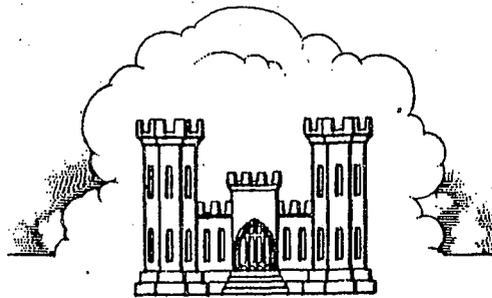

SUPPLEMENT TO STANDARD
OPERATION AND MAINTENANCE
MANUAL

Revised 29 Dec 2016

SACRAMENTO RIVER
FLOOD CONTROL PROJECT
UNIT NO. 152
WEST LEVEE OF FEATHER RIVER
FROM
NORTH BOUNDARY OF RECLAMATION DISTRICT NO. 777
TO
THE WESTERN CANAL INTAKE
(LEVEE OF DRAINAGE DISTRICT NO. 1)



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

54

CORPS OF ENGINEERS
U. S. ARMY

SUPPLEMENT TO STANDARD
OPERATION AND MAINTENANCE MANUAL
SACRAMENTO RIVER FLOOD CONTROL PROJECT

UNIT NO. 152
WEST LEVEE OF FEATHER RIVER
FROM
NORTH BOUNDARY OF RECLAMATION DISTRICT NO. 777
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(LEVEE OF DRAINAGE DISTRICT NO. 1)

SACRAMENTO DISTRICT
CORPS OF ENGINEERS
U. S. ARMY
MARCH 1957

**SUPPLEMENT TO STANDARD
OPERATION AND MAINTENANCE MANUAL
SACRAMENTO RIVER FLOOD CONTROL PROJECT**

UNIT NO. 152

WEST LEVEE OF FEATHER RIVER
FROM
NORTH BOUNDARY OF RECLAMATION DISTRICT NO. 777
TO
THE WESTERN CANAL INTAKE
(LEVEE OF DRAINAGE DISTRICT NO. 1)

LOCATION	ADDITION OR REVISION	DATE
1-04 c.	Add Contract No. 56-144	Nov 1963
Exhibit B	Add Drawing No. 4-4-384	Nov 1963
1-04 d.	Add Contract No. 57-47	Nov 1963
Exhibit B	Add Drawing No. 4-4-424	Nov 1963
1-04 e.	Add Contract No. 64-30	Oct 1964
Exhibit B	Add Drawing No. 4-4-534	Oct 1964
Exhibit F	Add letter of acceptance dated 8 Nov 1963	Oct 1964
1-04 f.	Add Contract No. 66-28	Jul 1966
Exhibit B	Add Drawing No. 50-4-4118	Jul 1966
Exhibit F	Add letter of acceptance dated 11 Jan 1966	Jul 1966
1-04 g.	Add Contract No. 70-0088	Feb 1971
Exhibit B	Add Drawing No. 50-4-4377	Feb 1971
Exhibit F	Add letter of acceptance dated 27 Oct 1970	Feb 1971
1-04	Add subparagraph h.	Sep 1990
Exhibit B	Add Drawing No. 50-4-5798	Sep 1990
Exhibit F	Add letters of transfer dated 22 Nov 1989 and 10 Jan 1990	Sep 1990
Exhibit F	Add copy of letter of transfer dated 18 Mar 1948	28 Dec 2010
Exhibit F	Add copy of letter of acceptance dated 7 Apr 1948	28 Dec 2010
Exhibit F	Add copy of letter of acceptance dated 18 Dec 1951	28 Dec 2010
Exhibit F	Add copy of letter of transfer dated 31 Jan 1955	28 Dec 2010
Exhibit F	Add copy of letter of acceptance dated 7 Feb 1955	28 Dec 2010
Exhibit F	Add copy of letter of transfer dated 17 Oct 1963	28 Dec 2010
Exhibit F	Add copy of letter of transfer dated 29 Nov 1965	31 Jan 2011
Exhibit F	Add copy of letter of transfer dated 20 Oct 1970	31 Jan 2011
Exhibit F	Add copy of letter of acceptance dated 27 Mar 1990	8 Mar 2011
Exhibit F	Add copy of letter of transfer dated 29 Nov 2016	29 Dec 2016

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EXHIBITS

<u>Exhibit</u>	<u>Description</u>	
A	Flood Control Regulations	Unattached (Contained in Standard Manual)
A-1	Location Map	1 Sheet
B	"As Constructed" Drawings	Unattached
C	Plates of Suggested Flood Fighting Methods	Unattached (Contained in Standard Manual)
D	Check List No. 1 - Levee Inspection Report	Unattached (Contained in Standard Manual)
E	Check Lists - Levees, Channel and Structures	Sheets 1 thru 8
F	Acceptance by The State Reclamation Board	Sheets 1 thru 3
G	Suggested Semi-Annual Report Form . .	Sheets 1 & 2

SUPPLEMENT TO STANDARD
OPERATION AND MAINTENANCE MANUAL
SACRAMENTO RIVER FLOOD CONTROL PROJECT

UNIT NO. 152

WEST LEVEE OF FEATHER RIVER
FROM
NORTH BOUNDARY OF RECLAMATION DISTRICT NO. 777
TO
THE WESTERN CANAL INTAKE
(LEVEE OF DRAINAGE DISTRICT NO. 1)

SECTION I

INTRODUCTION

1-01. Location. The improvement covered by this manual is that part of the Sacramento River Flood Control Project which includes the west levee of the Feather River from the north boundary of Reclamation District No. 777 (also north boundary of Sutter County) to the Western Canal Intake, all within Drainage District No. 1, Butte County, California. This manual supersedes Supplement Manual No. 13 entitled: "West Levee Feather River Opposite Rio Bonito Station Upstream 3.5 Miles". The location of the completed unit covered by this manual is shown on Exhibit A-1.

1-02. Protection Provided. The levee of this unit provides direct protection to adjacent agricultural lands and the towns of Gridley and Live Oak against flood waters of the Feather River. The grade of the adopted flood plane profile along the main channel of the Feather River varies from elevation 149.0 at the upper end of 92.0 at the north boundary of Reclamation District No. 777 (elevations are referred to U.S. Corps of Engineers datum). This reach of the Feather River has a project design capacity of 210,000 cubic feet per second, and the levee provides for a free board of at least three feet above the adopted flood plane profile within this unit.

1-03. Project Works. The flood control improvement covered by this manual is a part of the Sacramento River Flood Control Project authorized by the Flood Control Act of 1917, as modified by the Acts of 1928, 1937 and 1941, and consists of the west levee of the Feather River from the north boundary of Reclamation District No. 777 upstream to the Western Canal Intake. As shown on Drawings No. 4-4-349 of Exhibit B, the west levee of the Feather River extends from Station 0+00 (John Cox Ranch) to Station 538+13 (opposite Rio Bonito Station); also continuing upstream from Station 117+00 to 0+00 and 107+00 to Station 184+00 at the Western Canal Intake.

