
**SUPPLEMENT TO STANDARD
OPERATION AND MAINTENANCE
MANUAL**

**SACRAMENTO RIVER
FLOOD CONTROL PROJECT**

UNIT NO. 141 — PART NO. 1

**EAST LEVEE OF FEATHER RIVER FROM
BEAR RIVER TO NATOMAS CROSS CANAL**

AND

SOUTH LEVEE OF BEAR RIVER

AND

BOTH LEVEES OF YANKEE SLOUGH



SACRAMENTO DISTRICT

CORPS OF ENGINEERS

U. S. ARMY

SACRAMENTO, CALIFORNIA

CORPS OF ENGINEERS
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Sacramento District
Corps of Engineers
U. S. Army
August 1955

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LOCATION	ADDITION OR REVISION	DATE
1-04 e.	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 f.	Add contract no. 66-50	Dec 1966
Exhibit B	Add drawing no. 50-4-4004	Dec 1966
Exhibit F	Add letter of acceptance dated 28 Jun 1966	Dec 1966
1-04 g.	Add contract no. DACW05-68-C-0014	Nov 1969
Exhibit B	Add drawing no. 50-4-4078	Nov 1969
Exhibit F	Add copy of letter of acceptance dated 13 Nov 1969	Nov 1969
1-04 h.	Add contract no. 70-0088	Feb 1971
Exhibit B	Add drawing no. 50-4-4377	Feb 1971
Exhibit F	Add copy of letter of acceptance dated 27 Oct 1970	Feb 1971
1-04	Add subparagraph i.	Nov 1983
Section II, page 8	Add paragraph 2-05	Nov 1983
Exhibit B	Add drawing no. 50-4-5433	Nov 1983
Exhibit F	Add copy of letter of transfer dated 4 Dec 1979	Nov 1983
1-04	Add subparagraph j. contract no. DACW05-86-0107	May 1988
Exhibit B	Add drawings BE-4-14 (sheets 1&2)	Mar 1988
1-04	Add subparagraph k.	Sep 1990
Exhibit B	Add drawing no. 50-4-5798	Sep 1990
Exhibit F	Add copy of letter of transfer dated 10 Jan 1990	Sep 1990
1-04	Add subparagraph l	Nov 2010
Exhibit B	Add Plan Sheets (dated 09/24/07) G-1, C-1 to C-6 (7 Sheets) Add Plan Sheets (dated 02/15/08) G-1, C-1 to C-6 (7 Sheets)	Nov 2010
Exhibit F	Add copy of letter of transfer dated 25 Jan 1946	27 Dec 2010
Exhibit F	Add copy of letter of acceptance dated 6 Feb 1946	27 Dec 2010
Exhibit F	Add copy of letter of transfer dated 8 Dec 1951	27 Dec 2010
Exhibit F	Add copy of letter of transfer dated 13 Dec 1951	27 Dec 2010

LOCATION	ADDITION OR REVISION	DATE
Exhibit F	Add copy of letter of acceptance dated 18 Dec 1951	27 Dec 2010
Exhibit F	Add copy of letter of transfer dated 2 Oct 1952	27 Dec 2010
Exhibit F	Add copy of letter of transfer dated 10 Nov 1959	27 Dec 2010
Exhibit F	Add copy of letter of acceptance dated 24 Nov 1959	27 Dec 2010
Exhibit F	Add copy of letter of transfer dated 20 Jan 1987	27 Dec 2010
1-04	Add subparagraph m	2 Feb 2011
Exhibit B	Add drawing no. 4-4-542	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 6 Dec 1963	2 Feb 2011
Exhibit F	Add copy of letter of acceptance dated 7 Jan 1964	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 29 Nov 1965	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 20 Jun 1966	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 29 Apr 1969	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 20 Oct 1970	2 Feb 2011
Exhibit F	Add copy of letter of acceptance dated 20 Dec 1979	8 Mar 2011
Exhibit F	Add copy of letter of transfer dated 4 Jan 2011	24 May 2011

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EXHIBITS

<u>Exhibit</u>	<u>Description</u>	
A	Flood Control Regulations - - - - -	Unattached (Contained in Standard Manual)
A-1	Location Drawing - - - - -	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, Channels and Structures - -	Sheets 1 thru 8
F	Letter of Acceptance by State Reclamation Board -	Sheets 1 thru 4
G	Semi-Annual Report Form - - - - -	Sheets 1 and 2

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SECTION I

INTRODUCTION

1-01. Location. The improvement covered by this manual is Unit No. 141-Part No. 1 of the Sacramento River Flood Control Project. Levees and channels of this unit lie east of the Feather River, north of the City of Sacramento and southwesterly from the town of Wheatland. The area is located in Reclamation District No. 1001 in the Counties of Sutter and Placer, California and the general vicinity is as shown on the Location Map, Exhibit A-1.

1-02. Project Works. The flood control works included in this manual was authorized by the Flood Control Act of 1917 as modified by the Acts of 1928, 1937, and 1941, and consists of the following:

a. The east levee and channel of the Feather River from the Bear River downstream to the Natomas Cross Canal, except that portion which extends from the Bear River (a point about one mile upstream from the Nicolaus Bridge) downstream to a point located 2.37 miles downstream from the Nicolaus Bridge.

b. The south levee and channel of the Bear River from high ground downstream to the Feather River, except a portion about 3,500 feet long which lies between the S.N.R.R. track crossing and the W.P.R.R. track crossing.

c. The channel and both levees of Yankee Slough extending from high ground downstream to the Bear River.

Part No. 1 of Unit No. 141 completes Unit No. 141 with the exceptions listed above. At such time when the excepted portions of this unit are completed to project standards, a revised Operation and Maintenance Manual will be written to cover the entire unit.

This manual covers and supersedes operation of the Operation and Maintenance Manual designated as Manual No. 5 entitled, "Bear River levee system constructed in vicinity of Rio Oso, Sutter County, California, approximately' 28 miles northerly of Sacramento, California." The portion of Manual No. 5 which is included in Unit No. 141-Part No.1 is the south levee of the Bear River.

1-03. Protection Provided. Levees of the Feather River, Bear River and Yankee Slough, as described in this unit, provide direct protection to adjacent agricultural lands against flood water of the Feather River, Bear River and Yankee Slough. Along the east levee of the Feather River within this unit the grade of the adopted flood plane profile varies from elevation 56.2 at its junction with the Bear River to elevation 41.8 at the Natomas Cross Canal. Along the south levee of the Bear River the grade of the adopted flood plane profile varies from elevation 114.9 at the upper end to elevation 56.2 at its junction with the Feather River. Along Yankee Slough the grade of the adopted flood plane profile varies from elevation 76.2 at the upper end to elevation 59.9 at the W.P.R.R. crossing near the junction of Yankee Slough and the Bear River. Levee grades within this unit provide for a freeboard of at least 3 feet above the adopted flood plane profile. Within this unit the project design floods are: 320,000 cubic feet per second for the Feather River, 40,000 cubic feet per second for the Bear River and 2,500 cubic feet per second for Yankee Slough.

1-04. Construction Data and Contractor. In addition to levees as built by local interests and emergency repair work done by the U. S. Army Corps of Engineers, construction required to bring levees of this unit to project standards was accomplished under the following contracts:

a. Enlargement of the north levee of Yankee Slough, as shown on Drawing No. 2-4-62 of Exhibit B, Has accomplished under Contract No. W-1105-167-eng-2334 by Morrison-Knudsen Co. and completed on 3 October 1938.

b. Construction of slab levee along the W.P.R.R. from Yankee Slough to the Bear River, as shown on Drawing No. 2-4-65, sheet 1 of Exhibit B, was accomplished under Job Order No.426 and completed on 6 December 1938.

c. Enlargement of the south levee of the Bear River from W.P.R.R. upstream 4 miles, as shown on Drawing No. 2-4-106, sheets 2 and 3 of Exhibit B, was accomplished under Contract No. W-104-167-eng-633 by H. Earl Parker and completed on 6 October 1945.

d. Surfacing of levee crown for patrol road purposes along both levees of Yankee Slough and along the upper portion of the south levee of the Bear River, as shown on Drawing No. 50-4-2897, sheet No.1, was accomplished under Contract No. DA-04-167-eng-828 by Browne and Krull and completed on 2 December 1952.

e. Bank protection on the left 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).

f. Bank protection (Unit No.8) at three locations on the left bank of the Bear River at levee Miles 4.90, 7.12 and 11.6 was accomplished under Contract No. DA-04-167-CIVENG-66-50 by H. Earl Parker Inc. during the period from 18 October 1965 to 14 June 1966. Specification No. 3154, Drawing No. 50-4-4004.

g. Stone protection and levee enlargement on the left bank of the Feather River at Site Miles 1.9, 2.2 and 5.75 (a portion of Unit 12 Sacramento River Bank Protection Project was accomplished under Contract No. DACW05-68-C-0014 by A. Tiechert & Son during the period from 28 August 1961 to 18 April 1969. Specification No. 3288, Drawing No. 50-4-4078.

h. Bank protection at one location on the left bank of Feather River at levee mile 10.60 and on the left bank of Bear River at levee miles 4.20 and 4.60. All work 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.

i. Bank sloping, stone protection and selective clearing on the left bank of the Sacramento River at Site Mile 79.0 (a portion of Unit 34) was accomplished under Contract No. DACW05-78-C-0046 by Claude C. Wood. Construction was completed on 7 November 1979. Specification No. 5403, Drawing No. 50-4-5433.

j. PL84-99 Emergency Levee Repairs on the right bank of Yankee Slough upstream of Swanson Road were accomplished under Contract No. DACW05-86-0107 by Ford Construction Company, Inc., during the period from 20 September 1986 to 13 November 1986 (Ref. Drawing File No. BE-4-14, sheets 1 & 2, and Specification No. 8010). Federal cost, which included levee repairs on Bear River and Natomas Cross Canal, totaled \$212,997.18.

k. Bank sloping, stone protection and selective clearing on the left bank of the Feather River at Site Miles 0.9, 1.5, 5.6, 5.9, and 6.4 (a portion of contract 43) was accomplished under Contract No. DACW05-88-B-0055. Specification No. 8367, Drawing No. 50-4-5798.

l. PL 84-99 rehabilitation repairs on the left bank levee of Yankee Slough and the left bank levee of Bear River were accomplished under two contracts (see tables 1 and 2 for locations). Contract No. W91238-06-D-0029, covering one site on the left bank levee of Bear River and one site on the left bank levee of Yankee Slough (site 007-005C), was completed on November 15, 2007. Contract W91238-08-D-0016 (Task Order No. 0003), covering 5 sites on the left bank levee of Yankee Slough, was completed on September 20, 2008. Contract No. W91238-08-D0016 (Task Order No. 0003) was performed by Santos Excavating, Inc. Specifications: P.L. 84-99 Levee Rehabilitation Repairs. Drawings: "PL 84-99 Levee Rehabilitation Repairs, Cy2008 Order 3-5 Sites, Reclamation District 1001". There are two sets of drawings with this name, one covering the one site on Yankee Slough and one site on Bear River dated 9-24-07, and the other set of drawings cover the 5 sites on Yankee Slough dated 2-15-08. The Natomas Cross Canal repair sits shown in the drawings are not part of this transfer.

TABLE 1: BEAR RIVER

SITE	COORDINATES (NAD 83)				SITE LENGTH (FT)
	(N)	(W)	(N)	(W)	
007-002	38.96917, -121.54361 to 38.96849, -121.54362				125

TABLE 2: YANKEE SLOUGH

SITE	COORDINATES (NAD 83)				SITE LENGTH (FT)
	(N)	(W)	(N)	(W)	
007-005C	38.97031, -121.50230 to 38.97023, -121.50261				80
5G	38.97025, -121.49310 to 38.97011, -121.49335				80
5F	38.96960, -121.49503 to 38.96972, -121.49587				230
5E	38.96978, -121.49657 to 38.97000, -121.49754				280
5D	38.97011, -121.49922 to 38.97017, -121.49935				45
5A	38.96748, -121.50989 to 38.96741, -121.51055				190

m. Bank protection,, road construction and levee shaping along the left bank of the Feather River for a distance of 1400 feet at River Mile 6.7 was completed on 30 November 1963 under Contract No. DA-04-167-CIVENG-64-33. Specification No. 2985, Drawing No. 4-4-542.

1-05. Flood Flows. For purposes of this manual, the term "flood" or "high water period" for the Bear River and Yankee Slough portion of this unit shall refer to flows when the water surface in the Bear River reaches or exceeds the reading of 11.0 feet on the U. S. Geological Survey gage located on the right bank of the Bear River, 100 feet downstream from the U. S. Highway 99E near Wheatland, California. (Zero on this gage and on the staff gage on downstream side of highway bridge is approximately elevation 80.4 feet U. S. Corps of Engineers datum.) Such term for the Feather River portion of this unit shall refer to flows when the water surface in the Feather River reaches or exceeds the reading of 43.0 feet on the State Division of Water Resources and U.S.G.S. gage located on the left bank of the Feather River about 2,000 feet downstream from Nicolaus. (This water stage recorder and staff gage is set on U. S. Corps of Engineers datum.)

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 State Reclamation Board. Responsibility for operating and maintaining the completed works was officially accepted by the Reclamation Board of the State of California on 18 December 1951, 2 January 1952 and 2 December 1952, 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.

