

Environmental Permitting for Operation and Maintenance (EPOM)

Department of Water Resources
Flood Maintenance Office

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Meeting of the Central Valley Flood
Protection Board Coordinating Committee

January 25, 2017



DWR's Flood Maintenance Responsibility

- Sacramento River Flood Control Project (SRFCP)
 - U.S. Army Corps of Engineers (USACE) (federal project)
- California Water Code
 - §8361: Specific levees, channels, and structures of the SRFCP that DWR is responsible for maintaining
 - §12878: Maintenance Areas of the SRFCP
- USACE Operations and Maintenance (O&M) Manuals (33 CFR 208.10)

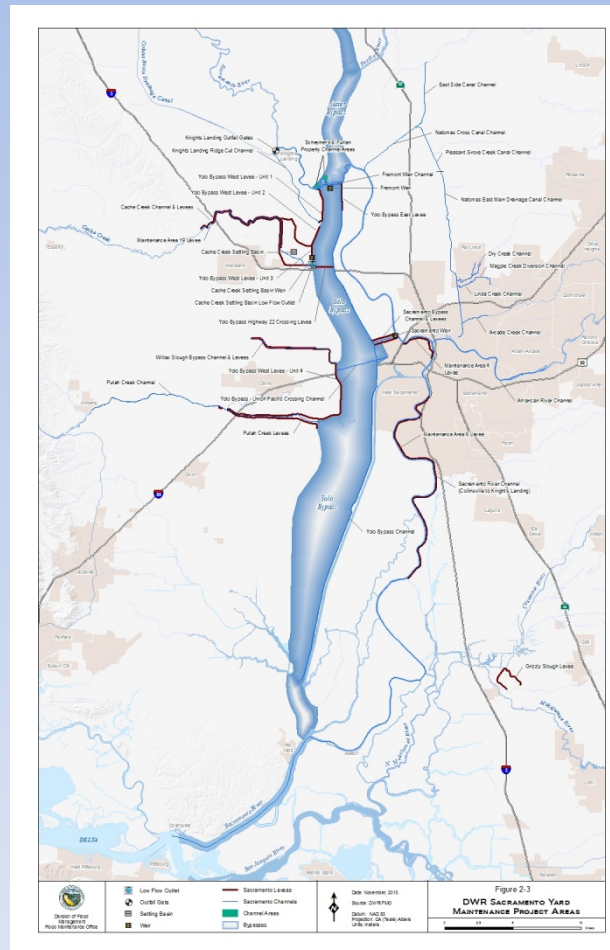


Project Area

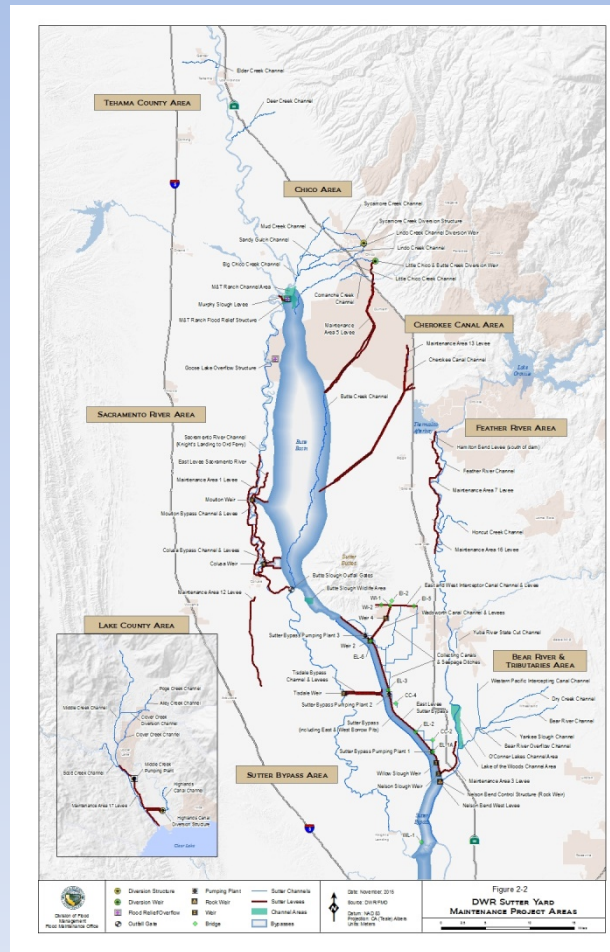
- DWR's Flood Maintenance Office (FMO)
- Sacramento and Sutter Maintenance Yards
 - 174,541 acre (272.7 square miles) footprint
 - Extends from Red Bluff to the Delta and Middle Creek in Lake County.
 - Sacramento Maintenance Yard: Knights Landing to Collinsville
 - Sutter Maintenance Yard: Knights Landing to Red Bluff and Middle Creek Project in Lake County



