Standard Operation and Maintenance Manual for the Lower San Joaquin River and Tributaries Project which is being prepared. As provided under Paragraph 208.10(10) of these regulations, a supplement to the Standard Operation and Maintenance Manual covering these units of work will be furnished to you upon completion.

A copy of this letter is being transmitted to the Department of Water Resources.

Sincerely yours,

A. E. McCOLLAM  
Colonel, CE  
District Engineer

1 Incl  
1. F.C. Reg.

Copy furnished:  
State Dept of Water Resources  
1120 "H" Street  
Sacramento, Calif w/o incl  
OCE w/o incl  
Sd. Res. Div. Engr. w/o incl

cc: Engr Div w/o incl  
Northern Area Ofc w/o incl  
Sac Opns Ofc w/o incl

*Pasted!*

CERTIFIED MAIL

To Bill Hargraves

RETURN RECEIPT REQUESTED

SPKCO-P Ch. 3 (Lower S.J. Riv. & Trib. Proj.)

10 SEP 1957

The Reclamation Board  
State of California  
1215 "O" Street  
Sacramento, California

SAC OPNS OFC W/O INCL

Gentlemen:

Reference is made to Reclamation Board letter dated 9 February 1956 in reply to Sacramento District letter dated 3 November 1955 relative to the State's responsibility for the acceptance for maintenance of individual project units pertaining to the lower San Joaquin River and Tributaries Project constructed by the Corps of Engineers.

Further reference is made to Sacramento District letter dated 25 October 1956 relative to plans and specifications No. 2220, Stone Protection Along Right and Left Banks of San Joaquin River from Vicinity of Brandt Bridge to Stockton Channel and your Board's reply thereto dated 30 October 1956.

The required work consisting of stone protection at various sites on the right and left banks of the San Joaquin River was completed 20 June 1957 in accordance with Specification No. 2220, Contract No. M-2-167-CIVIL-57-97 and Drawing No. 7-1-1190.

In accordance with the understandings in the above referenced correspondence the lower units listed below, together with the waterway banks contiguous thereto, are hereby transferred to the jurisdiction of the State of California for operation and maintenance.

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

*Units 27*

*Cont 57-97  
Units 11-18*

SPERO-P 024.3  
The Reclamation Board

10 SEP 1957

The levee units are listed as follows:

<u>Levee Unit No.</u>	<u>Site No.</u>	<u>River Mile Points</u>	<u>Right or Left Bank</u>
11	31 & 32	19.10 to 19.16	Right
12	23A, 24 & 25	17.50 to 17.92	Left
13	19	15.94 to 16.16	Left
14	16	14.53 to 14.95	Left
15	13	13.32 to 13.57	Left
16	12	12.97 to 13.13	Left
17	10	12.57 to 12.75	Left
18	1 & 2A	10.50 to 10.91	Left

The maintenance work required under the provisions of the Lower San Joaquin River and Tributaries Project shall be performed in accordance with existing Flood Control Regulations, inclosed herewith, which have been prescribed by the Secretary of the Army pursuant to Section 3 of the Act of Congress, approved 22 June 1936, as amended and supplemented by a Standard Operation and Maintenance Manual for the Lower San Joaquin River and Tributaries Project which is being prepared. As provided under Paragraph 208.10 (10) of these regulations, a supplement to the Standard Operation and Maintenance Manual covering these units of work will be furnished to you upon completion.

A copy of this letter is being transmitted to the Department of Water Resources.

Sincerely yours,

1 Incl  
F.C. Reg.

A. E. McCOLLAM  
Colonel, CE  
District Engineer

Copy furnished:  
State Dept Water Resources  
23rd & R Streets, Sacramento,  
California, w/o incl  
OGE ✓ o incl  
So Pac Divn Engr w/o incl

cc: Engr Div w/o incl  
Northern Area Ofc w/o incl  
Sac Opns Ofc ✓ o incl

2

*Do 5. Incl*

SPKKO-P 824.3 (Lower S.J. Riv. & Trib Proj)

3 DEC 1958

The Reclamation Board  
State of California  
1215 "O" Street  
Sacramento, California

Gentlemen:

Reference is made to Reclamation Board letter dated 9 February 1956 in reply to Sacramento District letter dated 3 November 1955 relative to the State's responsibility for the acceptance for maintenance of individual project units pertaining to the Lower San Joaquin and Tributaries Project constructed by the Corps of Engineers.

Further reference is made to Sacramento District letter dated 21 May 1958 relative to plans and specifications No. 2435, Levee Construction and Stone Protection, Right Bank of the San Joaquin River from Walthall Slough to Head of Old River, San Joaquin County, California.

