Meeting of the Central Valley Flood Protection Board September 13, 2013

Staff Report – U.S. Code Title 33, Section 408 Request

West Sacramento Area Flood Control Agency Southport Levee Improvement Project, Yolo County

1.0 - REQUESTED ITEM

Consider approval to send a letter (Attachment A) to the U.S. Army Corps of Engineers (USACE), Sacramento District requesting permission to alter a portion of the Sacramento River Flood Control Project (SRFCP) based on Application No. 18313-3 and pursuant to U.S. Title 33, Section 408 (USC 408).

The letter states that based on the information the Central Valley Flood Protection Board (Board) has to date, that "...the Board supports the proposed Southport Project and believes the alterations will not be injurious to the public interest, and will not impair the usefulness of the SRFCP." The letter also indicates that, "If upon completion the USACE formally incorporates the Southport Project into the SRFCP the State of California, acting through the Board, will accept the altered project for operation and maintenance and hold and save the United States free from damage due to the constructed works."

This is not a flood system improvement project hearing, and no construction permit is being considered for issuance at this time. Board staff is requesting that the proposed letter (Attachment A) be sent to USACE Headquarters to initiate the review process for the proposed project alteration.

2.0 - APPLICANT

West Sacramento Area Flood Control Agency (WSAFCA)

3.0 – PROJECT LOCATION

The project is located in West Sacramento, south of Interstate 80 and U.S. Highway 50, west of Interstate 5, southeast of the Deep Water Ship Channel, and along the Sacramento River right (west) bank levee from approximately USACE Comprehensive Study River Mile 57.2 to 51.6 in Yolo County (Attachment B – Project Maps).

4.0 - PROJECT DESCRIPTION

The proposed Southport project includes levee improvements for approximately 5.6 miles of the Sacramento River right (west) bank levee including:

- installation of slurry cutoff walls
- seepage berms
- placement of rock slope protection
- construction of adjacent and setback levees
- degradation of existing Federal Project levee
- restoration of created offset area/floodway
- removal and/or relocation of utilities and encroachments

5.0 – AUTHORITY OF THE BOARD

- California Code of Regulations, Title 23 (CCR 23), § 6, Need for a Permit
- CCR 23, § 106, Existing Encroachments within an Adopted Plan of Flood Control
- CCR 23, § 116, Borrow and Excavation Activities Land and Channel
- CCR 23, § 120, Levees
- CCR 23, § 121, Erosion Control
- CCR 23, § 123, Pipelines, Conduits and Utility Lines
- CCR 23, § 124, Abandonment of Pipelines
- CCR 23, § 130, Patrol roads and Access Ramps
- CCR 23, § 131, Vegetation
- Rivers and Harbors Act of 1899, Title 33 United States Code, § 408 (USC 408), hereafter referred to as Section 408

6.0 - PROJECT ANALYSIS

The Southport Project includes approximately 1.5 miles of strengthen-in-place and adjacent measures, and four miles of setback levee (Attachments C and D). The Southport Levee project's reach has been divided into seven segments lettered A through G from south to north (Attachment B3). The proposed project involves the construction of setback levees in a portion of Segment B and Segments C, D, E, and F;

adjacent levee in Segment G and the remaining portion of Segment B; and strengthenin-place measures in Segment A. Construction of the project would occur in three phases beginning in 2014 and will be phased to mitigate impacts as described in Section 6.3 below. Attachment E provides a tentative schedule of important project milestones.

6.1 – Project Background

The study area of WSAFCA's West Sacramento Levee Improvement Program (WSLIP) includes the City itself and lands within WSAFCA's boundaries. The study area isis bounded by the Sacramento and Yolo Bypasses to the north and west, and the Sacramento River to the east and south. The Sacramento Deep Water Ship Channel (DWSC) and non-operational barge canal bisect the City into two sub-basins (north and south). The two sub-basins become hydraulically connected during large flood events, including the 100- and 200-year events. The Southport Levee extends along the Sacramento River from the confluence of the DWSC and the river downstream to the South Cross Levee, and protects the South Basin from river flooding, and extends

Like many other Sacramento Valley levees, the Southport Levee and other City levees were initially constructed from the 1840s to 1890s by local interests. They later became part of the SRFCP when authorized by Congress in 1917. Since then these levees have been strengthened and maintained through several subsequent projects in partnership between USACE, the State of California (State), WSAFCA, and the local maintaining agencies.

WSLIP is a multiphase program for reducing flood risk in the City of West Sacramento (City). The program incorporates local, State, and federal efforts which reduce flood risk including the USACE West Sacramento General Reevaluation Report, USACE Sacramento River Erosion Repair Site 57.2R levee project, and the following three early implementation projects (EIP) constructed by WSAFCA in partnership with the California Department of Water Resources (DWR):

- I Street Bridge (18336) cutoff wall installation downstream of the I Street Bridge
- California Highway Patrol (CHP) Academy (18313-1) cutoff wall installation and slope flattening along the Sacramento Bypass
- The Rivers (18313-2) cutoff wall installation and slope flattening along the Sacramento River north levee

All three of the early implementation projects are located in the North Basin of the City.

South River Road runs along the top of the levee for the majority of this reach of the river. At southern end of Segment B, the road diverts from the levee crown and runs south along the landside toe to the City limits. The landside of Segments A through D is bordered mainly by private agricultural lands and rural residences. The landside of Segment E is bordered by two small bodies of water referred to as Bees Lakes. Two marinas and multiple boat docks are located along the waterside of the levee in Segments E and F. Rural residences border the landside of Segment F, and a residential development closely borders Segment G.

6.1.1 – Project Alteration Need

The levees surrounding the City protect over 11,000 acres of mixed-use land in eastern Yolo County, approximately 50,000 residents, and \$4.2 billion of commercial and residential structures and contents. The City is home to the Port of West Sacramento (Port); the Regional Distribution Center of the U.S. Postal Service which processes up to 900,000 pieces of mail per day; major interstates carrying approximately 20 million tons of cargo valued at over \$63 billion; and major railways carrying approximately 9.3 million tons of freight valued at approximately \$5 billion. Assuming a 100-year flood event, for which it is not believed the levee can safely pass, failure of the levee in the South Basin could prevent timely and safe evacuation.

Five needs identified from prior comprehensive evaluations are as follows:

- the levees need improvements to reduce the current level of flood risk
- the levees are deficient when compared against current federal standards and action is needed to bring them up to current standards
- improvements are necessary to meet Federal Emergency Management Agency (FEMA) minimum acceptable level of flood protection as specified by the National Flood Insurance Program (NFIP)
- flood risk reduction measures in the Southport area are necessary to meet
 State 200-year protection requirements for urban areas pursuant to Senate
 Bill 5
- to provide City residents with recreation elements when compatible with flood risk management improvements

6.2 – Project Design Review

Board staff has reviewed the following technical documents, provided by the applicant, in preparation of this staff report:

- 65 percent Design Submittal (plans, specifications, and supporting documents)
- Draft 408 Project Summary Report (Attachment C)
- 65 percent Design Documentation Report
- Hydraulic Impact Analysis Report for the Southport Sacramento River Early Implementation Project
- Conditional Risk Analysis for the WSLIP

6.3 – Hydraulic Summary

WSAFCA's hydraulic consultants evaluated the project as an individual incremental action, and as a component of a larger cumulative project to account for other regional flood control projects (such as the Folsom Dam Modification) under construction.

When modeled as an incremental action, the Southport Project is predicted to generally reduce water surface elevations (WSE) over the project reach, with isolated exceptions and a maximum increase of 0.17 feet for a short distance near the Pocket area neighborhood in the City of Sacramento. WSAFCA has coordinated this increase in WSE with the Sacramento Flood Control Agency (SAFCA) to ensure that the Pocket levee improvement designs consider this localized increase in WSE.

WSAFCA proposes to phase construction so that construction of the Southport levee breaches are scheduled in coordination with construction of the Pocket levee improvements to minimize temporary increases in flood risk. WSAFCA is currently modeling the interim condition incorporating a phased construction approach to determine the changes in water surface elevations. The USACE Sacramento District and WSAFCA will work together to refine the design to ensure any WSE impacts are less than significant. Even with this increase in stage, the WSE corresponding to the 1957 flow will remain significantly below the 1957 design profile.

In its cumulative analysis WSAFCA considered the federally authorized Folsom Dam Joint Federal Project (JFP), and the Folsom Dam Raise Project in addition to with the Southport Project. Collectively these improvements will reduce flood stages for the 200-year event in the Lower Sacramento River by approximately 1.2 feet.

Board staff finds that the proposed Southport Project, with or without phased breaching, is expected to pose no significant adverse hydraulic risk to the SRFCP based upon the information provided. Further details of the staff's hydraulic review are provided in Attachment F1.

6.4 - Geotechnical Summary

The scope of WSAFCA's geotechnical analyses for the 65 percent design included performing steady-state seepage analyses to evaluate underseepage; performing steady-state stability analyses to evaluate landside stability; performing rapid drawdown stability analyses to evaluate waterside stability conditions; performing consolidation analysis to estimate settlement and performed seismic vulnerability analyses using liquefaction without deformation analyses.

After review of the geotechnical analyses provided by WSAFCA to date, Board staff has determined that the proposed project is anticipated to be compliant with CCR 23 Standards when the design is finalized, and that there are no anticipated adverse geotechnical effects or variances required to the Standards at this time. Further details of the staff's geotechnical review are provided in Attachment F2.

6.5 - Environmental Review

The environmental analysis of the project is underway and a Draft Environmental Impact Report / Environmental Impact Statement (EIR / EIS) is expected to be released for public review sometime from October through November of 2013.

6.6 - Project Benefits

The project has the several benefits associated with its completion including the following:

- reduces flood risk for the entire City by addressing known levee deficiencies along the Southport reach
- advances WSAFCA's goal to achieve a minimum of 200-year flood protection for the City
- constructs levee improvements quickly to reduce flood risk as soon as possible
- constructs improvements that are consistent with the adopted 2012 Central Valley Flood Protection Plan (CVFPP)
- provides multi-benefit uses, including ecosystem restoration and public recreation, that are consistent with CVFPP and regional flood-risk-reduction goals

ensures continuing federal assistance for levee repairs and maintenance

6.7 – Adjacent Landowner Protest

A protest letter dated August 2, 2013 from Forecast Land Investment LLC and Seecon Financial & Construction Company, Inc. ("Seecon") was received on August 5, 2013 (Attachment G). The purpose of the protest is to "Protest the issuance of a permit pursuant to the Applicant and to request the Board to hold an evidentiary hearing, at which time Seecon will be able to present additional evidence requiring that the requested Permit be denied until the project is brought into conformity with applicable law..."

Board staff provided the following information to the protestant, by letter (Attachment H), that:

- the Board action described herein does not involve issuance of a construction permit for the WSAFCA Southport project
- pursuant to California Code of Regulations, Title 23, Waters, Section 12, Board staff will consider the protestant's concerns that are of a flood control nature as part of the staff review of the permit application materials in advance of the evidentiary hearing anticipated in the spring of 2014
- Board staff will notify the protestant when the evidentiary hearing is scheduled
- the protestant may present their concerns to the full Board at the September 13,
 2014 meeting and / or at the spring 2014 evidentiary hearing
- the protestant may also provide public written comments directly to WSAFCA on their draft Environmental Impact Report / Environmental Impact Statement anticipated for public release this October or November

7.0 – STAFF RECOMMENDATION

Staff recommends that the Board approve sending the attached draft letter (Attachment A) to the U. S. Army Corps of Engineers, Sacramento District requesting permission pursuant to U. S. Title 33, Section 408 to alter a portion of the Sacramento River Flood Control Project levee along the right (west) bank of the Sacramento River as proposed in Application No. 18313-3 submitted by the West Sacramento Area Flood Control Agency.

8.0 – LIST OF ATTACHMENTS

- A. Draft 408 Request Letter to the USACE
- B. Project Maps
 - B1 Vicinity Map
 - B2 Location Map
 - B3 Project Phasing Map
- C. WSAFCA Project Summary Report
- D. Project Design Tables and Sections
- E. Project Milestone Schedule
- F. Staff Technical Analyses
 - F1 Hydraulic Review
 - F1.1 Hydraulic Issues that May Need Additional Evaluation
 - F2 Geotechnical Review
 - F2.1 Geotechnical Issues that May Need Additional Evaluation
- G. Protest Package
- H. Board Staff Protest Response Letter

Design Reviews by: Nancy C. Moricz, PE, Senior Engineer

Ali Porbaha, PE, Senior Engineer

Sungho Lee, Water Resources Engineer

Document Review: Eric Butler, PE, Supervising Engineer

Len Marino, PE, Chief Engineer

CENTRAL VALLEY FLOOD PROTECTION BOARD

3310 El Camino Ave., Rm. 151 SACRAMENTO, CA 95821 (916) 574-0609 FAX: (916) 574-0682 PERMITS: (916) 574-2380 FAX: (916) 574-0682 TO STATE OF THE ST

September 13, 2013

Colonel Michael Farrell, Commander U.S. Army Corps of Engineers Sacramento District 1325 J Street Sacramento, California 95814

Subject: Southport Levee Improvement Project, West Sacramento Area Flood Control Agency

Dear Colonel Farrell:

Based on the Policy and Procedural Guidance for the Approval of Modification and Alteration of Corps of Engineers Projects dated October 23, 2006, and the Clarification Guidance dated November 17, 2008, and on behalf of the West Sacramento Area Flood Control Agency (WSAFCA), the Central Valley Flood Protection Board (Board) is requesting permission from the U.S. Army Corps of Engineers (USACE) to alter a portion of the Sacramento River Flood Control Project (SRFCP), Sacramento River right (west) levee from approximately River Mile 57.2 to 51.6, referred to as the Southport Levee. The Board is making this request pursuant to U.S. Code Title 33, Section 408.

In June 2012, the Board adopted the Central Valley Flood Protection Plan (CVFPP) which makes up the first comprehensive update of the State Plan of Flood Control in the Central Valley in more than five decades. Although the CVFPP improvements envisioned by the Department of Water Resources (DWR) are preliminary in nature, it is recognized that the CVFPP will be implemented incrementally over many years depending on the availability of State, local, and Federal funds, and based on integration of six Regional Flood Management Plans and two Basinwide Feasibility Studies which are intended to guide the 2017 update of the CVFPP. Inherent in the CVFPP's incremental approach are changes to both the physical and operational features of the Sacramento River Flood Control Project (SRFCP) and corresponding increases and decreases in water surface elevations. As such, projects should be evaluated both as individual increments and cumulatively as part of a comprehensive program.

The proposed Southport Project is one of many proposed incremental improvements consistent with implementation of the CVFPP. The preferred alternative consists of approximately one and one half miles of strengthen-in-place measures, and approximately four miles of setback levee. The Board has reviewed the 65 percent plans and drawings, geotechnical and hydraulic analyses, and other relevant documents submitted by WSAFCA.

These documents indicate that the proposed alterations will result in decreases in water surface elevations (WSE) for much of the adjacent reaches of the Sacramento River and connected streams, but will also result in a modest increase in water surface elevation for an isolated area near the left (east) bank Pocket area in the City of Sacramento when evaluated as a single incremental improvement. As previously mentioned implementation of the CVFPP is based on an incremental approach; thus, the expectation is that the modeled WSE increase

Colonel Michael Farrell, Commander August 30, 2013 Page 2

is an interim condition. The Board has concluded that these WSE changes do not represent an unacceptable transfer of risk when considered in the context of other flood risk reduction efforts being undertaken by the State of California, local entities including WSAFCA and the Sacramento Area Flood Control Agency (SAFCA), and the USACE.

The Sacramento River left (east) levee protecting the Pocket area is located across the river from, and slightly downstream of, the Southport Project. The USACE and State of California (DWR and the Board) have identified levee deficiencies in these levees, which cause a heightened concern for WSE increases. To address these concerns WSAFCA has committed to delay and phase breaching of the remaining "remnant" levee (to be left in place after construction of the setback levee) to reduce the time until construction of the Pocket levee improvements are underway) as outlined below:

- Delay breaching of the current Sacramento River right (west) levee, referred to as the remnant levee, where the new setback levee is proposed until environmental reviews under CEQA and NEPA are completed for the Pocket Levee improvement project.
- ii. Upon completion of CEQA and NEPA, WSAFCA will construct only the outlets for the setback levee offset areas. Construction of the outlets will create a backwater condition in the offset area and allow for flood stages to equalize on both sides of the remnant levee, reducing the risk that the remnant levee will fail. This interim condition is currently being modeled and the results will be shared with the USACE as part of our ongoing coordination, as well as included in the Section 408 Project Summary Report for the Southport Project.
- iii. After award of a future construction contract for SAFCA's Pocket Levee improvement project, WSAFCA would construct the inlets through the remnant levee to the offset area.

Public review of WSAFCA's proposed Southport Project is ongoing and will inform the Board's final decision to approve and issue a flood project improvement permit. Based on information provided by WSFACA to date the Board supports the proposed Southport Project and believes the alterations will not be injurious to the public interest, and will not impair the usefulness of the SRFCP. Supplemental information as required by the October 26, 2006 and November 17, 2008 policies and procedural guidance is enclosed as part of this request.

If upon completion the USACE formally incorporates the Southport Project into the SRFCP the State of California, acting through the Board, will accept the altered project for operation and maintenance and hold and save the United States free from damage due to the constructed works.

Colonel Michael Farrell, Commander August 30, 2013 Page 3

If you have any questions regarding this request, please contact me at (916) 574-0609, or your staff may contact Nancy Moricz, Senior Engineer, Projects and Environmental Branch at (916) 574-2381 or by email at nancy.moricz@water.ca.gov.