SECTION II

FEATURES OF THE PROJECT SUBJECT TO FLOOD CONTROL REGULATIONS

2-01. Levees.

a. Description. The levees described in this manual are located along the east side of the Feather River, along the south side of the Bear River and along both banks of Yankee Slough and extend as indicated in paragraph 1-03 of this manual. All levees of this unit were originally built by local interests and portions of the south levee of the Bear River and both levees of Yankee Slough have been rebuilt by the Corps of Engineers to project grade and section. For more complete detail of items in the reconstruction of above mentioned levees, 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 levees are listed as follows:

<u>Location Station</u>	<u>Size and Kind of Pipe</u>	<u>Other Structure Description</u>	<u>Invert Elev. of Pipe</u>
-----------------------------	----------------------------------	------------------------------------	---------------------------------

East Levee of Feather River (See Dwg. 4-13-94- of Exhibit B)

River
Mileage

3.1	12" Steel		44.0
3.3	10" Steel	Abandoned	42.3
6.0	14" Steel	Butterfly valve R.S.	40.1
7.0	10" Steel	Gate valve R. S.	49.9

Location Station	Size and Kind of Pipe	Other Structure Description	Invert Elev. at Pipe
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South Levee of Bear River (See Dwg. 2-13-82 of Exhibit B)

314+00	24" Steel	Slidegate R. S.	102.2
329+82	3'x2' Concrete	Flashboard headgate R. S.	101.0
354+20	24" C.M.P.	Slidegate R. S.	97.5
369+00	18" C.M.P.		
375+30	22" Steel	Flashboard R. S.	97.2
949+00	30" Steel	Slidegate R. S.	95.5
907+75	16" Steel		84.7
834+00	14" Steel	Abandoned	90.8
701+80	6" Steel	Abandoned - capped L. S.	65.5
284+75	12" C.M.P.	Slidegate R. S.	45.2

North Levee of Yankee Slough (See Dwg. 2-13-82 of Exhibit B)

314+16	18" Concrete	Flapgate R. S.	62.9
303+60	18" Concrete	" "	63.7
282+50	18" "	" "	61.6
266+64	18" "	" "	57.6
256+10	18" "	" "	58.8
250+80	8" "	" "	59.7
235+00	18" "	" "	57.7
198+00	18" C.M.P.	" "	53.5
0+00	30" C.M.P.	" "	42.5
0+00	12" Steel		52.0

South Levee of Yankee Slough (See Dwg. 2-13-82 of Exhibit B)

67+75	36" C.M.P.	Flapgate R. S.	50.0
41+35	24" C.M.P.	" "	49.0

Note on abbreviations:

L.S. = Landside
R.S. = Riverside
C.M.P. = Corrugated Metal Pipe

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. Channels.

a. Description. The main channel and floodways of the Feather River, Bear River and Yankee Slough for this unit lie adjacent to levees as described in paragraph 1-02. The project design capacities of said channels are as listed in paragraph 1-03 of this manual.

The maintenance and operation of the channel of the Feather River, within this unit, shall be limited to flood control and the requirements which follow shall be observed only to that extent. The maintenance of the channels of Bear River and Yankee Slough shall be performed in complete accordance with the Federal Control Regulations.

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 - 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 in excess of a reading of 11.0 on the gage located on the Bear River near Highway 99E and a reading of 43.0 on the gage located on the Feather River near Nicolaus, 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 in the Bear River or the Feather River reaches the gage readings indicated above. The Superintendent shall cause readings to be taken at said gages at intervals of two to four hours during the period when the water surface is above

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 3-06 of the Standard Manual.

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) Bridges.

(a) S.P.R.R. Bridge crossing the Bear River near Wheatland.

(b) Highway 99E Bridge crossing the Bear River near Wheatland

(c) Carlin Road Bridge crossing the Bear River and another bridge crossing Yankee Slough near station 703+90 of Bear River traverse.

(d) W.P.R.R. Bridge crossing the Bear River and Yankee Slough near Rio Oso (same bridge and trestle).

(e) Sacramento Northern Railroad trestle crossing the Bear River near Rio Oso.

(f) County road bridge crossing the Bear River at Rio Oso.

(g) Highway Bridge crossing the Feather River at Nicolaus.

(2) Utility Relocation. Because of the nature of the construction of structures by local interests, records of utility relocations are not available.

(3) Hydrographic Facilities. Hydrographic facilities provided within this unit consist of the following:

(a) U. S. Geological Survey continuous water stage recorder and staff gage located on the right bank of the Bear River, 100 feet downstream from U. S. Highway 99E near Wheatland.

(b) State Division of Water Resources and U. S. G. S. continuous water stage recorder and staff gage located on the left bank of the Feather River about 2,000 feet downstream from Nicolaus. These gages are maintained by the Government agencies indicated above.

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.

2-05. Environment Protection.

a. Vegetation left during construction on the waterside berm or slope above the bank protection shall not be removed under normal maintenance. Dead trees with wildlife value will be retained except where they are a hazard to existing flood control works. *

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 Revised Standard Manual, where the subject is fully covered.

EXHIBIT A

FLOOD CONTROL REGULATIONS
(See Standard Manual)

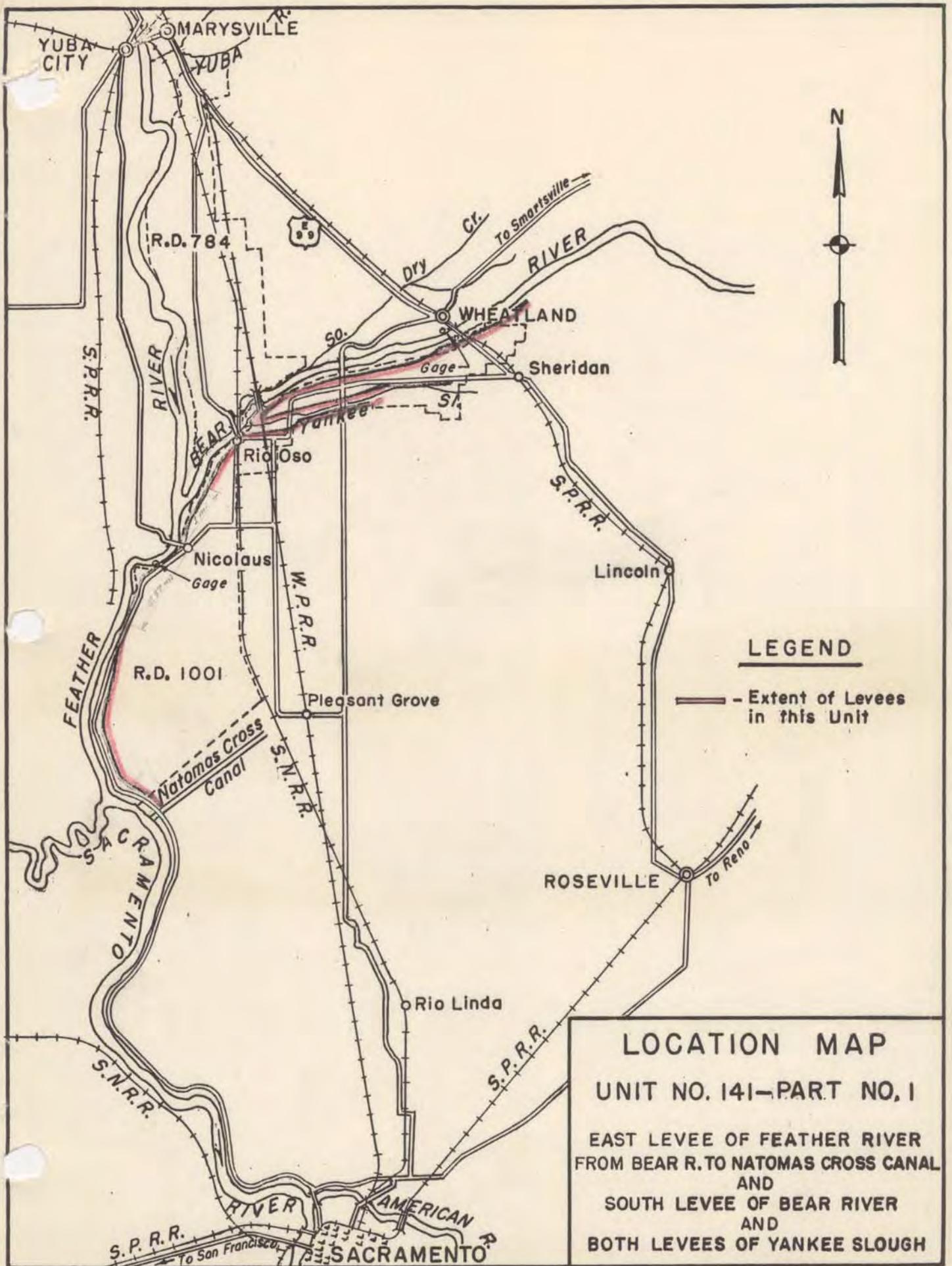


EXHIBIT B

“AS CONSTRUCTED”
DRAWINGS

See separate folder for the following drawings:

<u>Drawing No.</u>	<u>Title</u>
4-13-94	Feather River from Marysville to its Mouth. Sheets 7 to 13, incl.
2-13-82	Bear River Levee System Sheets 1, 2, 3, 4, 5, 7, 13.
2-4-62	Proposed Work Along North Levee of Yankee Slough, 1 sheet.
2-4-106	Proposed Levee enlargement of Bear River Levees. Sheets 2 and 3.
2-4-65	Proposed Slab Levee Along W.P.R.R. Sheet 1.
50-4-4118	Bank protection various locations left bank Sacramento and American Rivers, right and left banks Feather River and Elder Creek, in 12 sheets.
50-4-4004	Bank Protection, Various Locations, Rt. And Lt. Banks Sacramento River and Bear River and Rt. Bank feather River, in 33 sheets. (Unit No. 8).
50-4-4078	Bank Protection, Various Locations, Right and Left Banks Sacramento River and Feather River, in 29 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)
50-4-5433	Bank Protection, Various Locations, Right and Left Banks, Sacramento River Mile 61.0 to Mile 102.0, in 33 sheets.
BE-4-14	Sutter and Yuba Counties – PL84-99 Levee Rehabilitation, Bear River – RD 817 and Yankee Slough & Natomas Cross Canal – RD 1001, emergency Levee Repairs in 2 sheets.
50-4-5798	Bank Protection, Contract 43, Right and Left Banks, Feather River, Colusa Basin Drain, Yolo and Sutter by-pass, in 35 sheets.
4-4-542	Bank Protection, left bank Feather River mile 6.7 and right bank Elder Creek.
None	PL 84-99 Levee Rehabilitation Repairs CY2007 Orders 3-5 Sites Reclamation District 1001, Sutter County, California, 2 drawings in 14 sheets.

EXHIBIT C

PLATES OF SUGGESTED FLOOD FIGHTING METHODS
(See Standard Manual)

EXHIBIT D

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

EXHIBIT E

CHECK LISTS OF LEVEES,
CHANNEL AND STRUCTURES

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

CHECK LIST NO. 2
UNIT NO. 141 - PART NO. 1

Inspector's Report Sheet No. _____

Inspector _____

Date _____

Superintendent _____

Item	Remarks
(a) Location by Station	
(b) Settlement, sloughing, or loss of grade	
(c) Erosion of back slope	
(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 gullyng of the section has occurred.
- Item (c) If sufficient erosion or gullyng of back face of back toe of levee has taken place to be noticeable by visual inspection, indicate area affected and depth.
- Item (d) Note any natural change in any section of roadway or ramps. Indicate any inadequacy in surface drainage system.
- Item (e) Indicate any evidence of seepage through the embankment section.
- Item (f) Indicate the serviceability of all farm gates across the embankments and roadway, and indicate if repainting is required.
- Item (g) Indicate maintenance measures that have been performed since last inspection and their condition at the time of this inspection.
- Item (h) Record opinion, if any, of contributory causes for conditions observed and also any observations not covered under other columns.

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

CHECK LIST NO. 3

CHANNEL AND RIGHT-OF-WAY

Unit No. 141-Part No. 1

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 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. 141 - Part No. 1

Inspector's Report Sheet No. _____

Inspector _____

Date _____

Superintendent _____

For location of stations see drawings of Exhibit B

(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
<u>River Mileage East Levee of Feather River</u>							
3.1	left						
3.3	"						
6.0	"						
7.0	"						
<u>South Levee of Bear River</u>							
314/00	left						
329/42	"						
354/20	"						
369/00	"						
375/30	"						
449/00	"						
907/75	"						
834/00	"						
701/80	"						
284/75							

CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES

Unit No. 141-Part No. 1

Inspector's Report Sheet No. _____

Inspector _____

Date _____

Superintendent _____

For location of stations see drawings of Exhibit F.

(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
<u>North Levee of Yankee Slough</u>							
314+16	Right						
303+60	"						
282+50	"						
266+64	"						
256+10	"						
250+80	"						
235+00	"						
198+00	"						
0+00	"						
0+00	"						
<u>South Levee of Yankee Slough</u>							
67+75	Left						
41+35	"						

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 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 STATE RECLAMATION BOARD



**DEPARTMENT OF THE ARMY
U.S. Army Engineer District, Sacramento
Corps of Engineers
1325 J Street
Sacramento, California 95814-2922**

REPLY TO
ATTENTION OF

Flood Protection and Navigation Section

JAN - 4 2011

Mr. Jay Punia, Executive Officer
Central Valley Flood Protection Board
3310 El Camino Avenue, Room 151
Sacramento, California 95821

Dear Mr. Punia:

The U.S. Army Corps of Engineers has completed a portion of work under PL 84-99, Flood Control and Coastal Emergencies (FCCE) (33 U.S.C. 701n) (69 Stat. 186) for emergency management activities. Repairs were made to rehabilitate various sites along the left bank levees of Bear River and Yankee Slough within Reclamation District 1001. Additional information about the repair and location of the sites may be found in the document titled, "Project Information Report for Public Law 84-99 Levee Rehabilitation, Reclamation District 1001, (Final)", dated June 25, 2007.