The required work consisting of levee construction and stone protection at three locations on the right bank of the San Joaquin River between Walthall Slough and the head of Old River was completed 21 November 1958 in accordance with Specification No. 2435, Contract No. DA-04-167-CIVER3-58-69 and Drawing No. 7-4-1518.

In accordance with the understandings in the above referenced correspondence the levee units listed below, together with the waterway banks contiguous thereto, are hereby transferred to the jurisdiction of the State of California for operation and maintenance.

The levee units are listed as follows:

<u>Levee Unit No.</u>	<u>Site No.</u>	<u>River Mile Points</u>	<u>Right or Left Bank</u>
26	2	53.93 to 54.34	Right
27	3	54.40 to 54.57	Right
28	5	55.55 to 55.83	Right

*Unit 2*

The maintenance work required under the provisions of the Lower San Joaquin River and Tributaries Project shall be performed in accordance

*Posted*  
*Cont. 58-69*  
*Units 26-28*

SAC OPERS OFC

**CERTIFIED MAIL**  
RETURN RECEIPT REQUESTED

3 DEC 1958

SPEKO-P 824.3 (Lower S.J. Riv. & Trib Proj)  
The Reclamation Board

with existing Flood Control Regulations, inclosed herewith, which have been prescribed by the Secretary of the Army pursuant to Section 3 of the Act of Congress, approved 22 June 1936, as amended and supplemented by a Standard Operation and Maintenance Manual for the Lower San Joaquin River and Tributaries Project which is being prepared. As provided under Paragraph 208.10(10) of these regulations, a supplement to the Standard Operation and Maintenance Manual covering these units of work will be furnished to you upon completion.

A copy of this letter is being transmitted to the Department of Water Resources.

Sincerely yours,

1 Incl  
F.C. Reg.

Copy furnished:  
State Dept Water Res. w/o incl

O.C.E. w/o incl  
So.PacDivEngr w/o incl

cc: Engr Divn w/o incl  
Northern Area Ofc w/o incl  
Sac Opers Ofc w/o incl

A. E. McCOLLAM  
Colonel, CE  
District Engineer

*Unit 2*

**CERTIFIED MAIL**  
RETURN RECEIPT REQUESTED

GOODWIN J. KNIGHT  
GOVERNOR

A. R. GALLAWAY, JR., SACRAMENTO  
PRESIDENT

GROVER SHANNON, YUBA CITY  
VICE PRESIDENT

GEO. H. HOLMES, CLARKSBURG  
SECRETARY

W. P. HARKEY, GRIDLEY  
GEO. R. WILSON, WALNUT GROVE  
GEO. E. LODI, ARBUCKLE  
DOUGLAS B. COHEN, BANTA

THE RECLAMATION BOARD  
OF THE  
STATE OF CALIFORNIA

1215 O STREET  
SACRAMENTO 14, CALIFORNIA  
TELEPHONE: HI 5-4711

A. M. BARTON  
CHIEF ENGINEER AND GENERAL MANAGER  
EDMUND G. BROWN, ATTORNEY GENERAL  
LEGAL ADVISER  
HOWARD S. HITCHCOCK  
ASSISTANT CHIEF ENGINEER  
WILLIAM A. CARVER  
ASSISTANT SECRETARY  
ROBERT W. JAMES  
ASSOCIATE COUNSEL

December 29, 1958

District Engineer  
Sacramento District  
U. S. Corps of Engineers  
P. O. Box 1739  
Sacramento 8, California

Gentlemen:

Reference is made to your letter of December 3, 1958, file number SPKKO-P 824.3 (Lower S.J. Riv. & Trib Proj), regarding the responsibility for operation and maintenance of the Levee Construction and Stone Protection, Right Bank of the San Joaquin River from Walthall Slough to Head of Old River, San Joaquin County.

The Reclamation Board at its meeting of December 18, 1958, formally accepted the maintenance responsibility of the above described area and as described in the first, second, third, fourth and fifth paragraphs of your letter under the conditions outlined in your letter.