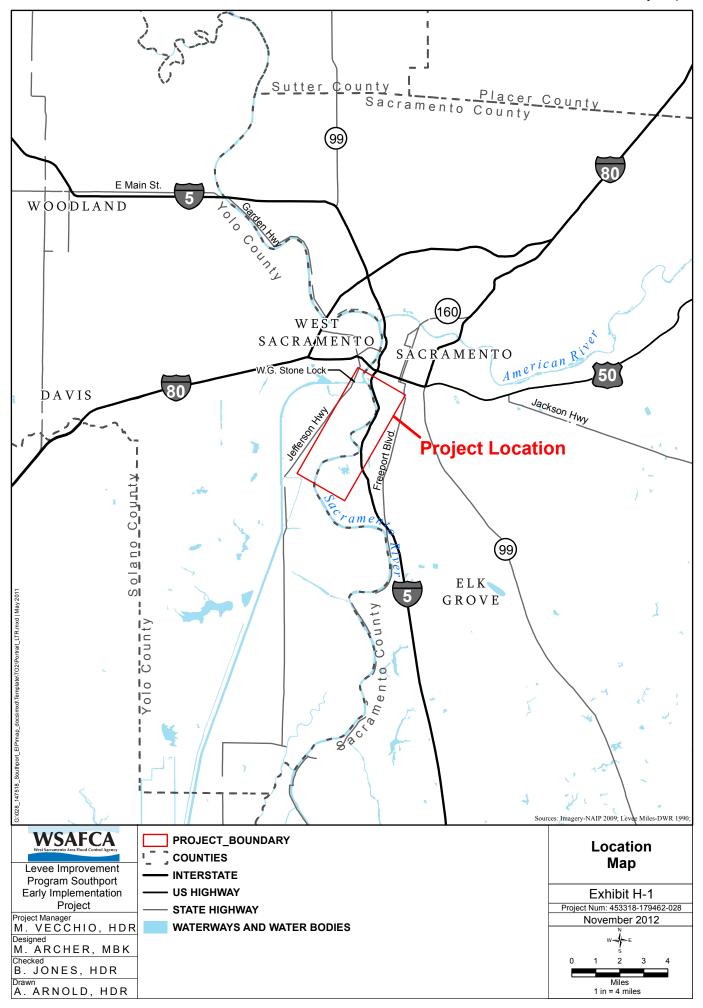
Sincerely,

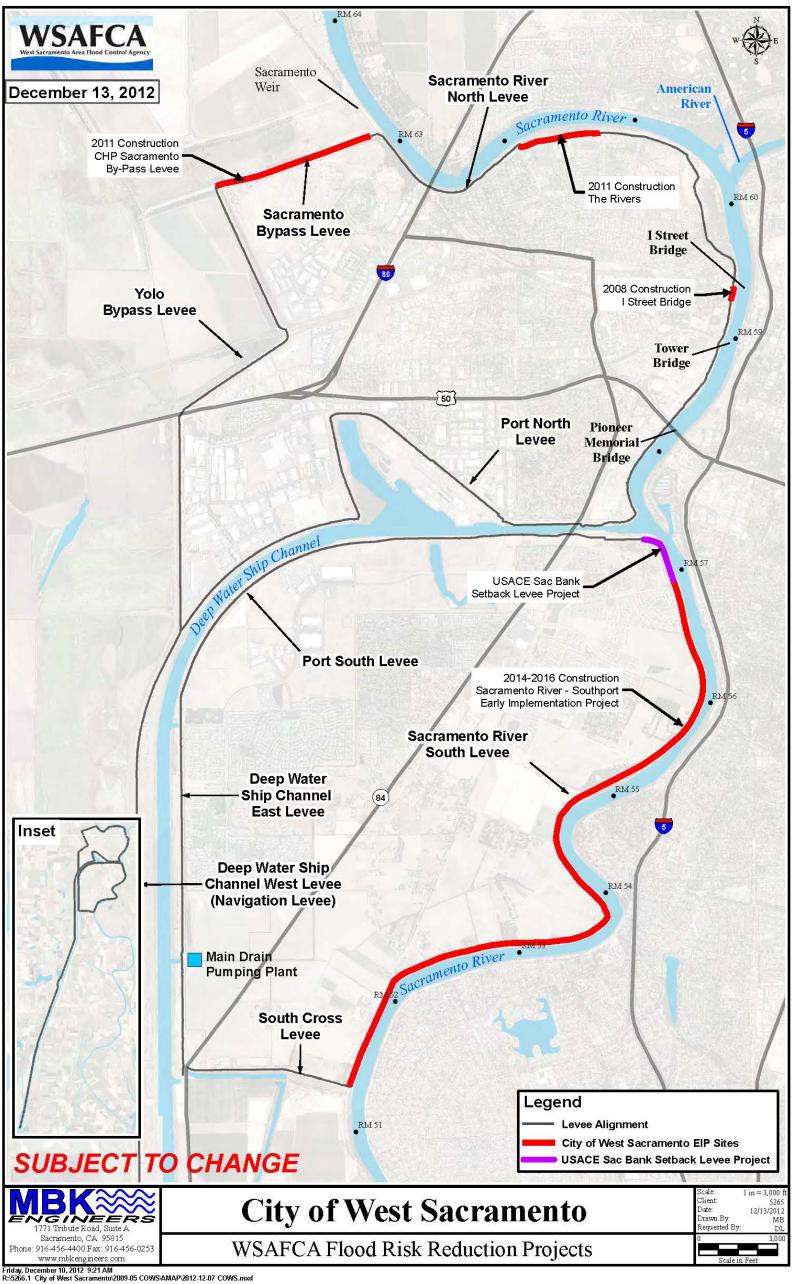
Jay S. Punia Executive Officer

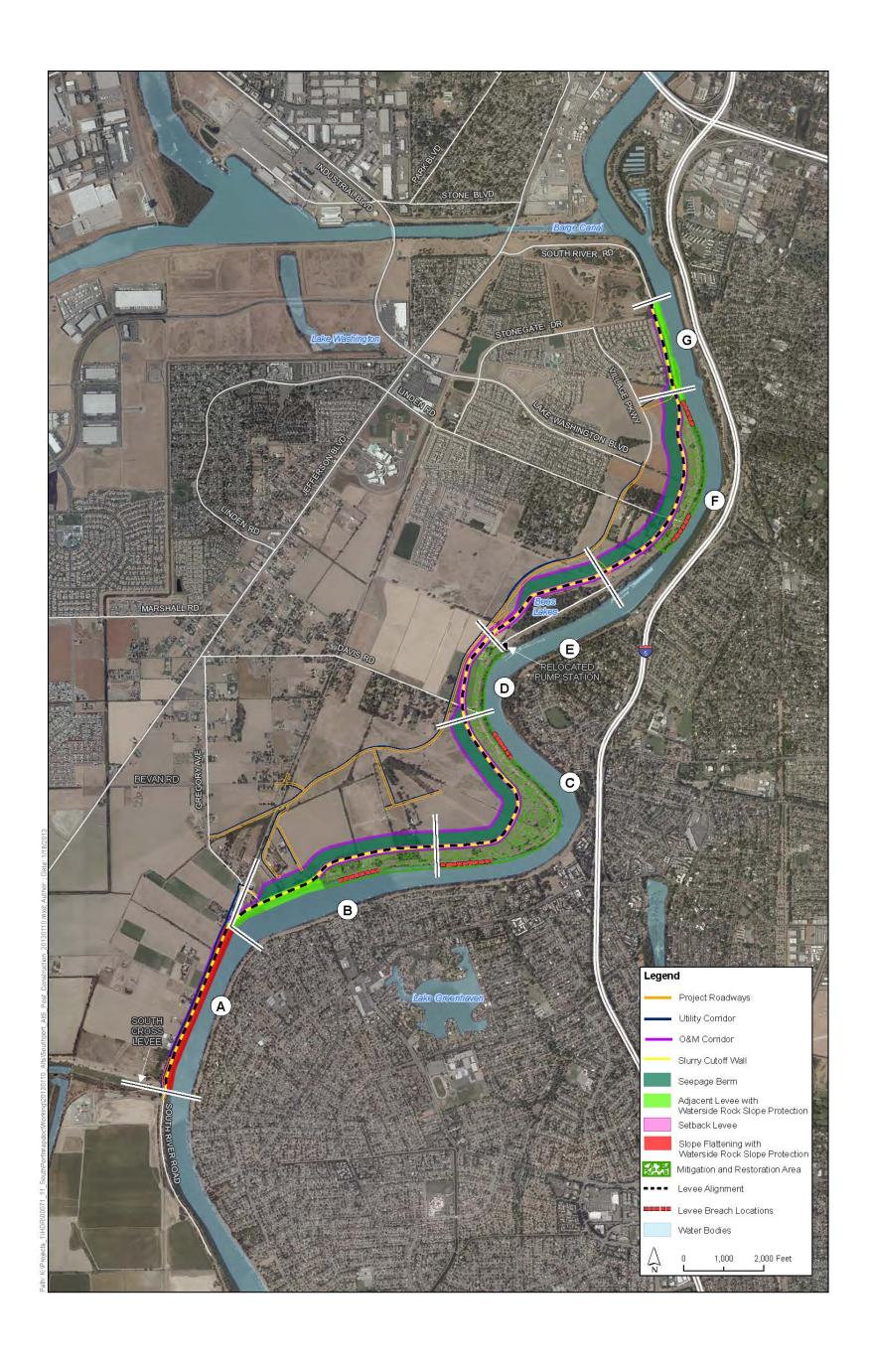
Attachment(s)

cc: Mr. Greg Fabun, Flood Protection Manager City of West Sacramento 1110 West Capitol Avenue, 2nd Floor West Sacramento, California 95691

> Mr. Ric Reinhardt MBK Engineers 1771 Tribute Road Sacramento, California 95815







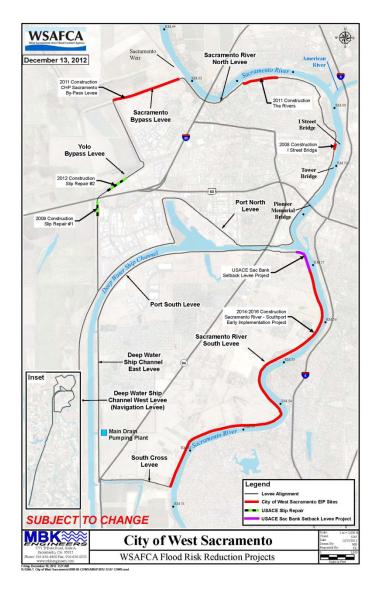
WEST SACRAMENTO LEVEE IMPROVEMENT PROGRAM

SOUTHPORT SACRAMENTO RIVER EARLY IMPLEMENTATION PROJECT

Section 408

Project Summary Report

DRAFT



Submitted By:
West Sacramento Area Flood Control Agency
1110 West Capitol Avenue,
West Sacramento, CA 95691

Prepared by: MBK Engineers 1771 Tribute Road, Suite A Sacramento, CA 95815

March 2013

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West Sacramento Levee Improvement Program Southport Sacramento River Early Implementation Project Section 408 Project Summary Report

1 Non-Federal Request for Project Alteration

The Central Valley Flood Protection Board (CVFPB), on behalf of the West Sacramento Area Flood Control Agency (WSAFCA) is requesting permission to alter the Sacramento River Flood Control Project (SRFCP) pursuant to 33 United States Code (USC) 408, herein referred to as Section 408. The Southport Sacramento River Early Implementation Project (Southport Project) is a major alteration to the Sacramento River right (west) bank levee from approximately river mile (RM) 57.2 to 51.6. The work is also subject to CVFPB encroachment permit number [NOTE: MBK to Insert permit number once assigned].

2 West Sacramento Levee Improvement Program Overview

WSAFCA's West Sacramento Levee Improvement Program (WSLIP) is a multiphase program for reducing flood risk in the City of West Sacramento (City). The WSLIP incorporates local, State, and Federal efforts which reduce flood risk including the U.S. Army Corps of Engineers (USACE) West Sacramento general reevaluation study, USACE Sacramento River Erosion Repair Site 57.2R levee project, and three previous early implementation projects constructed by WSAFCA in partnership with the California Department of Water Resources (DWR). Details about these efforts are discussed in Section 7.

3 Geographic Setting

The SRFCP begins as far north as Redding, California and extends south to the Sacramento—San Joaquin River Delta (Delta). The WSLIP study area is the metropolitan area most downstream within the SRFCP, along with the City of Sacramento across the Sacramento River on the left bank. The downstream location of the study area is important relative to other flood risk reduction projects occurring upstream within the SRFCP, including those discussed in Section 7. For the analysis of effects (direct, indirect, or cumulative), the regional context of the SRFCP is taken into consideration.

The WSLIP study area refers to the area that would be protected by the proposed levee improvements, including the City itself and the lands within WSAFCA's boundaries, which encompass portions of the Sacramento River, the Yolo Bypass, the Sacramento Bypass, and

the Sacramento Deep Water Ship Channel (DWSC) as shown on **Plate 1**. The flood management system associated with these waterways consists of over 50 miles of levees in Reclamation District (RD) 900, RD 537, DWR's Maintenance Area 4, and the DWSC. These levees completely surround the City with the exception of intersecting waterways.

The City, located within the WSLIP study area, is in eastern Yolo County at the confluence of the American and Sacramento Rivers. The City lies adjacent to the natural floodplain of the Sacramento River, which bounds the City along the east. It is made up of naturally high ground and reclaimed land protected from floods by levees and the Yolo and Sacramento Bypass systems. These bypasses divert flood-flows around the City to the west, along with flows conveyed in the main channel of the Sacramento River to the east. The DWSC and non-operational barge canal bisect the City into two sub-basins (north and south).

The South Basin is bounded by the Port South Levee and the DWSC to the north, the Sacramento River South Levee to the east, the South Cross Levee to the south, and the DWSC East Levee to the west. The right bank of the Sacramento River along the South Basin extends from RM 57.2 to RM 51.6. The Southport Levee is located in the South Basin, adjacent to the Sacramento River's extent or approximately from the confluence of the DWSC and the Sacramento River downstream to the South Cross Levee as shown on **Plate 1**.

4 History and Description of the Existing Southport Levee

Consistent with much of the Sacramento Valley, the Southport Levee, and the other levees protecting West Sacramento, was initially constructed from the 1840s to 1890s by local interest. They later became part of the SRFCP when authorized by Congress in 1917. Since then, these levees have been strengthened and maintained through several subsequent projects in partnership between USACE, the State of California (State), WSAFCA, and the agencies that maintain the levees.

The Southport Levee, which follows the Sacramento River from just downstream of the confluence of the DWSC and the Sacramento River to the South Cross levee, was constructed to protect the South Basin from high water events along the Sacramento River. The Southport Levee project's reach has been divided into seven segments, lettered A through G from south to north (**Plate 2**). South River Road runs along the top of the levee for the majority of this reach of the river. At Segment A, the road diverts off the levee top and runs along the landside toe for a short distance. The landside of Segments A through D is bordered mainly by private agricultural lands containing rural residences. The landside of Segment E is bordered by two small bodies of water referred to as Bees Lakes. Two marinas and multiple boat docks are located along the waterside of the levee in Segments E and F. Rural residences border the landside of Segment F, and a residential development closely borders Segment G.

Previous studies conducted by WSAFCA or DWR document pre-project conditions as presented in the table below (Table 1). The existing levee crest elevation will be reestablished during construction.

Table 1. Pre-Project Levee Conditions by Segment

Segment	Conditions			
Α	Stability berm with internal drain, waterside slumps, and pin-boils adjacent to			
	the landside levee toe			
В	Drained stability berm, waterside slides and slope erosion, and significant			
	landside seepage			
С	Drained stability berm, seepage berm, an earth ditch approximately 20 feet			
	from the landside levee toe, observed waterside slides, slope erosion, and			
	seepage boils			
D	Drained stability berm, an earth ditch approximately 20 feet from the landside			
	levee toe, landside erosion, and seepage boils			
Е	Drained stability berm, an earth ditch adjacent to the landside levee toe,			
	North and South Bees Lakes which are expected to be the location of a			
	previous levee break before 1911, and seepage boils			
F	Drained stability berm, an unlined ditch adjacent to the landside levee toe,			
	another unlined ditch approximately 20 feet from the landside levee toe,			
	observed waterside slides, slope erosion, and seepage boils			
G	Drained stability berm, an unlined ditch approximately 20 feet from the			
	landside levee toe, observed waterside slides, and slope erosion			

Section 1.4 of the environmental impact statement (EIS)/environmental impact report (EIR) provides a detailed background of the path taking WSAFCA to its current proposal for the Southport Project.

5 Need for and Purpose of the Alteration

The levees surrounding the City protect over 11,000 acres of mixed-use land in eastern Yolo County, approximately 50,000 residents, and \$4.2 billion of commercial and residential structures and contents. The City is home to the Port of West Sacramento (Port); the Regional Distribution Center of the U.S. Postal Service which processes up to 900,000 pieces of mail per day; major interstates carrying approximately 20 million tons of cargo valued at over \$63 billion; and major railways carrying approximately 9.3 million tons of freight valued at approximately \$5 billion.

Assuming a 100-year flood event, for which it is not believed the levee can safely pass, failure of the levee in the South Basin would result in flood depths posing risk to life safety, and would inundate the primary evacuation route within four hours for residents in the South Basin.

To further demonstrate the need for action, details about West Sacramento's flood risk and the consequences of levee failure in the City are described in Chapter 2 of the EIS/EIR. Additional context for the purpose and need for the Southport Project can be found in Chapter 1 of the EIS/EIR.

The primary purpose of the Southport Project is to reduce flood risk for the entire City by addressing known levee deficiencies along the Southport reach. Secondary purposes of the Southport Project are to provide ecosystem restoration and public recreation opportunities that are compatible with flood risk—reduction measures. The Southport Project would primarily address seepage deficiencies, repetitive erosion problems, and slope stability concerns.

Five needs identified and detailed in Chapter 1 of the EIS/EIR, are summarized below:

- Study results from comprehensive levee evaluations have shown that the levees need improvements to reduce the current level of flood risk.
- Study results further have shown that the levees are deficient when compared against current Federal standards and action is needed to bring them up to current standards.
- Improvements are necessary to meet Federal Emergency Management Agency's (FEMA) minimum acceptable level of flood protection (commonly referred to as the 100-year flood) as specified by the National Flood Insurance Program (NFIP).
- California State Senate Bill 5 requires a 200-year level of flood protection for urban areas by the year 2025. Flood risk—reduction measures in the Southport area are necessary to meet that requirement.
- There is a need to provide City residents with recreation elements that are compatible with flood risk management improvements.

To further demonstrate the need for action, details about the City's flood risk and the consequences of levee failure in the City are described in Chapter 2 of the EIS/EIR.

6 Description of the Southport Project

The Southport Project would implement flood risk–reduction measures along approximately six miles of the Sacramento River right (west) bank levee.

The Southport Project includes approximately 5.5 miles of levee improvements: approximately 1.5 miles of strengthen-in-place measures, and 4 miles of setback levee. The proposed project involves the construction of setback levees in a portion of Segment B and

Segments C, D, E, and F; adjacent levee in the remaining portion of Segment B; and strengthen-in-place measures in Segment A. For setback levee areas, the work would also include the breach and degrading of the existing levee for the purpose of restoration of the Sacramento River floodplain, as well as, protecting the inlet/outlets themselves from erosion. The proposed action would maintain the hydraulic isolation of the Bees Lakes area in Segment E from the Sacramento River through retention of the existing levee and construction of a new levee around the lakes. Construction of the project would occur over two to three years beginning in 2014. Table 2 provides a list of the proposed improvements for each segment.

Table 2. Project Flood Risk-Reduction Measures

Segment	Measures
Α	Strengthen-in-place measures which could include waterside slope flattening, slurry
	cutoff wall, and rock slope protection
В	Adjacent levee, slurry cutoff wall, and rock slope protection
	Adjacent levee, slurry cutoff wall, landside seepage berm, and rock slope protection
	Setback levee, slurry cutoff wall, and landside seepage berm
С	Setback levee, slurry cutoff wall, and landside seepage berm
D	Setback levee and slurry cutoff wall
Е	Setback levee, slurry cutoff wall, and landside seepage berm
F	Setback levee, slurry cutoff wall, and landside seepage berm
G	Adjacent levee, slurry cutoff wall, and rock slope protection

The discussion of Alternative 5 in Chapter 2 of the EIS/EIR provides detailed information for each of the segments. The below paragraphs present a summary of the proposed improvements.

In Segment A, strengthen-in-place measures would be implemented and could include waterside slope flattening, a slight landward shift of the existing levee centerline, slurry cutoff walls discussed below, and rock slope protection.

Conventional slurry cutoff walls would be installed in all seven segments and vary in depth.

Approximately one third of Segment B will be comprised of an adjacent levee, cutoff wall as described above, and rock slope protection. A smaller section of this portion will also include a seepage berm.

In portions of Segment B, and in Segment C, D, E, and F, the setback levee waterside toe would be positioned approximately 260 feet landward from the riverbank. Once construction of the setback levee is complete, the existing levee would be degraded and breached in several locations to allow inlet and outlet of floodplain-inundating flows. The floodplain area mitigates the losses of existing habitat values due to project effects, as well

as maximizes the potential habitat value in the Sacramento River floodplain. The target habitats in the floodplain area consist of riparian forest, seasonal wetlands, and upland grasslands. Elevations in the floodplain area would vary from approximately +7.0 feet to +20.0 feet NAVD 88 in order to provide broad habitat variability for a range of environmental and hydrodynamic conditions.

A seepage berm of widths varying from 70 to 100 feet would be constructed after setback levee construction on the landside of the new levee in Segments B, C, E, and F.

7 Related Efforts

Chapter 1 of the Southport EIS/EIR discusses past, present, and future studies and projects, related to the Southport Project. Below find the recent past, present, and future implementation projects directly related to the Southport Project.

7.1 WSAFCA Early Implementation Projects

WSAFCA, in partnership with DWR, has implemented three previous early implementation projects under DWR's Early Implementation Program (EIP): the I Street Bridge project, the California Highway Patrol (CHP) Academy project; and The Rivers project. The I Street Bridge project, completed in 2008, was comprised of installation of a cutoff wall just downstream of the IStreet Bridge. The CHP Academy project, completed in 2011, was comprised of installation of a cutoff wall and waterside slope flattening along the Sacramento Bypass. The Rivers project, also completed in 2011, was comprised of installation of a cutoff wall and landside slope flattening along the Sacramento River north levee. All three of the early implementation projects are located in the North Basin of the City (Plate 1) and were all processed under 33 USC 408.