EPOM Project Area (Sacramento Maintenance Yard)



EPOM Project Area (Sutter Maintenance Yard)



Status of DWR Flood Maintenance Permit

- Current California Department of Fish and Wildlife (CDFW) Streambed Alteration Agreement is a Routine Maintenance Agreement (RMA) with CEQA Notice of Exemption (NOE)
- Executed in January 2011 and was due to expire January 2016
- FMO requested a time extension in December 2015
- CDFW responded to request in December 2016
- Extension of RMA was granted until January 6, 2018



Limitations of Current RMA

- Unable to conduct certain maintenance activities due to potential impacts to State and Federally listed species. (e.g. not able to grout 120 miles of levee for rodent damage repair)
- Activities not covered under the current RMA would require separate CEQA and permits
- Cannot add new locations to the current RMA (e.g. Western Pacific Interceptor Canal)



Status of EPOM

- Why an EIR?
 - Project activities have the potential to significantly impact State and federal listed species/habitat, cultural resources, air quality, hydrology, and noise sensitive receptors
 - EIR is more flexible/defensible, and can be supplemented with additional analysis in the future as necessary



Status of EPOM (con't)

- Notice of Preparation of a draft EIR submitted to State Clearinghouse in May 2015
- Public Draft EIR released for public comment on January 18th
- Draft EIR Public comment period January 18th to March 3rd 2017 (45 Days)



Components of EPOM EIR

- Project Objectives
- Project Description
- Environmental Setting
- Impact Analysis
- Proposed Mitigation Measures
- Cumulative Impact Analysis
- Alternatives Analysis



Project Objectives

- Conduct maintenance activities in accordance with federal requirements, established in the USACE O&M manuals.
- Enable DWR to conduct land and facilities management in ways that ensure the following is maintained:
 - Channel design flow capacity, levee integrity, and proper functioning of flood management and control structures.
 - Visibility and accessibility of facilities for inspections, maintenance, and flood-fighting operations.



Project Objectives (con't)

- EIR provide sufficient analysis to support the issuance of State permits and authorizations for maintenance
- Consistency with other State and DWR plans and policies:
 - Central Valley Flood Protection Plan (CVFPP), Environmental Stewardship and Sustainability Policies, Climate Action Plan, Governor's California Water Action Plan, and Tribal Engagement Policy



How is EPOM Consistent with CVFPP?

- CVFPP High Level-Umbrella
 - CVFPP CEQA Programmatic EIR Level
 - EPOM CEQA Project EIR Level
- Tracking with the CVFPP and conservation strategy and permitting



How is EPOM Consistent with CVFPP?

- Multi-Benefit Examples:
 - Public Safety, reduce flood risk
 - Promote Ecological and Agricultural values
 - Wildlife Area/Refuge Vegetation Management (CDFW and USFWS)
 - Beaver dam removal
 - Promote the stability of native species populations
 - Vegetation Management Strategy
 - Invasive plant species removal
 - Minimize flood maintenance requirements:
 - Regional and streamlined permitting approach



Project Description

- Provides a detailed description of maintenance activities conducted by the FMO's Maintenance Yards
- Descriptions are broken out into levee, channel, and structure maintenance
- Summary of maintenance activities, including the timing, frequency and estimate of annual acreage of work for each activity