Yours very truly,

THE RECLAMATION BOARD  
A. M. BARTON  
Chief Engineer and General Manager

By William A. Carver  
WILLIAM A. CARVER  
Assistant Secretary

WAC:lb

58-69 Unit 2

STANLEY W. KRONICK, SACRAMENTO  
PRESIDENT

J. J. MADIGAN, CHICO  
VICE PRESIDENT

WALLACE MCCORMACK, RIO VISTA  
SECRETARY

EDMUND G. BROWN  
GOVERNOR

THE RECLAMATION BOARD  
OF THE  
STATE OF CALIFORNIA

1215 O STREET  
SACRAMENTO 14, CALIFORNIA  
TELEPHONE: HI 5-4711

MAX S. VANN, SR., WILLIAMS  
GEORGE W. NICKEL, JR., LOS BANOS  
HAROLD J. O'BANION, DOS PALOS  
CHARLES J. MATHEWS, MARYSVILLE  
BOARD MEMBERS  
ROBERT W. JAMES  
GENERAL MANAGER AND CHIEF COUNSEL

January 15, 1962

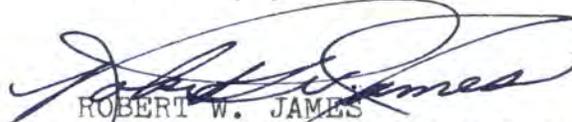
District Engineer  
Sacramento District  
U. S. Corps of Engineers  
P. O. Box 1739  
Sacramento, California

Dear Sir:

Reference is made to your letter of November 27, 1961, regarding the transfer to the State of California of levee improvement and patrol road work along the left and right banks of the San Joaquin River from Walthall Slough and Banta-Carbona Intake downstream to Old River under Specifications No. 2656.

The Reclamation Board at its meeting of January 4, 1962, formally accepted the above referred to levee and patrol road work for operation and maintenance.

Sincerely yours,



ROBERT W. JAMES  
General Manager and Chief Counsel

HSH:els

*Units 2, 9, 11*

14 DEC 1962

The Reclamation Board  
 State of California  
 1215 "O" Street  
 Sacramento 14, California

Gentlemen:

Reference is made to the joint inspections made on 7 and 21 November 1962 of certain levee sections pertaining to the Lower San Joaquin River and Tributaries Project for the purpose of transferring them to the State of California for operation and maintenance.

The required work, consisting of bank protection, levee enlargement, and access and patrol road construction, right and left banks San Joaquin River from Head Old River to Stockton Deep Water Channel, including portions of Walker and French Camp Sloughs, was completed on 10 December 1962, in accordance with Specification 2697, Contract No. DA-04-167-CIVENG-62-54 and Drawing No. 7-4-1621. The levee sections referred to above are listed as follows:

a. Levee enlargement and bank protection:

<u>LEVEE UNIT NO.</u>	<u>SITE NO.</u>	<u>RIVER MILE POINTS</u>	<u>RIGHT OR LEFT BANK</u>
48	1	41.30 to 41.38	Left
49	8	42.75 to 42.97	Left
50	11,12 & 13	44.19 to 44.68	Left
51	16	45.16 to 45.28	Left
52	17	45.56 to 45.75	Left
53	19	45.81 to 45.88	Left
54	20	45.87 to 45.99	Right
55	21	46.24 to 46.36	Right
56	22	46.32 to 46.50	Left
57	23	47.02 to 47.20	Right
58	24	47.14 to 47.32	Left
59	25	47.38 to 47.50	Left
60	26	47.48 to 47.67	Right
61	27	48.06 to 48.21	Left

*Unit 7*  
*Unit 2*  
*Unit 7*  
*Unit 2*  
*Unit 7*  
*Unit 2*  
*Unit 7*

REGISTERED

RETURN RECEIPT REQUESTED

*Units 2, 7*

14 DEC 1962

SPKCO-C  
The Reclamation Board

<u>LEVEE UNIT NO.</u>	<u>SITE NO.</u>	<u>RIVER MILE POINTS</u>	<u>RIGHT OR LEFT BANK</u>
62	26 & 29	48.53 to 48.89	Left > Unit 7
63	29 (Int)	48.91 to 49.02	Left
64	31	50.25 to 50.42	Right Unit 2
65	33	50.99 to 51.14	Left > Unit 7
66	37	52.97 to 53.12	Left

b. Access roads: Shaping and gravel surfacing of access roads, right bank San Joaquin River at Sites Nos. 1, 4, 6 and 26; and left bank at Sites Nos. 3, 5, 8, 9, 14, 17 and 23.

c. Patrol roads: Shaping and gravel surfacing of patrol roads, right bank San Joaquin River at Sites Nos. A-1, B-1, C-1, D-1, E-1, F-1, G-1, H-1, I-1, J-1, K-1, L-1, M-1 (included on portion of French Camp Slough), N-1 (included on portion of Walker Slough) and O-1; and left bank at Sites Nos. A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, and V.

It is to be noted that the levee sections described above, combined with other sections previously transferred to your jurisdiction, now form a continuous levee reach along both banks of the San Joaquin River from Head of Old River to Stockton Deep Water Channel.

The flood control work described above now meets the requirements of the Lower San Joaquin River and Tributaries Project. Therefore, said flood control work, together with the waterway banks contiguous thereto, are hereby transferred to the State of California for operation and maintenance.

