Book D

Revised 29 Dec 2016

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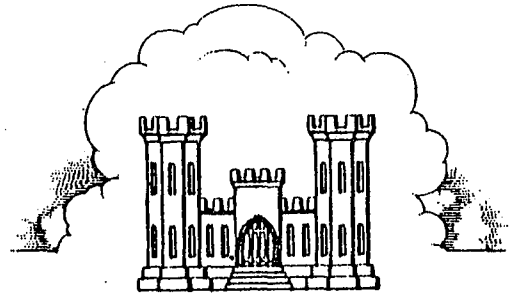
SUPPLEMENT TO STANDARD OPERATION AND MAINTENANCE MANUAL SACRAMENTO RIVER FLOOD CONTROL PROJECT

UNIT NO. 112

LEVEE AROUND MERRITT ISLAND



SACRAMENTO DISTRICT

CORPS OF ENGINEERS

U. S. ARMY

SACRAMENTO, CALIFORNIA

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

UNIT NO. 112
LEVEE AROUND MERRITT ISLAND

Sacramento District
Corps of Engineers
U. S. Army
March 1957

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

UNIT NO. 112

LEVEE AROUND MERRITT ISLAND

LOCATION	ADDITION OR REVISION	DATE
Paragraph 1-04 d.	Add Contract No. W-04-167-ENG-1570	Nov 1963
Exhibit B	Add Drawing No. 50-4-2541	Nov 1963
Paragraph 1-04 e.	Add Contract No. 63-72	Oct 1964
Exhibit B	Add Drawing No. 50-4-3736	Oct 1964
Exhibit F	Add copy of letter of acceptance dated 10 Feb 1964	Oct 1964
Paragraph 1-04 f.	Add Contract No. 66-15	Dec 1966
Exhibit B	Add Drawing No. 50-4-3848	Dec 1966
Exhibit F	Add letter of transfer dated 29 Nov 1966	Dec 1966
Paragraph 1-04 g.	Add Contract No. 66-102	Dec 1966
Exhibit B	Add Drawing No. 50-4-4006	Dec 1966
Exhibit F	Add letter of transfer dated 23 Nov 1966	Dec 1966
Paragraph 1-04 h.	Add Contract No. 66-146	Jun 1967
Exhibit B	Add Drawing No. 50-4-4287	Jun 1967
Paragraph 1-04 i.	Add Contract No. 67-C-0027	Apr 1968
Exhibit B	Add Drawing No. 50-4-4047	Apr 1968
Exhibit F	Add copy of letter of acceptance dated 7 and 19 Feb 1968	Apr 1968
Paragraph 1-04 j.	Add Contract No. DACW05-71-C-0021	Dec 1971
Exhibit B	Add Drawing No. 50-4-4378	Dec 1971
Exhibit F	Add copy of letter of acceptance dated 17 Jan 1972	Dec 1971
Paragraph 1-04	Add subparagraph k	Apr 1973
Exhibit B	Add Drawing No. 50-4-4487	Apr 1973
Exhibit F	Add copy of letter of acceptance dated 18 Dec 1972	Apr 1973
Paragraph 1-04	Add subparagraph l	Oct 1975
Paragraph 2-01	Add subparagraph c	Oct 1975
Exhibit B	Add Drawing No. 50-4-4687	Oct 1975
Exhibit F	Add copy of letter of acceptance dated 11 Jan 1974	Oct 1975
Paragraph 1-04	Add subparagraph m	Dec 1983
Paragraph 2-05	Add Environment Protection	Dec 1983
Exhibit B	Add Drawing No. 50-4-5541	Dec 1983
Exhibit F	Add copy of letter of acceptance dated 16 Nov 1982	Dec 1983
Paragraph 1-04	Add subparagraph n	Feb 1984
Exhibit B	Add Drawing No. 50-4-4898	Feb 1984
Exhibit F	Add copy of letter of transfer dated 2 Dec 1976	Feb 1984
1-04	Add subparagraph o	Aug 1990

LOCATION	ADDITION OR REVISION	DATE
Exhibit B	Add Drawing No. 50-4-5697	Aug 1990
Exhibit F	Add copy of letter of transfer dated 13 Dec 1985	Aug 1990
Exhibit F	Add copy of statement of completion dated 16 Jan 1950	20 Dec 2010
Exhibit F	Add copy of transfer letter dated 19 Jan 1950	20 Dec 2010
Exhibit F	Add copy of letter of acceptance dated 7 Feb 1955	20 Dec 2010
Exhibit F	Add copy of letter of transfer dated 27 Dec 1963	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 26 Oct 1966	2 Feb 2011
Exhibit F	Add copy of letter of acceptance dated 1 Dec 1966	2 Feb 2011
Exhibit F	Add copy of letter of acceptance dated 23 Dec 1966	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 2 Jan 1968	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 6 Feb 1968	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 28 Dec 1971	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 24 Nov 1972	2 Feb 2011
Exhibit F	Add copy of letter of transfer dated 20 Dec 1973	7 Mar 2011
Exhibit F	Add copy of letter of acceptance dated 14 Dec 1976	7 Mar 2011
Exhibit F	Add copy of letter of acceptance dated 18 Mar 1986	7 Mar 2011
1-04	Add subparagraph p	31 Mar 2016
2-05	Add subparagraph b	31 Mar 2016
Exhibit B	Add Drawing No. 50-4-6338	31 Mar 2016
Exhibit H	Add copy of USFWS Biological Opinion dated 19 Jun 2012	31 Mar 2016
Exhibit A	Add exhibit A-2 Willow Planting Map	31 Mar 2016
Exhibit F	Add copy of letter of transfer dated 15 Jul 2016	19 Jul 2016
Exhibit F	Add copy of letter of transfer dated 29 Nov 2016	29 Dec 2016

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*Added December 1983

EXHIBITS

Exhibit	Description	
A	Flood Control Regulations	Unattached (Contained in Standard Manual)
A-1	Location Map	1 Sheet
A-2	Willow Planting Map	Sheets 1 and 2
B	"As Constructed" Drawings	Unattached
C	Plates of Suggested Flood Fighting Methods	Unattached (Contained in Standard Manual)
D	Check Lists No. 1 – Levee Inspection Report	Unattached (Contained in Standard Manual)
E	Check Lists – Levees, Channels and Structures	Sheets 1 thru 10
F	Letter of Transfer to The State Reclamation Board	Sheets 1 thru 5
G	Semi-Annual Report Form	Sheets 1 and 2
H	USFWS Biological Opinion	Sheets 1 thru 4

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

UNIT NO. 112

LEVEE AROUND MERRITT ISLAND
SECTION I

INTRODUCTION

1-01. Location. The improvement covered by this manual is that part of the Sacramento River Flood Control Project which, in general, comprises levees and channels or floodways that surround Merritt Island. The levees of this unit lie within Reclamation District No. 150, in Yolo County, California, and in the general vicinity of the town of Clarksburg. The location of the completed unit covered by this manual is shown on Exhibit A-1.

1-02. Project Works. The flood control works included in this manual were authorized by the Flood Control Act of 1917 as modified by the Acts of 1928, 1937, and 1941, and consists of the west levee (right bank) of the Sacramento River extending from its junction with Elk Slough downstream about 7.9 miles to its junction with Sutter Slough; the right bank of Sutter Slough that lies between the Sacramento River and the junction of Sutter and Elk Sloughs for a distance of 0.54 miles; and the left bank of Elk Slough from the upper end near Clarksburg, California to its junction with Sutter Slough, a distance of about 9 miles. The above described levees have been constructed by local interests and portions as shown in the drawings of Exhibit B were enlarged or repaired by the Corps of Engineers.

1-03. Protection Provided. Levees of Unit No. 112 provide protection to agricultural land on Merritt Island against flood waters of the Sacramento River, Sutter Slough and Elk Slough, also known as Elkhorn Slough, and is an essential feature of the Sacramento River Flood Control Project. The grade of the adopted flood plane profile in the Sacramento River varies from elevation 27.10 at the head of Elk Slough (Mile 41.9) to elevation 22.70 at the junction of the Sacramento River and Sutter Slough (Mile 34.0). The flood plane profile along Sutter Slough within this unit is at elevation 22.70. The flow of water in Elk Slough is controlled by a gated inlet structure at its junction with the Sacramento River at Clarksburg and the gate of the structure is normally closed during flood flows in the Sacramento River. Since the backwater determines the water surface profile in Elk Slough during flood flows, the profile is considered to be level and attains an elevation of 22.70 during the project design flood. (Elevations are referred to Corps of Engineers datum). The levee project grade along the Sacramento River provides a freeboard which equals or exceeds 3 feet and the project design capacity is 110,000 cubic feet per second within this unit. The project design capacity for Sutter Slough is 25,500 cubic feet per second.

1-04. Construction Data and Contractor. Construction required by the Corps of Engineers to bring levees of this unit to project standards and to perform repair work to locally built levees was accomplished under the following job order and contracts:

a. Bank protection work at Hood Ferry Mile 38.6 R was completed on 29 December 1939 under Job Order No. 558. Drwg. 50-4-1752.

b. Levee setback on the west bank of the Sacramento River at Mile 35.9 was constructed under Contract No. W-1105-eng-1209 by Louis Biasotti & Son, contractor, and completed on 14 December 1946. Drwg. 50-4-2284.

c. Levee enlargement and bank protection work along the right bank of the Sacramento River and Sutter Slough and surfacing of Elk Slough levee crown was constructed under Contract No. DA-04-167-eng-1124 by H. Earl Parker, Inc., contractors, during the period from 18 January 1954 to 17 May 1955. Drwg. 50-4-2963.

d. At mile 35.5 the placing of bank protection and lumber mattress was completed under Contracted No. W-04-167-ENG-1570 by H. Earl Parker, Inc., and completed on 30 December 1949, Specification No. 1355, Drawing No. 50-4-2541.

e. Stone protection along the right bank of the Sacramento River at Merritt Island (Contract No. 1) was accomplished under Contract No. DA-04-167-CIVENG-63-72 by James L. Ferry and Peter L. Ferry and Son during the period from 12 June 1963 to 31 December 1963, Specification No. 2928, Drawing No. 50-4-3736.

f. Bank protection at several sites on Merritt Island, right bank of Sacramento River (Unit No. 6) was accomplished under Contract No. DA-04-167-CIVENG-66-15 by Elmer G. Wendt, Inc. during the period from 9 August 1965 to 9 November 1966. Specification No. 3058, Drawing No. 50-4-3848.

g. Bank protection, right bank Sutter Slough (Unit No. 9) was accomplished under contract No. DA-04-167-CIVENG-66-102 by Basalt Rock Company, Inc. during the period from 13 April 1966 to 16 November 1966. Specification No. 3155, Drawing No. 50-4-4006.

h. Bank protection, right bank of Sacramento River was accomplished under Contract No. DA-04-167-CIVENG-66-146 by James L. Ferry & son, Contractor, during the period from 27 June 1966 to 5 October 1966. Specification No. 3353, Drawing No. 50-4-4287. (Unit No. 6A).

i. Stone protection at various sites along the Sacramento River between Sacramento and Rio vista (Unit No. 11) was accomplished under Contract No. DACW05-67-C-0027 by Basalt Rock Company, Inc., during the period from 7 November 1966 to 29 February 1968. Specification No. 3157. Drawing No. 50-4-4047.

j. Bank sloping and stone protection at Site Mile 36.1 and 36.8 on the right bank of the Sacramento River (a portion of Unit No. 19, Sacramento River Bank Protection Project) was accomplished under Contract No. DACW05-71-C-0021 by James L. Ferry and Son during the period from 26 August 1970 to 20 December 1971. Specification No. 3427, Drawing No. 50-4-4378.

k. Stone protection, selective clearing, and levee bank sloping at Site Mile 40.9 on the right bank of the Sacramento River (a portion of Unit No. 21, Sacramento River Bank Protection Project) were accomplished under Contract No. DACW05-72-C-0046 by Eugene Luhr and Company during the period from 31 January 1972 to 5 January 1963. Specification No. 3680, Drawing No. 50-4-4487.

l. Bank protection and selective clearing and levee bank sloping on the right bank of the Sacramento River at Site Miles 36.5 (Unit No. 23) was accomplished under Contract No. DACW05-73-C-0012 by James L. Ferry and son during the period from 1 August 1972 to 10 July 1974. Specification No. 4041, Drawing No. 50-4-4687.

m. Bank sloping, stone protection and selective clearing on the left bank of Elk Slough at Site Mile 2.1 (a portion of Unit 36) was accomplished under Contract No. DACW05-80-C-0113 by E. W. Eldridge. Specification No. 5747, Drawing No. 50-4-5541.

n. Bank Sloping, stone protection and selective clearing on the right bank of the Sacramento River at Site Mile 40.4 (a portion of Unit 28) was accomplished under Contract No. DACW05-76-C-0015 by James L. Ferry and Son, Inc. Construction was completed on 27 Dec 1976. Specification No. 4559, Drawing No. 50-4-4898.

o. Bank sloping, stone protection and selective clearing on the right bank of the Sacramento River Site Mile 34.6 (a portion of Contract 37) was accomplished under Contract No. DACW05-84-C-0104 by Roy d. Garren Corp. Construction was completed on 6 December 1985. Specification No. 7014, Drawing No. 50-4-5697.

p. Willow poles were planted as part of mitigation efforts required under consultation with the U.S. Fish and Wildlife Service (08FBDT00-2012-I-0021) for construction effects on endangered species as a result of PL 84-99 repair efforts. The work was accomplished by Erick Ammon Inc. under Contract No. W91238-12-C-0048 and W91238-14-P-0091, Drawing No. 50-4-6338. The work was completed Feb 2015. As constructed drawings are contained in Exhibit B. The USFWS Biological Opinion is contained in Exhibit H.