Maintenance Activities

TABLE 2-4
TIMING AND FREQUENCY OF MAINTENANCE ACTIVITIES

Activity	Timing	Frequency		
Levee Maintenance				
Rodent Abatement and Damage Repair	Rodent abatement	Baiting (pesticide)	April–October – Conducted during rodents active season: may be done year-round when conditions require maintenance	Annually
		Fumigating		
		Depredating		
	Rodent damage repair	Grouting	April–December – Once a year, after herbaceous vegetation has been mowed	Annually
		Excavating and backfilling		
Levee Vegetation Management	Physical/mechanical treatments	Cutting/limbing	Year-round	Annually
		Mowing	Typically March–October, may extend through November due to various circumstances	
		Dragging	Typically June–October, may extend through November due to various circumstances	
	Applying herbicide (pesticide)	Year-round		
	Controlled burning	June–October		Annually
	Grazing	April–November		
Erosion Repair	Controlling and repairing erosion-sites	April–November	As needed based on inspections	
Levee, Levee Crown and Access Road Maintenance	Levee slope grading	Once in the spring and once in the fall	2 times per year	
	Road grading and minor repairs	Once in the spring and once in the fall	2 times per year	
	Levee crown gravel replenishing	July–November	As needed every several years	
Encroachment Removal	Removal of unauthorized construction, landscaping, or materials that may impact SRFCP facilities	Year-round	As needed	
Stability Berm Construction	Stability berm constructing	Dry season – Typically, May 1 to October 1	As needed	



**TABLE 2-4
TIMING AND FREQUENCY OF MAINTENANCE ACTIVITIES**

Activity		Timing	Frequency	
Channel Maintenance				
Sediment Removal	Sediment removal around structures	April–November	Varies based on facility, rate of accumulation, and magnitude of sediment accumulation effects on conveyance and facility function	
	Sediment removal from collecting canals	Generally, May–October and extending into January based on canal conditions	Up to 20 miles per year	
	Large sediment removal projects (dry sediment removal)	May–October and extending into November when conditions allow	Based on specific facility considered, the rate of sediment accumulation at the site, and the magnitude of sediment accumulations effect on conveyance capacity and functioning of specific facilities	
Debris/Obstruction Removal	Removal of all trash and debris collected in the channel (including burning and/or chipping/scattering of organic debris). Debris consists of trash, beaver dams, flood-deposited woody and herbaceous vegetation, downed trees and branches, and any other man-made debris	Year-round	As needed based on results of inspections	
Channel Vegetation Management	Aquatic vegetation removal	Mechanical removal with excavator	May–October	Annually or every other year/several years based on size and density of the vegetation cover
		Applying herbicide (pesticide)		
	Woody vegetation removal	Trimming/limbing/cutting using hand tools	Typically May–December: Trimming/limbing/cutting using hand tools year round when conditions allow	Woody vegetation removal typically occurs every several years but is done on an as-needed basis
		Masticating		
		Bulldozing		
		Applying herbicide (pesticide)		
	Mowing	May–December	Annually	
	Strip disking	May–December	Annually	
	Burning	Year-round	Annually	
	Grazing	April–October	Annually	
Vegetation management in large channels ³		May–December	Herbaceous vegetation mowed annually	
		May–August – Woody vegetation treatment with equipment Year-round using hand tools	Woody vegetation averages every several years but is done as needed	
Channel Scour Repairs	Repair dry portions of the channel by scraping, disking, filling, leveling, and regrading the ground surface	April–November	As needed	