WSAFCA is currently proposing the Southport Project in the South Basin.

7.2 Sacramento Metropolitan Area, California, Feasibility Report (West Sacramento Project)

The Sacramento Metropolitan Area, California, Feasibility Report (also known as the West Sacramento Project) was completed in 1992 by USACE and describes the results of studies of flood problems along the Sacramento River and Yolo Bypass from the Sacramento Weir downstream to an area just south of Freeport. The West Sacramento Project included plans for improving flood risk management for the City. The project area is located along the right bank of the Sacramento River in Yolo County, California. The West Sacramento Project was substantially completed in 2002. The project involved raising more than 1 mile of the south levee of the Sacramento Bypass by up to 5 feet and raising 4.5 miles of the Yolo Bypass levee by up to 5.5 feet. Since 2004, five deficiency repairs, mainly slip repairs, have been made: two in 2004; one in 2009, one in 2011, and one in 2012.

7.3 West Sacramento General Re-evaluation Report

The original West Sacramento Project of 1992 studied only a small portion of the levees that provide flood protection for the City. As introduced earlier in this chapter, USACE and WSAFCA are developing a General Re-evaluation Report (GRR) for West Sacramento flood risk—reduction measures to assess the entirety of the levees protecting the City in light of most recent criteria and knowledge regarding levee design. The primary objective of the West Sacramento GRR is to determine the extent of Federal interest in additionally reducing the flood risk in the study area while concurrently exploring opportunities to increase recreation and restore the ecosystem along the Sacramento River within the study area. USACE anticipates presentation of the GRR to Congress in 2015. In regard to the relationship between the Southport Project and the West Sacramento GRR, it is intended that some, or all, of the Southport Project will be constructed prior to any construction under the GRR, which can occur only after authorization of, and appropriation for, the West Sacramento Project by Congress following completion of the GRR.

7.4 Sacramento River Deep Water Ship Channel Project

The Sacramento River DWSC Project was authorized by Congress in 1946 and implemented by USACE, followed by reauthorization in 1986 for deepening the 46.5-mile DWSC from 30 feet to 35 feet and widening portions of the channel to improve navigational efficiency for movement of goods and safety. Construction was initiated in 1989 and a portion of the channel was deepened to the authorized depth of 35 feet, but work was suspended in 1990 because of a lack of local share funds to match Federal funds and issues related to unresolved infrastructure relocation. In 2008, USACE, in coordination with the Port, started the process of conducting a Limited Reevaluation Study and preparing a joint Supplemental EIS and Subsequent EIR (SEIS/SEIR) to evaluate the action of resuming construction of navigational improvements to the DWSC. USACE anticipates releasing a draft study and SEIS/SEIR to the public in mid-2013. Construction is anticipated to start by the end of 2013. The project is estimated to produce 6.4 million cubic yards of dredged material. The study and SEIS/SEIR will evaluate the feasibility and beneficial use of providing dredged material to local projects.

The DWSC bisects the City as discussed in Section 3, Geographic Setting.

7.5 American River Watershed, California Common Features Project; American River Watershed, California Common Features (Natomas Basin) Project Post Authorization Change; and the Natomas Vegetation Variance

To increase flood protection for the City, which is bordered by the left bank of the Sacramento River, the American River Common Features Project (Common Features) was authorized by Congress in the Water Resources Development Act (WRDA) of 1996. This

authorization called for strengthening the north and south levees of the American River and raising and strengthening the upper 12 miles of the left levee of the Sacramento River in the Natomas area, just north of the City. These improvements were considered *common features* of any comprehensive plan of flood management for the Sacramento area that ultimately might be approved by Congress. In WRDA of 1999, the scope of the Common Features authorization was expanded to include raising portions of the north and south levees of the American River (including the Mayhew Levee), additionally strengthening portions of the north levee of the American River, and raising and strengthening the north and south levees of the Natomas Cross Canal in the Natomas area. In 2006, the Common Features authorization was deemed sufficient to cover improvements to the left levee of the Sacramento River near the Pioneer Reservoir and in the Pocket/Freeport area.

USACE developed a post-authorization change study, the Common Features GRR, to reevaluate the previous Common Features project and identify levee improvements needed to provide the City, and the Natomas area to the north, with at least a 200-year (one-in-200 annual exceedence probability (AEP) event) level of flood protection. The Common Features GRR is planned for completion in 2014. In addition to the Common Features GRR, USACE completed the Natomas Post-Authorization Change Report (Natomas PACR) which documents the evaluation of features in the Natomas Basin portion of the Common Features project. The Natomas PACR was submitted to Congress in October 2010 and is awaiting authorization. Much of the work identified in this report has been completed by SAFCA through its NLIP discussed below.

The work proposed in the Natomas PACR, and being evaluated in the Common Features GRR, is located slightly up- and downstream of and across the Sacramento River from the Southport Project area.

7.6 Natomas Levee Improvements Program

The ultimate goal of the NLIP is to provide the Natomas Basin with a 200-year level of flood protection by improving conditions along approximately 42 miles of levees surrounding the Natomas Basin. The Sacramento Area Flood Control Agency (SAFCA), in conjunction with the State, has implemented improvements in four phases: Phase 1 occurred in 2008, Phase 2 in 2009 and 2010, Phase 3 in 2010 and 2011, and Phase 4a in 2011 and 2012. Improvements included waterside and landside levee-strengthening efforts, including levee raises, seepage remediation, increased bank protection, levee stabilization, and flattening of landside levee slopes primarily to the Natomas Cross Canal south levee and a large reach of the Sacramento River east levee. These improvements were implemented under 33 USC 408 and the State's EIP.

The improvements implemented by SAFCA are located slightly upstream, and across the Sacramento River from the Southport Project area.

7.7 Sacramento River Bank Protection Project

USACE is responsible for implementation of the Sacramento River Bank Protection Project (SRBPP) in conjunction with its non-Federal partner, CVFPB. The SRBPP is a continuing construction project authorized by Section 203 of the Flood Control Act of 1960. The purpose of this project is to provide protection from erosion to the existing levee and flood control facilities of the SRFCP.

USACE is currently constructing the Sacramento River Erosion Repair Site 57.2R levee project which is an approximately 2,200 foot setback levee in the southern basin of the City. The setback levee begins at the intersection of the DWSC and the Sacramento River and extends downstream where it meets the northern terminus of the Southport levee reach.

8 Environmental Compliance

The Final EIS/EIR for the Southport Project was published for public review and comment in [Note: MBK to insert month once known] 2013 in accordance with the National Environmental Protection Act (NEPA) and the Council on Environmental Quality regulations.

Compliance with all other applicable laws is documented in the EIS/EIR. Consultation under the Endangered Species Act and Fish and Wildlife Coordination Act is documented in the [Note: MBK to insert month once known] 2013 [Note: MBK to insert Biological Opinion / Letter of Concurrence once known] from USFWS, [Note: MBK to insert month once known] 2013 [Note: MBK to insert Biological Opinion / Letter of Concurrence once known] from NMFS, and [Note: MBK to insert month once known] 2013 Coordination Act Report from USFWS.

Effects of the project are discussed in Section 9 of this report.

9 Effects of the Southport Project

9.1 Significant and Unavoidable Adverse Effects

The evaluation conducted as part of the EIS/EIR found the following potentially significant and unavoidable adverse impacts of the Southport Project following implementation of mitigation measures:

- Violate Any Air Quality Standard or Substantial Contribution to Existing or Projected Air Quality Violation—California Environmental Quality Act (CEQA)
- Exposure of Sensitive Receptors to Temporary Construction-Related Noise
- Exposure of Sensitive Receptors to Temporary Construction-Related Vibration

- Loss or Degradation of Riparian and Shaded Riverine Aquatic (SRA) Cover Associated with Levee Construction
- Disturbance to Nesting Special-Status and Non-Special Status Birds and Loss of Nesting and Foraging Habitat
- Change in Land Use Designation or Potential Conflict with Local Land Use Designation as a Result of Construction
- Loss of Important Farmland and Agricultural Production Value
- Result in Temporary Visual Effects from Construction
- Adversely Affect a Scenic Vista
- Substantially Degrade the Existing Visual Character or Quality of the Site and Its Surroundings
- Create a New Source of Substantial Light or Glare that Would Adversely Affect Day or Nighttime Public Views
- Effects on Architectural (Built Environment) Resources and Cultural Landscapes
- Change in the Significance of an Archaeological Resource
- Disturbance of Native American and Historic-Period Human Remains

9.2 Flood Management and Geomorphic Conditions

WSAFCA conducted deterministic hydraulic modeling to determine the effects of the proposed project. Section 3.1 of the EIS/EIR details the flood control and geomorphic conditions effects for the proposed action and the report documenting the methodology and results is located as an appendix in the EIS/EIR. The table below summarizes these effects. Most effects are beneficial, except in two areas as indicated below.

Table 3. Flood Management and Geomorphic Conditions Effects

EFFECT	FINDING	
Change in Water Surface Elevations and	Local: Beneficial	
Flood Safety Attributable to Project Design	Upstream and Downstream: No effect	
Decrease in Risk of Levee Failure as a Result of Erosion or Seepage	Beneficial	
Alteration of the Existing Drainage Pattern	Less than significant following	
of the Site or Area	mitigation	
Increase in Channel Bed Incision and Bank	No effect	
Erosion Attributable to Heightened Levees	No effect	
Decrease in Levee Erosion through Rock	Beneficial	
Slope Protection	benencial	
Decrease in Through- and Under-Seepage	Beneficial	
Increase in Levee Slope Stability	Beneficial	
Change in Stream Energy and Modification	Less than significant following	
of Floodplain Scour/Deposition	mitigation	

9.3 Residual Risk

Implementation of the WSLIP and Southport Project would substantially lessen the probability of an uncontrolled flood in the City due to levee failure. However, the City would remain subject to flooding. WSAFCA recognizes that the consequences of a flood would increase over time as new development occurs in the City of West Sacramento. If no additional risk-reduction measures are implemented, the result would be a steady rise in expected annual damages that would undermine the risk-reduction accomplishments of the WSLIP. Nevertheless, with this protection in place, the consequences of an uncontrolled flood would greatly increase over time as planned new development occurs in the basin in accordance with regional growth plans. If no additional risk-reduction measures are implemented, the result would be a steady rise in the residual risk of property damages that would undermine the accomplishments of the early implementation project and the follow-on 200-year improvement program.

To address this potential increase in residual risk, the West Sacramento City Council adopted an in-lieu development fee program that will apply to new structures placed in the 200-year floodplain of WSAFCA's capital assessment district. As of July 2007, new development is required to contribute to the City's goal of achieving 200-year flood protection. New development has an option to demonstrate that new structures have 200-year flood protection, as well as an option to pay a fee in lieu of making physical improvements. The objective of this program is to avoid any substantial increase in the expected damage of an uncontrolled flood as new development proceeds. The revenue generated by the fee program will be used to finance continuing flood risk-reduction measures.

To further manage the residual risk, the City has in place an Emergency Operations Plan, which addresses flood safety through a Flood Plan and Evacuation Plan. To ensure adequacy, conformance with state-of-the-art standards, and to account for growth, the Emergency Operations Plan is reviewed annually and a comprehensive update is conducted every three years, or more frequently as needed. Based on this review and revision cycle, the Emergency Operations Plan addresses residual flood risk as flood improvements are implemented, and as the population and built environment change within WSAFCA's planning area. Providing 200-year flood protection to both the north and south area plans will increase the current flood control's system robustness, resiliency, and redundancy; further reducing the risk of flooding to the City and to the State taxpayers.

9.4 Transfer of Risk

Raising and strengthening portions of the Federal project levee system protecting the City proposed by WSAFCA would not result in any significant, adverse hydraulic impacts, or induce flooding to other sub-basins protected as part of the SRFCP. Furthermore, these improvements would be consistent with the principles that have guided the management of

the SRFCP over the past century and with the policies adopted by the State Legislature calling for an immediate and comprehensive effort to increase the level of flood protection provided to the City and the other urban areas within the California Central Valley.

9.5 Executive Order 11988 and Growth Inducement

Executive Order 11988 (May 24, 1977) requires a Federal agency, when taking an action, to avoid short- and long-term adverse effects associated with the occupancy and the modification of a floodplain. In February 1978, the Water Resources Council issued Floodplain Management Guidelines for Implementing Executive Order 11988. These guidelines provide analysis of the Executive Order, definitions of key terms, and an eight-step decision-making process for carrying out the Executive Order's directives. Chapter 4 of the EIS/EIR, documents the eight-step process and a discussion of the project's application of the process.

The Southport Project would reduce the risk of flood loss and minimize the effect of floods on human health, safety, and welfare by improving flood management infrastructure. The project also would increase protection for existing urban development, and, while the level of flood protection is not a current obstacle to growth, it would prevent the level of flood protection from becoming a potential obstacle to future growth. While growth in the City is anticipated to occur in the future, the project by itself does not influence such growth because the project does not remove any obstacle to growth, the project alone would not cause change in FEMA maps or build-out decisions, and the project does not directly facilitate growth (such as developing new water supply lines, utilities, or other infrastructure).

Because there is no reasonable and feasible alternative to the proposed action that would provide equivalent protection to the existing property and population within the boundaries of the floodplain, it is not in conflict with Executive Order 11988. Furthermore, the project would involve expanding and restoring a portion of the floodplain of the Sacramento River providing hydraulic and ecological benefits to the region.

The project, therefore, on its own has no effect on growth.

9.6 Cumulative Effects

The Southport Project will contribute to adverse cumulative effects for the three following resources: air quality and climate change; land use and agriculture; and visual resources. Chapter 4 of the EIS/EIR discusses these adverse impacts as well as resources where there are no expected cumulative effects or beneficial cumulative effects.

10 Engineering Analysis and Adequacy of Design

Significant technical studies have been undertaken by WSAFCA in support of the Southport Project design. The Design Documentation Report provides a detailed discussion of the following studies:

- Topography, Datums, and GIS
- Hydraulics and Hydrology
- Groundwater
- Geomorphology
- Geotechnical Data and Evaluations
- Hazardous and Toxic Waste
- Civil Analysis, Design, and Levee Improvement Alternative Analysis

The below two paragraphs highlight the geotechnical design and the hydrology and hydraulics analyses.

10.1 Geotechnical Design

The geotechnical design evaluation conducted by WSAFCA included underseepage, slope stability, settlement and seismic vulnerability evaluations for cross-sections developed throughout the Southport Levee. More than 300 explorations including drilled borings, cone penetration testing (CPT) soundings, and test pits within the Southport area were considered. The geotechnical design evaluation was based on criteria and guidance contained in the following documents:

- Draft 65% Technical Approach Memorandum, Sacramento River, Southport Early Implementation Project, HDR, 14 September 2012.
- Design and Construction of Levees, Engineer Manual, EM 1110-2-1913, USACE, 30 April 2000.
- Design Guidance for Levee Underseepage, Engineer Technical Letter ETL 1110-2-569, USAE, 1 May 2005.
- Urban Levee Design Criteria, (ULDC) California Department of Water Resources, May 2012.
- Guidelines for Seismic Evaluation of Levees, USACE, ETL 1110-2-580, November 1, 2012 (under USACE review; not yet finalized).

The evaluation identified geotechnical areas of existing levee deficiencies with respect to through-seepage, underseepage and slope stability, and recommended mitigation measures to address these levee deficiencies.

The water surface elevations (WSEs) required for geotechnical design criteria evaluations include the 200-year, 500-year (for Hydraulic Top of Levee [HTOL] comparison), average winter elevation and average summer elevation. The effects of climate change were considered and accounted for.

To evaluate underseepage conditions, WSAFCA calculated the average exit gradients for each cross-section under steady-state conditions at Design Water Surface Elevation (DWSE) and HTOL water levels.

WSAFCA evaluated the slope stability of each cross-section under steady-state conditions at DWSE and HTOL water levels, and under rapid drawdown loading conditions. For adjacent and setback levee improvement measures, WSAFCA also evaluated the end of construction slope stability at both the summer and winter WSE.

10.2 Hydrology and Hydraulics Analysis

WSAFCA performed hydraulic analysis to determine the DWSE and HTOL, as specified in the DWR Urban Levee Design Criteria (ULDC) dated May 2012. Both a 1-D (HEC-RAS) and 2-D (RMA2) model were used in the development of design water surfaces.

Hydrology was based on three storm centerings found to have the most impact on the flood protection system in the vicinity of the Southport Project: (1) Sacramento River main stem at Latitude of Sacramento, (2) Feather River at Shanghai Bend; and (3) American River. The hydrology includes the effect of the Folsom Joint Federal Project (JFP), which is currently under construction, on the releases from Folsom Dam on the American River.

The DWSE is defined in the ULDC as the 200-year water level. The HTOL is defined as the lower of the median 200-year water surface elevation plus 3 feet or the median 500-year water surface elevation. Median water surface elevation, as defined in the ULDC, means the best estimate for the stage associated with the median flow for a given frequency. The ULDC specifies that hydraulic modeling to determine the DWSE and HTOL must assume the following:

Upstream, downstream, and nearby levees and floodwalls protecting urban areas
are assumed to be raised to the median 200-year water surface elevation plus 3
feet and not allowed to breach, even if overtopped. Overtopping flows are
assumed to leave the channel and remain in the 200-year floodplain.

- All project levees and floodwalls are to be modeled to incorporate a minimum crown elevation equal to the authorized (usually the 1955/1957) USACE design profiles this affects nonurbanized areas for the most part all such levees and floodwalls are to be allowed to overtop, act as weirs, and not breach for floods up to and including the median 500-year flood. Overtopping flows are assumed to leave the channel and remain in the 200-year floodplain.
- Non-project levees and floodwalls in nonurbanized areas in the region, to the
 extent they may affect the DWSE, are to be modeled at their existing or
 authorized height, whichever is higher, and to act as weirs without breaching
 if overtopped.
- Debris loading on bridges must be considered. Bridges with less than 3 feet of
 clearance above the DWSE may experience extraordinary debris loading that
 must be evaluated in addition to typical pier/bent debris loading. The evaluation
 should include historic and potential debris transport in the stream, an analysis
 of loading on the bridge, and analysis of backwater impacts on the DWSE in the
 vicinity of the bridge.

The 200-year water surface is a composite made up of the greater of the 200-year water surface elevations computed by the 1-D and 2-D Models. The 200-year composite water surface elevations are the unadjusted design water surface elevations, per the ULDC.

The HTOL is the lower of the 200-year water surface elevation plus 3 feet or the 500-year water surface elevation. As specified in the ULDC, the HTOL needs to be adjusted for superelevation. The superelevation adjustments computed with the 500-year event were applied to the HTOL.

10.3 Risk and Uncertainty Analysis

WSAFCA's consultants performed a conditional risk analysis to determine the impacts of the WSLIP, and Southport, by computing the conditional annual exceedance probability (C-AEP) and "conditional" conditional non-exceedance probability, or conditional assurance (C-A). These annual exceedance values are conditions on two factors: one, only a Sacramento River at latitude Sacramento storm centering is used; and two, levee overtop but do not fail. WSAFCA's consultant used procedures from the June 2009, HEC report to perform the analysis. Additionally, WSAFCA consulted with the Sacramento District to refine procedural details for this specific project.

Two scenarios were used to assess the potential impacts of the WSLIP: without WLSIP, or baseline condition, and the with-WSLIP, or with project condition. All scenarios include the Folsom Dam JFP and Common Features Project as incorporated by the USACE for the Common Features GRR hydraulic analysis.

The results from the analysis indicate no impact, or a beneficial impact, at ten of twelve index points. Negative changes occurred at two index points as presented in Table 4. The change at RM 38.75 is appreciable because at the target stage, there is no appreciable difference in the input functions for the with- and without WSLIP scenarios. RM 58.75 shows an increase of 0.0009 in the C-AEP value as a result of the project. For this index point, no appreciable difference in the flow-frequency curve or the inflow-outflow relationship is seen. However, the stage-outflow transform shows a difference between the with- and without- WSLIP scenarios

Table 4. Increases in C-AEP Values

Index Point	C-AEP Without WSLIP	C-AEP With WSLIP	Change in C-AEP
Sacramento River RM 53.75	0.0101	0.0110	0.0009
Sacramento River	0.0183	0.0185	0.0002
RM 38.75	0.0183	0.0185	0.0002

Increases in C-A as a result of the WSLIP occur during the 0.01, 0.004, and 0.002 events. Increases in C-A ranged from 0.0001 to 0.0023, 0.0002 to 0.0060, and 0.0004 to 0.0098, respectively.