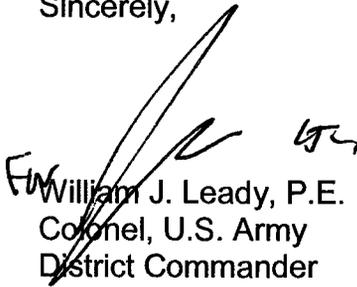
The rehabilitation work meets the requirements of the existing Operation and Maintenance Manuals and enclosed revisions. The subject flood damage reduction project is considered complete as of the date of this letter. The repairs were completed under Contract Number W91238-08-D-0016, Task Order Number 3 and W91238-06-D-0029. As-constructed drawings and revisions to the Operation and Maintenance Manual are enclosed. Please note that repairs to the Natomas Cross Canal, as shown in the enclosed drawings, are part of Unit 141 of the Sacramento River Flood Control Project and are addressed in a separate letter. The Central Valley Flood Protection Board shall continue to operate and maintain the completed Rehabilitation Effort as part of the project.

Mitigation plantings for the above work are required but have not been completed. The estimated completion date for the plantings is Spring 2011. All mitigation plantings will be ETL 1110-2-571 compliant. After completion of the plantings, a separate letter with addendum and as-builts will be sent to you.

If you have any questions regarding this project, please contact Ms. Paige Caldwell (916) 557-6919 or Ms. Christy Jones (916) 557-7107, Readiness Section. If you have any questions regarding this transfer, please contact Mr. Ryan Larson at (916) 557-7568 or Mr. Robert Murakami at (916) 557-6738, Flood Protection and Navigation Section.

A copy of this letter is being furnished to Reclamation District 1001, 1959 Cornelius Avenue, Rio Oso, CA 95674.

Sincerely,

A handwritten signature in black ink, appearing to read 'W. J. Leady', is written over the typed name. The signature is stylized and somewhat cursive.

William J. Leady, P.E.
Colonel, U.S. Army
District Commander

Enclosure

Flood Protection and Navigation Section

cc: CESPCK-CO-E (Jones)

MURAKAMI *by*
LARSON *RFL*
NAGY *nmw*
CALDWELL *EPC*
OLSEN *D*
MAHONEY *smc*
FAUSTINO *A*
MULLINS
LEADY

\\spk-netapp1\COOPublic\FP&Nav\ICW\Transfer Letters\RD 1001\W91238-08-D-0029\Transfer Letter Unit 141 - W91238-08-D-0029.doc

[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

not

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. **A. SMITH**

Op 1-9-
ROMPALA/mt
ROC
KELLY
[Signature]
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.

HELM

Sincerely,

FAST

cc:
~~C-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:

Le CUYER

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

PC#UNIT43-90

Unit 43-90

[Handwritten signature]

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

January 20, 1967

Navigation and Flood Control Unit

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

Members of the Board:

You are hereby notified that the Corps of Engineers has completed emergency repairs to project levees under authority of Section 3 of the Flood Control Act of August 18, 1941, as amended (Public Law 99, 84th Congress, 1st Session). The work was completed on November 8, 1966, and consisted of restoring a portion of the Yankee Slough and Natomas Cross Canal right bank levees in Reclamation Districts 1001 and the Bear River right bank levee in Reclamation District 817, in accordance with Contract Number DACW93-86-C-0107 and Drawing Number EE-4-14. This work shall be maintained in accordance with the assurances which your Board provided for the Sacramento River Flood Control Project. This portion of the work will be added by amendment to the Operation and Maintenance Manual, Supplement Numbers 141, 142 and 143, Sacramento River Flood Control Project. Copies will be furnished to your office at a later date.

Sincerely,

Love

cc:
E.M. (Garrett)
Ops Br
Engr Div (Civ Des Sec D - Pahl)
Valley Res Ofc (Cameron)

Wayne J. Scholl
Colonel, Corps of Engineers
District Engineer

Copies furnished:

DIR, ATTN: J. Angel
DIR, ATTN: G. Saw
Commander, South Pacific Division, ATTN: SPDCO-O

M-1-15
PUMPALA/jg

RK
KELLY

AS
A. SMITH

H
HUNT

J
FAST

J
DENNIS

McCOLLAM

SCHOLL

WJ
WANG #6284a

*Unit 51411/421
146*

*BEAR R. R.B IN RD817
YANKEE SL & NATOMAS CROSS CANAL R.B RD1001*

DEPARTMENT OF WATER RESOURCES
THE RECLAMATION BOARD

1416 - 9th Street, Room 335-18
Sacramento, CA 95814
(916) 445-9454



DEC 10 1979

Colonel Paul F. Kavanaugh
District Engineer
Sacramento District
U. S. Army Corps of Engineers
650 Capitol Mall
Sacramento, CA 95814

Dear Colonel Kavanaugh:

The Reclamation Board at its regular meeting of December 14, 1979, authorized me to accept the completed flood control work from the District Engineer. This work is a portion of Unit No. 34 of the Sacramento River Bank Protection Project. The work was transferred to the State of California by your letter of December 4, 1979.

The flood control work was constructed in a workmanlike manner and in conformance with File No. 50-4-5433, Specification No. 5403, and Contract No. DACW05-78-C-0046, insofar as could be determined visually, at Sites Miles 62.7 Right Bank and 79.0 Left Bank, Sacramento River.

Sincerely,

for 
ELDON E. RINEHART
General Manager

CERTIFIED MAIL
RETURN RECEIPT REQUESTED



Unit 116, 141.1

John G. Talley, 1/1/80
J. G. Talley



C
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DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
650 CAPITOL MALL
SACRAMENTO, CALIFORNIA 95814

C
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REPLY TO
ATTENTION OF SPKCO-0

4 December 1979

The Reclamation Board
State of California
1416 - 9th Street, Room 335
Sacramento, CA 95814

Gentlemen:

This is in regard to the joint inspection of 30 November 1979 made for the purpose of transferring a portion of the Sacramento River Bank Protection Project (Unit 34), to the State of California for Operation and Maintenance. The flood control work consists of levee bank sloping and placement of stone protection on the Sacramento River right bank at Site Mile 62.7 and left bank at Site Mile 79.0. The sites described on the inclosure were completed on 30 November 1979 in accordance with Contract No. DACW05-78-C-0046, Specification No. 5403 and Drawing No. 50-4-5433.

The work was performed under general authority of the Flood Control Act of 1960, 86th Congress, 2nd Session (PL86-645, 14 July 1960), 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 bank contiguous, thereto, is transferred as of 30 November 1979 to the State of California for operation and maintenance.

This portion of the work will be added by amendment to the Operation and Maintenance Manual, Supplement Nos. 116 and 141 Part No. 1, Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

Sincerely,

1 Incl
As stated

PAUL F. KAVANAUGH
Colonel, CE
District Engineer

Copy furnished:
DWR, ATTN: R. Franson
DWR, ATTN: D. Meixner

EXHIBIT F

**SUMMARY OF SACRAMENTO RIVER
BANK PROTECTION PROJECT
PORTION OF UNIT 34
SACRAMENTO RIVER RIGHT BANK**

SITE MILE

STONE PROTECTION

L.F.

62.7

Sta. 226+90 to 232+00

510

SACRAMENTO RIVER LEFT BANK

79.0

Sta. 2+00 to 7+95

595

C
O
P
Y

THE RECLAMATION BOARD
STATE OF CALIFORNIA

C
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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. McCOLLAM
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 Osburn & 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

Anderson
ANDERSON

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

FEATHER RIVER:
SITE LEVEE MILE

<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		

SOUTH DRY CREEK:

1.30 Lt.	20+19 to 25+95	576
	26+18 to 38+00	1182
2.00 Lt.	1+00 to 6+00	500
3.50 Lt.	124+00 to 140+00	1600

BEAR RIVER:

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 - 157

C
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The Reclamation Board
State of California

C
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NOV 13 1969
4130.60.203

District Engineer
Corps of Engineers
U. S. Army
650 Capitol Mall
Sacramento, California 95814

Dear Sir:

Reference is made to your letter of April 29, 1969 concerning transfer to the State of California of a portion of the Sacramento River Bank Protection Project, Unit No. 12, consisting of Sites Mile 1.9, 2.2 and 5.75, left bank, Feather River for operation and maintenance.

This work was constructed in accordance with Specification No. 3288, Contract No. DACW05-68-C-0014, Drawing No. 50-4-4078.

The Reclamation Board, at its meeting of November 7, 1969, formally accepted the above-referred to work for operation and maintenance.

Sincerely yours,

/s/ A. E. McCOLLAM
A. E. McCOLLAM
Chief Engineer and
General Manager

EXHIBIT F

SFKCO-0



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

Gentlemen:

Reference is made to the joint inspection of 28 April 1969, made for the purpose of transferring a portion of the Sacramento River Bank Protection work (Unit #12), to the State of California for operation and maintenance.

The flood control work consisting of levee enlargement, bank sloping, levee setback and placement of stone bank protection on the left bank of the Feather River at site Miles 1.9, 2.2 and 5.75 is listed on the inclosure. The work was completed on 28 April 1969, in accordance with Specification #3288, Contract No. DACW05-68-C-0014, Drawing #50-4-4078.

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 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 No. 141, Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

Sincerely yours,

GEORGE B. FINK
Colonel, CE
District Engineer

1 Incl
As stated

Copy furnished:
✓ ENR

✓ OCE
✓ SPD

copies to alist H. & J. Osborn. 1 May 69

MC
ROMPALA/blc

[Signature]
COLEMAN

[Signature]
HENSON

[Signature]
HART

[Signature]
FINK

[Signature]
hmf

GB8
30 Apr

WNAH

①

cc: Engrg (Lev & Chan); Prog Dev; Valley; F & A (Cordano)

SUMMARY OF SACRAMENTO RIVER BANK PROTECTION PROJECT
 PORTION OF UNIT #12, FEATHER RIVER LEFT BANK

<u>Levee Unit Site Mile</u>	<u>Stone Protection</u>	<u>Lin. Ft.</u>	<u>Levee Enlargement</u>	<u>Lin. Ft.</u>
1.9	20+00 to 25+77	577	19+00 to 27+00	800
2.2	2+00 to 11+00	900	2+00 to 11+00	900
5.75	5+00 to 15+75	1075	5+00 to 16+40	1140

Unit #12

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THE RECLAMATION BOARD
STATE OF CALIFORNIA

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28 Jun 1966

Refer to: 4130.60.302
Contract 66-50

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

Dear Sir:

Reference is made to your letter of June 20, 1966 concerning transfer to the State of California of the Sacramento River Bank Protection Project, Unit No. 8, Site Mile 77.6, left bank, Sacramento River; Site Mile 24.5, right bank, Feather River; Sites Mile 2.98 and 1.76, right bank, Bear River; and Sites Mile 11.6, 7.12 and 4.90, left bank, Bear River, in accordance with Specification No. 3154.

The Reclamation Board, at its meeting of June 23, 1966, formally accepted the above referred to work for operation and maintenance.

Sincerely yours,

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

EXHIBIT F

20 June 1966

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

Gentlemen:

Reference is made to the joint inspection of 14 June 1966, made for the purpose of transferring a portion of the Sacramento River Bank Protection work, upon completion, to the State of California for operation and maintenance.

The flood control work, consisting of levee enlargement, levee set-back, bank sloping and placement of bank protection at: Sacramento River, Site Mile 77.6, left bank; Feather River, Site Mile 24.5, right bank; and Bear River, Site Miles 1.76 & 2.98, right bank and 4.90, 7.12 and 11.6, left bank; as listed on the attached inclosure. Work was completed on 14 June 1966, in accordance with Specification No. 3154, Contract No. DA-Or-167-CIVENG-66-50, Drawing No. 50-4-4004.

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.

The flood control work now meets the requirements of the Sacramento River Bank Protection Project. Therefore, said flood control work is transferred 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 by Supplement to the Sacramento River Flood Control Project, and furnished your office at a later date.

Sincerely yours,

T. S. MEADE
Lt. Col., CE
Acting District Engineer

REGISTERED

RETURN RECEIPT REQUESTED

cc: Lev & Chan; Prog Dev;
Valley Res; F&A-Cordano

Copy furnished:

Dept Water Resources

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

*Units 1241-1,
1244, 1246*

OK
COLEMAN/P
HENSON
[Signature]

MEADE M

OK

en

*✓ Incl
Listing*

✓
✓

SUMMARY OF SACRAMENTO RIVER BANK PROTECTION PROJECT

LEVEE UNIT SITE MILE	<u>SACRAMENTO RIVER</u>								RIGHT OR LEFT BANK	
	<u>LEVEE ENLARGEMENT</u>	<u>LINEAL FEET</u>	<u>ROCK TOEWALL</u>	<u>LINEAL FEET</u>	<u>BANK SLOPING</u>	<u>LINEAL FEET</u>	<u>STONE PROTECTION</u>	<u>LINEAL FEET</u>		
77.6	0+60to4+65	405	0+00to3+50	350	0+60to4+65	405	0+00to5+00	500	Left <i>Unit 141.1</i>	
<u>FEATHER RIVER</u>										
24.5					2+00to24+00	2200	2+00to24+00	2200	Right <i>Unit 144</i>	
<u>BEAR RIVER</u>										
1.76					0+23to3+50	327	0+23to3+50	327	Right <i>146</i>	
2.98					306+00to321+00	1500	306+00to321+00	1500	Right	
4.90					5+28to17+00	1172	2+50to17+00	1450	Left	
	<u>LEVEE SETBACK</u>		<u>LEVEE SURFACING</u>						} <i>141.1</i>	
7.12	1+00to13+00	1200	1+00to13+00	1200	1+00to13+00	1200	1+00to13+00	1200		Left
	<u>LEVEE ENLARGEMENT</u>									
11.6	4+00to10+00	600	4+00to10+00	600	0+00to10+00	100	0+00to10+00	1000	Left	

THE RECLAMATION BOARD
State of California
January 11, 1966

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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

SPICO-F

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.

