

Revised 29 Dec 2016

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

UNIT NO. 10  
WEST LEVEE OF PARADISE CUT  
RECLAMATION DISTRICT NO. 2058 AND  
SAN JOAQUIN COUNTY FLOOD CONTROL  
DISTRICT, AREA NO. 2



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

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

UNIT NO. 10

WEST LEVEE OF PARADISE CUT  
RECLAMATION DISTRICT NO. 2058 AND  
SAN JOAQUIN COUNTY FLOOD CONTROL  
DISTRICT, AREA NO. 2

<b>LOCATION</b>	<b>ADDITION OR REVISION</b>	<b>DATE</b>
1-05	Revised location of stream gage	Nov 1970
2-04	Revised location of stream gage, subparagraph 2a	Nov 1970
Exhibit F	Add copy of letter of transfer dated 12 Sep 1967	25 May 2011
1-04	Add subparagraph d	25 May 2011
Exhibit B	Add drawing no. SJ-4-112	25 May 2011
Exhibit F	Add copy of letter of transfer dated 14 Mar 2001 (RD 2095)	25 May 2011
Exhibit F	Add copy of letter of transfer dated 14 Mar 2001 (RD 2058)	25 May 2011
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 AND TRIBUTARIES PROJECT**

**UNIT NO. 10  
WEST LEVEE OF PARADISE CUT  
RECLAMATION DISTRICT NO. 2058 AND  
SAN JOAQUIN COUNTY FLOOD CONTROL DISTRICT, AREA NO. 2**

**SACRAMENTO DISTRICT  
CORPS OF ENGINEERS  
U. S. ARMY  
MARCH 1964**

TABLE OF CONTENTS

SECTION I - INTRODUCTION

<u>Paragraph</u>	<u>Subject</u>	<u>Page</u>
1-01	Location	1
1-02	Project Works	1
1-03	Protection Provided	1
1-04	Construction Data and Contractor	2
1-05	Flood Flows	2
1-06	Assurances Provided by Local Interests	2
1-07	Acceptance by the State Reclamation Board	2
1-08	Inspection Procedure	2

SECTION II - FEATURES OF THE PROJECT  
SUBJECT TO FLOOD CONTROL REGULATIONS

2-01	Levees	5
2-02	Drainage and Irrigation Structures	5
2-03	Channels	7
2-04	Miscellaneous Facilities	7

SECTION III - REPAIR OF DAMAGE TO PROJECT WORKS  
AND METHODS OF COMBATING FLOOD CONDITIONS

3-01	Repair of Damage	9
3-02	Applicable Methods of Combating Floods	9

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

UNIT NO. 10  
WEST LEVEE OF PARADISE CUT  
RECLAMATION DISTRICT NO. 2058 AND  
SAN JOAQUIN COUNTY FLOOD CONTROL DISTRICT

SECTION I

INTRODUCTION

1-01. Location. - The improvement covered by this manual is that part of the Lower San Joaquin River and Tributaries Project levee and channel that is located on the west side (left bank) of Paradise Cut that lies between the San Joaquin River and Old River. The area is about 5 miles southwesterly from the City of Stockton and 2-1/2 miles west from Lathrop. Location by levee mileage within Reclamation District No. 2058 is from mile 0.00 at the junction of Old River and Paradise Cut to mile 6.72 at U. S. Highway 50, and within the San Joaquin County Flood Control District, Area No. 2 from mile 0.00 at U. S. Highway 50 to mile 1.48 at the junction of Paradise Cut and the San Joaquin River. The area is located within Reclamation District No. 2058 and the San Joaquin County Flood Control District 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 a part of the Lower San Joaquin River and Tributaries Project as authorized by the Flood Control Act of 22 December 1944, Public Law 534, Seventy-Eighth Congress, Second Session, Section 10, and consists of the left bank levee and channel of Paradise Cut from the San Joaquin River to Old River and Tom Paine Slough, a distance of about 8.2 miles.