1-04. Construction Data and Contractor. Construction necessary to bring locally built levees of this unit to project standards was accomplished under the following contracts:

a. Construction of the west levee of the Feather River from opposite Rio Bonito Station upstream to the Western Canal Intake was accomplished by Excavators, Inc., Contractors, under Contract No. W-04-167-eng-1240. Work on this contract was started on 4 April 1947 and completed on 19 December 1947. Maintenance and operation of the Sutter-Butte Canal Headgates, which lies within this reach of levee, will be covered under another manual, Unit No. 160. Drwg. 4-4-282

b. Reconstruction of the west levee of the Feather River from Cox Ranch upstream to opposite Rio Bonito Station was accomplished by H. Earl Parker, Inc., under Contract No. DA-04-167-eng-1146 during the period from 8 March 1954 to 23 December 1954. Spec. 1823, Drwg. 4-4-349 & 4-4-357

* [1-04 continued on 2a] →
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 Feather River reaches or exceeds the reading of 95.0 on the Department of Water Resources continuous water stage recorder and staff gage located on the east side (left bank) of the Feather River on the downstream side of the abutment of the bridge on the Gridley-Oroville Road two and one-half miles east of Gridley.

1-06. Assurances Provided by Local Interests. Assurance of cooperation by local interests is provided by State legislation as contained in Chapter 3, Part 2, 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 the maintenance and operation of this unit was officially accepted by The Reclamation Board of the State of California on 18 December 1951 and 15 June 1955, as shown on the attached letters of acceptance, EXHIBIT F.

1-08. Superintendent. The name and address of the Superintendent appointed by local interests to be responsible for the continuous inspection, operation and maintenance of the project works, shall be furnished the District Engineer, and in case of any change of Superintendent, the District Engineer shall be so notified.

c. Emergency levee repairs, right bank Feather River upstream and downstream from Gridley Bridge was accomplished under Contract No. DA-04-167-CIVENG-56-144 by Richter Bros. during the period from 23 February 1956 to 2 April 1956, Specification No. 2059, Drawing No. 4-4-384.

(2) d. Emergency bank protection, right bank Feather River, 1.93 miles upstream from Gridley Bridge was accomplished under Contract No. DA-04-167-CIVENG-57-47 by Claude L. Younds during the period from 24 September 1956 to 19 October 1956; Specification No. 2228, Drawing No. 4-4-424.

e. Levee enlargement, west levee of the Feather River was accomplished under Contract No. DA-04-167-CIVENG-64-30 by J. P. Breen, Sr., contractor during the period from 12 August 1963 to 5 October 1963, Specification No. 2949, Drawing No. 4-4-534 in 1 sheet.

f. Bank protection on the right bank of the Feather River was accomplished under Contract No. DA-04-167-CIVENG-66-28 by A. Teichert & Son, Inc. during the period from 19 August 1965 to 10 December 1965, Specification No. 3283, Drawing No. 50-4-4118 (Contract No. 14).

g. Bank protection at one location on the right bank of the Feather River at levee mile 4.25 was accomplished under Contract No. DA-05-70-C-0088 by H. Earl Parker, Inc. during the period from 19 May 1970 to 24 September 1970. Specification No. 3426, Drawing No. 50-4-4377.

h. Bank protection on the right bank of the Feather River at Site Mile 51.1 (a portion of Contract 43) was accomplished under Contract No. DACW05-88-B-0055. Specification No. 8367, Drawing No. 50-4-5798.
& DACW05-88-C-0063

SECTION II

FEATURES OF THE PROJECT SUBJECT TO FLOOD CONTROL REGULATIONS

2-01 Levee.

a. Description. The levee for this unit is located as described in paragraph 1-03 and extends along the crown for a distance of about 15.00 miles. The levee has been constructed with slopes of 1 on 3 on the reverside and 1 on 2 on the landside with a crown width of 20 feet. Construction also included a gravel road surfacing 12 feet wide on top of the levee with turnouts at about 1000 feet intervals. The necessary drainage structures, road approaches and appurtenances were also included in the work. For more complete detail in construction of 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) 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:

See Drawings of Exhibit B for other details

Location Station	Size and Kind of pipe	Gate Model No.	Other Structure Description	Invert Elev.
1+90	2-60" C.M.P.	101	Concr. headwalls L.S. and R.S. 78" C.M.P. Standpipe R.S.	87.0
12+00	24" C.M.P.	102	Concr. headwall L.S.	94.0
19+00	24" C.M.P.	102	Concr. headwall L.S.	92.5
19+30	24" C.M.P.	102	Concr. headwall L.S.	92.0
28+00	24" C.M.P.	101	Concr. spillbox L.S.	86.3
44+50	24" C.M.P.	102	Concr. headwall L.S.	95.5
48+00	24" C.M.P.	102	Concr. headwall L.S.	93.5
52+50	24" C.M.P.	101	36" standpipe R.S.	76.0
56+90	24" C.M.P.	101	36" standpipe R.S.	80.0
69+00	24" C.M.P.	102	Concr. headwall L.S.	- -
126+18	8" C.M.P.	-	1-1/2" air vent L.S.	103.0
127+40	6" C.I.	-	Pipe Encased in concrete	92.5
128+00	6" C.I.	-	Pipe Encased in concrete	92.5
127+00	4" C.I.	-	Pipe Encased in concrete	93.0

Location Station	Size and Kind of Pipe	Date Model No.	Other Structure Description	Invert Elev.
128+40	3/4" Galv.	-	Water line	103.0
191+13	24" C.M.P.	102	Concr. headwalls both ends 48" concrete rise R.S.	101.0
195+80	2-60 " C.M.P.	102	Concr. headwalls L.S. and R.S.	86.5
239+50	12" Steel	101	Pipe encased in concr. 24" concrete standpipe R.S.	101.1
252+10	22" Steel	101	36" concr. standpipe R.S. pipe encased in concrete	99.5
260+70	12" Steel	101	Pipe encased in concrete 24" concrete standpipe R.S.	100.0
267+20	12" Steel	101	Pipe encased in concrete 24" concr. standpipe R.S.	100.0
413+60	16" Steel	101	Pipe encased in concrete 24" concr. standpipe R.S.	110.0
437+30	10" Steel	101	Pipe encased in concrete 24" concr. standpipe R.S.	111.0
471+26	24" C.M.P.	101	36" Concr. Standpipe R.S.	111.8
476+60	24" C.M.P.	102	Concr. headwalls L.S. & R.S.	112.0
483+60	24" C.M.P.	102	48" Concr. Standpipe L.S. 36" C.M.P. Riser R.S.	112.0
490+50	24" C.M.P.	101	36" C.M.P. Riser R.S.	109.0
490+70	24" C.M.P.	102	Concr. headwalls both ends	111.7
494+50	24" C.M.P.	102	Concr. headwalls both ends	110.5
496+20	24" C.M.P.	102	Concr. headwalls both ends	111.5
502+20	24" C.M.P.	101	Pipe encased in concr. 36" C.M.P. Riser R.S.	101.5
508+40	24" C.M.P.	102	Concr. headwall R.S.	113.0
508+70	24" C.M.P.	101	26" C.M.P. Riser R.S.	111.0
517+40	24" C.M.P.	101	26" C.M.P. Riser R.S. Pipe encased in concr.	115.0
517+60	24" C.M.P.	102	Concr. headwall L.S. & R.S.	116.0
20+20	24" C.M.P.	100	Concr. saddle and apron	124.0
40+75	24" C.M.P.	101	Concr. saddle and apron	122.7
47+00	-	-	Sutter-Butte Canal Headgates	-
	-	-	See Manual 160	-
170+00	-	-	Western Canal Intake	-

Notes on gates and abbreviations:

(1) Gate Model No. 100 is a Calco automatic drainage gate placed on the outlet end of pipes. This cast iron flapgate closes against face pressure and opens automatically to permit outflow when pressure is released.

(2) Gate Model No. 101 is a Calco slide gate which operates by hand screw on a steel frame.