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.

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.

Sincerely yours,

ROBERT E. MATHE
Colonel, CE
District Engineer

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)

Adm

COLEMAN/I

HENSON

MATHE

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

cont 14

1507-55

cm

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

Unit
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
----------------------	-------------------	-------------	---------------	-------------	--------------	-------------	------------------	-------------	--------------------

AMERICAN RIVER:

5.84					3+00to18+50	1550	3+00to18+50	1550	Left 118.1
------	--	--	--	--	-------------	------	-------------	------	------------

SACRAMENTO RIVER:

152.47			235+00to244+00	900			236+00to243+00	700	Left 130
--------	--	--	----------------	-----	--	--	----------------	-----	----------

FEATHER RIVER:

6.5					77+00to86+00	800	78+00to86+00	800	Left
7.5	16+00to31+00	1500	16+00to31+00	1500	31+00to32+00	100	16+00to32+00	1600	Left } 141
8.6	2+00to10+00	800	2+00to10+00	800			2+00to10+00	800	Left
49.6			3+00to14+00	1100	0+00to3+00	300	0+00 to 14+00	1400	Right 152

ELDER CREEK:

0.56					16+25to22+00	575	16+25to22+00	575	Right
1.25					62+60to70+50	790	62+60to70+50	790	Left
1.46					62+00to70+00	800	62+00to70+00	800	Right
1.85					124+50to131+00	650	124+50to131+00	650	Right

Vol 12

THE RECLAMATION BOARD

1215 O STREET • SACRAMENTO 95814



STANLEY W. KRONICK, *President*
 J. J. MADIGAN, *Vice Pres.*
 WALLACE McCORMACK, *Secy.*
 GEORGE W. NICKEL, JR.
 CHARLES J. MATHEWS
 HAROLD J. O'BANION
 MAX S. VANN, SR.
 COL. A. E. McCOLLAM, *General Manager*

January 7, 1964

Refer to: 7001.60.401
 4130.60.401

cont 64-33

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

Dear Sir:

Reference is made to your letter of December 6, 1963, concerning transfer to the State of California of bank protection work on the Sacramento River Bank Protection Project, Contract 7, Left Bank Feather River at Mile 6.7 in the vicinity of Nicholas in accordance with Specification No. 2786.

The Reclamation Board, at its meeting of January 3, 1964, formally accepted the above referred to bank protection work for operation and maintenance.

Sincerely yours,

A E McCollam
 A. E. McCOLLAM
 General Manager

JHMacC:gg

Unit 1411

6 DEC 1963

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

Gentlemen:

Reference is made to the joint inspection made on 21 November 1963 of flood control work pertaining to the Sacramento River Bank Protection Project for the purpose of transferring it, upon completion, to the State of California for operation and maintenance.

The flood control work consists of shaping levee section, placing bank protection and construction of asphalt road surface on levee crown on the left bank of Feather River for a distance of 1400 feet at River Mile 6.7 Site. The work was completed on 30 November 1963 in accordance with Specification No. 2985, Contract No. DA-04-167-GIVENG-64-33 and Drawing No. 4-4-542. Work under this contract does not include bank protection on the right bank of Elder Creek, which will be transferred by separate letter.

The flood control work described above now meets the requirements of the project. Therefore, said flood control work together with the waterway banks contiguous thereto are transferred to the State of California for operation and maintenance. A maintenance manual has already been furnished which adequately covers operation and maintenance requirements for the above reach of project levee.

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

Sincerely yours,

ROBERT E. MATHE
Colonel, CE
District Engineer

LAX
12/6/63
KRISTOF/pnp

MD
THOMPSON
HN
MATHE

Copy furnished:
Dept Water Resources
23rd & "R" Sts
Sacramento, Calif.
O.C.E.
S.P.D.

Unit 141
Engr Div, Lev&Chan
Engr Div, ProgDevBr
F&A Br
Northern Area Ofc

MD
HN
SD
aw

Operations

EDMUND G. BROWN
GOVERNOR

STANLEY W. KRONICK, SACRAMENTO
PRESIDENT
GROVER SHANNON, YUBA CITY
VICE PRESIDENT
GEO. H. HOLMES, CLARKSBURG
SECRETARY
J. J. MADIGAN, CHICO
MAX S. VANN, SR., WILLIAMS
WALLACE MCCORMACK, RIO VISTA
GEORGE W. NICKEL, JR., LOS BANOS

THE RECLAMATION BOARD
OF THE
STATE OF CALIFORNIA
1215 O STREET
SACRAMENTO 14, CALIFORNIA
TELEPHONE: HI 5-4711

A. N. MURRAY
GENERAL MANAGER AND CHIEF ENGINEER
STANLEY MOSK
LEGAL ADVISER
HOWARD S. HITCHCOCK
ASSISTANT CHIEF ENGINEER
G. E. WALTON
SUPERVISOR ADMINISTRATIVE SERVICES
ROBERT W. JAMES
ASSOCIATE COUNSEL

November 24, 1959

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

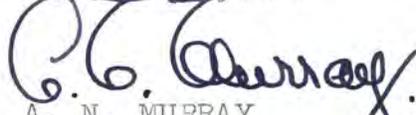
Dear Sir:

Reference is made to your letter of November 10, 1959, SPKKO-P, regarding transfer to the State of levee sections on the left bank of the Feather River, Bear River and Yankee Slough, at the locations listed below:

<u>Levee Sect.</u>	<u>Location</u>	<u>Mile Points</u>
646	Left Bank, Feather River	9.92 to 12.55
647	Left Bank, Bear River	0.00 to 3.30
648	Left Bank, Yankee Slough	0.00 to 0.75
649	Left Bank, Yankee Slough (Patrol road surfacing only)	0.75 to 1.95

The Reclamation Board at its meeting of November 19, 1959 formally accepted these levee sections for operation and maintenance.

Sincerely yours



A. N. MURRAY
General Manager and Chief Engineer

HSH:emw

11/24/59
*Copy furnished
General Manager
11/30/59 L.H.K.*

10 NOV 1959

SPKKO-P

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

Gentlemen:

Reference is made to the joint inspection made on 24 August 1959 of certain levee sections pertaining to the Sacramento River Flood Control Project for the purpose of transferring them to the jurisdiction of the State of California.

The required work, consisting of levee construction referred to above is completed in accordance with Specification No. 2465, Contract No. DA-04-167-CIVENG-59-62 and Drawing No. 4-4-450. The levee sections referred to above are listed as follows:

<u>LEVEE SECT.</u>	<u>LOCATION</u>	<u>MILE POINTS</u>
646	Left Bank, Feather River	9.92 to 12.55 <i>OK</i>
647	Left Bank, Bear River	0.00 to 3.30 <i>OK</i>
648	Left Bank, Yankee Slough	0.00 to 0.75 <i>OK</i>
649	Left Bank, Yankee Slough (Patrol road surfacing only)	0.75 to 1.95

The levee sections Nos. 646 to 649 inclusive, described above, now meet the requirements of the Sacramento Flood Control Project. Therefore said levee sections, 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 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 3 of the Act

646, 647, 648, + 649

*Posted
Unit 141*

10 NOV 1959

SPKKO-P
The Reclamation Board

of Congress, approved 22 June 1936, as amended and supplemented by the 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 these units 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 Department of Water Resources.

Sincerely yours,

H. A. MORRIS
Colonel, CE
District Engineer

1 Incl
F.C. Reg.

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

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

cc: Engr Divn, Levee & Channels Sect w/• incl
Northern Area Ofc w/o incl

OPERATIONS

Concurrences	
Originator	LHK
Date:	11/9/59
Dist.	
Engr.	4/10/59
Asst. D.E. (A)	
Asst. D.E. (O)	3/10/59
Exec. Asst.	
Compt.	
Budget	
Fin. & Acctg.	
Ident.	
Plan.	
Spec. or Recd.	
Contr.	
Opns	
Engr's	
R. E.	
Prntl.	
Legal	
Supply	
Levees	10/10/59
Design	10/10/59

646, 647, 648 & 649

Un 7/4/1

REGISTERED MAIL
Return Receipt
Requested

SPKKO-P 824-3 (Sac. Riv. FCP)

2 OCT 1952

10/2/52

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

Gentlemen:

Reference is made to District Engineer letter dated 3 September 1952, wherein it was suggested that a joint inspection be made for the purpose of transferring to the jurisdiction of the State of California, when completed, various levee units of the Sacramento River Flood Control Project. Reference is also made to joint inspections of these units of work which were made on 18 July and 11 September 1952.

In accordance with the above, you are hereby advised that the units listed below, which are covered under Specification No. 1636, Drawing No. 50-4-2897, have been completed as follows:

Part "F" - Levees protecting the City of Marysville:

1. Levee and patrol road along the left bank of Nigger Jack Slough, also known as "Simmerly Slough", from the Western Pacific Railroad to the Feather River at Marysville, California, completed 24 September 1952.

147

2. Levee and patrol road along the left bank of the Feather River and the right bank of the Yuba River, from Nigger Jack Slough to "D" Street Bridge at Marysville, California, completed 24 September 1952.

147

Part "G" and "H" - Westerly Levee of the Feather River:

1. Levee and patrol road along the right bank of the Feather River, from 5th Street bridge, Yuba City, upstream 1400 feet, at Yuba City, Sutter County, California, completed 5 September 1952.

144

Concurrent	
Originator	
Date: 30	
Exec. O	2
Chief	
Ad. Asst.	2
Chf. Tech	
Asst.	
to neg.	
1952.	
Svcs.	
Oper.	
Eng's	
R. E.	
Plnc.	
Pers.	
Legal	
Supply	

Levee sections 352 to 362
Letter No. 37
36

SPEKO-P
The Reclamation Board

143
2. From Station 0+00 to 172+70, levee and patrol road along the right bank of the Feather River, from Niclaus Bridge upstream approximately 3.31 miles, near Niclaus, Sutter County, California, completed 24 September 1952.

Part "I" - Southerly Levee of Bear River:

From Station 46+80 to 343+70, levee and patrol road along the left bank of Bear River from a point 5,400 feet upstream from Carlin Bridge upstream to high ground, near Wheatland, Yuba County, California, completed 8 September 1952. 141.1

Part "J" and "K" - Southerly and Northerly Levees of Yankee Slough:

1. From Station 316+70 to 511+10, levee and patrol road along the left bank of Yankee Slough, from the W.P.R.R. upstream to high ground, near Rio Oso, Sutter County, California, completed 24 September 1952. 141.1

2. From Station 166+70 to 536+09, levee and patrol road along the right bank of Yankee Slough, from its junction with Bear River upstream to high ground, completed 16 September 1952. 141.1

Part "L" - Southerly Levee of South Dry Creek and Easterly and Westerly Levees of Grasshopper Diversion Channel:

1. From Station 98+45 to 671+28, levee and patrol road along the left bank of South Dry Creek Channel, from a point 1.86 miles upstream from Bear River to the westerly levee of Grasshopper Diversion Channel, near Wheatland, California, completed 8 September 1952. 146

2. From Station 377+60 to 418+16, levee and patrol road along the left bank of South Dry Creek, from the easterly levee of Grasshopper Diversion Channel upstream approximately 4056 feet, near Wheatland, California, completed 8 September 1952. 146

3. From Station 0+00 to 25+69, levee and patrol road along the westerly bank of Grasshopper Diversion Channel, from the southerly levee of South Dry Creek upstream approximately 2569 feet near Wheatland, California, completed 8 September 1952. Station 25+69 corresponds to Station 390+20 shown on drawing. 146

4. From Station 0+00 to 13+85, levee and patrol road along the easterly bank of Grasshopper Diversion Channel from the southerly levee of South Dry Creek upstream approximately 1385 feet, near Wheatland, California, completed 8 September 1952. 146

SPKKO-P
The Reclamation Board

The levee units referred to above, together with the patrol roads thereon, form an integral part of the Sacramento River Flood Control Project and meet with the requirements of the project. Therefore, said levee units, 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 Sacramento River Flood Control Project shall be performed in accordance with existing Flood Control Regulations which have been prescribed by the Secretary of the Army pursuant to Section 3 of the Act of Congress, approved 22 June 1936, as amended and supplemented. As provided under Paragraph No. 208.10 (10) of these regulations, a maintenance manual covering these levee units 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.