1-03. Protection Provided. - Levees along Paradise Cut, as described in this unit, provide direct protection to adjacent agricultural land within Reclamation District No. 2058 and the San Joaquin County Flood District. Along the westerly levee of Paradise Cut, the grade of the adopted flood plane varies from elevation 22.2 at the upper end at the San Joaquin River to elevation 13.0 at the lower end at the junction of Paradise Cut with Old River and Tom Paine Slough. All elevations are referred to mean sea level datum (1929 adjustment). Levee grade within this unit provides for a freeboard of at least 3 feet above the adopted flood plane profile. Within this unit the project design flood for the Paradise Cut is 15,000 cubic feet per second.

1-04. Construction Data and Contractor. – Work required by the Corps of Engineers to bring levees of this unit to project standards was accomplished under the following contracts:

a. Emergency levee and Paradise Dam repairs were accomplished under Contract No. DA-04-167-CIVENG-57-45 by H. Sykes, Contractor, during the period from 25 September 1956 to 24 October 1956. Specification No. 2225 and Drawing No. 7-4-1511.

b. Levee realignment at the W.P.R.R. crossing and surfacing of the levee crown from Paradise Dam downstream to U.S. Highway No. 50 was accomplished under Contract No. DA-04-167-CIVENG-61-72 by A. Teichert and Son, Inc., during the period from 8 May 1961 to 17 November 1961. Specification No. 2656 and Drawing No. 7-4-1554.

c. Channel clearing from Paradise Dam downstream to U.S. Highway No. 50 and surfacing of the levee crown from Highway No. 50 downstream to Old River was accomplished under Contract No. DA-04-167-CIENG-63-35 by Pacific Western Construction, Inc. and Larry W. Aksland, during the period from 25 September 1962 to 9 July 1963. Specification No. 2736 and Drawing No. 7-4-1646.

d. Emergency levee repairs on the west levee of Paradise Cut from the east boundary of RD 2058 to Paradise Dam in Reclamation District 2095, and on the west levee of Paradise Cut from its north junction with Tom Paine Slough to the northern boundary of Reclamation District 2095, were completed on 30 November 1997 by Ford Contracting Company under Contract No. DACW05-97-C-0130. Specification No. 9893E, Drawing No. SJ-4-112.

1-05. Flood Flows. – For purposes of this manual, the term “flood” or “high water period” shall refer to flows when the water surface in the San Joaquin River reaches or exceeds the reading of 28.0 on the State Department of Water Resources Vernalis gage located on the left bank of the San Joaquin River at the downstream face of the left abutment of the Durham Ferry Highway Bridge, 3.4 miles northeast of Vernalis. This gage is set at 0.00 feet mean sea level (1929 adjustment).

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 letters dated 15 January 1962 and 25 October 1963, as shown on the attached letters, EXHIBIT F.

1-08. Inspection Procedure. – Since the enactment of State Legislation of Chapter 1528, Statutes of 1947, the Department of Water Resources, State of California, has made semi-annual inspections of all levees of 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..... (Continues on page 3)

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 obligation of compliance with Section 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:

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 fall 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 west side of Paradise Cut and extends for a total distance of 8.2 miles from Paradise Dam to Old River. The levee has been surfaced for patrol road purposes with a minimum crown width of 12 feet. The necessary turnouts, turnarounds and road approaches 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>Reclamation District No. 2058</u>			
0.68	12 Inch	Vent Pipe W.S.	5.0
0.72	12 Inch	Pump L.S., Flapgate W.S.	18.0
2.14	18 Inch	Pump L.S., Siphon breaker W.S.	8.0
2.14	12 Inch	Pump L.S., Siphon breaker W.S.	8.0
2.91	18 Inch	Pump on piling W.S.	8.0
3.41	8 Inch	Pump L.S.	6.0
<u>San Joaquin County Flood Control District, Area No. 2, Unit No. 3</u>			
0.70	16 Inch	Pump on piling W.S.	8.0
0.71	24 Inch	Pump L.S.	10.5
0.91	6 Inch	Both ends of pipe open	1.5
0.92	12 Inch	Pump L.S., Siphon breaker W.S.	5.0

Notes 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 channel and floodway of Paradise Cut for this unit lies adjacent to the levee as described in paragraph 1-02. The project design capacity of said channel is 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 28.0 on the Vernalis gage.

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.

2-04(2) Hydrologic Facilities.