1-05. Flood Flows. For purposes of this manual, the term “flood” or “high water period” shall refer to flows when the water surface reaches or exceeds a reading of 20.0 on the Department of Water Resources weekly water stage recorder and staff gage located on the right bank of the Sacramento River at Clarksburg on the dock the American Crystal Sugar Company. (Gage is set on U.S. Corps of Engineers datum).

1-06. Assurances Provided by Local Interests. Assurance of cooperation by local interests is provided by State Legislation, as contained in Chapter 3, Part 2, Division 5 of the State Water Code (see paragraph 2-02a of the Standard Manual).

1-07. Transfer to the State Reclamation Board. Responsibility for operation and maintaining the completed works was officially transferred to the State Reclamation Board by letters dated 8 December 1951 and 14 January 1955, as shown on 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. Levees.

a. Description. The levees within this unit surround Merritt Island and are located as described in paragraph 1-02. A paved county road traverses the crown of the levee along the Sacramento River and Sutter Slough. A gravel patrol road exists on the crown of the levee along the left bank of Elk Slough. For more complete detail of items included in construction of above mentioned levees, refer to the "As Constructed" drawings of Exhibit B.

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

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

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

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

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

c. 2-02. Drainage and Irrigation Structures.

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

Location Station	Size and Kind of pipe	Gate Location	Other Structure Description	Invert Ft. below Crown
		Sutter Slough		
5+19	12" steel	Gate Valve R.S.	Pump and platform R.S.	9.5

Location: River Mileage	Size and kind of pipe	Gate Location	Other Structure Description	Invert Ft. below crown
		Sacramento River		
34.23	10" steel	—	Pump L.S.	2.8
34.39	10" steel	R.S.	Pump R.S.	5.6
34.47	6" steel	R.S.	Pump R.S.	3.5
34.49	8" steel	R.S.	Pump R.S.	5.7

c. Environmental values. Vegetation preserved as a part of selective clearing on the waterside berm or slope above the bank protection during prosecution of the contract shall not be removed as a part of normal maintenance as long as it remains alive and in a healthy state.

Location: River Mileage	Size and kind of pipe	Gate Location	Other Structure Description	Invert Ft. below Crown
		Sacramento River		
34.71	14" steel	—	Pump R.S.	6.2
34.97	10" steel	—	—	5.3
35.08	5" steel	—	—	4.4
35.12	12" steel	—	—	3.0
35.22	14" steel	—	Pump R.S.	4.2
35.36	36" steel	L.S.	Pump R.S.	9.0
35.36	24" steel	R.S.	Pump L.S.	8.0
35.58	12" steel	R.S.	Pump R.S.	4.0
35.94	12" steel	—	Pump R.S.	4.0
36.17	12" steel	—	Pump R.S.	5.0
36.34	9" steel	R.S.	Pump R.S.	4.8
36.46	9" steel	—	Pump R.S.	3.7
36.84	2" G.I.	R.S.	Pump R.S. (Domestic)	10.2
36.88	10" steel	—	Pump R.S.	5.8
37.30	12" steel	—	Pump R.S.	4.0
37.56	12" steel	R.S.	Pump R.S.	3.0
37.65	8" steel	—	—	4.7
37.72	12" steel	—	—	3.9
37.95	8" steel	L.S.	Pump L.S.	5.7
38.24	10" steel	R.S.	Pump R.S.	5.0
38.50	12" steel	—	Pump R.S.	4.0
39.10	12" steel	L.S.	Pump L.S.	6.0
39.32	12" steel	—	Pump R.S.	3.0
39.90	8" steel	—	Pump R.S.	6.2
40.22	10" steel	R.S.	Pump R.S.	4.8
40.50	6" steel	—	—	8.5
40.50	8" steel	L.S.	—	12.7
40.60	6" steel	L.S.&R.S.	Pump L.S.	8.5
40.79	9" steel	L.S.	Pump L.S.	9.7
40.91	12" steel	R.S.	Pump R.S.	5.0
41.10	8" steel	—	Pump R.S.	8.2
41.16	7" steel	—	Pump L.S.	12.5
41.29	12" steel	L.S.	—	13.0
41.77	12" steel	L.S.	—	13.0

Miles from Sutter Slough	Size and kind of pipe	Gate Location	Other Structure Description	Invert Ft. below Crown
		Elk Slough - East Levee		
0.45	6" steel	R.S.	Pump R.S.	3.5
0.47	6" steel	—	—	4.5

Miles from Sutter Slough	Size and kind of pipe	Gate Location	Other Structure Description	Invert Ft. below Crown
		Elk Slough - East Levee		
0.58	8" steel	L.S.	Pump L.S.	13.7
1.39	14" steel	—	Pump R.S.	8.0
1.82	7" steel	—	Pump R.S.	3.4
2.53	12" steel	—	Pump R.S.	4.3
3.36	12" steel	—	Pump R.S.	3.0
3.45	8" steel	—	Pump R.S.	3.7
3.73	12" steel	R.S.	Pump R.S.	5.9
3.92	8" steel	R.S.	Pump R.S.	6.2
4.05	10" steel	R.S.	Pump R.S.	8.2
4.71	10" steel	—	—	3.8
4.99	10" steel	L.S.	Pump L.S.	7.2
5.15	30" steel	L.S.	Drainage Pump L.S.	14.5
5.19	10" steel	—	—	7.8
5.80	10" steel	—	Pump R.S.	7.8
5.97	10" steel	—	—	2.6
6.06	6" steel	—	Pump R.S.	2.5
6.24	10" steel	R.S.	Pump R.S.	6.8
6.41	7" steel	R.S.	Pump R.S.	4.3
6.69	10" steel	—	Pump R.S.	11.8
6.99	2" G.I.	R.S.	Domestic water supply	8.2
7.04	2" G.I.	—	Domestic water supply	—
7.10	12" steel	L.S.	Pump L.S.	7.0
7.33	8" steel	R.S.	—	7.7
7.33	6" steel	—	—	6.5
7.81	8" steel	—	Pump R.S.	8.4
8.16	2" G.I.	L.S.	Domestic water supply	7.2
8.34	10" steel	R.S.	Pump R.S.	13.8
8.51	12" steel	R.S.	Pump R.S.	13.0

Note on abbreviations:
L.S. = Landside
R.S. = Riverside
G.I. = Galvanized Iron

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

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

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

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

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

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

2-03. Channels.

a. Description. The waterway of the Sacramento River within this unit is confined between levees along bothe banks. Flow of water into the Elk Slough channel is controlled by a gate structure at the upper end near Clarksburg. The channel of the Sacramento River from the head of Elk Slough to the junction of Sutter Slough has a project design capacity of 110,000 cubic feet per second and for Sutter Slough the project design capacity is 25,500 cubic feet per second.

Since the channel of the Sacramento River within this unit is utilized for navigable purposes, the responsibility of local interests for inspection, maintenance and operation of the channel shall be limited to flood control.

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

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

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

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

(4) Safety Requirements - paragraph 6-05 of the Standard Manual.

It shall be the duty of the Superintendent to maintain a patrol of the project works during all periods of flood in excess of a reading of 20.0 on the gage at Clarksburg as indicated in paragraph 1-05 of this manual. The Superintendent shall dispatch a message by the most suitable means to the District Engineer whenever the water surface at Clarksburg reaches the gage reading indicated above and record the time of observations. One copy of the readings shall be forwarded to the District Engineer immediately following the flood, and a second copy transmitted as an inclosure to the semi-annual report in compliance with paragraph 3-05 of the Standard Manual.

2-04. Miscellaneous Facilities.

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

(1) Bridges.

(a) County bridge crossing Sutter Slough at Junction with Sacramento River.

(b) County bridge crossing Elk Slough near junction of Elk and Sutter Sloughs.

(2) Utility Relocation. At Sta. 599+91 a telephone cable was moved and reinstalled.

(3) Miscellaneous. At approximate Station 603+50 on Sacramento River near Sutter Slough a metal garage with concrete retaining wall exists on the riverside berm.

(4) Hydrographic Facility. A water stage recorder and staff gage located on the right bank of the Sacramento River at Clarksburg. This gage to be maintained by the State Department of Water Resources.

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

(1) Maintenance – paragraph 7-02 of the Standard Manual.

(2) Check Lists – paragraph 7-03 of the Standard Manual.

(3) Operation – paragraph 7-04 of the Standard Manual.

2-05. Environmental 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. For locations with a vegetation variance zone designation in Exhibit A-2:

(1) The vegetation variance zone is defined as the levee prism plus 15 feet extending beyond the levee toes for a height of eight feet vertically. Laterally, the vegetation variance zone extends the distance of the willow planting site. Arroyo and Sandbar willow species planted within the vegetation variance zone, identified in Exhibit A-2, will be permitted to grow without intervention until the willows meet the following:

(a) reach between two and four inches in diameter as measured 12 inches above the ground. Willow trunks shall be severed 12 inches above ground when between two and four inches. Willows shall not be permitted to grow in diameter greater than four inches when measured 12 inches above the ground. Decaying willow stumps within the vegetation variance zone shall not be removed to minimize disturbance to the riprap structure and adjacent willows. Care should be taken to minimize disturbance to the riprap structure during maintenance.

(b) impair visibility of the levee toe as detailed in the as-constructed drawings. When visibility of the toe is impaired or lost, willow branches shall be trimmed vertically from the ground up at the levee toe until the toe is visible for inspection. Vertical trimming shall not exceed eight feet in height from the ground up and will not be trimmed in such a way that threatens their survival (i.e. 'heading'. Trimming branches shorter or higher than what is reasonably necessary to monitor and inspect). This trimming is necessary to ensure an adequate access corridor without unnecessarily over trimming the willows.

(2) When maintained in accordance with this section of the O&M manual, the sponsor is not obligated to replant willow poles in the vegetation variance zone that do not survive.

(3) In the vegetation variance zone, only O&M manual compliant vegetation, arroyo and sandbar willows are allowed. The arroyo and sandbar willows shall be maintained such that the vegetation does not grow beyond the boundaries of the vegetation variance zone.

(4) The riprap placed below the planting shall be visually inspected to ensure no erosion, settling or scouring has occurred. If visual inspection is not possible, then hydrographic surveys or mechanical probing from the waterside by either waders or by boat shall be conducted. Examples of waterward soundings are included in Engineering Manual 1110-2-1003 or the most current USACE publication regarding hydrographic surveying. Repair of riprap shall be conducted in accordance with normal maintenance standards.

SECTION III

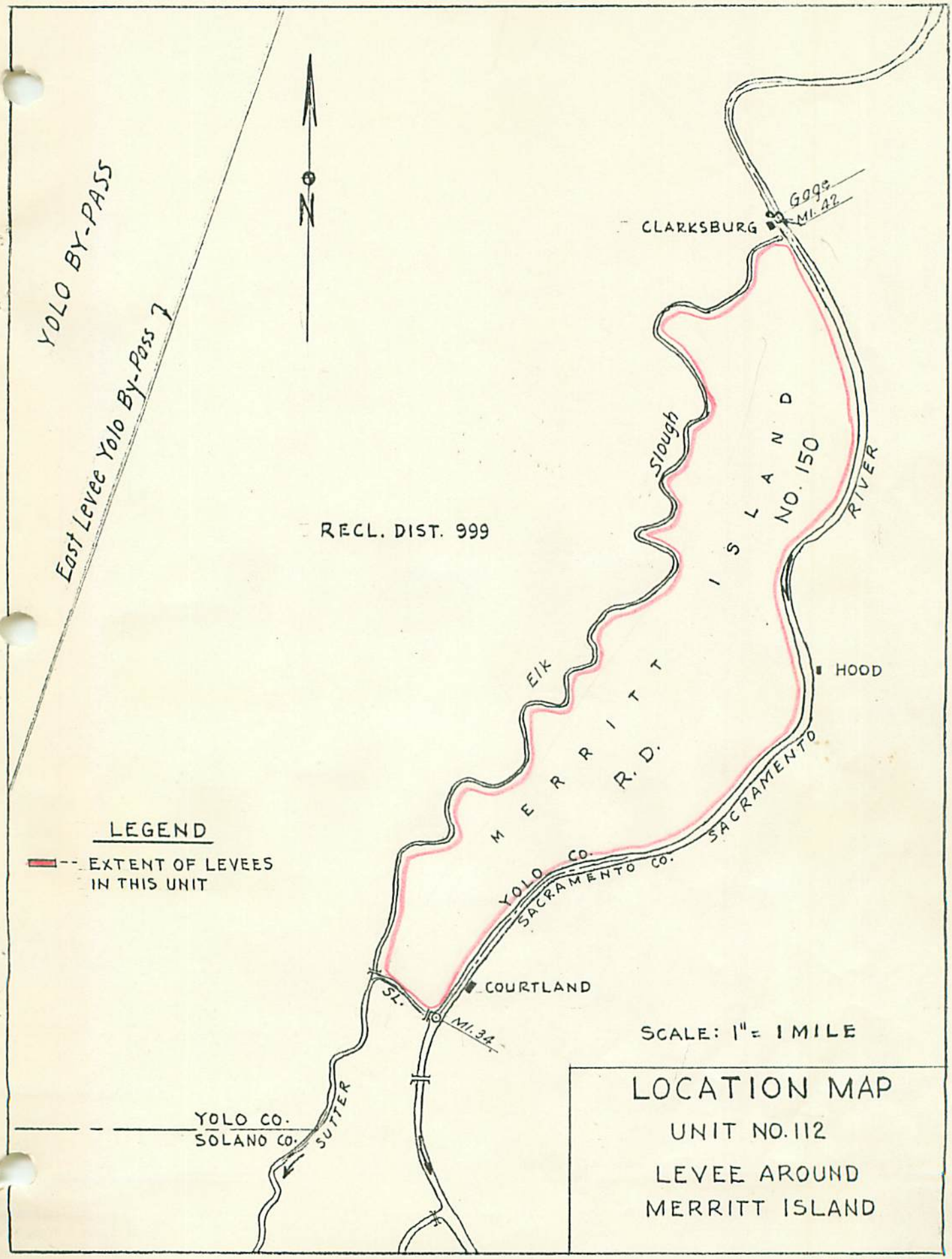
REPAIR OF DAMAGE TO PROJECT WORKS AND METHODS OF COMBATING FLOOD CONDITIONS

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 Standard Manual and Maintenance Manual, revised May 1955, where the subject is fully covered.