FOR THE DISTRICT ENGINEER:

Copy furnished:
State Engineer,
✓ Dept. of Public Works
1120 "N" St., Sacto, Calif.

cc: ✓ Office of C. of E.
✓ So. Pac. Div. Eng.
✓ Eng. Div.
✓ Sacto Field Office
✓ C. deArrieta
✓ Service Section

Sincerely yours,

Earl C. Peacock
Lt. Col., Corps of Engineers
Executive Officer

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

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; Mile 89.2 to Sycamore Slough	Maintained by R.D. No. 730 Completed contracts.
(153) 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) 11	Do	E. Levee Sacramento River, Natomas Cut to Feather River	Maintained by Recl.Dist.No.1001.
(164) 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) 11	Do		

Accepted
Items

5

No.	Date of Letter	Levee Location	Remarks
(171) (172) 11	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.
(173) (174) 11	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.
(175) 11	Do	N. Levee Yuba River from back levee of Marysville upstream 1.8 miles	Maintained by Marysville Levee Commission.
(176) 11	Do	S. Levee Yuba River from S.N.R.R. to S.P.R.R.	Maintained by R.D. No. 784.
(177) 11	Do	N. Levee Bear River from Feather River to W.P.R.R. Interceptor	Maintained by R.D. No. 784.
(178) 11	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.
(179) (180) 11	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.
(181) (182) (183) (184) (185) (186) (187) (188) 11	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.
(190) 11	Do	N.&S. levees Willow Slough Interceptor*	Maintained by State and R. D. No. 2035.
(191) (192) 11	Do	N.&S. levees of Putah Creek	Maintained by State.
(197) (198) 11	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

No.	Date of Letter	Levee Location	Remarks
-----	----------------	----------------	---------

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 by letter dated

(53A) ✓

304 17 Nov. 1951

(54A) ✓

(23)

(50)

*No waterway banks contiguous to these levees.

C. de ARRIETA

REGISTERED MAIL
Return Receipt
Requested

Letter No. 13

①

⑬

13 DEC 1951

SPEKA 824.5(Sac.Riv. F.C.P.)

The Reclamation Board
State of California
1100 "O" Street
Sacramento 14, California

Accepted by the Recl. Board:

-  Completed by Contract by C.of E.
-  Const. by Local Interests 203-248-250-285
-  No maint. is required. 204

Not Accepted

 No capable of separate maint.

Gentlemen:

Reference is made to your letter of 2 July 1951 acknowledging that certain reaches of the levees of the Sacramento River Flood Control Project and the waterway bank contiguous to said levee reaches meet the requirements of the project as authorized prior to the Flood Control Act of 1944.

The levee reaches in question are located as follows:

a. Sherman Island levee of Three Mile Slough.

- ✓  (1) State Highway Bridge to Sacramento River.  101
- ✓  (2) From the State Highway Bridge, 1300 feet toward the San Joaquin River.  101
- ✓  (3) From a point 3900 feet toward the San Joaquin River from the State Highway Bridge to a point 6900 feet toward the San Joaquin River from the State Highway Bridge. 101
- ✓  (4) From a point 10,500 feet toward the San Joaquin River from the State Highway Bridge to the San Joaquin River. 101

 b. Plug across Seven Mile Slough near Three Mile Slough.  102

✓  c. Sherman Island levee of Seven Mile Slough and Three Mile Slough from the Plug across Seven Mile Slough southwesterly to Sacramento River.  102

Items 199 to 295

⑬

SPRKA 824.3 (Sac. Riv. F.C.P.)
The Reclamation Board

d. Easterly levee of the Sacramento River.

Reach
19

- 205 (1) From a point 23,650 feet, measured along the Sherman Island levee, downstream from Three Mile Slough to a point 21,950 feet downstream from Three Mile Slough. 101
- 206 (2) From a point 14,850 feet, measured along the Sherman Island levee, downstream from Three Mile Slough to a point 7,700 feet downstream from Three Mile Slough. 101
- 207 (3) From a point 6,300 feet, measured along the Sherman Island levee, downstream from Three Mile Slough to a point 3,450 feet downstream from Three Mile Slough. 101
- 208 (4) From a point 5,500 feet, measured along the Sherman Island levee, downstream from Three Mile Slough to a point 700 feet downstream from Three Mile Slough. 101
- 209 (5) From a point 500 feet, measured along the Sherman Island levee, downstream from Three Mile Slough to Three Mile Slough. 101
- 210 (6) Three Mile Slough to Mile 10.58. 102
- 211 (7) Mile 10.71 to Mile 13.1. 102
- 212 (8) Mile 13.59 to Mile 14.5 (Junction Point). 102
- 213 (9) Mile 14.5 (Junction Point) to Mile 15.0. 102
- 214 (10) Mile 15.1 to Mile 16.9. 102
- 215 (11) Mile 16.95 to Mile 17.5. Brannan 102
- 216 (12) Mile 17.6 to Mile 18.0. Andrus 103
- 217 (13) Mile 18.15 to Mile 18.5. " 103
- 218 (14) Mile 18.5 to Mile 21.5. v o " 103
- 219 (15) Mile 21.6 to Mile 26.3. v o " 103
- 220 (16) Mile 26.4 to Georgiana Slough. v o 103
- 221 (17) Mile 26.5 to Mile 27.55. v o III
- 222 (18) Mile 27.7 to Mile 28.5. III

2. X

Reach
19

SPKKA 824.3(Sac. Riv. F.O.P.)
The Reclamation Board

d. Easterly levee of the Sacramento River. (cont'd)

- ✓ 223 (19) Mile 28.6 to Mile 28.9.
- ✓ 224 (20) Mile 29.1 to Mile 29.9.
- ✓ 225 (21) Mile 30.25 to Mile 30.55.
- ✓ 226 (22) Mile 30.75 to Mile 31.5.
- ✓ 227 (23) Mile 31.8 to Mile 32.2.
- ✓ 228 (24) Mile 32.4 to Mile 33.0.
- ✓ 229 (25) Mile 33.1 to Mile 34.45.
- ✓ 230 (26) Mile 34.65 to Mile 34.95.
- ✓ 231 (27) Mile 35.1 to Mile 36.38.
- ✓ 232 (28) Mile 35.38 to Mile 35.74. ✓ 0
- ✓ 233 (29) Mile 35.85 to Mile 36.55.
- ✓ 234 (30) Mile 36.5 to Mile 36.75.
- ✓ 235 (31) Mile 36.85 to Mile 37.15.
- ✓ 236 (32) Mile 37.3 to Mile 37.85.
- ✓ 237 (33) Mile 38.0 to Mile 38.3.
- ✓ 238 (34) Mile 38.5 to Mile 39.15.
- ✓ 239 (35) Mile 39.75 to Mile 39.9.
- ✓ 240 (36) Mile 40.0 to Mile 40.15.
- ✓ 241 (37) Mile 40.25 to Mile 40.35.
- ✓ 242 (38) Mile 40.5 to Mile 40.8.
- ✓ 243 (39) Mile 41.2 to Mile 41.6.
- ✓ 244 (40) Mile 41.75 to Mile 42.35.
- ✓ 245 (41) Mile 42.5 to Mile 43.05.

Head 17



SPKRA 324.3 (Sac. Riv. F. O. P.)
The Reclamation Board

d. Easterly levee of the Sacramento River. (cont'd)

Reach 17

- ✓ (246) (42) Mile 43.3 to Mile 45.55. } III
- ✓ (247) (43) Mile 45.55 to Mile 44.2. } III
- ✓ (248) (44) Mile 44.5 to Mile 45.3. x D 115
- ✓ (249) (45) Mile 55.4 to Mile 55.5. 115
- ✓ (250) (46) Mile 55.1 to American River. x D 118.1
- (251) (47) West levee of Sutter Bypass to Mile 87.5. 84.5
- (252) (48) Mile 91.4 to Mile 92.1.
- (253) (49) Mile 92.6 to Mile 92.7.
- (254) (50) Mile 92.9 to Mile 94.0. ✓ ○
- (255) (51) Mile 96.6 to Mile 97.4.
- (256) (52) Mile 97.5 to Mile 97.7. ✓ ○
- (257) (53) Mile 97.7 to Mile 97.8.
- (258) (54) Mile 99.9 to Mile 102.5. ✓ ○
- (259) (55) Mile 103.45 to Mile 103.7.
- (260) (56) Mile 103.8 to Mile 104.2.
- (261) (57) Mile 104.2 to Mile 104.7. ✓ ○
- (262) (58) Mile 104.7 to Mile 105.55.
- (263) (59) Mile 110.9 to Mile 111.5. ✓ ○
- (264) (60) Mile 118.4 to Mile 118.6 (South End Tisdale Weir).
- (265) (61) At Tisdale Weir. ✓ ○ 150

Reach 1A



(266) e. Northerly levee of Miner Slough from a point 1,200 feet easterly from the easterly levee of Yolo Bypass to a point 4,400 feet easterly from the easterly levee of Yolo Bypass.

SPKHA 324.3 (Sec. Riv. F.O.P.)
The Reclamation Board

Letter No. 13

13

f. Westerly levee of Sutter Slough. 113

Ranch 36

- ✓ (267) (1) Mile 26.5 to Mile 26.7.
- ✓ (268) (2) Mile 27.05 to Mile 27.2.
- ✓ (269) (3) Mile 27.3 to Elkhorn Slough.

g. Westerly levee of Elkhorn Slough.

- ✓ (270) (1) Sutter Slough to Station "A" 431+00.
- ✓ (271) (2) Station "A" 429+50 to Station "A" 405+00.
- ✓ (272) (3) Station "A" 403+50 to Station "A" 344+75.
- ✓ (273) (4) Station "A" 340+75 to Station "A" 326+00.
- ✓ (274) (5) Station "A" 70+50 to Station "A" 60+50.

h. Westerly levee of the Sacramento River.

Ranch 3

- ✓ (275) (1) Mile 119.2 to Mile 119.7.
- ✓ (276) (2) Mile 131.4 to Mile 131.8.
- ✓ (277) (3) Mile 133.1 to Mile 133.3. ✓ 0
- ✓ (278) (4) Mile 134.0 (Meridian Bridge) to Mile 134.3.
- ✓ (279) (5) Mile 134.3 to Mile 140.6. ✓ 0
- ✓ (280) (6) Mile 140.6 to Mile 141.3.
- ✓ (281) (7) Mile 141.3 to Mile 142.0. ✓ 0
- ✓ (282) (8) Mile 142.0 to Mile 142.3.
- ✓ (283) (9) Mile 142.3 to Mile 142.7 (Union Oil Co. Wharf). ✓ 0

AX (284) i. Easterly levee of Georgiana Slough from the S.P.R.R. stream 22,500 feet. ✓ 103

XB

(285) j. Northerly levee of the American River and the back levee of Reclamation District No. 1000 from Jibboom Street Bridge to El Camino Avenue. 125 xD

13

SPEKA 824.3(Sac.Riv.F.C.P.)
The Reclamation Board

k. Northerly levee of Natamas Cut.

- 48 ✓ (286) (1) From Sacramento River easterly to a point 1,550 feet easterly from the Garden Highway Bridge. 142
- ✓ (287) (2) From a point 2,550 feet easterly from the Garden Highway Bridge to a point 3,250 feet easterly from the Garden Highway Bridge. 142
- Reach No. 30 ✓ (288) 1. Back levee of Reclamation District No. 2068 along the S.N.R.R. from the County Road northeasterly 7,200 feet to high ground. 109
- (289) n. Southerly levee of North Dry Creek near Wheatland from high ground to the W.P.R.R. Interceptor. 145
- ✓ (290) n. Easterly levee of the W. P. R. R. Interceptor from North Dry Creek southerly to Bear River. 145
- ✓ (291) o. Northerly levee of Bear River from the W. P. R. R. Interceptor easterly to South Dry Creek. 145
- ✓ (292) p. Northerly levee of South Dry Creek near Wheatland from Bear River easterly to high ground, including the Singh saddle closure levee. 145
- ✓ (293) q. Southerly levee of Bear River from the W.P.R.R. easterly to a point 5,400 feet easterly from Carlin Bridge. 141.1
- ✓ (294) r. Southerly levee of South Dry Creek near Wheatland from Bear River easterly 1.86 miles. 144
- ✓ (295) s. Northerly levee of Bear River from South Dry Creek easterly to a point 4,000 feet easterly from Carlin Bridge. 144

The records of this office show that your Board has accepted the levees and/or works covered by Items d.(14), d.(15), d.(16), d.(29), d.(50), d.(52), d.(54), d.(57), d.(59), d.(61), h.(3), h.(5), h.(7), h.(9), i., m., n., o., p., q., r., and s., above, as complete. Accordingly the waterway bank contiguous to said Items is hereby transferred to the State of California for maintenance and operation.

The levee covered by Items a. to c., inclusive, d.(1) to d.(13), inclusive, d.(17), to d.(27), inclusive, d.(29), to d.(49), inclusive, d.(51), d.(53), d.(55), d.(56), d.(58), d.(60), e., f., g., h.(1), h.(2), h.(4), h.(6), h.(8) and j. to l., inclusive, above, although complete has not been formally transferred as contemplated by the Project documents.

Letter No. 13 (13)

SPKKA 624.3(Sac,Riv.F.C.P.)
The Reclamation Board

Accordingly the levee covered by said items, together with the waterway bank contiguous thereto, is hereby transferred to the State of California for maintenance and operation.

The maintenance work required under the provisions of the Sacramento River Flood Control Project shall be performed in accordance with existing Flood Control Regulations which have been prescribed by the Secretary of the Army pursuant to Section 3 of the Act of Congress approved 22 June 1936, as amended and supplemented. As provided under paragraph 208.10(10) of these regulations, a maintenance manual covering these works is in process of preparation and will be furnished your Board upon completion.

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

FOR THE DISTRICT ENGINEER:

Sincerely yours,

Copy Furnished:
Office, Chief of Engrs.
So.Pac.Div. Engr.
State Engineer
Engr. Div. (2)
C. de Arrieta

H. R. Reifsnyder
Lt. Colonel, Corps of Engineers
Executive Officer

REGISTERED MAIL
Receipt Receipt
Requested

Letter No. 12

12

SPKKA 824,3(Sac. Riv. F.C.P.)

