
**SUPPLEMENT TO STANDARD
OPERATION AND MAINTENANCE
MANUAL**

**SACRAMENTO RIVER
FLOOD CONTROL PROJECT
UNIT NO. 153
LOWER BUTTE CREEK
CHANNEL IMPROVEMENT
COLUSA, GLENN AND BUTTE COUNTIES,
CALIFORNIA**



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



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Sacramento District
Corps of Engineers
U. S. Army
August 1955

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SACRAMENTO RIVER FLOOD CONTROL PROJECT**

UNIT NO. 153

MOULTON WEIR AND TRAINING LEVEE
SACRAMENTO RIVER, CALIFORNIA

LOCATION	ADDITION OR REVISION	DATE
Exhibit F	Add copy of letter of transfer dated 10 Nov 1951	28 Dec 2010
Exhibit F	Add copy of letter of transfer dated 17 Dec 1953	28 Dec 2010
Exhibit F	Add copy of letter of transfer dated 11 Jan 1954	28 Dec 2010
Exhibit F	Add copy of letter of transfer dated 29 Nov 2016	29 Dec 2016

UNIT NO. 153

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UNIT NO. 153
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CHANNEL IMPROVEMENT
COLUSA, GLENN AND BUTTE COUNTIES,
CALIFORNIA

JANUARY 1953

SECTION I

INTRODUCTION

1-01. Location. The improvement covered by this manual is that part of the Sacramento River Flood Control Project which includes the channel of Butte Creek extending from a point approximately 6-1/2 miles east and 4 miles north of Butte City, downstream 12.95 miles to the Gridley-Colusa road. The project work is located in the general vicinity of Butte City as shown on Sheet 1 of Drawing No. 50-6-2658 of Exhibit B, and on the location map of Exhibit A-1, herewith.

1-02. Channel Improvement Provided. The channel clearing and improvement was undertaken to eliminate the congested condition that existed in the project area. The channel within this unit will now accommodate a flow of 2,500 cubic feet per second without excessive overbank flooding.

1-03. Project Works. The project works covered by this manual were completed under one contract and consisted of the following:

a. The cleared and improved channel of Lower Butte Creek Channel extending from center line station 1113+50 downstream 12.95 miles to the Gridley-Colusa road bridge at station 430+00. Improvement of the channel by excavation was undertaken in this reach except in places where the channel was sufficiently large and required no additional excavation.

b. A new reinforced concrete diversion structure to replace the old Howard Slough Diversion structure.

1-04. Construction Data. Unit No. 153 of the flood control works described in this manual forms an integral part of the Sacramento River

Flood Control Project. The project work of this unit was started on 1 May 1950 and completed on 1 November 1951.

1-05. Contractor. The work was accomplished under Contract No. DA-04-167-eng-225 by H. Earl Parker, Inc., Contractors. Copies of the contract are on file in the office of the District Engineer, Corps of Engineers, Sacramento, California. Drwgs. 50-6-2658 & 50-4-2603

1-06. Flood Flows: For purposes of this manual, the term "flood" or "high water period" shall refer to flows when the water surface in Butte Creek reaches or exceeds the reading of 9.0 on the staff gage at the Butte City - Richvale Road bridge. 0.0 of this gage is set at elevation 72.57 U.S. Corps of Engineers datum.

1-07. 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.)

1-08. Transfer to State Reclamation Board. Responsibility for operating and maintaining the completed works was officially accepted by the Reclamation Board of the State of California on 6 May 1953, as shown on the attached letter of acceptance, Exhibit F.

1-09. 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 will be so notified.

SECTION II

FEATURES OF THE PROJECT SUBJECT TO FLOOD CONTROL REGULATIONS

2-01. Levees.

a. Description. No levees other than spoil banks were constructed as a part of this unit; therefore, regulations pertaining to maintenance and operation of levees will not be quoted.