(3) Gate Model No. 102 - same as No. 100 except flapgate is made of cast steel.

(4) C.M.P. indicates corrugated metal pipe.

(5) C.I. indicates cast iron.

(6) L.S. indicates landside.

(7) R.S. indicates riverside.

(8) Concr. indicates concrete.

Note: Above pipes have been furnished with cut-off walls, except at Station s 128+40, C/L 50+00 and 170+00.

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) Check Lists - Exhibit E of this Supplement Manual.

(3) Operation - paragraph 5-04 of the Standard Manual.

(4) Additional Requirements - paragraph 5-05 of the Standard Manual.

(5) Safety Requirements - paragraph 5-06 of the Standard Manual.

2-03. Channel.

a. Description. The low water channel of the Feather River within this unit meanders along a comparatively wide overflow area with a levee along the west side (right bank) from the Western Canal Intake to the north boundary of Reclamation District No. 777 (near the mouth of Honcut Creek). The channel within this reach has a project design capacity of about 210,000 dredge tailings piles are located within the flood plane in this reach.

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) 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 Superintendent to maintain a patrol of the project works during all periods of flood flow in excess of a reading of 95.0 on the gage at Gridley Bridge as indicated in paragraph 1-05 of this manual. The superintendent shall dispatch a message by the most suitable means to the District Engineer whenever the water surface at Gridley Bridge reaches the gage reading indicated above. The Superintendent shall cause readings to be taken at intervals of two to four hours during the period when the water surface is above the flood-flow stage and record the time of the observations. One copy of the readings shall be forwarded to the District Engineer immediately following the flood, and a second copy transmitted as an inclosure to the semi-annual report in compliance with paragraph 3-05 of the Standard Manual.

2-04. Miscellaneous Facilities.

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

(1) Bridge.

Gridley Bridge at approximate Station 141+00.

(2) Utility Relocations. None.

(3) Hydrographic Facilities.

Department of Water Resources station on left bank of Feather River on abutment of bridge on Gridley - Oroville Road.

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) 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 Superintendent will contact a representative of the Division of Water Resources, State of California, who coordinates maintenance of project works of the Sacramento River Flood Control Project. The state representative will give assistance or advice, 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, revised May 1955, where the subject is fully covered.

EXHIBIT A

**FLOOD CONTROL REGULATIONS
(See Standard Manual)**

**EXHIBIT A
Unattached**

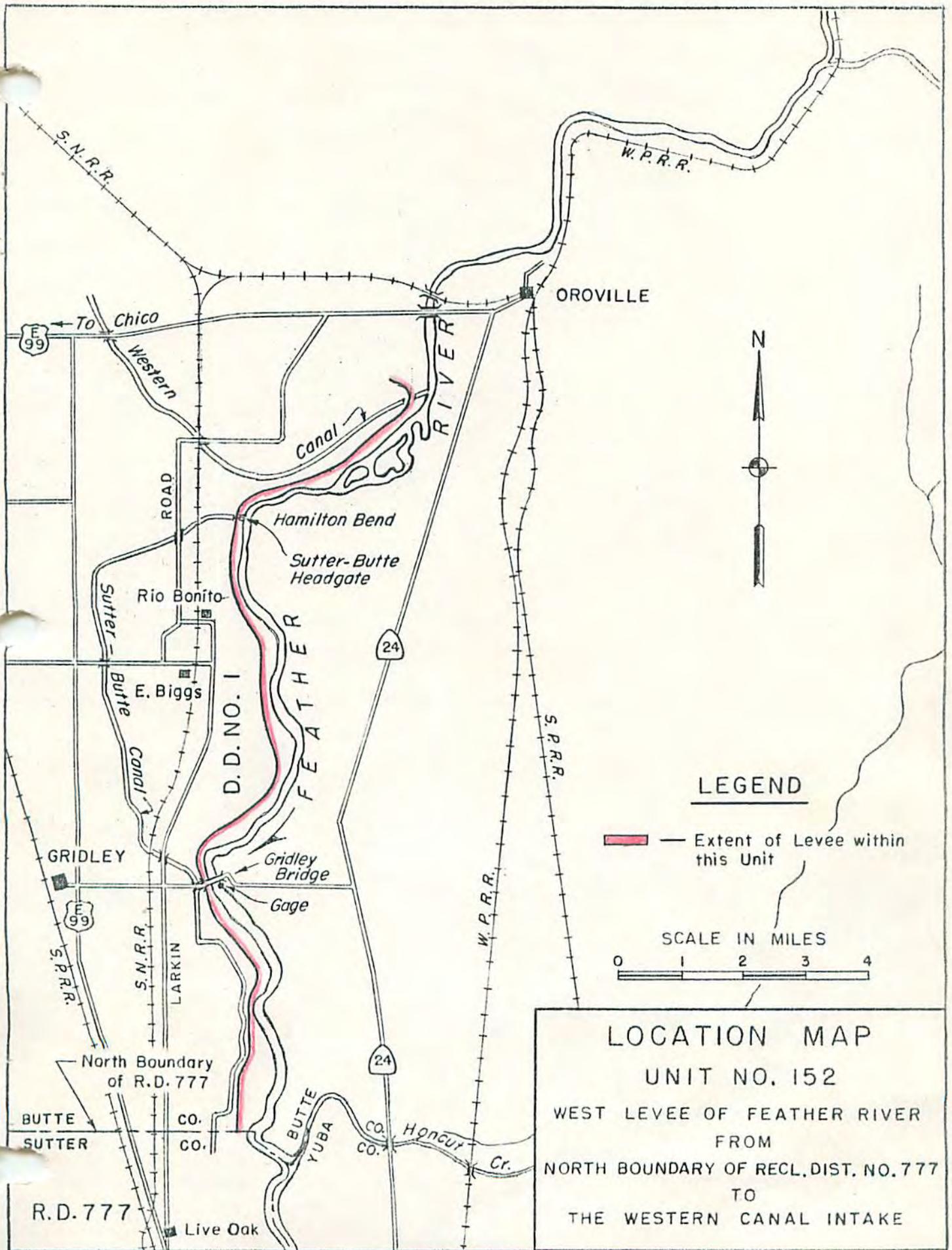


EXHIBIT B

"AS CONSTRUCTED"
DRAWINGS

See separate folder for the following drawings:

<u>File No.</u>	<u>Title</u>
4-4-282	West Levee Feather River from Opposite Rio Bonito Station Upstream 3.5 Miles, sheets 1, 2 and 3.
4-4-349	West Levee Feather River - Cox Ranch Upstream to Opposite Rio Bonito Station, sheets 1 to 19, incl.
4-4-357	West Levee Feather River - Cox Ranch Upstream to Opposite Rio Bonito Station, 1 sheet.
4-4-384	Emergency levee repairs, right bank of Feather River, upstream and downstream from Gridley Bridge, in 1 sheet
4-4-424	Emergency bank protection, right bank Feather River, 1.93 miles upstream from Gridley Bridge
4-4-534	Levee Enlargement, West Levee Feather River, Butte County, 1 sheet.
50-4-4118	Bank protection various locations left bank Sacramento and American Rivers, right and left bank Feather River and Elder Creek. in 12 sheets.
50-4-4377	Bank Protection, Various Locations on Bear River and Feather River, Elder and South Dry Creek, in 14 sheets. (Unit No. 18)

EXHIBIT B
Unattached

(OVER)

50-4-5798

Bank protection Contract 43, left bank Feather River, Colusa
Basin Drain, Yolo and Sutter by-pass, in 35 sheets.