8 DEC 1951

The Reclamation Board
State of California
1100 "O" Street
Sacramento 16, California

Gentlemen:

Reference is made to your letter of 22 June 1951 acknowledging that certain reaches of the levees of the Sacramento River Flood Control Project and the waterway bank contiguous to said levee reaches meet the requirements of the project as authorized prior to the Flood Control Act of 1944.

The levee reaches in question are located as follows:

140. a. Northerly levee of the American River from Jibboom Street Bridge to Sacramento River. 118.2 (?)

b. Easterly levee of the Sacramento River.

Reach 15 141. (1) American River to Natones Out. 60.25 to 79.0 124

Reach No. 11 142. (2) At Moulton Weir. (man 2) 154

143. (3) Mile 158.5 (North End Moulton Weir) to Mile 164.4 (Princeton Ferry). (man 2) ? 134

144. (4) Mile 168.5 to Mile 168.9 (at Dutch City). (man 2) ? 138

c. Westerly levee of the Sacramento River.

145. (1) Mile 59.9 to Mile 60.75. 116

146. (2) Mile 61.8 to Mile 62.65 (at Drye Bend) 116

62.65

Accepted by letter dated 9 March 1953

Letter 12 Items 140 to 198

12

Letter No. 12

12

c. Westerly levee of the Sacramento River, (cont'd)

- ✓ 147. (8) Mile 62.65 to Mile 63.1 (South End Sacramento Weir). 116
- ✓ 148. (4) At Sacramento Weir. 158
- ✓ 149. (5) Mile 63.5 (North End Sacramento Weir) to Mile 67.11. 122
- ✓ 150. (6) Mile 68.42 to Mile 70.9. 122
- ✓ 151. (7) Mile 76.5 to Mile 81.7 (East End Fremont Weir). 123
- ✓ 152. (8) Along Fremont Weir. 157
- ✓ 153. (9) Mile 84.0 (West End Fremont Weir) to Mile 85.3. 128
- ✓ 154. (10) Mile 85.5 to Mile 85.9. 128
- ✓ 155. (11) Mile 87.6 to Mile 88.4. 128
- ✓ 156. (12) Mile 89.2 to Mile 89.8 (Knights Landing Highway Bridge). 128
- ✓ 157. (13) Mile ^{89.2} 89.8 (Knights Landing Highway Bridge) to Sycamore Slough. 89.9 128
- ✓ 158. (14) Mile ^{100.6} 100.6 to Mile 101.4. 128
- ✓ 159. (15) Mile 110.9 to Mile 111.2. 128

Reach No. 5

Reach No. 4

d. Westerly levee of the Feather River.

- Reach 39 ✓ 160. (1) Sutter Bypass to Nicolaus Bridge. 143
- ✓ 161. (2) From a point 3.51 miles northerly from Nicolaus Bridge to the Fifth Street Bridge between Marysville and Yuba City. 143, 144
- Reach 38 ✓ 162. (3) From a point 1,400 feet northerly from the Fifth Street Bridge between Marysville and Yuba City to Station 774+00 "Y.C.N.B." Traverse. 144
- ✓ 163. (4) From a point east of Station 1188+00 "Y.C.N.B." Traverse to high ground just northerly from the Western Canal Headgate. 144

Reach 42 ✓ 164. a. Easterly levee of the Sacramento River from Natomas Cut to Feather River. 141.1

12

Letter No. 12

12

f. Easterly levee of the Feather River.

- Reach 42 ✓ 165. (1) Sacramento River to a point 2.37 miles southerly from Nicolaus Bridge. 141 Pt 1
- Reach 41 ✓ 166. (2) Bear River to Mile 14.4. } 145
- ✓ 167. (3) Mile 14.4 to Mile 14.7.
- ✓ 168. (4) Mile 14.7 to Mile 21.5.
- ✓ 169. (5) Mile 21.5 to Mile 22.75.
- ✓ 170. (6) Mile 22.75 to Mile 26.5 (Point where levee and S.M.R.R. meet). 145

g. Levees protecting the City of Marysville. All 147

- Reach 43 ✓ 171. (1) From the W.P.R.R. at Simerly Slough easterly to the Yuba River.
- ✓ 172. (2) Along the Yuba River from the "D" Street Bridge to the back levee near the Valley Meat Company.

h. Levees protecting Reclamation District No. 10.

- Reach No. 40 ✓ 173. (1) Northerly levee of Simerly Slough from the W.P.R.R. to the S.P.R.R. 151
- ✓ 174. (2) Easterly levee of the Feather River from Simerly Slough to a point 4.3 miles northerly from Simerly Slough. 151

Reach 46 ✓ 175. i. Northerly levee of the Yuba River from the back levee of the City of Marysville to a point 1.3 miles easterly from said back levee. 147

Reach 47 ✓ 176. j. Southerly levee of the Yuba River from Feather River (i.e. S.M.R.R.) easterly to the S.P.R.R. Main Line. 147

45 ✓ 177. k. Northerly levee of Bear River from Feather River easterly to the W. P.R.R. Interceptor. 145

45 ✓ 178. l. Westerly levee of the W.P.R.R. Interceptor and Clark Slough Interceptor (i.e. back levee of Reclamation District No. 784) from Bear River to the southerly end of the Clark Slough Interceptor. 145

12

SPIKA 824.3 (Sac. Riv. P.C.P.)
The Reclamation Board

Letter No. 12

12

m. Southerly levee of the American River.

Reach No. 25 ✓

- ✓ 179. (1) Sixteenth Street Bridge to the S.N.R.R. 118.1
- ✓ 180. (2) From a point 800 feet easterly from the W.P.R.R. to Mayhew Station. 118.1

n. Westerly levee of the Yolo Bypass.

- ✓ 181. (1) Sacramento River to Knights Landing Ridge Cut. 127
- ✓ 182. (2) Knights Landing Ridge Cut to the northeast corner of the Cache Creek Settling Basin. 126
- 28 ✓ 183. (3) S.N.R.R. Woodland Branch to a point 1.6 miles southerly from said railroad. 121
- 28 ✓ 184. (4) From a point 1.6 miles southerly from the S.N.R.R. Woodland Branch to the Willow Slough Pipes. 121
- 28 ✓ 185. (5) From a point 1.48 miles southerly from the Willow Slough Pipes to a point 1.9 miles southerly from said pipes. 121
- 28 ✓ 186. (6) From a point 1.9 miles southerly from the Willow Slough Pipes to the Willow Slough Interceptor. 121
- 28 ✓ 187. (7) From the Willow Slough Interceptor to Highway U.S. 40. 120
- ✓ 24 ✓ 188. (8) From Highway U.S. 40 to Putah Creek. 119

27 ✓ 189 o. Easterly and Westerly training levees of Cache Creek Settling Basin from Cache Creek southerly. 126

28 ✓ 190 p. Northerly and Southerly levees of the Willow Slough Interceptor from the S.P.R.R. to the Yolo Bypass. 120

29 ✓ 191 q. Northerly levee of Putah Creek from Yolo Bypass westerly to high ground. 119

✓ 192 r. Southerly levee of Putah Creek from high ground on Dixon Ridge westerly to high ground. 119

s. Southerly levee of Knights Landing Ridge Cut. 127

- 26 ✓ 193 (1) From Yolo Bypass westerly 600 feet. Also covered under Unit 96-A
- 26 ✓ 194 (2) { From a point 2,500 feet westerly from Yolo Bypass to a point 2,900 feet westerly from Yolo Bypass. 127
Also covered under 96-A

12

SPKKA 824.3(Sac.Riv.F.C.P.)
The Reclamation Board

Letter No. 12

12

s. Southerly levee of Knights Landing Ridge Cut. (cont'd)

- 26 ✓ 195 (S) { From a point 3,300 feet westerly from Yolo Bypass to a point 7,100 feet westerly from Yolo Bypass. 127
Also covered under Unit No. 96-A
- 35 ✓ 196 t. That portion of the back or westerly levee of Hastings Tract which runs east and west along the County Road for a distance of approximately one mile. 107
- ✓ 197 u. Northerly levee of Sycamore Slough from Sacramento River to Knights Landing Outfall Gates. 130
- ✓ 198 v. Southerly levee of Sycamore Slough from Sacramento River to Knights Landing Outfall Gates. 132

The records of this office show that your Board has accepted the levees and/or works covered by Items b.(1), b.(2), b.(3), c.(2), c.(4), c.(8), c.(11), c.(12), c.(14), d.(1), d.(3), d.(4), f.(3), f.(5), g., h., i., l., m., n.(1), n.(2), n.(3), n.(6), n.(7), n.(8), o., p., q., r. and s.(1) above, as complete. Accordingly the waterway bank contiguous to said Items is hereby transferred to the State of California for maintenance and operation.

The levee covered by Items a., b.(4), c.(1), c.(3), c.(5), c.(6), c.(7), c.(9), c.(10), c.(13), c.(15), d.(2), e., f.(1), f.(2), f.(4), f.(6), j., k., n.(4), n.(5), s.(2), s.(3), t., u. and v., above, although complete has not been formally transferred as contemplated by the Project documents. Accordingly the levee covered by said Items, together with the waterway bank contiguous thereto, is hereby transferred to the State of California for maintenance and operation.

The maintenance work required under the provisions of the Sacramento River Flood Control Project shall be performed in accordance with existing Flood Control Regulations which have been prescribed by the Secretary of the Army pursuant to Section 3 of the Act of Congress approved 22 June 1936, as amended and supplemented. As provided under paragraph 206.10(10) of these regulations, a maintenance manual covering these works is in process of preparation and will be furnished your Board upon completion.

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

FOR THE DISTRICT ENGINEER:

Sincerely yours,

Copy Furnished:
Office, Chief of Engrs.
So. Pac. Div. Engr.
State Engineer
Engr. Div. (2)
C. de Arrieta

H. R. Reifsnnyder
Lt. Colonel, Corps of Engineers
Executive Officer

12

RESOLUTION

ADOPTED BY THE RECLAMATION BOARD

FEBRUARY 6, 1946

- - - - -

WHEREAS The Reclamation Board on February 6, 1946, did approve a certain item of "new construction", said work consisting of the construction of the Bear River levees from Western Pacific Railroad upstream four miles, South Dry Creek levees upstream from its mouth two miles, East levee, Western Pacific Intercepting Canal and South levee of North Dry Creek; and

WHEREAS the War Department, U. S. Engineer Office, District Engineer, under date of January 25, 1946, has notified The Reclamation Board of the completion of such work of "new construction" and its desire to turn over to The Reclamation Board such work as completed, for maintenance by the proper local interests; and

WHEREAS the Chief Engineer of The Reclamation Board has caused to be made inspection on the ground of such work of "new construction", and has found and determined that such work, as completed, has been prosecuted and carried out in conformance with the 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 hereinabove set forth, been turned over to said Board by the War Department, U. S. Engineer Office; and be it further

RESOLVED AND ORDERED, That the south levee of Bear River, together with the channel of said river, be turned over to Reclamation District No. 1001 for maintenance and operation, as the legally authorized function of said District; and be it further

Manual No. 5

UNVT 145, 1412

RESOLVED AND ORDERED, That the north levee of Bear River upstream from the mouth of South Dry Creek, together with the channel of said river in that vicinity and the levees of South Dry Creek, together with the channel of said creek, be turned over to Reclamation District No. 817 for maintenance and operation, as the legally authorized function of said District; and be it further

RESOLVED AND ORDERED that the North levee of Bear River downstream from the mouth of Dry Creek, the east levee of the Western Pacific Intercepting Canal and the South levee of North Dry Creek, together with the channels adjacent to said levees, be turned over to Reclamation District No. 784, for maintenance and operation, as the legally authorized function of said District.

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

I, GEORGE H. HOLMES, Secretary of the Reclamation Board, do hereby certify that the above and foregoing is a true and correct copy of a resolution duly passed and adopted by said Board at its meeting held February 6, 1946.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of The Reclamation Board this 15th day of February, 1946.

George H. Holmes
GEORGE H. HOLMES
Secretary
The Reclamation Board

Manual No. 5

Unit 145, 141

Exhibit "F"

PAKJ

25 January 1946

Maintenance of the Bear River Levee System

The Reclamation Board
1100 "O" Street
Sacramento, California

Gentlemen:

Enlargement has been completed of the Bear River Levee System in the vicinity of Rio Oso and Wheatland, California. 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. 2-4-106 in six sheets, entitled "Proposed Levee Enlargement, Bear River Levees from W.P.R.R. upstream 4 miles, South Dry Creek Levees upstream from North 2 Miles, East Levee W.P.R.R. Intercepting Channel and South Levee of North Dry Creek."

There is also inclosed copy of Flood Control Regulations prescribed by the Secretary of War pursuant to the 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 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 28 February 1946.

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

2 Incls.
Dwg. No. 2-4-106 (in 6 shts)
Flood Control Regulations

/s/ LESTER P. NICHES
Colonel, CE
District Engineer

Manual No. 5

141-1
145

THE RECLAMATION BOARD
of the
STATE OF CALIFORNIA

May 22, 1952

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

Dear Sir:

Reference is made to your letter (1) SPKKO-P 824.3 (Sac. Riv. F.C.P.) 13 December 1951, (2) your letter SPKKO-P 824.3 (Sac. Riv. F.C.P.) 19 December 1951, and (3) your letter SPKKA 824.3 (Sac. Riv. F.C.P.) 13 December 1951, transferring 101 reaches of levee and contiguous banks to the Reclamation Board for flood control operation and maintenance.

On January 2, 1952, The Reclamation Board accented the transfer of the reaches of levee listed in first tabulation attached and did not accept those reaches of levee and contiguous bank in the second tabulation.