(a) Hydrologic facilities provided in the vicinity of this unit consist of the State Department of Water Resources radio reporting continuous water stage recorder and staff gage located on the left bank of the San Joaquin River at the downstream face of the left abutment of the Durham Ferry Highway Bridge, 3.4 miles northeast of Vernalis. 7-2-1970

(b) 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. This gage is set at -0.30 mean sea level datum (1929 adjustment). A stage of about 14.5 feet on this gage usually corresponds to the specified alert stage of 28.0 feet at the Vernalis gage.

(3) Bridges.

(a) W.P.R.R. Bridge crossing Paradise Cut at levee mile 0.73.

(b) Two U. S. Highway 50 bridges crossing Paradise Cut at levee miles 0.00 and 0.01.

(c) S.P.R.R. Bridge crossing Paradise Cut at levee mile 6.0.

(d) Paradise Road Bridge crossing Paradise Cut at levee mile 3.13.

(4) Paradise Dam. The Paradise Dam is located at the head of Paradise Cut adjoining the San Joaquin. It is a weir composed of heavy quarry stone and a concrete cap at the crest of the weir that is about 8 feet wide. Upstream from the weir a cobble blanket has been placed along the left bank of the San Joaquin River.

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

### 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 interests 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.

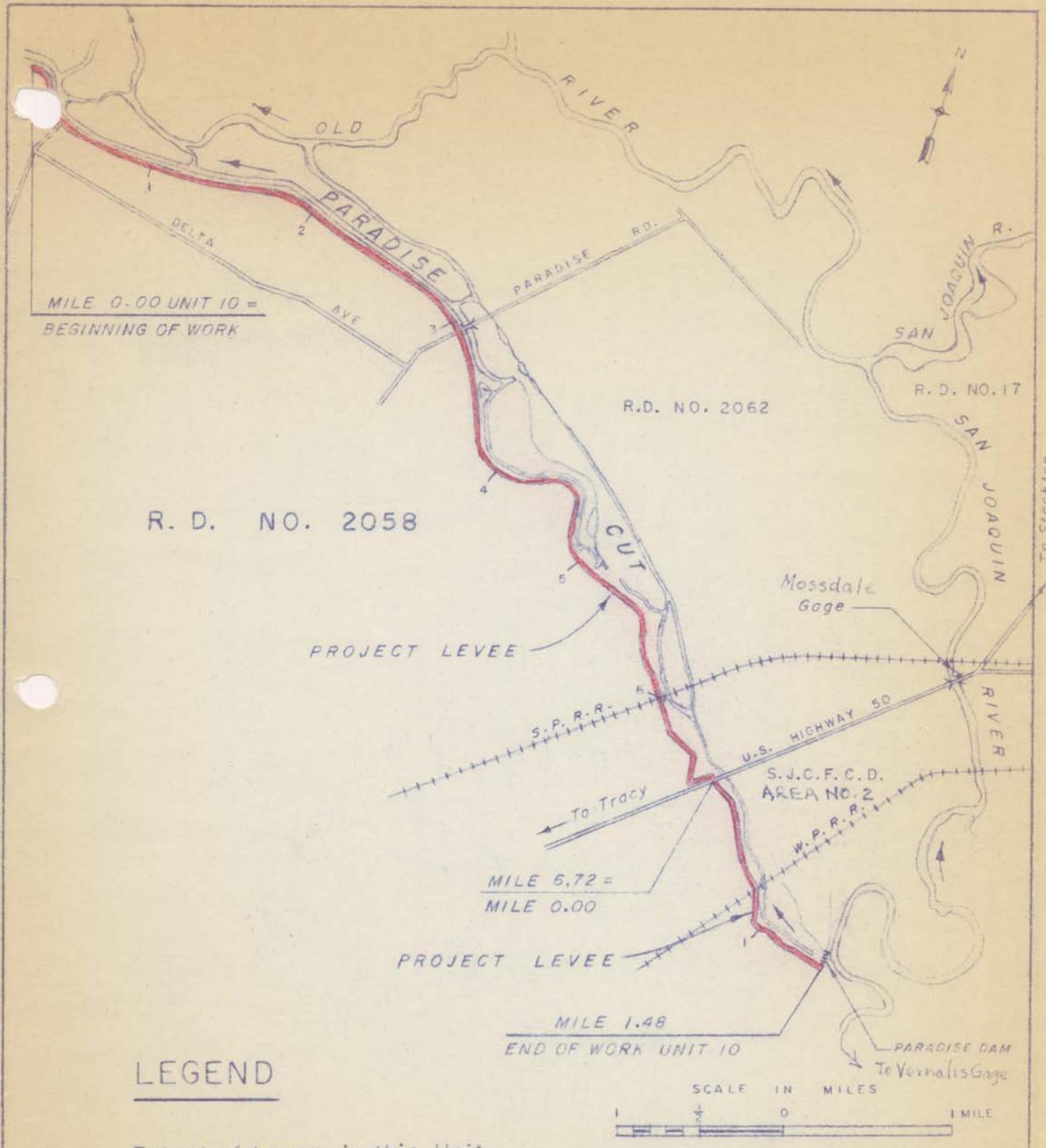
3-02. Applicable methods of combating floods. - For applicable methods of combating flood conditions, reference is made to Section VIII of the Standard Manual and Maintenance Manual where the subject is fully covered.