2-02. Drainage and Irrigation Structures.

a. Description. Irrigation structures provided in the project works are located and described as follows:

(1) Howard Slough Diversion Structure. The Howard Slough Diversion Structure is located in the channel of Butte Creek, 0.5 mile downstream from the point of bifurcation with Howard Slough and 1.67 miles downstream from the bridge at the Butte City-Richvale road (centerline station 811+00). The structure consists of a reinforced concrete flash board structure made up of a slab, abutments and piers. It contains 10 openings, each 4 feet 6 inches in width. Removable flashboards in the openings regulate the water surface during the irrigation season. The maximum elevation of the flashboards is 75.95 (USCE datum). This structure is shown on the drawing, File No. 50-4-2603, sheet 2 of Exhibit B.

(2) McGowan-Harris Diversion Structure. Private interests have constructed a collapsible diversion dam in Butte Creek approximately 0.5 mile upstream from the bridge at the Butte City-Richvale road (centerline station 908+00). This structure is not a part of the Lower Butte Creek Project, but must be operated in conjunction with the Howard Slough structure as hereinafter described.

The adjacent property owners, McGowan, will be responsible for maintenance and operation of both diversion structures mentioned above.

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.

c. Special Operating Instructions. Both the McGowan-Harris and the Howard Slough diversion structures shall be operated in a general way as nearly as possible to the following procedure:

(1) The water surface created by both the McGowan-Harris and the Howard Slough diversion structures should not be lowered more than 16 inches in 24 hours in order to prevent bank caving and sloughing of the creek banks by reason of sudden drawdown.

(2) The flashboards in the McGowan-Harris structure should be removed (in accordance with the above rule) until there is no head created by it. The balance of the boards may then be completely removed and the frames collapsed or the remaining boards removed from the structure concurrently with the removal of the boards from the Howard Slough structure.

(3) The boards may be completely in place in each structure during the period 15 April to 30 September. From 1 April to 15 April boards may be in place in both structures only when required for irrigation purposes. During this period, they will be removed upon order of the Division of Water Resources of the State of California. From 1 October to 31 October boards may be in place only when precipitation at the Chico U. S. Plant Introduction Station has not exceeded 3 inches since 1 September of the current season. Boards should be removed from both structures and the frame down on the McGowan-Harris structure as soon as possible after 30 September, because of potential minor flooding during early October and because of the inaccessibility of the structures during this period. From 1 November to 31 March the boards should be completely removed from both structures and the frame collapsed on the McGowan-Harris structure.

2-03. Channels.

a. Description. The channel of Lower Butte Creek extending from centerline station 1113+50 downstream to the Gridley-Colusa road at station 430+00 was cleared of brush and trees and improved by excavation. Excavated material was placed on both banks as discontinuous spoil banks. No levees, as such, were constructed.

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.

NOTE: During extreme floods when it is impossible to patrol banks of the channel, requirements as referred to above shall not apply.

It shall be the duty of the Superintendent to make periodic inspections of the Howard Slough structure whenever the flow in lower Butte City-Richvale road bridge. During such inspections, the Superintendent shall be certain that:

The flashboards are completely removed from the structure and that no openings are being jammed with debris.

The abutments of the structure are not being washed or scoured by any water flowing over or around them.

Adverse conditions observed during the inspections shall be remedied as soon as possible.

2-04. Miscellaneous Facilities.

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

(1) Utility Relocations. Because no utilities interfered with the channel improvement, they were left undisturbed.

(2) Bridge Pier Reinforcing. The pier footings of the bridge at the Biggs-Princeton road bridge were reinforced as a part of the Lower Butte Creek improvement.

(3) Hydrographic Facilities. In order to maintain a record of flood flows in Lower Butte Creek, an enameled steel staff gage has been installed on the Butte-City-Richvale road bridge, the maintenance of which is the responsibility of local interests. Conditions of the staff gage should be reported after each inspection.

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.

c. The interest of the Corps of Engineers and the responsibility of local interests in the existing highway bridges is confined to their effect on the safety and functioning of the flood control channel, but any conditions noted in the inspections that may affect them in any way should, as a matter of courtesy, be brought to the attention of the agencies maintaining and operating them. If the inspection of any miscellaneous structure, either existent or constructed in the future under permit, discloses a condition that indicates the probability of failure during periods of high water, the Superintendent shall address a letter to the owner of the structure, quoting this manual as authority and inviting attention to the conditions observed and requesting that immediate steps be taken to correct them. A copy of such letter shall be forwarded to the District Engineer for his information. A report on the action taken by the owner shall be submitted to the District Engineer to accompany the next semi-annual report under provisions of paragraph 3-06 of the Standard Manual. A suggested report form is inclosed as Exhibit G of this manual.