**TABLE 2-4
TIMING AND FREQUENCY OF MAINTENANCE ACTIVITIES**

Activity		Timing	Frequency	
Flood Control Structure Maintenance and Repair				
Pumping Plant Maintenance and Repair	Debris and sediment/silt removal	May–November – Prior to high-water season, and as needed to ensure proper pumping plant function	Pumping plant – annually	
	Repairing things like wing walls, bulkheads, splash aprons, and the superstructure	Year-round	As needed	
Weir Maintenance and Repair	Removing/leveling of silt deposits, debris, and undesirable vegetation between the river and the structure	Year-round – Debris removal May–November – Sediment removal	Annually	
	Removing the obstructions within the spillway and concrete bulkhead to maintain function of the weir and control gates	Year-round		
	Repair erosion around the structure that can be caused by increase of volume and velocity of water when gates of weir are opened	June–October		
	Painting the metal structures of the weir	Year-round		
Outfall Gates Maintenance and Repair	Removing debris near gates	Year-round	Annually	
	Removing/treating undesirable vegetation on the revetment on structure to maintain unobstructed passageway	May–October – Aquatic vegetation management		
	Inspecting concrete superstructure and patching cracks and spalls	Year-round		
	Straightening or welding damaged metal portions of the outfall gates	Year-round		
	Inspecting, testing, and repairing the electrical or hydraulic system	Year-round	As needed	
Pipe/Culvert Repair, Replacement, and Abandonment	Inspections	Year-round	Annually	
	Pipe/culvert repair	April–November Year-round for minor repair work	All pipes and culverts in levees will be inspected and maintained in the first 2-3 years and then in subsequent years as needed, based on results of inspections; all other pipes and culverts will be maintained as needed.	
	Pipe/culvert replacement	April–November		
	Pipe abandonment	April–November		
Bridge Maintenance, Repair, and Replacement	Bridge maintenance	Removal of woody debris within 50 ft of bridge	Year-round	As needed
		Spraying, mowing, or burning vegetation near bridge abutments and foundation supports	Year-round – Spraying March–October - Mowing June–October – Burning	



Uncertainty: Factors Influencing Timing, Magnitude and Frequency of Maintenance Activities

- Resource availability (equipment, staff and funding)
- Weather, water levels and soil conditions
- Adjacent land uses (i.e. agriculture, wildlife areas, urban, etc.)
- Floods and high water events
- Droughts
- Species or habitat presence
- Timing of activity



Potentially Significant Impacts to Environmental Resources

- Biological Resources
 - 30+ Species/Habitats—including giant garter snake, Swainson’s hawk, riparian vegetation, valley elderberry longhorn beetle, tricolor blackbird, and nesting birds
- Cultural, Air Quality, Hydrology, and Noise
- Draft EIR conclusion, less than significant impact with mitigation measures applied



Alternative Analysis

- No Project Alternative
 - DWR would not pursue a comprehensive approach to obtaining State and federal permits to conduct ongoing maintenance activities and would instead seek individual permits.
- Conduct Maintenance Activities that do not require permits
 - DWR would conduct only maintenance activities that would not require obtaining State or federal permits. Maintenance would be conducted on an emergency basis.



How Proposed Mitigation Will Change Business Practices

- Provides more flexibility and opens up work windows
- More avoidance/minimization measures than past
 - More environmental support for surveys/monitoring
- Compensatory Mitigation as required by permits
 - Additional O&M costs
- Planning, tracking, and reporting of work annually



Anticipated Permits/Authorizations

- CDFW Streambed Alteration Agreement
- CDFW California Endangered Species Act (CESA) Incidental Take Permit
 - Giant garter snake, fish species, and western yellow billed cuckoo
- 10 to 20 year permit coverage



Anticipated Permits/Authorizations continued

- Regional Water Quality Control Board
 - Clean Water Act section 401 Certification
 - Subject to activities that require a Clean Water Act section 404 permit from the U.S. Army Corps of Engineers
- Other State permits as needed



Agency Meetings/Coordination

- Three meetings have occurred with the CDFW, U.S. Fish and Wildlife Service, and National Marine Fisheries Service to discuss the development of the EIR
- A February 2017 agency meeting will be held to discuss comments to CEQA document during the public comment period
- Additional agency meetings will be held to discuss permitting



Timeline

- EPOM EIR public draft review
 - January 18th through March 3rd, 2017.
 - Draft EIR available on DWR website:
<http://water.ca.gov/floodmgmt/fmo/msb/env-permit.cfm>
 - Public comment meeting, February 22, 2017
 - At JOC, Sacramento, 2-4pm.
- EPOM Final EIR
 - DWR is expected to certify in April 2017
- New Streambed Alteration Agreement By June 2017
- CESA Incident Take Permit - TBD



Federal Permitting Efforts

- System-Wide Improvement Framework plans (SWIF) and 404/408 activities
 - Valley elderberry longhorn beetle, western yellow-billed cuckoo, and giant garter snake
- Feather River Regional Permitting Program
 - Habitat Conservation Plan



Next Steps

- Agency Meetings
 - CEQA comments
 - Permitting
- Permit Applications to CDFW
 - Streambed Alteration Agreement
 - California Endangered Species Act Incidental take



Thank you
Questions?