The maintenance work required under the provisions of the Lower San Joaquin River and Tributaries Project shall be performed in accordance with existing Flood Control Regulations, inclosed herewith, which have been prescribed by the Secretary of the Army pursuant to Section 3 of the Act of Congress approved 22 June 1936, as amended and supplemented by a Standard Operation and Maintenance Manual for the Lower San Joaquin River and Tributaries Project. As provided under Paragraph 208.10(10) of these regulations, a supplement to the Standard Operation and Maintenance Manual covering these units of work will be furnished to you upon completion.

Units 2, 7

SPKKO-C  
The Reclamation Board

14 DEC 1962

A copy of this letter is being transmitted to the Department of  
Water Resources.

Sincerely yours,

✓ Incl  
F.C. Reg.

✓ Copy furnished:  
Dept Water Resources  
23rd & "R" Streets  
Sacramento, Calif. w/o incl

O.C.E. w/o incl  
S.P.D. w/o incl

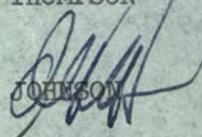
✓ cc: Engr Div-ProgDevBr w/o incl  
Engr Div-Lev&ChanSec w/o incl  
Northern Area Ofc w/o incl  
F & A Branch w/o incl

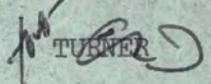
H. N. TURNER  
Colonel, CE  
District Engineer

C. R. TEAGLE  
Major, CE  
Acting District Engineer

LJK  
12/14/62  
KRISTOF/pnp

  
THOMPSON

  
JOHNSON

  
TURNER

Units 2, 7

C  
O  
P  
Y

THE RECLAMATION BOARD  
of the  
STATE OF CALIFORNIA

C  
O  
P  
Y

January 3, 1963

District Engineer  
Corps of Engineers  
U. S. Army  
P. O. Box 1739  
Sacramento, California

Dear Sir:

Reference is made to your letter of December 14, 1962 concerning transfer to the State of California of bank protection, levee enlargement, and access and patrol road construction, right and left banks, San Joaquin River from Head Old River to Stockton Deep Water Channel.

This improvement consisted of the following work:

a. Levee enlargement and bank protection:

<u>Levee Unit No.</u>	<u>Site No.</u>	<u>River Mile Points</u>	<u>Right or Left Bank</u>
48	1	41.30 to 41.38	Left
49	8	42.75 to 42.97	Left
50	11, 12 & 13	44.19 to 44.68	Left
51	16	45.16 to 45.28	Left
52	17	45.56 to 45.75	Left
53	19	45.81 to 45.88	Left
54	20	45.87 to 45.99	Right
55	21	46.24 to 46.36	Right
56	22	46.32 to 46.50	Left
57	23	47.02 to 47.20	Right
58	24	47.14 to 47.32	Left
59	25	47.38 to 47.50	Left
60	26	47.48 to 47.67	Right
61	27	48.06 to 48.21	Left
62	28 & 29	48.53 to 48.89	Left
63	29 (ext)	48.91 to 49.02	Left
64	31	50.25 to 50.42	Right
65	33	50.99 to 51.14	Left
66	37	52.97 to 53.12	Left

EXHIBIT F  
Sheet 1 of 2

C  
O  
P  
Y

C  
O  
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Y

- b. Access roads: Shaping and gravel surfacing of access roads, right bank San Joaquin River at Sites Nos. 1, 4, 6, and 26; and left bank at Sites Nos. 3, 5, 8, 9, 14, 17 and 23.
- c. Patrol roads: Shaping and gravel surfacing of patrol roads, right bank San Joaquin River at Sites Nos. A-1, B-1, C-1, D-1, E-1, F-1, G-1, H-1, I-1, J-1, K-1, L-1, M-1 (included on portion of French Camp Slough), N-1 (included on portion of Walker Slough) and O-1; and Left Bank at Sites Nos. A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, and V.

The Reclamation Board at its meeting of January 3, 1963 formally accepted the above-referred-to levee and bank protection work for operation and maintenance.

Sincerely yours.