Yours very truly

THE RECLAMATION BOARD

By /s/A. M. Barton
A. M. BARTON

Chief Engineer and General Manager

January 2, 1952

The Board accepted the transfer from the Corps of Engineers, in letters as 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:

<u>No.</u>	<u>Date of Letter</u>	<u>Levee Location</u>	<u>Remarks</u>
		a. _____ _____	
3	13 December 1951	g. South levee Bear River from W.P.R.R. easterly to 5,400 feet east of Carlin Bridge.	Completed contract. Maintained by R.D. No. 1001.

NOTE: Only item pertaining to Unit No. 141-Part No. 1 copied in the above tabulation.

December 18, 1951

The Board accepted the transfer from the Corps of Engineers, in letters of dated 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.

<u>No.</u>	<u>Date of Letter</u>	<u>Levee Location</u>	<u>Remarks</u>
11	8 December 1951	E. Levee Feather River from mouth to Mile 26.5, except from 2.37 miles South of Nicolaus Bridge to Bear River	Maintained by R.D. Nos. 1001 and 784

NOTE: Only item pertaining to Unit No. 141-Part No. 1 copied in the above tabulation.

THE RECLAMATION BOARD
of the
STATE OF CALIFORNIA

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

Dear Sir:

Reference is made to your SPKKO-P 824.3 (Sac. Riv F.C.P.) dated 2 October 1952, transferring certain completed levee units, together with the patrol roads thereon and with the waterway banks contiguous thereto, to the State of California for operation and maintenance.

The Reclamation Board at its meeting December 2, 1952, accepted said levee units on behalf of the State of California.

The units so accepted are:

Part "I"-Southerly Levee of Bear River:

From Station 46/80 to 343/70, levee and patrol road along the left bank of Bear River from a point 5,400 feet upstream from Carlin Bridge upstream to high ground, near Wheatland, Yuba County, California completed 8 September 1952.

Part "J" and "K" - Southerly and Northerly Levees of Yankee Slough:

1. From Station 316/70 to 511/10, levee and patrol road along the left bank of Yankee Slough, from W.P.R.R. upstream to high ground, near Rio Oso, Sutter County, California, completed 24 September 1952.

2. From Station 166/70 to 536/09, levee and patrol road along the right bank of Yankee Slough, from its junction with Bear River upstream to high ground, completed 16 September 1952.

Very truly yours
THE RECLAMATION BOARD

A. M. BARTON
Chief Engineer and General Manager

By /s/ S. A. Honaker
S. A. HONAKER, Asst. Secretary

NOTE: Only items pertaining to Unit N. 141-Part No. 1 copied in the above letter.

EXHIBIT G

SUGGESTED SEMI-ANNUAL REPORT FORM

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__) Sacramento River Flood Control Project, Unit No. 141 - Part No. 1, the east levee of the Feather River from Bear River to Natomas Cross Canal and south levee of Bear River and both levees of Yankee Slough 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 at 11.0 on the gage at Wheatland on Bear River, and 43.0 on gage at Nicolaus on the Feather River) 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

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

UNIT NO. 141.2

EAST LEVEE OF FEATHER RIVER AND
SOUTH LEVEE OF BEAR RIVER

LOCATION	ADDITION OR REVISION	DATE
1-04 g.	Add contract no. 64-33	Oct 1964
Exhibit B	Add drawing no. 4-4-542	Oct 1964
Exhibit F	Add copy of letter of acceptance dated 7 Jan 1964	Oct 1964
1-04	Add subparagraph h.	Sep 1977
2-05	Add subparagraph a. (page 9)	Sep 1977
Exhibit B	Add drawing no. 50-4-4892	Sep 1977
Exhibit F	Add copy of letter of acceptance dated 18 Aug 1976	Sep 1977
Exhibit F	Add copy of letter of transfer dated 3 Aug 1976	8 Mar 2011

Corps of Engineers
U. S. Army

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

UNIT NO. 1/1 - PART NO. 2
EAST LEVEE OF FEATHER RIVER
AND
SOUTH LEVEE OF BEAR RIVER

Sacramento District
Corps of Engineers
U. S. Army
_____ 1960

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<u>Exhibit</u>	<u>Description</u>	
A	Flood Control Regulations----- (Contained in Standard Manual)	Unattached
A-1	Location Map -----	1 Sheet
B	"As Constructed" Drawings -----	Unattached
C	Plates of Suggested Flood Fighting Methods (Contained in Standard Manual) -----	Unattached
D	Suggested Check List No. 1 - Levee Inspection Report (Contained in Standard Manual) ---	Unattached
E	Suggested Check List - Levee, Channels and Structures -----	Sheets 1 thru 7
F	Letters of Acceptance by or Transfer to the State Reclamation Board -----	Sheets 1 thru 3
G	Suggest Semi-Annual Report Form -----	Sheets 1 and 2

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

UNIT NO. 141 - PART NO. 2
EAST LEVEE OF FEATHER RIVER
AND
SOUTH LEVEE OF BEAR RIVER

SECTION I
INTRODUCTION

1-01. Location. - The improvement covered by this manual is that part of the Sacramento River Flood Control Project levee and channel that is located on the left bank of the Feather River and left bank of the Bear River that lies north of the City of Sacramento and southwesterly from the town of Wheatland. Location by levee mileage is from about mile 5.2, Unit No. 4, on the Feather River to mile 2.57, Unit No. 2, on the south levee of Yankee Slough. The area is located in Reclamation District No. 1001 in the Counties of Sutter and Placer, 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 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 east levee and channel (left bank) of the Feather River from the junction of the Feather and Bear Rivers to a point located 3.21 miles downstream from the old Nicolaus Bridge; the south levee and channel of the Bear River (left bank) from the WPRR downstream to the Feather River and the lower end of the left bank of Yankee Slough.

Part No. 2 completes Unit No. 141 and covers that portion of the levee which was not completed at the time when Unit No. 141 - Part No. 1 was written (August 1955).

1-03. Protection provided. - Levees of the Feather and Bear Rivers, as described in this unit, provide direct protection to adjacent agricultural land within Reclamation District No. 1001, the communities of Nicolaus, East Nicolaus and Rio Oso, a State highway and county roads. Along the east levee of the Feather River within this area the grade of the adopted flood plane profile varies from elevation 57.1 near the confluence of the Bear River to elevation 41.9 near the mouth of the Feather River. Along the south levee of the Bear River the grade of the adopted flood plane profile varies from elevation 112.0 at the upper end to elevation 57.1 at its junction with the Feather River. All elevations are referred to U. S.

Corps of Engineers datum. Levee grades within this unit provide for a freeboard of at least 3 feet above the adopted flood plane profile. Within this unit the project design flood for the Feather River is 320,000 cubic feet per second and for the Bear River 40,000 cubic feet per second from the junction with the Feather River to the W. P. Railroad crossing.

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. Levee repairs along the south levee of Bear River was accomplished under Contract No. DA-04-167-eng-396 by H. Earl Parker, Inc., during the period from 24 November 1950 to 5 December 1950.

b. Stone protection and levee setback along the east levee of the Feather River from the Nicolaus Bridge downstream 4,000 feet was accomplished under Contract No. DA-04-167-eng-1365 by James H. Clack, during the period from 21 June 1955 to 2 December 1955.

c. Emergency repairs on 7,500 feet of levee on the left bank of the Feather River downstream from the Nicolaus Bridge was accomplished under Contract Nos. DA-04-167-CIVENG-56-85, 56-97, 56-117, 56-155, 56-156, 56-46, 56-211, and 56-173 by a Teichert & Son, Inc., Hydraulic Dredging Co., Ltd., Basalt Rock Co., Inc., H. Earl Parker, Inc., Associated Dredging Co., and Pacific Gas and Electric Co., during the period from 2 January 1956 to 13 April 1956.

d. Emergency stone protection of the left bank of the Feather River was accomplished under Contract No. DA-04-167-CIVENG-57-30 by Gene Richards, Inc., during the period from 23 August 1956 to 7 December 1956.

e. Seeding and fertilizing the riverside berm and slope on the Feather River below Nicolaus was accomplished by Purchase Order No. SPKSA-57-1252 by W. L. Spangler, during the period from 23 January 1957 to 25 January 1957.

f. Levee enlargement on the left banks of the Feather and Bear Rivers from Nicolaus upstream was accomplished under Contract No. DA-04-167-CIVENG-59-62 by M. Malfitano & Son, Inc., during the period from 16 April 1959 to 16 October 1959.

1-05. Flood flows. - For purposes of this manual, the term "flood" or "high water period" for the Feather and Bear Rivers shall refer to flows when the water surface in the Bear River reaches or exceeds the reading of 12.0 feet on the U. S. Geological

* [104 continues on page 24] →

g. Bank protection on the left bank of the Feather River (Contract No. 7) was placed under Contract No. DA-04-167-CIVENG-64-33 by H. Earl Parker, Inc. during the period from 12 September 1963 to 10 December 1963, Specification No. 2985, Drawing No. 4-4-542.

h. Bank protection and selective clearing on the left bank of the Bear River at Site Mile 2.6 (Unit No. 27) was accomplished under Contract No. DACW05-75-C-0085 by Luhr Bros. Inc. during the period from 21 July 1975 to 15 October 1976. Specification No. 4461, Drawing No. 50-4-4892.

Survey gage located near the middle on the downstream side of U. S. Highway No. 99E over the Bear River about one mile south-east of Wheatland, California. (Zero on this gage is elevation 78.9 feet U. S. G. S. datum). Such term for the Feather River portion of this unit shall refer to flows when the water surface in the Feather River reaches or exceeds the reading of 43.0 feet on the State Department of Water Resources and U. S. G. S. gage located on the left bank of the Feather River about 2,000 feet downstream from Nicolaus. (This water stage recorder and staff gage is set on U. S. Corps of Engineers datum).

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 or transfer to the State Reclamation Board. Responsibility for operating and maintaining a portion of the completed works was transferred to the State by letter dated 13 December 1955. Another portion of this unit was accepted by the State Reclamation Board by letter dated 24 November 1959, 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 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 Sections 8371, 8372, and 8373 of the Water Code of the State of California. These sections of the Code require the local responsible agencies to submit a report to the State Department of Water Resources on or before 1 June of each year on the condition of the levees within their jurisdiction. Supervisory powers and duties of the Department are applicable to all works of the Sacramento River 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. Description. The levee described in this manual lies along the east side of the Feather River and the south side of the Bear River and extends for a total distance of about 8.23 miles. The levee has been reconstructed with slopes of 1 on 3 waterside and 1 on 2 landside with a crown width of 20 feet. The necessary drainage structures, road approaches, bank protection, and appurtenances were also included in the work. For more complete detail in construction of the above-mentioned levee, refer to the "As Constructed" drawings of EXHIBIT B.

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

(1) Maintenance - paragraph 4-02 of the Standard Manual.

(2) Suggested Check Lists - EXHIBIT E of this Supplement Manual.

(3) Operation - paragraph 4-04 of the Standard Manual.

(4) Special Instructions - paragraph 4-05 of the Standard Manual.

2-02. Drainage and irrigation structures. -

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

Levee Mileage	Size of Pipe	Location of Gate	Other Structure Description	Invert Below Crown
<u>Feather River</u>				
1.41	24"	W. S.		8.5'
3.24	12"	---		6.2'
3.25	7"	---		0.5'
4.44	14"	L. S.	Standpipe L. S.	5.2'
<u>Bear River</u>				
12.55	12"	---	Plugged	26.5'
<u>Yankee Slough</u>				
2.88	24"	---	Plugged	---

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

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

(1) Maintenance paragraph 5-02 of the Standard Manual.

(2) Suggested Check Lists - EXHIBIT E of this Supplement Manual.

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

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

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

2-03. Channels. -

a. Description. The main channel and floodway of the Feather and Bear Rivers for this unit lie adjacent to levees as described in paragraph 1-02. The project design capacities of said channels are as listed in paragraph 1-03 of this manual.

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

(1) Maintenance - paragraph 6-02 of the Standard Manual.

(2) Suggested Check Lists - EXHIBIT E of this Supplement Manual.

(3) Operation - paragraph 6-04 of the Standard Manual.

(4) Safety Requirements - 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 12.0 on the gage located on the Bear River Bridge at Highway No. 99E or a reading of 43.0 on the gage located on the Feather River near Nicolaus, as referred to in paragraph 1-05 of this manual.

The Flood Operations 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) Bridges.

(a) W. P. R. R. Bridge crossing the Bear River and Yankee Slough near Rio Oso (same bridge and trestle).

(b) Sacramento Northern Railroad trestle crossing the Bear River near Rio Oso.

(c) County bridge crossing the Bear River at Rio Oso.

(d) Highway Bridge crossing the Feather River near Nicolaus.

(2) Utility relocation. Because of the nature of the construction of structures by local interests, records of utility relocations are not available.

(3) Hydrologic facilities. Hydrologic facilities provided within this unit consist of the following:

(a) U. S. Geological Survey continuous water stage recorder and staff gage located near the middle of the downstream side of U. S. Highway No. 99E bridge over the Bear River about one mile southeast of Wheatland. This gage to be maintained by the U. S. G. S.

(b) State Department of Water Resources and U. S. G. S. continuous water stage recorder and staff gage located on the left bank of the Feather River about 2,000 feet downstream from the old Nicolaus Bridge. This gage to be maintained by the State Department of Water Resources and the U. S. G. S.

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.

2-05. Environment Protection.

a. Vegetation preserved as a part of selective clearing on the waterside berm or slope above the bank protection during prosecution of the contract shall not be removed as a part of normal maintenance. Dead trees with wildlife value will be retained except where they constitute a hazard to existing flood control works. *

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 Sacramento River Flood Control Project. The State representative will give assistance or advise, or will determine appropriate action to be taken.

