

SUPPLEMENT TO STANDARD  
OPERATION AND MAINTENANCE  
MANUAL

SACRAMENTO RIVER  
FLOOD CONTROL PROJECT

UNIT NO. 127  
LEVEES OF KNIGHTS LANDING RIDGE CUT  
AND  
SACRAMENTO RIVER & YOLO BY-PASS LEVEES  
OF  
RECLAMATION DISTRICTS NO. 730 AND 819  
AND  
SOUTH LEVEE OF SYCAMORE SLOUGH



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

CORPS OF ENGINEERS

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Prepared by the Sacramento District  
Corps of Engineers, U. S. Army  
Sacramento, California, dated June 1953

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LOCATION	ADDITION OR REVISION	DATE
1-04 e.	Add contract no. 57-38	Nov 1963
Exhibit B	Add drawing no. 50-4-3293	Nov 1963
1-04 f.	Add contract no. 63-79	Oct 1964
Exhibit B	Add drawing no. 50-4-3752	Oct 1964
Exhibit F	Add letter of acceptance dated 8 Nov 1963	Oct 1964
1-04 f.	Add contract no. 64-71	Jun 1965
Exhibit B	Add drawing no. 50-4-3742	Jun 1965
Exhibit F	Add letter of acceptance dated 9 Nov 1964	Jun 1965
1-04 g.	Add contract no. DACW05-68-C-0014	Dec 1968
Exhibit B	Add drawing no. 50-4-4078	Dec 1968
Exhibit F	Add letter of acceptance dated 23 Dec 1968	Dec 1968
1-04 h.	Add contract no. DACW05-70-C-0008	Mar 1971
Exhibit B	Add drawing no. 50-4-4310	Mar 1971
Exhibit F	Add copy of letter of acceptance dated 2 Oct 1970	Mar 1971
1-04	Add subparagraph i.	Feb 1973
Exhibit B	Add drawing no. 50-4-4381	Feb 1973
Exhibit F	Add copy of letter of acceptance dated 17 Jan 1972	Feb 1973
1-04	Add subparagraph j.	Jan 1976
2-02	Add subparagraph e.	Jan 1976
Exhibit B	Add drawing no. 50-4-4777	Jan 1976
Exhibit F	Add copy of letter of acceptance dated 18 Nov 1974	Jan 1976
1-04	Add subparagraph k.	Sep 1981
2-02	Delete subparagraph e. (1976 revision)	Sep 1981
2-05	Add environment protection	Sep 1981
Exhibit B	Add drawing no. 50-4-5130	Sep 1981
Exhibit F	Add copy of letters of acceptance dated 6 Sep 1979	Sep 1981
1-04 l.	Add subparagraph l.	Nov 1983
Exhibit B	Added drawing no. 50-4-5433	Nov 1983
Exhibit F	Added transfer letter dated 19 Nov 1979	Nov 1983
Exhibit F	Add copy of letter of transfer dated 12 Aug 1946	22 Dec 2010

<b>LOCATION</b>	<b>ADDITION OR REVISION</b>	<b>DATE</b>
Exhibit F	Add copy of letter of acceptance dated 21 Aug 1946	22 Dec 2010
Exhibit F	Add copy of letter of transfer dated 4 Dec 1951	22 Dec 2010
Exhibit F	Add copy of letter of acceptance dated 18 Dec 1951	22 Dec 2010
Exhibit F	Add copy of letter of transfer dated 6 Oct 1952	22 Dec 2010
Exhibit F	Add copy of letter of transfer dated 3 Dec 1952	22 Dec 2010
Exhibit F	Add copy of letter of transfer dated 24 Jun 1955	22 Dec 2010
Exhibit F	Add copy of letter of acceptance dated 12 Jul 1955	22 Dec 2010
1-04	Changed second subparagraph f to subparagraph g; renumbered subsequent subparagraphs (f through l becomes g through m).	22 Dec 2010
1-04	Add subparagraph n	22 Dec 2010
Exhibit F	Add copy of letter of transfer dated 3 Feb 1987	22 Dec 2010
Exhibit F	Add copy of letter of transfer dated 21 Oct 1964	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 5 Nov 1968	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 28 Sep 1970	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 27 Dec 1971	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 30 Oct 1974	8 Mar 2011
Exhibit F	Add copy of letter of transfer dated 6 Aug 1979	8 Mar 2011
Exhibit F	Add copy of letter of acceptance dated 4 Dec 1979	8 Mar 2011
1-04	Add subparagraph o	8 Mar 2011
Exhibit F	Add copy of letter of transfer dated 30 Nov 1987	8 Mar 2011
1-04	Add subparagraph p	8 Mar 2011
Exhibit F	Add copy of letter of transfer dated 13 Jan 1995	8 Mar 2011
Exhibit F	Add copy of letter of acceptance dated 31 Mar 1995	8 Mar 2011
Exhibit B	Add drawing no. 50-4-5714	12 Sep 2011
Exhibit B	Add drawing no. 50-4-5806	12 Sep 2011

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SACRAMENTO RIVER FLOOD CONTROL PROJECT

UNIT NO. 127

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AND

SACRAMENTO RIVER AND YOLO BY-PASS LEVEES

OF

RECLAMATION DISTRICTS NO. 730 AND 819

AND

SOUTH LEVEE OF SYCAMORE SLOUGH

SECTION I - INTRODUCTION

1-01. Location. - The improvement covered by this manual is that part of the Sacramento River Flood Control Project which includes the west levee of the Sacramento River from Sycamore Slough to Fremont Weir, both levees of Knights Landing Ridge Cut from its junction with Sycamore Slough downstream to the Yolo By-pass, the west levee of the Yolo By-pass from Fremont Weir to Knights Landing Ridge Cut, and the South levee of Sycamore Slough from Sacramento River to Knights Landing Ridge Cut. The Yolo By-pass is a leveed floodway which conveys excess flood waters from the Sacramento and Feather Rivers. Knights Landing Ridge Cut and Sycamore Slough convey drainage water of the Colusa Basin to the Sacramento River and Yolo By-pass from an area that lies westerly from the main Sacramento River system. Levees and channels of this unit are located in Reclamation Districts No. 730 and 819, in Yolo County, California and in the general vicinity of the town of Knights Landing. The location of the completed unit covered by this manual is shown on Exhibit A-1. This manual covers and supersedes the supplemental manual designated as Unit No. 7 of the Sacramento River Flood Control Project entitled, "West Levee of the Sacramento River and the South Levee of Sycamore Slough at Knights Landing," prepared by the Sacramento District Engineer.

1-02. Protection provided. - Levees of the Sacramento River, Knights Landing Ridge Cut, Yolo Bypass, and Sycamore Slough located within this unit are essential features of the Sacramento River Flood-control Project. The levees of this unit provide protection to adjacent agricultural lands and the town of Knights Landing against flood waters in the Sacramento River system and drainage waters of Knights Landing Ridge Cut. The grade of the adopted flood plane profile along Yolo By-pass varies from elevation 40.8 at Fremont Weir to elevation 36.8 at Knights Landing Ridge Cut. The grade of the adopted flood plane profile along the main channel of the Sacramento River varies from elevation 42.3 at the town of Knights Landing to elevation 40.8 at Fremont Weir. In Knights Landing Ridge Cut the grade of the adopted flood plane varies from elevation 39.8 at State Highway No. 24 to elevation 36.8 at the Yolo By-pass. Along the Sacramento River the levee grade provides a freeboard in excess of 3 feet above the flood plane profile; along the west levee of Yolo By-pass the freeboard is 6 feet and along the Knights Landing Ridge Cut the freeboard varies from 3 feet at State Highway No. 24 to 6 feet at Yolo By-pass.

The project design flood flows of 30,000 cubic feet per second in the main channel of the Sacramento River, 20,000 cubic feet per second in Knights Landing Ridge Cut and 343,000 cubic feet per second in Yolo By-pass will produce the adopted flood plane profile.

1-03. Project works. - The project works covered by this manual include the following:

a. The west levee of the Sacramento River from Sycamore Slough (town of Knights Landing) downstream 5.4 miles to Fremont Weir. This reach of levee was originally built by local interests, improved by various bank protection jobs by the Corps of Engineers and reconstructed at various locations to adopted grade and section by the Corps of Engineers.

b. Levees along both banks of Knights Landing Ridge Cut together with the channel from the junction of Sycamore Slough southeasterly (downstream) 6.4 miles to its junction with the Yolo By-pass as constructed by local interests and reconstructed to adopted grade and section or provided with a surfaced patrol road by the Corps of Engineers.

c. The west levee of Yolo By-pass from Fremont Weir downstream to Knights Landing Ridge Cut as constructed by local interests and enlarged by the Corps of Engineers to adopted grade and section.

d. The south levee of Sycamore Slough from the Sacramento River to Knights Landing Ridge Cut as constructed by local interests.

e. Outfall gates of Sycamore Slough at Station 27,96 in the town of Knights Landing as constructed by local interests.

1-04. Construction Data. Unit No. 127 of the flood control works described in this manual forms an integral part of the Sacramento River Flood Control Project. In addition to locally built levees and various bank protection works performed by the Corps of Engineers, necessary contracts under supervision of the Corps of Engineers to complete levees of this unit to project standards are listed as follows:

a. Enlargement to adopted grade and section of the west levee of Yolo Bypass from Fremont Weir to Knights Landing Ridge Cut as shown on Drawing No. 50-4-2146, in 1 sheet (Exhibit B). Work on this portion was completed on 6 November 1943 under Contract No. W-04-167-eng-70 by Larsen and Harms, Contractors.

b. Bank protection works levee setback, and enlargement to adopted grade along the west levee of the Sacramento unit as shown on Drawings No. 50-4-2212, in 5 sheets (Exhibit B). Work on this part was started on 20 March 1946 and completed on 25 June 1946 under Contract No. W-04-167-eng-1106 by H. Earl Parker Inc., Contractor.

c. Levee strengthening and alignment to adopted grade and section of the east and west levees of Knights Landing Ridge Cut as shown on Drawings No. 50-4-2848, in 8 sheets (Exhibit B). Work on levees of Knights Landing Ridge Cut was started on 5 May 1952 and completed on 18 September 1952 under Contract No. DA-04-167-eng-791 by Foster & McHarg, Contractors.

d. Levee setback and bank protection work along the west levee of the Sacramento River from mile 85.3 to 85.5 and mile 88.8 to 89.3 as shown on Drawings No. 50-4-2893 in one sheet, 50-4-2894, in one sheet and 50-4-2898, in two sheets (Exhibit B). Work on this portion of the unit was started on 1 July 1952 and completed on 17 February 1953 under Contract No. DA-04-167-eng-806, by H. Earl Parker, Inc., Contractor.

e. Emergency levee repairs, left bank Knights Landing Ridge cut upstream from County Road No. 16 was accomplished under Contract No. DA-04-167-CIVENG-57-38 by Daniel Bayles, Jr., contractor, during the period from 27 August 1956 to 25 September 1956, Specification No. 2201, Drawing No. 50-4-3293.

f. Emergency levee repairs, right and left banks on Knights Landing Ridge Cut was accomplished under Contract No. DA-04-167-CIVENG-63-79 by Malfitano and Son, Inc. during the period from 16 July 1963 to 15 October 1963, Specification No. 3006, Drawing No. 50-4-3752.

g. Bank protection, right and left banks at various sites from Boyer's Bend to Monument Bend was accomplished under Contract No. DA-04-167-CIVENG-64-71 by H. Earl Parker, Inc. during the period from 23 April 1964 to 20 October 1964, Specification No. 2958, Drawing No. 50-4-3742.

h. Bank protection on the right bank of the Sacramento River at Miles 87.0 and 89.2 (Unit No. 12) was accomplished under Contract No. DACW05-68-C-0014 by A.

