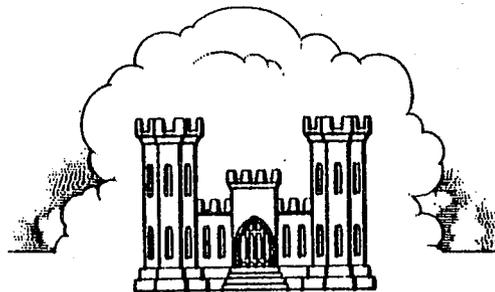


SUPPLEMENT TO STANDARD
OPERATION AND MAINTENANCE
MANUAL
SACRAMENTO RIVER
FLOOD CONTROL PROJECT

UNIT NO. 161
BUTTE SLOUGH
OUTFALL GATES



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

FILE COPY *J. H. 2*

CORPS OF ENGINEERS
U. S. ARMY

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

UNIT NO. 161
BUTTE SLOUGH OUTFALL GATES
SACRAMENTO RIVER, CALIFORNIA

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

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

UNIT NO. 161

BUTTE SLOUGH OUTFALL GATES

LOCATION	ADDITION OR REVISION	DATE
Exhibit F	Add copy of letter of transfer dated 29 Nov 2016	29 Dec 2016

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<u>Exhibit</u>	<u>Description</u>	
A	Flood Control Regulations	Unattached (Contained in Standard Manual)
A-1	Location Map	1 Sheet
B	"As Constructed" Drawings	Unattached
C	Plates of Suggested Flood Fighting Methods	Unattached (Contained in Standard Manual)
D	Check List No. 1 - Levee Inspection Report	Unattached (Contained in Standard Manual)
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F	Letter of Acceptance by State Reclamation Board	Sheets 1 and 2
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SUPPLEMENT TO STANDARD
OPERATION AND MAINTENANCE MANUAL
SACRAMENTO RIVER FLOOD CONTROL PROJECT

UNIT NO. 161
BUTTE SLOUGH OUTFALL GATES
SACRAMENTO RIVER, CALIFORNIA

SECTION I -

INTRODUCTION

1-01. Location. The improvement covered by this manual is that part of the Sacramento River Flood Control Project which comprises the Butte Slough Outfall Gates located in Butte Slough near its junction with the Sacramento River at about river mile 13.2. As shown on the location map (Exhibit A-1) and/or drawings of Exhibit B, the outfall gates lie along the east bank (left bank) of the Sacramento River 3.73 miles downstream from Colusa, California. A separate drainage pipe lies on the same bank about 0.5 miles upstream from the junction.

1-02. Project Works. The Butte Slough Outfall Gates consist of seven 66-inch diameter corrugated metal pipes each approximately 248 feet long which extend through a dike or fill constructed across Butte Slough as a part of the levee along the east bank of the Sacramento River. Each pipe is equipped at the outlet or river end with a slide gate, steel gate tower, and gate lifting device. A walkway trestle provides access to the manually controlled slide gates. Stone protection at both ends of the pipes was placed to elevation 43.0. The intake ends of the pipes are supported on wood piles and two metal cutoff walls are provided near the crown of the levee. The drainage structure located about 0.5 miles upstream from Butte Slough Outfall Gates consists of one 75" diameter corrugated metal pipe approximately 170 feet long extending through the east levee of the Sacramento River. This pipe is equipped at the outlet end with an automatic drainage gate. For more complete details of these structures see drawing of Exhibit B.

1-03. Protection Provided. The Butte Slough Outfall Gate system is designed to control passage of flood waters from Butte Basin to the Sacramento River to a maximum of about 3,500 cubic feet per second; also to permit, when desired at low water stages during the summer season, outflow into the Sacramento River as required by local interests to control water levels of the Butte Basin for irrigation and drainage purposes.

*gates on inlet
end of pipes - flap
gates on outlet*

1-04. Construction Data. - Construction of Butte Slough Outfall Gates was accomplished under Contract No. W-1105-eng-1467 by S. H. Palmer Co, Ltd. and A. J. Grier. Work was started on 9 October 1934 and completed on 29 October 1935.

1-05. Flood Flows. - For purpose of this manual, the term "flood" or high water period" shall refer to flows when the water surface in Butte Slough reaches or exceeds the reading of 59.0 on the staff gage located at Butte Slough Outfall Gates 4.4 miles northerly from the town of Meridian. The term "flood" or "high water period" may also apply when the water surface in the Sacramento River reaches or exceeds the reading of 59.0 on the State Division of Water Resources staff gage located on the Sacramento River side of Butte Slough Outfall Gates. Both gage locations referred to above are set on U. S. Corps of Engineers' datum.

