

**SUPPLEMENT TO STANDARD  
OPERATION AND MAINTENANCE  
MANUAL**

**SACRAMENTO RIVER  
FLOOD CONTROL PROJECT**

**UNIT NO. 165**

**CLEARED FLOODWAYS**



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

CORPS OF ENGINEERS

U. S. ARMY

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SACRAMENTO RIVER FLOOD CONTROL PROJECT

UNIT NO. 165

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U. S. ARMY ENGINEER DISTRICT  
Corps of Engineers  
Sacramento, California  
January 1968

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

UNIT NO. 165

CLEARED FLOODWAYS

<b>LOCATION</b>	<b>ADDITION OR REVISION</b>	<b>DATE</b>
Exhibit D	Add copy of letter of transfer dated 13 Nov 1961	28 Dec 2010

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EXHIBITS

<u>Exhibit</u>	<u>Description</u>	
A	Flood Control Regulations - - - - -	Unattached (Contained in Standard Manual)
A-1	Location Drawing - - - - -	1 sheet
B	"As Constructed" Drawings - - - - -	Unattached
C	Check List - Channels - - - - -	Sheets 1 and 2
D	Letter of Acceptance by or Transfer to the State Reclamation Board - - - - -	Sheets 1 thru 6
E	Semi-Annual Report Form - - - - -	Sheets 1 and 2

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

UNIT NO. 165

CLEARED FLOODWAYS

SECTION I  
INTRODUCTION

1-01. Project Works. The flood control improvement covered by this manual is a part of the Sacramento River Flood Control Project authorized by the Flood Control Act of 1917 as modified by the Acts of 1928, 1937 and 1941. The channels of the Project constitute that part of the waterway which lies between the levees of the Sacramento River from Ords Ferry to Collinsville; the channels of the lower reaches of the Feather and American Rivers; and all tributary and distributary streams. The area in general is shown on the location map EXHIBIT A-1.

1-02. Construction Data and Contractor. Unit No. 165 of the project works described in this manual forms an integral part of the Sacramento River Flood Control Project. Clearing necessary to bring all of the overflow areas to project standards was accomplished under the following contracts:

a. Clearing of the Feather River in overflow areas above Honcut Creek was accomplished under Contract No. W-04-167-ENG-1269 by H. Earl Parker, Inc., and completed on 24 November 1947. Drawing No. 4-6-288.

b. Clearing of Sutter Bypass from Fremont Weir upstream 3 miles (Part "C") was accomplished under Contract No. W-04-167-ENG-1381 by Tisdale and Parsons, and completed on 22 October 1948.

c. Clearing of Sutter Bypass from Fremont Weir upstream 3 miles (Parts "A" & "B") was accomplished under Contract No. W-04-167-ENG-1380 by T. & B. Construction Company and completed on 8 February 1949.

d. Clearing of the Yolo Bypass in an area known as the Kings Levee was accomplished under Contract No. DA-04-167-ENG-1226 by the Fred Drayer Company during the period from 1 November 1954 to 20 June 1955. Specification No. 1884, Drawing No. 50-6-3034.

e. Clearing of the Bear River from the Feather River upstream 4 miles was accomplished under Contract No. DA-04-167-CIVENG-56-197 by James H. Clack during the period from 1 May 1956 to 11 October 1956. Specification No. 2002, Drawing No. 2-6-133.

f. Clearing of the Feather River from Sutter Bypass upstream to the Yuba River was accomplished under Contract No. DA-04-167-CIVENG-56-205 by the Pinole Land Company during the period from 3 May 1956 to 1 December 1956. Specification No. 1895-A, Drawing No. 4-6-361.

g. Clearing of the Sutter Bypass from Fremont Weir upstream to Nelson Bend was accomplished under Contract No. DA-04-167-CIVENG-56-224 by C.S. Phillips Construction Company during the period from 18 June 1956 to 10 December 1956. Specification No. 2017, Drawing No. 50-6-3168.

h. Clearing of the Feather River channel between the Yuba and Bear Rivers was accomplished under Contract No. DA-04-167-CIVENG-62-26 by John M. Blaire during the period from 6 September 1961 to 3 November 1961. Specification No. 2729, Drawing No. 4-6-514.

i. Channel clearing on the upper Sacramento River between Colusa and Butte City was accomplished under Contract No. DA-04-167-CIVENG-63-59 by H. Earl Parker, Inc. during the period from 24 April 1963 to 18 October 1963. Specification No. 2775, Drawing No. 6-6-2059.

1-03. Assurances Provided by Local Interests. Assurance of cooperation by local interests is provided by State Legislation as contained in Chapter 3, Part 2, Division 5 of the State Water Code (see paragraph 2-02a of the Standard Manual).