Teichert and Son, Inc. and completed in November 1968. Specification No. 3288, Drawing No. 50-4-4078.

i. Bank protection on the right bank of the Sacramento River at Mile 84.5 (Unit No. 16) was accomplished under Contract No. DACW05-70-C-0008 by H. Earl Parker during the period from 25 July 1969 to 23 September 1970. Specification No. 3390, Drawing No. 50-4-4310.

j. Bank protection on the right bank of the Sacramento River at Miles 84.6 and 89.3 (Unit No. 20) was accomplished under Contract No. DACW05-71-C-0051 by Claude C. Wood during the period from 1 October 1970 to 30 October 1972. Specification No. 3459, Drawing No. 50-4-4381.

k. Stone protection, bank sloping, and selective clearing on the right bank of the Sacramento River at Site Miles 84.3 and 85.9 (a portion of Unit 26) was accomplished under Contract No. DACW05-73-C-0059 by Luhr Brothers Inc. during the period from 7 December 1972 to 15 November 1974. Specification No. 4251, Drawing No. 50-4-4777.

l. Bank sloping, stone protection and selective clearing on the right bank of the Sacramento River at Site Miles 86.5, 86.7, 86.8, 87.5 and 88.2 (of Unit 30) was accomplished under Contract No. DACW05-76-C-0107 by James Ferry and Son. Construction was completed on 6 July 1979. Specification No. 5081.

m. Bank sloping, stone protection and selective clearing on the right bank of the Sacramento River at Site Mile 85.9 (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.

n. Emergency repairs, left bank of the Colusa Basin Drain in Reclamation District 108, and left and right banks of the Knights Landing Ridge Cut were completed on 2 December 1986 under Contract No. DACW05-86-C-0017. Drawing No. 50-25-5772.

o. Bank sloping and stone protection on the right bank of the Sacramento River, Site Mile 89.8 was completed on 15 November 1987 under Contract No. DACW05-86-C-0079. Specification No. 7082, Drawing No. 50-4-5714.

p. Stone protection, selective clearing, excavation, and other miscellaneous work on the right bank of the Sacramento River, Site Miles 88.8 and 89.0 was completed on 16 November 1994 under Contract No. DACW05-94-C-0044. Specification No. 8385, Drawing No. 50-4-5806.

1-05. For purpose of this manual, the term "flood" or "high water" shall refer to flows when the water surface reaches or exceeds a reading of 37.0 on the continuous water stage recorder and staff gage of the Division of Water Resources station located on the left bank of the Sacramento River immediately upstream from the Southern Pacific Railroad Bridge at Knights Landing; also when the water surface reaches or exceeds a reading of 35.0 on the continuous water stage recorder and staff gage of the Division of Water Resources, U. S. Geological Survey and U. S. Department of the Army cooperative station located about 500 feet westerly from the west end of Fremont Weir. Both continuous water stage recorders and staff gages are set on U.S.C .E. datum.

1-06. Assurances Provided by Local Interests. Assurance of cooperation by local interests is provided by state legislation, as contained in Chapter 3, 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 portions of the complete works was officially accepted by the Reclamation Board of the State of California on 18 December 1951, and 16 December 1952, as shown on the attached letters of acceptance, Exhibit F.

Two units of work along the westerly levee of the Sacramento River (Mile 84.0 to 85.3 and Mile 85.5 to 85.9) were transferred to the State Reclamation Board on 8 December 1951, as shown on the attached letter of transfer, 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. Channels. -

a. Description. The principal features consist of:

(1) Channels or floodways. - The Sacramento River Channel from junction of Sycamore Slough in the town of Knights Landing to Fremont Weir and the Sycamore Slough channel which connects the Sacramento River with Knights Landing Ridge Cut in a northeast-southwest direction. The channel of Knights Landing Ridge Cut from Sycamore Slough downstream about 6.4 miles to Yolo By-pass is about 400 feet wide and carries drainage waters of the Colusa Basin. The Yolo By-pass from Fremont Weir to junction of Knights Landing Ridge Cut is a leveed floodway which conveys excess flood waters from the main Sacramento River & Feather River System. Outfall gates in Sycamore Slough performs a dual purpose by releasing excess waters of Knights Landing Ridge Cut during high water periods and retaining water for irrigation purposes during low water periods.

Since the channel of the Sacramento River from Knights Landing to Fremont Weir is utilized for navigable purposes, the responsibility of local interests for inspection, maintenance and operation of the channel of the Sacramento River shall be limited to flood control and the requirements of paragraphs 2-01b, c, and d, which follow, shall be observed only to that extent.

The floodway of Yolo By-pass, the channel of Knights Landing Ridge Cut and the channel of Sycamore Slough within this unit shall be inspected, maintained and operated as outlined in paragraph 2-01b, c, and d.

b. Inspection.

(1) Pertinent requirements of the Code of Federal Regulations. Flood-control Regulations, Par. 208.10(g)(1) are quoted in part as follows:

"(g) Channels and Floodways ... (1) Maintenance. Periodic inspections of improved channels and floodways shall be made by the Superintendent to be certain that:

- (i) The Channel or floodway is clear of debris, weeds, and wild growth;
- (ii) The channel or floodway is not being restricted by the depositing of waste materials, building of unauthorized structures or other encroachments;

- (iii) The capacity of the channel or floodway is not being reduced by the formation of shoals;
- (iv) Banks are not being damaged by rain or wave wash, and that no sloughing of banks has occurred;
- (v) Riprap sections and deflection dikes and walls are in good condition;
- (vi) Approach and egress channels adjacent to the improved channel or floodway are sufficiently clear of obstructions and debris to permit proper functioning of the project works.

Such inspections shall be made prior to the beginning of the flood season and otherwise at intervals not to exceed 90 days. Immediate steps will be taken to remedy any adverse conditions disclosed by such inspections..... "

(2) The purpose of the flood-flow channels inspection is to insure that conditions which affect the channel capacity will remain the same, as far as possible, as those considered in the design assumptions and that no new conditions develop that may affect the stability of the project structures. At each inspection required by Par. 208.10(g)(1) of the Flood Control Regulations, particular attention will, therefore, be given the following:

- (a) Location, extent and size of vegetal growth.
- (b) Unauthorized operations within the flood-flow channel right-of-way, such as excavations, buildings, and other structures, levees, bank protection, or training dikes.
- (c) Rubbish and industrial waste disposal.
- (d) Changes in the channel bed such as aggradation or degradation, which would interfere with free-flow from side drainage structures or induce local meanders that would scour the banks.
- (e) Operations of any nature upstream from the project that would affect flow conditions within the limits of the flood control project.
- (f) Condition of project structure.

1. Channel walls:

- a. Deviation from alignment and grade
- b. Development of cracks and spalls.
- c. Mechanical injuries.

2. Fencing:

- a. Injuries to posts, fencing or barbed wire.
- b. Damage to galvanizing.

3. Earth fills:

- a. Settlement.
- b. Erosion of levee slopes.
- c. Excessive seepage or saturation area back of fills.
- d. Condition of bank protection - concrete or stone blanket.

4. Right-of-way:

- a. Presence of dumped refuse.
- b. Encroachment or trespass.

(3) No excavation within the limits of Unit No. 127 of the Sacramento River, Yolo By-pass, Knights Landing Ridge Cut or Sycamore Slough will be permitted unless an excavation permit has been approved by the State Board of Reclamation.

(4) If any work is done to improve flow conditions in the Sacramento River, Yolo By-pass, Knights Landing Ridge Cut or Sycamore Slough within said Unit No. 127, it should be coordinated with the District Engineer to insure that proper provisions are made for channel alignment and capacity to conform to the existing project.

(5) The intent of these inspections is to disclose all conditions which in any way affect the stability of the structures and their functioning for the control of floods. Each inspection report should note and comment on any repair measures that have been taken since the last inspection. In making these inspections, the check sheets included as Exhibit E shall be explicitly followed.

c. Maintenance.

(1) Pertinent Requirements of the Code of Federal Regulations. Flood Control Regulations, Par. 208.10(g)(1) are quoted in part as follows: ".... Immediate steps will be taken to remedy any adverse conditions disclosed by such inspection...."

(2) Shoaling or aggradation at the inlets or outlets of side drainage structures may render them inoperative. It is, therefore, imperative that all drains be kept open and unobstructed at all times.

(3) Dumped rock or other suitable types of protection should be placed at locations found by experience to be critical trouble points, with a view to stabilizing the channel alignment and preserving the general uniformity of the bank lines.

(4) Sediment and debris plugs or other obstructions should be removed from the channel to prevent any tendency for the flows to be deflected within the channel. The heavy material likely to accumulate in the new channel at the mouths of tributaries should be removed to keep the channel clear.

(5) The channel and right-of-way shall be kept reasonably clear of debris, refuse matter, or industrial wastes.

(6) Weeds and other vegetal growth in the channel shall be cut in advance of the flood season and together with all debris, removed from the channel.

(7) All eroded concrete shall be repaired as soon as any reinforced steel is exposed or before erosion reaches a depth of 4 inches. For this purpose, it is recommended that the repair be made by thoroughly cleaning the surface by sandblasting and building up the section with pneumatically placed Portland cement mortar. All evidence of settlement, uplift, or failure of concrete structures shall be referred to the State Engineer for analysis and remedial measures.

(8) All damage to fencing, whether resulting from accidental or willful injuries or from corrosion, shall be promptly repaired with new material in order to maintain satisfactory protection to the public.

(9) All subdrainage structures which have become cemented due to the evaporation of ground water or other causes, shall be thoroughly cleaned out and repacked with fresh gravel.

d. Operation.

(1) Pertinent Requirements of the Code of Federal Regulations. Par. 208.10(g)(2), are quoted in part as follows:

"(g) Channels and floodways.....(2) Operation. Both banks of the channel shall be patrolled during periods of high water .... Appropriate measures shall be taken to prevent the formation of jams .... of debris. Large objects which become lodged against the bank shall be removed. The improved channel or floodway shall be thoroughly inspected immediately following each major high water period. As soon as practicable thereafter all snags and other debris shall be removed and all damage to .... walls, drainage outlets or other flood control structures repaired."

(2) It shall be the duty of the Superintendent to maintain a patrol of the project works during all periods of flow in excess of a reading of 37.0 on the gage at Southern Pacific Railroad Bridge at Knights Landing and a reading of 35.0 on the gage at Fremont Weir as indicated in paragraph 1-06 of this manual. The Superintendent shall dispatch a message by the most suitable means to the District Engineer whenever the water surface at S.P.R.R. Bridge and Fremont Weir reaches the gage readings indicated above. The Superintendent shall cause readings to be taken at said gages at intervals of two or 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 3-03c of the Standard Manual.

## 2-02. Levees. -

a. Description. The levees described in this manual are located along the west levee of the Sacramento River from Sycamore Slough to Fremont Weir; levees along both banks of Knights Landing Ridge Cut from Sycamore Slough to the Yolo By-pass; the west levee of the Yolo By-pass from Fremont Weir to its junction with Knights Landing Ridge Cut and the south levee of Sycamore Slough from Knights Landing Ridge Cut to the Sacramento River. All levees within this unit were originally built by local interests and portions that required bank protection work, setback or enlargement have been built to adopted grade and section by new construction. For more complete detail of items included in construction of above-mentioned levees, refer to the "As Constructed" drawings of Exhibit B.

## b. Inspection.

(1) Pertinent Requirements of the Code of Federal Regulations. Flood Control Regulations, paragraph 208.10(b)(1), are quoted in part as follows:

"(b) Levees - (1) Maintenance .... Periodic inspection shall be made by the Superintendent ... to be certain that;

(i) No unusual settlement, sloughing, or material loss of grade of levee cross section has taken place.

(ii) No caving has occurred on either the landside or the riverside of the levee which might affect the stability of the levee section.

(iii) No seepage, saturated areas, or sand boils are occurring.

(iv) Toe drainage systems and pressure relief wells are in good working condition, and that such facilities are not becoming clogged.