More information regarding the risk and uncertainty analysis may be located in the Conditional Risk Analysis for West Sacramento Levee Improvement Project [MBK to insert complete title and date upon finalization.].

10.4 Levee Vegetation Management

The Southport Project will be compliant with the current USACE vegetation standards.

11 Real Estate

The Southport Project will require both temporary and permanent real estate interests for levee construction, subsequent operation and maintenance, and construction of Village Parkway that replaces South River Road, which is currently located on top of the levee. WSAFCA will acquire fee title to the areas required for the levee improvement facilities, the offset areas, and Village Parkway. Temporary construction easements will be acquired for the areas required for haul routes and staging areas. Permanent easements will be acquired as needed for road and private property access, drainage facilities, and access to the Sacramento River and marinas.

The below table provides a list of adjacent properties to the Southport Project. WSAFCA anticipates permanent acquisition of rights at most of these properties. Plates 7 through 14 provide the parcel locations of the properties.

Table 5. Southport Adjacent Properties

Key	PARCEL NO	SEGMENT	ACRES	OWNER
1	46010011000	G	81.57	REDEVELOPMENT AGENCY OF W SAC
1	46010014000	G	6.82	MCCRAY SURV TRUST
1	46010044000	G	7.71	WEST SACRAMENTO CITY OF
1	46010052000	G	5.08	LAUDENSCHLAGER TRUST ETAL
1	46030016000	F	20.21	SEECON FINANCIAL & CONST CO INC
1	46030028000	F	57.42	SEECON FINANCIAL & CONST CO INC
1	46030029000	F	21.55	SEECON FINANCIAL & CONST CO INC
1 + 2	46030004000	F	24.89	YOKOYAMA AYA IRREV LIV TRUST
2	46030007000	F	5.12	LUTHRA FAM TRUST
2	46030008000	F	3.04	SAENZ SONIA
1 + 2	46030015000	F	20.86	SEECON FINANCIAL & CONST CO INC
2	46030023000	F	6.87	FORECAST LAND INVESTMENT LLC
2	46040004000	F	0.85	AVILA NICOLE & JEFFREY
2	46040006000	F	7.64	SOUTH RIVER LLC
2	46040008000	F	3.78	BARKER WILLIAM J & CAROL L
2	46040011000	F	8.17	COAST CAPITAL INCOME FUND LLC
2	46050022000	F	3.76	SACRAMENTO YACHT CLUB INC
2	46050044000	F	0.91	PUUMALA JOHN P & ERICA N
2	46050045000	F	0.94	ARKHANGELSKIY ALEX
2	46050046000	F	0.97	LEWIS ANDREW SCOTT & LAURA ANN
2	46050047000	F	1.79	BAXTER DANIEL & ANTIONETTE
3	46050017000	E	19.97	WASHINGTON UNIFIED SCHOOL DISTRICT
2 + 3	46050033000	E	214.86	PAIK FAM TRUST ETAL
3	46100005000	D	16.60	DOWNEY REV TRUST ETAL
3 + 4	46100007000	D	10.62	DOWNEY SHARON EVELYN & RISSO MICHAEL JOHN
3 + 4	46100008000	С	0.34	WEST SACRAMENTO CITY OF
3	46100013000	D	24.86	FENOCCHIO REV TRUST ETAL
3	46100014000	E	4.07	FENOCCHIO REV TRUST
4 + 5	46260006000	С	37.25	KUBO FAM TRUST
4	46260013000	С	7.67	SUN M CAPITAL LLC

Key	PARCEL NO	SEGMENT	ACRES	OWNER
4	46260014000	С	58.78	SUN M CAPITAL LLC
4 + 5	46270029000	С	124.79	SUN M CAPITAL LLC
3 + 4	46270034000	С	4.50	FREEMAN ISAAC B & FREEMAN ISAAC B & 1999 REV TR
3 + 4	46270035000	С	55.56	SUN M CAPITAL LLC
5	46250005000	В	1.02	SACTO & SAN JOAQUIN DRN DIST
5	46250007000	В	0.10	WALTON BEVERLY ETAL
5	46250011000	В	4.97	ARUNTAKASEM VICHAI
5	46250013000	В	4.95	PALAMIDESSI MARY E & PAUL J
5	46250014000	В	3.79	VENDLEY SCOTT & KATHRYN
5	46250016000	В	13.09	SUN M CAPITAL LLC
5	46250017000	В	42.24	RODGERS 2007 REV TRUST ETAL
5	46250018000	В	3.66	RODGERS SCOTT STEVEN ETAL
5	46260001000	В	24.68	SUN M CAPITAL LLC
4 + 5	46260003000	С	44.30	SUN M CAPITAL LLC
4 + 5	46260005000	С	23.16	SUN M CAPITAL LLC
5	46260008000	С	2.15	RECLAMATION DISTRICT #900
5	46260015000	В	3.38	RMD MIRAGE VENTURES LLC
5	46260016000	В	8.33	RODGERS ALBERT W SUCC & HENDERSON PATTI L SUCC TR
6	46230014000	В	8.01	ELAH INVESTMENT PARTNERS LLC
6	46230015000	В	0.39	CHARLES CRUZ R & DARLENE J
6	46230016000	В	1.12	KUBO RICHARD T & ANNE F TR
6	46230027000	В	0.97	SACTO & SAN JOAQUIN DRN DIST
6	46230028000	В	0.84	SACTO & SAN JOAQUIN DRN DIST
6	46230031000	В	0.55	SACTO & SAN JOAQUIN DRN DIST
6	46230032000	В	7.69	KUBO RICHARD T & ANNE F TR
6	46230033000	В	1.00	SACTO & SAN JOAQUIN DRN DIST
6	46230036000	В	30.20	RODGERS ALBERT W TR ETAL
6 + 7	46230038000	Α	10.51	4560 S RIVER ROAD LLC
6 + 7	46230039000	В	0.14	PACHECO LUCILLE MARIE
6	46230045000	Α	2.67	ENOS WALLACE E & ROBIN A
6	46230048000	В	6.86	YOKOYAMA FAM TRUST
6	46230050000	В	5.02	CULBRETH BRET & ANNESLEY TERRY CATHERINE
6	46230052000	В	14.94	CALFEE & KONWINSKI PROF CORP PROFIT SHARING PLAN
5 + 6	46230053000	В	3.21	MCDONALD KIM J & MCDONALD KIM J & TRUST

Key	PARCEL NO	SEGMENT	ACRES	OWNER
6	46230056000	В	14.00	RODGERS REV 2007 TRUST
6	46230057000	В	1.08	LACOMB THAMARAH ANN
7	44020003000	А	10.31	SACRAMENTO REG CO SANIT DIST
7	44020016000	А	1.46	SACRAMENTO REG CO SANIT DIST
7	46210015000	А	5.13	MILLER CHRISTOPHER L & DAWN D
7	46210016000	А	0.13	MILLER CHRISTOPHER L & DAWN D
7	46210019000	А	4.05	VINCES PTNSHPS LP
7	46210004000	А	30.13	ANDERSON GARY L
7	46210005000	А	30.34	TAKEUCHI BEN TR ETAL
7	46210009000	А	42.32	POWELL TERESA A ETAL
7	46210011000	Α	4.77	DAVIS PAUL O & LINDA N & DAVIS 1994 REV TRUST
7	46210017000	Α	0.02	RECLAMATION DISTRICT #900
6 + 7	46220013000	Α	20.35	MARSHALL-ISHII 2003 REV TRUST ETAL
6 + 7	46220014000	А	20.62	CONLEY KENNETH R & NANCY M
6 + 7	46220015000	Α	17.20	SHERGILL HARDEV S TR ETAL
6 + 7	46220016000	Α	17.65	BRAR SHABNAM SINGH ETAL
7	46220018000	Α	4.01	VIERRA ANDREW JOSEPH
6 + 7	46230013000	Α	0.29	4560 S RIVER ROAD LLC

Note: Plate 7 provides a real estate key for locating parcels.

For residential properties where WSAFCA anticipates acquiring fee title, WSAFCA will comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 916456 for eligible owners and/or tenants. A comprehensive Relocation Plan shall be developed to address the needs of displaced owners and tenants and will be augmented with the specific information about each displacee.

12 Safety Assurance Review

WSAFCA has and will continue to implement its Safety Assurance Review (SAR) Plan. SAR reports may be found on the WSAFCA webpage under Documents, Reports & Resources at http://www.cityofwestsacramento.org/city/flood/default.asp.

13 Public Interest Determination

As presented in 33 Code of Federal Regulations (CFR) §320.4, the USACE's decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluating the probable impact which the proposed activity may have on the public interest

requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal are therefore determined by the outcome of this general balancing process and should reflect the national concern for both protection and utilization of important resources.

The Southport Project EIS/EIR analyzes a number of factors relevant to the public interest review. These factors include, but are not limited to, socioeconomics, aesthetics, wetlands, historic properties, fish and wildlife, flooding and floodplain values, land use, mineral needs, water quality, energy needs, safety, agriculture, and growth-inducement.

- 1 . The relative extent of the public and private need for the proposed work has been considered. The Proposed Action is needed to provide flood protection for the City, including existing residents and public facilities. The project will also allow public and private entities to continue to construct public, residential, and commercial developments in the area.
- 2. The practicability of using reasonable alternative locations and/or methods to accomplish the objective of the proposed structure or work has been evaluated. Several alternatives have been reviewed as part of the USACE regulatory process, including practicable alternatives in the EIS/EIR. Based on WSAFCA's exhaustive review using a number of criteria disclosed in the EIS/EIR, the proposed project is the preferred alternate considering environmental, engineering, and community factors. USACE is currently processing its decision for the least environmentally damaging practicable alternative although preliminary indications are that the proposed project is the least environmentally damaging practicable alternative.
- 3. The extent and permanence of the beneficial and/or detrimental effects that the proposed structures or work may have on the public and private uses for which the area is suited has been reviewed. The areas to be permanently impacted within the direct project footprint are presently, predominantly agricultural land, most of which has been fallow for several years. The adopted city planning documents propose the larger planning area to be developed mostly as single-family residences. The Proposed Action will result in a permanent change within the direct project footprint where the levee will be constructed, in the adjacent levee alignment, canals and ditches, and in certain borrow areas. However, some borrow areas will be returned to agricultural use. Moreover, the Proposed Action is planned to protect existing and future uses in the Southport area and the City as a whole from potentially catastrophic flooding, which could cause significant adverse impacts to natural resources, public infrastructure, private property and structures, and human life and safety.

14 Administrative Record

The administrative record includes everything the agency has considered in reaching a decision regarding this proposed action. WSAFCA and its consultants continue to compile an administrative record. In addition, references in the Southport EIS/EIR and the Design Documentation Report, which are both part of the administrative record, provide a thorough list of documents informing the environmental and design efforts.

15 Technical Support Documents

The following documents were used in development of this report:

- 1) Southport Sacramento River Early Implementation Project Environmental Impact Statement/Environmental Impact Report (ICF, [NOTE: MBK to Insert date upon completion])
- 2) Southport Sacramento River Early Implementation Project 65% Design Documentation Report (HDR, January 2013)
- 3) Hydraulic Impact Analysis for the Southport Sacramento River Early Implementation Project Environmental Impact Statement/Environmental Impact Report (MBK Engineers, March 1, 2013)
- 4) Conditional Risk Analysis for West Sacramento Levee Improvement Project, (David Ford Consulting Engineers, March 2013)

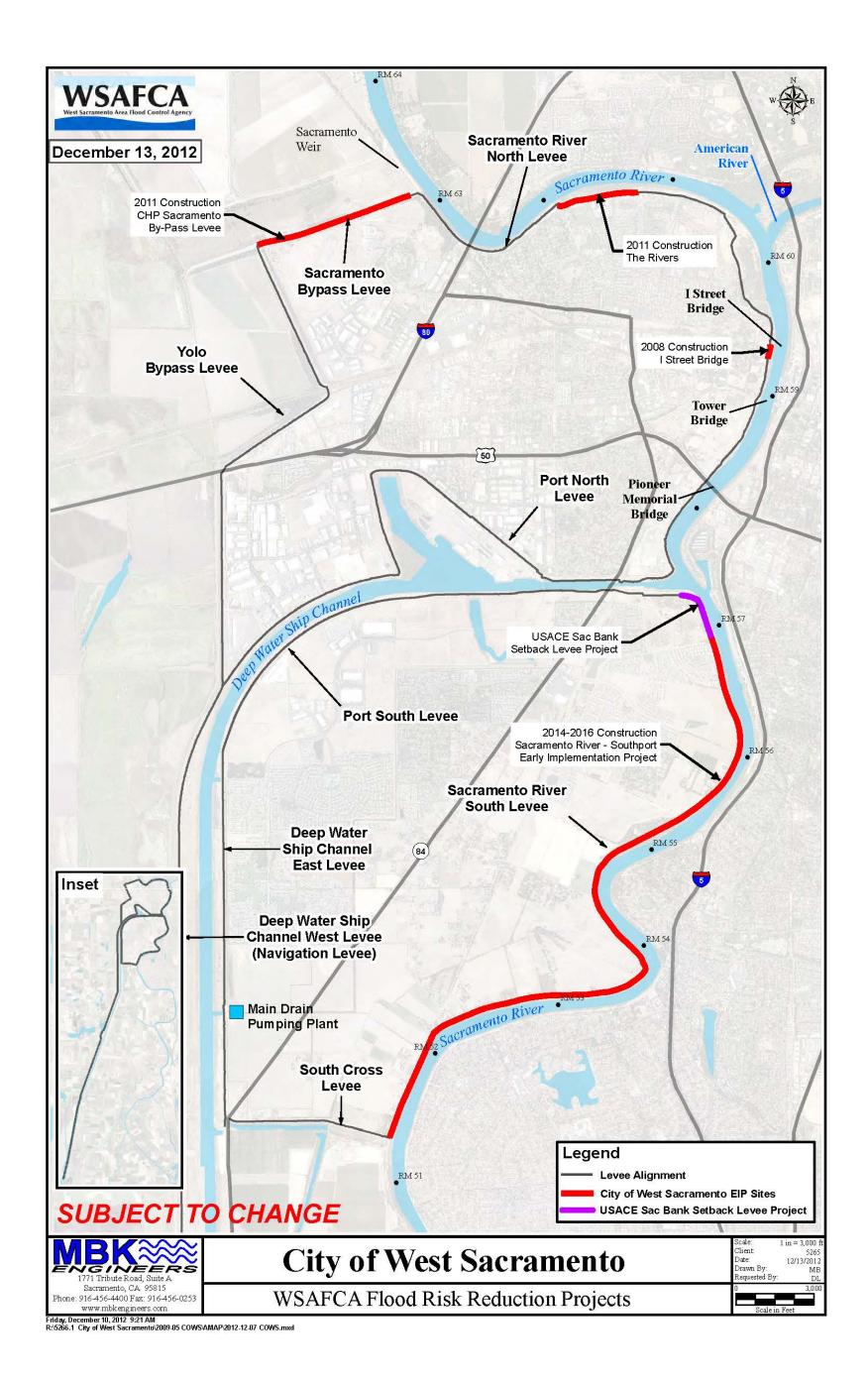


Plate 2. Southport Project Segments

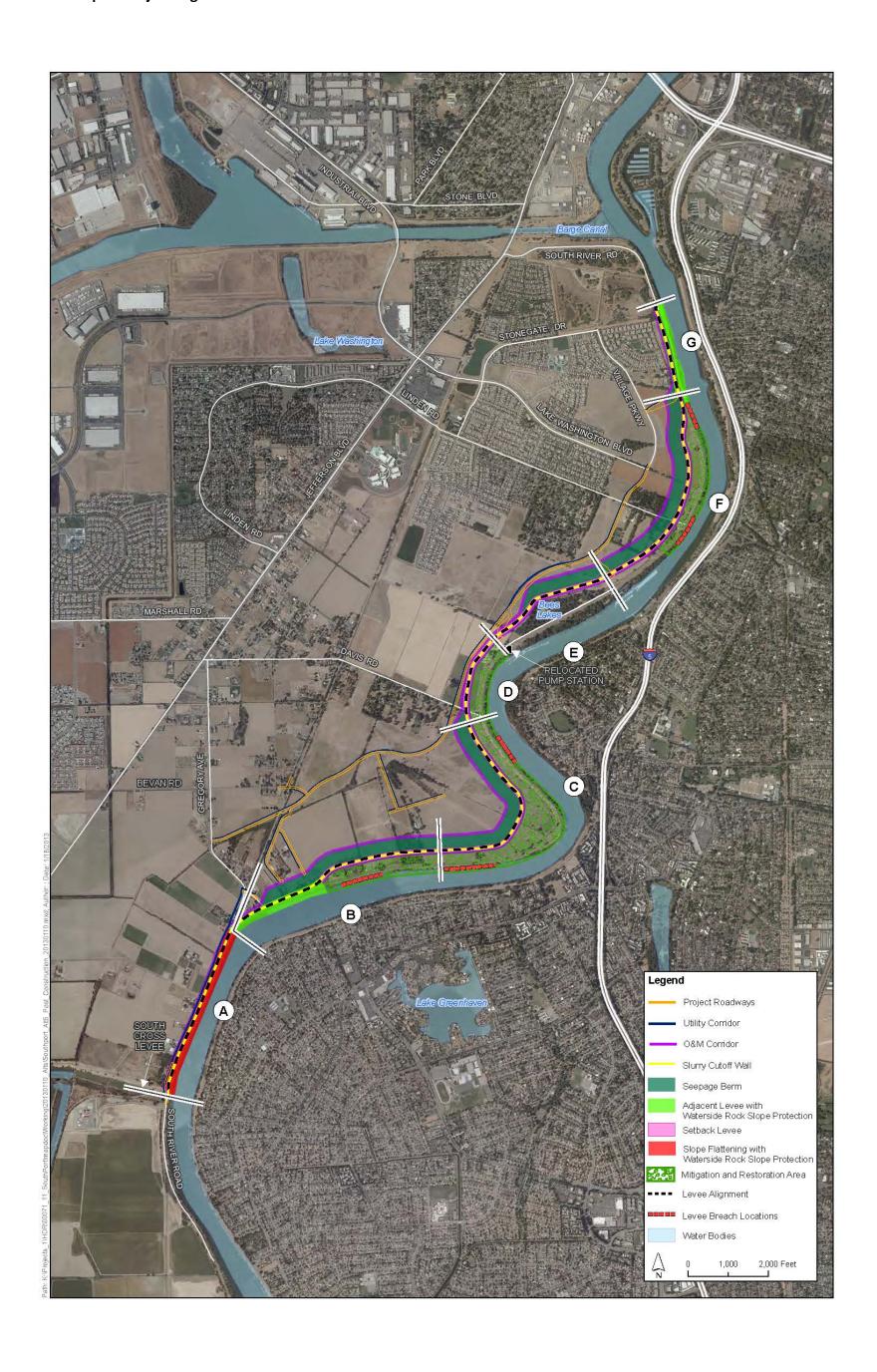
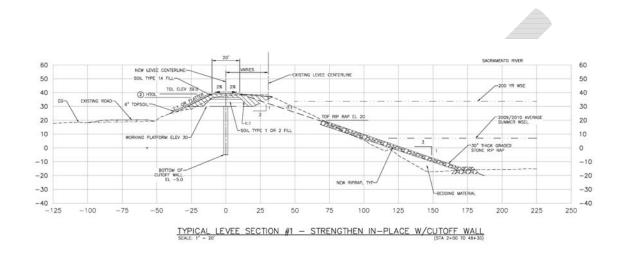
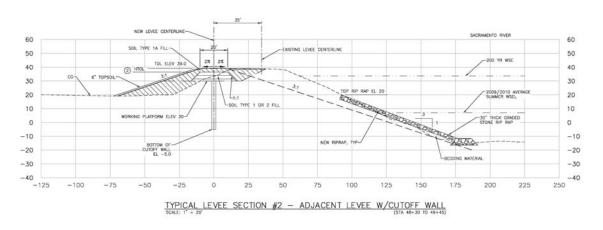