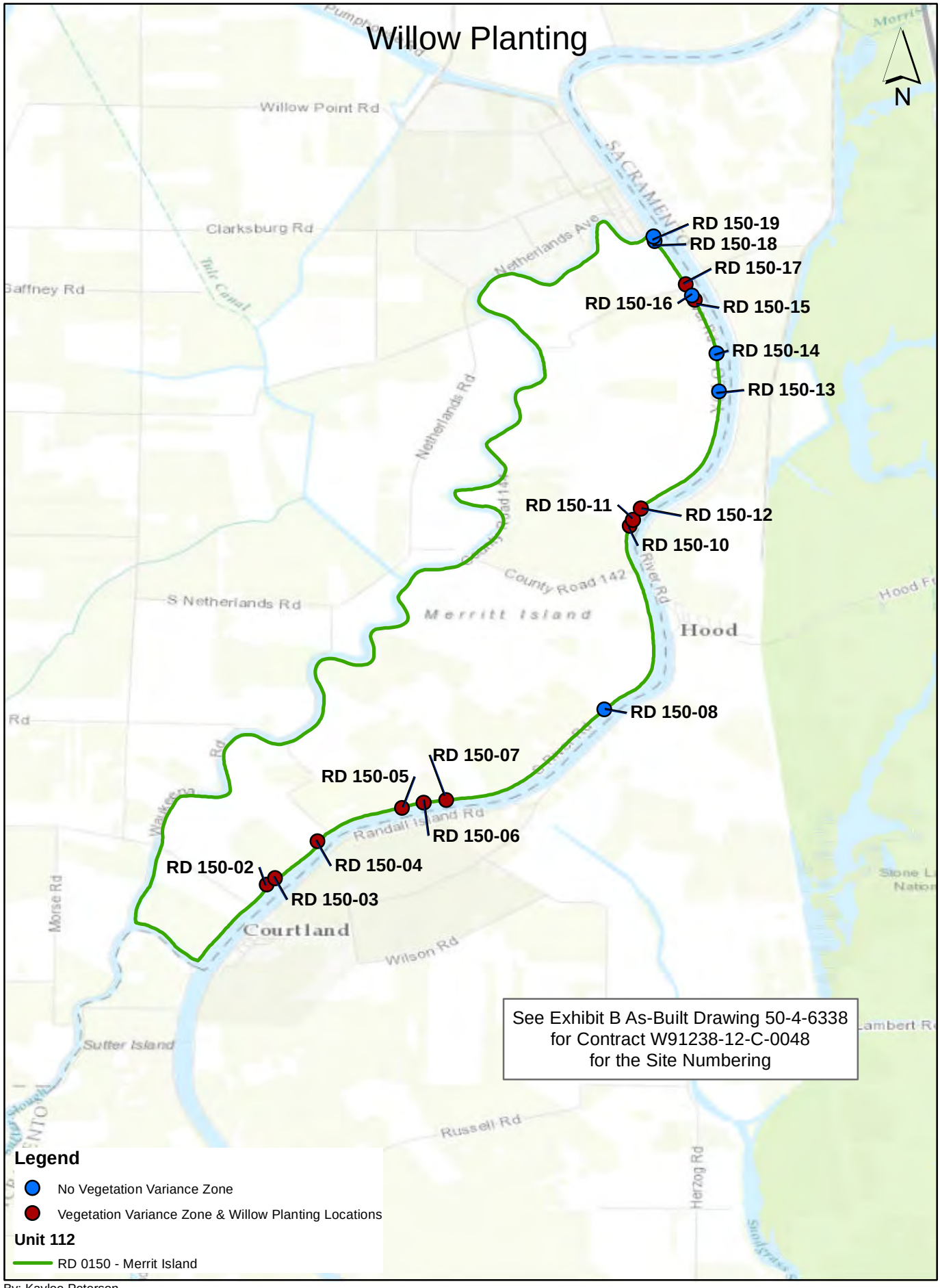
EXHIBIT A

FLOOD CONTROL REGULATIONS
(See Standard Manual)



LOCATION MAP
UNIT NO. 112
LEVEE AROUND MERRITT ISLAND

EXHIBIT A-1



By: Kaylee Peterson
March 2016

Exhibit A-2
Sheet 1 of 2

Exhibit A-2 - Summary of As Constucted Drawings (50-4-6338) Willow Planting - RD 150						
NAD83				length (ft)	Punches	Vegatation Variance Zone
W91238-12-C-0048						
RD 150-02	Start	38.337060 N	121.56755 W	247	83	Yes
	End	38.336730 N	121.56793 W			
RD 150-03	Start	38.337840 N	121.56669 W	148	50	Yes
	End	38.337540 N	121.56707 W			
RD 150-04	Start	38.342190 N	121.56166 W	429	144	Yes
	End	38.341210 N	121.56241 W			
RD 150-05	Start	38.346110 N	121.55235 W	2394	800	Yes
	End	38.343620 N	121.56001 W			
RD 150-06	Start	38.346730 N	121.54948 W	15	6	Yes
	End	38.346730 N	121.54955 W			
RD 150-07	Start	38.347050 N	121.54675 W	74	26	Yes
	End	38.347030 N	121.54702 W			
RD 150-08	Start	38.357730 N	121.52809 W	15	6	No
	End	38.357690 N	121.52812 W			
RD 150-10	Start	38.379420 N	121.52509 W	1703	569	Yes
	End	38.374910 N	121.52483 W			
RD 150-11	Start	38.380160 N	121.52473 W	53	19	Yes
	End	38.380040 N	121.52475 W			
RD 150-12	Start	38.381500 N	121.52380 W	307	103	Yes
	End	38.380820 N	121.52437 W			
RD 150-13	Start	38.395290 N	121.51453 W	118	40	No
	End	38.394970 N	121.51450 W			
RD 150-14	Start	38.399780 N	121.51487 W	52	18	No
	End	38.399660 N	121.51486 W			
RD 150-15	Start	38.406140 N	121.51746 W	203	69	Yes
	End	38.405490 N	121.51711 W			
RD 150-16	Start	38.406640 N	121.51774 W	5	3	No
	End	38.406620 N	121.51774 W			
RD 150-17	Start	38.407990 N	121.51849 W	102	35	Yes
	End	38.407740 N	121.51837 W			
RD 150-18	Start	38.413090 N	121.52216 W	844	282	No
	End	38.411160 N	121.52061 W			
RD 150-19	Start	38.413620 N	121.52264 W	185	63	No
	End	38.413240 N	121.52229 W			

EXHIBIT B
"AS CONSTRUCTED"
DRAWINGS

See separate folder for the following drawings:

File No.	Title
6-13-1100	Sacramento River from Sacramento to Collinsville, sheets 8, 9, 10, 11, and 12
50-4-1752	Proposed Bank Protection Hood Ferry Mile 38.6 R., 1 sheet.
50-4-2284	Levee Setback – West Levee Sacramento River, Mile 35.9, 1 sheet
50-4-2963	Levee Enlargement & Bank Protection, Right Bank Sacramento River & Sutter Slough on Merritt Island, sheets 1 to 11, inclusive.
50-4-2541	Bank Protection at mile 35.5 on the Sacramento River, in 1 sheet
50-4-3736	Bank Protection, Right Bank Sacramento River – various locations between Sacramento and Rio Vista, in 9 sheets.
50-4-4006	Bank protection, Right and Left Banks Sutter Slough and Left Bank Miner Slough, in 23 sheets (Unit No. 9).
50-4-3848	Bank Protection, Right and Left Banks Sacramento River Various Locations Between Sacramento and Isleton, in 32 sheets (Unit No. 6).
50-4-4287	Bank Protection Unit No. 6A, Right Bank Sacramento River at Mile 39.5, in 4 sheets.
50-4-4047	Bank Protection Right and Left Banks Sacramento River Various Sites Between Sacramento and Rio Vista, in 27 sheets.
50-4-4378	Bank Protection, Various Locations, Right and Left Banks, Sacramento River between mile 24.7 and 53.7, in 23 sheets.
50-4-4487	Bank Protection, Various Locations, Right and Left Banks, Sacramento River from mile 53.3 to Rio Vista, in 24 sheets.
50-4-4687	Bank Protection, Various Locations, Right and Left Banks, Sacramento River Mile 55.0 to Mile 16.0, in 28 sheets.

50-4-5541	Bank Protection, Various Locations, Right and Left Banks, Miner, Sutter, Steamboat and Elk Sloughs.
50-4-4898	Bank Protection, Various Locations, Right and Left Banks, Sacramento River Mile 12.0 to Mile 58.0, in 44 sheets.
50-4-5697	Bank Protection, Various Locations, Right and Left Banks, Sacramento River Mile 0.0 to 62.0 and Tributaries in 55 sheets.
50-4-6338	PL 84-99 Willow Plantings (Total of 75 sheets, for RD 3, RD 17, RD 150, and RD 755)

EXHIBIT C

PLATES OF SUGGESTED FLOOD FIGHTING METHODS
(See Standard Manual)

EXHIBIT D

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

EXHIBIT D
Unattached

EXHIBIT E

CHECK LISTS OF LEVEES, CHANNELS AND STRUCTURES

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

CHECK LIST NO. 2
UNIT NO. 112

Inspector's Report Sheet No. _____ Inspector _____

Date _____ Superintendent _____

Item	Remarks
(a) Location by Station	
(b) Settlement, sloughing, or loss of grade	
(c) Erosion of both slopes	
(d) Condition of roadways, including ramps	
(e) Evidence of seepage	
(f) Condition of farm gates and fencing	
(g) Maintenance measures taken since last inspection	
(h) Comments	

INSTRUCTIONS FOR COMPLETING SHEET 2, EXHIBIT E
(To be printed on back of sheet 2)

Item (a) Indicate levee station of observation, obtained by pacing from nearest reference point; indicate right or left bank.

Item (b) If sufficient settlement of earthwork has taken place to be noticeable by visual observation, indicate amount of settlement in tenths of a foot. If sloughing has caused a change in slope of the embankment sections, determine the new slope. Note areas where erosion or gullying of the section has occurred.

Item (c) If sufficient erosion or gullying of bank face of back toe of levee has taken place to be noticeable by visual inspection, indicate area affected and depth.

Item (d) Note any natural change in any section of roadway or ramps. Indicate any inadequancy in surface drainage system.

Item (e) Indicate any evidence of seepage through the embankment section.

Item (f) Indicate the serviceability of all farm gates across the embankments and roadway, and indicate if repainting is required.

Item (g) Indicate maintenance measures that have been performed since last inspection and their condition at the time of this inspection.

Item (h) Record opinion, if any, of contributory causes for conditions observed and also any observations not covered under other columns.

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

CHECK LEST NO. 3

CHANNEL AND RIGHT-OF-WAY
UNIT NO. 112

Inspector's Report Sheet No. _____ Inspector _____

Date _____ Superintendent _____

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

INSTRUCTIONS FOR COMPLETING SHEET 4, EXHIBIT E
(To be printed on back of sheet 4)

Item (a) Indicate station of observation obtained by pacing from nearest reference point.

Item (b) Note nature, extent, and size of vegetal growth within the limits of flood flow channel.

Item (c) Note nature and extent of debris and refuse that might cause clogging of the conduits of the irrigation intake works, fouling of the tainter gates, or the bridges over the channel.

Item (d) Report any construction along the diversion channel or above the diversion works that has come to the attention of the inspector and that might affect the functioning of the project.

Item (e) Indicate any change in grade or alignment of the channels, either by deposition or sediment or scour, that is noticeable by visual inspection. Estimate amount and extent.

Item (f) Indicate any change that has taken place in the riprap such as disintegration of the rock, erosion, or movement of the rock. Note the presence of vegetal growth through the riprap.

Item (g) Note any damage or settlement of the footings of the bridges. Indicate condition of wooden structures and if repainting is required. Indicate condition of bridge approaches, headwalls, and other appurtenances.

Item (h) Indicate maintenance measures that have been performed since the last inspection and their condition at time of this inspection.

Item (i) Record opinion, if any, of contributory causes for conditions observed, also any observations not covered under other columns.

