

Memorandum

Date: April 2, 2014

To: Len Marino, Chief Engineer
Central Valley Flood Protection Board

From: Paul A. Marshall, Chief *PAM*
Bay-Delta Office
Department of Water Resources

Subject: Encroachment Permit for the Emergency Drought Barriers Project

On January 14, 2014, Governor Brown signed a Drought Declaration of Emergency, and directed various state agencies, including the Department of Water Resources (DWR), to take certain measures to mitigate the effects of this unprecedented drought. Among other things, the Drought Declaration suspended CEQA review for actions taken by DWR to maintain water supply and improve water quality, and required DWR to install temporary rock barriers or temporary water supply connections, as needed, in the Delta.

Pursuant to this Drought Emergency Declaration, on March 26, 2014, DWR applied to the CVFPB for an emergency authorization to install temporary barriers at Sutter Slough and Steamboat Slough.

Due to the temporary nature of the rock barriers to be installed at Sutter Slough and Steamboat Slough, the Board may authorize this action without a permit. However, DWR acknowledges that the proposed barriers must be removed and the project sites restored to pre-project conditions prior to November or when the emergency Drought Declaration of Emergency is over. If DWR finds that the barriers must remain in place past November 1st due to the drought emergency DWR will request a new authorization in writing from the CVFPB. DWR will submit an encroachment permit application for each of the rock barriers at Sutter Slough and Steamboat Slough if it is determined that the two rock barriers will remain in place for the foreseeable future.

The Project consists of temporary rock barriers placed in three strategic locations (Sutter Slough, Steamboat Slough, and West False River) in the Sacramento-San Joaquin Delta (Delta). DWR is requesting the Board's authorization on the Sutter Slough and Steamboat Slough barriers, which are under the Board's jurisdiction. Information on the West False River barrier is included for completeness, but DWR is not requesting any action from the Board for this barrier. The barriers are designed to retain freshwater flows in the Delta to repel higher saline water, and to reduce the intrusion of high salinity water from Suisun Bay into the central and south Delta.

Enclosed information outlines details of the project.

- Attachment 1: Project Description
- Attachment 2: Coordinates and USGS Data
- Engineering drawings for the proposed Project
- Exhibit A: Location of the proposed work
- Representative Site Photographs
- Governor's Emergency Proclamation

DWR has contacted locals and property owners near the project sites. Several public meetings were conducted and more workshops are scheduled for upcoming weeks. RD 3, RD 349, RD 999, RD 830, and RD 2059, and Sacramento County will be notified a minimum of five-days prior to initiation of work. DWR considers the proposed work/project as an emergency task ordered under the Governors' emergency proclamation and would not be injurious to the adopted plan of flood control. Therefore per CCR, Title 23, Article 3, Section 6 (e) DWR requests your authorization of this project.

DWR will comply with the following conditions:

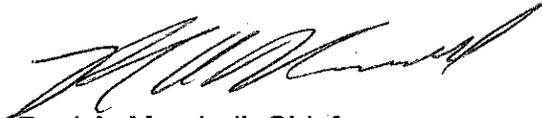
- Only the work described shall be performed.
- The work on the levee sections shall conform to Title 23 standards.
- Project area shall be restored to at least the same conditions that existed prior to start of work at each site.
- DWR will be responsible for any and all damages to the levee, floodway and adjacent properties resulting from this project.
- DWR's Bay Delta Office will notify DWR's Flood Project Inspection Section at (916) 574-1213, at least 5 days prior to start of work.
- DWR will notify all Local Maintaining Agencies (LMA's) and Sacramento County that may be impacted by the proposed projects at least 5 days prior to start of work. Impacted LMA's include Reclamation District's 3, 349, 830, 999, and 2059.
- DWR understands that this authorization does not relieve DWR of the responsibility to obtain authorization from all concerned Federal, State and local agencies or to satisfy any California Environmental Quality Act (CEQA) requirements.

Len Marino
April 2, 2014
Page 3

Construction is planned to start May 1, 2014 so time is of essences. Your cooperation in expediting this matter is greatly appreciated

Signature of the proposed project proponent.

Sincerely,



Paul A. Marshall, Chief
Bay-Delta Office

Approved by: _____

Len Marino, P.E., Chief Engineer
Central Valley Flood Protection Board

Date: _____

Attachment 1

The Department of Water Resources is proposing to install three temporary rock barriers in some Delta channels to minimize the extent to which saltwater from the San Francisco Bay could intrude into the freshwater Delta. Preventing saltwater intrusion protected the many Delta water users including the City of Tracy, the Contra Costa Water District, the City of Antioch, Delta farmers, and the South Bay Aqueduct. The barriers served the purposes for which they were intended and provided benefits in improved water quality and conserved water.