SECTION III

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

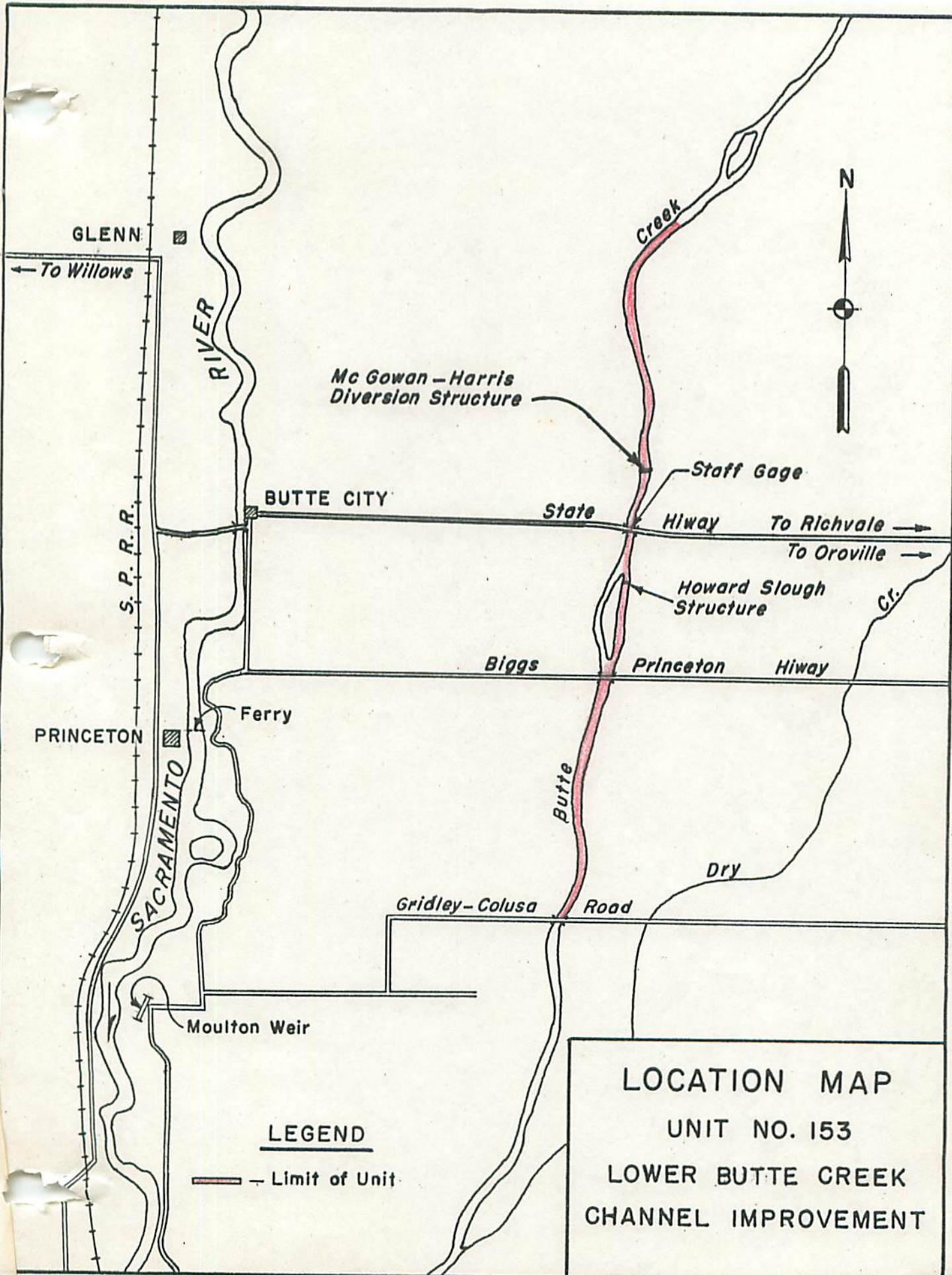
3-01. Repair of Damage. In the event of serious damage to the project works, whether due to flood conditions or other causes, and which may be beyond the capability of local interests to repair, the Superintendent will contact a representative of the Division of Water Resources, State of California,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