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

CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES
UNIT NO. 112

Inspector's Report Sheet No._____ Inspector _____

Date _____ Superintendent _____

(a) Location by Station Or River Mileage	(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
				Sutter Slough			
5+19	Rt.						
				Sacramento River			
34.23	Rt.						
34.39	"						
34.47	"						
34.49	"						
34.71	"						
34.97	"						
35.08	"						
35.12	"						
35.22	"						
35.36	"						
35.36	"						
35.58	"						
35.94	"						

EXHIBIT E
Sheet 6 of 10

CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES
UNIT NO. 112

Inspector's Report Sheet No. ____ Inspector _____

Date _____ Superintendent _____

(a) Location by Station River Mileage	(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
				Sacramento River, Cont.			
36.17	Rt.						
36.34	"						
36.46	"						
36.84	"						
36.88	"						
37.30	"						
37.56	"						
37.65	"						
37.72	"						
37.95	"						
38.24	"						
38.50	"						
39.10	"						
39.32	"						
39.90	"						
40.22	"						
40.50	"						

EXHIBIT E
Sheet 7 of 10

CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES
UNIT NO. 112

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
					Sacramento River, Cont.		
40.50	Rt.						
40.60	"						
40.79	"						
40.91	"						
41.10	"						
41.16	"						
41.29	"						
41.77	"						
					Elk Slough - East Levee		
Miles from Sutter Slough							
0.45	Lt.						
0.47	"						
0.58	"						
1.39	"						
1.82	"						
2.53	"						
3.36	"						
3.45	"						
3.73	"						

CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES
UNIT NO. 112

Inspector's Report Sheet No. _____

Date _____

Inspector _____

Superintendent _____

(a) Location by Station	(b) Bank	(c) Debris or other obstruction to flow	(d) Damage or settlement of pipe or conduit	(e) Condition of concrete headwall or invert paving	(f) Condition of right-of-way adjacent to structure	(g) Repair Measures Taken since last Inspection	(h) Comments
Miles From Sutter Slough				Elk Slough - East Levee, Cont.			
4.05	Lt.						
4.71	"						
4.99	"						
5.15	"						
5.19	"						
5.80	"						
5.97	"						
6.06	"						
6.24	"						
6.41	"						
6.69	"						
6.99	"						
7.04	"						
7.10	"						
7.33	"						
7.33	"						
7.81	"						
8.16	"						

INSTRUCTIONS FOR COMPLETING SHEET 6, EXHIBIT E
(To be printed on back of Sheet 6, 7, 8, and 9)

(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 inspector's report is to be mailed to the District Engineer immediately on completion, and a record copy shall be attached to the Superintendent's semi-annual report.

EXHIBIT F

LETTER OF TRANSFER TO
THE STATE RECLAMATION BOARD

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

NOV 29 2016

Ms. Leslie M. Gallagher
Executive Officer
Central Valley Flood Protection Board
3310 El Camino Avenue, Room 151
Sacramento, CA 95821

Dear Ms. Gallagher:

The purpose of this letter is to notify the Central Valley Flood Protection Board of the completion of an effort to update the Operation and Maintenance Manual Supplements for the Sacramento River Flood Control Project and the Lower San Joaquin River Levees and Lower San Joaquin River and Tributaries Project. These updates are a compilation of revisions made to the project over time and where we had record of a transfer letter to the Board. These updated supplements are the most current version and should be utilized as the baseline version for any future project modifications.

This process and the compiled updates have been coordinated with the Central Valley Flood Protection Board and Department of Water Resources staffs for review and comment. All comments have been addressed or incorporated into the manuals.

The Board staff has been provided a copy of the manuals in electronic format. Future updates will include entire unit supplements so updates can be seen in context with the entire unit supplement. The list of completed supplements, by the unit number and title, are attached. If you have any questions regarding this transmittal, please contact Gary Kamei at 916-557-6845.

Sincerely,

David G. Ray, P.E.
Colonel, U.S. Army
District Commander

Enclosures

Standard O&M Manual Sacramento River Flood Control Project	
Unit No.	**Project Name**
101	RD 341 Sherman Island
102	E. Levee of Sac River, Isleton to Threemile Slough & N. Levee of Threemile Slough from Sac River to SJ River
103	Both Levees of Georgiana Slough & E. Levee of Sac River from Walnut Grove to Isleton
104	Levees around Grand Island
105	Levees Around Reyer Island
106	S. Levee Lindsey Slough & W. Levee of Yolo BP from Lindsey Slough to Watson Hollow and N. Levee of Watson Hollow Drain
107	Levees Around Hastings Tract
108	Levees Around Peters Tract
109	West Levee of Yolo Bypass & E. Levee of Cache Slough
110	Levees Around Sutter Island
111	E. Levee of Sac River from Freeport to Walnut Grove
112	Levees Around Merritt Island
113	E. Levee Yolo Bypass, N. Levee Miner Slough, W. Levees Sutter Slough, Elkhorn Slough & Sac River, All Bordering RD 999
114	W. Levee of Sac River from Northern Boundary of RD 765 to Southern Boundary of RD 307
115	E. Levee of Sac River from Sutterville Rd to Northern Boundary of RD 744
116	W. Levee of Sac River from Sac Weir to Mi 51.2 & S. Levee of Sac Bypass & E. Levee of Yolo Bypass from Sac Bypass to Southern Boundary of RD 900
117	E. Levee Sac River through City of Sac from Tower Bridge to Sutterville Rd
118.1	E. Levee of Sac River from American River to Tower Bridge & S. Levee of American River from Mayhews Downstream to Sac River
118.2	N. Levee American River, E. Levee Natomas Canal, Both Levees Arcade Creek, S. Levee Linda Creek, & Magpie Creek Diversion Channel
118.2 Sup	Vegetation on Mitigation Sites E. Levee of Sac River from American River to Tower Bridge & S. Levee of American River from Mayhews Downstream to Sac River
119	Putah Creek Channel & Levees & W. Levee of Yolo Bypass from Yolo Causeway Downstream 3 mi. Includes O&M manual for the Yolo Basin wetlands, and South Fork Putah Creek Preserve Restoration Section 1135 Authorization.
120	Relocated Willow Slough Channel & Levees & W. Levee Yolo Bypass from mouth of Relocated Willow Slough to Yolo Causeway
121	R. Levee of Yolo Bypass from Willow Slough Bypass to Woodland Rd RD2035
122.1	W. Levee of Sac River from Mi 70.8 to Sac Weir & N. Levee of Sac Bypass & E. Levee of Yolo Bypass from Woodland Hwy to Sac Bypass
123	W. Levee of Sac River from East End of Fremont Weir to Mi 70.8 & E. Levee of Yolo Bypass from East End Fremont Weir to Woodland Hwy RD 1600

124	N. Levee of American River from Natomas E. Canal to Sac River & E. Levee of Sac River from Natomas Cross Canal to American River. Includes supplement, Vegetation on Mitigation Sites.
125	Back Levee of RD 1000
126	Cache Creek Levees & Settling Basin Yolo Bypass to High Ground
127	Knights Landing Ridge Cut & Sac River & Yolo BP Levees of RD's 730 and 819 & S. Levee of Sycamore Slough
128	E. Levee of Sac River from Sutter Bypass to Tisdale Weir all within RD 1500
129	S. Levee of Tisdale By-Pass from E. Levee Sac River to W. Levee Sutter BP & W. Levee of Sutter BP Downstream to E. Levee of Sac River
130	W. Levee Sac River from Sycamore Slough to Wilkins Slough (Mi. 89.9 to Mi. 117.8)
131	W. Levee Sac River from Wilkins Slough to Colusa (Mi. 117.8 to Mi. 143.5)
132	Back Levees of RD 108
133	E. Levee of Sac River from Winship School to Tisdale BP & N. Levee of Tisdale BP & W. Levee of Sutter BP from Long Bridge to Tisdale BP
134	Levees of RD 70, E. Levee of Sac River from Butte Slough Outfall Gates to Winship School & W. Levee of Sutter BP from Butte Slough Outfall Gates to Long Bridge
135	E. Levee of Sutter BP from Sutter Buttes Southerly to Junction with Feather River & E. & W. Levees of Wadsworth Canal & Levee of Intercepting Canals
136	E. Levee of Sac River from Butte Slough Outfall Gates to the Princeton-Afton Rd (Mi. 138.3 to Mi. 164.4)
137	W. Levee of Sac River from North End of Princeton Warehouse to Colusa Bridge
138	E. Levee of Sac River from Parrott-Grant Line to Princeton-Afton Rd
139	W. Levee of Sac River from N. Boundary of LD 2 to North End of Princeton Warehouse
140	W. Levee of Sac River in LD 1 (Mi. 170.5 to Mi. 184.7). Includes mitigation site O&M manual, Yuba County
141.1	E. Levee of Feather River from Bear River to Natomas CC & S. Levee of Bear River & Both Levees of Yankee Slough. Parts 1 and 2
141.2	E. Levee of Feather River from Bear River to Natomas CC & S. Levee of Bear River & Both Levees of Yankee Slough. Parts 1 and 2
142	Back Levee of RD 1001
143	W. Levee of Feather River from North Boundary of RD 823 to E. Levee of Sutter Bypass
144	W. Levee of Feather River from North Boundary of LD 1 to North Boundary of RD 823
145	E. Levee of Feather River, S. Levee of Yuba River, Both Levees of WPRR Intercepting Channel, W. Levee of South Dry Creek & N. Levee of Bear River
146	N. Levee of Bear River & S. Levee of South Dry Creek RD 817 & Vicinity of Wheatland
147	Levee Around the City of Marysville & N. Levee of Yuba River to a Point 1.8 Mi. Upstream from Marysville

148	W. Levee of Feather River from North Boundary of RD 777 to North Boundary of LD 1
149	S. Levee of Yuba River Maintenance Area No. 8
151	E. Levee Feather River from Honcut Creek to Marysville & S. Levee of Honcut Creek & E. Levee of RD 10
152	W. Levee of Feather River from N. Boundary of RD 777 to Western Canal Intake (Levee of Drainage District No. 1)
153	Lower Butte Creek Channel Improvement, Colusa, Glenn & Butte Counties
154	Moulton Weir & Training Levee Sacramento River
155	Colusa Weir & Training Levee Sacramento River
156	Tisdale Weir & Bypass
157	Fremont Weir, Sacramento River
158	Sacramento Weir, Sacramento River
159	Pumping Plants No. 1, 2 & 3, Sutter Bypass
160	Sutter Butte Canal Headgate
161	Butte Slough Outfall Gates
162	Knights Landing Outfall Gates, Sacramento River

Standard O&M Manual San Joaquin River	
Unit No.	**Project Name**
1	Right Bank Levee of the San Joaquin River & French Camp Slough within RD 404
2	Right Bank Levee of the San Joaquin River & French Camp Slough within RD 17
3	North Levee of Stanislaus River & East Levee of the San Joaquin River within RD 2064, 2075, 2094 and 2096
4	East Levee of San Joaquin River within RD 2031
5	East Levee of the San Joaquin River Within RD No. 2092
6	East Levee of the San Joaquin River in RD Nos. 2063 & 2091
7	West Levee of San Joaquin River & North Levee of Old River RD Nos. 524 & 544
8	Right Banks of Old River & Salmon Slough Within RD No. 1 & RD No. 2089
9	Levees Around RD No. 2062 & San Joaquin County Flood Control District Area No.2
10	West Levee of Paradise Cut RD No. 2058 & SJ County Flood Control District, Area No.2
11	West Levee of San Joaquin River from Durham Bridge to Paradise Dam Within RD No. 2085 & 2095
12	West Levee of San Joaquin River From Opposite Mouth of Tuolumne River Downstream to Stanislaus County Line Within RD Nos. 2099, 2100, 2101, & 2102
13	West Levee of the San Joaquin River in RD No. 1602

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

JUL 15 2016

Executive Office

Ms. Leslie M. Gallagher
Executive Officer
Central Valley Flood Protection Board
3310 El Camino Avenue, Room 151
Sacramento, California 95821

Dear Ms. Gallagher:

The U.S. Army Corps of Engineers has completed a portion of work under Public Law (PL) 84-99, Flood Control and Coastal Emergencies (FCCE) (33 U.S.C 701n) (69 Stat. 186) for emergency management activities, specifically, rehabilitation and associated mitigation of flood risk reduction projects. Mitigation willow plantings were made at various vegetation variance zone sites within Reclamation Districts (RD) 3, RD 17, RD 150, RD 551 and RD 755.

The mitigation willow plantings were completed under Contracts No. W91238-12-C-0048 and W91238-14-P-0091 by Erick Ammon, Inc. The subject flood risk reduction rehabilitation projects are considered complete as of the date of this letter. As-constructed drawings and revisions to the O&M Manuals for each respective RD are enclosed. The Central Valley Flood Protection Board shall continue to operate and maintain the completed rehabilitation effort as part of the project.

If you have any questions regarding this project, please contact Ms. Paige Caldwell (916) 557-6919.

Sincerely,

David G. Ray, P.E.
Colonel, U.S. Army
District Commander

Enclosures

STATE OF CALIFORNIA—RESOURCES AGENCY

GEORGE DEUKMEJIAN, *Governor*

DEPARTMENT OF WATER RESOURCES
THE RECLAMATION BOARD
1416 – 9th Street, Room 455-6
Sacramento, CA 95814
(916) 445-9454

MAR 1 8 1986

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

Dear Colonel Scholl:

Reference is made to your letter of December 13, 1985 concerning the transfer of a portion of the Sacramento River Bank Protection Project in Contract No. 37 to the State of California for operation and maintenance.