Clean quality graded quarry rock (18-inch minus rock) would be placed across Steamboat Slough, Sutter Slough, and West False River to form a temporary rock barrier. Construction of the rock barriers would begin as early as May 1, 2014. Each barrier may be constructed in stages and the Sutter and Steamboat Slough barriers with four 48-inch diameter culverts equipped with slide-gates. Upon consultation with the fishery regulatory agencies, fish passage will also be included in the design.

Rock would be placed using a barge-mounted crane to avoid damage to levee roads from heavy truck traffic. DWR does not plan any excavation within the levee prism, and barrier features will be constructed by adding rock fill to form the barrier adjustments and boat ramps. A boat portage facility will be installed at the Steamboat Slough barrier to allow recreational boats to cross the barrier using a universal trailer/truck system during daylight hours.

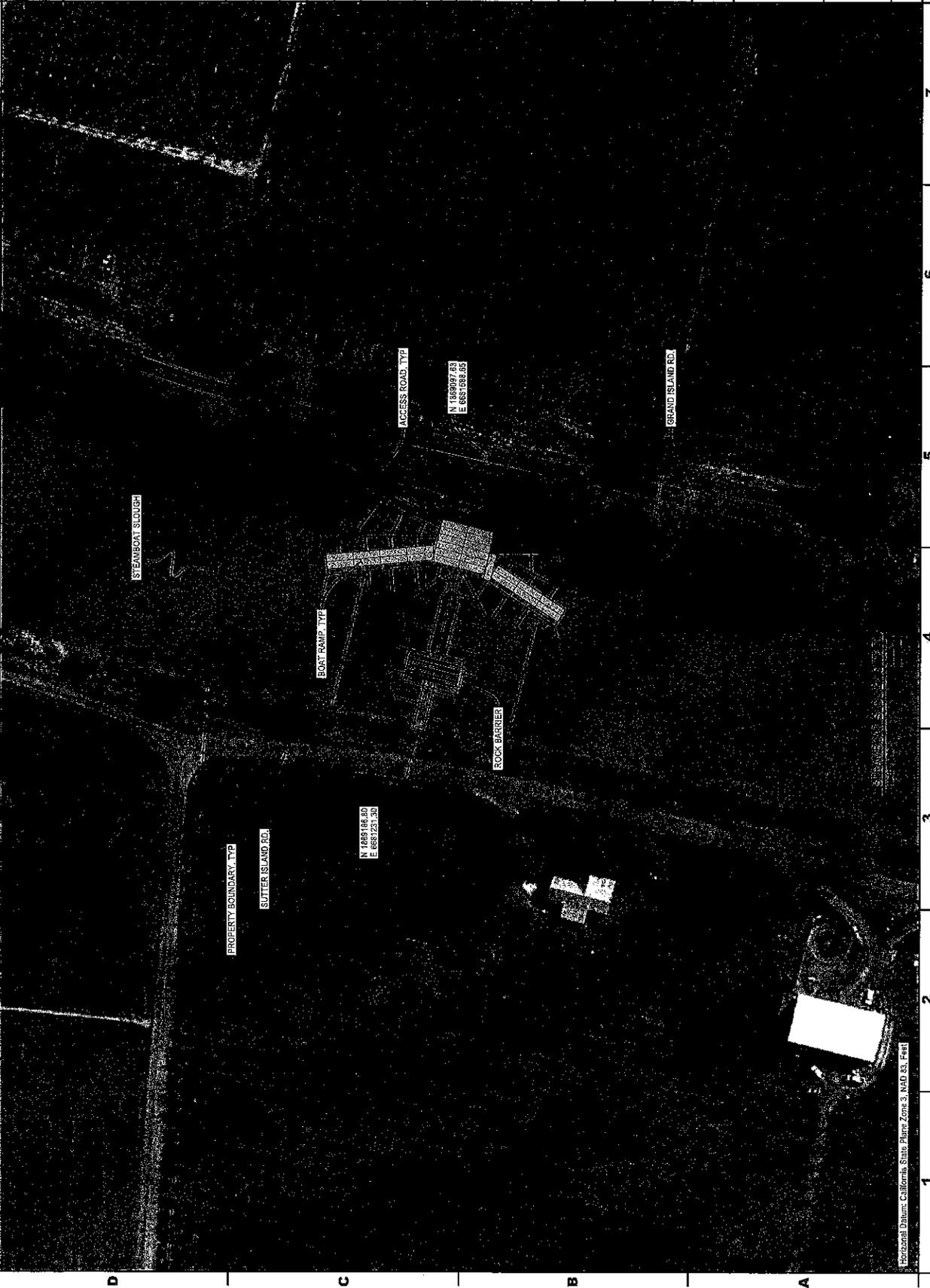
The West False River barrier construction would incorporate sheet pile abutments adjacent to the levees that protrude from the north and south levees for approximately 80 feet on each side. Sheet pile abutments instead of rock would reduce the load on the levee which is underlain with soft peat soils. 18-inch minus rock would be placed in the void between the two sheet pile walls using a barge-mounting crane. Culverts are not expected to be used at this barrier.