1-04. Acceptance by or Transfer to the State Reclamation Board. Responsibility for operating and maintaining portions of Unit No. 165 was officially accepted by the Reclamation Board of the State of California on 6 July 1955, 16 November 1961 and 15 November 1963. Other parts were transferred to the State Reclamation Board by letters dated 18 December 1956, all as shown on copies of letters and acceptance and transfer, EXHIBIT D.

EXHIBIT II  
FEATURES OF THE PROJECT SUBJECT TO FLOOD CONTROL REGULATIONS

2-01. Channel.

a. Description. The channels within this unit are as described in paragraph 1-01 which covers the cleared channels of the Feather, Bear and Sacramento Rivers and portions of the Yolo and Sutter Bypasses. The channel widths vary and are as shown on the drawings of EXHIBIT B. The maintenance and operation of the various channels within this unit shall be limited to flood control requirements as referred to below. In general, the channels shall be maintained to the same condition as existed after completion of the contracts as listed in paragraph 1-02 of this unit or as existed after completion of the Sacramento River Flood Control Project. The channels shall be maintained annually by clearing all dense growth that has or will have a detrimental effect on the project works by restricting the passage of project flood flows. All cleared floatable debris shall be burned to ashes or removed outside the project works prior to 1 November of each year.

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

- (1) Maintenance - paragraph 6-02 of the Standard Manual.
- (2) Check List - Exhibit C of this Supplement Manual.
- (3) Operation - paragraph 6-04 of the Standard Manual.
- (4) Safety Requirements - paragraph 6-05 of the Standard Manual.

SECTION III

REPAIR OF DAMAGE TO PROJECT WORKS AND

METHODS OF COMBATING FLOOD CONDITIONS

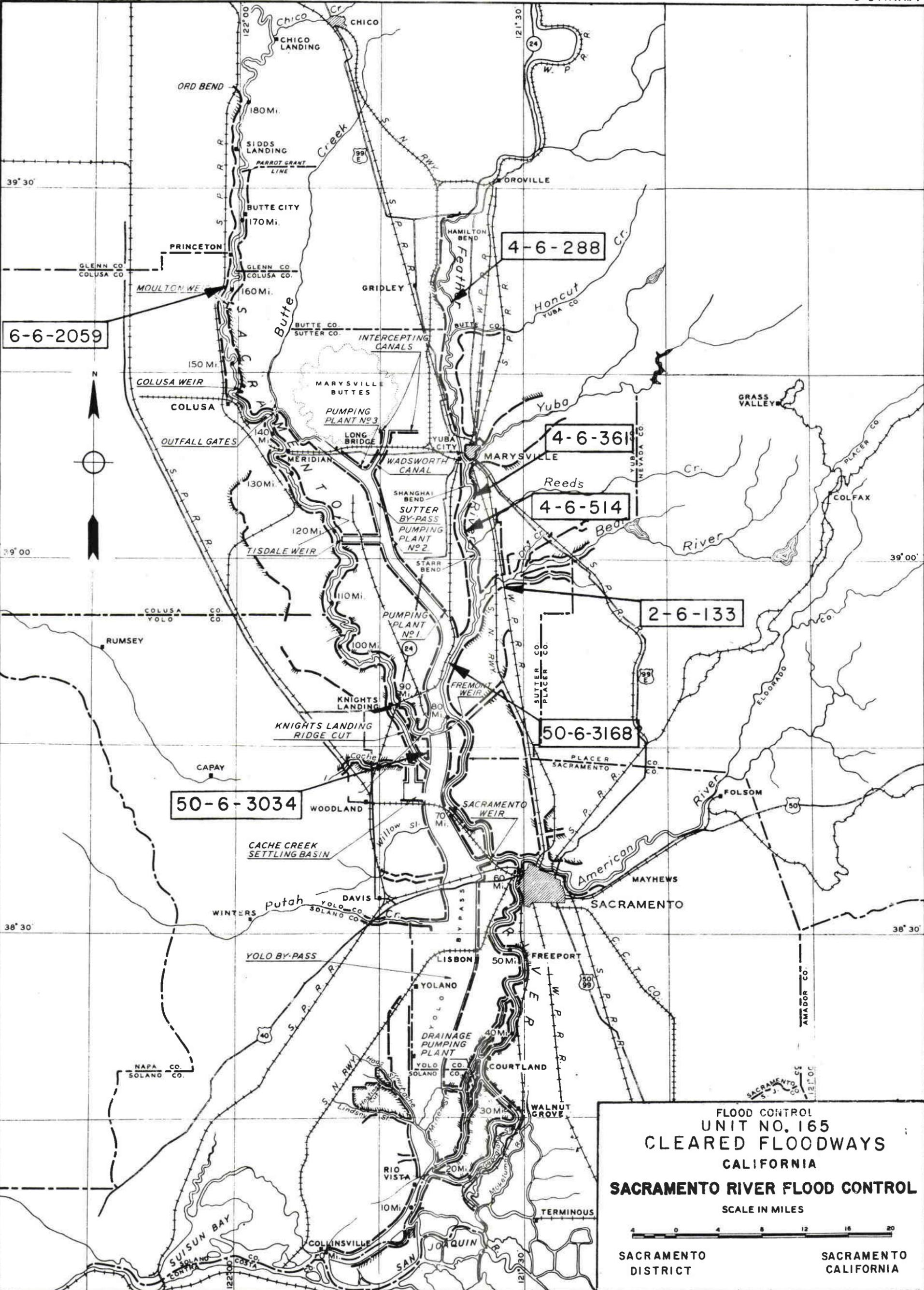
3-01. Repair of Damage. In the event of serious damage to the project works, whether due to flood conditions or other causes, and which may be beyond the capability of local interests to repair, the Superintendent will contact a representative of the Department of Water Resources, State of California, who coordinates maintenance of project works of the Sacramento River Flood Control Project. The state representative will give assistance or advice, or will determine appropriate action to be taken.