/s/A. E. McCollam  
A. E. MCCOLLAM  
General Manager

**THE RECLAMATION BOARD**

1416 NINTH STREET, ROOM 1601

ACRAMENTO, CA 95814

(916) 653-5434 FAX: (916) 653-5805

Permits: (916) 653-5726 FAX: (916) 653-5805

JUL 18 2003



Colonel Michael J. Conrad, Jr.  
District Engineer  
Sacramento District  
U.S. Army Corps of Engineers  
1325 J Street  
Sacramento, California 95814-2922

Dear Colonel Conrad:

In your February 26, 2003 letter to The Reclamation Board, the U.S. Army Corps of Engineers transferred the repaired right-bank levee of the San Joaquin River Unit 1, Levee Mile 0.61 to LM 0.81 and Unit 2, LM 0.98 to LM 13.08 (in Reclamation District No. 17) to the State of California for operation and maintenance. You advised the Board that the completed repairs would be added by amendment to the Operation and Maintenance Manual, San Joaquin River Flood Control Project. We also understand that the repairs were completed in accordance with the original plans and specifications. We acknowledge receipt of as-built drawings and will forward a copy to RD 17.

The Board, on behalf of the State, accepted the completed repair at its July 18, 2003 meeting and transferred the San Joaquin River levee repairs to RD 17 for operation and maintenance. Until the Corps provides the O&M Manual amendment, RD 17 will perform operation and maintenance in accordance with the current manual.

If you have any questions, you may contact Peter D. Rabbon, General Manager of The Reclamation Board, at (916) 653-5434, or your staff may contact Michele Ng, Chief of DWR's System Integrity Section, Division of Flood Management, at (916) 574-0364.

Sincerely,

**ORIGINAL SIGNED BY**

Betsy A. Marchand  
President

cc: Mr. Eric Nagy ✓  
Sacramento District  
U.S. Army Corps of Engineers  
1325 J Street  
Sacramento, California 95814-2922

Mr. Henry C. Long, President  
Reclamation District No. 17  
817 Yettner Road  
French Camp, California 95231



DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO  
CORPS OF ENGINEERS  
1325 J STREET  
SACRAMENTO, CALIFORNIA 95814-2922

REPLY TO  
ATTENTION OF

Navigation and Flood Control Unit

FEB 26 2003

Mr. Peter D. Rabbon, General Manager  
The Reclamation Board  
1416 9<sup>th</sup> Street, Room 1601  
Sacramento, California 95814-5509

Dear Mr. Rabbon:

This letter is to transfer a portion of work along the San Joaquin River to the Reclamation Board for Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R). The completed work is located within Reclamation District 17 of the San Joaquin Basin from L.M. 0.61 of Unit 1 to L.M. 13.08 of Unit 2. The completed work includes 23 sites repaired as a result of damage sustained during the Flood of 1997. A description of the repairs and the location of each site is included in the document titled, "Project Information Form, RD-17 (SJ4) 1997 Cost-Shared Levee Repairs, San Joaquin County, California" (enclosure 1).

The work was performed under the general authority of the Flood and Coastal Storm Emergencies Act, Public Law 84-99, and special authority granted under the Fiscal Year 1997 Emergency Supplemental Appropriations Act, Public Law 105-18. This work now meets the requirements of the existing Operations and Maintenance Manual for the San Joaquin River Basin (SJ4); and, therefore, said flood control work, together with the waterway banks contiguous thereto, are transferred as of the date of this letter to the State of California for operation and maintenance.

The repairs were completed in accordance with Specification Number 1047E, Drawing File Number 7-4-1864, and Contract Number DACW05-00-C-0033. A final inspection was conducted on 23 October 2001 and all noted deficiencies have been resolved. The as-built drawings for the original 22 sites are included in the document titled, "R.D. 17 (SJ4), 1997 Cost-Shared Levee Repairs, San Joaquin County, California" (enclosure 2); and the as-built drawings for 1 additional site are included in the document titled, "Caltrans Site" (enclosure 3).

If you have any questions regarding this project, please contact Mr. Eric Nagy of the Programs and Project Management Division at (916) 557-5114. If you have any question regarding this transfer, please contact Mr. Mohsen Tavana at (916) 557-5282 or Mr. Bob Murakami at (916) 557-6738 of the Navigation and Flood Control Unit.

Sincerely,

  
Michael J. Conrad, Jr.  
Colonel, US Army  
District Engineer

Unit 2

Enclosures



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO  
CORPS OF ENGINEERS  
1325 J STREET  
SACRAMENTO, CALIFORNIA 95814-2922

RECEIVED

OCT 06 2004

OCT - 1 2004

Programs & Project Management  
Division

Mr. Peter D. Rabbon, General Manager  
The Reclamation Board  
State of California  
3310 El Camino Avenue, Room LL40  
Sacramento, California 95821

Dear Mr. Rabbon:

In October 2001, the U.S. Army Corps of Engineers (Corps) completed a portion of work for the Lower San Joaquin River and Tributaries Project, California. The features constructed under this contract included requirements associated with the rehabilitation of "Unit No. 2" along the right bank levee of San Joaquin River within Reclamation District No. 17.