The proposed operation of the rock barriers will start on June 1, 2014, and will end in November 2014 when the flood season begins. The rock fill on West False River, Steamboat Slough and Sutter Slough barriers will be completely removed and the channel will be restored to pre-construction configuration. However, the north and south sheet pile abutments on the West False River will remain in place after November. It is determined that leaving the abutments in place will protect the integrity of the levee and it will not impair flood flow because of the width cross-section of West False River. If the drought continues in 2015, the remaining abutments will help minimize levee disturbance and expedite barrier construction.

Attachment 2

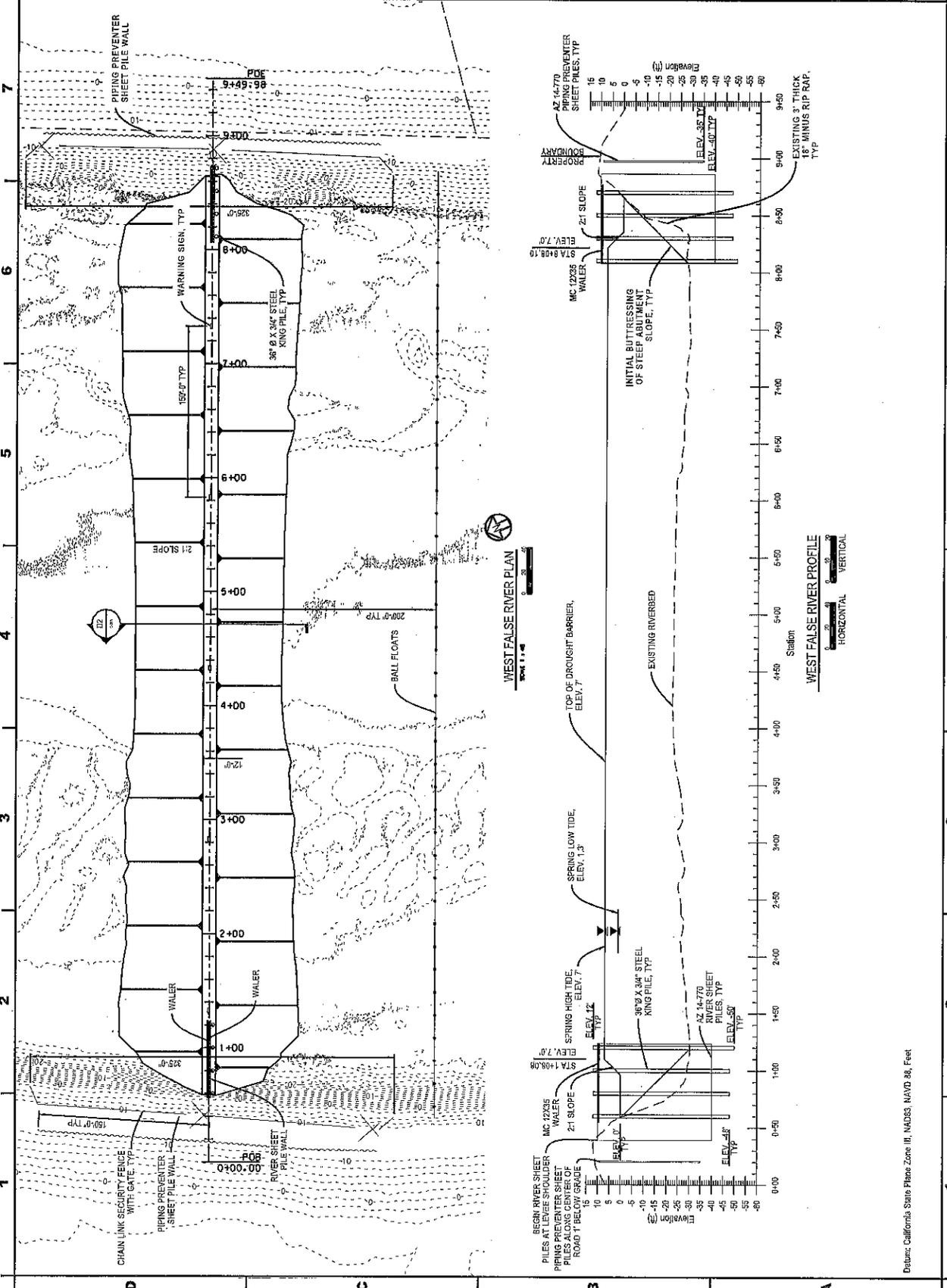
Coordinates and USGS Data					
Location	Coordinates		USGS Data		
	Latitude	Longitude	Quad Name	Range	Township
Sutter Slough	38.323069°	-121.588910°	Courtland	3E	6N
Steamboat Slough	38.293707°	-121.582812°	Courtland	4E	5N
False River	38.057057°	-121.670432°	Jersey Island	3E	3N