EXHIBIT C

PLATES OF SUGGESTED FLOOD FIGHTING METHODS
(See Standard Manual)

EXHIBIT C
Unattached

EXHIBIT D

CHECK LIST NO. 1
LEVEE INSPECTION REPORT
(See Standard Manual)

EXHIBIT D
Unattached

EXHIBIT E

CHECK LISTS OF LEVEES,
CHANNEL AND STRUCTURES

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

EXHIBIT F

Sheet 1 of 8

CHECK LIST NO. 2

UNIT NO. 152

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 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	

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 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.

CHECK LIST NO. 3

CHANNEL AND RIGHT-OF-WAY

UNIT NO. 152

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 of 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, fouling of the tainter gates, or the bridges over the channel.
- Item (d) Report any construction along 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.

CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES

UNIT NO. 152

Inspector's Report Sheet No. _____

Inspector _____

Date _____

Superintendent _____

(a) Location by Station	(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
1+90	Right						
12+00	"						
19+00	"						
19+30	"						
28+00	"						
44+50	"						
48+00	"						
52+50	"						
56+50	"						
69+08	"						
126+18	"						
127+00	"						
127+40	"						
128+00	"						
191+13	"						
195+60	"						
239+50	"						
252+10	"						
260+70	"						
267+20	"						
413+60	"						
437+30	"						
471+26	"						
128+40	"						

CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES

UNIT NO. 152

Inspector's Report Sheet No. _____

Date _____

Inspector _____

Superintendent _____

(a) Location by Station	(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
476+60	Right						
483+60	"						
490+50	"						
490+70	"						
494+50	"						
496+20	"						
502+20	"						
508+40	"						
508+70	"						
517+40	"						
517+60	"						
C/120+20	"						
C/140+75	"						
C/147+00	"						
170+00	"						

INSTRUCTIONS 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 distributed. 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

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

Standard O&M Manual Sacramento River Flood Control Project	
Unit No.	Project Name
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

Unit No.	Project Name
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

THE RECLAMATION BOARD

1416 Ninth Street, Room 455-6
Sacramento, CA 95814
(916) 445-9454



MAR 27 1990

Colonel Jack A. Le Cuyer
District Engineer
Sacramento District
U. S. Army Corps of Engineers
650 Capitol Mall
Sacramento, CA 95814-4794

Dear Colonel Le Cuyer:

Reference is made to your letter of November 22, 1989, concerning the transfer of a portion of the Sacramento River Bank Protection Project in Contract 43 to the State of California for operation and maintenance.

The flood control work consisted of selective clearing, bank sloping, placement of stone bank protection, and such miscellaneous work as necessary to complete the construction at the following sites:

1. Site Mile 51.1, Right Bank, Feather River.
2. Site Mile 8.5, Left Bank, Colusa Basin Drain
3. Site Mile 54.1, Left Bank, Yolo Bypass
4. Site Mile 64.0, Right Bank, Sutter Bypass

The sites were completed on November 14, 1989. The work was constructed in a workmanlike manner and in conformance with Drawing No. 50-4-5798, Specification No. 8367, and Contract No. DACW 05-88-C-0063, insofar as could be determined visually.

The Reclamation Board, at its regular meeting of December 15, 1989, formally accepted the completed work on the above referenced sites from the District Engineer for operation and maintenance.

If you have any questions concerning the above, please contact me at the above address or call Richard Goodnight at (916) 445-9335.

Sincerely,

A handwritten signature in cursive script, appearing to read "Raymond E. Barsch".

RAYMOND E. BARSCH
General Manager

*Units 123,
129, 132, 152*

*Copies to VRO
C.D. WILLIAMS*

C

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

[Handwritten signature]
[Handwritten signature]

January 10, 1990

Navigation and Flood Control Unit

The Reclamation Board
State of California
1416 - 9th Street, Room 455-6
Sacramento, California 95814

Members of the Board:

This is in regard to the joint inspection of January 5, 1990, made for the purpose of transferring a portion of the Sacramento River Bank Protection Project (Unit 43) to the State of California for operation and maintenance. The flood control work consists of bank sloping, placement of stone protection and miscellaneous work on the Feather River left bank at Site Miles 0.9, 1.5, 5.6, 5.9 and 6.4.

The sites were completed on December 8, 1989, in accordance with Contract Number DACW05-88-C-0063, Specification Number 8367 and Drawing Number 50-4-5798.

The work was performed under general authority of the Flood Control Act of 1960, 86th Congress, 2nd Session (PL 86-645, July 14, 1960), Section 2304(a), Title 10, and the Water Resources Development Act of 1986 (PL 99-662, October 17, 1986), and now meets the requirements of the Sacramento River Bank Protection Project. Therefore, said work together with the waterway bank contiguous thereto is transferred as of January 5, 1990 to the State of California for operation and maintenance. *[Handwritten initials: ROMPALA, KELLY, A. SMITH]*

This portion of the work will be added by amendment to the Operation and Maintenance Manual, Supplement Number 141, Part Number 1, Sacramento River Flood Control Project. Copies will be furnished to your office at a later date. *[Handwritten initials: HEN]*

Sincerely,

FAST

cc: O Div; Fld Cntrl Unit;
 Central Valley Sec; Prog
Dev; F&A Br; Valley Res
Ofc; Reading

Jack A. Le Cuyer
Colonel, Corps of Engineers
District Engineer

DENNIS

MASON

Copies Furnished:

DWR, ATTN: G. Snow; DWR, ATTN: G. Qualley; Cdr, SPD, ATTN: CESP-D-0;
Cdr, USACE, ATTN: DAEN-CECW-OM

Le CUYER

PC#UNIT43-5

EXHIBIT F

[Handwritten initials]

November 22, 1989

Navigation and Flood Control Unit

The Reclamation Board
State of California
1416 - 9th Street, Room 455-6
Sacramento, California 95814

done

Members of the Board:

This is in regard to the joint inspection of November 14, 1989, made for the purpose of transferring a portion of the Sacramento River Bank Protection Project (Unit 43) to the State of California for operation and maintenance. The flood control work consists of bank sloping, placement of stone protection and miscellaneous work on the Feather River right bank at Site Mile 51.1; Colusa Basin Drain left bank at Site Miles 8.5; Sutter Bypass right bank at Site Mile 64.0 and Yolo Bypass left bank at Site Mile 54.1.

The sites were completed on November 14, 1989, in accordance with Contract Number DACW05-88-C-0063, Specification Number 8367 and Drawing Number 50-4-5798.

The work was performed under general authority of the Flood Control Act of 1960, 86th Congress, 2nd Session (PL 86-645, July 14, 1960), Section 2304(a), Title 10, and the Water Resources Development Act of 1986 (PL 99-662, October 17, 1986), and now meets the requirements of the Sacramento River Bank Protection Project. Therefore, said work together with the waterway bank contiguous thereto is transferred as of November 14, 1989 to the State of California for operation and maintenance.

11-20
ROMPALA/mt
[Signature]
KELLY
[Signature]
A. SMITH

This portion of the work will be added by amendment to the Operation and Maintenance Manual, Supplement Numbers 123, 129, 132 and 152, Sacramento River Flood Control Project. Copies will be furnished to your office at a later date.