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

EXHIBIT A

FLOOD CONTROL REGULATIONS

(See Standard Manual)



LOCATION MAP
UNIT NO. 153
LOWER BUTTE CREEK
CHANNEL IMPROVEMENT

EXHIBIT B

"AS CONSTRUCTED" DRAWINGS

See separate folder for the following drawings:

- 50-6-2658 Lower Butte Creek Channel Improvement and Clearing,
Sheets 1 through 7.
- 50-4-2603 Howard Slough Structure, in 1 sheet.

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

EXHIBIT C

PLATES OF SUGGESTED FLOOD FIGHTING METHODS

(See Standard Manual)

EXHIBIT D

CHECK LIST NO. 1

LEVEE INSPECTION REPORT

(See Standard Manual)

EXHIBIT E
CHECK LISTS OF LEVEES,
CHANNEL AND STRUCTURES

For definition of "flood" or "high water period," see paragraph 1-06 of this manual

CHECK LIST NO. 2

CHANNEL AND RIGHT-OF-WAY

UNIT NO. 153

Inspector's Report Sheet No. _____ Inspector _____

Date _____ Superintendent _____

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

Instructions for Completing Sheet 2, Exhibit E
(To be printed on back of Sheet 2)

- Item (a) Indicate station of observation by pacing from nearest referenced point.
- Item (b) Note nature, extent, and size of vegetal growth within the limits of the flood flow channel.
- Item (c) Note nature and extent of debris and refuse that might cause clogging of the diversion structure or bridges.
- Item (d) Report any construction within the rights-of-way 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 channel, either by deposition of sediments 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 the 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 conditions at the time of this inspection.
- Item (i) Record opinion, if any, of contributory causes for conditions observed, and also any observations not covered under other columns.

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

CHECK LIST NO. 3

HOWARD SLOUGH DIVERSION STRUCTURE

Inspector's Report Sheet No. _____ Inspector _____

Date _____ Superintendent _____

Item	Remarks
(a) Debris or obstruction to flows.	
(b) Damage or settlement of structure.	
(c) Condition of concrete.	
(d) Condition of riprap on up-stream and downstream side of structure.	
(e) Condition of embankment adjacent to structure.	
(f) Corrective action taken since last inspection.	
(g) Comments.	

Instructions for completing sheet 4, Exhibit E
(To be printed on back of sheet 4)

- Item (a) Inspect the diversion structure for debris or other obstruction which may clog the openings or otherwise damage the structure.
- Item (b) Record any settlement of the structure, or any visible damage to flashboards, guides, or concrete.
- Item (c) Indicate condition of concrete in the wing walls, floor, or piers, and record evidence of cracks, spalls, and abrasive wear. Note condition of expansion joints, if any.
- Item (d) Note condition of riprap and indicate such change as disintegration of rock, erosion or movement, and the presence of vegetal growth through the riprap.
- Item (e) Note condition of embankment adjacent to the structure. Any erosion, sloughing or washing of the bank should be indicated.
- Item (f) Indicate maintenance measures that have been performed since the last inspection and their condition at the time of this inspection.
- Item (g) Record opinion, if any, of contributory causes for conditions observed, and also any observations not covered under other columns.

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

CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES
UNIT NO. 153

Inspector's Report Sheet No. _____

Inspector _____

Date _____

Superintendent _____

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Location by station	Bank	Debris or other Obstruction to flow	Damage or settlement of pipe or conduit	Condition of concrete headwall or invert paving	Condition of right-of-way adjacent to structure	Repair measures taken since last inspection	Comments
811+00							
908+00							

Instructions for completing sheets 6, Exhibit E
(To be printed on back of Sheet 6)

- (1) Enter station of all structures under column (a) for check list.
- (2) Inspect inlet, barrel and outlet for accumulation of sediment, rubbish and vegetal matter. Note condition under column (c).
- (3) If any settlement or damage to the pipe, barrel or invert of the drain has occurred, estimate the location and amount. Note particularly if any of the 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 structure and note condition 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, and also any observations not covered under other columns.
- (8) A copy of the inspector's report is to be mailed to the District Engineer immediately on completion, and a record copy shall be attached to the superintendent's semi-annual report.