(v) Drains through the levees and gates on said drains are in good working condition.

(vi) No revetment work or riprap has been displaced, washed out, or removed.

(vii) No action is being taken, such as burning grass and weeds, during inappropriate seasons, which will retard or destroy the growth of sod; (see Note (a) at end of subparagraph (1).)

(viii) Access roads to and on the levee are being properly maintained.

(ix) Cattle guards and gates are in good condition.

(x) Crown of levee is shaped so as to drain readily, and roadway thereon, if any, is well shaped and maintained.

(xi) There is no unauthorized grazing or vehicular traffic on the levees.

- (xii) Encroachments are not being made on ~~the right-of-way~~ which might endanger the structure or hinder its proper and efficient functioning during times of emergency.

Such inspections shall be made immediately prior to the beginning of the flood season immediately following each major high water period, and otherwise at intervals not exceeding 90 days; and such intermediate times as may be necessary to insure the best possible care of the levee ..."

Note (a)

Since the growth of sod on the slopes of the levees of this project is not practicable and as the nature of the levee growth warrants burning thereof to facilitate inspection, the provisions of subparagraph b(1) of the regulations inconsistent therewith shall not apply. In place of item (vii), therefore, the following shall be observed:

Weeds, grasses and debris on the levee are burned during appropriate seasons, where not dangerous or impracticable, in order to permit the detection of cracks, holes, burrows, slips, and other damage and to permit the detection and extermination of borrowing animals and that grass and weeds on levee slopes be mowed where removal by burning is dangerous or impracticable, such as peat levees ~~or~~ where burning would constitute a hazard.

(2) To insure the taking of such maintenance measures ~~and~~ will be required for proper functioning of the levee, the following items shall be specifically covered in each inspection:

- (a) Aggradation ~~or~~ degradation of the stream bed along the toe.
- (b) Settlement of levee fill.
- (c) Erosion of levee slopes; both sides of levees.
- (d) Presence of seepage; saturated areas, or sand boils back of levee.
- (e) Condition of access roads and roadway on levee.

c. Maintenance.

(1) Repairs to levee embankment. Methods used for repair or reconstruction of the levee fill will depend on the extent of the damaged section. If of small extent, the most suitable method will be to bring the levee back to line and grade by a fill made in 6-inch layers of earth free from brush, roots, sod or other unsuitable material. If of larger extent, the fill should be made in the same manner as the original construction, of selected material from borrow pits approved for the project, placed in uniform layers of loose material and not more than 6 inches in depth and compacted in accordance with the specifications under which the work was completed or compacted according to approved construction practices.

(2) Depredations of burrowing animals. Dens and runways formed within the levee by burrowing animals are frequently the causes of levee failures during flood stages. Burrowing animals such as muskrats, ground hogs, ground squirrels, moles and gophers, found in the levee should be exterminated. The dens and runways should be opened up and thoroughly compacted as they are backfilled. Levees kept properly cleared are not seriously menaced by burrowing animals as they prefer areas where a protective cover, such as high grass, weeds, and brush, is found. Several methods of extermination are found effective, such as trapping, baiting, and poison gases, depending on the type of animal present and the time of year the work is done. Advice concerning the best methods in each locality can be obtained from the County agricultural agent.

(3) Access roads. Access roads to the levees shall be maintained in such condition that they will be accessible at all times to trucks used to transport equipment and supplies for maintenance of flood fighting.

d. Operation.

(1) Pertinent Requirements of the Code of Federal Regulations. Flood Control Regulations, Par. 208.10(b)(2) are quoted in part as follows:

"(2) Operation. During flood periods, the levee shall be patrolled continuously to locate possible sand boils or unusual wetness of the landward slope to be certain that:

- (i) There are no indications of slides or sloughs developing.
- (ii) Wave wash or scouring action is not occurring.
- (iii) No low reaches of levee exist which may be over-topped.

(iv) No other conditions exist which might endanger the structures.

Appropriate advance measures will be taken to insure the availability of adequate labor and materials to meet all contingencies. Immediate steps will be taken to control any condition which endangers the levee and to repair the damaged section."

2-03. Drainage and irrigation structures. -

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

STRUCTURES AFFECTING LEVEE MAINTENANCE

(For location of stations see drawings of Exhibit B)

Location Station	Pipe size & kind	Gate Model No.	Other Structure Description	Elev. of In-vert at Pipe
------------------	------------------	----------------	-----------------------------	--------------------------

WEST LEVEE OF SACRAMENTO RIVER

12/75			Concrete well at R.S. toe with valve	
37/49	10" Steel		Pump R.S.	
69/80	20" Steel		2 inclined pumps R.S.	
79/25	18" Steel		Pump and valve R.S., concrete distribution well L.S.	
108/20	10" Concrete		Abandoned	
128/90	10" Steel		Abandoned	
144/80	12" Steel		Pump R.S., Concrete Standpipe L.S.	
192/60	16" Steel		Concrete well and pumphouse R.S., concrete spillbox L.S.	
208/15	20" C.M.P.	Gate Valve	20" gate valve on landside	31.7
224/03.5	18" C.M.P.	Gate Valve	Gate valve in pump house on riverside	37.3
266/72.2	14" Steel		Pump and valve R.S.	43.2
284/70	4" Steel			
285/27	10" Steel			

WEST LEVEE YOLO BY-PASS

43/95	24" C.M.P.	1001	Gate R.S.	
92/31.5	20" Steel		Slide gate R.S., Gate Valve and pump L.S.	
92/35	42" C.M.P.	1001	Gate R.S.	
133/82	2-42" C.M.P.	1001	Slide gate R.S., concrete spillbox L.S.	

STRUCTURES AFFECTING LEVEE MAINTENANCE, Cont'd  
SOUTH LEVEE OF SYCAMORE SLOUGH

Location Station	Pipe size & kind	Gate Model No.	Other Structure Description	Elev. of In-vert at Pipe
------------------	------------------	----------------	-----------------------------	--------------------------

SOUTH LEVEE OF SYCAMORE SLOUGH

18 <del>36</del> 27 <del>00</del>	48" C.M.P. 8" Steel	101	8' gate frame on riverside Pump R.S., Concrete spillbox L.S.	33.0
--------------------------------------	------------------------	-----	---	------

WEST LEVEE OF KNIGHT'S LANDING RIDGE CUT

0 <del>30</del> 32 <del>94</del>	36" C.M.P. 20" Steel		Slide gate R.S. 1 - C.M. Cut-off wall Frame pump and motor R.S. - Concrete standpipe L.S.	20.2 36.0
47 <del>00</del> 71 <del>25</del> 123 <del>25</del>	11" Steel 24" Steel 14" Steel		Pump on riverside 1 - C.M. Cut-off wall, pump R.S. 1 - C.M. Cut-off wall, concrete saddle drainage gate R.S.	40.6 37.6 41.0
123 <del>55.5</del>	4'x4' Con- crete box	4'x4' Slide headgate	19' gate frame R.S.	21.2
128 <del>00</del>	24" Steel		Pump house on concrete base L.S.	36.7
128 <del>00</del>	18" Steel		Pump house on concrete base L.S.	38.2
129 <del>75</del>	24" Steel		Pump platform R.S.	35.3
129 <del>75</del>	30" Steel		Pump platform R.S.	35.2
304 <del>76.2</del>	24" Steel		Flap gates L.S. - pump R.S.	38.9
304 <del>76.2</del>	18" Steel		Service power pole L.S.	39.0
323 <del>00</del>	48" C.M.P.		Pipe does not go entirely thru levee	34.7
44 <del>35</del>	24" Steel		1 - C.M. Cut-off wall	39.6
52 <del>00</del>	15" Steel		Pump R.S.	41.5
103 <del>21.8</del>	24" Steel	4' Slide headgate R.S.	2 - Concrete cut-off walls, pump L.S.	22.6
103 <del>21.8</del>	12" Steel	Automatic Gate R.S.	1 - C.M. Cut-off Wall, pump L.S.	40.6
127 <del>20</del>	16" Steel		Pump L.S.	37.3
210 <del>99</del>	24" Steel		Pump L.S.	34.2
211 <del>05</del>	15" Steel		Pump L.S.	34.1
271 <del>79</del>	18" Steel		Pump R.S. - Concrete Diversion box L.S.	36.6

Notes pertaining to gate models and abbreviations used above:

(1) Gate Model No. 101 is a Calco slide gate which operates by handscrew on a steel frame.

(2) Gate Model No. 1001 is a Calco combination flap gate and slide gate.

(3) C.M.P. = corrugated metal pipe.

(4) C.M. = corrugated metal.

(5) L.S. = landside.

(6) R.S. = riverside.

b. Inspection.

(1) Pertinent Requirements of the Code of Federal Regulations. Flood Control Regulations, paragraph 208.10(d)(1), are quoted in part as follows:

"(d) Drainage Structures (1) Maintenance - Adequate measures shall be taken to insure that inlet and outlet channels are kept open and that trash, drift, or debris is not allowed to accumulate near drainage structures. Flap gates and manually operated gates and valves on drainage structures shall be examined, oiled and trial operated at least once every 90 days ..... Periodic inspections shall be made by the Superintendent to be certain that:

(i) Pipes, gates, operating mechanism, rip-rap and headwalls are in good condition;

(ii) Inlet and outlet channels are open;

(iii) Care is being exercised to prevent the accumulation of trash and debris near the structures and that no fires are being built near bituminous coated pipes,

(iv) Erosion is not occurring adjacent to the structures which might endanger its water tightness or stability.

Immediate steps will be taken to repair damage, replace missing or broken parts, or remedy adverse conditions disclosed by such inspections."

(2) At each inspection required by paragraph 4-02(b) (2) of the Standard Manual, the following items, if applicable, shall be particularly noted;

(a) Debris or other obstructions to flow

- (b) Condition of pipes and gates.
- (c) Damage or settlement of pipe.
- (d) Condition of concrete-cracks, spalls, erosion.

c. Maintenance.

(1) All eroded concrete shall be repaired as soon as any reinforcing steel is exposed or before erosion reaches a depth of 4 inches. For this purpose it is recommended that the repair be made by thoroughly cleaning the surface by sandblasting and building up the concrete to its original section with pneumatically-placed Portland cement mortar. All evidences of settlement, uplift, or failure of concrete structures should be referred to the State Engineer for analysis and recommendation of remedial measures.

(2) If the inspection shows that the automatic drainage structures have been jammed in an open position by debris or other obstructions, they shall be thoroughly cleaned so that they swing freely to a true closure. If any parts of the gates have been damaged or broken, they shall be replaced by new parts.

(3) Compliance with the provisions prescribed above pertaining to drainage structures is essential for proper maintenance of the levee system covered by this manual. Levee failures caused by neglected drainage structures are of common occurrence; it is therefore, of utmost importance that these structures always be kept in perfect working condition in accordance with the regulations.

(4) Care should be taken not to bury any of the side drainage inlets in the event that it becomes necessary to fill any of the low-lying pockets in back of the levee. Plans for the maintenance of drainage facilities at any points should be submitted to the State Engineer for approval before such work is started.

d. Operation.

(1) Pertinent Regulations of the Code of Federal Regulations, Flood Control Regulations, 208.10 (d)(2), are quoted in part as follows:

(2) Operation. Whenever high water conditions impend, all gates will be inspected a short time before water reaches the invert of the pipe and objects which might prevent closure of the gate shall be removed. Automatic gates, shall be closely observed until it has been ascertained that they are securely closed

..... All drainage structures in the levees shall be inspected frequently during floods to ascertain whether seepage is taking place along the lines of their contact with the embankment. Immediate steps shall be taken to correct any adverse conditions."

(2) The outlets of side drainage structures inundate at relatively low river stages. They should, therefore, be inspected at the first sign of a rise in the river to make certain that the gates are not jammed in an open position and thus allow flood waters to enter behind the levee.