Plate 3. Typical Levee Sections 1 and 2





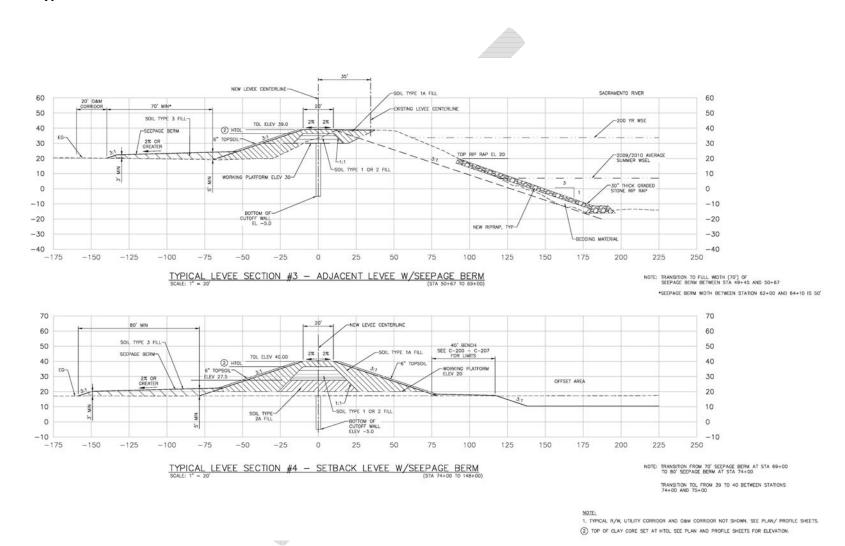
LEVEE IMPROVEMENTS TABLE			
TYPICAL LEVEE SECTION	IMPROVEMENT	STATION RANGE	
1	STRENGTHEN IN-PLACE W/CUTOFF WALL	2+00 TO 48+30	
2	ADJACENT LEVEE W/CUTOFF WALL	48+30 TO 49+45	
-1	TRANSITION	49+45 TO 50+67	
3	ADJACENT LEVEE W/SEEPAGE BERM	50+67 TD 69+00	
51	TRANSITION	69+00 TO 74+00	
43	SETBACK LEVEE W/SEEPAGE BERW	74+00 TO 148+00	
×.	TRANSITION	148+00 TO 148+80	
5	SETBACK LEVEE W/CUTOFF WALL	148+80 TO 188+00	
51	TRANSITION	188+00 TO 189+00	
6	SETBACK LEVEE W/SEEPAGE BERM	189+00 TO 206+00	
-	TRANSITION	206+00 TO 206+20	
7	SETBACK LEVEE W/SEEPAGE BERM	206+20 TO 266+00	
-	TRANSITION	266+00 TO 266+8	
8	ADJACENT LEVEE W/CUTOFF WALL	266+80 TO 293+20	

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1. TYPICAL R/W, UTILITY CORRIDOR AND DAM CORRIDOR NOT SHOWN, SEE PLAN/ PROFILE SHEETS.

2 TOP OF CLAY CORE SET AT HTOL SEE PLAN AND PROFILE SHEETS FOR ELEVATION.

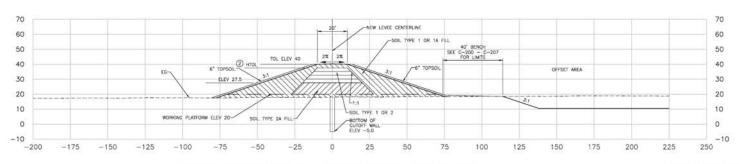
Plate 4. Typical Levee Sections 3 and 4



West Sacramento Area Flood Control Agency West Sacramento Levee Improvement Program, Southport Project Section 408 Project Summary Report

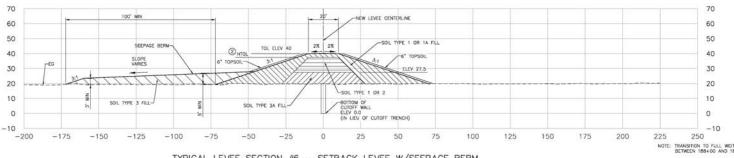
Plate 5. Typical Levee Sections 5 and 6





TYPICAL LEVEE SECTION #5 - SETBACK LEVEE W/CUTOFF WALL
SCALE: 1" - 20" (STA 148+80) TO 188+00)

NOTE: TRANSITION FROM BO' SEEPAGE BERM AT STA 148+80



TYPICAL LEVEE SECTION #6 — SETBACK LEVEE W/SEEPAGE BERM (STA 189+00 TO 2004-00)



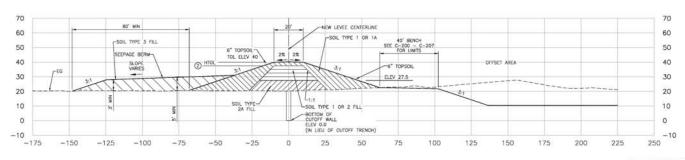
NOTE:

1. TYPICAL R/W, UTILITY CORRIDOR AND DAM CORRIDOR NOT SHOWN. SEE PLAN/ PROFILE SHEETS.

2 TOP OF CLAY CORE SET AT HTOL SEE PLAN AND PROFILE SHEETS FOR ELEVATION.

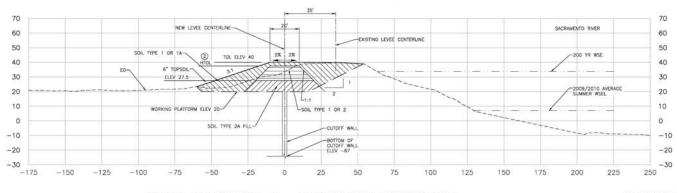
Plate 6. Typical Levee Sections 7 and 8







OTE: TRANSITION FROM 100' SEEPAGE BERM AT STA 206+00 TO 80' SEEPAGE BERM AT STA 206+20



TYPICAL LEVEE SECTION #8 — ADJACENT LEVEE W/CUTOFF WALL (STA 268+80 TO 293+220

NOTE: TRANSITION FROM 80' SEEPAGE BERM AT STA 266+00 TO NO SEEPAGE BERM AT STA 266+80

NOTE:

1. TYPICAL R/W, UTILITY CORRIDOR AND OWN CORRIDOR NOT SHOWN, SEE PLAN/ PROFILE SHEETS.

② TOP OF CLAY CORE SET AT HTGL SEE PLAN AND PROFILE SHEETS FOR ELEVATION.

Plate 7. Adjacent Properties to the Southport Project – Real Estate Section Key

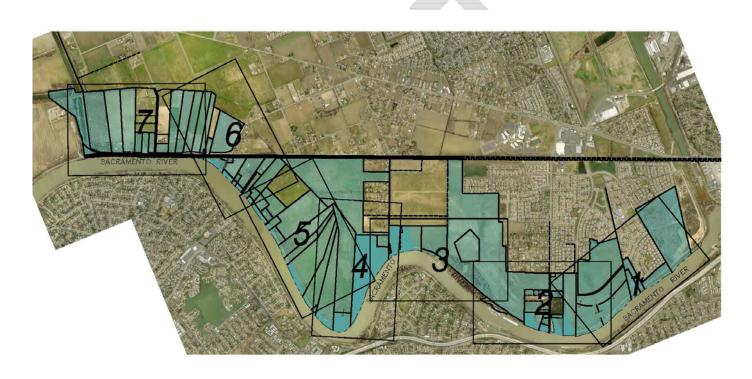






Plate 8. Adjacent Properties to the Southport Project – Real Estate 1

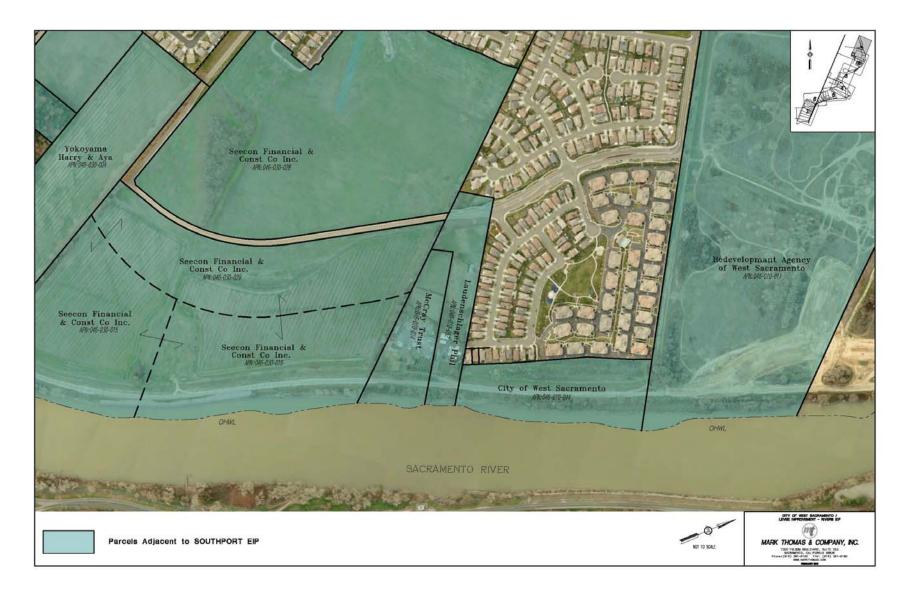


Plate 9. Adjacent Properties to the Southport Project – Real Estate 2



Plate 10. Adjacent Properties to the Southport Project – Real Estate 3

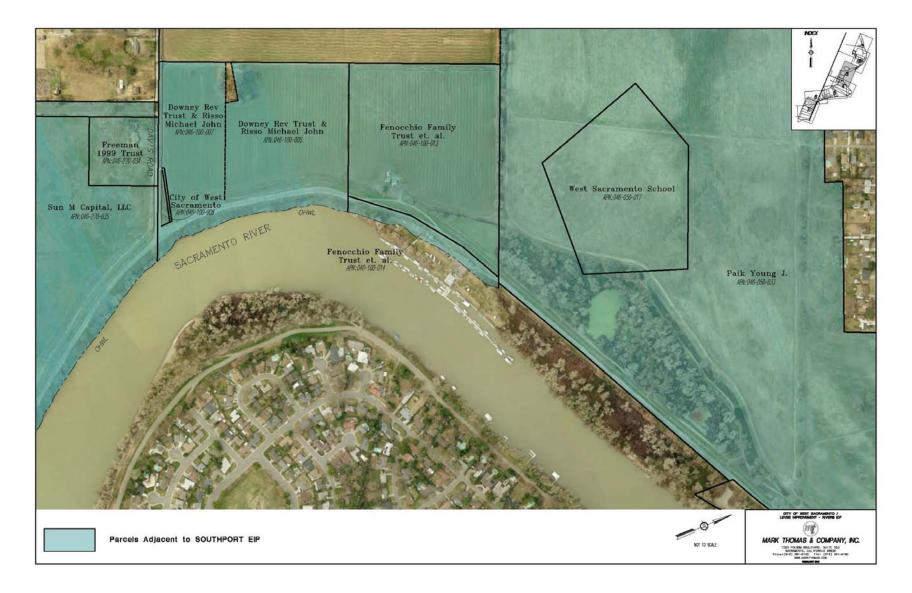


Plate 11. Adjacent Properties to the Southport Project – Real Estate 4

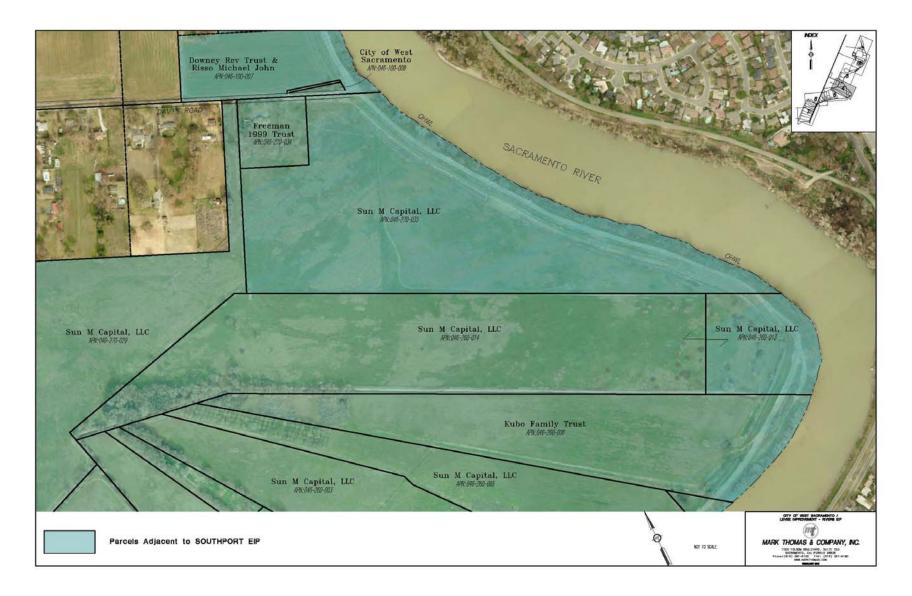


Plate 12. Adjacent Properties to the Southport Project – Real Estate 5

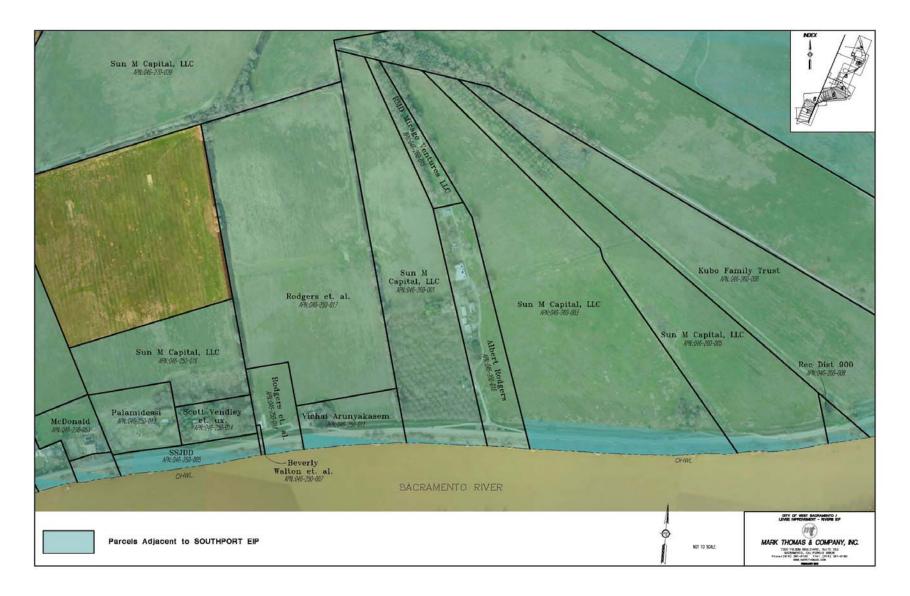


Plate 13. Adjacent Properties to the Southport Project – Real Estate 6

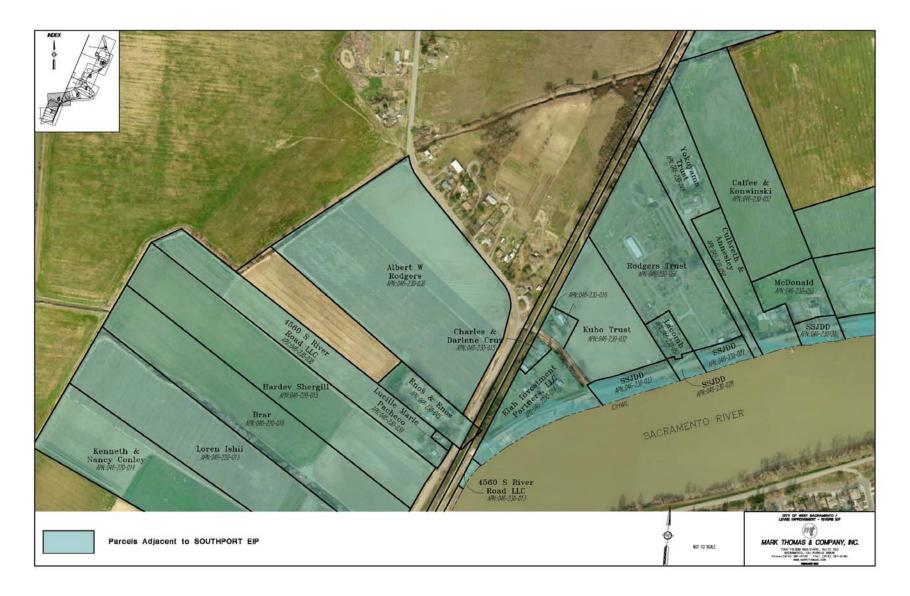
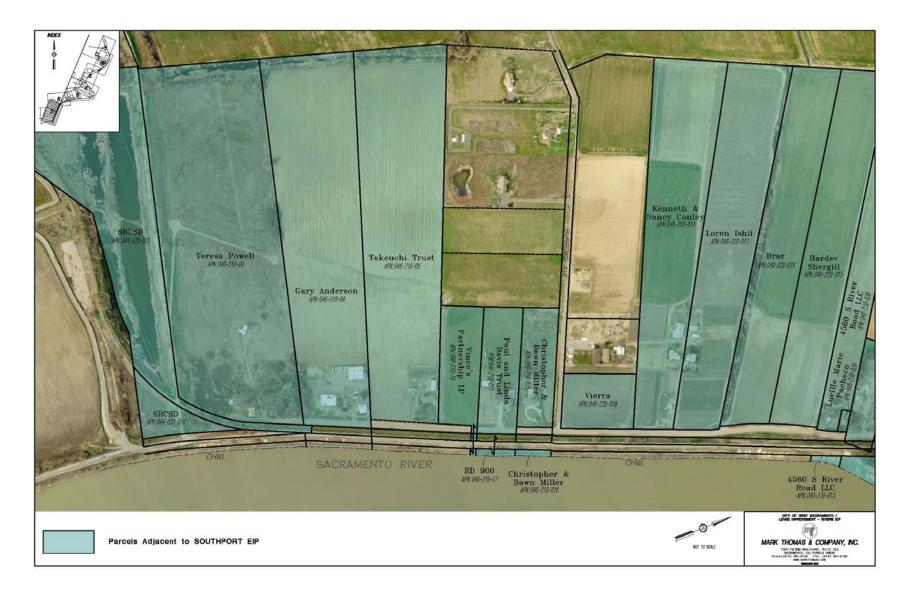


Plate 14. Adjacent Properties to the Southport Project – Real Estate 7



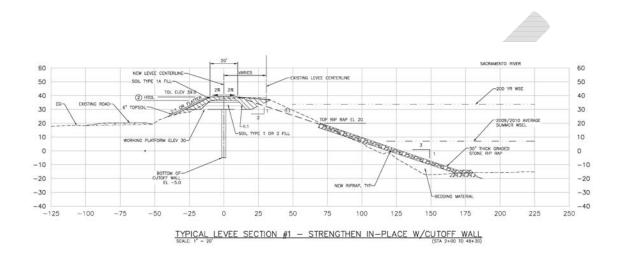
Pre-Project Levee Conditions by Segment

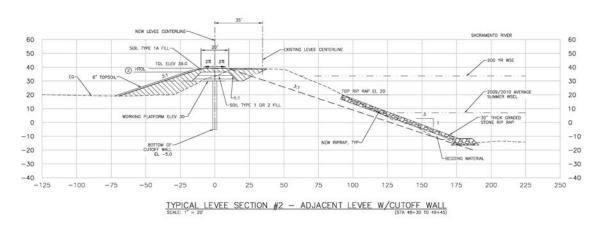
Segment	Conditions	
А	Stability berm with internal drain, waterside slumps, and pin-boils adjacent to	
	the landside levee toe	
В	Drained stability berm, waterside slides and slope erosion, and significant	
	landside seepage	
С	Drained stability berm, seepage berm, an earth ditch approximately 20 feet	
	from the landside levee toe, observed waterside slides, slope erosion, and	
	seepage boils	
D	Drained stability berm, an earth ditch approximately 20 feet from the landside	
	levee toe, landside erosion, and seepage boils	
Е	Drained stability berm, an earth ditch adjacent to the landside levee toe,	
	North and South Bees Lakes which are expected to be the location of a	
	previous levee break before 1911, and seepage boils	
F	Drained stability berm, an unlined ditch adjacent to the landside levee toe,	
	another unlined ditch approximately 20 feet from the landside levee toe,	
	observed waterside slides, slope erosion, and seepage boils	
G	Drained stability berm, an unlined ditch approximately 20 feet from the	
	landside levee toe, observed waterside slides, and slope erosion	

Project Flood Risk Reduction Measures

Segment	Measures	
Α	Strengthen-in-place measures which could include waterside slope flattening, slurry	
	cutoff wall, and rock slope protection	
В	Adjacent levee, slurry cutoff wall, and rock slope protection	
	Adjacent levee, slurry cutoff wall, landside seepage berm, and rock slope protection	
	Setback levee, slurry cutoff wall, and landside seepage berm	
С	Setback levee, slurry cutoff wall, and landside seepage berm	
D	Setback levee and slurry cutoff wall	
E	Setback levee, slurry cutoff wall, and landside seepage berm	
F	Setback levee, slurry cutoff wall, and landside seepage berm	
G	Adjacent levee, slurry cutoff wall, and rock slope protection	

Plate 3. Typical Levee Sections 1 and 2





LEVEE IMPROVEMENTS TABLE		
TYPICAL LEVEE SECTION	IMPROVEMENT	STATION RANGE
1	STRENGTHEN IN-PLACE W/CUTOFF WALL	2+00 TO 48+30
2	ADJACENT LEVEE W/CUTOFF WALL	48+30 TO 49+45
-	TRANSITION	49+45 TO 50+67
3	ADJACENT LEVEE W/SEEPAGE BERM	50+67 TO 69+00
51	TRANSITION	69+00 TO 74+00
43	SETBACK LEVEE W/SEEPAGE BERM	74+00 TO 148+00
×.	TRANSITION	148+00 TO 148+80
5	SETBACK LEVEE W/CUTOFF WALL	148+80 TO 188+00
51	TRANSITION	188+00 TO 189+00
6	SETBACK LEVEE W/SEEPAGE BERM	189+00 TO 206+00
-1	TRANSITION	206+00 TO 206+2
7	SETBACK LEVEE W/SEEPAGE BERM	206+20 TO 266+0
7	TRANSITION	266+00 TO 266+8
8.	ADJACENT LEVEE W/CUTOFF WALL	266+80 TO 293+2

....