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

1-07. Acceptance by State Reclamation Board. - Responsibility for operating and maintaining the completed works was officially accepted by the Reclamation Board of the State of California on 12 September 1944 as shown on the attached letter of acceptance, Exhibit F.

1-08. Superintendent. - The name and address of the Superintendent appointed by the State or acting as a representative of the State Department of Water Resources 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. - Levees as such will not be considered in this manual, except that portion of levee which directly affects the Butte Slough Outfall Gates from Station 3+97.73 to Station 7+20, as shown on drawings of Exhibit B. In this reach the crown width of the levee is 30 feet and both slopes are 1 on 2.5.

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

- (1) Maintenance - paragraph 4-02 of the Standard Manual.
- (2) Check Lists - Exhibit E of this Supplement Manual.
- (3) Operation - paragraph 4-04 of the Standard Manual.
- (4) Special Instructions - paragraph 4-05 of the Standard Manual.

2-02. Drainage and Irrigation Structures.

a. Description. - The Butte Slough Outfall Gates and a separate drainage pipe located about 0.5 miles upstream from the Butte Slough Outfall Gates are described in paragraphs 1-01, 1-02, and 1-03 of this manual.

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 Maintenance Requirements.

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

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

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

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

d. Special Operating Requirement. - The slide gates on the slough end of the pipes may be operated manually to allow flow from Butte Slough into the Sacramento River at times when water in the river is lower than the water in Butte Slough. These gates may be operated by the local irrigation district during the summer season through cooperation with the Sutter Field Office of the State Department of Water Resources. During the flood season the State will be responsible for operation of the slide gates.

2-03. Channels.

a. Description. - Only those channels which are pertinent to the Butte Slough Outfall Gates and which might affect drainage through the pipes of the system will be considered in this manual. They are the approach channel to the inlet and the channel extending from the outlets to the Sacramento River.

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 59.0 on the gages at Butte Slough Outfall Gates as indicated in paragraph 1-05 of this manual. The Superintendent shall cause readings to be taken at intervals of two to four hours during the period when the water surface is above the flood-flow stage indicated above and record the time of the observations. One copy of the readings shall be forwarded to the District Engineer immediately following the flood, and a second copy transmitted as an inclosure to the semiannual report in compliance with paragraph 3-06 of the Standard Manual.

2-04. Miscellaneous Facilities.

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

(1) Hydrographic Facilities.

(a) Two staff gages as described in paragraph 1-05 of this manual to be maintained by the State.

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.