[Signature]
HELM
[Signature]
FAST
[Signature]
DENNIS
[Signature]
MASON

cc:
 O Div; Fld Cntrl Unit;
 Central Valley Sec; Prog
Dev; F&A Br; Valley Res
Ofc; Reading
Copies Furnished:

Sincerely,

Jack A. Le Cuyer
Colonel, Corps of Engineers
District Engineer

DWR, ATTN: G. Snow; DWR, ATTN: G. Qualley; Cdr, SPD, ATTN: CESP-D; Le CUYER
 Cdr, USACE, ATTN: DAEN-CECW-OM

PC#LTRUNIT43
02

*Units
123, 129,
132, 152*

C
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Y

THE RECLAMATION BOARD
STATE OF CALIFORNIA

C
O
P
Y

27 October 1970
Refer to: 4130.60.403
Contract 70-C-0088

District Engineer
Corps of Engineers
U. S. Army
650 Capitol Mall
Sacramento, California

Dear Sir:

Reference is made to your letter of October 20, 1970, concerning transfer to the State of California of a portion of the Sacramento River Bank Protection Project for maintenance and operation. The transferred sites were as follows:

<u>Waterway</u>	<u>Bank</u>	<u>Site Levee Mile</u>
Feather River	Right	4.25
	Left	10.60
South Dry Creek	Left	1.30, 2.00 and 3.50
Bear River	Right	2.50 and 3.85
	Left	4.20 and 4.60

This work was constructed in conformance with Specification No. 3426, Contract No. DACW05-70-C-0088, Drawing No. 50-4-4377 and is a portion of the work to be done on Unit No. 18.

The Reclamation Board at its meeting of October 23, 1970, formally accepted the above-referred to work for operation and maintenance.

Sincerely yours,

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

EXHIBIT F

20 October 1970

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

Gentlemen:

Reference is made to the joint inspection of 24 September 1970 made for the purpose of transferring a portion of the Sacramento River Bank Protection Project work (Unit #18), to the State of California for operation and maintenance.

The flood control work consists of bank sloping and placement of stone protection, as follows:

<u>WATERWAY</u>	<u>BANK</u>	<u>SITE LEVEL MILE</u>
Feather River	Right	4.25
	Left	10.60
South Dry Creek	Left	1.30, 2.00 and 3.50
Bear River	Right	2.50 and 3.85
	Left	4.28 and 4.60

A list covering the completed work is inclosed. The work was completed on 24 September 1970 in accordance with Specification No. 3426, Contract No. DACW05-70-C-0088, Drawing No. 50-4-4377. The work was performed under the general authority of the Flood Control Act of 1960, 86th Congress, 2nd Session and Section 2304(a), Title 10 and now meets the requirements of the Sacramento River Bank Protection Project. Therefore, said work together with the waterway banks contiguous thereto, is transferred as of 24 September 1970 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, Supplement Nos. 141 Part 1, 146 and 152,

Unit 141, 146, 152

to Casper Huber 21 Oct 70

SPKCO-0
The Reclamation Board

20 October 1970

Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

Sincerely yours,

1 Incl (in dupe)
List

JAMES H. HIGMAN
Lieutenant Colonel, CE
Acting District Engineer

Copy furnished:
DWR, ATTN: John Wright

OCE
SPD

cc:
Engr-Lev&Chan
Engr-Prog Dev
Valley
F&A(Cordano)

Wait
WAIT/pp

Coleman
COLEMAN

Johnson
JOHNSON

Hart
HART

Higman
HIGMAN

*Unit 141.1.14 61
152*

SUMMARY OF SACRAMENTO RIVER BANK PROTECTION
 UNIT #18 - FEATHER RIVER,
 SOUTH DRY CREEK & BEAR RIVER

<u>FEATHER RIVER:</u> <u>SITE LEVEE MILE</u>	<u>STONE PROTECTION</u>	<u>L.F.</u>	<u>STONE TOE WALL</u>	<u>L.F.</u>
4.25 Rt.	1+25 to 13+50	1225	2+50 to 3+50	100
10.60 Lt.	10+00 to 20+65	1065		
<u>SOUTH DRY CREEK:</u>				
1.30 Lt.	20+19 to 25+95 26+18 to 38+00	576 1182		
2.00 Lt.	1+00 to 6+00	500		
3.50 Lt.	124+00 to 140+00	1600		
<u>BEAR RIVER:</u>				
4.60 Lt.	17+00 to 0+55	1645		
4.28 Lt.	0+00 to 4+00	400		
3.85 Rt.	259+25 to 265+65	640		
2.50 Rt.	331+35 to 338+00	665		

Unit 18. 1/14/61, 152

THE RECLAMATION BOARD
State of California
January 11, 1966

C
O
P
Y

C
O
P
Y

District Engineer
Corps of Engineers
U. S. Army
650 Capitol Mall
Sacramento, California

Dear Sir:

Reference is made to your letter of November 29, 1965, concerning transfer to the State of California of the Sacramento River Bank Protection Project, Contract 14, ten sites between Sacramento and Gerber, in accordance with Specification No. 3283.

The Reclamation Board, at its meeting of January 6, 1966, formally accepted the above referred to work for operation and maintenance.

Sincerely yours,

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

29 November 1965

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

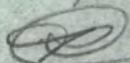
Gentlemen:

Reference is made to the joint inspections made on 17 & 19 November 1965, of flood control work pertaining to the Sacramento River Bank Protection Project for the purpose of transferring this work, upon completion, to the State of California for operation and maintenance.

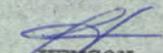
The flood control work, consisting of levee enlargement, levee set-back, shaping and placement of bank protection at 4 locations on Elder Creek near Highway U.S. 99W; one location on the Sacramento River at Hamilton Bend, three locations on the Feather River near Nicolaus and one location near the Gridley Bridge, and one location on the American River downstream from the "R" Street Bridge, as listed on the attached inclosure, was completed on 19 November 1965, in accordance with Specification No. 3283, Contract No. DA-04-167-CIVENG-66-28 and Drawing No. 50-4-4118.

cont. 14

The flood control work as described on the attached inclosure now meets the requirements of the Sacramento River Bank Protection Project. Therefore, said flood control works, together with the waterway banks contiguous thereto are transferred to the State of California for operation and maintenance.

Adm

COLEMAN/I

This portion of the project work will be added by amendment to the Operation and Maintenance Manual, Supplement Nos. 118-Elder Creek, 136, 141 and 152-Sacramento River Flood Control Project, and furnished your office at a later date.


HENSON

Sincerely yours,

ROBERT E. MATHE
Colonel, CE
District Engineer

*Units
118.1, 136/141,
152 + Vol 12
Elder Creek*


MATHE
cm

1 Incl
Summary Sheet

CERTIFIED MAIL

Copy furnished: RETURN RECEIPT REQUESTED
Dept Water Resources w/incl

cc: Lev & Chan; Prog Dev; Valley Res;
F&A (ATTN: C. Cordano)

1507-55

SUMMARY OF LEVEE UNITS - RIGHT & LEFT BANKS
AMERICAN RIVER, SACRAMENTO RIVER, FEATHER RIVER & ELDER CREEK

Date
14

LEVEE UNIT SITE MILE	LEVEE ENLARGEMENT	LINEAL FEET	LEVEE SETBACK	LINEAL FEET	BANK SLOPING	LINEAL FEET	STONE PROTECTION	LINEAL FEET	RIGHT OR LEFT BANK
<u>AMERICAN RIVER:</u>									
5.84					3+00to18+50	1550	3+00to18+50	1550	Left 118.1
<u>SACRAMENTO RIVER:</u>									
152.47							236+00to243+00	700	Left 130
<u>FEATHER RIVER:</u>									
6.5	16+00to31+00	1500	16+00to31+00	1500	77+00to86+00	800	78+00to86+00	800	Left } 141
7.5	2+00to10+00	800	2+00to10+00	800	31+00to32+00	100	16+00to32+00	1600	Left } 141
8.6					0+00to3+00	300	2+00to10+00	800	Left } 152
49.6					3+00to14+00	1100	0+00 to 14+00	1400	Right } 152
<u>ELDER CREEK:</u>									
0.56					16+25to22+00	575	16+25to22+00	575	Right } 119
1.25					62+60to70+50	790	62+60to70+50	790	Left } 119
1.46					62+00to70+00	800	62+00to70+00	800	Right } 119
1.85					124+50to131+00	650	124+50to131+00	650	Right } 119