EXHIBIT A

FEDERAL FLOOD CONTROL REGULATIONS

(SEE STANDARD MANUAL)

EXHIBIT A



R. D. NO. 2058

R.D. NO. 2062

R. D. NO. 17

PROJECT LEVEL

S.P. R.R.

U.S. HIGHWAY 50

S.J.C.F.C.D. AREA NO. 2

W.P. R.R.

MILE 6.72 =  
MILE 0.00

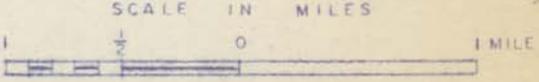
PROJECT LEVEL

MILE 1.48  
END OF WORK UNIT 10

PARADISE DAM  
To Vernalis Gage

LEGEND

--- Extent of Levee in this Unit.



LOCATION MAP  
UNIT NO. 10  
WEST LEVEE PARADISE CUT  
RECLAMATION DISTRICT NO. 2058  
AND SAN JOAQUIN COUNTY  
FLOOD CONTROL DISTRICT

EXHIBIT B

“AS CONSTRUCTED”  
DRAWINGS

(See separate folder for the following drawings:)

<u>File No.</u>	<u>Title</u>
7-4-1511	Emergency Levee and Paradise Dam Repairs, in 1 sheet.
7-4-1554	Surfacing of the Levee Crown from Paradise Dam to U.S. Highway 50, sheets 19 and 20.
7-4-1646	Channel Clearing form Paradise dam to U.S. Highway 50 and Surfacing of the Levee Crown from U.S. Highway to Old River, sheets 6, 7 and 10.
SJ-4-112	Lower San Joaquin River RD 2058 and RD 2095, SJ8 Phase III Levee Restoration San Joaquin County, California, in 4 sheets.

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 LEVEES

CHANNEL AND STRUCTURES

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

SUGGESTED CHECK LIST NO. 2  
UNIT NO. 10  
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	

Instruction 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 earthwork 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 gulying of the section has occurred.
- Item (c) If sufficient erosion or gulying 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.

SUGGESTED CHECK LIST NO. 3  
 CHANNEL AND RIGHT-OF-WAY  
 UNIT NO. 10  
 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 aggradation or degradation	
(f) Condition or riprapped section	
(g) Condition of bridges	
(h) Measures taken since last inspection	
(i) Comments	

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, souling 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. 10  
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 head- wall or invert paving	(f) Condition of right-of-way adjacent to structure	(g) Repair Measures taken since last inspection	(h) Comments
<u>Reclamation District No. 2058</u>							
0.68	Lt.						
0.72	"						
2.14	"						
2.14	"						
2.91	"						
3.41	"						
<u>San Joaquin County Flood Control District, Area No. 2, Unit No. 3</u>							
0.70	Lt.						
0.71	"						
0.91	"						
0.92	"						

Instruction for Completing Sheet 6, Exhibit E  
(To be printed on back of Sheet 6)

- (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

C  
O  
P  
Y

THE RECLAMATION BOARD  
OF THE  
STATE OF CALIFORNIA

C  
O  
P  
Y

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

C  
O  
P  
Y

THE RECLAMATION BOARD  
OF THE  
STATE OF CALIFORNIA

C  
O  
P  
Y

October 25, 1963

Refer to 7001.37.200  
4130.37.200

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

Dear Sir:

Reference is made to your letter of July 12, 1963 concerning transfer to the State of California of bank protection, levee enlargement, patrol road construction and channel improvement on Old River and Paradise Cut which was completed on 9 July 1963, Specification No. 2736.