In order to ensure the work transferred meets the specific requirements of the project objectives as well as the requirements of the non-Federal sponsor, the Corps requests a review of the enclosed "Addendum to Standard Operation and Maintenance Manual, Lower San Joaquin River and Tributaries Project, California, Unit No. 2, Right Bank Levee of the San Joaquin River and Left Bank of French Camp Slough within Reclamation District No. 17." All written comments are requested within 45-days of the date of this letter.

Please feel free to contact Mr. Eric Nagy, Project Manager, at (916) 557-5114 with any questions or concerns you may have with regard to this issue.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark C. Charlton".

Mark C. Charlton  
Deputy for Project Management

Enclosure

Copy Furnished:

Mr. Keith Swanson, State of California, Department of Water Resources, 3310 El Camino Avenue, Room 110, Sacramento, CA, 95821

MAR 11 2005

Mr. Mark Charlton  
Deputy for Project Management  
U.S. Army Corps of Engineers  
1325 J Street  
Sacramento, California 95814-2922

To	Katie	From	Michele Ng
Co.		Co.	
Dept.		Phone #	574-0364
Fax #		Fax #	

Dear Mr. Charlton:

I am responding to your letter dated October 1, 2004 regarding work completed by the U.S. Army Corps of Engineers (Corps) on a portion of the Lower San Joaquin River and Tributaries Project, California, in October 2001. The features constructed under this contract included requirements associated with the rehabilitation of "Unit No. 2" along the right bank levee of San Joaquin River within Reclamation District (RD) No. 17.

In order to ensure the work transferred meets the specific requirements of the project objectives as well as the requirements of the nonfederal sponsor, the Corps requested a review of the enclosed "Addendum to Standard Operation and Maintenance Manual, Lower San Joaquin River and Tributaries Project, California, Unit No. 2, Right Bank Levee of the San Joaquin River and Left Bank of French Camp Slough within Reclamation District No. 17." Department of Water Resources (DWR) staff have reviewed the addendum, and coordinated comments from RD 17. There are no comments regarding the document or the work that was done.

If you have any questions, you may contact me at (916) 574-0605 or your staff may contact Michele Ng, Chief of the DWR's System Integrity Section at (916) 574-0364.

Sincerely,

Original signed by

Peter D. Rabbon  
General Manager

cc: Mr. Everett E. Conway, Secretary  
Reclamation District No. 17  
1812 Burnside Way  
Stockton, California 95207

Kjeldsen, Sinnock & Neudeck, Inc.  
Post Office Box 844  
Stockton, California 95201-0844

MNg:Susan RyCroft  
S:\FPO\FLDMAINT\INTEGRITY\ngm\RD17 nocomments  
Spell check March 4, 2005



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT  
1325 J STREET  
SACRAMENTO CA 95814-2922

JUL 15 2016

Executive Office

Ms. Leslie M. Gallagher  
Executive Officer  
Central Valley Flood Protection Board  
3310 El Camino Avenue, Room 151  
Sacramento, California 95821

Dear Ms. Gallagher:

The U.S. Army Corps of Engineers has completed a portion of work under Public Law (PL) 84-99, Flood Control and Coastal Emergencies (FCCE) (33 U.S.C 701n) (69 Stat. 186) for emergency management activities, specifically, rehabilitation and associated mitigation of flood risk reduction projects. Mitigation willow plantings were made at various vegetation variance zone sites within Reclamation Districts (RD) 3, RD 17, RD 150, RD 551 and RD 755.

The mitigation willow plantings were completed under Contracts No. W91238-12-C-0048 and W91238-14-P-0091 by Erick Ammon, Inc. The subject flood risk reduction rehabilitation projects are considered complete as of the date of this letter. As-constructed drawings and revisions to the O&M Manuals for each respective RD are enclosed. The Central Valley Flood Protection Board shall continue to operate and maintain the completed rehabilitation effort as part of the project.

If you have any questions regarding this project, please contact Ms. Paige Caldwell (916) 557-6919.

Sincerely,

A handwritten signature in black ink, appearing to read "DGR", written over a circular stamp or mark.