#### 2-04. Miscellaneous Facilities. -

a. Description. Miscellaneous structures of 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) State Highway No. 24 bridge crossing Knights Landing Ridge Cut at Station 323/42.17.

(b) S.P.R.R. trestle crossing Knights Landing Ridge Cut at Station 306/66.20.

(c) County Road No. 16 bridge crossing Knights Landing Ridge Cut at Station 128/68.16.

(d) S.P.R.R. swing bridge crossing the Sacramento River at Station 288/23.

(e) State Highway No. 24 bridge crossing the Sacramento River at Station 10/00.

(f) County Highway bridge crossing Sycamore Slough at Station 16/55.

##### (2) Outfall Gates.

(a) Outfall gates across Sycamore Slough at Station 27/96. Inspection, operation and maintenance of these outfall gates is a responsibility of other agencies, therefore, a separate manual will cover operation and maintenance of these gates.

(3) Hydrographic Facilities. In addition to the two gages referred to in paragraph 1-05, there is a continuous water stage recorder and staff gage located at Knights Landing Outfall Gates on the lower end of Colusa Basin Drain, about one-quarter mile west of the Sacramento River.

b. Inspection and Maintenance.

(1) Pertinent Requirements of the Code of Federal Regulations. Flood Control Regulations, paragraph 208.10(h)(1) are quoted in part as follows:

"(h) Miscellaneous Facilities. (1) Maintenance. Miscellaneous structures and facilities constructed as a part of the protective works and other structures and facilities which function as a part of, or affect the efficient functioning of the protective works, shall be periodically inspected by the Superintendent and appropriate maintenance measures taken. Damaged or unserviceable parts shall be replaced without delay . . . ."

(2) Inspection of the miscellaneous facilities shall be made at the same time that the inspection of the other features of the project are made, and shall be reported on check list No. 3, sheet No. 4 of EXHIBIT E.

(3) The interest of the Corps of Engineers and the responsibility of the local interests in the existing highway and railroad bridges is confined to their effect on the safety and functioning of the flood control channel, but any conditions noted in the inspections that may affect them in any way should, as a matter of courtesy, be brought to the attention of the agencies maintaining and operating them. If the inspection of any miscellaneous structure, either existent or constructed in the future under permit, discloses any condition that indicates the probability of failure during periods of high water, the Superintendent shall address a letter to the owner of the structure, quoting this manual as authority and inviting attention to the conditions observed and requesting that immediate steps be taken to correct them. A copy of such letter shall be forwarded to the District Engineer for his information. A report on the action taken by the owner shall be submitted to the District Engineer to accompany the next semi-annual report under provisions of paragraph 3-03c of the Standard Manual. A suggested report form is included as EXHIBIT G of this manual.

(4) The purpose of maintenance work is to insure continuous satisfactory operation of equipment. It is, therefore, important in such work that all possible causes of future trouble be found and corrected. Particular attention should be given to minor weaknesses which may be an indication of future trouble.

c. Operation.

Requirements of the Code of Federal Regulations.

Flood Control Regulations, paragraph 208.10 (h)(2) are quoted as follows:

"(2) Operation. Miscellaneous facilities shall be operated to prevent or reduce flooding during periods of high water. Those facilities constructed as a part of the protective works shall not be used for purposes other than flood protection without approval of the District Engineer unless designed therefor."

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.

b. Consistent with the standards established in this manual and those established by the State of California, all wild growth, including but not limited to, trees, shrubs and other vegetation within those project areas where environmental easements have been obtained by local interests shall be preserved and retained. (Reference Site Mile 87.5, Right Bank, Sacramento River.) \*

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

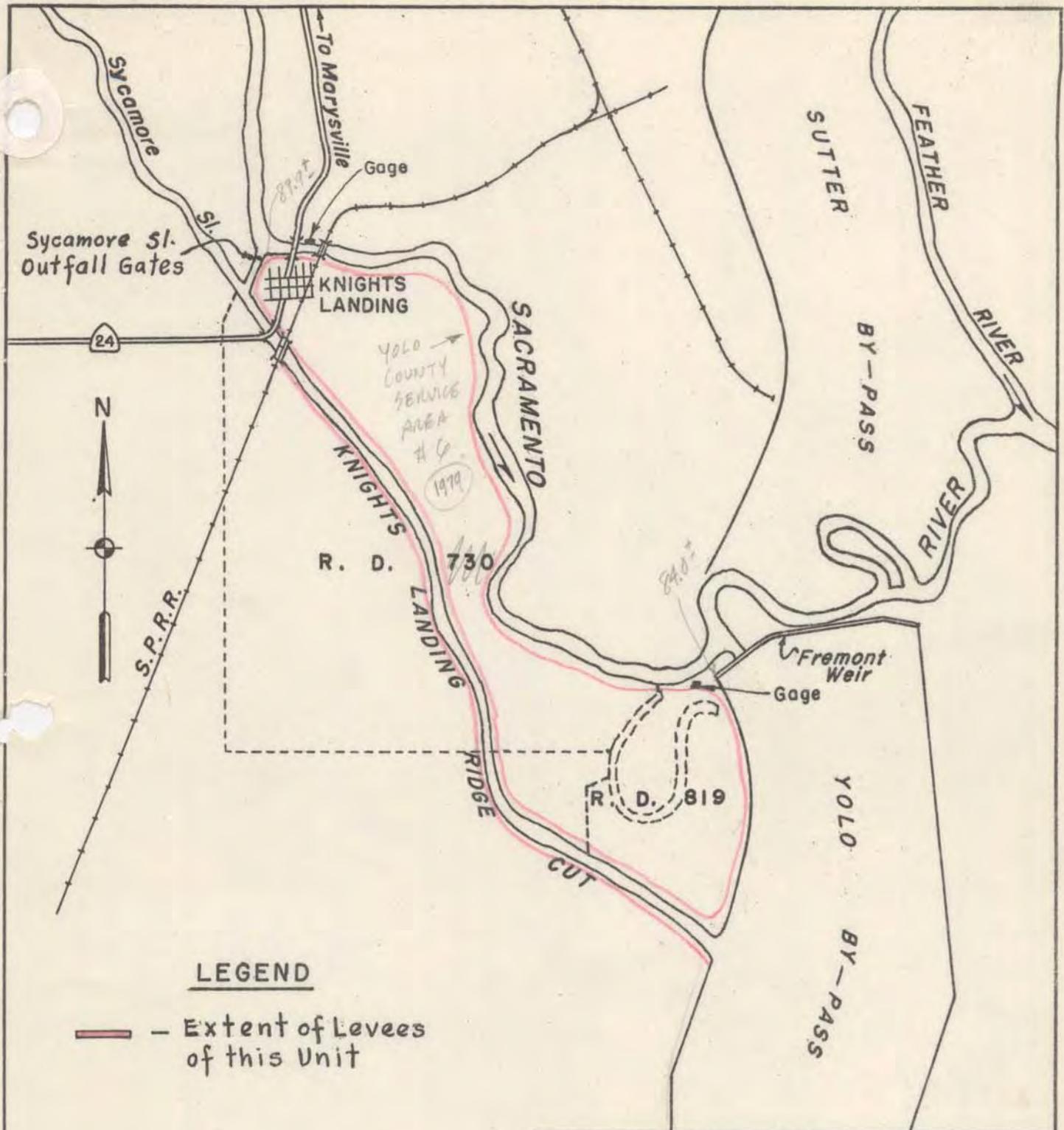
3-01. Repair of damage. In the event of serious damage to the project works, whether due to flood conditions or other causes, and which may be beyond the capability of local interests to repair, the Superintendent will contact a representative of the Division of Water Resources, State of California, 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 V of the Standard Manual, where the subject is fully covered.

EXHIBIT A

FLOOD CONTROL REGULATIONS

(See Standard Manual)



**LEGEND**

— Extent of Levees of this Unit

**LOCATION MAP**  
**UNIT NO. 127**  
**LEVEES OF R. D. NOS. 730 AND 819**  
**KNIGHTS LANDING RIDGE CUT AREA**

EXHIBIT B

"AS CONSTRUCTED"

DRAWINGS

See separate folder for the following drawings:

<u>FILE NO.</u>	<u>TITLE</u>
50-4-2146	Enlargement of West Levee of Yolo Bypass, 1 sheet.
50-4-2212	West Levee Sacramento River and South Levee Sycamore Slough from 2.5 miles above Fremont Weir to Sycamore Slough Outfall Gates, Sheets 1 to 5, Incl.
50-4-2848	Levee Strengthening Knights Landing Ridge Cut - East and West Levees, Sheets 1 to 8, Incl.
50-4-2893	Levee Setback and Bank Protection - Right Bank Sacramento River from Mile 85.3 to 85.5 in 1 Sheet
50-4-2894	Levee Setback and Bank Protection - Right Bank Sacramento River from Mile 88.8 to 89.3 in 1 Sheet.
50-4-2898	Levee Setback and Bank Protection - River Bank Sacramento River from Mile 85.3 to 85.5 in 2 Sheets.

Additional drawings of cross-sections, structures, and miscellaneous facilities are available in the Office of the District Engineer.

50-4-3293	Emergency levee repairs, left bank Knights Landing Ridge Cut upstream from County Road No. 16, in 1 sheet
50-4-3752	Emergency Levee Repairs, Right and Left Banks at Knights Landing Ridge Cut, in 2 sheets.
50-4-3742	Bank Protection, Right and Left Banks at Various Sites from Boyer's Bend to Monument Bend, in 16 sheets.
50-4-4078	Bank Protection, Various Locations Right and Left Banks Sacramento River and Feather River, in 30 sheets.
50-4-4310	Bank Protection, Various Locations Right and Left Banks Sacramento River between Tisdale Weir and Sacramento, in 26 sheets.
50-4-4381	Bank Protection, Various Locations Right and Left Banks Sacramento River between Miles 81.0 and 144.0 in 20 sheets.
50-4-4777	Bank Protection, Various Locations, Right and Left banks, Sacramento River Mile 84.0 to Mile 148.0, in 38 sheets.

- 50-4-5130 Bank Protection, Various Locations, Right and Left Banks, Sacramento River Mile 60.0 to Mile 110.0, in 41 sheets.
- 50-4-5433 Bank Protection, Various Locations, Right and Left Banks, Sacramento River Mile 61.0 to Mile 102.0, in 33 sheets.
- 50-4-5714 Bank Protection, Contract 38B, Right and Left Banks, Sacramento River Mile 62.6 to Mile 117.7, in 60 sheets.
- 50-4-5806 Bank Protection, Contract 44, Right and Left Banks, Sacramento River Mile 78.3 to Mile 143.3, in 51 sheets.