1 2 3 4 5 6 7 8



STATE OF CALIFORNIA CALIFORNIA NATURAL RESOURCES AGENCY DEPARTMENT OF WATER RESOURCES DIVISION OF ENGINEERING STATE WATER FACILITIES	
NO. _____ DATE _____	SHEET NO. _____ REVISION _____
SPEC. NO. 14-11 SHEET NO. 006 DRAWING NO. C-205	
GENERAL PLAN STATE WATER FACILITIES	
DROUGHT EMERGENCY TEMPORARY ROCK BARRIERS SUITTER SLOUGH, STEAMBOAT SLOUGH, AND WEST FALSE RIVER	
STEAMBOAT SLOUGH	
THINK SAFETY - ACT SAFELY	
STATE WATER FACILITIES	
DESIGNER: _____ CHECKED: _____ DRAWING: _____ APPROVAL: _____ DATE: _____	
APPROVAL: _____ DATE: _____	
CHIEF ENGINEER: _____ DATE: _____	
APPROVAL: _____ DATE: _____	
CHIEF GENERAL ENGINEER: _____ DATE: _____	
APPROVAL: _____ DATE: _____	
CHIEF OF DIVISION: _____ DATE: _____	

Professional Engineer, California, State, License No. 3, AND, SSI, Frank



Station: California State Plane Zone II, NAD83, NAVD 83, Feet

Exhibit A Locations of the Proposed Work

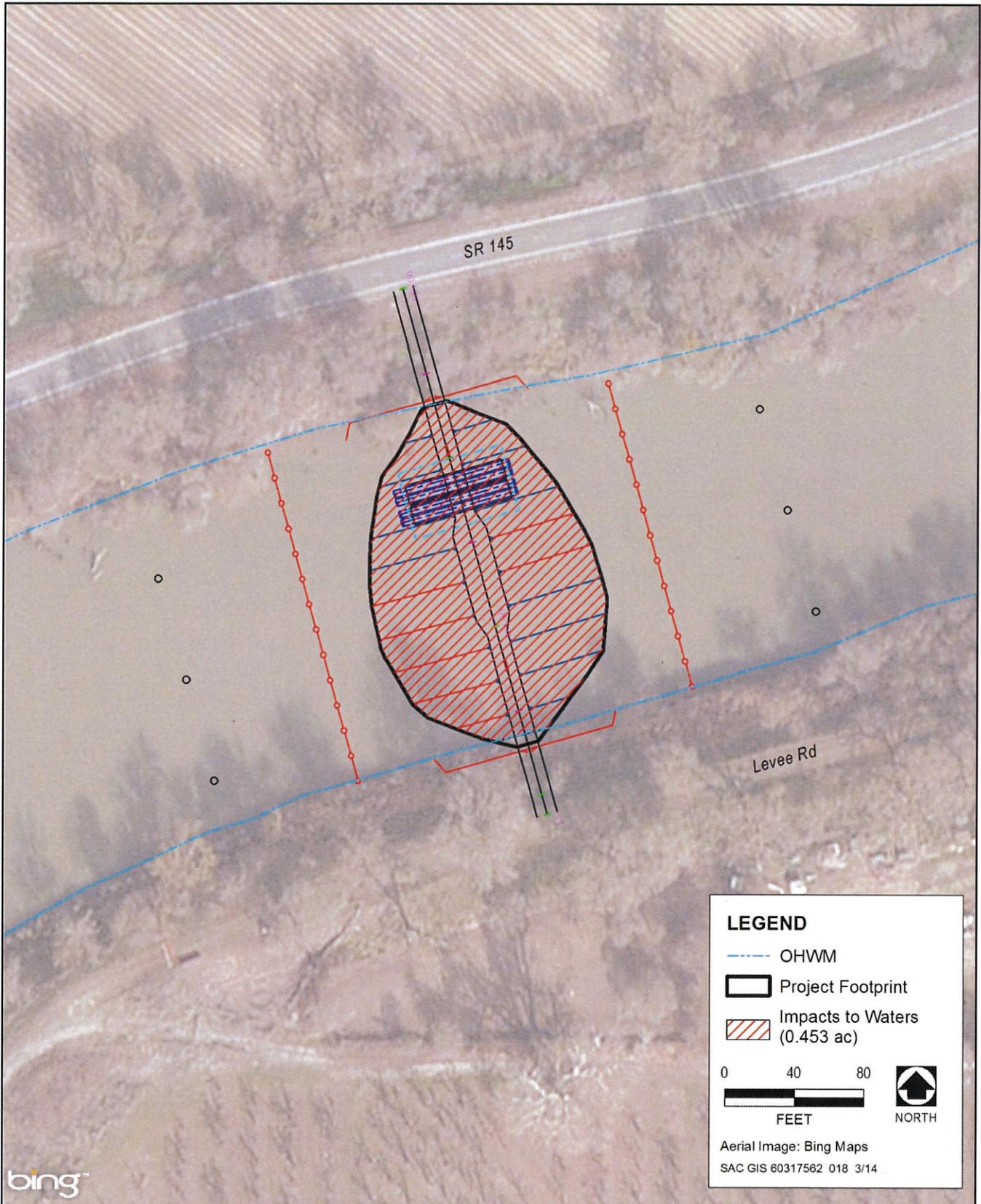


Source: Moffatt & Nichol 2014, AECOM 2014

Figure 1

Impact Map – Overview

Exhibit A Locations of the Proposed Work

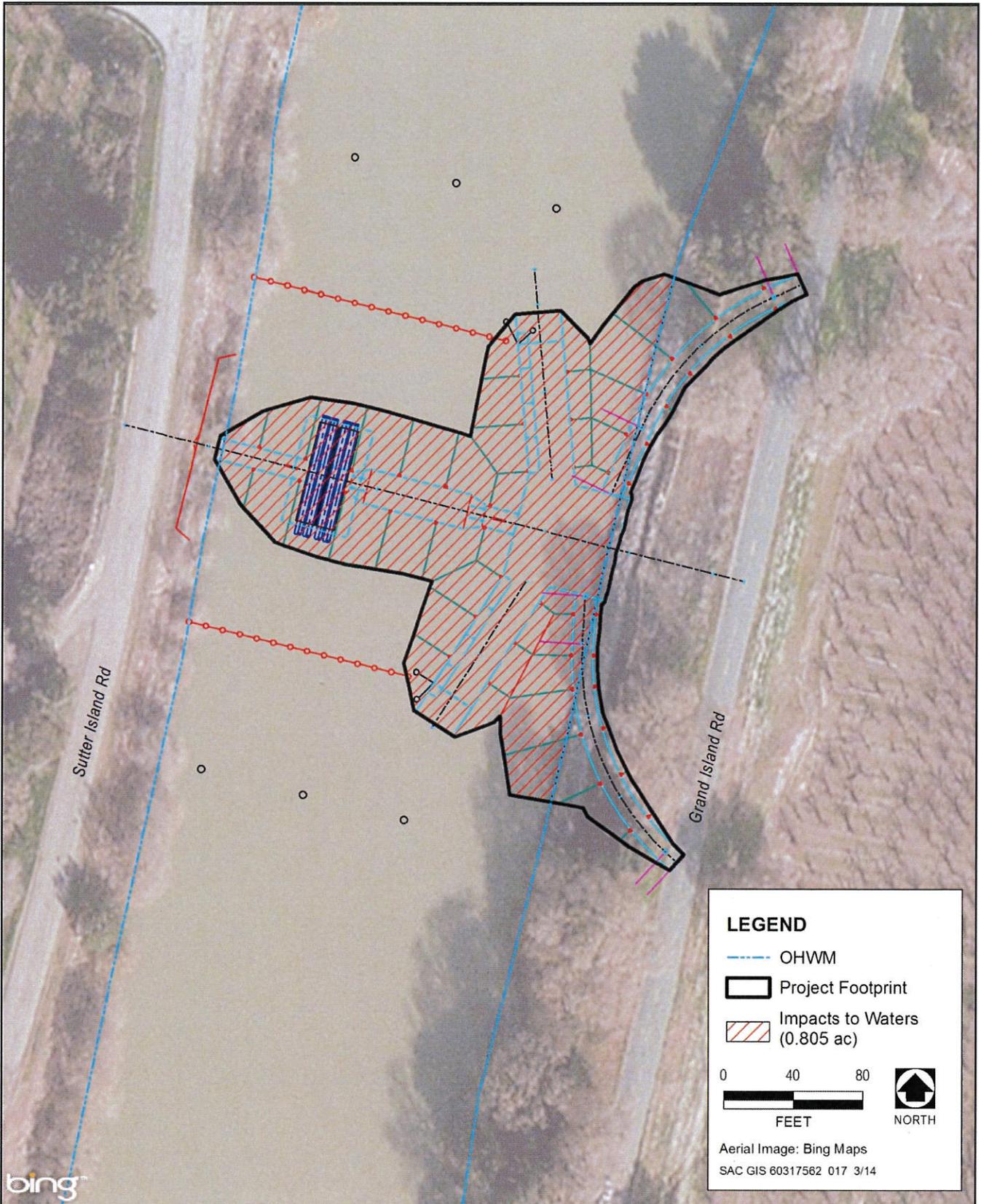


Source: Moffatt & Nichol 2014, AECOM 2014

Figure 2

Impact Map – Sutter Slough

Exhibit A Locations of the Proposed Work



Source: Moffatt & Nichol 2014, AECOM 2014

Figure 3

Impact Map – Steamboat Slough