EXHIBIT F

LETTER OF TRANSFER
TO 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,

A handwritten signature in black ink, appearing to read "D. G. Ray", written over a horizontal line.

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

Enclosures

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

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

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

Standard O&M Manual San Joaquin River

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

EARL WARREN
GOVERNOR

R. R. GALLAWAY, JR., SACRAMENTO
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GROVER SHANNON, YUBA CITY
VICE PRESIDENT
GEO. H. HOLMES, CLARKSBURG
SECRETARY
W. P. HARKEY, GRIDLEY
GEO. R. WILSON, WALNUT GROVE
GEO. E. LODI, ARBUCKLE
DOUGLAS B. COHEN, BANTA

THE RECLAMATION BOARD
OF THE
STATE OF CALIFORNIA
1100 O STREET
SACRAMENTO 14, CALIFORNIA
TELEPHONE: GI 3-4671

A. M. BARTON
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EDMUND G. BROWN, ATTORNEY GENERAL
LEGAL ADVISER
G. F. MELLIN
ASSISTANT ENGINEER AND APPRAISER
S. A. MONAKER
ASSISTANT SECRETARY

1/11/54

January 11, 1954

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

Dear Sir:

Reference your letter, File No. SPKKO-P 821.25
(Butte Creek) dated 17 Dec 1953, wherein installation of
a fish ladder at the Howard Slough Diversion Structure
in Butte Creek was transferred to the State of Cali-
fornia.

The Reclamation Board, on behalf of the State
of California, in meeting held January 6, 1954, accepted
subject fish ladder for operation and maintenance.

Yours very truly

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

By Donald D. Lemmon
DONALD D. LEMMON
Assistant Secretary

DDL:emw

cc: State Engineer

821.25 (Butte Cr) etc

Unit 153
Letter No. 40
Unit No. 301

Prepared
11 Dec. 1953
Mailed: 17 Dec. 1953.

SPKRO-P 821.25 (Butte Creek)

Part of Unit No. (Section) 301
Contract No. — 1095
Specification No. 1811
Drawing No. 50-6-2978
Transferred — 17 Dec. 1953
Accepted — 6 Jan. 1954

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

Gentlemen:

Reference is made to District Engineer's letter dated 26 June 1953 inclosing drawings for the installation of a fish ladder, by the Corps of Engineers, at the Howard Slough Diversion Structure in Butte Creek, with the explanation that the installation of the ladder had been requested by the State Fish and Game Commission after completion of the original Howard Slough Structure.

This is to advise that the installation of the fish ladder referred to above was completed on 1 December 1953. This work forms an integral part of the Howard Slough Diversion Structure and therefore also is an integral part of a unit of work of the Sacramento River Flood Control Project. Accordingly, the fish ladder at the Howard Slough Diversion Structure is hereby transferred to the State of California for operation and maintenance.

The maintenance work required under the provisions of the Sacramento River Flood Control Project shall be performed in accordance with existing Flood Control Regulations, inclosed herewith, which have been prescribed by the Secretary of the Army pursuant to Section 3 of the Act of Congress approved 22 June 1936, as amended and supplemented. As provided under Paragraph 208.10 (10) of these Regulations, a maintenance manual covering

C. DEARRIETA

Fish Ladder only
Supplement to
Unit 153
Levee Section 301

SPKHO-P 221.25 (Butte Creek)
The Reclamation Board

this work together with the improvements previously completed in Butte Creek 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.

1 Incl
1. Flood Control Regulations

Copy furnished:
State Engineer
Department of Public Works
1120 "W" Street
Sacramento, California

cc: OCE
So. Pac. Div.
Engr. Div.
Sacto. Proj. Ofc.
C. deArrieta

*Levee Sect
301*

REGISTERED MAIL
Return Receipt
Requested

11/10/51

SRKCO-P 824.5 (Sec. Riv. F.C.P.)