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

SACRAMENTO RIVER

Left Bank: Sites Miles 8.5, 10.4, 17.9, 19.1, 20.5, 21.4, 21.6, 23.4, 24.1, 36.0, 36.2, and 40.0

Right Bank: Sites Miles 15.9, 16.0, 17.6, 18.2, 27.2, 27.6, 31.0, 33.5, 34.6, 43.9, 44.9, and 45.2

STEAMBOAT SLOUGH

Left Bank: Site Mile 25.3

Right Bank: Sites Miles 15.9, 16.0, 16.8, 17.1, 19.8, and 25.3

SUTTER SLOUGH

Right Bank: Site Mile 22.0

GEORGIANA SLOUGH

Left Bank: Site Mile 12.1

Units 101, 102, 103, 104, 105, 110, 111, 112, 114

MAR 1 8 1986

The work was constructed in a workmanlike manner and in conformance with Drawing No. 50-4-5697, Specification No. 7014, and Contract No. DACW 05-84-C-0104, insofar as could be determined visually.

The Reclamation Board, at its regular meetings of December 20, 1985, and January 17, 1986, formally accepted the completed work on the above-referenced sites from the District Engineer for operation and maintenance, with the exception of Site Mile 16.0, Right Bank, Sacramento River.

A joint inspection was made on December 5, 1985 which included Site Mile 16.0. During this inspection, several large slumps in the rock revetment were observed. It was agreed that the slumps in the rock revetment would be repaired in conjunction with deficiencies noted at various other sites. For some reason, your contractor overlooked the repairs required at this site.

Mr. Sterling Olsen of the Valley Resident's Office has indicated that this site will be repaired in the spring of 1986. When this site has been repaired, we will be pleased to accept it for operation and maintenance.

If you have any questions concerning the above, please contact me at (916) 445-9454 or Mr. Richard Goodnight at (916) 445-9335.

Sincerely,

RAYMOND E. BARSCH
General Manager

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

cc: Mr. Ralph Cameron
Resident Engineer
Valley Resident's Office
U. S. Army Corps of Engineers
P. O. Box 935
West Sacramento, CA 95691

Units 101, 102, 103, 104, 105, 110, 111, 113, 114

C

December 13, 1985

Navigation and Flood Control Unit

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

Members of the Board:

This is in regard to the joint inspections of December 20, 1984, November 26, 1985 and December 6, 1985 made for the purpose of transferring a portion of the Sacramento River Bank Protection Project (Unit 37), 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 right bank at Site Miles 15.9, 16.0, 17.6, 18.2, 27.2, 27.6, 31.0, 33.5, 34.6, 43.9, 44.9 and 45.2 and left bank at Site Miles 8.5, 10.4, 17.9, 19.1, 20.5, 21.4, 21.6, 23.4, 24.1, 36.0, 36.2 and 40.0; Steamboat Slough right bank at Site Miles 15.9, 16.0, 16.8, 17.1, 19.8 and 25.3 and left bank at Site Mile 25.3; Sutter Slough right bank at Site Mile 22.0; and Georgiana Slough left bank at Site Mile 12.1.

The sites were completed during the past construction season in accordance with Contract Number DACW05-84-C-0104, Specification Number 7014 and Drawing Number 50-4-5697.

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 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 December 13, 1985 to the State of California for operation and maintenance.

Units 101, 102, 103, 104, 105, 110, 111, 112, 114

CERTIFIED
No. 783773
RETURN RECEIPT REQUESTED

This portion of the work will be added by amendment to the Operation and Maintenance Manual, Supplement Numbers 101, 102, 103, 104, 105, 110, 111, 112 and 114, 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

JK 12-13
ROMPALA/mg

RCK
KELLY

A. SMITH

HHEM

FAST

DENNIS

WILLIAM

SCHOLL
12/14

WANG #2977a

Copies Furnished:

DWR, ATTN: G. Snow
DWR, ATTN: J. Angel
Commander, South Pacific Division, ATTN: SPDCO-O
Commander, USACE, ATTN: DAEN-CWO-O

cc:
Flood Control Unit
Engr Div
Civ Des Sec D (Pahl)
Prog Dev
F&A Br
Valley Res Ofc
C-O Div
Reading

Reclamation Board Rompala N&F.C.U.

SENDER: Complete items 1, 2, 3, and 4. Add your address in the "RETURN TO" space on reverse.

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3. ARTICLE ADDRESSED TO:
State of California
1416 - 9th Street, Rm 455-6
Sacramento, California

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☐ REGISTERED ☐ INSURED
☐ CERTIFIED ☐ COD
☐ EXPRESS MAIL
ARTICLE NUMBER
783773

(Always obtain signature of addressee or agent)
I have received the article described above.
SIGNATURE ☐ Addressee ☐ Authorized agent
R. L. Mumma

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☆ GPO: 1982-379-593

PS Form 3811, July 1982 RETURN RECEIPT

Units
101, 102, 103, 104,
105, 110, 111, 112, 114

C O P Y

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

C O P Y

REPLY TO ATTENTION OF SPKCO-O

16 November 1982

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

Gentlemen:

This is in regard to the joint inspection of 10 November 1982 made for the purpose of transferring a portion of the Sacramento River Bank Protection Project (Unit 36), to the State of California for Operation and Maintenance. The flood control work consists of levee bank sloping and placement of stone protection on Steamboat Slough left bank at Site Miles 17.4, 17.8, 20.6, 22.4, 23.8 and 25.6 and on Elk Slough left bank at Site Mile 2.1. The sites were completed during the 1982 construction season in accordance with Contract No. DACW05-80-C-0113, Specification No. 5747 and Drawing No. 50-4-5541.

The work was performed under general authority of the Flood Control Act of 1960, 86th Congress, 2nd Session (PL 86-645, 14 July 1960), and Section 2304(a), Title 10, and now meets the requirements of the Sacramento River Bank Protection Project. Therefore, said work together with the waterway bank contiguous, thereto, is transferred as of 10 November 1982 to the State of California for operation and maintenance.

This portion of the work will be added by amendment to the Operation and Maintenance Manual, Supplement Nos. 104 and 112, Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

Sincerely,

HENRY LEE
Lieutenant Colonel, CE
Acting District Engineer

Copy furnished:
DWR, ATTN: M. Luttropp
DWR, ATTN: D. Meixner

EXHIBIT F

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF WATER RESOURCES
THE RECLAMATION BOARD
1416 – 9th Street, Room 335-18
Sacramento, CA 95814
(916) 445-9454

December 14, 1976

Colonel Donald M. O'Shei
District Engineer
Sacramento District
U. S. Army Corps of Engineers
650 Capitol Mall
Sacramento, CA 95814

Dear Colonel O'Shei:

The Reclamation Board at its regular meeting of December 10, 1976, formally accepted from the District Engineer the completed flood control work on a portion of Unit No. 28 of the Sacramento River Bank Protection Project. The flood control work was transferred to the State of California by your letter of December 2, 1976.

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

Sites Miles 12.9, 13.1, 14.9, 15.3 and 18.6 Left Bank, Sacramento River, in the Brannan Andrus Levee Maintenance District.

Sites Miles 17.3, 17.7, 18.1, 19.1 26.4, 27.0, 27.7 and 32.3 Right Bank, Sacramento River and Site Mile 24.8 Left Bank, Steamboat Slough, in Reclamation District No. 3.

Site Mile 40.4 Right Bank, Sacramento River, in Reclamation District No. 150.

Site Mile 33.1 Right Bank, Sacramento River, in Reclamation District No. 349.

Sites Miles 32.1 and 34.1 Left Bank, Sacramento River, in Reclamation District No. 551.

Sites Miles 26.7 and 27.2 Left Bank, Sacramento River, in Reclamation District No. 554.

Sites Miles 23.1, 25.1 and 26.4 Left Bank, Sacramento River, in Reclamation District No. 556.

Units 102 103, 104, 110, 111, 112

save water DWR

22 Dec 76

Sites Miles 40.3 Left Bank and 50.4 Right Bank, Sacramento River, modified irrigation facilities only.

The work was constructed in a workmanlike manner and in conformance with Drawing No. 50-4-4898, Specification No. 4539, and Contract No. DACW 05-76-C-0015, insofar as could be determined visually.

Sincerely,

Paul L Clifton

PAUL L. CLIFTON
General Manager

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Units 102, 103, 104, 110, 111, 112

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

REPLY TO
ATTENTION OF
SPKCO-O

2 December 1976

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

Gentlemen:

Reference is made to the joint inspection of 30 November and 1 December 1976, made for the purpose of transferring a portion of the Sacramento River Bank Protection Project (Unit 28) to the State of California for operation and maintenance. This flood control work consists of bank sloping and placement of stone protection on the Sacramento River left bank at Site Miles 12.9, 13.1, 14.9, 18.3, 18.6, 23.1, 25.1, 26.4, 26.7, 27.2, 32.1, and 34.1, and right bank at Site Miles 17.3, 17.7, 18.1, 19.1, 26.4, 27.0, 27.7, 32.3, 33.1, and 40.4, the irrigation facilities at Site Miles 40.3 left and 50.4 right and the Steamboat Slough left bank at Site Mile 24.8. The sites, as described on the inclosure, were completed on 21 November 1976 with the exception of the irrigation facilities, in accordance with Specification No. 4559, Contract No. DACW05-76-0015, drawing No. 50-4-4898.

The work was performed under the 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 banks contiguous, thereto, is transferred as of 2 December 1976 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. 102, 103, 104, 110, 111 and 112 Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

Sincerely yours,

1 Incl
as stated

Donald M. O'Shei
Colonel, CE
District Engineer

Copy furnished:
DWR, ATTN: R Franson & Carl Klug

SUMMARY OF PORTION OF SACRAMENTO
RIVER BANK PROTECTION PROJECT UNIT # 28
SACRAMENTO RIVER RIGHT BANK

SITE MILE	STONE PROTECTION	L.F.
17.3	80+00 to 92+50	1250
17.7	51+50 to 57+00	550
18.1	28+00 to 37+00	900
19.1	19+70 to 31+00	1130
26.4	285+50 to 292+50	700
	295+50 to 299+50	400
27.0	257+00 to 260+70	370
	262+00 to 269+50	750
27.7	222+80 to 229+50	670
32.3	0+00 to 3+63	363
33.1	8+00 to 16+00	800
40.4	39+00 to 45+00	600

SACRAMENTO RIVER LEFT BANK

*12.9	116+50 to 129+80	1330
13.1	96+50 to 103+50	700
14.9	32+00 to 36+00	400
15.3	8+50 to 15+50	700
18.6	1+00 to 5+30	430
23.1	0+00 to 5+00 AH	500
	111+07 to 112+07 BK	100
25.1	11+00 to 24+00	1300
26.4	5+00 to 7+70	270
26.7	126+50 to 134+00	750
27.2	102+50 to 107+00	450
32.1	11+53 to 19+61	808
	69+78 to 70+00	22
34.1	73+50 to 85+00	1150

STEAMBOAT SLOUGH LEFT BANK

*24.8	0+00 to 5+80	580

*Extended

C
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THE RECLAMATION BOARD
STATE OF CALIFORNIA

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January 11, 1974

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

Refer to: 4130.60.110

Dear Sir:

Reference is made to your letter of December 20, 1973, concerning the transfer of a portion of the Sacramento River Bank Protection Project, Unit No. 23, to the State of California, for operation and maintenance.

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 Site Miles 15.7, 18.3, 21.3, 22.1, 23.1, 24.5, 25.6, 34.5 and 36.5, all on the Right Bank of the Sacramento River.

The flood control work has been completed and was constructed in a workmanlike manner. This flood control work has been constructed in conformance with Drawing No. 50-4-4687, Specification No. 4041, and Contract No. DACW05-73-C-0012, insofar as could be determined visually.

The Reclamation Board at its regular meeting of January 4, 1974, formally accepted for operation and maintenance, the completed flood control work on the above-referenced sites.

Sincerely yours,

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

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

SPKCO-O 20 December 1973

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

Gentlemen:

Reference is made to the joint inspection of 19 December 1973, made for the purpose of transferring a portion of the Sacramento River Bank Protection Project Work (Unit No. 23), 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 15.7, 18.3, 21.3, 22.1, 23.1, 24.5, 25.6, 34.5, and 36.5. The sites, as listed on the inclosure, were completed on 19 December 1973 in accordance with Specification No. 4041, Contract No. DACW05-73-C-0012, Drawing No. 50-4-4687.

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 20 December 1973, to the State of California for operation and maintenance.

This portion of the project will be added by amendment to the Operation and Maintenance Manual, Supplement Nos. 104 and 112, Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

ROMPALA/dc
Redactro
COLEMAN
HENSON
McKINSEY
POTAMOS

Sincerely,

Units 104, 112

1 Incl
As stated

CHRIST F. POTAMOS
Lieutenant Colonel, CE
Acting District Engineer

Copy furnished:
DWR, ATTN: John Wright & Carl King

OCE
SPD

cc: Engrg (Lev & Chan)
Engrg (Prog Dev)
Valley Res Ofc
F & A (Jones)

SUMMARY OF PORTION OF SACRAMENTO RIVER BANK PROTECTION PROJECT UNIT #23

SACRAMENTO RIVER RIGHT BANK

SITE MILE	STONE PROTECTION	L.F.	STONE TOE WALL	L.F.
15.7	59+50 to 63+25	375	60+25 to 60+85	60
			61+50 to 62+90	140
18.3	22+00 to 29+00	700		
21.3	6+00 to 29+00	2300	20+50 to 21+50	100
			22+00 to 23+50	150
22.1	0+00 to 14+00	1400	0+90 to 2+90	200
			10+00 to 14+00	400
23.1	161+00 to 179+00	1800	163+38 to 164+82	144
			166+64 to 168+00	136
			169+00 to 172+00	300
			173+00 to 174+50	150
24.5	84+50 to 98+00	1150	93+00 to 94+75	175
25.6	20+00 to 37+00	1700	20+25 to 23+50	325
			25+00 to 25+60	60
			26+31 to 27+50	119
			27+70 to 28+50	80
34.5	72+00 to 83+00	1100	80+00 to 81+42	142
36.5	7+00 to 25+00	1800		

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THE RECLAMATION BOARD
STATE OF CALIFORNIA

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18 December 1972

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

Refer to: 4130.60.109

Dear Colonel Donovan:

Reference is made to your letter of November 24, 1972, concerning the transfer to the State of California, for maintenance and operation, a portion of the Sacramento River Bank Protection Project, Unit No. 21.