1. TYPICAL R/W, UTILITY CORRIDOR AND DAM CORRIDOR NOT SHOWN, SEE PLAN/ PROFILE SHEETS.

2 TOP OF CLAY CORE SET AT HTOL SEE PLAN AND PROFILE SHEETS FOR ELEVATION.

Plate 4. Typical Levee Sections 3 and 4

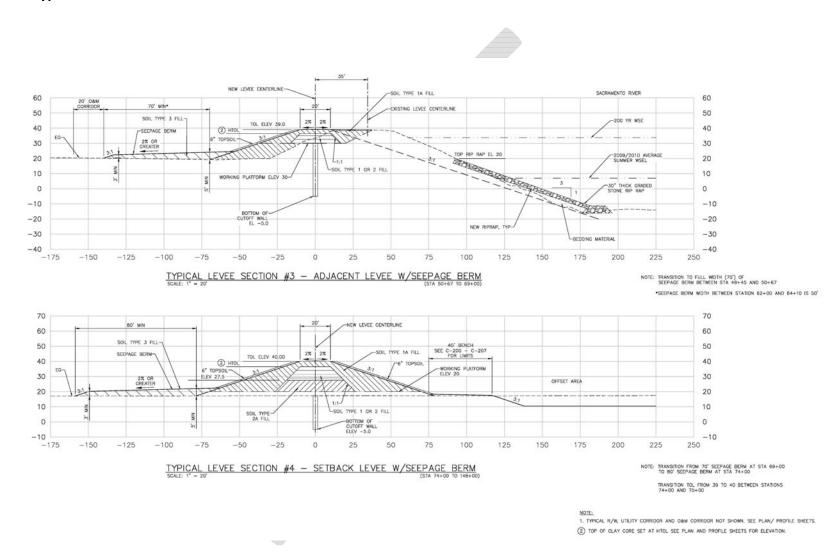
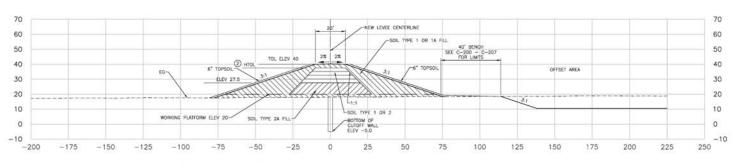


Plate 5. Typical Levee Sections 5 and 6

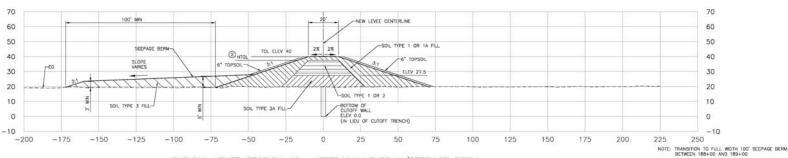




TYPICAL LEVEE SECTION #5 - SETBACK LEVEE W/CUTOFF WALL
SCALE: 1" - 20"

(STA 148+80 TO 188+00)

NOTE: TRANSITION FROM BO' SEEPAGE BERM AT STA 148+80



TYPICAL LEVEE SECTION #6 - SETBACK LEVEE W/SEEPAGE BERM



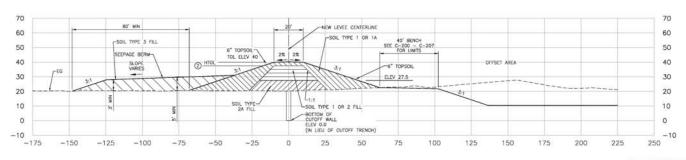
1. TYPICAL R/W, UTILITY CORRIDOR AND DAM CORRIDOR NOT SHOWN. SEE PLAN/ PROFILE SHEETS.

2 TOP OF CLAY CORE SET AT HTOL SEE PLAN AND PROFILE SHEETS FOR ELEVATION.



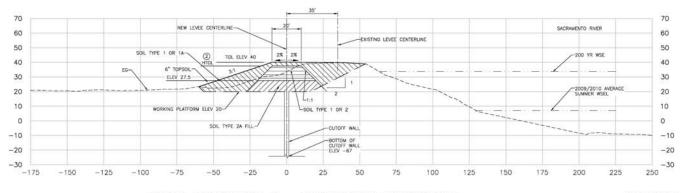
Plate 6. Typical Levee Sections 7 and 8











TYPICAL LEVEE SECTION #8 - ADJACENT LEVEE W/CUTOFF WALL SCALE: 1° = 20° (STA 266+80 TO 263+20)

NOTE: TRANSITION FROM 80' SEEPAGE BERM AT STA 266+00 TO NO SEEPAGE BERM AT STA 266+80

NOTE:

1. TYPICAL R/W, UTILITY CORRIDOR AND OWN CORRIDOR NOT SHOWN, SEE PLAN/ PROFILE SHEETS.

② TOP OF CLAY CORE SET AT HTOL SEE PLAN AND PROFILE SHEETS FOR ELEVATION.

Section 408 Project Summary Report

18313-3 WSAFCA Southport Project Milestones

Action	Date Completed / Expected
CVFPB request to USACE to take NEPA lead	July 7, 2011
WSAFCA submittal of Flood System Improvement Project application	April 1, 2013
CVFPB considers 408 Request Letter to USACE	September 13, 2013
Public Review of Draft EIR / EIS	October - November 2013
USACE completes Draft General Reevaluation Report (GRR)	January 2014
WSAFCA adopts Southport Project and certifies Final EIR	Febraury 2014
CVFPB considers Section 221 Credit Request	Febraury 2014
WSAFCA executes Construction Funding Agreement with DWR	Febraury 2014
100% Village Parkway Design	March 2014
CVFPB Construction Permit Evidentiary Hearing	April 2014
100% Levee Improvement Design	June 2014
South River Road relocation	June 2014
Utility relocation	June 2014
Demolition and tree removal	June 2014
USACE Record of Decision / Section 408 Letter of Permission	September 2014
CVFPB Construction Permit Effective	September 2014

Note: Blue font denotes Board Actions and Milestones

F1 - Hydraulic Review

The hydraulic modeling performed evaluates the project as both an individual incremental action, and as a component of a larger cumulative project which accounts for other regional flood control projects (such as the Folsom Dam Modification). When considered as an incremental action, the Southport Project would result in a reduction of water surface elevation (WSE) with isolated exceptions as presented below:

- 100-year: 0.13 feet for 0.13 mile, total where change is above 0.04 feet = 2.01 miles
- 200-year: 0.17 feet for 0.06 mile, total where change is above 0.04 feet = 2.69 miles
- 500-year: 0.27 feet for 0.02 mile, total where change is above 0.04 feet = 3.88 miles

The isolated increases occur near the Pocket area neighborhood in the City of Sacramento. The increase in 200-year WSE of 0.17 feet represents an increase of approximately 1.3 percent in head on the levee. This change in stage does not result in overtopping of the levee and does not detectibly change the likelihood of a geotechnical failure (existing condition probability of failure is a 25-year event). Additionally, the changes in stage in the river channel associated with the Southport Project will not result in a change in the depth of the Pocket floodplain and would not increase damages in the floodplain.

The 1957 design (authorized) flow is 110,000 cfs, which is slightly less than a 25-year event. The 1957 design flow can be passed approximately two feet below the 1957 profile for the reach of the Sacramento River from the American River to Freeport despite the increase in stage resulting from the proposed project. The 1957 flow will remain significantly below the 1957 design profile.

In its cumulative analysis WSAFCA considered the federally authorized Folsom Dam Joint Federal Project (JFP), and the Folsom Dam Raise Project in addition to with the Southport Project. Collectively these improvements will reduce flood stages for the 200-year event in the Lower Sacramento River by approximately 1.2 feet.

While the computed increases in WSE near the Pocket area may ordinarily be considered less than significant, there is concern about allowing any change in stage that affects an urban levee that is known to be at high risk of failure. To address this concern, construction phasing has been proposed to schedule construction of the Southport levee breaches with construction of the Pocket levee improvements to minimize the interim flood risk. WSAFCA is currently modeling the interim condition incorporating a phased construction approach to determine the changes in water surface elevations. The computed WSE increases are anticipated to be reduced.

However, should the modeling indicate otherwise, the USACE Sacramento District and WSAFCA will work together to refine the design to ensure impacts are less than significant.

MBK Engineers (MBK) has performed a hydraulic analysis to develop relationships to be used in a risk impact analysis of the proposed levee setback. The levee setback configuration evaluated herein is based on the 65 percent Design Submittal. MBK utilized both a one-dimensional hydraulic model (1-D Model) and a two-dimensional hydraulic model (2-D Model) for their analysis. The 2-D model assisted in the refinement of the 1-D model.

Based on the submitted Hydraulic Analysis report in Support of Conditional Risk Analysis, the maximum increase in WSE between with and without project for the 200-year event is 0.17 feet. This increase is for a short reach in the Pocket area as mentioned previously. WSAFCA has coordinated this increase in WSE with the Sacramento Flood Control Agency (SAFCA) to ensure that improvements being considered for the Pocket levee take this change in WSE into account.

Board staff finds that the proposed Southport Project, with or without phased breaching, is expected to pose no significant adverse hydraulic risk to the SRFCP based upon the information provided.

F1.1 – Hydraulic Issues that May Need Additional Evaluation

The following list represents design and construction phasing refinements that may need to be addressed prior to a construction permit hearing:

- Hydraulic parameters, such as freeboard, velocity, WSE, should be described and analyzed in further detail as the design is refined.
- Construction phasing and design should be formulated to ensure USACE
 Headquarters can make a finding that potential hydraulic impacts can be
 mitigated and that the action does not significantly transfer flood risk.

F2 - Geotechnical Review

Board staff conducted a preliminary technical review of the geotechnical related documents submitted by WSAFCA.

The scope of WSAFCA's geotechnical analyses for the 65 percent design included performing steady-state seepage analyses to evaluate underseepage; performing steady-state stability analyses to evaluate landside stability; performing rapid drawdown stability analyses to evaluate waterside stability conditions; performing consolidation analysis to estimate settlement and performed seismic vulnerability analyses using liquefaction without deformation analyses.

Underseepage analysis included calculation of the average exit gradients for cross-sections developed within each Segment under steady-state conditions at Design Water Surface Elevation (DWSE) and Hydraulic Top of the Levee (HTOL) water levels. Stability analysis included estimation of the factor of safety for each cross-section under steady-state conditions at DWSE and HTOL water surface elevations, and under rapid drawdown loading conditions. Stability analysis was evaluated for "end of construction" conditions at both the high and low WSE conditions for adjacent and setback levee improvement measures.

Board staff has determined that based on its review of the 65 percent design documents submitted by WSAFCA to date, the proposed project is compliant with CCR 23 Standards, and there are no expected adverse geotechnical effects or required variances to the Standards at this time.

F2.1 – Geotechnical Issues that May Need Additional Evaluation

The following list represents possible issues in the geotechnical analysis that may need to be addressed prior to a permit hearing:

- Zoned embankment: The current levee design is based on the assumption that
 the new levees are constructed of one material. However, the final levee
 embankment design will have zones of varying geometries, material types and
 soil properties. As a result the type and extent of proposed remedial measures
 may also change depending on the final analyses and designs.
- Borrow material: Several uncertainties regarding the properties of ongoing investigations for borrow material remain to be considered.
- Excavations along and in the waterside of levees: According to the USACE
 Engineering and Design Manual the area between the riverside edge of the
 borrow area and the riverbank should have a substantial width (200 feet or more)
 to help prevent migration of the river channel into the borrow area. The current
 proposed borrow areas indicates excavation close to the river edge.
- Rapid drawdown analyses: The factor of safety used for rapid drawdown analyses is an average value and may be refined to meet USACE standards.
- Deformation analysis: A deformation analysis to characterize earthquake-induced settlement has not yet been performed. A post-earthquake stability analysis was conducted and indicates potential significant deformation. Further evaluation may be needed.



1331 N. California Blvd. Fifth Floor Walnut Creek, CA 94596

T 925 935 9400 F 925 933 4126 www.msrlegal.com

Wilson F. Wendt wilson.wendt@msrlegal.com

August 2, 2013

VIA FEDERAL EXPRESS AND EMAIL (NMORICZS@WATER.CA.GOV)

Central Valley Flood Protection Board 3310 El Camino Avenue, Room 151 Sacramento, CA 95821

Attn: Nancy Moricz

Re: I

PROTEST; Protest and Demand for Evidentiary Hearing for Application of the West Sacramento Area Flood Control Agency Southport Project, Flood System Improvement Permit; Demand for Extension of Comment Period

Ladies and Gentlemen:

Our office represents Forecast Land Investment LLC and Seecon Financial and Construction Co. Inc., (collectively referred to as "Seecon") the largest of the landowners in Segment F of the proposed Southport Early Implementation Project (the "Project") which is the subject of the West Sacramento Area Flood Control Agency ("WSAFCA") application for a flood system improvement permit (the "Permit") from the Central Valley Flood Protection Board ("Board"). Our clients received notice from the Board dated July 17, 2013 (the "Notice") of the receipt of the application (the "Application"). The purpose of this letter is to PROTEST the issuance of a permit pursuant to the Application and to request the Board to hold an evidentiary hearing, at which time Seecon will be able to present additional evidence requiring that the requested Permit be denied until the Project is brought into conformity with applicable law. We also demand that the Board extend the comment period to allow additional comment beyond the 20-day period stipulated in the Notice because Board staff has not made available to the public a copy of the Application, without which, thorough, adequate, and intelligent comment cannot be formulated. Our office contacted Nancy Moricz, stated in the Notice to be the party to contact for information, and Eric Butler of the Board staff. We received information from their assistant that both of them were on vacation and that she was not able to provide us with a copy of the Application. We also examined the Board's website and the Application was not posted on the website. It is essential that we be able to review a copy of the Application so that we can comment intelligently. Therefore, WE DEMAND YOU EXTEND THE COMMENT PERIOD FOR A PERIOD OF 20 DAYS AFTER YOU HAVE PROVIDED US A COPY OF THE APPLICATION.

We have closely reviewed the procedure for issuance of a permit from the Board as set out in California Water Code §§ 8700 to 8723 and in California Code of Regulations Title 23 Division 1 Article 3. This article sets forth the requirement for a permit from the Board prior to the commencement of work on any proposal, including construction or reconstruction of any fill, embankment, structure or

Offices: Walnut Creek / Palo Alto

encroachment within any area for which there is an adopted plan of flood control. The 2012 Central Valley Flood Protection Plan includes the area subject to the Application and the Project. We have reviewed the Project as it has been formulated by WSAFCA and have commented on numerous occasions requesting changes that would have made the Project consistent with applicable law and in compliance with the over arching requirement to minimize impacts to private property while producing a cost-effective set of flood control improvements. Despite our voluminous communications and suggestions, the WSAFCA Board has persisted in its intent to approve and implement a flood control project containing elements well beyond WSAFCA's statutory authorization and which will produce the greatest impact and injury to private property at a cost significantly higher than other alternatives. Additionally, the Project and the Application are inconsistent with the intent and the provisions of the 2012 Central Valley Flood Protection Plan, the provisions of the California Water Code and with the provisions of California Code of Regulations, Title 23. For the reasons set forth in this letter, on behalf of our clients we protest the Application; demand that the comment period be extended; demand an evidentiary hearing before the Board and ask the Board to ultimately deny the requested permit.

A. <u>Name, Address and Telephone Number of the Protestants</u>: The name, address and telephone number of the protestants are as set forth below. All communications should also be sent to our law firm at the address, email address and at the phone number listed below:

Seecon Financial and Construction Co. Inc. 4021 Port Chicago Highway Concord, CA 94520 Attn: Jeanne Pavao Telephone: (925) 671-7711 email: jpavao@seenohomes.com

Forecast Land Investment LLC 4061 Port Chicago Highway Concord, CA 94520 Attn: Jeanne Pavao Telephone: (925) 671-7711 email: jpavao@seenohomes.com

With copies to:

Miller Starr Regalia
P.O. Box 8177
Walnut Creek, CA 94596
Attn: Wilson F. Wendt
Telephone: (925) 935-9400
email: wilson.wendt@msrlegal.com

- Clear Statement of the Protestants' Objections: We object to B. the Application and issuance of the Permit on a number of grounds, including, but not limited to, the closed, secretive nature of the planning process undertaken by WSAFCA in conceptualizing the Project. Most importantly, we see no way that the Board can issue this Permit until and unless a full and complete environmental analysis is completed and certified, identifying all of the environmental impacts of the Project and ascribing mitigation measures to mitigate its impacts. The Board is a responsible Agency under CEQA. "Responsible Agencies" are defined as agencies other than the lead agency that have some discretionary authority for carrying out or approving a project. CEQA Guidelines § 15381. Responsible Agencies rely on the information in the CEQA document prepared by the lead agency and are required to adapt findings and file a Notice of Determination when a project is approved. CEQA Guidelines § 15096(h). The Notice does not indicate that approval of the Project will await certification of the EIS/EIR being prepared for the Project. The requirements of the National Environmental Protection Act and the California Environmental Quality Act are clear in requiring that the Board, as Responsible Agency, cannot approve the Project unless and until a certified EIS/EIR has been carefully considered. For these reasons, and the reasons set forth below. we have filed this protest and demand for an evidentiary hearing. We intend to submit more detailed comments after we have received and reviewed a copy of the Application.
- 1. The processing of the Application and the issuance of the Permit without completion of the EIS/EIR would violate both the National Environmental Protection Act and the California Environmental Quality Act: The Project clearly requires preparation of an Environmental Impact Statement ("EIS") under the National Environmental Protection Act and an Environmental Impact Report ("EIR") under the California Environmental Quality Act. A joint EIS/EIR is under preparation for the Project but no administrative draft has even been released for public review, nor have completed plans for the Project been released for public review. The fact that a public agency cannot approve a project unless and until the environmental impacts of that project have been identified and mitigated into insignificance is such a basic percept that it needs no listing of supporting authorities. The Notice states that if no protests are filed, the Application may be placed on the Board's consent calendar and approved based upon the Staff Report and other evidence submitted to Staff. To take this step without completion of the EIS/EIR would be illegal and would constitute, at best, an egregious example of "piece-mealing" in which an element of the Project is determined to be exempt from NEPA/CEQA review and approved although the entire Project is clearly subject to the requirement for environmental analysis. The Board's purported distinction between "flood control issues" (which are stated to be proper subjects for comment) and "environmental issues" (which are not) is artificial and impossible to adequately justify. The environmental impacts of this Project seep into every element of its consideration and approval and must be considered prior to any review and approval. WSAFCA has stated that the draft EIS/EIR will be released for public

review as early as next month. The Board should wait until the EIS/EIR is completed and certified before taking any further action on the Application.