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

EXHIBIT A

FLOOD CONTROL REGULATIONS

(See Standard Manual)



FLOOD CONTROL  
 UNIT NO. 165  
 CLEARED FLOODWAYS  
 CALIFORNIA  
**SACRAMENTO RIVER FLOOD CONTROL**  
 SCALE IN MILES

4 0 4 8 12 16 20

SACRAMENTO DISTRICT SACRAMENTO CALIFORNIA

EXHIBIT B

"AS CONSTRUCTED"

DRAWINGS

<u>File No.</u>	<u>Title</u>
4-6-288	Clearing Overflow Areas in Feather River, in 1 sheet.
50-6-3034	Removal of Kings Levee and Clearing Yolo Bypass, in 1 sheet.
2-6-133	Bear River Clearing and Debris Removal from Feather River Upstream Approximately 4 miles, in 1 sheet.
4-6-361	Clearing Feather River - Sutter Bypass Upstream to Yuba River, in 3 sheets.
50-6-3168	Clearing Sutter Bypass from Fremont Weir Upstream to Nelson Bend, in 2 sheets.
4-6-514	Feather River Channel Clearing between Yuba and Bear Rivers, in 4 sheets.
6-6-2059	Channel Clearing - Upper Sacramento River between Colusa and Butte City, in 5 sheets.

EXHIBIT B  
Unattached

EXHIBIT C

CHECK LISTS OF CHANNELS

CHECK LIST NO. 3

CHANNEL AND RIGHT-OF-WAY  
UNIT NO. 165  
CLEARED FLOODWAYS

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 I, EXHIBIT E  
(To be printed on back of sheet I)

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

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

EXHIBIT D

LETTER OF ACCEPTANCE

BY OR TRANSFER TO THE STATE RECLAMATION BOARD

C  
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Y

THE RECLAMATION BOARD  
Of The  
State of California

C  
O  
P  
Y

July 12, 1955

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

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 /s/ DONALD D. LEMMON  
Donald D. Lemmon  
Assistant Secretary

EXHIBIT D  
Sheet 1 of 6

C  
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Y

THE RECLAMATION BOARD  
Of The  
State of California

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Y

November 27, 1961

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

Dear Sir:

Reference is made to your letter of November 13, 1961, regarding transfer to the State of California of the cleared Flood Plain of the Feather River between Yuba River and Bear River after residual levee removal and channel clearing under Corps Specification No. 2729.

The Board, at its meeting of November 16, 1961, formally accepted the above cleared channel for operation and maintenance.

Sincerely yours,

/s/ ROBERT W. JAMES  
Robert W. James  
General Manager and Chief Counsel

EXHIBIT D  
Sheet 2 of 6

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THE RECLAMATION BOARD  
Of The  
State of California

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December 16, 1963

Refer to: 7001.70.301

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

Dear Sir:

Reference is made to your letter of October 24, 1963, concerning transfer to the State of California of channel clearing work in the Sacramento River at sites A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, between Colusa and Butte City, California in accordance with Specification No. 2775.

The Reclamation Board, at its meeting of November 15, 1963, formally accepted the above referred to channel clearing work for operation and maintenance.

Sincerely yours,

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

EXHIBIT D  
Sheet 3 of 6

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C  
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SPKKO-P 824.3 (Sacto. Riv. F.C.P.)

18 December 1956

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

Gentlemen:

Reference is made to the District Engineer's letter dated 20 September 1956, relative to the joint inspection, made on 1 October 1956, of the clearing and debris removal work in the Bear River from the Feather River upstream approximately four miles.

The clearing and debris removal work referred to above was completed on 11 October 1956 under Contract No. DA-04-167-CIVENG-56-197, Specification No. 2002, Drawing No. 2-6-133. 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 ammended and supplemented by the current issue of the Standard Operation and Maintenance Manual for the Sacramento River Flood Control Project. As provided under paragraph 208.10 (10) of these regulations, a supplement to the Standard Operation and Mintenance 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 Department of Water Resources..