Exhibit A Locations of the Proposed Work



Source: Moffatt & Nichol 2014, AECOM 2014

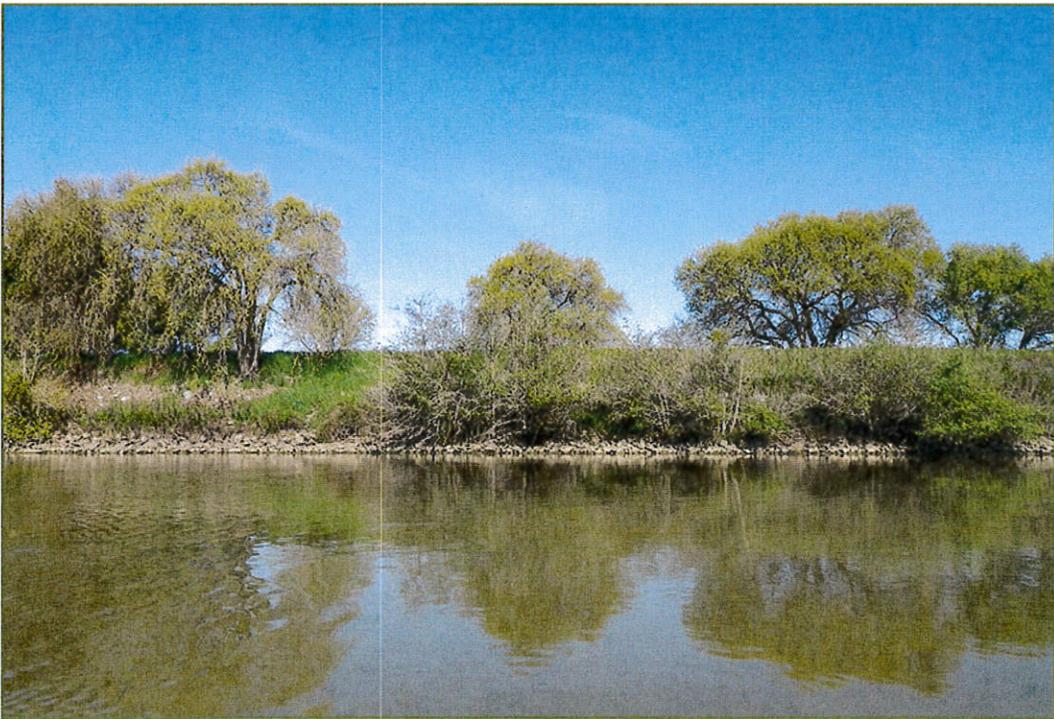
Figure 4

Impact Map – False River

Representative Photographs of the Project Sites

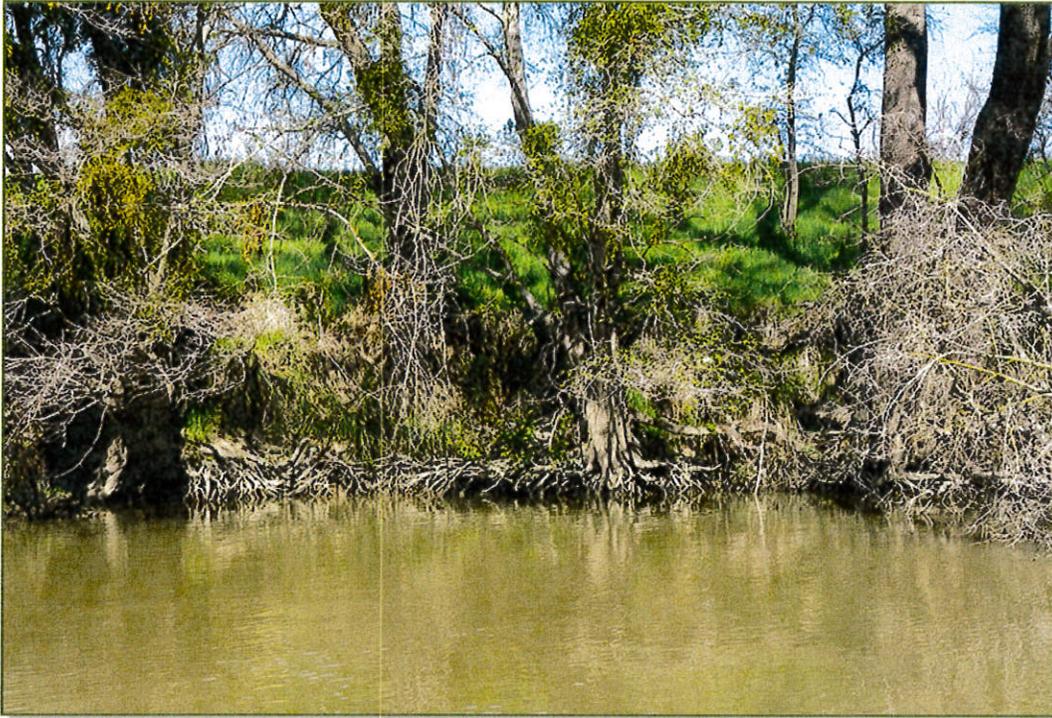


Representative habitat at the Steamboat Slough barrier site, looking northwest at the west bank of the slough.



Representative habitat at the Steamboat Slough barrier site, looking west at the west bank of the slough.

EDB Barrier Site Representative Photographs



Representative habitat at the Sutter Slough barrier site, looking west at the west bank of the slough.



Representative habitat at the Sutter Slough barrier site, looking north at the west bank of the slough in the foreground and east bank in the background.

EDB Barrier Site Representative Photographs



Representative habitat at the West False River barrier site, looking south at the south bank of the channel.



Representative habitat at the West False River barrier site, looking west at the south bank of the channel.

EDB Barrier Site Representative Photographs

Executive Department
State of California

A PROCLAMATION OF A STATE OF EMERGENCY

WHEREAS the State of California is experiencing record dry conditions, with 2014 projected to become the driest year on record; and