2. <u>The Project is III-defined, Opaque and Constantly Subject to Change</u>: The 65% design plans for the Project have not yet been released for public review. The elements of the Project constantly change and evolve. The Board has no surety in the elements of the Project that it would be approving. To illustrate the uncertain, changing nature of the Project, the Technical Memorandum prepared by WSAFCA's consultant, BCI, and dated February 27, 2012, at an early stage of the conceptualization of the Project, determined that the preferred alternative for flood control improvements in Segment F was an Adjacent Levee. Section 6.2.6 of the memorandum dealt specifically with Segment F and included the following:

The design team and WSAFCA have selected an adjacent levee as the preferred alternative and a setback levee as the alternate alternative for Segment F 15% design. Therefore, BCI evaluated both alternatives at cross-sections 241 plus 00. BCI's analyses indicate that a 100-foot wide seepage berm along with an adjacent or setback levee will mitigate under seepage.

At the February 9, 2012 Board Meeting, the WSAFCA Board approved their consultant's task order no. 4 scope of work which directed the consultant to develop project construction documents for the improvement of Segments A, C, D, E and G with the flood control improvements previously recommended in each of those segments (Setback Levee in Segments A, C, D and E and In-Place Levee with Deep Cutoff Wall in Segment G). The Board then directed final supplemental evaluations to be prepared in Segments B and F. The final supplemental evaluations were to address the overall feasibility of combined Seepage Cutoff Wall and Seepage Berm options in Segment B and the advantages and consequences of the Setback Levee in Segments B and F. This later analysis was to include technical feasibility, regulatory acceptability, constructability, long term operations and maintenance issues, impacts to the community and the implications to achieving WSAFCA's goal of improving the entire levee system in the Southport reach. We attach as Attachment 1 a copy of the Agenda Report for the March 8, 2012 meeting, recounting the Board's direction at the February 9, 2012 Board Meeting. As we will discuss below, none of this supplemental information requested by the Board was ever developed by consultants nor presented to the Board for review

At the May 10, 2012 Board Meeting, the WSAFCA Staff reported back to the Board, not with the information requested at the February meeting, but instead with a purported "value engineering analysis." Attachment 2 is the Agenda Report for Item No. 6, "Consideration and Identification of a Preferred

Design Alternative for Levee Segment F" for the Sacramento River Southport Early Implementation Project. This is the first time that the term "value engineering analysis" was ever raised by Staff or heard by the WSAFCA Board and was not responsive to the WSAFCA Board's directions at its February meeting. Attached as Attachment 3 is our letter to the WSAFCA Board of May 9, 2012 in which we point out that what was being presented to the board was not the information requested, but a "value engineering analysis" which made clear that funding issues were driving the determination of the type of flood control improvements to be included in the Project. The letter goes on to explain that the Setback Levee Alternative, which was selected by the WSAFCA Board, would cost millions of dollars more than the Adjacent Levee Alternative, previously determined appropriate for Segment F. Interestingly and determinatively, the analysis considered by the WSAFCA Board pointed out that the WSAFCA contribution for the Setback Levee would be significantly less than for the Adjacent Levee. This was apparently because of increased State funding because of environmental benefits. It was not until almost a year later that my clients learned that this was actually because the Project included a Mitigation Bank Enterprise in which a private Mitigation Bank would be created on private property taken from property owners and its credits used to offset environmental impacts for other projects unrelated to Southport throughout the State. This element of the Project was never made clear and never subject to discussion and remains one of the undiscussed aspects of the WSAFCA approval process.

In our May 9, 2012 letter to the WSAFCA Board we pointed out that the assumptions in the value engineering analysis as to the amount of borrow material necessary to implement the Setback Levee Alterative were woefully understated. We raised this issue on several occasions including in our July 12, 2012 letter to the WSAFCA board, a copy of which is attached as Attachment 4. In that letter, we pointed out that the borrow material necessary to implement the Setback Levee Alternative would constitute literally thousands of truck transports with resulting air quality and greenhouse gas impacts. We attach as Attachment 5 our letter dated January 10, 2013 to the WSAFCA board in which we point out that the Setback Levee Alternative is the most destructive and injurious of private property and the most expensive alternative requiring the most imported borrow material to accomplish. The excessive cost of the Setback Levee design threatens to exceed the amount of Proposition 1E and 84 funds available and may negatively impact the ability to complete the entire Central Valley Project.

Finally, WSAFCA acknowledged that the Project was changing again and on March 7, 2013, the U.S. Army Corps of Engineers ("USACE") issued a supplemental notice of preparation of an environmental impact statement/environmental impact report for the Project. This Supplemental Notice sought comments on additional impacts caused by the excavation of additional borrow sites, precisely the additional elements of the Project that we had been urging WSAFCA to acknowledge for over six months.

Most startlingly to us, in response to a Public Records Act request filed with the California Department of Water Resources, we received a copy of a WSAFCA application to that agency. This application and the Flood Protection Progress Report for April 1, 2013 attached to the agenda for the April 11, 2013 WSAFCA Board meeting indicated that a part of the Project was the creation of a Mitigation Bank Enterprise creating a private mitigation bank to sell mitigation credits to partially fund construction and to mitigate impacts for other projects throughout the State totally unrelated to Southport. Our letter of April 11, 2013, to the WSAFCA Board expresses our consternation and anger at learning for the first time that the Project included the Mitigation Bank Enterprise, placed squarely on the backs of a few private property owners to mitigate unrelated impacts. Others with property in Southport will simply pay assessments. Seecon will pay these assessment and also lose a large amount of its property. Not only is this an activity that is unauthorized by WSAFCA's founding Joint Powers Agreement or by applicable law, but also it illustrates clearly how this Project has changed over time and will continue to change. The Board should wait until the EIS/EIR is certified and the elements of the Project are certain before going forward to consider the Application.

3. The Project Includes A Creation Of A Mitigation Bank Enterprise Which Is Beyond The Authority Of The existing WSAFCA Board Authorization And Beyond WSAFCA's Authority Under The Joint Powers Agreement Creating WSAFCA or Applicable Law. The process for the formulation of the Project changed and evolved from March, 2012 and continues to change and evolve. Through the documents we have submitted to the WSAFCA Board, it is clear that the primary reason for this evolution in the elements of the Project is the desire to maximize State funding and other areas of funds available to WSAFCA. Not until April, 2013 were my clients or any other members of the public made aware of the fact that the Project included as one of its principal elements the creation of a Mitigation Bank Enterprise, to be implemented and maintained on the backs of a few private property owners, including Seecon, in order to mitigate impacts of other unrelated projects throughout the state. Attached as Attachment 6 is a copy of our letter of April 12, 2013 to the State of California Department of Water Resources (which includes a copy of our letter of April 11, 2013 to the WSAFCA Board) in which we complain that nowhere in the tens of thousands of words of discussion over the Project in the last year had there appeared any indication that a principal element of the Project was a "flood plain mitigation bank", an enterprise that would be imposed upon private property owned by West Sacramento businesses and residences and which would produce extra mitigation credits to be sold for use offsetting environmental impacts for unrelated projects throughout the state. This lack of transparency is startling and underlines the way by which the true nature of the Project has been hidden from property owners and the public. Beyond the opacity of the process, the creation of a Mitigation Bank Enterprise is well beyond the powers of WSAFCA as delineated by the Joint Exercise of Powers Agreement creating WSAFCA, the Joint Exercise of Powers Act or other provisions of California law. Included in our letter dated April 11, 2013 to

the WSAFCA Board (included in Attachment 6) is a memorandum prepared evidencing why WSAFCA lacks authority for the creation of the Mitigation Bank Enterprise. For this reason alone, the Board should deny the Permit and direct WSAFCA to eliminate the Mitigation Bank Enterprise from the Project.

- A Proposed Plan Will Have Unnecessary Impacts Upon Private Property Even Though Practicable Alternatives Exist That Would Lessen Those Impacts But Which WSAFCA Has Failed To Propose. The plan will result in the unnecessary taking of private property which should be considered by the Board in weighing the benefits of the Project against injuries to the public interest. The Board must account for harm to the public interest in considering a permit application and the unnecessary constitutional taking that would occur under the Project should compel the Board to reject the Application and refuse to issue the Permit. WSAFCA's proposal for development on the Seecon Property consists of a Setback Levee with Seepage Berm . This alternative is the most destructive and injurious to private property and constitutes an unnecessarily large take of private property. As explained above, the Project originally envisioned an Adjacent Levee in Segment F. Engeo Inc., Seecon's consultant in this matter, suggested in a letter to the WSAFCA Board that either a Setback Levee or an Adjacent Levee in Segment F would be adequate to address all of the flood control deficiencies noted by WSAFCA; and that either would be as efficient in providing flood protection. Despite the feasibility of the Adjacent Levee, a much less intrusive alternative, WSAFCA appears to have rejected its use because it would frustrate the Agency's plan to create a Mitigation Bank Enterprise on property belonging to Seecon and others. The Board should reject the Application on account of these private property considerations which it is required to consider as it balances the merits of the Project against reasonably foreseeable detriment to the "public interest".
- The Project Contains The Most Expensive Alternative To The Public Of All Those Proposed And Is A Misuse Of Proposition IE And 84 Funds. As indicated in Attachment 3, by WSAFCA's own "value engineering analysis" the cost of the Setback Levee Alternative in Segment F (the currently preferred alternative) would be millions of dollars more than the Adjacent Levee. However, the allocable cost to WSAFCA for the Setback Levee is millions of dollars lower than the cost for the Adjacent Levee. Thus, it is clear that the cost to the public is significantly less for the Adjacent Levee and, pursuant to the provisions of the 2012 Central Valley Flood Protection Plan and the Department of Water Resources Urban Levee Design Guidelines, the Board should reject the Application, deny the permit and direct WSAFCA to redesign the Project utilizing the alternative we have suggested employing an Adjacent Levee with Seepage Berm and Partially Penetrating Cut Off Wall in a portion of Segment F adjacent to the Seecon property (the "Seecon Option"). Engeo, Inc. prepared a depiction of the suggested Seecon Option which we sent to WSAFCA staff. We have made that suggestion on numerous occasions and have requested reconsideration of the Board's determination of the preferred alternative twice. Both requests for reconsideration have been denied. The Board should deny the permit on these grounds alone.

- 6. <u>The Board Should Deny The Permits Because Of Inconsistencies With The 2012 Central Valley Flood Protection Plan.</u> We will comment in more detail on those inconsistencies when we have been able to review a copy of the Application.
- 7. The Board Should Deny The Application And Reject The Permit For Other Reasons To Be Documented At The Evidentiary Hearing. We reserve the right to submit additional evidence showing why the Board should deny this Permit at the Evidentiary Hearing on the matter.
- C. <u>Explanation Of How Seecon Will Be Adversely Affected By The Project.</u>

Seecon holds valuable property rights to the real property that WSAFCA will attempt to acquire by eminent domain as a part of the implementation of the Project. The implementation of a Setback Levee (the currently proposed preferred alternative) will result in the loss of a significant amount of real property. impacting internal circulation roads and adversely affecting Seecon's development of the Seecon Property, including adverse impacts upon a number of residential lots approved by a vesting tentative map and a Development Agreement, on property east of the current route of Village Parkway. The implementation of the Project, as currently proposed, will seize an enormous swath of property across the Seecon Property for development as a part of the Mitigation Bank Enterprise, creating mitigation credits to be used to mitigate impacts from other projects unrelated to Southport throughout the state. The proposed project constitutes the most destructive and injurious alternative to private property. It is unlikely that WSAFCA will be able to uphold the statutory burden in asserting eminent domain rights to show that this take is the minimum necessary to effect the desired public purpose. A result of the approval and implementation of the Project will be to devastate the value of the Seecon Property.

Conclusion.

The Notice stipulates that protest and comments must be received within 20 days of the Notice. However, Board staff has been unable to provide a copy of the Application in a timely fashion; nor, to our knowledge, is one available for public review at any public place. We cannot assert meaningful comment in an accurate fashion without having the ability to review the Application. The Application is not posted on your website. Staff has told us that the two staff members who might be able to furnish a copy of the Application are both on vacation. We demand that the comment period be extended for an additional 20 days after we are provided a copy of the Application by staff.

The Project can be redesigned to achieve equal or better flood control protection, substantially less damage to private property (including the Seecon Property) and at a lower cost to the public. On behalf of our clients we strongly protest the

Application and request the Board to deny the permit. We look forward to the opportunity to present evidence at the Evidentiary Hearing required to be held to consider the Application.

Very truly yours,

MILLER STARR REGALIA

Wilson F. Wendt

WFW:elt Attachments cc: Clients

LIST OF ATTACHMENTS

Attachment No. 1 -	Agenda Report, March 8, 2012 WSAFCA Board Meeting; Item No
Attachment No. 2 -	Agenda Report May 10, 2012 WSAFCA Board Meeting; Item No. 6.
Attachment No. 3 -	Miller Starr Regalia Letter dated May 9, 2012 to WSAFCA Board
Attachment No. 4 -	Miller Starr Regalia Letter dated July 12, 2012 to WSAFCA Board
Attachment No. 5 -	Miller Starr Regalia Letter dated January 10, 2013 to WSAFCA Board
Attachment No. 6 -	Miller Starr Regalia Letter dated April 12, 2012 to State of California Department of Water Resources (includes April 11, 2012 Letter to WSAFCA Board)

Attachment G - Protest Package AGENDA REPORT

[X] ACTION

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MEETING DATE:	March 8, 2012	ITEM#
SUBJECT:		
IMPROVEMENTS F	OR THE SACRAMENTO	ATION OF A PREFERRED ALTERNATIVE FOR LEVEE O RIVER SOUTHPORT EARLY IMPLEMENTATION PROJECT
INITIATED OR REC	UESTED BY:	REPORT COORDINATED OR PREPARED BY:
[] JPA Board	[X] Staff	Dave Shpak, Flood Protection Planning Manager
[] Other		1). St. note for
		Michael W. Bessette, Flood Protection Manager

WEST SACRAMENTO AREA FLOOD CONTROL AGENCY

No

OBJECTIVE

The objective of this agenda item is the Agency Board's identification of a preferred alternative for the Sacramento River Southport Early Implementation Project (EIP) for evaluation and disclosure of potential environmental and community impacts, as part of the project Environmental Impact Statement/Environmental Impact Report (EIS/R).

1 INFORMATION

DIRECTION

RECOMMENDED ACTION

ATTACHMENT IX 1 Yes

Staff respectfully recommends that the West Sacramento Area Flood Control Agency (WSAFCA) Board identify Preliminary Design Alternative 2 as the Preferred Alternative for levee improvements for the Sacramento River Southport EIP. Staff also requests that the Board provide direction to evaluate and disclose the potential environmental and community effects, and propose measures to mitigate significant adverse impacts associated with the Preferred Alternative and other project alternatives in the draft EIS/R for the project.

BACKGROUND

WSAFCA is fully committed to the West Sacramento Levee Improvement Program (WSLIP), the capital investment program intended to provide comprehensive flood risk reduction for the City of West Sacramento (City). The purpose of the WSLIP is to achieve a minimum level of 200-year flood protection for the City by improving up to 50 miles of levees that currently provide protection to the City. A 200-year flood is an event that has a 0.5% chance of occurring in any given year. In addition, WSAFCA must comply with the State of California Senate Bill 5 that requires urban areas achieve a 200-year level of protection by 2025. WSAFCA has moved proactively since 2006 to implement incremental improvements that contribute to the program objective through discrete projects that fix the levee deficiencies, provide maximum leverage for available local funding, minimize environmental impacts, and obtain essential state and federal regulatory approvals. To date, the WSLIP and associated federal and state actions have completed the I Street EIP (2008), CHP Academy EIP (2011), The Rivers EIP (2011), Yolo Bypass South Slip Repairs (2009 and 2011) and Yolo Bypass North Slip Repair (2011).

The WSLIP Team (consisting of representatives from WSAFCA, the City and consultants) conducted a thorough levee reach evaluation process in December 2009 and January 2010. This process determined the sequence of EIPs to be implemented by WSAFCA. The results of the screening process were documented in a Draft Technical Memorandum entitled "West Sacramento Levee Improvement Program, Early Implementation Projects — 2011 Project Screening" dated January 22, 2010. In particular, technical evaluations of the Southport Sacramento River levee that had been completed at that time, along with a history of poor performance during previous flood events, indicated the levee posed a significant risk to the residents of the City and prioritized the entire Southport Sacramento River levee as the next EIP for implementation.

Work on the Southport EIP began in September 2010 with the first of two of preliminary design investigations. The first component, interim preliminary design, was executed under Task Order No. 1. The scope of work for that task order completed the interim preliminary design process for conceptual setback levee alignments. The

Identification of a Preferred Alternative for the Sacramento River Southport EIP March 8, 2012 Page 2

study identified potential hydraulic and environmental effects, and geotechnical constraints that indicated, at a general level of detail supported by data available at that time, advantages or disadvantages associated with several setback levee alignments within the outer range of potential feasibility. Task Order No. 1 was completed at the end of January 2011 with the delivery of the Interim Preliminary Design Report.

The second component of preliminary design investigations was conducted under Task Order No. 2, which began on February 11, 2011. The scope of work for final preliminary design included comparative analyses of the setback levee alternatives identified as feasible during interim preliminary design, strengthen-in-place and adjacent levee alternatives. Task Order No. 2 was completed in September 2011 with delivery of the Final Preliminary Design Report, which identified the three alternatives that warranted further evaluation in the next phase of work: an in-place levee repair, construction of an adjacent levee, and construction of a setback levee.

The Project Design phase of the Southport EIP was conducted under Task Order No. 3, beginning on June 30, 2011. There were two primary objectives in the third task order: (1) determine the technical feasibility of levee deficiency and seepage remediation measures deployed through the three Preliminary Design alternatives and (2) define two refined design alternatives that combined elements of the fix-in-place, adjacent levee and setback levee alternatives in configurations that had the best potential for funding sufficient to repair the entire Southport levee reach. Project Design Alternative 1 and Alternative 2 were developed to the 15% level of design completion and presented to the WSAFCA Board on January 12, 2012. Task Order No. 3 is in the process of being finalized and will be documented in the Project Design Report.

At the regularly scheduled board meeting on February 9, 2012, the WSAFCA Board approved HDR Engineers' Task Order No. 4 scope of work. This action directed the design team to develop project construction documents, including plans, specifications, cost estimates, and general and special provisions for the improvement of project Segments A, C, D, E and G. These are the project segments that are common to both Design Alternatives 1 and 2 that were presented to the Board in January. The WSAFCA Board also directed final supplemental evaluations in Segments B and F. The final supplemental evaluations will address the overall feasibility of combined seepage cut-off wall and seepage berm options in Segment B and the advantages and consequences of a setback levee in Segments B and F. This analysis will include technical feasibility, regulatory acceptability, constructability, long-term operations and maintenance issues, impacts to the community and the implications to achieving WSAFCA's goal of improving the entire Southport levee reach. The execution of Task Order No. 4 will be phased to enable completion of final design evaluations in Segments B and F, while allowing design development to proceed in the other project segments.