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 Site Miles 26.5, 28.0, 33.6, 34.7, 38.7, 43.1 Left Bank and Site Miles 16.0 and 40.9 Right Bank, Sacramento River.

The flood control work has been completed and was constructed in a workmanlike manner. This work has been constructed in conformance with Drawing No. 50-4-4487, Specification No. 3680, Contract No. DACW05-72-C-0046, insofar as could be determined visually.

The Reclamation Board at its regular meeting of December 15, 1972, formally accepted from the District Engineer for operation and maintenance, the completed work on the above-referenced sites.

Sincerely yours,

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

EXHIBIT F

R W Clark
file

SPKCO-O

24 November 1972

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

Gentlemen:

This is in regard to the joint inspection of 21 November 1972 made for the purpose of transferring a portion of the Sacramento River Bank Protection Project Work (Unit No. 21), to the State of California for operation and maintenance.

The flood control work consisting of levee bank sloping and placement of stone bank protection on the Sacramento River left bank at site miles 26.5, 28.0, 33.6, 34.7, 38.7 and 43.1, and right bank at site miles 16.0 and 40.9 is listed on the inclosure. The work was completed on 21 November 1972, in accordance with Specification No. 3680, Contract No. DACW05-72-C-0046, and Drawing No. 50-4-4487.

The work was performed under the general authority of the Flood Control Act of 1960, 86th Congress, 2nd session and Section 2304(a), Title 10, and now meets the requirements of the Sacramento River Bank Protection Project. Therefore, said work together with the waterway banks contiguous thereto, is transferred as of 24 November 1972, 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. 104, 111 and 112. Copies will be furnished your office at a later date.

Sincerely yours,

ROMPALA/dc
itel

COLEMAN

HENSON

MCKINSEY

LORD

DONOVAN

1 Incl
As stated

JAMES C. DONOVAN
Colonel, CE
District Engineer

Units 104, 111, 112

F & A Br (Jones)
Valley Res Ofc

Engr (Lev & Chan)
(Prog Dev)

cc:

Copy furnished:
DWR, ATTN: John Wright, Carl King
HQDA (DAEN-OWO)
SPD

SUMMARY OF PORTION OF SACRAMENTO RIVER BANK PROTECTION
UNIT 21 SACRAMENTO RIVER

LEFT BANK

SITE MILE	STONE PROTECTION	L.F.	STONE TOEWALL	L.F.
26.5	7+65 to 11+63	398		
28.0	61+00 to 65+30	430		
33.6	84+00 to 110+00	2600		
34.7	33+80 to 50+00	1620		
38.7	150+00 to 173+35	2335		
43.1	7+00 to 12+28	528		
		7911		

RIGHT BANK

16.0	45+40 to 49+30	390		
40.9	16+00 to 29+00	1300	16+00 to 20+70	470
		1690		
		Total 9601		

Units 104, 111, 112

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THE RECLAMATION BOARD
STATE OF CALIFORNIA

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January 17, 1972

Refer to: 4130.60.108

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

Dear Sir:

Reference is made to your letter of December 28, 1971, concerning the transfer to the State of California a portion of the Sacramento River Bank Protection Project, Unit No. 19 for operation and maintenance.

The flood control work completed on Site Miles 36.1 and 36.8 Right Bank of the Sacramento River was constructed in accordance with Drawing No. 50-4-4378, Specification No. 3427 and Contract No. DACW05-71-C-0021.

The Reclamation Board, at its regular meeting of January 14, 1972, formally accepted Site Miles 36.1 and 36.8 Right Bank of the Sacramento River for operation and maintenance from the District Engineer. At the same meeting, the Reclamation Board transferred the above-referenced sites to Reclamation District No. 150 for operation and maintenance.

Sincerely yours,

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

EXHIBIT F

SPKCO-O

28 December 1971

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

Gentlemen:

Reference is made to the joint inspection of 23 December 1971 made for the purpose of transferring a portion of the Sacramento River Bank Protection Project Work (Unit #19), to the State of California for operation and maintenance.

The flood control work consisting of levee enlargement, bank sloping, and placement of stone bank protection on the Sacramento River right bank at Site Miles 36.1 and 36.8 is listed on the inclosure. The work was completed on 17 December 1971 in accordance with Specification No. 3427, Contract No. DACW05-71-C-0021, Drawing No. 50-4-4378.

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 28 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, Supplement No. 112, Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

Sincerely yours,

ROMPALA/itl

COLEMAN

HENSON

HART

HIGMAN

JAMES H. HIGMAN
Lieutenant Colonel, CE
Acting District Engineer

1 Incl (dupe)
As stated

Copy furnished:
DWR, J. Wright & C. King

DAEN-CWO
SPD

Unit 112

cc: Engr(Lev&Chann)
Engr(Prog Dev)
Valley Res Ofc
F&A (Jones)

C
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THE RECLAMATION BOARD
STATE OF CALIFORNIA

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February 19, 1968

4130.60.106

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

Dear Sir:

Reference is made to your letter of February 6, 1968 concerning transfer to the State of California of the Sacramento River Bank Protection Project, Unit No. 11, Site Miles 35.0 and 52.9, right bank, Sacramento River, in accordance with Specification No. 3157.

The Reclamation Board, at its meeting of February 16, 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

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THE RECLAMATION BOARD
STATE OF CALIFORNIA

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February 7, 1968

4130.60.106

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

Dear Sir:

Reference is made to your letter of January 2, 1968 concerning transfer to the State of California of the Sacramento River Bank Protection Project, Unit No. 11, Site Miles 37.5 and 38.0, right bank, Sacramento River, in accordance with Specification No. 3157.

The Reclamation Board, at its meeting of February 2, 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 Manater

EXHIBIT F

68-0067

6 February 1968

SPKKO-F

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

Gentlemen:

Reference is made to the joint inspection of 5 January 1968, made for the purpose of transferring a portion of the Sacramento River Bank Protection work (Unit #11), to the State of California for operation and maintenance.

The flood control work consisting of levee enlargement, bank sloping and placement of stone bank protection on the Sacramento River at Site Miles 35.0 and 52.9, right bank, is listed on the attached inclosure. The work was completed on 5 February 1968, in accordance with Specification No. 3157, Contract No. DACW05-67-C-0027, Drawing No. 50-4-4047.

The work was performed under the general authority of the Flood Control Act of 1960, 86th Congress, 2nd Session; and Section 2304(a), Title 10.

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

This portion of the project work will be added by amendment to the Operation and Maintenance Manual, Supplement Nos. 112 & 116, Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

ROMPAIA
COLEMAN
HENSON

Sincerely yours,

Units 112, 116

YOUNG

1 Incl
As stated

CRAWFORD YOUNG
Colonel, CE
District Engineer

Copy furnished:
Dept Water Resources

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

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

copy to Alice 7 FEB

SUMMARY OF SACRAMENTO RIVER BANK PROTECTION PROJECT
PORTION OF UNIT #11
RIGHT BANK

67-0027

LEVEE UNIT SITE MILE	LEVEE ENLARGEMENT STATION	LINEAL FEET	STONE PROTECTION STATION	LINEAL FEET	ROCK TOE WALL STATION	LINEAL FEET
35.0	39+40 to 50+00	1060	39+90 to 50+00	1010	46+50 to 50+00	350
52.9	4+00 to 31+84 0+00 to 2+00	2984	4+00 to 31+84 0+00 to 2+00	2984		

SPKKO-F (SRBP-Unit 11)

2 January 1968

SPKKO-F

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

Gentlemen:

Reference is made to the joint inspection of 28 November 1967, made for the purpose of transferring a portion of the Sacramento River Bank Protection work (Unit #11), to the State of California for operation and maintenance.

The flood control work consisting of levee enlargement, bank sloping and placement of stone bank protection on Sacramento River at Site Miles 37.5 & 38.0, right bank, is listed on the attached inclosure. The work was completed on 20 December 1967, in accordance with Specification No. 3157, Contract No. DACW05-67-C-0027, Drawing No. 50-4-4047.

The work was performed under the general authority of the Flood Control Act of 1960, 86th Congress, 2nd Session; and Section 2304(a) Title 10.

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

ROMPAIA/p

COLEMAN

HENSON

This portion of the project work will be added by amendment to the Operation and Maintenance Manual, Supplement No. 112, Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

Sincerely yours,

Unit 112

YOUNG

1 Incl
as stated

CRAWFORD YOUNG
Colonel, CE
District Engineer

Copy furnished:
DWR, ATTN: John Wright
CE & SPD

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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

SUMMARY OF SACRAMENTO RIVER BANK PROTECTION PROJECT
PORTION OF UNIT #11

LEVEE UNIT SITE MILE	LEVEE ENIARGEMENT STATION	LINEAL FEET	STONE PROTECTION STATION	LINEAL FEET
RIGHT BANK:				
37.5	46+00 to 51+60	560	47+10 to 51+60	450
38.0	22+00 to 31+00	900	22+00 to 31+00	900

Unit 112

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN, Governor

THE RECLAMATION BOARD

ROOM 1335, RESOURCES BUILDING, 1416 9TH STREET • SACRAMENTO 95814

STANLEY W. KRONICK, *President*
J. J. MADIGAN, *Vice President*
WALLACE McCORMACK, *Secretary*
GEORGE W. NICKEL, JR.
HAROLD J. O'BANION
H. TERRILL SARTAIN
DONALD L. WEILER
COL. A. E. McCOLLAM, *General Manager*

DEC 23 1966

Refer to: 4130.60.103
Contract No. 66-15

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

Dear Sir:

Reference is made to your letter of November 29, 1966 concerning transfer to the State of California of the Sacramento River Bank Protection Project, Unit No. 6, Sites Mile 31.3, 31.8, 40.6 and 41.2, right bank and Sites Mile 36.9, 37.4, 40.5 and 41.5 left bank, in accordance with Specification No. 3058.

The Reclamation Board, at its meeting of December 15, 1966, formally accepted the above referred to work for operation and maintenance.

Sincerely yours,

A. E. McCollam

A. E. McCOLLAM
General Manager

JHMacC:pa

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN, *Governor*

THE RECLAMATION BOARD
ROOM 1335, RESOURCES BUILDING, 1416 9TH STREET • SACRAMENTO 95814

STANLEY W. KRONICK, *President*
J. J. MADIGAN, *Vice President*
WALLACE McCORMACK, *Secretary*
GEORGE W. NICKEL, JR.
HAROLD J. O'BANION
H. TERRILL SARTAIN
DONALD L. WEILER
COL. A. E. McCOLLAM, *General Manager*

DEC 1 1966

Refer to: 4130.60.103A
Contract No. 66-146

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

Dear Sir:

Reference is made to your letter of October 26, 1966 concerning transfer to the State of California of the Sacramento River Bank Protection Project, Unit No. 6A, Sites Mile 39.5 and 65.5 right bank, in accordance with Specification No. 3353.

The Reclamation Board, at its meeting of November 17, 1966, formally accepted the work completed at Site Mile 65.5 and transferred it to Reclamation District No. 537 for operation and maintenance. The work completed at Site Mile 39.5 was accepted and transferred to Reclamation District No. 150 for operation and maintenance with the provision that the cottonwood trees left standing within the limits of the rock slope protection be removed.

Sincerely yours,

A. E. McCollam

A. E. McCOLLAM
General Manager

JHMacC:pa

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Unit 112,122

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SPKKO-F

C
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29 November 1966

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

Gentlemen:

Reference is made to the joint inspection of 9 November 1966, made for the purpose of transferring a portion of the Sacramento River Bank Protection work to the State of California for operation and maintenance.

The flood control work consists of levee enlargement, levee sloping and placement of bank protection on the Sacramento River at eight different sites. These sites are located at Site Miles 31.3, 31.8, 40.6 and 41.2 on the right bank, and Site Miles 36.9, 37.4, 40.5 and 41.5 on the left bank. The length of the work on the sites is listed on the attached inclosure. The job was completed on 9 November 1966, in accordance with Specification No. 3058, Contract No. DA-04-167-CIVENG-66-15, Drawing No. 50-4-3848. The work was performed under the general authority of the Flood Control Act of 1960, 86th Congress, 2nd Session, and Section 2304(a), Title 10.