THE RECLAMATION BOARD
of the
STATE OF CALIFORNIA

November 8, 1963

Refer to: 7001.70.602

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

Dear Sir:

Reference is made to your letter of October 17, 1963, concerning transfer to the State of California of levee strengthening and enlargement on the right bank of the Feather River from Vance Avenue to Sutter Butte Canal Headgates designated as Items 5a and 5e in the Supplement to the Memorandum of Understanding and completed in accordance with Specification No. 2949.

The Reclamation Board at its meeting of October 31, 1963, formally accepted the above referred to levee strengthening and enlargement work for operation and maintenance.

Sincerely yours,

A. E. McCOLLAM /s/
A. E. McCOLLAM
General Manager

Supplement 1

SPKGD-C

17 OCT 1963

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

Gentlemen:

Reference is made to the joint inspection made on 8 October 1963 of flood control work on a unit of the Sacramento River Flood Control Project for the purpose of transferring it to the State of California for operation and maintenance. Reference is also made to Supplement dated 29 November 1957 to the Memorandum of Understanding entered into with the State of California under date of 30 November 1953, covering added items of work required to complete the Sacramento River Flood Control Project.

The flood control work consisting of strengthening and enlargement of levee on right bank of Feather River from Vance Avenue to Sutter Buttes Canal Headgates, including construction of a turnaround, designated as Items 5a and 5e in the above referenced Supplement was completed on 5 October 1963 in accordance with Specification No. 2949, Contract No. DA-04-167-CIVENS-63-40, and Drawing No. 4-4-534.

The foregoing supplemental work having been completed to current standards for the Sacramento River Flood Control Project, is hereby transferred to the State of California for operation and maintenance. A manual for this portion of the project has already been furnished which adequately covers operation and maintenance requirements for the above item.

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

Sincerely yours,

ROBERT E. MATHE
Colonel, CE
District Engineer

C. R. TEAGLE
Lt Col, CE
Deputy District Engineer
Eng Div - Lev & Channels
Eng Div - Prog Dev Br

LD
10/15/63
HENSON/pp
THOMPSON
MATHE

Unit 152

Copy furnished:
Dept Water Res.

REGISTERED
RETURN RECEIPT REQUESTED

Items 5a 5e

C.C.E. & S.M.

THE RECLAMATION BOARD
OF THE
STATE OF CALIFORNIA
1500 O STREET
SACRAMENTO 14, CALIFORNIA

February 7, 1955

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

Gentlemen:

Reference is made to your letters dated May, 17, 1954, November 18, 1954, December 15, 1954, January 14, 1955, January 21, 1955, and January 31, 1955, concerning the transfer of levee sections and contiguous banks to the State of California for operation and maintenance, your File No. SPKKO-P 824.3 (Sacramento River F.C.P.).

The Reclamation Board at its meeting on February 2, 1955, deferred action on the above indicated transfers until such time as the report of its consulting engineers has been completed.

Yours very truly,

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

By Donald D. Lemmon
DONALD D. LEMMON
Assistant Secretary

NDL:Tab

May 17-1954	_____	237, 378 and 238 (Filed under unit No. 378)
Nov. 18-1954	_____	305 to 315
Dec. 17-1954	_____	379 to 387
Jan. 14-1955	_____	328 to 422, 104, 110, 112
Jan. 21-1955	_____	423 to 433, 128, 130, 131, 136
Jan. 31-1955	_____	434, 152

REGISTERED MAIL
Return Receipt
Requested

SPKRC-P 884.3 (Sacramento River F.C.P.)

31 JAN 1955

The Reclamation Board
State of California
1100 "O" Street
Sacramento, California

Gentlemen:

Reference is made to District Engineer's letter dated 22 November 1954 suggesting a joint inspection of a certain levee section pertaining to the Sacramento River Flood Control Project, for the purpose of transferring it to the jurisdiction of the State of California for operation and maintenance. Reference is also made to the joint inspection of this levee section made on 16 December 1954.

The levee section referred to above is described as follows:

LEVEE SECTION NO. 434; Westerly levee of the Farther River from Cox Ranch, Mile 47.3 to a point opposite Rio Bonito Station, Mile 57.6.

This levee section has been recently completed under Contract W-04-157-eng-1146 and Drawing No. 4-4-340, and now meets the requirements of the Sacramento River Flood Control Project. Therefore, said levee section, No. 434, together with the waterway bank contiguous thereto, is hereby transferred to the State of California for operation and maintenance.

It is to be noted that the levee section described above combined with other sections previously transferred to your jurisdiction now forms a continuous levee reach from Mile 7.5 to 60.8.

The maintenance work required under the provisions of the Sacramento River Flood Control 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 5 of the Act of Congress, approved 22 June 1936, as amended and supplemented by the

Contract 1146

Unit 7/52

Letter No 54

434

C. deARRIETA

SPKRC-F 224.5 (Sacramento River F.C.P.)
The Reclamation Board

current issue of the Standard Operation and Maintenance Manual for the Sacramento River Flood Control Project. As provided under Paragraph 208.10 (10) of these regulations, a supplement to the Standard Operation and Maintenance Manual covering this unit of work is in process of preparation and will be furnished to you upon completion.

A copy of this letter is being transmitted to the State Engineer.

Sincerely yours,

1 Incl
1. P.C. Reg.

Copy furnished:
State Engineer
Dept. of Public Works
Sacramento, Calif. w/o incl
CCE w/o incl
So.Pac.Divn.Engr. w/o incl

WM. J. ELY
Col, CE
District Engineer

cc: Engr. Divn.
Sacto. Proj. Off. w/o incl
c. de Arrieta (1)

A34

2

This copy was
furnished on
24 Feb. 1953
B. A.

Accepted
Items

December 18, 1951

The Board accepted the transfer from the Corps of Engineers, in letters of dates listed below, the following reaches of levees and their contiguous waterway banks where applicable for flood control operation and maintenance, as complete and meeting the requirements of the Sacramento River Flood Control Project.

No.	Date of Letter	Levee Location	Remarks
①-②	1 Dec. 1951	N. and S. Training* Levees Moulton Weir*	Maintained by State
③-④	Do	N. and S. Training* Levees Colusa Weir*	Maintained by State
⑥	3 Dec. 1951	W. Levee Sacramento River, Mile 177.5 Mile 174.1	Maintained as Maintenance Area No. 2
⑨	4 Dec. 1951	E. Levee Yolo By-pass Fremont* Weir to Miner Slough*	N. 2 mi. maintained by State. Remainder by local districts. Conditioned upon completion of levee section and no acceptance of banks of Sacramento Deep Water Channel.
⑩ ⑪	Do	N.&S. Levees Sacra- mento By-pass*	Maintained by State. Waterward slopes on 4 to 1 not required.
21a	6 Dec. 1951	Back levee Egbert District*	Maintained by R. D. No. 536
22	6 Dec. 1951	W. Levee Yolo By-pass Lindsey* Slough to Watson Hollow Drain*	Maintained by R. D. No. 536
24	Do	N. Levee Watson Hollow Drain*	Do
16	6 Dec. 1951	W. Levee Sacramento River Mile 59.0 to Lake Wash- ington Barge Canal	Maintained by R. D. No. 900
18	Do	W. Levee Sacramento Riv. Mile 50.8 to 50.5	Bank protection contract. Maintained by R. D. No. 765

Copy to USED.