WHEREAS the state's water supplies have dipped to alarming levels, indicated by: snowpack in California's mountains is approximately 20 percent of the normal average for this date; California's largest water reservoirs have very low water levels for this time of year; California's major river systems, including the Sacramento and San Joaquin rivers, have significantly reduced surface water flows; and groundwater levels throughout the state have dropped significantly; and

WHEREAS dry conditions and lack of precipitation present urgent problems: drinking water supplies are at risk in many California communities; fewer crops can be cultivated and farmers' long-term investments are put at risk; low-income communities heavily dependent on agricultural employment will suffer heightened unemployment and economic hardship; animals and plants that rely on California's rivers, including many species in danger of extinction, will be threatened; and the risk of wildfires across the state is greatly increased; and

WHEREAS extremely dry conditions have persisted since 2012 and may continue beyond this year and more regularly into the future, based on scientific projections regarding the impact of climate change on California's snowpack; and

WHEREAS the magnitude of the severe drought conditions presents threats beyond the control of the services, personnel, equipment and facilities of any single local government and require the combined forces of a mutual aid region or regions to combat; and

WHEREAS under the provisions of section 8558(b) of the California Government Code, I find that conditions of extreme peril to the safety of persons and property exist in California due to water shortage and drought conditions with which local authority is unable to cope.

NOW, THEREFORE, I, EDMUND G. BROWN JR., Governor of the State of California, in accordance with the authority vested in me by the state Constitution and statutes, including the California Emergency Services Act, and in particular, section 8625 of the California Government Code **HEREBY PROCLAIM A STATE OF EMERGENCY** to exist in the State of California due to current drought conditions.

IT IS HEREBY ORDERED THAT:

1. State agencies, led by the Department of Water Resources, will execute a statewide water conservation campaign to make all Californians aware of the drought and encourage personal actions to reduce water usage. This campaign will be built on the existing Save Our Water campaign (www.saveourh20.org) and will coordinate with local water agencies. This campaign will call on Californians to reduce their water usage by 20 percent.