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

This portion of the project work will be added by amendment to the Operation and Maintenance Manual, Supplement Nos. 103, 104, 111 and 112, Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

Sincerely yours,

/s/ T. S. Meade
T.S. MEADE
Lieutenant Colonel, CE
Acting District Engineer

EXHIBIT F

SUMMARY OF SACRAMENTO RIVER BANK PROTECTION PROJECT BETWEEN SACRAMENTO & ISLETON

SACRAMENTO RIVER RIGHT BANK:

LEVEE UNIT SITE MILE	STONE PROTECTION	LINEAL FEET	LEVEE ENLARGEMENT	LINEAL FEET	BANK SLOPING	LINEAL FEET
31.3	(38+15to32+00 (0+00to2+80	895	32+30to38+15) 0+00to3+30)	915	32+00to32+30	30
31.8	3+50to17+70	1420	4+00to17+70	1370	3+50to4+00	50
40.6	28+00to39+00	1100	32+50to37+50	500	(28+00to32+50 (37+50to39+00	450) 150)
41.2	3+00to16+50	1350	2+00to16+00	1400		

SACRAMENTO RIVER LEFT BANK:

36.9	10+00to20+35	1035	12+00to22+00	1000	10+00to12+00	200
37.4	26+00to39+60	1360	25+00to38+25	1325	38+25to39+60	135
0.5	55+45to66+00	1035			55+45to66+00	1055
+1.5	2+00to13+50	1150	1+00to11+00	1000		

EXHIBIT F

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SPKKO-F

23 November 1966

The Reclamation Board
State of California
1416 Ninth Street, Room 1335
Sacramento, California 95814

Gentlemen:

Reference is made to the joint inspection of 16 November 1966, made for the purpose of transferring a portion of the Sacramento River Bank Protection work, upon completion, to the State of California for operation and maintenance.

The flood control work consisting of levee enlargement, bank sloping and placement of bank protection at Sutter Slough; Site Miles 22.0, 23.6, 24.0 and 25.5, left bank and Site Miles 22.2, 23.2 and 28.1, right bank; and Miner Slough; Site Miles 1.45, 2.0, 2.7, 3.1, 3.7, 4.0, 4.7 and 5.2, left bank, as listed on the attached inclosure, was completed 16 November 1966. The work was done in accordance with Specifications No. 3155, Contract No. DA-04-167-CIVENG-66-102, Drawing No. 50-4-4006.

The work was performed under the general authority of the Flood Control Act of 1960, 86th Congress, 2nd Session and Section 2304(a), Title 10.

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

This portion of the project work will be added by amendment to the operation and maintenance manual, Supplement Nos. 105, 110 and 112. Sacramento River Flood Control Project. Copies will be furnished your office at a later date.

Sincerely yours,

/s/ Crawford Young

CRAWFORD YOUNG
Colonel, CE
District Engineer

EXHIBIT F

26 October 1966

SPKED-F

transfer file
S.R. Bank Prot.

The Reclamation Board
State of California
1416 - 9th Street, Room 1336
Sacramento, California 95814

Gentlemen:

Reference is made to the joint inspection of 19 October 1966, made for the purpose of transferring a portion of the Sacramento River Bank Protection work to the State of California for operation and maintenance.

The flood control work consisted of 2,460 feet of bank sloping and placement of bank protection on Sacramento River, Site Mile 39.5, right bank and miscellaneous ramps, gates and ditches at Site Mile 65.5, right bank. The work was completed on 7 October 1966, in accordance with Specification No. 3353, Contract No. DA-04-167-CIVENG-66-146, Drawing No. 50-4-4287.

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.

This completed flood control work now meets the requirements of the Sacramento River Bank Protection Project. Therefore, said control work is transferred to the State of California for operation and maintenance.

This portion of the project work will be added by amendment to the Operation and Maintenance Manual, Supplement Nos. 112 and 122 Part No. 1, Sacramento River Flood Control Project, and furnished your office at a later date.

JFR for
COLEMAN/KO-F/pp

Sincerely yours,

Unit 112, 122

ELENSON/KO

HART/KO

~~MEADE/VA~~

CRAWFORD YOUNG
Colonel, CE
District Engineer

for YOUNG/VE

10/26

Copy furnished:
Dept Water Resources
OCE & SPD

CERTIFIED MAIL

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

RETURN RECEIPT REQUESTED

COPY

THE RECLAMATION BOARD

February 10, 1964

Refer to: 4130.60.101

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

Dear Sir:

Reference is made to your letter of 27 December, 1963, concerning transfer to the State of California of bank protection work on the right bank of the Sacramento River at the following locations:

LEVEE UNIT	LOCATION-RIVER MILES	RIGHT OR LEFT BANK
Site Mile 37.05	36.90 to 37.20	Right
Site Mile 37.75	37.51 to 37.81	Right
Site Mile 38.30	38.07 to 38.48	Right
Site Mile 40.15	39.04 to 40.33	Right

This work was completed under Specification No. 2928.

The Reclamation Board, at its meeting of February 6, 1964, formally accepted the above referred to bank protection work for operation and maintenance, with the exception of the fence on the Miller property, the placing of which fence is not acceptable to The Reclamation Board.

Sincerely yours,

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

EXHIBIT F

SPKKO-N 27 December 1963

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

Gentlemen:

Reference is made to the joint inspection made on 6 November 1963 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. 1, consisting of levee shaping and placement of bank protection at four locations listed below below was completed on 20 December 1963, in accordance with Specification No. 2928, Contract No. DA-04-167-CIVENG-63-72 and Drawing No. 50-4-3736:

LEVEE UNIT	LOCATION-RIVER MILES	RIGHT OR LEFT BANK
Site Mile 37.05	36.90 to 37.20	Right -1500'
Site Mile 37.75	37.51 to 37.81	Right -1600'
Site Mile 38.30	38.07 to 38.48	Right -2200'
Site Mile 40.15	39.04 to 40.33	Right -1500'

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

The maintenance work required under the provisions of the Sacramento River Bank Protection 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 prepared for the Sacramento River Flood Control Project, previously furnished, which adequately covers operation and maintenance requirements applicable for the above units.

Unit 1/2

SPKKO-N 27 December 1963

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

Sincerely yours,

1 Incl
F.C. Regulations

ROBERT E. MATHE
Colonel, CE
District Engineer

Copy furnished:
Dept Water Resources
23rd & "K" Streets
Sacramento, California

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

cc: Engr Div - Lev & Chan w/o incl
Engr Div - Prog Dev Br w/o incl
F & A Br - w/o incl
Northern Area Office w/o incl

OPERATIONS BRANCH
NAVIGATION SECTION

LJK
KRISTOF/pnp

THOMPSON
for
HARR

for MATHE

Unit 112

ROBERT W. KENNY
GOVERNOR

THE RECLAMATION BOARD
OF THE
STATE OF CALIFORNIA
1100 O STREET
SACRAMENTO 14, CALIFORNIA

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

February 7, 1955

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

17 ?

Gentlemen:

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

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

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

Yours very truly,

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

By Donald D. Lemmon
DONALD D. LEMMON
Assistant Secretary

DDL:fmb

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

44

PSKKB-F

19 Jan. 1950

Accepted
28 February 1950.

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

Gentlemen:

The sections of levee listed below which are located along the Sacramento River in the vicinity of Courtland, California, have been completed. These are units of the Sacramento River Flood Control Project authorized under the Flood Control Act of 1 March 1917 and subsequent amending acts. Therefore, under the provisions of this act, and in accordance with established procedure, these sections of completed levees are hereby transferred to the State of California for maintenance by the State Reclamation Board and other local interests.

33A (1) Left bank, Sacramento River, on Randall Island, Mile 35.7, shown on map as Part "A"

34A (2) Right bank, Sacramento River, on Merritt Island, Mile 35.5, shown on map as Part "B"

This construction forms an integral part of the Sacramento River and Major and Minor Tributaries Flood Control Project, authorized under the Flood Control Act of 1 March 1917, as amended, including the Flood Control Act approved 22 December 1944. The details and extent of the work are shown on the inclosed drawings.

There is also inclosed copy of the Flood Control Regulations prescribed by the Secretary of War (now designated the Secretary of the Army), 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 work referred to above is a part.

In accordance with paragraph 208.10(10) of said regulations, this office will furnish your Board and local interests at a later date with an operation and maintenance manual to assist in carrying out their obligations established by these regulations.

Units 33A and 34A

824.3 (Sacto R. F.C. Proj) PSK 30

172.178-1

PSKKB-F
The Reclamation Board

For the records of this office, acknowledgment of receipt of this letter and the action taken by the Board is requested on or before 28 February 1950.

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

Sincerely yours,

JOSEPH S. GORLINSKI
Colonel, Corps of Engineers
District Engineer

5 Incls.
Dwg. 50-4-2531(1 sheet)
Dwg. 50-4-2541(3 sheets)
Dwg. 50-4-2542(2 sheets)
Dwg. 50-4-2601(2 sheets)
Flood Control Regulations

Copy furnished:
State Engineer
Sacramento (w/incls.)

cc: Engr. Div. w/o Incls.
Sac. Fld. O. "
CdeA

Units 33A and 34A

172, 178-2

xxxxxxxxxx Sacto Field
Office

W-04 167-eng-1570 16 January 1950

Subject: Statement of Levee Completion - Contract W-04-167-eng-1570

Thru: Chief, Operations Division

To: Chief, Engineering Division

1. Reference: Operations Division Letter dated 28 March 1946, subject: "Statement of Levee Completion", and paragraph 14, of Engineering Division Memo No. 19 dated November, 1945, subject: "Manual of Procedure for preparation of Designs, Specifications and Contract Documents, Sacramento River, Flood Control Project".

2. Project: Part "A" - Levee Setback and Bank Protection East Levee Sacramento River, Randall Island, Mile 35.7.

Part "B" - Levee setback and Bank Protection West Levee Sacramento River, Merritt Island, Mile 35.6.

3. Period and Means of Construction: Construction was accomplished under Contract No. W-04-167-eng-1570 by H. Earl Parker, Inc., Contractors, as follows: Part "A" during period 30 June 1949 to 30 December 1949 and Part "B" during period 4 August 1949 to 30 December 1949.

4. Specifications and Drawings:
Specification No. 1355
Drawings Nos. 50-4-2531 - Sheet 1
50-4-2542 - Sheet 1, Rev. 2
50-4-2542 - Sheet 2, Rev. 1
50-25-2541 - Sheets 1 & 3 Rev. 2
50-25-2541 - Sheet 2
50-4-2209
50-4-1825
50-4-2375
50-4-1717
50-4-2601 - Sheets 1 and 2 Rev. 1

5. Deviations from Specifications and Plans:
Part "A" (Randall Island)
Sta. 21+35 to 22+00 ℄ - Extended levee setback together with surfacing 65 feet, to tie to existing levee.
Sta. 22+00 to 29+00 ℄ - Changed river side slope to 1 on 2 to crown of levee. Substituted quarry rock in lieu of cobbles for mattress and bank paving.
Sta. 22+40 C_L - Rebuilt Existing "H" type approach, landside in lieu of "S" type.
Sta. 22+50 to 25+00 ℄ - Relocated private water supply system.

Units 33A and 34A

Subject: Statement [redacted] Levee Completion - Contract [redacted] 167-eng-1570

7. Remarks: Submitted herewith is a set of contract drawings with deviations marked in red.

W. K. SOUTH
Construction Engineer
Chief, Sacto Field Office

Units 33A and 34A

Sta. 22+60 to 25+00 ℄ - Constructed 60 feet mattress in lieu of 50 foot mattress as shown and specified.

Sta. 24+60 ℄ - Installed 1½ inch pipe guard hand rails each side of new reinforced concrete steps.

Sta. 25+30 ℄ - Omitted reinforced concrete spillbox.

Sta. 25+50 ℄ - Installed 50 linear feet of No. 7 gage, 12-inch diameter pipe.

Part "B" (Merritt Island)

Sta. 0+00 to 36+00 and 38+00 to 45+50 ℄ - Substituted quarry rock in lieu of cobbles for bank paving.

Sta. 0+76 ℄ - Removed and saved existing pump, 140 feet of 8 inch pipe, 15 feet of 10 inch steel pipe and 100 feet of 1 inch pipe. Removed and wasted existing concrete diversion structure.

Sta. 2+50 ℄ - Installed new concrete diversion structure with three 24-inch outlet gates and 10-feet of 24-inch corrugated metal pipe from diversion structure. Also furnished and installed 100 feet of 14-inch soilproofed steel pipe with cut-off wall, brass cock, air and vacuum valve through levee section.

Sta. 4+00 to 6+00 ℄ - Relocated private water supply system.

Sta. 4+00 ℄ - Relocated fuel oil storage tanks.

Sta. 4+00 to 9+50 ℄ - Removed and wasted concrete foundations.

Sta. 9+02 ℄ - Constructed reinforced concrete retaining wall around existing well on land side slope.

Sta. 9+70 ℄-Removed and wasted portions of abandoned steam plant consisting of concrete slabs and water and steam pipes.

Sta. 9+80 ℄ - Installed pump structure 259 feet left of Sta. 9+80 ℄, in lieu of as shown on contract drawings Nos. 50-25-2541, Sheets 1 and 3, Revision 1, and Sheet 2 of three sheets, all in accordance with drawings Nos. 50-4-2601, Sheets 1 and 2, Revision 2. Eliminated drainage ditch as shown on drawing No. 50-4-2542 Sheets 1 and 3, Revision No. 2 and Sheet 2, Revision No. 1. Also substituted 5/16 inch steel pile casings in lieu of No. 10 gage casings for pump and platform support.

Sta. 20+84 ℄ - Furnished and installed 42 feet of 12 inch soilproofed steel pipe through levee together with one corrugated metal cut-off wall, brass cock and air valve. Also 20 feet of 10-inch steel pipe on land side slope. Salvaged 140 feet of 10-inch pipe.

Sta. 29+00 to 32+00 ℄ - Relocated private water supply system.