EXHIBIT C

PLATES OF SUGGESTED FLOOD FIGHTING METHODS

(See Standard Manual)

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

## CHECK LIST NO. 2

UNIT NO. 127

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 of levees.	
(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 inspections, 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, or 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. 127

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, or the bridges over the channel.
- Item (d) Report any construction along the channels or above the channels 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. 127

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

Inspector \_\_\_\_\_

Date \_\_\_\_\_

Superintendent \_\_\_\_\_

(a) Location by Station	(b) Bank	(c) Debris or other obstruction to flow	(d) Damage or settlement of pipe or conduit	(e) Condition of concrete headwall or invert paving	(f) Condition of right-of- way adja- cent to structure	(g) Repair Measures Taken since last inspection	(h) Comments
West Levee of Sacramento River  12/75 27/40 69/80 79/25 108/20 128/90 144/80 192/60 208/15 224/03 266/72 284/70 285/27	Right " " " " " " " " " " " " "						
West Levee of Yolo By-Pass 43/95 92/31.5 92/35	Right " "						

CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES

UNIT NO. 127

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

Inspector \_\_\_\_\_

Date \_\_\_\_\_

Superintendent \_\_\_\_\_

(a) Location by Station	(b) Bank	(c) Debris or other obstruction to flow	(d) Damage or settlement of pipe or conduit	(e) Condition of concrete headwall or invert paving	(f) Condition of right-of-way adjacent to structure	(g) Repair Measures taken since last inspection	(h) Comments
South Levee of Sycamore Slough 18/36 21/00	Right "						
West Levee of Knights Landing Ridge Cut 0/30 32/94 47/00 71/25 123/25 123/55 128/00 128/00 129/75 129/75 304/76 304/76 323/00	Right " " " " " " " " " " " "						24" Steel pipe 18" Steel pipe 24" Steel pipe 30" Steel pipe 24" Steel pipe 18" Steel pipe

CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES

UNIT NO. 127

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

Inspector \_\_\_\_\_

Date \_\_\_\_\_

Superintendent \_\_\_\_\_

(a) Location by Station	(b) Bank	(c) Debris or other obstruction to flow	(d) Damage or settlement of pipe or conduit	(e) Condition of concrete headwall or invert paving	(f) Condition of right-of- way adjacent to structure	Repair Measures taken since last inspection	(g) Comments
East Levee 44/35 52/00 103/22 103/22 210/99 211/05 271/79	of Knights Landing Left " " " " "		Ridge Cut				

INSTRUCTIONS FOR COMPLETING SHEET 6, 7&8 EXHIBIT E  
(To be printed on back of sheet 6, 7&8)

- (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 E

CHECK LISTS OF LEVEES,

CHANNEL AND STRUCTURES

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

EXHIBIT F  
LETTER OF ACCEPTANCE  
BY STATE RECLAMATION BOARD

**THE RECLAMATION BOARD**

1416 Ninth Street, Room 1148

Sacramento, CA 95814-5509

(916) 653-5434 FAX: (916) 653-9745

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



MAR 31 1995

Colonel John N. Reese  
District Engineer  
Sacramento District  
U.S. Army Corps of Engineers  
1325 J Street  
Sacramento, California 95814-2922

Dear Colonel Reese:

This is in reference to your January 13, 1995 letter regarding the completed Sacramento River Bank Protection Project work for Contract 42A at River Miles 88.8, Right Bank, 89.0R (the downstream 1,450-foot portion), 111.2R, 111.7R, 116.7R, 121.6L, and 143.3L. At its March 17, 1995 meeting, The Reclamation Board formally accepted the completed flood control work from the U.S. Army Corps of Engineers and transferred the responsibility for operation and maintenance to the local agencies.

The work consisted of clearing and grubbing; excess soil excavation; placement of stone protection, embankment material, stone fill, and fish groins; and miscellaneous site work.

We concur that the above Contract 42A sites were constructed in conformance with Contract No. DACW05-94-C-0044, Specification Number 8385, and Drawing File Number 50-4-5806, as could be determined visually. Attached are copies of the letters to local agencies notifying them about the completed work and their responsibilities for operation and maintenance.

If you have any questions, please contact me at (916) 653-5434 or have your staff contact Jay Punia at (916) 327-1535 or Michael Petersen at (916) 327-1533.

Sincerely,

A handwritten signature in dark ink, appearing to read "Raymond E. Barsch".

Raymond E. Barsch  
General Manager

Attachments

Units 187, 130, 133, 136

January 13, 1995

Navigation and Flood Control Unit

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

Members of the Board:

You are hereby notified that the Corps of Engineers has completed first construction season work on the Sacramento River Bank Protection Project, Contract 42A, at River Miles 88.8R, 89.0R (The downstream 1450 feet portion of 89.0R), 111.2R, 111.7R, 116.7R, 121.6L, and 143.3L, in Colusa, Sutter and Yolo counties, California. The work consisted of clearing and grubbing, excess excavation, placement of stone protection, embankment material, stone fill, removal and reinstallation of wood piles, and miscellaneous site work. The work was completed on November 16, 1994, in accordance with Contract Number DACW05-94-C-0044, Specification Number 8385, and Drawing File Number 50-4-5806. Work to be completed during the second construction season, beginning in May 1995 is located at Site Miles 89.0R, 90.2R, 90.8R, 94.5R, and 101.7R.

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 the date of this letter to the State of California for operation and maintenance.

This work and any special operation and maintenance requirements will be added by amendment to the Operation and Maintenance Manual, supplement numbers 127, 130, 133, and 136

*Units 127, 130, 133, 136*

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

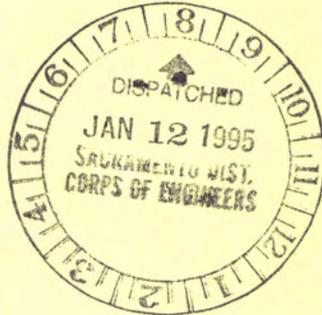
Sincerely,

John N. Reese  
Colonel, Corps of Engineers  
District Engineer

Copies Furnished:

Department of Water Resources, ATTN: D. Yeoman, 3201 S Street,  
Sacramento, California 95816-7017  
Department of Water Resources, ATTN: G. Qualley, 1416 Ninth  
Street, Sacramento, California 95814  
CDR, SPD, ATTN: CESP-DC-0  
CDR, USACE, ATTN: DAEN-CECW-OM

cc:  
Central Valley Sec (Pearson)  
PPMD Prog Mgmt Br  
F&A Br  
Valley Res Ofc  
CT



*[Signature]*  
TAVANA/ms  
*[Signature]*  
VESELY  
*[Signature]*  
HOLMBERG  
*[Signature]*  
WINTON



*Units  
1271/301  
1331/306*

DENNIS-  
NOLAN  
STUHR

*[Signature]*  
REESE  
LU\WPMT\SACTORIV.TRF

November 30, 1987

Navigation and Flood Control Unit

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

Members of the Board:

This is in regard to the joint inspections of November 24 and 25, 1987, made for the purpose of transferring a portion of the Sacramento River Bank Protection Project (Unit 38B), to the State of California for operation and maintenance. The flood control work consists of bank sloping and placement of stone protection on the Sacramento River's right bank at Site Miles 62.6, 70.2, 71.2, 72.1, 76.6, 76.9, 89.8 (two sites on the left and right banks below Colusa Basin Outfall) and 98.7, and left bank at Site Miles 78.2, 101.5 and 105.5.

The work was completed on November 15, 1987, in accordance with Contract Number DACW05-86-C-0079, Specification Number 7082 and Drawing Number 50-4-5714. A 100-foot section of bank protection was deleted on the right bank at Site Mile 62.6 to accommodate a water intake facility for the City of West Sacramento.

The work was performed under general authority of the Flood Control Act of 1960, 86th Congress, 2nd Session (PL 86-645, July 14, 1960), and Section 2304(a), Title 10, and the Water Resources Development Act of 1986 (PL 99-662, October 17, 1986), and now meets the requirements of the Sacramento River Bank Protection Project. Therefore, said work together with the waterway bank contiguous, thereto, is transferred as of November 25, 1987 to the State of California for operation and maintenance.

*orig lost*

*Units 116, 122, 123,  
 124, 127, 128,  
 130*

This portion of the work will be added by amendment to the Operation and Maintenance Manual, Supplement Numbers 116, 122, Part-1, 123, 124, 127, 128 and 130, Sacramento River Flood Control Project. Copies will be furnished to your office at a later date.

Sincerely,

Wayne J. Scholl  
Colonel, Corps of Engineers  
District Engineer

(1145)

ROMPALA/mt

Copies Furnished:

KELLY

DWR, ATTN: G. Snow  
DWR, ATTN: G. Qualley

A. SMITH

cc:

Commander, South Pacific Division, ATTN: CESP-D  
Commander, USACE, ATTN: DAEN-CECW-OM  
Flood Control Unit  
Civ Des Sec D (Pahl)  
Prog Dev  
F&A Br  
Valley Res Ofc (dupe)  
C-O Div  
Reading

HELM

FAST

DENNIS

CZARZASTY

SCHOLL

WANG #8856a

*Units 116, 122, 123,  
124, 127, 128, 130*

February 3, 1967

Navigation and Flood Control Unit

**CERTIFIED**  
No. 785701  
RETURN RECEIPT REQUESTED

The Reclamation Board  
State of California  
1416 - 9th Street, Room 433-6  
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 5 of the Flood Control Act of August 18, 1941, as amended (Public Law 99, 84th Congress, 1st Session). The work was completed on December 2, 1966, and consisted of restoring portions of the Colusa Basin Drain left bank levee in Reclamation District 108 and portions of the Knights Landing Ridge Cut left and right bank levees in Knights Landing Ridge Drainage District, in accordance with Contract Number DACW03-66-C-0017 and Drawing Number 50-25-5772. This work shall be maintained in accordance with the assurance 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 127 and 132, Sacramento River Flood Control Project. Copies will be furnished to your office at a later date.

Sincerely,

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:

DWR, ATTN: J. ANGLE  
DWR, ATTN: G. SNOW  
Commander, South Pacific Division, ATTN: SPDCO-0

*JW 2-3*  
ROMPALA/th

*JM for*  
KELLY

*[Signature]*  
A. SMITH

*[Signature]*  
HEIN

*[Signature]*  
FAST

*[Signature]*  
DENNIS

*[Signature]*  
MCQUEEN

*[Signature]*  
SCHOLL

WANG #6374a

*not*

*Units 127, 132*

**DEPARTMENT OF WATER RESOURCES  
THE RECLAMATION BOARD**

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



DEC 04 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 November 16, 1979, authorized me to accept from the District Engineer the completed flood control work on a portion of Unit No. 34 of the Sacramento River Bank Protection Project. The flood control work was transferred to the State of California by your letter of November 19, 1979.

The flood control work consisted of selective clearing, bank sloping, placement of stone bank protection, and such miscellaneous work as necessary to complete the construction at Sites Miles 85.9, 90.0, 91.4, 93.3, 101.0 Right Bank, and 85.1, 95.2, 99.9 and 100.9 Left Bank, Sacramento River.

The work was constructed in a workmanlike manner and in conformance with Drawing No. 50-4-5433, Specification No. 5403, and Contract No. DACW 05-78-C-0046, insofar as could be determined visually.

Sincerely,

*Eldon E. Rinehart*  
ELDON E. RINEHART  
General Manager

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED



*Unit 34, 12/13/79*

*copy 10/11/79*



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

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REPLY TO  
ATTENTION OF SPKCO-0

19 November 1979

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

Gentlemen:

This is in regard to the joint inspection of 15 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 Miles 85.9, 90.0, 91.4, 93.3, and 101.0 and left bank at Site Miles 85.1, 95.2, 99.9 and 100.9. The sites described in the inclosure were completed on 15 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 1980, 86th Congress, 2nd Session (PL 86-645, 14 July 1980), 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 16 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, Supplements Nos. 127, 128, and 130, Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

Sincerely,

1 Incl  
Summary Sac Rv Bk  
Prot. Project Unit 34

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.
85.9	STA. 1+00 to 7+40	640
90.0	STA. 128+00 to 135+80 STA. 0+00 to 0+62	818
91.4	STA. 53+70 to 58+30	460
93.3	STA. 93+80 to 102+00	820
101.0	STA. 0+60 to 11+00	1040

**Sacramento River Left Bank**

85.1	STA. 81+50 to 94+00	1250
95.2	STA. 22+00 to 28+00	600
99.9	STA. 30+00 to 36+00	600
100.9	STA. 83+00 to 87+00	400

**DEPARTMENT OF WATER RESOURCES  
THE RECLAMATION BOARD**

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



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SEP 6 1979

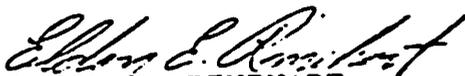
Colonel Paul F. Kavanaugh  
District Engineer  
Sacramento District  
U. S. Army Corps of Engineers  
650 Capitol Mall  
Sacramento, CA 95814

Dear Colonel Kavanaugh:

The Reclamation Board at its regular meeting of August 24, 1979, authorized me to accept the completed flood control work which was transferred to the State of California by your letter of August 6, 1979. This work is a portion of Unit No. 30 of the Sacramento River Bank Protection Project.