2. Local urban water suppliers and municipalities are called upon to implement their local water shortage contingency plans immediately in order to avoid or forestall outright restrictions that could become necessary later in the drought season. Local water agencies should also update their legally required urban and agricultural water management plans, which help plan for extended drought conditions. The Department of Water Resources will make the status of these updates publicly available.
3. State agencies, led by the Department of General Services, will immediately implement water use reduction plans for all state facilities. These plans will include immediate water conservation actions, and a moratorium will be placed on new, non-essential landscaping projects at state facilities and on state highways and roads.
4. The Department of Water Resources and the State Water Resources Control Board (Water Board) will expedite the processing of water transfers, as called for in Executive Order B-21-13. Voluntary water transfers from one water right holder to another enables water to flow where it is needed most.
5. The Water Board will immediately consider petitions requesting consolidation of the places of use of the State Water Project and Federal Central Valley Project, which would streamline water transfers and exchanges between water users within the areas of these two major water projects.
6. The Department of Water Resources and the Water Board will accelerate funding for water supply enhancement projects that can break ground this year and will explore if any existing unspent funds can be repurposed to enable near-term water conservation projects.
7. The Water Board will put water right holders throughout the state on notice that they may be directed to cease or reduce water diversions based on water shortages.
8. The Water Board will consider modifying requirements for reservoir releases or diversion limitations, where existing requirements were established to implement a water quality control plan. These changes would enable water to be conserved upstream later in the year to protect cold water pools for salmon and steelhead, maintain water supply, and improve water quality.
9. The Department of Water Resources and the Water Board will take actions necessary to make water immediately available, and, for purposes of carrying out directives 5 and 8, Water Code section 13247 and Division 13 (commencing with section 21000) of the Public Resources Code and regulations adopted pursuant to that Division are suspended on the basis that strict compliance with them will prevent, hinder, or delay the mitigation of the effects of the emergency. Department of Water Resources and the Water Board shall maintain on their websites a list of the activities or approvals for which these provisions are suspended.

10. The state's Drinking Water Program will work with local agencies to identify communities that may run out of drinking water, and will provide technical and financial assistance to help these communities address drinking water shortages. It will also identify emergency interconnections that exist among the state's public water systems that can help these threatened communities.
11. The Department of Water Resources will evaluate changing groundwater levels, land subsidence, and agricultural land following as the drought persists and will provide a public update by April 30 that identifies groundwater basins with water shortages and details gaps in groundwater monitoring.
12. The Department of Water Resources will work with counties to help ensure that well drillers submit required groundwater well logs for newly constructed and deepened wells in a timely manner and the Office of Emergency Services will work with local authorities to enable early notice of areas experiencing problems with residential groundwater sources.
13. The California Department of Food and Agriculture will launch a one-stop website (www.cdffa.ca.gov/drought) that provides timely updates on the drought and connects farmers to state and federal programs that they can access during the drought.
14. The Department of Fish and Wildlife will evaluate and manage the changing impacts of drought on threatened and endangered species and species of special concern, and develop contingency plans for state Wildlife Areas and Ecological Reserves to manage reduced water resources in the public interest.
15. The Department of Fish and Wildlife will work with the Fish and Game Commission, using the best available science, to determine whether restricting fishing in certain areas will become necessary and prudent as drought conditions persist.
16. The Department of Water Resources will take necessary actions to protect water quality and water supply in the Delta, including installation of temporary barriers or temporary water supply connections as needed, and will coordinate with the Department of Fish and Wildlife to minimize impacts to affected aquatic species.
17. The Department of Water Resources will refine its seasonal climate forecasting and drought prediction by advancing new methodologies piloted in 2013.
18. The California Department of Forestry and Fire Protection will hire additional seasonal firefighters to suppress wildfires and take other needed actions to protect public safety during this time of elevated fire risk.

19. The state's Drought Task Force will immediately develop a plan that can be executed as needed to provide emergency food supplies, financial assistance, and unemployment services in communities that suffer high levels of unemployment from the drought.
20. The Drought Task Force will monitor drought impacts on a daily basis and will advise me of subsequent actions that should be taken if drought conditions worsen.

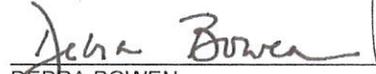
I **FURTHER DIRECT** that as soon as hereafter possible, this Proclamation be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Proclamation.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 17 day of January, 2014.



EDMUND G. BROWN JR.
Governor of California

ATTEST:



DEBRA BOWEN,
Secretary of State