SECTION III

REPAIR OF DAMAGE TO PROJECT WORKS AND

METHODS OF COMBATING FLOOD CONDITIONS

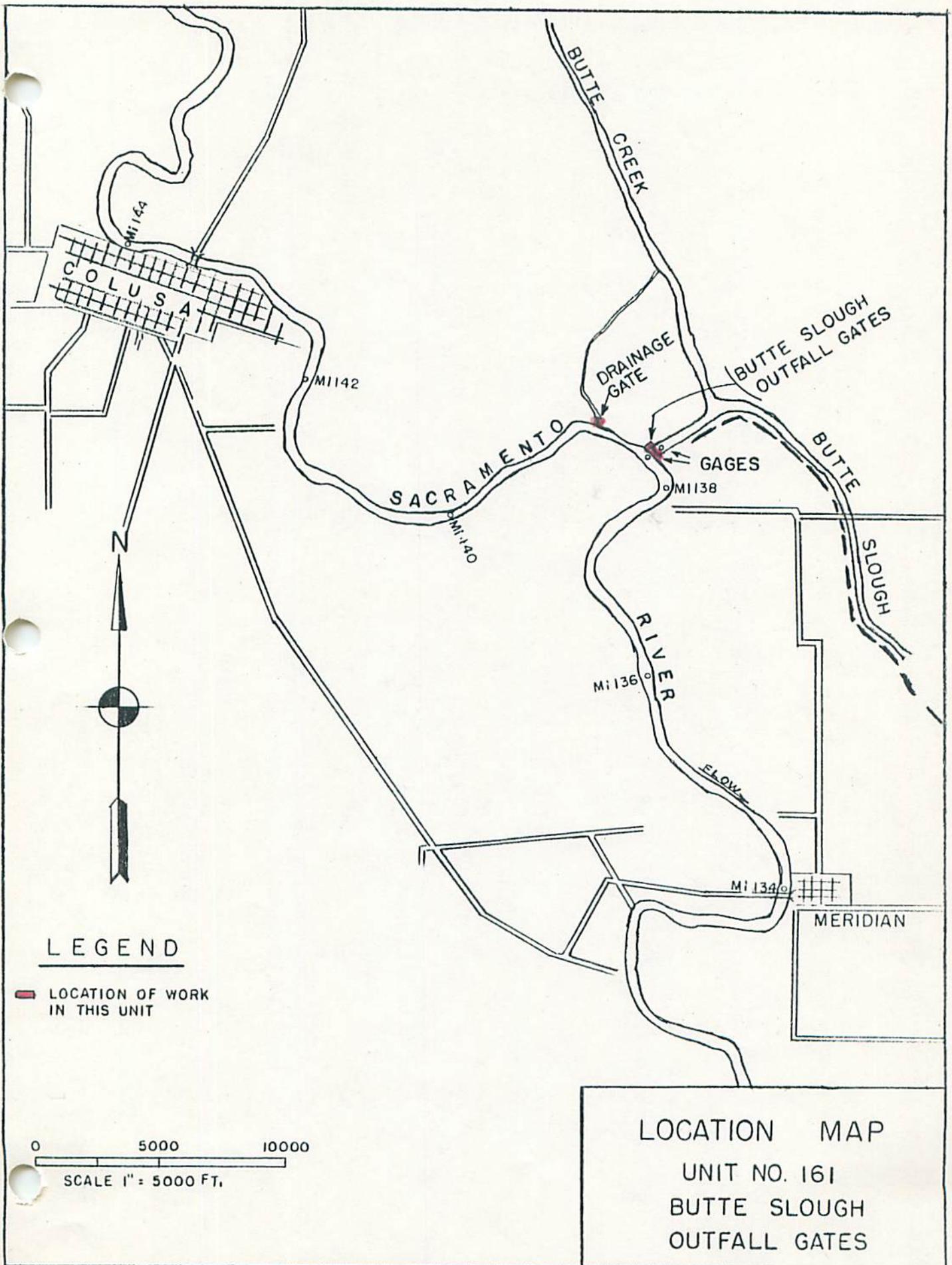
3-01. Repair of Damage. - In the event of serious damage to the project works, whether due to flood conditions or other causes, and which may be beyond the capability of local interests to repair, the Superintendent will contact a representative of the Department of Water Resources, State of California, 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, revised May 1955, where the subject is fully covered.

EXHIBIT A

FLOOD CONTROL REGULATIONS
(See Standard Manual)

EXHIBIT A
Unattached



LEGEND

LOCATION OF WORK
 IN THIS UNIT

0 5000 10000
 ───────────────────┬──────────────────┬──────────────────
 SCALE 1" = 5000 FT.

LOCATION MAP
 UNIT NO. 161
 BUTTE SLOUGH
 OUTFALL GATES

EXHIBIT B

"AS CONSTRUCTED"
DRAWINGS

See separate folder for the following drawings:

File No.

Title

50-9-1424-1

Butte Slough Outfall Gates - Culvert Type.
Sheets 1 and 2

EXHIBIT B
Unattached

EXHIBIT C

**PLATES OF SUGGESTED FLOOD FIGHTING METHODS
(See Standard Manual).**

**EXHIBIT C
Unattached**

EXHIBIT D

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

**EXHIBIT D
Unattached**

EXHIBIT E

**CHECK LISTS OF LEVEES,
CHANNEL AND STRUCTURES**

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

CHECK LIST NO. 2
BUTTE SLOUGH OUTFALL GATES

Inspector's Report Sheet No. _____

Inspector _____

Date _____

Superintendent _____

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

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

- Item (a) Indicate levee station of observation, obtained by pacing from nearest reference point; indicate right or left bank.
- Item (b) If sufficient settlement of earthwork has taken place to be noticeable by visual observation, indicate amount of settlement in tenths of a foot. If sloughing has caused a change in slope of the embankment sections, determine the new slope. Note areas where erosion or gulying of the section has occurred.
- Item (c) If sufficient erosion or gulying of back face of back toe of levee has taken place to be noticeable by visual inspection, indicate area affected and depth.
- Item (d) Note any natural change in any section of roadway or ramps. Indicate any inadequacy in surface drainage system.
- Item (e) Indicate any evidence of seepage through the embankment section.
- Item (f) Indicate the serviceability of all farm gates across the embankments and roadway, and indicate if repainting is required.
- Item (g) Indicate maintenance measures that have been performed since last inspection and their condition at the time of this inspection.
- Item (h) Record opinion, if any, of contributory causes for conditions observed and also any observations not covered under other columns.