The flood control work was constructed in a workmanlike manner and in conformance with File No. 50-4-5130, Specification No. 5081 and Contract No. DACW05-76-C-0107, insofar as could be determined visually, at Sites Miles 86.5, 86.7, 86.8, 87.5 and 88.2 Right Bank, Sacramento River.

Sincerely,

  
ELDON E. RINEHART  
General Manager

CERTIFIED MAIL # 308259  
RETURN RECEIPT REQUESTED



EXHIBIT F

*transfer*

SPKCO-0



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

*Done*

Gentlemen:

This is in regard to the joint inspection of 2 August 1979 made for the purpose of transferring a portion of the Sacramento River Bank Protection Project (Unit No. 30), 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 Miles 86.5, 86.7, 86.8, 87.5 and 88.2. The sites described on the inclosure were completed on 2 August 1979 in accordance with Contract No. DACW05-76-C-0107, Specification No. 5081 and Drawing No. 50-4-5130.

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 6 August 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 No. 127, Sacramento River Bank Protection Project. Copies will be furnished your office at a later date.

353  
JUL 26 6 41 PM '79  
RMPALA

Sincerely,

*Flood Control?*

MC RIDE/sv

A. SMITH

PAUL F. KAVANAUGH  
Colonel, CE  
District Engineer

HEID

ROBASCO

KAVANAUGH

*Unit 127*

*+* Prog Dev Br  
*+* F&A Br (Kalal)

cc: Ops Br (Flood Control)  
Valley Res Ofc  
Engr Div (Lev & Chan)  
*+* OCE  
*+* SPD

1 Incl  
As stated

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

Summary of Sacramento River  
Bank Protection Project  
Portion of Unit 30  
Sacramento River Right Bank

<u>Site Mile</u>	<u>Stone Protection</u>	<u>L.F.</u>
86.5	STA. 86+00 to 92+50	650
86.7	STA. 74+90 to 80+90	600
86.8	STA. 72+00 to 74+00	200
87.5	STA. 36+00 to 48+00	1200
*88.2	STA. 5+00 to 17+80	1280

\*=Site Extended 100'

2198

1 Incl

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THE RECLAMATION BOARD  
STATE OF CALIFORNIA

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November 18, 1974

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

Refer to: 4130.20.306

Dear Sir:

At its regular meeting of November 8, 1974, The Reclamation Board formally accepted from the District Engineer the completed flood control work on a portion of Unit No. 26 of the Sacramento River Bank Protection Project. The flood control work was transferred to the State of California by your letter of October 30, 1974.

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 89.0, 89.8, and 93.7 Left Bank, Sacramento River, and also Sites Miles 84.3, 85.9, 93.1, 95.5, and 119.5 Right Bank, Sacramento River. The construction at Site Mile 93.7 included two recreation facilities which consist of concrete boat ramp, vehicle ramps and parking areas and also pedestrian ramps.

The work was constructed in a workmanlike manner and in conformance with Drawing No. 50-4-4777, Specification No. 4251, and Contract No. DACW 05-73-C-0059, insofar as could be determined visually.

Sincerely yours,

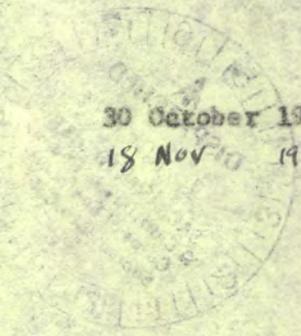
/s/ Roy L. McCuistion  
A. E. McCOLLAM  
Chief Engineer and  
General Manager

EXHIBIT F

*2m*  
*SRBP*

SPKCO-0

30 October 1974  
18 Nov 1974



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

*done*

Gentlemen:

Reference is made to the joint inspection of 22 October 1974, made for the purpose of transferring a portion of the Sacramento River Bank Protection work (Unit No. 26), to the State of California for operation and maintenance. This portion of flood control work consists of levee sloping and the placement of stone bank protection on the Sacramento River right bank at Site Miles 119.5, 95.5, 93.1, 85.9 and 84.3, and left bank at Site Miles 93.7, 89.8 and 89.0. Site Mile 93.7 includes two recreation facilities which consist of boat ramp, vehicle parking areas and pedestrian ramps. The sites, as listed on the inclosure, were completed on 22 October 1974 in accordance with Specification No. 4251, Contract No. DACW05-73-C-0039, Drawing No. 50-4-4777.

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 29 October 1974 to the State of California for operation and maintenance.

This portion of the project work will be added by amendment to Unit Nos. 127, 128, 130 and 131 in Operation and Maintenance Manuals, Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

*ph*  
WAIT/ph/Redac

Sincerely yours,

*[Signature]*  
COLEMAN

F. G. ROCKWELL, JR.  
Colonel, CE  
District Engineer

*Units 127,  
128,  
130, 131*

*[Signature]*  
HENSEN

*[Signature]*  
MCKINSEY  
*[Signature]*  
ROCKWELL

✓ 1 Incl  
As stated

Copy furnished:  
✓ DDCE, ATTN: John Wright  
✓ SPD

cc:  
✓ Engr (Lev-Chan)  
✓ Engr (Prog Dev)  
✓ Valley Res Ofc  
✓ F&A (Jones)

**CERTIFIED MAIL**  
RETURN RECEIPT REQUESTED

*[Handwritten initials]*

SUMMARY OF PORTION OF SACRAMENTO  
 RIVER BANK PROTECTION PROJECT UNIT # 26  
 SACRAMENTO RIVER, RIGHT AND LEFT BANKS

RIGHT BANK

<u>Site Mile</u>	<u>Stone Protection</u>	<u>L.F.</u>
119.5	6+50 to 12+00	550
95.5	16+00 to 35+50	1950
93.1	47+00 to 61+35	1435
85.9	0+00 to 7+55	755
84.3	6+50 to 12+00	550

LEFT BANK

93.7	25+00 to 30+60	560
89.78	0+00 to $\frac{3+78}{0+00}$ 3+45	428 345
	0+00 to 0+50	
89.0	21+00 to $\frac{29+81}{0+00}$	
	0+00 to 5+75	
		1456
		<del>7684</del> 7601

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THE RECLAMATION BOARD  
STATE OF CALIFORNIA

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17 January 1972

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

Refer to : 4130.60.205

Dear Sir:

Reference is made to your letter of December 27, 1971, concerning the transfer of a portion of the Sacramento River Bank Protection Project, Unit No. 20, to the State of California for operation and maintenance.

The flood control work completed at Site Miles 93.2, 94.7, 97.6, 102.7 Left Bank and Site Miles 81.0, 84.6, 89.3, 96.8, 101.4 Right Bank of the Sacramento River was constructed in accordance with Drawing No. 50-4-4381, Specification No. 3459, and Contract No. DACW05-71-C-0051, with the exception of the reinstallation of the irrigation pumping plants located at Site Mile 93.2, Stations 37+75 and 46+85, Site Mile 94.7, Station 45+92, Site Mile 102.7, Station 20+10 all on the Left Bank, and Site Mile 96.8, Station 8+56, on the Right Bank.

The Reclamation Board, at its regular meeting of January 14, 1972, formally accepted the completed portions of work on the above-referenced sites from the District Engineer for operation and maintenance. The work accepted consists of levee enlargement, rock toe wall and stone bank protection. Not accepted were the five irrigation pumping plants located at the above-referenced sites and stations. Reinstallation of the pumps is still in progress and the above-noted pump sites will be accepted upon satisfactory completion of this work.

The Reclamation Board, at the same meeting, transferred the completed portions of work on the above-referenced sites to the following maintaining agencies for operation and maintenance:

Reclamation District No. 1500

Site Miles 93.2, 94.7, 97.6 and 102.7 Left Bank, Sacramento River

Reclamation District No. 1600

Site Mile 81.0 Right Bank, Sacramento River

Sacramento River West Side Levee District

Site Miles 96.8 and 101.4 Right Bank, Sacramento River

State Maintenance Area No. 6 (DWR)

Site Miles 84.6 and 89.3 Right Bank, Sacramento River.

Sincerely yours,

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

EXHIBIT F

27 December 1971

Valley Res Ofc

F & A (Jones)

Engr(Prog Dev)

Engr(Lev&Channs)

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

Gentlemen:

Reference is made to the joint inspection of 8 December 1971 made for the purpose of transferring a portion of the Sacramento River Bank Protection Project Work (Unit No. 20), to the State of California for operation and maintenance.

The flood control work consists of bank sloping, placement of stone bank protection and levee enlargement on the Sacramento River left bank at Site Miles 93.2, 94.7, 97.6 and 102.7, and right bank at Site Miles 81.0, 84.6, 89.3, 96.8 and 101.4. The work was completed on 8 December 1971 with the exception of the installation of pumps at Site Miles 93.2 left, 94.7 left, 102.7 left, and 96.8 right, in accordance with Specification No. 3459, Contract No. DACW05-71-C-0051, and Drawing No. 50-4-4381.

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 27 December 1971, to the State of California for operation and maintenance.

This portion of the project work will be added by amendment to the Operations and Maintenance Manual, Supplements Nos. 123, 127, 128 and 130. Copies will be furnished your office at a later date.

Sincerely yours,

JAMES H. HIGMAN  
Lieutenant Colonel, CE  
Acting District Engineer

1 Incl  
Summary

Copy furnished:  
DWR, J. Wright & C. King  
HQDA (DAEN-CWO); SPD

Units 123, 127, 128, 130

RCMP  
ROMPALA/jmc  
itl  
COLEMAN  
HENSON  
HART  
HIGMAN  
ht

SUMMARY OF PORTION OF SACRAMENTO RIVER BANK PROTECTION PROJECT

UNIT NO. 20, SACRAMENTO RIVER

RIGHT BANK:

<u>SITE MILE</u>	<u>STONE PROTECTION</u>	<u>L.F.</u>	<u>STONE TOEWALL</u>	<u>L.F.</u>	<u>LEVEE ENLARGEMENT</u>	<u>L.F.</u>
101.4	0+00 to 15+00	1500			10+00 to 13+00	300
96.8	4+00 to 9+65	565				
89.3	3+00 to 17+72	1472				
84.6	0+00 to 1+00 )		0+00 to 1+00 )			
	19+56 to 30+91)	1235	29+25 to 30+91)	266		
			20+50 to 27+00	650		
81.0	19+00 to 20+09 Bk )					
	20+00AH to 34+93 )	1702				
	0+00 to 1+00 )					

6474

LEFT BANK:

102.7	1+00 to 3+09 Bk )					
	3+10AH to 22+89 )	2188				
97.6	38+00 to 49+00	1100				
94.7	27+40 to 60+00	3260				
93.2	30+00 to 55+85	2585				

9133

Total 15607

Units 123, 127, 128, 130

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DEPARTMENT OF WATER RESOURCES  
STATE OF CALIFORNIA

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October 2, 1970

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

Subject: 4130.60.204  
Your Contract 70-C-0008  
Sacramento River Bank Protection  
Project, Unit No. 16

Dear Sir:

Reference is made to the precompletion inspection of a portion of the above referenced project made on September 23, 1970.

The work sites inspected were as follows:

Site Mile 61.0, Left Bank, Sacramento River  
Site Mile 70.4, Right Bank, Sacramento River  
Site Mile 71.5, Right Bank, Sacramento River  
Site Mile 71.9, Right Bank, Sacramento River  
Site Mile 77.0, Right Bank, Sacramento River  
Site Mile 77.85, Right Bank, Sacramento River  
Site Mile 84.5, Right Bank, Sacramento River  
Site Mile 96.8, Right Bank, Sacramento River  
Site Mile 83.45, Left Bank, Sacramento River  
Site Mile 89.6, Left Bank, Sacramento River  
Site Mile 95.4, Left Bank, Sacramento River  
Site Mile 95.6, Left Bank, Sacramento River

The work appeared to be completed in an acceptable manner and, insofar as could be determined visually, in conformance with the plans and specifications for the project. No deficiencies were noted.