The flood control work referred to above is listed as follows:

a. Levee enlargement and bank protection, Old River:

<u>LEVEE</u> <u>UNIT NO.</u>	<u>SITE NO.</u>	<u>RIVER MILE POINTS</u>	<u>RIGHT OR LEFT BANK</u>
69	77	29.93 to 30.17	Right
70	79-80	29.25 to 29.50	Right
71	81-A	28.83 to 28.97	Right
72	82	28.27 to 28.55	Right

b. Access roads: Shaping and gravel surfacing of access roads, right bank Old River at Site No. 3, and right and left bank Paradise Cut, at Sites Nos. 8 and 9.

c. Patrol Roads: Shaping and gravel surfacing of patrol roads right bank Old River at Sites Nos. C, D, E, and F (included on portion of Salmon Slough); and right and left banks of Paradise Cut at Sites Nos. G and H.

d. Channel Improvement: Clearing of trees and brush in floodway area of Paradise Cut in vicinity from Paradise Dam to Highway 50.

District Engineer

-2-

October 25, 1963

The Reclamation Board, at its meeting of August 1, 1963, formally accepted the above referred to levee enlargement, bank protection and channel work for operation and maintenance.

Sincerely yours,

A. E. McCOLLAM  
General Manager

EXHIBIT F  
Sheet 3 of 3

*Transfer files*

11 September 1967

SPIKCO-F

The Reclamation Board  
State of California  
1416 - 9th Street, Room 1335  
Sacramento, California 95814

Gentlemen:

Reference is made to the joint inspection of 29 August 1967, made for the purpose of transferring the seven completed test sites on the Lower San Joaquin River and Tributaries Project to the State of California for operation and maintenance. Reference is also made to the attached correspondence concerning these test sites. This portion of work concerns test sections completed in Units 30, 31, 34 & 40, which were transferred to the State at various dates as referenced on the attached inclosures.

The seven test sites were constructed using various bank protection materials, on the left bank of the San Joaquin River, downstream from the Banta-Carbona Canal to Paradise Cut. Construction of Test Sections A1, A2, B, C, D & E was completed in the summer and fall of 1959. These sites were constructed in accordance with Specification No. 2402, Contract No. DA-04-167-CIVENG-58-63 and Drawing No. 7-4-1519. Construction of Test Section F was completed in the fall of 1961 and was constructed in accordance with Specification No. 2656, Contract No. DA-04-167-CIVENG-61-72, and Drawing No. 7-4-1554. The work was performed under the general authority of the Lower San Joaquin River and Tributaries Project, which was authorized by the Flood Control Act of 22 December 1944, PL 534, 78th Congress, 2nd Session.

This completed flood control work 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

*Unit 10, 11*

SPKCO-F  
The Reclamation Board

11. September 1967

the inclosed Flood Control Regulations. These regulations 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 the above work will be furnished to you upon completion.

Sincerely yours,

- 3 Incl  
1. Six Transfer Letters  
2. Dwg #7-20-1521  
3. FC Regulations

CRAWFORD YOUNG  
Colonel, CE  
District Engineer

Copy furnished:  
Dept Water Resources

O.C.E.  
S.P.D.

cc: Engr Div-Lev & Chan  
Engr Div-Prog Dev  
Valley Res Ofc  
R&A-Cordano

12  
ROMPAIA/pp

COLEMAN

HENSON

HART

YOUNG

Units 10, 11

MAR 14 2001

Navigation and Flood Control Unit

MAR 14 2001

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

Dear Mr. Rabbon:

This letter is to transfer a portion of work on the west levee of Paradise Cut from its north junction with Tom Paine Slough to the northern boundary of RD 2095 at I-5, in RD 2058, to the State of California for operation and maintenance.