Sincerely yours,

/s/ A. E. McCOLLAM  
A. E. McCollam  
District Engineer

EXHIBIT D  
Sheet 4 of 6

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SPKKO-P 824.3 (Sacto. Riv. F.C.P.)

18 December 1956

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

Gentlemen:

Reference is made to the District Engineer's letter dated 9 November 1956, relative to the joint inspection, made on 20 November 1956, of the clearing and debris removal work in the Feather River from Sutter By-Pass upstream to the Yuba River.

The clearing and debris removal work referred to above was completed on 1 December 1956 under Contract No. DA-04-167-CIVENG-56-205, Specification No. 1895 and Drawing No. 4-6-361. 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 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 Department of Water Resources.

Sincerely yours,

/s/ A. E. McCOLLAM  
A. E. McCollam  
District Engineer

EXHIBIT D  
Sheet 5 of 6

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SPKKO-P 824.3 (Sacto. Riv. F.C.P.)

18 December 1956

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

Gentlemen:

Reference is made to the District Engineer's letter dated 30 November 1956 relative to the joint inspection, made on 6 December 1956, of the clearing work in the Sutter Bypass from Fremont Weir upstream to Nelson Bend.

The clearing work referred to above was completed on 10 December 1956 under Contract No. DA-04-167-CIVENG-56-224, Specification No. 2017 and Drawing No. 50-6-3168. 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 compliance 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 those regulations, a supplement to the Standard Operation and Maintenance Manual covering this unit of work is in process of preparation and will be furnished to you upon completion.

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

Sincerely yours,

/s/ A. E. McCOLLAM  
A. E. McCollam  
District Engineer

EXHIBIT D  
Sheet 6 of 6

13 NOV 1961

*Supplement #1*

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

Gentlemen:

Reference is made to the joint inspection made on 19 October 1961 of flood control work on the Feather River, a unit of the Sacramento River Flood Control Project, for the purpose of transferring it to the State of California for operation and maintenance. Reference is also made to Supplement dated 29 November 1957 to the Memorandum of Understanding entered into with the State of California under date of 30 November 1953, covering added items of work required to complete the Sacramento River Flood Control Project.

The flood control work, consisting of removal of obstructing residual levees and channel clearing in the Feather River Flood Plain, between Yuba and Bear Rivers, (items listed below as indicated in the referenced supplement,) was completed on 3 November 1961 in accordance with Specification No. 2729, Contract No. DA-04-167-CIVENG-62-26 and Drawing No. 4-6-514:

Item 1aa--Remove obstructing residual levees in Feather River Flood Plain.

Item 1y---Clear additional obstructing trees in Feather River Flood Plain.

The foregoing supplemental work, having been completed to current standards for the Sacramento River Flood Control Project, is hereby transferred to the State of California for operation and maintenance.

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 issues

*Unit 45, 165*

Supplement #1

LHK: pnp

13 NOV 1961

SPKCO-C  
The Reclamation Board

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

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

Sincerely yours,

H. N. TURNER  
Colonel, CE  
District Engineer

1 Incl  
F.C. Reg.

Copy furnished:  
Dept Water Resources  
23rd & "R" Streets  
Sacramento, Calif.

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

cc: Engr Divn- Lev & Chan  
Engr Divn-Prog Dev Br  
Fin & Acctg B  
Northern Area Office

OPERATIONS BRANCH  
CHANNELS & LEVEES SECTION

*ms*

Concurrences	
Originator:	LHK
Date:	11/9/61
Dist. Engr.	<i>[Signature]</i>
Dep. Dist. Engr.	<i>[Signature]</i>
Exec. Asst.	<i>[Signature]</i>
Compt.	
Budget	
Fin. & Acctg.	
Mgmt.	
Property	
Office Service	
Constn. Opns.	<i>[Signature]</i>
Engr'g.	
R. E.	
Personnel	
Counsel	
Supply	
Security	
Safety	
Tech. Liaison	

*[Handwritten signature]*  
Units 145, 145

EXHIBIT E

SUGGESTED SEMI-ANNUAL REPORT FORM

TO: The District Engineer  
Sacramento District  
Corps of Engineers  
650 Capitol Mall  
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\_\_) on Unit No. 165 of the Sacramento River Flood Control Project, is as follows:

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

(Superintendent's summary of conditions)

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

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

b. During this report period, major high water periods occurred on the following dates:

<u>Dates</u>	<u>Maximum Elevation</u>
_____	_____
_____	_____
_____	_____

Comments on the behavior of the protective works during such high water periods are as follows:

(Superintendent's log of flood observations)

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

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

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

d. (No) ( ) permits have been issued for the (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