10 NOV 1951

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

Gentlemen:

Reference is made to letter from this office dated 12 July 1951, wherein it was proposed to transfer to the jurisdiction of the State of California the Lower Butte Creek project from the Gridley Road upstream to a point approximately 1 1/2 miles south of the Glenn-Butte County line, in accordance with the procedure set forth in the letter from this office dated 12 February 1951. Reference is also made to joint inspection of this project which was made on 6 November 1951.

The Lower Butte Creek project which is an integral part of the Sacramento River Flood Control Project was completed on 1 November 1951 under Specification No. 1395, Contract DA-04-167-eng-225, and now meets the requirements of the Sacramento River Flood Control Project. Therefore, said Lower Butte Creek project is hereby transferred to the State of California for maintenance and operation.

The maintenance work required under the provisions of the Sacramento River Flood Control Project shall be performed in accordance with existing Flood Control Regulations which have been prescribed by the Secretary of the Army pursuant to Section 3 of the Act of Congress, approved 22 June 1936, as amended and supplemented. As provided under Paragraph 206.10(10) of these regulations, a maintenance manual covering this project 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. Reifsnnyder
Lt. Colonel, Corps of Engineers
Executive Officer

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

Levee Section 301

Letter No. 23

301

Concurrence	
Originator:	11-9-51
Date:	
Exec. Secy.	SR
Asst. Dir.:	3
Chief of Div.:	10(10)
Office Svc.	
Oper.	
Eng'g	
R. E.	
Fisc.	
Pers.	
Log. Engrs.	
Supply	
Design	375
Levees	2

824.5 (SAC. Riv. F.C.P.)

50

C
O
P
Y

THE RECLAMATION BOARD
OF THE
STATE OF CALIFORNIA

May 12, 1953

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

Dear Sir:

Reference your letter effecting transfer of certain flood control works to the State of California as follows:

- 1. - - - - -
- 2. Letter File No. SPKKO-P 824.3 (Sac.R.F.C.P.) dated 10 November 1951, Lower Butte Creek project from the Gridley road upstream to a point approximately 1-1/2 miles south of the Glenn-Butte County Line.
- 3. - - - - -

The Reclamation Board, on behalf of the State of California in meeting held May 6, 1953, accepted subject Flood control works for operation and maintenance.

Yours very truly,
THE RECLAMATION BOARD

A. M. BARTON
Chief Engineer and General Manager

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

Note: Only Item No. 2, pertaining to Unit No. 153 included in this copy.

EXHIBIT G

SUGGESTED SEMI-ANNUAL REPORT FORM

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

(1 January 19__)
(1 July 19__)

Dear Sir:

The semi-annual report for the period (1 January 19__ to 30 June 19__) (1 July 19__ to 31 December 19__) on Lower Butte Creek, Unit No. 153 of the Sacramento River Flood-Control Project, is as follows:

a. The physical condition of the protective works is indicated by the inspection reports, 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 9.0 or higher on the staff gage at the Butte City - Richvale Road Bridge) occurred on the following dates:

<u>Date</u>	<u>Maximum Elevation</u>
-------------	--------------------------

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

(Superintendent's log of flood observations)

During the high water stages when the water level reached a height of 9.0 on the staff gage or in excess thereof. _____ 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.

Action of prosecution for abatement of these encroachments or trespasses is summarized as follows: (or state none has been necessary).

d. (No) (_____) permits have been issued for (the following) improvements or construction within the project right-of-way.

Executed copies of the permit documents issued are transmitted for your files.

e. The status of maintenance measures, indicated in the previous semi-annual report as being required or as suggested by the representatives of the District Engineer, is as follows:

(Statement of maintenance operations, item by item with percent completion).

f. The fiscal statement of the Superintendent's operations for the current report period is as follows:

	<u>Labor</u>	<u>Material</u>	<u>Equipment</u>	<u>Overhead</u>	<u>Total</u>
1. Inspection					
2. Maintenance					
3. Flood fighting operations					
TOTAL					

Respectfully submitted,

Superintendent of Works