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

CHECK LIST NO. 3

CHANNEL AND RIGHT-OF-WAY
BUTTE SLOUGH OUTFALL GATES

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 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 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 semiannual report.

CHECK LIST NO. 4

DRAINAGE AND IRRIGATION STRUCTURES
BUTTE SLOUTH OUTFALL GATES

Inspector's Report Sheet No. _____

Date _____

Inspector _____

Superintendent _____

(a) Location by Station	5+65 28+23
(b) Bank	Left Left
(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	(7-66" C.M.P.) (1-78" C.M.P.)

INSTRUCTIONS FOR COMPLETING SHEET 6, EXHIBIT E
(to be printed on back of sheet 6)

- (1) Enter station of all structures under column (a) for check list.
- (2) Inspect inlet, barrel, and outlet for accumulation of sediment, rubbish, and vegetal matter. Note condition under column (c).
- (3) If any settlement or damage to the pipe, barrel, or invert of the drain has occurred, estimate the location and amount. Note particularly if any backfill has come into the pipe or been disturbed. Record observations under column (d).
- (4) Inspect the concrete portions of the structures for evidence of settlement, cracks, "pop-outs," spaces, abrasive wear, or other deterioration. Record conditions under column (e).
- (5) Inspect backfill area adjacent to structure for evidence of erosion caused by overflow of the drainage structure and note conditions in column (f).
- (6) Under column (g) indicate physical measures that have been taken to correct conditions reported in last inspection, and their conditions at time of this inspection.
- (7) Under column (h) record opinion, if any, of contributory causes for conditions observed, also any observations not covered under other columns.
- (8) A copy of the inspector's report is to be mailed to the District Engineer immediately on completion, and a record copy shall be attached to the Superintendent's semiannual report.

EXHIBIT F

LETTER OF ACCEPTANCE
BY 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

C
O
P
Y

824.3 (Sacramento R.) PADKO-A

9 September 1944

Completed Construction, Sacramento River Flood Control Project.

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

Gentlemen:

This office has been directed by the Office of the Chief of Engineers to determine which items of levee construction, weirs and pumping plants constructed under the Sacramento River Flood Control Project should be considered fully completed in accordance with the terms of the project as it now exists.

In compliance with this directive the inclosed map, file No. 50-11-2206B, has been compiled with delineates all project levees that are considered complete. In addition, Sacramento, Fremont, Tisdale, Colusa and Moulton Weirs, Knights Landing and Butte Slough Outfall Gates, and Pumping Plants Nos. 1 and 3 have been completed.

It is requested that your Board review the map and data advanced herein and advise if you concur with the findings of this office on completed items of construction under the Flood Control Project. Prompt reply would be appreciated so that a minimum of delay will be experienced by this office in complying with the desires of the Chief of Engineers.

Very truly yours,

1 Incl
Map, file No. 50-11-2206B

R. C. HUNTER
Colonel, Corps of Engineers
District Engineer

EXHIBIT F
Sheet 1 of 2

C
O
P
Y

THE RECLAMATION BOARD
of the
STATE OF CALIFORNIA

September 12, 1944

Secretary
California Debris Commission
Wright Building
1209 - 8th Street
Sacramento, California (8)

Dear Sir:

Reference is made to your file No. 824.3 (Sacramento R.) PADKO-A, subject, completed construction, Sacramento River Flood Control Project, dated September 9, 1944.

We have reviewed the map and data available and concur with your findings on the completed items under the flood control project as shown on the map file No. 50-11-2206B.

Very truly yours,

THE RECLAMATION BOARD

A. M. Barton

Chief Engineer and General Manager

By /s/ G. F. Mellin
G. F. Mellin

EXHIBIT G

SUGGESTED SEMIANNUAL REPORT FORM

EXHIBIT G

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

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

(1 May 19____)
(1 Nov. 19____)

Dear Sir:

The semi-annual report for the period (1 May 19____ to 31 October 19____) (1 November 19____ to 30 April 19____) Sacramento River Flood Control Project, Butte Slough Outfall Gates is as follows:

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

(Superintendent's summary of conditions)

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

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

b. During this report period, major high water stages (water level at 55.0 on staff gages located at Butte Slough Outfall Gates) occurred on the following dates:

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

Comments on the behavior of the protective works during such high water periods are as follows:
(Superintendent's log of flood observations)

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

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

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

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

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

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

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

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

Respectfully submitted,

Superintendent of Works