David G. Ray, P.E.  
Colonel, U.S. Army  
District Commander

Enclosures

EXHIBIT G

SUGGESTED SEMI-ANNUAL REPORT FORM

EXHIBIT G

TO: The District Engineer  
Sacramento District  
Corps of Engineers  
650 Capitol Avenue  
Sacramento, California

(1 May 19\_\_ )  
(1 Nov 19\_\_ )

Dear Sir:

The semi-annual report for the period (1 May 19\_\_ to 31 October 19\_\_ ) (1 November 19\_\_ to 30 April 19\_\_ ) Unit No. 2 of the San Joaquin River and Tributaries Project is as follows:

a. The physical condition of the protective is indicated by the inspector's report, copies of which are inclosed, and may be summarized as follows:

(Superintendent's summary of conditions)

It is our intention to perform the following maintenance work in order to repair or correct the conditions indicates:

(Outline the anticipated maintenance operations for the following 6 months).

b. During this report period, major high water periods (water level at 17.0 on the gage on the right bank of the San Joaquin River immediately downstream from the Mossdale Bridge on U. S. Highway No. 50) occurred on the following dates:

<u>Dates</u>	<u>Maximum Elevation</u>
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-----	-----
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Comments on the behavior of the protective works during such high water periods are as follows:

(Superintendent's log of flood observations)

During the high water stages when the water level reached a height of \_\_\_\_\_, on the gate or excess thereof (dates) \_\_\_\_\_, it was necessary to organize and carry out flood operations as follows:

(See Maintenance Manual \_\_\_\_\_.)

c. The inspections have indicated (no) or (the following) encroachments or trespasses upon the project right-of-way.

d. (No) ( \_\_\_\_\_ ) permits have been issued for (the following) improvements or construction within the project right-of-way.

Executed copies of the permit documents issued are transmitted for your files.

e. The status of maintenance measures, indicated in the previous semi-annual report as being required or as suggested by the representatives of the District Engineer, is as follows:

(Statement of maintenance operations, item by item with percent completion.)

f. The fiscal statement of the Superintendent's operations for the current report period is as follows:

	<u>Labor</u>	<u>Material</u>	<u>Equipment</u>	<u>Overhead</u>	<u>Total</u>
1. Inspection					
2. Maintenance					
3. Flood Fighting operations					
TOTAL					

Respectfully submitted,

\_\_\_\_\_  
Superintendent of Works

EXHIBIT G  
Sheet 2 of 2

EXHIBIT H

USFWS BIOLOGICAL OPINION  
DATED 19 JUN 2012



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
San Francisco Bay-Delta Fish and Wildlife Office  
650 Capitol Mall, Suite 8-300  
Sacramento, California 95814

In reply refer to:  
08FBDT00-2012-I-0021

JUN 19 2012

Alicia E. Kirchner  
Chief, Planning Division  
Corps of Engineers, Sacramento District  
1325 J Street  
Sacramento, California 95814-2922

**Subject:** Reinitiation of Section 7 Consultations for completed levee repairs under Public Law 84-99 within Reclamation Districts 3, 150, 551, 755, 765, 2098, 1001 and 17, Sacramento, San Joaquin, Yolo, and Solano Counties, California

Dear Ms. Kirchner:

This letter is in response to your May 24, 2012, letter requesting reinitiation of consultations with the U.S. Fish and Wildlife Service (Service) for an updated vegetation planting plan and its maintenance related to completed levee repairs under Public Law (PL) 84-99 within Reclamation Districts (RD) 3, 150, 551, 755, 765, 2098, 1001, and 17 in Sacramento, Yolo, San Joaquin, and Solano counties, California. The Corps of Engineers (Corps) is seeking concurrence with their determination that the proposed work and future operation and maintenance may affect but is not likely to adversely affect the Federally-listed delta smelt (*Hypomesus transpacificus*) or its critical habitat. Your request was received by the Service on May 25, 2012. Subsequently, on June 5, 2012, we received an electronic mail (email) message from Corps staff requesting that we exclude RD 1001 from the request, as the sites in this district would not be planted as part of this project. This response is in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

## Background

Between December 28, 2005, and January 9, 2006, the State of California experienced a series of severe storms, which damaged levees within the Corps' Sacramento District boundaries. Water rose a second time in April 2006, and remained high in the system until June 2006. Many rivers and streams within the Sacramento and San Joaquin River Basins ran above flood stage during these events, and there were significant erosion and seepage problems with the levees. The California Department of Water Resources (DWR) and/or their maintaining agencies conducted flood fight activities while the Corps worked with DWR to restore the levee systems to the pre-

storm level of protection. These efforts were conducted under the authority of PL 84-99, Rehabilitation of Damaged Flood Control Works.

Between June 2008 and August 2009 the Service completed six individual section 7 consultations with the Corps on the effects of these repairs to delta smelt in RD 3 (Service file # 81420-2008-I-1030), RD 150 (Service file # 81420-2009-I-0707), RD 551/755 (Service file # 81420-2008-I-1031), RD 765 (Service file # 81420-2008-I-1404), RD 2098 (Service file # 81420-2008-I-1778) and RD 17 (Service file # 81420-2008-F-1032). Based upon implementation of the conservation measures proposed by the Corps for delta smelt, the Service concurred with the Corps' determination that the repairs in these RDs may affect, but would not likely adversely affect delta smelt.