Sta. 31+00 ℄ - Removed and saved gasoline storage tank and system.

Sta. 31+00 to 36+00 ℄ - Constructed 80 foot mattress in lieu of 60 foot mattress as shown and specified.

Sta. 36+00 to 38+00 ℄ - Brought existing bank paving to grade.

Sta. 38+00 to 45+50 ℄ - Extended standard 80 foot woven lumber mattress and bank paving in accordance with drawing No. 50-4-2375.

Units 33A and 34A

6. Structures Affecting Levee Maintenance Work:

Location Station	C.M.P.	Gates Model #	Frame Height	Steel Pipe	Other Structure Description	Elevation at Invert of Pipe
℄ 24+60					Part "A" Randall Island - Constructed Reinforced concrete stairway with 1½-inch pipe railings	
℄ 25+50				12"	Constructed 1 corrugated metal cut-off wall	23.5
℄ 2+50	24"			14"	Part "B" Merritt Island - Constructed 1 Corrugated Metal cut-off wall.	23.5
℄ 30		100	11.38	36"	Constructed 2 corrugated metal cut-off walls and concrete headwalls	0.0 R.S.
		100	11.38	24"		4.7 L.S.
℄ 20+84				12" & 10"	Constructed 1 corrugated metal cut-off wall - 10" metal pipe on land side only.	23.5

Units 33A and 34A

COPY

SPKKA 824.3 (Sac.Riv.F.C.P.) 8 December 1951

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

Gentlemen:

Reference is made to your letter of 6 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 the levees of Merritt Island at the following locations:

a. Westerly levee of Sutter Slough.

(1) Elkhorn Slough upstream 1,800 feet

b. Westerly levee of Sacramento River.

(1) Mile 34.05 to Mile 34.2
(2) Mile 34.3 to Mile 34.5
(3) Mile 34.9 to Mile 35.15
(4) Mile 35.15 to Mile 35.86
(5) Mile 35.86 to Mile 36.0
(6) Mile 36.1 to Mile 37.2
(7) Mile 37.4 to Mile 38.5
(8) Mile 38.8 to Mile 39.1
(9) Mile 39.2 to Mile 39.9
(10) Mile 40.0 to Mile 40.3
(11) Mile 40.4 to Mile 40.6
(12) Mile 40.9 to Mile 41.1
(13) Mile 41.85 to Elkhorn Slough Inlet Pipes.

The records of this office show that on 3 May 1950 your Board accepted the levee covered by Item b.(4) above as complete. Accordingly, the waterway bank contiguous to said Item is hereby transferred to the State of California for maintenance and operation.

EXHIBIT F
Sheet 1 of 5

The levee covered by Items a., b. (1) to b. (3), Inclusive, and b. (5) to b. (13). inclusive, 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.

FOR THE DISTRICT ENGINEER

Sincerely yours,

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

COPY

SPKKO-P 824.3 (Sac.River F.C.P.) 14 January 1955

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

Gentlemen:

Reference is made to the District Engineer's letters dated 3 and 5 November 1954 suggesting a joint inspection of certain levee sections pertaining to the Sacramento River Flood Control Project, for the purpose of transferring them to the jurisdiction of the State of California for operation and maintenance. Reference is also made to the joint inspection of these levee sections made on 22 November 1954.

The levee sections referred to above have been recently completed and are listed as follows:

a. ---------

b. ---------

c. Westerly Levee - Sacramento River, on Merritt Island, Contract No. DA-04-167-eng-1124, Drawing No. 50-4-2963:

Levee Section No.	River Mile Points
409	34.00 to 34.05
410	34.2 to 34.3
411	34.5 to 34.9
412	36.0 to 36.1
413	37.2 to 37.4
414	38.5 to 38.8
415	41.1 to 41.85
416	42.0 to 42.2 (On Recl. Dist.No. 999)

d. Right Bank - Sutter Slough, on Merritt Island, Contract No. DA-04-167-eng-1124, Drawing No. 50-4-2963:

Levee Section No.	River Mile Points
417	28.2 to 28.4

EXHIBIT F
Sheet 3 of 5

e. Left Bank - Elkhorn Slough - on Merritt Island, Contract No. DA-04-167-eng-1124, Drawing No. 50-4-2963:

Levee Section No.	River Mile Points
418	0.0 to 4.24 (Sta. 17+40 to 240+00)

The levee sections, No. 388 to 418 inclusive, described above now meet the requirements of the Sacramento River Flood Control Project, therefore said levee sections, together with the waterway banks contiguous thereto, are hereby transferred to the State of California for operation and maintenance.

In addition to the above, recent surveys indicated that the levee sections listed below also meet the requirements of the Sacramento River Flood Control Project:

f. Westerly Levee of the Sacramento River on Merritt Island:

Levee Section No.	River Mile Points
419	39.1 to 39.2
420	39.9 to 40.0
421	40.3 to 40.4
422	40.6 to 40.9

Therefore, said levee sections No. 419 to 422 inclusive, together with the waterway banks contiguous thereto, are also hereby transferred to the State of California for operation and maintenance.

It is to be noted that the levee sections described above combined with other sections previously transferred to your jurisdiction now form a long continuous levee reach along the right bank of the Sacramento River from the lower end of Grand Island to a point approximately 4 miles upstream from the upper end of Elkhorn Slough, Mile 15.2 to 46.0, as shown on inclosed Chart entitled, "Sacramento River Flood Control Project-Levee Sections Transferred to the State of California, sheet 1."

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

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

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 State Engineer.

Sincerely yours,

/s/ Wm. J. Ely
WM. J. ELY
Colonel, Corps of Engineers
District Engineer

2 Incl
1. Chart
2. F.C. Reg.

Note: Only items pertaining to Unit No. 112 are included in the above copy.

EXHIBIT F
Sheet 5 of 5

EXHIBIT G

SUGGESTED SEMI-ANNUAL REPORT FORM

COPY

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

TO: The District Engineer
Sacramento District
Corps of Engineers
1209-8th Street
Sacramento, California

(1 May 19__)
(1 Nov. 19__)

Dear Sir:

The semi-annual report for the period (1 May 19__ to 31 October 19__) (1 November 19__ to 30 April 19__)

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

(Superintendent's summary of conditions)

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

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

b. During this report period, major high water periods (water level at 20.0 on the gage at Clarksburg) occurred on the following dates:

Dates	Maximum Elevation
_____	_____
_____	_____
_____	_____

EXHIBIT G
Sheet 1 of 2

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:

	Labor	Material	Equipment	Overhead	Total
1. Inspection					
2. Maintenance					
3. Flood fighting operations					
TOTAL					

Respectfully submitted,

_____
Superintendent of Works

EXHIBIT G
Sheet 2 of 2

EXHIBIT H

USFWS BIOLOGICAL OPINION
DATED 19 JUN 2012

United States Department of the Interior

FISH AND WILDLIFE SERVICE
San Francisco Bay-Delta Fish and Wildlife Office
650 Capitol Mall, Suite 8-300
Sacramento, California 95814

In reply refer to:
08FBDT00-2012-I-0021

JUN 19 2012

Alicia E. Kirchner
Chief, Planning Division
Corps of Engineers, Sacramento District
1325 J Street
Sacramento, California 95814-2922

Subject: Reinitiation of Section 7 Consultations for completed levee repairs under Public Law 84-99 within Reclamation Districts 3, 150, 551, 755, 765, 2098, 1001 and 17, Sacramento, San Joaquin, Yolo, and Solano Counties, California

Dear Ms. Kirchner:

This letter is in response to your May 24, 2012, letter requesting reinitiation of consultations with the U.S. Fish and Wildlife Service (Service) for an updated vegetation planting plan and its maintenance related to completed levee repairs under Public Law (PL) 84-99 within Reclamation Districts (RD) 3, 150, 551, 755, 765, 2098, 1001, and 17 in Sacramento, Yolo, San Joaquin, and Solano counties, California. The Corps of Engineers (Corps) is seeking concurrence with their determination that the proposed work and future operation and maintenance may affect but is not likely to adversely affect the Federally-listed delta smelt (*Hypomesus transpacificus*) or its critical habitat. Your request was received by the Service on May 25, 2012. Subsequently, on June 5, 2012, we received an electronic mail (email) message from Corps staff requesting that we exclude RD 1001 from the request, as the sites in this district would not be planted as part of this project. This response is in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

Background

Between December 28, 2005, and January 9, 2006, the State of California experienced a series of severe storms, which damaged levees within the Corps' Sacramento District boundaries. Water rose a second time in April 2006, and remained high in the system until June 2006. Many rivers and streams within the Sacramento and San Joaquin River Basins ran above flood stage during these events, and there were significant erosion and seepage problems with the levees. The California Department of Water Resources (DWR) and/or their maintaining agencies conducted flood fight activities while the Corps worked with DWR to restore the levee systems to the pre-

storm level of protection. These efforts were conducted under the authority of PL 84-99, Rehabilitation of Damaged Flood Control Works.

Between June 2008 and August 2009 the Service completed six individual section 7 consultations with the Corps on the effects of these repairs to delta smelt in RD 3 (Service file # 81420-2008-I-1030), RD 150 (Service file # 81420-2009-I-0707), RD 551/755 (Service file # 81420-2008-I-1031), RD 765 (Service file # 81420-2008-I-1404), RD 2098 (Service file # 81420-2008-I-1778) and RD 17 (Service file # 81420-2008-F-1032). Based upon implementation of the conservation measures proposed by the Corps for delta smelt, the Service concurred with the Corps' determination that the repairs in these RDs may affect, but would not likely adversely affect delta smelt.

Project Description

The rock revetment portion of the construction for the above projects was completed in 2009; however, the willow pole cuttings proposed in the project descriptions have not been installed. Your request to reinitiate consultation is intended to provide an updated project description that clarifies how the vegetation component of the project will be installed at the repaired sites and integrates the future Operation and Maintenance (O&M) of the sites into the consultations.

The total length of the planting sites is about 30,500 linear feet, of which about 14,000 linear feet required a vegetation variance. The remainder of the planting sites are outside the vegetation free zone and do not require a variance. The Corps' Sacramento District obtained a variance from Engineering Technical Letter 1110-2-571 titled *Corps Guidelines for Landscape Planting and Vegetation Management at Floodwalls, Levees, and Embankment Dams* from Corps Headquarters on October 3, 2011.

The sites will be planted from the levee crown or from a barge using the stinger method. Based on the timing of the proposed plantings, the contractor will be directed to work from upstream to downstream to reduce the potential for encountering delta smelt. All plantings will be done above the existing waterline at the time of planting. Work will begin in late November or early December and be completed as soon as possible. When the barge is in use, it will continually move parallel to the levee as the plantings are installed.

Following installation of the willow pole cuttings, the Corps will supplement the O&M manuals and provide them to the non-Federal sponsor for implementation. This language is contained in Enclosure 1 and only applies to the sites that were repaired during the 2005/2006 flood event where willow pole cuttings are planted. No other changes to the O&M manuals will occur at this time.

The O&M requirements will be carried out by the Central Valley Flood Protection Board (Board), and may be further transferred to the local maintaining agencies by the Board. As long as the maintaining agency follows the supplemental O&M language at these sites, any future mitigation requirements resulting from damage to the site will be replaced in-kind at the site.

However, if the maintaining agency does not comply with the supplemental language and damages the plantings willingly, the maintaining agency will be responsible for the appropriate mitigation.

Additional Proposed Conservation Measures

- The plantings will be placed from the levee crown or barge using the stinger method.
- The work will occur from upstream to downstream to minimize the potential to encounter delta smelt.
- All planting will occur above the existing waterline at the time of installation.
- Work would begin in late November/early December to maximize planting success and would be completed as soon as possible to minimize effects on delta smelt.
- When a barge is used it will continually move parallel to the levee as the plantings are installed.

The Service has reviewed your amended project description and the existing biological opinions for the levee repairs within RD 3 (Service file # 81420-2008-I-1030), RD 150 (Service file # 81420-2009-I-0707), RD 551/755 (Service file # 81420-2008-I-1031), RD 765 (Service file # 81420-2008-I-1404), RD 2098 (Service file # 81420-2008-I-1778) and RD 17 (Service file # 81420-2008-F-1032), completed under PL 84-99 which included installing willow pole cuttings in their project description. The change in project description from what was analyzed previously is (1) more detail on the method of installation of the willow pole cuttings, (2) a revision in when plantings would be installed (during their dormant period) to give the plantings a better chance of success in establishing, and (3) details on the willow plantings future O&M. All other information from the original biological opinions remains unchanged.

Based upon our review of the revised project description the Service finds the new information does not change our previous effects determination of may affect, but not likely to adversely affect delta smelt for the remaining work (willow pole cutting installation and future maintenance) proposed in RD 3, RD 150, RD 551/755, RD765, RD 2098, and RD 17. Unless new information reveals effects of the proposed work that may affect listed species in a manner or to an extent not considered in these consultations, or a new species is listed or critical habitat is designated that may be affected by the project, no further action pursuant to the Act is necessary for these projects.

If you have any questions regarding our response, please contact Doug Weinrich at the Sacramento Fish and Wildlife Office at (916) 414-6600, or Kim S. Turner at the San Francisco Bay-Delta Fish and Wildlife Office at (916) 930-5603.

Sincerely,

Kim S. Turner

Kim S. Turner
Assistant Field Supervisor

Enclosure

cc:
Doug Weinrich, SFWO, Sacramento, CA
Liz Holland, COE, Sacramento, CA
Howard Brown, NOAA Fisheries, Sacramento, CA