Sincerely yours,

/s/ Clyde E. Shields  
Clyde E. Shields, Chief  
Construction Branch  
Division of Design and Construction

EXHIBIT F

SPKCO-0

28 September 1970

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

Gentlemen:

Reference is made to the joint inspection of 23 September 1970, made for the purpose of transferring a portion of the Sacramento River Bank Protection Project Work (Unit #16), to the State of California for operation and maintenance.

83.45

The flood control work consists of levee setback, bank sloping and placement of stone bank protection on the Sacramento River left bank at Site Miles 61.0, 89.6, 95.4 & 95.6, and right bank at Site Miles 70.4, 71.5, 71.9, 77.0, 77.85, ~~82.45~~, 84.5 & 96.8. A list covering the completed work is inclosed. The work was completed on 23 September 1970 in accordance with Specification No. 3390, Contract No. DACW05-70-C-0008, Drawing No. 50-4-4310.

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 23 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, Supplements Nos. 122, 123, 124, 127, 128 & 130, Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

Sincerely yours,

JAMES H. HIGMAN  
Lieutenant Colonel, CE  
Acting District Engineer

1 Incl (in dupe)  
as stated

Copy furnished:  
DWR, ATTN: John Wright

OCE  
SPD

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

WAIT/pp

COLEMAN

NENSON

HART

HIGMAN

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Units 122, 123, 124, 127, 128, 130

SUMMARY OF SACRAMENTO RIVER BANK PROTECTION PROJECT - UNIT 16, SACRAMENTO

LEFT BANK

<u>SITE MILE</u>	<u>LEVEE SETBACK STATION</u>	<u>L.F.</u>	<u>STONE PROTECTION STATION</u>	<u>L.F.</u>	<u>STONE TOE WALL STATION</u>	<u>L.F.</u>
61.0			34+00 to 43+00	900	34+00 to 35+40	140
89.6			0+00 to 5+00	500		
95.4			10+00 to 18+00	800		
95.6			0+00 to 6+57	657		

83.45 ←

RIGHT BANK

70.4			-0+25 to 1+00	125	-0+25 to 1+00	125
71.5			45+00 to 64+00	1900	51+80 to 52+20	40
					59+30 to 60+83	153
71.9			34+00 to 41+00	700		
77.0			166+00 to 172+00	600		
77.85			130+00 to 133+00	300		
83.45			491+61 to 481+93	968		
84.5			0+00 to 7+45	745	1+78 to 5+90	312
96.8	9+00 to 16+00	700	9+00 to 15+00	600		

Units 122, 123, 124,  
127, 128, 130

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THE RECLAMATION BOARD  
STATE OF CALIFORNIA

DEC 23 1968

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 November 5, 1968 concerning transfer to the State of California of a portion of the Sacramento River Bank Protection Project, Unit No. 12, consisting of Sites Mile 100.9, 100.3, 95.3, 89.2 and 87.0, right bank, Sacramento River and Sites Mile 88.7 and 61.5, left bank, Sacramento River for maintenance and operation.

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 December 20, 1968, 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

SPKCO-0

5 November 1968

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

Gentlemen:

Reference is made to the joint inspection of 4 November 1968, 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 Sacramento River at Site Miles 100.9, 100.3, 95.3, 89.2 and 87.0, right bank; and Site Miles 88.7 and 61.5, left bank, is listed on the attached inclosure. The work was completed on 4 November 1968, in accordance with Specification No. 3288, Contract No. DACW05-68-C-0014, Drawing No. 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 Nos. 124, 127, 128 & 130, Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

Sincerely yours,

CRAWFORD YOUNG  
Colonel, CE  
District Engineer

✓ 1 Incl.  
as stated

✓ Copy furnished:

DWR  
OCE & SPD

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

*JK*  
ROMPAIA/p

*COLEMAN*

*McB*  
*HENSON*

*YOUNG*  
*7*

*Units 124  
127, 128  
130*



COPY

THE RECLAMATION BOARD  
STATE OF CALIFORNIA

9 November 1964

Refer to: 7001.60.201  
4130.60.201

District Engineer  
Corps of Engineers  
U. S. Army  
P. O. Box 1739  
Sacramento, California - 95808

Dear Sir:

Reference is made to your letter of 21 October 1964, concerning transfer to the State of California of levee enlargement, levee setback, shaping and placement of bank protection at 11 sites from Boyers Bend to Monument Bend, Specification No. 2958, Contract No. 3.

The Reclamation Board, at its meeting of November 5, 1964, formally accepted the above referred to work for operation and maintenance.

Sincerely yours,

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

SPKKO-F

21 OCT 1964

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

Gentlemen:

Reference is made to the joint inspection made on 16 October 1964, 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, designated as Contract No. 3, consisting of levee enlargement, levee setback, shaying and placement of bank protection at 11 locations from Boyers Bend to Monument Bend as listed on the attached inclosure, was completed on 16 October 1964, in accordance with Specification No. 2958, Contract No. DA-04-167-CIVENG-64-71 and Drawing No. 50-4-3742.

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 Operations and Maintenance Manual, Supplement Nos. 123, 127, 128 and 130, Sacramento River Flood Control Project, and furnished your office at a later date.

Sincerely yours,

ROBERT E. MATHE  
Colonel, CE  
District Engineer

COLEMAN/pp

THOMPSON

HART

MATHE

1 Incl  
Summary Sheet

Copy furnished:  
Dept Water Resources  
O.C.E.  
S.P.D.

cc: Lev & Chan, Prog Dev, Valley Res, F&A

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

*To office 20 OCT 64*

OPERATIONS BRANCH  
FLOOD CONTROL SECTION

*Units 123, 127, 128, 130*

*[Handwritten signature]*

*[Handwritten mark]*

64-71

SUMMARY OF LEVEE UNITS CONSTRUCTED - RIGHT AND LEFT BANKS - SACRAMENTO RIVER  
BOYERS BEND TO MONUMENT BEND

LEVEE UNIT SITE MILE	LEVEE ENLARGEMENT	LINEAL FEET	LEVEE SETBACK	LINEAL FEET	STONE PROTECTION	LINEAL FEET	RIGHT OR LEFT BANK
81.35	4+00 to 20+00	1,600	-----	-----	1+00 to 20+00	1,900	Right
85.7	-2+65 to 10+00	1,265	-----	-----	-1+00 to 9+00	1,000	Right
86.5	-----	-----	-----	-----	2+00 to 8+80	680	Left
86.8 ✓	-----	-----	-----	-----	4+75 to 6+50	175	Right
89.4 ✓	-----	-----	-----	-----	9+85 to 21+50	1,165	Left
92.85 ✓	-----	-----	-----	-----	1+00 to 7+65	665	Left
99.3 ✓	-----	-----	1+50 to 12+00	1,050	2+00 to 10+75	925 875	Left
99.75 ✓	-----	-----	-----	-----	2+25 to 17+65 (90° Forward Tangent)	1,650	Left
101.25 ✓	-----	-----	-----	-----	4+00 to 12+00	800	Left
103.25	4+00 to 8+50 18+17 to 23+44	450 527	----- -----	----- -----	4+00 to 23+44	1,944	Left
103.35	-----	-----	1+00 to 13+00	1,200	2+00 to 12+00	1,000	Right

Units 123, 127, 128, 130

COPY

THE RECLAMATION BOARD

November 8, 1963

Refer to: 7001.70.202

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

Dear Sir:

Reference is made to your letter concerning transfer to the State of California of emergency repair work under Public Law 99, consisting of repair of levee sections along the Kings Landing Ridge Cut.

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

Sincerely yours,

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

EXHIBIT F

GOODWIN J. KNIGHT  
GOVERNOR

A. R. GALLAWAY, JR., SACRAMENTO  
PRESIDENT

GROVER SHANNON, YUBA CITY  
VICE PRESIDENT

GEO. H. HOLMES, CLARKSBURG  
SECRETARY

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

## THE RECLAMATION BOARD

OF THE  
STATE OF CALIFORNIA

1100 O STREET  
SACRAMENTO 14, CALIFORNIA

July 12, 1955

A. M. BARTON  
CHIEF ENGINEER AND GENERAL MANAGER  
EDMUND G. BROWN, ATTORNEY GENERAL  
LEGAL ADVISER  
G. F. MELLIN  
ASSISTANT ENGINEER AND APPRAISER  
DONALD D. LEMMON  
ASSISTANT SECRETARY

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

Gentlemen:

Reference is made to your letter of June 24, 1955, your file number SPKKO-P 824.3 (Sacto. Riv. F.C.P.), concerning removal of the Kings Levee and clearing work located at the confluence of the Knights Landing Ridge Cut and the Yolo By-Pass and the turning over thereof to the State of California for operation and maintenance.

The Reclamation Board at its meeting on July 6, 1955 accepted for operation and maintenance the above indicated work.

Yours very truly,

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

By Donald D. Lemmon  
DONALD D. LEMMON  
Assistant Secretary

DDL:mr

Unit 127  
Cont. 1226  
Unit 440

REGISTERED MAIL  
Return Receipt  
Requested

24 JUN 1955

SPEND-7 82h.) (Sacto. Riv. F.C.P.)

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

Gentlemen:

Reference is made to the District Engineer's letter dated 26 May 1955 relative to the joint inspection, made on 2 June 1955, of the removal of the Kings Levee and clearing work located at the confluence of the Knights Landing Ridge Cut and the Yolo By-Pass, for the purpose of transferring said work to the jurisdiction of the State of California for operation and maintenance.

The removal of the Kings Levee and the clearing work referred to above was completed on 20 June 1955 under Contract No. DA-Cl-167-eng-1226, Specification No. 188h and Drawing No. 50-6-303h. This work forms an integral part of the Sacramento River Flood Control Project and meets the requirements of the project, therefore said work is hereby transferred to the jurisdiction of 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 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

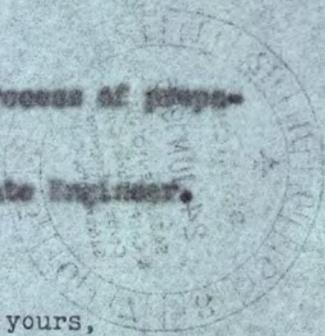
C. de ARRIETA

Unit 127  
Contract. 1226  
Unit No. 440 ✓

SPEND-P 52h.3 (Sacto. Riv. F.C.P.)  
The Accreditation Board

and Maintenance Manual covering this unit of work is in process of preparation and will be furnished to you upon completion.

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



Sincerely yours,

1 Incl  
1. F.C. Reg.

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

WM. J. ELY  
Col, CE  
District Engineer

cc: Engr. Divn. w/o incl  
Sacto. Projs. Ofc. w/o incl  
C. de Arrieta w/o incl

*Unit 127  
Unit No. 440*

12/2/52

SPKKO-P 824.3 (Sac. R. F.C.P.)

8 DEC 1952

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

Gentlemen:

Reference is made to the District Engineer's letter dated 13 October 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, three units of the Sacramento River Flood Control Project. Reference is also made to the joint inspection of these units of work which was made on 21 October 1952.