### **Project Description**

The rock revetment portion of the construction for the above projects was completed in 2009; however, the willow pole cuttings proposed in the project descriptions have not been installed. Your request to reinitiate consultation is intended to provide an updated project description that clarifies how the vegetation component of the project will be installed at the repaired sites and integrates the future Operation and Maintenance (O&M) of the sites into the consultations.

The total length of the planting sites is about 30,500 linear feet, of which about 14,000 linear feet required a vegetation variance. The remainder of the planting sites are outside the vegetation free zone and do not require a variance. The Corps' Sacramento District obtained a variance from Engineering Technical Letter 1110-2-571 titled *Corps Guidelines for Landscape Planting and Vegetation Management at Floodwalls, Levees, and Embankment Dams* from Corps Headquarters on October 3, 2011.

The sites will be planted from the levee crown or from a barge using the stinger method. Based on the timing of the proposed plantings, the contractor will be directed to work from upstream to downstream to reduce the potential for encountering delta smelt. All plantings will be done above the existing waterline at the time of planting. Work will begin in late November or early December and be completed as soon as possible. When the barge is in use, it will continually move parallel to the levee as the plantings are installed.

Following installation of the willow pole cuttings, the Corps will supplement the O&M manuals and provide them to the non-Federal sponsor for implementation. This language is contained in Enclosure 1 and only applies to the sites that were repaired during the 2005/2006 flood event where willow pole cuttings are planted. No other changes to the O&M manuals will occur at this time.

The O&M requirements will be carried out by the Central Valley Flood Protection Board (Board), and may be further transferred to the local maintaining agencies by the Board. As long as the maintaining agency follows the supplemental O&M language at these sites, any future mitigation requirements resulting from damage to the site will be replaced in-kind at the site.

However, if the maintaining agency does not comply with the supplemental language and damages the plantings willingly, the maintaining agency will be responsible for the appropriate mitigation.

#### **Additional Proposed Conservation Measures**

- The plantings will be placed from the levee crown or barge using the stinger method.
- The work will occur from upstream to downstream to minimize the potential to encounter delta smelt.
- All planting will occur above the existing waterline at the time of installation.
- Work would begin in late November/early December to maximize planting success and would be completed as soon as possible to minimize effects on delta smelt.
- When a barge is used it will continually move parallel to the levee as the plantings are installed.

The Service has reviewed your amended project description and the existing biological opinions for the levee repairs within RD 3 (Service file # 81420-2008-I-1030), RD 150 (Service file # 81420-2009-I-0707), RD 551/755 (Service file # 81420-2008-I-1031), RD 765 (Service file # 81420-2008-I-1404), RD 2098 (Service file # 81420-2008-I-1778) and RD 17 (Service file # 81420-2008-F-1032), completed under PL 84-99 which included installing willow pole cuttings in their project description. The change in project description from what was analyzed previously is (1) more detail on the method of installation of the willow pole cuttings, (2) a revision in when plantings would be installed (during their dormant period) to give the plantings a better chance of success in establishing, and (3) details on the willow plantings future O&M. All other information from the original biological opinions remains unchanged.

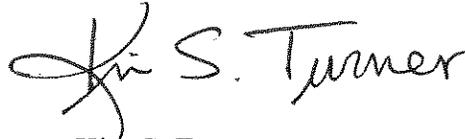
Based upon our review of the revised project description the Service finds the new information does not change our previous effects determination of may affect, but not likely to adversely affect delta smelt for the remaining work (willow pole cutting installation and future maintenance) proposed in RD 3, RD 150, RD 551/755, RD765, RD 2098, and RD 17. Unless new information reveals effects of the proposed work that may affect listed species in a manner or to an extent not considered in these consultations, or a new species is listed or critical habitat is designated that may be affected by the project, no further action pursuant to the Act is necessary for these projects.

Alicia E. Kirchner

4

If you have any questions regarding our response, please contact Doug Weinrich at the Sacramento Fish and Wildlife Office at (916) 414-6600, or Kim S. Turner at the San Francisco Bay-Delta Fish and Wildlife Office at (916) 930-5603.

Sincerely,

A handwritten signature in black ink that reads "Kim S. Turner". The signature is written in a cursive style with a large, stylized initial "K".

Kim S. Turner  
Assistant Field Supervisor

Enclosure

cc:

Doug Weinrich, SFWO, Sacramento, CA

Liz Holland, COE, Sacramento, CA

Howard Brown, NOAA Fisheries, Sacramento, CA