The work consists of restoring various areas damaged by the January 1997 Flood. The west levee of Paradise Cut at 17 different sites was damaged, ranging from L.M. 1.18 to L.M. 6.44 as described in the accompanying form and drawings. The work, as listed in the enclosure, was completed on Nov. 30, 1997 in accordance with Specification No. 9893E, Drawing File No. SJ-4-112, Contract No. DACW05-97-C-0130.

The work was performed under the general authority of 33 U.S.C. 701n (69 Stat. 186) PL 84-99 and now meets the requirements of the Operations and Maintenance Manual for the San Joaquin River Flood Control Systems in RD 2058. 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.

This portion of the project work will be added by amendment to the Operation and Maintenance Manual, San Joaquin River Flood Control Project.

Sincerely,

Michael J. Walsh  
Colonel, Corps of Engineers  
District Engineer

MINTON <sup>JM</sup>ed

TAVANA <sup>MT</sup>

SANDNER

WINTON <sup>Z</sup>

DURHAM-AGUILERA <sup>KDA</sup>

DOYLE <sup>RD</sup>

KORMAN <sup>JK</sup>

CHARLTON

O'BRIEN

WALSH

Enclosure

cc:

- CESPK-CO
- CESPK-CO-E
- CESPK-ED
- CESPK-ED-D
- CESPK-PM
- CESPK-CO-RV

*Unit 10*

Navigation and Flood Control Unit

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

MAR 14 2001

Dear Mr. Rabbon:

This letter is to transfer a portion of work on the west levee of Paradise Cut from the east boundary of RD 2058 at I-5 to Paradise Dam in RD 2095, to the State of California for operation and maintenance.

The work consisted of restoring areas damaged by the January 1997 Flood on the west levee of Paradise Cut at 3 sites ranging from L.M. 0.70 to L.M. 1.1. Levee damaged by wavewash was repaired by excavating and placing levee fill over filter fabric on the waterside at L.M. 0.70-0.72. On L.M. 0.86-0.88, wavewash damage was repaired by excavating and placing riprap over filter fabric on the waterside. Erosion damage was repaired by excavating and placing fill on the landside of the levee at L.M. 0.88-1.10. The work as listed in the enclosure was completed on Nov. 30, 1997 in accordance with Specification No. 9893E, Drawing, File No. ~~SJ-4-114~~, Contract No. DACW05-97-C-0130.

*SJ-4-112  
Jg*

The work was performed under the general authority of 33 U.S.C. 701n (69 Stat. 186) PL 84-99 and now meets the requirements of the Operations and Maintenance Manual for the San Joaquin River Flood Control System in RD 2095. 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.

This portion of the project work will be added by amendment to the Operation and Maintenance Manual, San Joaquin River Flood Control Project.

Sincerely,

Michael J. Walsh  
Colonel, Corps of Engineers  
District Engineer

*JM*  
MINTON/dd  
*MP*  
TAVANA  
*SM*  
SANDNER  
*W*  
WINTON  
*KPA*  
DURHAM-AGUILERA  
*DD*  
DOYLE  
*for*  
KORMAN  
CHARLTON  
O'BRIEN  
WALSH

Enclosure

cc:  
CESPK-CO  
CESPK-CO-E  
CESPK-ED  
CESPK-ED-D  
CESPK-PM  
CESPK-CO-RV

*Unit 10*

EXHIBIT G

SUGGESTED SEMI-ANNUAL REPORT FORM

EXHIBIT G

TO: The District Engineer  
Sacramento District  
Corps of Engineers  
1209 - 8th Street  
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. 10 of the Lower San Joaquin River and Tributaries Project is as follows:

a. The physical condition of the protective works 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 indicated:

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

b. During this report period, major high water periods (water level in excess of 28.0 feet on the Vernalis gage on the San Joaquin River at Durham Ferry Bridge) occurred on the following dates:

<u>Dates</u>	<u>Maximm Elevation</u>
_____	_____
_____	_____
_____	_____

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 at Vernalis gage reached a height of \_\_\_\_\_, on the gage 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