In accordance with the above, you are hereby advised that the three levee units mentioned above, which are covered under Specification No. 1588, were completed on the dates indicated as follows:

	<u>Location</u>	<u>Date of Completion</u>
339	1. Part "A", Westerly Levee of Sacramento River, from river mile 85.3 to 85.5, and from river mile 85.9 to 87.6, near Knights Landing, California.	24 November 1952
363		
340	2. Part "B", Westerly Levee of Sacramento River, from river mile 88.4 to 89.2, near Knights Landing, California.	24 November 1952
341	3. Part "C", Westerly Levee of Sacramento River, from river mile 116.8 to 117.2, near Grimes, California	22 November 1952

824.3 (Sac R. F.C.P.) 824

127

127

130

Levee Sections 339, 340, 341 and 363  
Letter No. 39

78



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 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  
1420 "N" Street  
Sacramento, California

Sincerely yours,

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

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

Concurrent		
Originator		
Date:		6 de A. 3 Dec. 1952
Exec. O.	4	P
Exec. Asst.	3	
Chief Ad. Asst.	1	B
Accounting Exec.		
Admin.		
Ext. Aff.		
Acct.		
Manag.		
Property		
Comm. Svcs.		
Comm. Oper.		
Eng'g		
R.E.		
Pers.		
Legal		
Supply		

79

10/6/52

REGISTERED MAIL  
Return Receipt  
Requested

SPKKO-P (824.3 Sac. Riv. FCP)

6 OCT 1952

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

Gentlemen:

Reference is made to the District Engineer's letter dated 5 August 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, two units of the Sacramento River Flood Control Project. Reference is also made to the joint inspection of these units of work which was made on 12 August 1952.

In accordance with the above, you are hereby advised that the levee units listed below, which are covered under Specification No. 1586, and Drawing No. 50-4-2848, were completed on 18 September 1952.

- 337 1. Easterly Levee along Knight's Landing Ridge Cut.

127

From the Yale By-Pass, Station 3+50, to the State Highway No. 24, Station 317+50, near Knight's Landing, California.

- 338 2. Westerly Levee along the Knight's Landing Ridge Cut.

127

From the Yale By-Pass, Station 6+00, to the State Highway No. 24, Station 323+43.17, near Knight's Landing, California.

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

Concurrence	
Originator	
Date:	
Exec.	3
Chief Ad. Asst.	2
Chf. Tech. Asst.	
Office	
Spec.	
Per.	
Legal	
Supply	

824.3 (Sac. R. FCP)

Levee Sections 337 and 338  
Letter No. 38

76

SPKKC (824.3 Sac. Riv. FCP)  
The Reclamation Board

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 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.

Sincerely yours,

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

G. C. Haug  
Colonel, Corps of Engineers  
District Engineer

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



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.
⑫ ⑬	6 Dec.1951	Back levee Egbert District*	Maintained by R. D. No. 536
⑭ ⑮	6 Dec.1951	W. Levee Yolo By-pass Lindsey* Slough to Watson Hollow Drain*	Maintained by R. D. No. 536
⑰ ⑱	Do	N. Levee Watson Hollow Drain*	Do
⑲ ⑳	6 Dec.1951	W. Levee Sacramento River Mile 59.0 to Lake Wash- ington Barge Canal	Maintained by R. D. No. 900
㉑ ㉒	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

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

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

= 331 89-A

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

8 Do

North levee Tisdale  
By-pass†

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

74

8 Do

South levee Tisdale  
By-pass†

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

75

8 Do

East levee Sutter  
By-pass\*.

Maintained by State.

76

9 Do

W. levee Sacramento River  
Mile 35.15 to 35.86.

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

81

21  
2

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.
11	Do	E. Levee Feather River from mouth to Mile 26.5, except from 2.37 miles of Nicolaus Bridge to Bear River	Maintained by R.D. Nos. 1001 and 784.

(165) (166) (167) (168) (169) (170)

Accepted  
Items

5

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

(21)

4

Accepted  
Items

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

12 8 Dec. 1951

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

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

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

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

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

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

Covered by letter dated 16 Nov. 1951

321 → (79A) ✓

303 Covered by letter dated

(53A) ✓

304 17 Nov. 1951

(54A) ✓

(23)

(50)

\*No waterway banks contiguous to these levees.

REGISTERED MAIL  
Return Receipt  
Requested

Letter No. 3

3

C. de ARRIETA

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

4 DEC 1951

Refer. Recl. Board letter dated 2 April 1952.

The Board accepted Item No. 9 on 18 Dec. 1951 with the condition that the Federal Gov. complete the enlargement of the levee with no obligation for the State to maintain the banks along the Sacramento Deep Water Channel.

The Board also accepted Items No. 10 and 11 on 18 Dec. 1951, without reservations other than an statement indicating that flatter slopes on this levees are not required.

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

Item No. 9 was previously accepted on 6 June 1951,

Gentlemen:

Reference is made to your letter of 18 May 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:

- Reach No. 32 9 a. Westerly levee of the Yolo Bypass from Fremont Weir to Miner Slough. 127, 126, 121, 120, 119, 109, 107, 105 accepted 6-6-51
- Reach No. 32 10 b. Northerly levee of Sacramento Bypass. 122
- Reach No. 33 11 c. Southerly levee of Sacramento Bypass. 116

The records of this office show that on 6 June 1951 your Board accepted the levee covered by Item a, above as complete. Accordingly, the waterway bank contiguous to said Item a, is hereby transferred to the State of California for maintenance and operation.

The levee covered by Items b, and c, above although complete has not been formally transferred as contemplated by the Project documents. Accordingly, the levee covered by said Items b, and c., 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

Reaches 32 and 33  
Items 9 to 11

3

Mile 0 to 50  
" 50 to 106

Letter No. 3

3

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

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.

Sincerely yours,

C. C. Haug  
Colonel, Corps of Engineers  
District Engineer

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

3

RESOLUTION

PASSED AND ADOPTED BY THE RECLAMATION BOARD

AUGUST 21, 1946

---

WHEREAS The Reclamation Board has heretofore approved certain items of "new construction"; consisting of (1) the enlargement and construction of the West levee of the Sacramento River from Colusa to Packers, in Reclamation District No. 2047; (2) the enlargement and construction of the West levee of the Sacramento River and the South levee of Sycamore Slough located near Knights Landing in Reclamation District No. 730; and (3) the enlargement and construction of the West levee of the Feather River, two miles north of Yuba City, northerly twelve miles, a portion of which lies in Reclamation District No. 777, and a portion lying in Levee District No. 9 of Sutter County; and

WHEREAS the War Department, Corps of Engineers, District Engineer, Sacramento District, under dates of 12 August, 1946, and 13 August, 1946, has notified The Reclamation Board of the completion of the three items of levee enlargement and construction, and has transferred said portions of levee to the State of California for maintenance and operation by the proper local interests; and

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

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

Manual No. 4

Exhibit F

137, 137, 137, 137

RESOLVED AND ORDERED that the West levee of the Sacramento River from Colusa to Packers, together with the berms and appurtenant structures thereof, be turned over to Reclamation District No. 2047 for maintenance and operation, as the legally authorized function of said District; and be it further

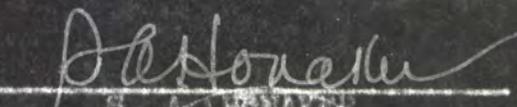
RESOLVED AND ORDERED that the West levee of the Sacramento River and the South levee of Sycamore Slough located and being near Knights Landing, lying in Reclamation District No. 730, be, and the same is hereby transferred to said Reclamation District No. 730 for maintenance and operation as the legally authorized function of said District; and be it further

RESOLVED AND ORDERED that such portion of the West levee of the Feather River from two miles north of Yuba City northerly twelve miles, as lies in Levee District No. 9 of Sutter County, be, and the same is hereby transferred to said Levee District No. 9 of Sutter County for maintenance and operation, as the legally authorized function of said District, and that the remaining portion of said section of levee, so much thereof as lies within Reclamation District No. 777, be, and the same is hereby transferred to said Reclamation District No. 777 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, S. A. HONAKER, Assistant Secretary of The Reclamation Board, do hereby certify that the above and foregoing is a true and correct copy of a Resolution made by said Board at its meeting held August 21, 1946.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of The Reclamation Board this 22 day of August, 1946.

  
S. A. HONAKER  
Assistant Secretary  
The Reclamation Board



Manual No. 4

824.3(Sycamore Slough)PSKKG-AA

12 August 1946

Maintenance of the West Levee of Sacramento River  
and South Levee of Sycamore Slough, near  
Knights Landing

The Reclamation Board  
1100 "O" Street  
Sacramento, California

Gentlemen:

Enlargement has been completed of the West Levee of the Sacramento River and the South Levee of Sycamore Slough located near Knights Landing. 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. 50-4-2212, in seven sheets entitled "Proposed Levee Enlargement, West Levee Sacramento River and South Levee Sycamore Slough from 2.5 miles above Fremont Weir to Sycamore Slough Out Fall Gates."

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 15 September 1946.

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

2 Incls.  
Drawing No. 50-4-2212  
(in 7 sheets)  
Flood Control Regulations

11-27-46

127

Copy furnished: State Engineer  
(with inclosures)

cc: CdeA(w/d.)

THE RECLAMATION BOARD  
OF THE  
STATE OF CALIFORNIA

March 11, 1953

District Engineer  
Sacramento District  
Corps of Engineers, U.S. Army  
Sacramento 8, California

Dear Sir:

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

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

Yours very truly,

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

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

December 8, 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.

<u>No.</u>	<u>Date of Letter</u>	<u>Levee Location</u>	<u>Remarks</u>
1	1 Dec 1951	-----	-----
11	8 Dec 1951	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
11	8 Dec 1951	*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 sough 1.48 mi.	Maintained by State and R. D. #2035
11	8 Dec 1951	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.

\* No waterway banks contiguous to these levees.

Note: Only items pertaining to Operation and Maintenance Manual No. 127 is included in the above copy.

THE RECLAMATION BOARD  
OF THE  
STATE OF CALIFORNIA

January 8, 1953

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

Dear Sir:

Reference your letter, File No. SPKKC-P 824.3 (Sac. R.F.C.P.), dated 3 Dec 52.

The Reclamation Board at its meeting December 16, 1952, accepted, on behalf of the State of California, the levee units herein described, and their contiguous waterway banks, for operation and maintenance.

(1) Part "A", Westerly levee of Sacramento River, from River Mile 85.3 to 85.5, and from River Mile 85.9 to 87.6, near Knights Landing, California.

(2) Part "B", Westerly levee of Sacramento River, from River Mile 88.4 to 89.2 near Knights Landing, California.

(3) Part "C", - - - - -  
Above units constructed under Spec. 1588.

Yours very truly,

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

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

Note: Only items pertaining to Operation and Maintenance Manual No. 127 are included in the above copy.

THE RECLAMATION BOARD  
OF THE  
STATE OF CALIFORNIA

January 8, 1953

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

Dear Sir:

Reference your letter, File No. SPKKO-P (Sac. R.F.C.P.), dated  
6 Oct 52.

The Reclamation Board at its meeting December 16, 1952, accepted, on  
behalf of the State of California, the levee units herein described, and their  
contiguous waterway banks, for operation and maintenance.

(1) Easterly levee along Knights Landing Ridge Cut.

From the Yolo By-pass, sta. 3750, to the State Highway #24, Sta.  
317450, near Knights Landing, California.

(2) Westerly levee along Knights Landing Ridge Cut.

From the Yolo By-pass, Sta. 600, to the State Highway #24, Sta.  
32343.17, near Knights Landing, Calif.

Yours very truly,

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

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

Registered Mail  
Return Receipt  
Requested

SPKKA 824.3 (Sac. Riv. F. C. P.)

8 Dec 1951

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

Gentlemen:

Reference is made to your letter of 28 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:

- a. -----
- b. -----
- c. Westerly levee of the Sacramento River.  
(9) Mile 84.0 (West End Fremont Weir) to Mile 85.3.  
(10) Mile 85.5 to Mile 85.9.
- e. -----

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 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.

Sincerely yours,

/s/ H. R. REIFSNYDER  
Lt. Colonel, Corps of Engineers  
Executive Officer

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. 127, both levees of Knights Landing Ridge Cut, West levee of Yolo  
By-pass, west levee of the Sacramento River and South Levee of Sycamore  
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 stages (water level  
at 37.0 on the S.P.R.R. bridge gage at Knights Landing and 35.0 on the  
Fremont Weir Gage) occurred on the following dates:

<u>Date</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