①

Accepted Items

3

No. Date of Letter

Levee Location

Remarks

6 6 Dec. 1951

Levees of Wadsworth Canal*
South levees of E. and W.
Intercepting Canals.

Maintained by State. Water-
ward slopes on 4 to 1 not
required.

(12) (13) (14) (15)

7 7 Dec. 1951

Site 2 Part A. W. Levee
Sacramento River-Mile
28.5 -Grand Island.

Maintained by R.D. No. 3.
Completed contract.

= 329

(87-A)

= 331

(89-A)

Site 1, Part B. E. levee
Sacramento River-Mile 15.0
Brannan Island.

Maintained by R.D.No. 2067
Completed contract.

8 8 Dec. 1951

W. levee Sacramento River
Mile 163.8 to Mile 143.5
except 320 ft. at Colusa
Warehouse & Mile 146.1
to Mile 146.4.

Maintained as Maintenance
Area No. 1.

(51) (52) (53) (54) (55) (56) (57)

8 Do

E. levee Sacramento River,
Mile 153.3 to Mile 152.7;
Mile 149.9 to Mile 149.7;
Mile 149.4 to Mile 149.0;
at Colusa Weir; Mile 143.3
to Mile 140.2; Mile 139.3
to Mile 138.2.

Maintained by State
Separate completed contracts.

(58) (59) (60) (61) (62) (63)

8 Do

E. levee Sacramento River
Mile 138.2 to Mile 137.9;
Mile 136.9 to Mile 133.8;
Mile 133.2 to Mile 132.3;
Mile 131.8 to Mile 125.9;
Mile 125.8 to Mile 123.1;
Mile 122.6 to Mile 122.0.

Maintained by R.D.No. 70,
Completed contracts.

(64) (65) (66) (67) (68) (69) (70)

8 Do

West levee, Sutter By-pass*

Maintained by R.D.Nos. 70,
1660, 1500. Condition upon
completion of remaining
part to standard section.

(71) (72) (73)

(74) 8 Do

North levee Tisdale
By-pass†

Maintained by R.D.No. 1660.
Waterward slope of 4 to 1
not required.

(75) 8 Do

South levee Tisdale
By-pass†

Maintained by R.D.No. 1500.
Waterward slope of 4 to 1
not required.

(76) 8 Do

East levee Sutter
By-pass*.

Maintained by State.

(81) 9 Do

W. levee Sacramento River
Mile 35.15 to 35.86.

Maintained by R.D.No. 150
(Merritt Island). Completed
contract bank protection.

(2) (21)

Accepted Items

No.	Date of Letter	Levee Location	Remarks
(91) 10	8 Dec. 1951	Cross levee Steamboat Slough to Sacramento River.*	Maintained by R.D. No. 3 (along U.S.spoil bank).
(140) 11	Do	N. levee American River from Jibboom St. Bridge to Sacramento River.	Maintained by R.D. No. 1000.
(141) 11	Do	E. levee Sacramento River American River to Natomas Cut.	Maintained by R.D.No. 1000.
(142) 11	Do	E. bank Sacramento River At Moulton Weir.	Maintained by State.
(143) 11	Do	E. Levee Sacramento River Mile 158.5 to Mile 164.4.	Maintained partly by State; remainder by Levee District.No. 3, Glenn County, Completed Contract.
(146) 11	Do	W. levee Sacramento River Mile 61.8 to Mile 62.65.	Maintained by Maintenance Area No. 4. Completed contract.
(147) 11	Do	W. Levee Sacramento River Mile 62.65 to Mile 63.1.	Maintained by R.D. No. 537 Completed contract.
(148) 11	Do	Sacramento Weir.	Maintained by State.
(152) 11	Do	Fremont Weir.	Maintained by State.
11	Do	W. Levee Sacramento River Mile 87.6 to Mile 88.4;	Maintained by R.D. No. 730 Completed contracts.
(155) (156) (157)		Mile 89.2 to Sycamore Slough	
(158) 11	Do	W. Levee Sacramento River Mile 100.6 to Mile 101.4	Maintained by Sacramento River West Side Levee District. Completed contract.
11	Do	W. Levee Feather River except: 3.31 Mi. North from Nicolaus Bridge; 1400 ft. in Yuba City; from Sta.774+80 to Sta. 1188+00 of "Y.C.H.B" Traverse.	Maintained by Maintenance Area No. 3, Levee Dist. Nos. 1 & 9 of Sutter Co. Recl. Dist.No. 777 and State.
(160) (161) (162) (163)			
(164) 11	Do	E. Levee Sacramento River, Natomas Cut to Feather River	Maintained by Recl.Dist.No.1001.
11	Do	E. Levee Feather River from mouth to Mile 26.5, except from 2.37 miles of Nicolaus Bridge to Bear River	Maintained by R.D. Nos. 1001 and 784.
(165) (166) (167) (168) (169) (170)			

Accepted
Items

No.	Date of Letter	Levee Location	Remarks
11 (171) (172)	8 Dec. 1951	Marysville levees from W.P.R.R. at Simmerly Slough E. to Yuba River and from D St. Bridge on Yuba River upstream to Valley Meat Co.	Maintained by Marysville Levee Commission.
11 (173) (174)	Do	N. Levee Simmerly Slough from W.P.R.R. to S.P.R.R. and E. Levee Feather River from Simmerly Slough upstream 4.8 miles	Maintained by R.D. No. 10 Completed contract.
11 (175)	Do	N. Levee Yuba River from back levee of Marysville upstream 1.8 miles	Maintained by Marysville Levee Commission.
11 (176)	Do	S. Levee Yuba River from S.N.R.R. to S.P.R.R.	Maintained by R.D. No. 784.
11 (177)	Do	N. Levee Bear River from Feather River to W.P.R.R. Interceptor	Maintained by R.D. No. 784.
11 (178)	Do	E. Levee R.D. 784 (W. Levee W.P.R.R. Interceptor) Bear River to intersection with W.P.R.R. in S $\frac{1}{2}$ Sec. 17, T. 14 N., R. 4 E.	Maintained by R.D. No. 784.
11 (179) (180)	Do	S. Levee American River from 16th St. Bridge to Mayhew except from S.N.R.R. to a point 800 ft. E. of W.P.R.R.	Maintained by American River Flood Control District.
11 (181) (182) (183) (184) (185) (186) (187) (188)	Do	W. Levee Yolo By-pass from Sacramento River to Putah Creek except from N. line Cache Cr. Settling Basin to S.N.R.R. & from old Willow Slough pipes south 1.48 mi.*	Maintained by State and R. D. #2035.
11 (190)	Do	N.&S. levees Willow Slough Interceptor*	Maintained by State and R. D. No. 2035.
11 (191) (192)	Do	N.&S. levees of Putah Creek	Maintained by State.
11 (197) (198)	Do	N.&S. levees Sycamore Slough from Sacramento River to Knights Landing Outfall Gates	Maintained by R.D. 730 and Sacramento River West Side Levee District.