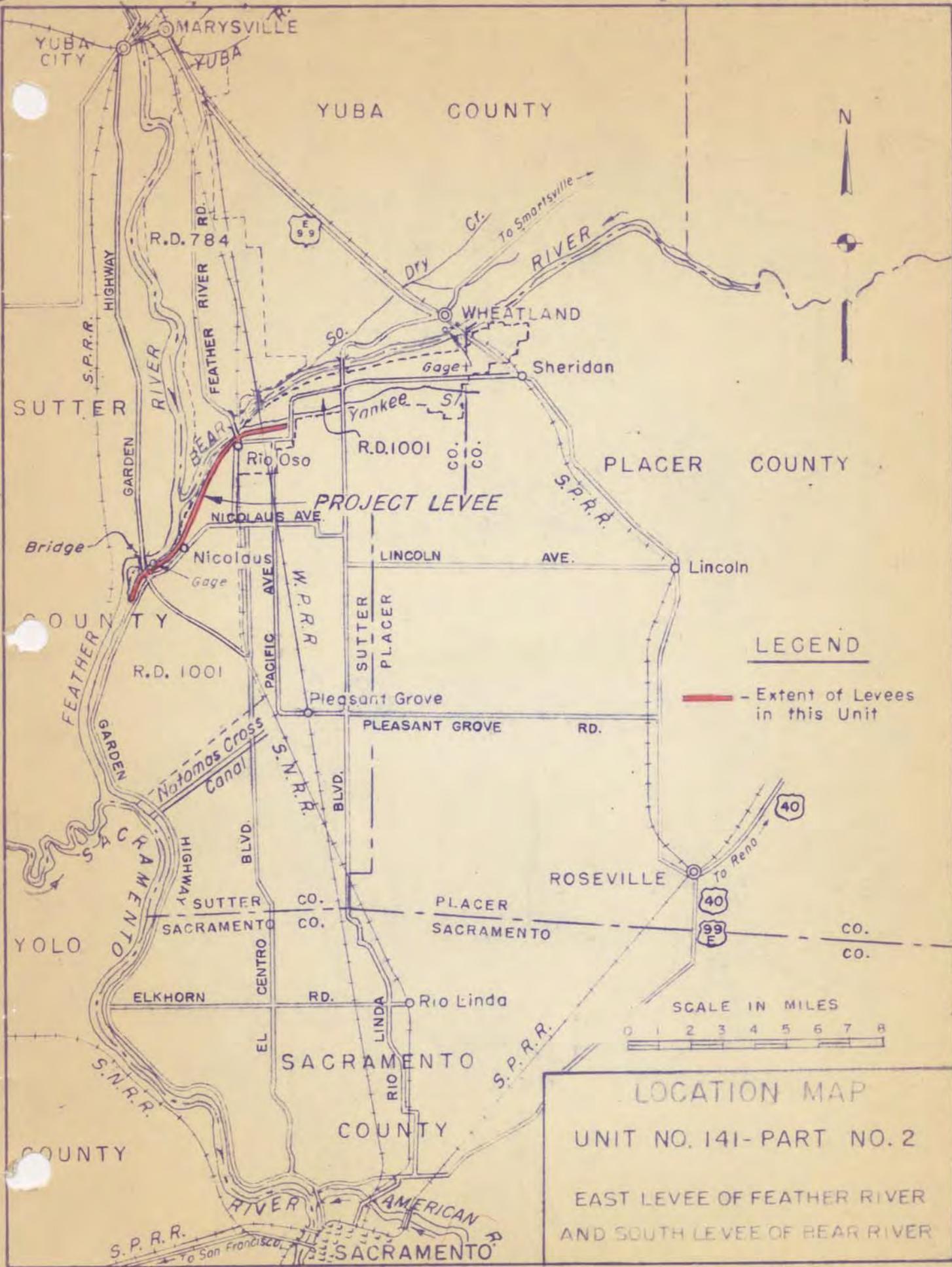
3-02. Applicable methods of combating floods. - For applicable methods of combating flood conditions, reference is made to Section VIII of the Standard Manual and Maintenance Manual, revised May 1955, where the subject is fully covered.

EXHIBIT A

FEDERAL FLOOD CONTROL REGULATIONS

(SEE STANDARD MANUAL.)

EXHIBIT A



LOCATION MAP
 UNIT NO. 141-PART NO. 2
 EAST LEVEE OF FEATHER RIVER
 AND SOUTH LEVEE OF BEAR RIVER

EXHIBIT B

"AS CONSTRUCTED"
DRAWINGS

See separate folder for the following drawings:

<u>File No.</u>	<u>Title</u>	
2-4-120	Levee Repairs along South Levee of Bear River	1 sheet
4-4-360	Emergency Stone Protection and Levee Set back, East Levee Feather River from Nicolaus Bridge downstream 4,000 feet.	Sheets 1 thru 7
4-4-399	Emergency Stone Protection, left bank of Sacramento and Feather Rivers.	Sheets 1 thru 3
4-4-425	Emergency Stone Protection, left bank of Feather River near Nicolaus.	1 Sheet
4-4-450	Left Bank Feather and Bear Rivers from Nicolaus Bridge to W. P. R. R. Bridge.	Sheets 1 thru 15
4-4-542	Bank Protection Left Bank Feather River Mile 6.7 and Right Bank Elder Creek, in 4 sheets.	
50-4-4892	Bank Protection, Various Locations on Sacramento and Bear Rivers and Elder Creek, in 20 sheets.	

EXHIBIT B
Unattached

EXHIBIT C

PLATES OF SUGGESTED FLOOD FIGHTING METHODS

(SEE STANDARD MANUAL)

EXHIBIT C
Unattached

EXHIBIT D

SUGGESTED CHECK LIST NO. 1

LEVEE INSPECTION REPORT

(SSE 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 of this manual.

SUGGESTED CHECK LIST NO. 2
UNIT NO. 141-2

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.

SUGGESTED CHECK LIST NO. 3

CHANNEL AND RIGHT-OF-WAY

UNIT NO. 141-2

Inspector's Report Sheet No. _____ Inspector _____

Date _____ Superintendent _____

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

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

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

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

SUGGESTED CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES

UNIT NO. 141-2

Inspector _____

Superintendent _____

Inspector's Report Sheet No. _____

Date _____

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Location by Levee mileage	Bank	Debris or other obstruction to flow	Damage or settlement of pipe or conduit	Condition of concrete headwall or invert paving	Condition of right-of-way adjacent to structure	Repair Measures taken since last inspection	Comments
1.41	Lt.		<u>Feather River</u>				
3.24	"						
3.25	"						
4.44	"						
12.55	Lt.		<u>Bear River</u>				
8.64	Lt.		<u>Yankee Slough</u>				

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 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 OR TRANSFER
TO THE STATE RECLAMATION BOARD

EXHIBIT F

C
O
P
Y

THE RECLAMATION BOARD
STATE OF CALIFORNIA

C
O
P
Y

August 18, 1976

District Engineer
Sacramento District
U. S. Army Corps of Engineers
650 Capitol Mall
Sacramento, CA 95814

Dear Sir:

The Reclamation Board at its regular meeting of August 13, 1976, formally accepted from the District Engineer the completed flood control work on a portion of Unit No. 27 of the Sacramento River Bank Protection Project. The flood control work was transferred to the State of California by your letter of August 3, 1976.

The flood control work consisted of selective clearing, levee bank sloping, placement of stone bank protection, and such miscellaneous work as necessary to complete the construction at Sites Miles 2.09 Right Bank and 3.83 Left Bank, Elder Creek, Site Mile 2.6 Left Bank, Bear River and Sites Miles 173.8, 174.4 and 177.4 Right Bank, Sacramento River.

The work was constructed in a workmanlike manner and in conformance with Drawing No. 50-4-4892, Specification No. 4461, and Contract No. DACW 05-75-C-0085, insofar as could be determined visually.

Sincerely,

/s/ John F. Wright
for PAUL L. CLIFTON
General Manager

SPKCO-0

3 August 1976
FLOOD CONTROL DISTRICT
SACRAMENTO, CALIFORNIA

The Reclamation Board
State of California
1416 - 9th Street, Room 335
Sacramento, California 95814

done

Gentlemen:

Reference is made to the joint inspections of 29 and 30 July 1976, made for the purpose of transferring a portion of the Sacramento River Bank Protection Project (Unit No. 27) to the State of California for operation and maintenance. This flood control work consists of bank sloping and placement of stone protection on the Sacramento River right bank at Site Miles 173.3, 174.4 and 177.4, Bear River left bank at Site Mile 2.6 and Elder Creek right bank at Site Mile 2.09 and left bank at Site Mile 3.83. The sites, as listed on the inclosure, were completed on 30 July 1976 in accordance with Specification No. 4461, Contract No. DACW05-75-C-0085, Drawing No. 50-4-4892.

[Signature]
ROMPALA/
ph/RI

[Signature]
MCBRIDE

[Signature]
A. SMITH

[Signature]
HENSON

The work was performed under the general authority of the Flood Control Act of 1960, 86th Congress, 2nd Session (Pl. 86-645, 14 July 1960), 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 3 August 1976 to the State of California for operation and maintenance.

[Signature]
PROBASCO

[Signature]
O'SHEI

This portion of the project work will be added by amendment to the Operation and Maintenance Manual, Supplement Nos. 140 and 141, Part No. 2, Sacramento River Flood Control Project and Elder Creek, Sacramento River and Major and Minor Tributaries Project. Copies will be furnished your office at a later date.

Sincerely yours,

DONALD M. O'SHEI
Colonel, CE
District Engineer

*Units 140
141.2*

✓ 1 Incl
As stated

Copy furnished:
DWR, ATTN: R. Franson & Carl King

Engrg Div. (Levees & Channels)
→ (Prog Dev)
→ F & A Br (Kalal)

cc: Flood Control
→ OCE
→ SPD
→ Valley Res Ofc

SUMMARY OF PORTION OF SACRAMENTO RIVER BANK PROTECTION PROJECT,
UNIT 27

Sacramento River Right Bank

<u>Site Mile</u>	<u>Stone Protection</u>	<u>L.F.</u>
173.8	2+00 to 4+00	200
	6+80 to 8+80	200
		<u>400</u>
174.4	0+00 to 5+15	515
	12+50 to 23+00	1050
		<u>1565</u>
177.4	3+00 to 7+70	470

Bear River Left Bank

2.6*	4+50 to 11+00	650
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Elder Creek Right Bank

2.09*	0+00 to 12+00	1200
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Elder Creek Left Bank

3.83	2+00 to 6+00	400
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* Extended

Units 140, 141, 2

COPY

COPY

SPK00-P 824.3 (Sac. Riv. F.C.P.)

13 December 1955

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

Gentlemen:

Reference is made to District Engineer's letter dated 9 November 1958, 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 15 November 1955.

The levee section referred to above is described as follows:

Levee Section No. 477: Easterly levee of the Feather River from the Nicolaus Bridge downstream approximately 2.37 miles, River Mile 9.65 to 7.28.

This levee section was completed on 2 December 1955, under Contract No. DA-04-167-eng-1365 and Drawing No. 4-4-360, and now meets the requirements of the Sacramento River Flood Control Project. The relocation of a section of county road, financed with State Funds, on the southerly side of this levee, from Station 1+00 to 21+36, was also accomplished under said Contract No. DA-04-167-eng-1365. Therefore, said levee section No. 477, 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 levee section No. 477, described above, combined with another section previously transferred, now forms a continuous levee along the left bank of the Feather River from its junction with the Sacramento River to the Nicolaus Bridge, River Mile 0. to 9.65, to be maintained under your responsibility.

EXHIBIT F
Sheet 1 of 3

COPY

COPY

SPKKO-P 824.3 (Sac. Riv. F.C.P.)
The Reclamation Board

13 December 1955

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 3 of the Act of Congress, approved 28 June 1956, as amended and supplemented by the 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,

WM. J. ELY
Col. CP
District Engineer

EXHIBIT F
Sheet 2 of 3

COPY

COPY

November 24, 1959

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 10, 1959, SPKKO-P, regarding transfer to the State of levee sections on the left bank of the Feather River, Bear River, and Yankee Slough, at the locations listed below:

<u>Levee Sect.</u>	<u>Location</u>	<u>Mile Points</u>
646	Left Bank, Feather River	9.92 to 12.55
647	Left Bank, Bear River	0.00 to 3.30
648	Left Bank, Yankee Slough	0.00 to 0.75
649	Left Bank, Yankee Slough (Patrol road surfacing only)	0.75 to 1.95

The Reclamation Board at its meeting of November 19, 1959 formally accepted these levee sections for operation and maintenance.

Sincerely yours,

A. N. MURRAY
General Manager and Chief Engineer

EXHIBIT F
Sheet 3 of 3

THE RECLAMATION BOARD

January 7, 1964

Refer to: 7001.60.401
4130.60.401

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

Dear Sir:

Reference is made to your letter of December 6, 1963, concerning transfer to the State of California of bank protection work on the Sacramento River Bank Protection Project, Contract 7, Left Bank Feather River at Mile 6.7 in the vicinity of Nicholas in accordance with Specification No. 2985.

The Reclamation Board, at its meeting of January 3, 1964, formally accepted the above referred to bank protection work for operation and maintenance.

Sincerely yours,

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

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. 141-2 of the Sacramento River Flood Control 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 at 12.0 on the gage at Wheatland on the Bear River, and 43.0 on the gage at Nicolaus on the Feather River) 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

EXHIBIT G
Sheet 2 of 2