21

4

Accepted
Items

<u>No.</u>	<u>Date of Letter</u>	<u>Levee Location</u>	<u>Remarks</u>
------------	-----------------------	-----------------------	----------------

12 8 Dec. 1951

Five reaches of Ryer Island levee along Miner Slough as follows:

a. Junction Miner and Sutter Sloughs westerly 5000 feet.
 b. From State Highway Bridge West. 3035 ft.

c. Spec. 1473, Sta. 53+00 to 64+00 about one mi. No. of Ryde Road. *Mile 29.4 to 29.6*

d. Spec. 1473, Sta. 0+00 to 12+00 being 600 ft. each side of Ryde Road. *Mile 30.4 to 30.6*

e. Ryer Island cut-off levee beginning at east bank of Cache Slough and extending upstream 3,300 feet at junction of Cache and Miner Sloughs.

Maintained by R.D. No. 501. All are completed separate contracts.

Covered by letter dated 16 Nov. 1951

321

32

79A

303

Covered

53A

by letter dated

304

17 Nov. 1951

54A

23

50

*No waterway banks contiguous to these levees.

R E S O L U T I O N

PASSED AND ADOPTED BY THE RECLAMATION BOARD

APRIL 7, 1948

- - -

WHEREAS The Reclamation Board has heretofore approved a certain item of "new construction"; consisting of the enlargement, set back and reconstruction of the west levee of the Feather River from opposite Rio Bonito Station upstream 3.5 miles; and

WHEREAS the Department of the Army, Corps of Engineers, District Engineer, Sacramento District, under date of March 18, 1948, has notified The Reclamation Board of the completion of said item of levee enlargement, set back and reconstruction, and has transferred said portion of levee to the State of California for maintenance and operation; and

WHEREAS the Chief Engineer of The Reclamation Board has caused to be made an inspection on the ground of the item of new construction as specified above, and has found and determined that such work, as completed, has been prosecuted and carried out in conformance with plans and specifications therefor; now therefore be it

RESOLVED AND ORDERED that The Reclamation Board does hereby accept for the State of California the said item of "new construction" as aforesaid, which has on the date above set forth been transferred to said Board by the Department of the Army, U. S. District Engineer; and be it further

RESOLVED AND ORDERED that the west levee of the Feather River from opposite Rio Bonito Station upstream 3.5 miles, together with the berms and appurtenant structures thereof, be and the same is hereby turned over to the Department of Public Works, acting by and through the State Engineer, for maintenance and operation, as the legally authorized function of said State Engineer, pursuant to the provisions of the Water Code of the State of California.

Manual No. 13

152
14

STATE OF CALIFORNIA)
COUNTY OF SACRAMENTO) SS
Office of The Reclamation Board)

I, S. A. HONAKER, Assistant Secretary of The Reclamation Board, do hereby certify that the attached is a true and correct copy of a Resolution passed and adopted by said Board at its meeting held April 7, 1948.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of The Reclamation Board, this 15 day of April, 1948.

S. A. Honaker
S. A. HONAKER
Assistant Secretary



Manual No. 13

152

(13)

Arrieta

PSEKKB

18 March 1948

**SUBJECT: Maintenance of the West Levee of Feather River from
opposite Rio Bonito Station upstream 3.5 miles**

The Reclamation Board
State of California
1100 "O" Street
Sacramento, California

Gentlemen:

Construction of the West Levee of the Feather River, from opposite Rio Bonito Station upstream 3.5 miles, has been completed. Therefore, in accordance with established procedure, this portion of completed levee is hereby transferred to the State of California for maintenance.

This construction forms an integral part of the Sacramento River Flood Control Project. The details and extent of the work are shown on inclosed drawing No. 4-4-282, in three sheets, entitled "Levee Construction, West Levee, Feather River from opposite Rio Bonito Station Upstream 3.5 miles."

There also is inclosed a copy of Flood Control Regulations prescribed by the Secretary of War, now referred to as the Secretary of the Army, pursuant to provisions of Section 3 of the Act of Congress approved 22 June 1936, as amended and supplemented, to govern the maintenance and operation of Flood Control Works, of which the levee referred to above is a part. In accordance with paragraph 208.10(10) of said regulations, at a later date this office will furnish your Board and local interests with an Operation and Maintenance Manual to assist in carrying out their obligations established by these regulations.

For the records of this office, acknowledgment of receipt of this letter is requested on or before 30 April 1948.

Copy of this letter, with inclosures, is being transmitted to the State Engineer.

2 Incls.
Drawing 4-4-282(3 sheets)
Flood Control Regulations
(all in trip.)

S. Manual No 13

152

Copy furnished:
State Engineer, with incls.

16

C
O
P
Y

THE RECLAMATION BOARD
of the
STATE OF CALIFORNIA
1100 "O" Street
Sacramento 18, California
March 11, 1953

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

Dear Sir:

Reference your letters file No. SPKKO-P 824.3 (Sac. R.F.C.P.) dated 1 December 1951, 3 December 1951, 4 December 1951, three letters dated 6 December 1951, 7 December 1951 and six letters dated 8 December 1951. Subject letters transferred to the Reclamation Board for operation and maintenance, various levee units of the Sacramento River Flood Control Project.

The Reclamation Board at its 18 December 1951 meeting, on behalf of the State of California, accepted certain of the transferred units together with their contiguous waterway banks for operation and maintenance, and rejected others. A tabulation of the units so accepted or rejected is attached hereto.

Yours very truly,
Yours very truly,

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

By /s/ D. M. Carr
D. M. CARR

December 18, 1951

The Board accepted the transfer from the Corps of Engineers, in letters of dates listed below, the following reaches of levees and their contiguous waterway banks where applicable for flood control operation and maintenance, as complete and meeting the requirements of the Sacramento River Flood Control Project.

No.	Date of Letter	Levee Location	Remarks
--	--	--	--
--	--	--	--
11	8 Dec. 1951	W. Levee Feather River except: 3.31 Mi. North from Nicolaus Bridge; 1,400 ft. in Yuba City; from Sta. 774+80 to Sta. 1188+00 of "Y.C.H.B." Traverse	Maintained by Maintenance Area No. 3, Levee Dist. Nos. 1 & 9 of Sutter Co. Recl. Dist. 777 and State
--	--	--	--

Note: Only items pertaining to Manual No. 152 contained in this copy.

C
O
P
Y

THE RECLAMATION BOARD
of the
STATE OF CALIFORNIA
1100 "O" Street
Sacramento 14, California
June 16, 1955

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

Dear Sir:

Reference is made to your letter dated January 31, 1955, your file No. SPKKO-P 824.3 (Sacramento River F.C.P.), concerning the transferring to the jurisdiction of the State of California for operation and maintenance a certain section of the Feather River westerly levee from mile 47.3 to mile 57.9.

The Reclamation Board, at its meeting on June 15, 1955, accepted the above levee section, together with its contiguous bank, for operation and maintenance.

Yours very truly,

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

By /s/ Donald D. Lemmon

DONALD D. LEMMON
Assistant Secretary

EXHIBIT G

SUGGESTED SEMI-ANNUAL REPORT FORM

CORPS OF ENGINEERS, U. S. ARMY
Office of the District Engineer
SACRAMENTO DISTRICT
Wright Bldg., 1209-8th St.
Sacramento, California

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__)

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 surface at Gridley Bridge gage reached or exceeded a reading of 95.0) occurred on the following dates:

<u>Dates</u>	<u>Maximum 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 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