In conjunction with the project design process, the WSLIP team is analyzing potential environmental and community impacts that might occur as a consequence of implementing the Southport EIP. The purposes of these analyses are to (1) provide information to the project design process, (2) disclose to the public and governmental agencies the potential adverse impacts of implementing the project and propose measures to mitigate significant adverse impacts, and (3) comply with the requirements of the California Environmental Quality Act (CEQA), associated CEQA Guidelines and other applicable state laws, the National Environmental Policy Act (NEPA) and other applicable federal laws. WSAFCA is the lead and implementing agency preparing the EIR under CEQA for the Sacramento River Southport EIP. The U.S. Army Corps of Engineers (USACE) is the federal lead agency preparing the Environmental Impact Statement (EIS) under NEPA for this project based on USACE's approving actions for the Southport EIP under 33 USC Section 408 for modification of federal project levees, Section 404 of the Clean Water Act for fill of waters of the United States, and potential effects on navigable waters under Section 10 of the Rivers and Harbors Act. At this time, USACE is an approving agency only for the project. However, WSAFCA will pursue a USACE determination that the project is eligible for non-federal credit as an element of the comprehensive federal project under evaluation by USACE through the West Sacramento General Reevaluation Report. The EIS/R for Southport is a required environmental documentation process and is being conducted as a joint effort of WSAFCA and

USACE.

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Work on the EIS/R began during Task Order No. 1 and has progressed continuously as part of each task order since then. The Notice of Preparation for the EIS/R was filed with the State Clearinghouse on August 24, 2011, and the Notice of Intent published in the Federal Register on August 26, 2011. Two public meetings to provide information about the EIS/R and solicit input on the scope of study from the public and governmental agencies were held on September 15, 2011.

ANALYSIS

Design Development. Investigation, evaluation and design of the Sacramento River Southport EIP have advanced through a sequence of progressively detailed stages based upon the best available information. At each stage, from system-wide screening of EIPs through 15%-complete Design Alternatives for the Southport EIP, technical conclusions have balanced the extent and precision of available geotechnical, erosion, hydraulic and hydrologic data with federal and state standards for levee construction and performance. This progressive approach is the most time- and cost-effective method to identify levee deficiencies and determine remedies that will work under the physical conditions of the Southport levee reach. Progressively detailed investigations, supported by new information gathered during the three completed task orders, have also improved the precision and confidence of technical feasibility conclusions and formulation of Design Alternatives that have the greatest likelihood of solving all of the identified Southport levee deficiencies within existing local funding capacity.

The governing rationale for the progressive method of analysis and design for the Southport EIP is summarized in the attached Design Decision Hierarchy and Sequence table. Work under the first three task orders has advanced through the first three decision stages: Identify Particular Problems, Test Particular Solutions and Assemble Solutions to Solve Problems. Design Alternatives 1 and 2 bracket the probable range of an EIP that, given existing local funding capacity and regulatory factors that govern cost sharing with the state, could deliver flood risk reduction improvements to the entire Southport levee reach.

The next design decision stages will place increasing emphasis upon minimizing impacts to private properties and maximizing benefits for the community. The Task Order No. 4 scope of work includes refinements that will achieve the primary flood risk reduction objective for Southport and the City while causing the least private injury and providing supplemental benefits to the community. In particular, further design investigations in Segments B and F will determine technically feasible measures to minimize impacts upon private property adjacent to the proposed levee improvements. The results of the investigations will include refined estimates of construction, operations and maintenance costs for technically feasible measures, evaluations of residual construction and operational risks of novel design measures, description of regulatory compliance and agency acceptability. The WSAFCA Board will be asked to consider these results in the context of the entire Southport EIP before directing the WSLIP team to complete design in Segments B and F. This sequence of work will allow design development at the most expeditious pace and support timely delivery of flood risk reduction improvements for Southport and the City.

Environmental Documentation. CEQA and NEPA require thorough investigation of potential environmental effects that may occur as a consequence of building, operating and maintaining Southport EIP levee improvements. These laws and coordinated state and federal regulations require that potential environmental effects be considered within the context of a meaningful range of project alternatives. Among the alternatives considered is a "No Action", or *status quo* alternative that assumes no flood risk reduction improvements are built. The purpose of the No Action alternative is to disclose to the public likely future conditions that could occur if no project was implemented. The purposes of EIS/R analyses of alternative project actions are to (1) disclose to the public the relative differences in environmental impacts caused by different project alternatives, (2) inform the project design development process and (3) provide information to support final project selection by WSAFCA.

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Page 4

To investigate and disclose all potential effects of the Southport EIP, the EIS/R must evaluate a set of alternatives that comprises the physical and temporal ranges of potentially feasible project implementation. The EIS/R project alternatives include the levee repair and seepage remediation options that are technically feasible under the physical conditions of the Southport levee reach. These options are organized by the three dominant types of levee repairs found to be technically feasible in Task Orders 2 and 2: repair-in-place adjacent levee and setback levee. Technically feasible seepage remediation measures are deployed in each of the three levee repair alternatives, based upon information available at the time of alternative formulation. The three levee repair alternatives represent the physical area that would be needed to construct a given type of levee and seepage remediation. The physical areas affected by the project alternatives enable comprehensive assessment of the full range of potential environmental and community impacts that could occur with implementation of the Southport EIP. While they completely cover the area and issues that might be affected by the Southport EIP, the levee type alternatives do not optimize combinations of technically feasible and financially efficient approaches to delivering flood risk reduction improvements to the entire Southport levee reach within the limits of existing local funding capacity and presently defined state cost-sharing rules.

To achieve the purpose and objectives of the Southport EIP, the EIR/S must include a project alternative that can be implemented as soon as possible across the entire Southport reach. Design Alternatives 1 and 2 assemble the technically feasible flood risk reduction measures in configurations that are both technically feasible and cost-effective, and that have strong likelihood of adequate funding based upon information available at the conclusion of Task Order No. 3. Plan-view layouts of the Design Alternatives are attached to this report. Both Design Alternatives include a mix of levee and seepage deficiency remediation measures that are found in the three levee type alternatives (from downstream to upstream extents of the project reach):

Segment A: fix-in-place/levee slope flattening and conventional seepage cut-off wall.

 Segment B: fix-in-place/levee slope flattening and conventional seepage cut-off wall; adjacent levee with seepage berm; setback levee with seepage berm.

Segment C: setback levee with seepage berm.

Segment D: setback levee with seepage berm; setback levee with conventional cut-off wall.
 Segment E: setback levee with conventional cut-off wall; setback levee with seepage berm.

Segment F: setback levee with seepage berm, adjacent levee with seepage berm.

Segment G: adjacent levee with conventional cut-off wall.

The difference between the Design Alternatives is the length of setback levee presented in Segments B and F. The longer lengths of setback levee presented in Design Alternative 2 provides the greatest potential share of costs borne by the State, the best prospect that the entire Southport EIP can be implemented with existing local funding, and the Design Alternative that is most likely to achieve the project purpose and objectives in the EIS/R. Determining the environmental and community impacts of the longest practical length of setback levee provides WSAFCA with the most flexibility for project design refinements and final project selection, and ensures complete disclosure of potential effects and recommended mitigation measures to the public and governmental agencies.

The WSAFCA Board identification of a Preferred Alternative at this time will facilitate the necessary analyses and documentation for timely release of the Draft EIS/R for public/agency review and comment this fall. The purpose of the EIS/R process is to forecast and bracket the likely range of environmental and community effects based on the best available information from the design process, and therefore will be subject to revision as the design and environmental review proceed in parallel. Identifying a Preferred Alternative for the purposes of disclosing potential environmental and community effects is not presumptive selection of a final project design. Final project selection will not occur until the public environmental review process is complete and the design has been further developed to the 100% level through the Task Order No. 4 scope of work approved by the WSAFCA Board.

Identifying a Preferred Alternative at this time provides several advantages to the Southport EIP process. One advantage is that it enables efficient, timely development of documentation and applications for other regulatory approvals, such as:

 USACE permissions for modifying the federal flood control project and for effects on federally regulated waters;

An encroachment permit from the Central Valley Flood Protection Board;

Identification of a Preferred Alternative for the Sacramento River Southport EIP March 8, 2012
Page 5

 Compliance with environmental resource and habitat regulations such as the Clean Water Act, Endangered Species Act, California Fish and Game Code, and others which are customarily processed in parallel with the CEQA/NEPA process.

Another advantage of identifying a Preferred Alternative at this time is that it facilitates a more efficient and timely CEQA process (not necessarily dependent on the USACE NEPA process), which in turn could allow earlier progress in the real estate process. Identifying a Preferred Alternative may also allow for a faster construction start for elements that are not dependent on federal approvals.

While the amount of time between the requested Board action and a scheduled public draft EIS/R publication in the fall may seem lengthy, the document must first undergo at least three rounds of administrative review through the USACE vertical chain, with each iterative review lasting approximately two months. Identification of the Preferred Alternative at a later date presents a risk of having to re-do steps in the USACE review process, which would contribute to a project delay.

Alternatives

Staff respectfully recommends that the WSAFCA Board identify Design Alternative 2 as the Preferred Alternative for the Sacramento River Southport EIP and direct staff to evaluate and disclose the environmental effects and recommended mitigation measures related to this proposed action in the draft EIS/R. The Board may choose not to identify Design Alternative 2 as the Preferred Alternative at this time, may identify a different Design Alternative as the Preferred Alternative, or may defer identification of a Preferred Alternative for the EIS/R. However, absent the identification of a Preferred Alternative, the schedule for preparing a draft EIS/R may be delayed and the overall project will be delayed.

Budget/Cost Impact N/A

ATTACHMENTS

Design Decision Hierarchy and Sequence Design Alternative 1 Plan View Design Alternative 2 Plan View

WEST SACKAMENTO AKEA FLOOD CO	NTROL AGENCY AGENDA REPORT
MEETING DATE: May 10, 2012	ITEM# 6
SUBJECT:	
SEGMENT "F" FOR THE SACRAMENT	ON OF A PREFERRED DESIGN ALTERNATIVE FOR LEVEE O RIVER SOUTHPORT EARLY IMPLEMENTATION PROJECT
INITIATED OR REQUESTED BY:	REPORT COORDINATED OR PREPARED BY:
[] JPA Board [X] Staff	Dave Shpak, Flood Protection Planning Manager
[] Other	NAMA M 12 200
ATTACHIMENT IV IV I IN	Michael W. Bessette, Flood Protection Manager
ATTACHMENT [X] Yes [] No	[]INFORMATION []DIRECTION [X]ACTION

OBJECTIVE

The objective of this report is to seek the Board's identification of a preferred design alternative for Leves Segment F of the Sacramento River Southport Early Implementation Project (EIP) for (1) evaluation and disclosure of potential environmental and community impacts in the project Environmental Impact Statement/Environmental Impact Report (EIS/R) and (2) for further design development as part of the 65% design package for the EIP.

RECOMMENDED ACTION

Staff respectfully recommends that the West Sacramento Area Flood Control Agency (WSAFCA) Board:

1. Identify the setback levee alternative as the Preferred Design Alternative for Levee Segment F for the Sacramento River Southport EIP;

2. Direct the Project Team to evaluate and disclose the potential environmental and community effects, and propose measures to mitigate significant adverse impacts associated with the Preferred Design Alternative in the draft EIS/R for the project; and

3. Direct the Project Team to integrate the Preferred Design Alternative for Levee Segment F in the 65% design package for the Sacramento River Southport EIP.

BACKGROUND

On February 9, 2012, the WSAFCA Board approved HDR Engineers' Task Order No. 4 scope of work. This action directed the Design Team to develop project construction documents, including plans, specifications, cost estimates, and general and special provisions for the improvement of project Segments A, C, D, E and G along the Sacramento River in Southport through the Sacramento River Southport EIP. These are the project segments that are common to both 15% Design Alternatives 1 and 2 that were presented to the Board in January. The WSAFCA Board also directed final supplemental evaluations in Segments B and F. The final supplemental evaluations address the overall feasibility of combined seepage cut-off wall and seepage berm options in Segment B and the private property and financial considerations of setback and adjacent levees in Segments B and F. The execution of Task Order No. 4 is phased to enable completion of final design evaluations in Segments B and F, while allowing design development to advance toward the 65% design level and for environmental analysis and documentation to proceed in the other project segments.

On March 8, 2012 staff asked the WSAFCA Board to identify a preferred alternative for repairing the 5.7 mile levee for the purposes of evaluation and disclosure of potential environmental and community impacts in the project EIS/R. The WSAFCA Board selected Alternative 2 for levee segments A, C, D, E, and G and directed staff to complete further analysis on levee segments B and F as prerequisites to final design direction in these two segments. The Board's direction included value engineering analyses to understand cost implications associated with a setback levee in segments B and F while minimizing impacts to adjacent property owners within reasonable cost and cost sharing scenarios.

Identification of a Preferred Alternative for the Levee Segment "F" May 10, 2012 Page 2

ANALYSIS

Investigation, evaluation and design of the Sacramento River Southport EIP have advanced through a sequence of progressively detailed stages based upon the best available information. At each stage, from system-wide screening of EIPs through 15%-complete Design Alternatives for the Southport EIP, technical conclusions have balanced the extent and precision of available geotechnical, erosion, hydraulic and hydrologic data with federal and state standards for levee construction and performance. This progressive approach is the most time- and cost-effective method to identify levee deficiencies and determine remedies that will work under the physical conditions of the Southport levee reach. Progressively detailed investigations, supported by new information gathered during the three completed task orders, have also improved the precision and confidence of technical feasibility conclusions and formulation of Design Alternatives that have the greatest likelihood of solving all of the identified Southport levee deficiencies within existing local funding capacity.

The next design decision stages include refinements to achieve the primary flood risk reduction objective for Southport and the City, while causing the least private injury and providing supplemental benefits to the community. Under the WSAFCA Board's direction, the Project Team has conducted a final value engineering evaluation of the two technically feasible measures to remedy levee deficiencies in Segment F that are specified in the two 15% Design Alternatives: an adjacent levee and setback levee. The objective of the value engineering evaluation was to identify the different private residential implications and differentiate the State cost-share potential of the two levee deficiency remedies, taking into consideration all cost components (e.g., real estate acquisition, structural demolition and relocation, environmental mitigation, road access and levee improvements) and variable State cost-share rules for different project components. The 15%-level cost opinions developed by the Design Team were used as the basis for determining shares in project delivery costs.

The detailed results of the Segment F Value Engineering evaluation are attached below. Use of an adjacent levee to resolve levee deficiencies in Segment F would probably avoid impacts to one of the two houses near the project, as shown in the attached Segment F Plan View - Alternative 1 with Seepage Berm. However, use of a setback levee to remedy levee deficiencies in Segment F will require 50% to 60% less local funding than an adjacent levee, making up to \$5,869,768 of local funds available for WSAFCA to invest in providing flood protection for the entire Southport area.

Alternatives

Staff respectfully recommends that the WSAFCA Board identify the setback levee alternative as the Preferred Design Alternative for Levee Segment F of the Southport EIP, direct staff to evaluate and disclose the environmental effects and recommended mitigation measures related to this action in the draft EIS/R, and integrate the Preferred Design Alternative in the 65% design package for the Southport EIP The Board may choose to identify an adjacent levee as the Preferred Design Alternative of a Preferred Alternative for Segment F. Identifying a design alternative other than a setback levee may Southport. Absent the identification of a Preferred Design Alternative at the Southport. Absent the identification of a Preferred Design Alternative at the Southport. Absent the identification of a Preferred Design Alternative at the Southport. Absent the identification of a Preferred Design Alternative at the Southport. Absent the identification of a Preferred Design Alternative at the Southport. Absent the identification of a Preferred Design Alternative at the Southport. Absent the identification of a Preferred Design Alternative at the Southport. Absent the identification of a Preferred Design Alternative at the Southport. Absent the identification of a Preferred Design Alternative at the Southport. Absent the identification of a Preferred Design Alternative at the Southport. Absent the identification of a Preferred Design Alternative at the Southport EIP will be delayed.

\$ 16.2 will fendely. Cover (Ogoutes Cover). jeopardize WSAFCA's ability to deliver flood protection to the entire reach of the Sacramento River in

build an adjacent levee in Segment F would be approximately \$16,245,000 of a total cost of \$36,100,000. The WSAFCA investment required to build a setback levee in Segment F would be between \$10,375,000 and \$10,808,000 of a total cost of approximately \$38,600,000. The lower WSAFCA share in the cost for a setback levee could be achieved if the State were to have a higher share in the costs of land and borrow material in the floodplain area created by the setback levee. Considering all project costs and potential State cost shares, a setback levee in Segment F provides the greatest potential share of costs borne by the State, the best prospect that the entire Southport EIP can be implemented with existing local funding, and the highest likelihood that WSAFCA can aghieve flood protection and other project objectives for the entire reach of Sacramento River levee in Southport.



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Identification of a Preferred Alternative for the Levee Segment "F" May 10, 2012 Page 3

ATTACHMENTS
Segment F Value Engineering Report
Segment F Plan View - Alternative 1 with Seepage Berm
Segment F Plan View - Alternative 2 with Seepage Berm

		50UTHPOF TO #3-1	RT EIP LEVEE 5% DRAFT P COMBINED I	ea Flood Control Age IMPROVEMENT PRO ROJECT COST OPINIC MEASURE ALTERNAT	DIECT			
-		SETBAC	SAN	<i>T F - DETAIL</i> /ITH SEEPAGE BERI	1.1		MARKALAN DARAMAN PERTUTO NATUTATA	- A - C - C - C - C - C - C - C - C - C
SAC	E	HALLOW STREET,	CONTRACTOR OF THE PARTY OF THE	THI SELF AGE DEN	YI			
Code		Quantity	Unit	Unit Price	Cost	Contingenc y (%)	Contingency (\$)	Cost w/Contingenc
	Real Estate Acquisition	1	EA	\$5,342,961	5,342,961.00	30%	\$1,602,888	\$6,945,849
2	Structural Demolition & Utility Relocation							
	Remove Power Poles	12	EA	\$500.00	\$6,000.00	30%	\$1,800	\$7,800
	Install Power Poles					2077	<i>\$4,000</i>	37,000
		993		127				
	Relocate Overhead Service to Existing Structures	40 0	EA EA	\$10,000.00	\$400,000.00	30%	\$120,000	\$520,000
	Provide Temp. Power to Marina's	0	MO	\$10,000.00	\$0.00 \$0.00	30% 30%	\$0 \$0	\$0
	Relocate Buried Telephone Cable	510	LF	\$100.00	\$51,000.00	30%	\$15,300	\$0 \$66,300
	Relocate Cell Facility Buildings & Tower	1	EA	\$300,000.00	\$300,000.co	30%	\$90,000	\$390,000
	RD 900 Irrigation Pump	1	LS	\$500,000.00	\$500,000.00	30%	\$150,000	\$650,000
	Remove 12" Steele Dewatering Pipes	0	LF	\$20.00	\$0	30%	\$0	\$0
	Demolition, Relocation, includes Cell Tower Other Costs	1	EA	\$5,082,700.00	\$5,082,700.00	30%	\$1,524,810	\$6,607,510
	Subtotal - Relocation	1	EA	\$651,000.00	\$651,000.00	30%	\$195,300	\$846,300
					\$6,990,700		\$2,097,210	\$9,087,910
6	Environmental Mitigation							
	Onsite Riparian Mitigation	10.96	AC	\$33,870.00	\$371,215.20	30%	\$111,365	\$482,580
	Onsite Waters of the U.S. Mitigation	1.38	AC	\$38,525.00	\$53,164.50	30%	\$15,949	\$69,114
	Onsite Swainson's Hawk Foraging Habitat Mitigation Subtotal - Environmental Mitigation	30.32	AC	\$2,300.00	\$69,736.00	30%	\$20,921	\$90,657
					\$494,116		\$148,235	\$642,350
8	Roads - Transportation/Access							
	Hot Mix Asphalt	1,842	TON	\$100.00	\$184,195	30%	\$55,258	\$239,453
	Aggregate Base	1,836	CY	\$40.00	\$73,457	30%	\$22,037	\$95,495
	Aggregate Subbase	0	CY	\$40.00	\$0	30%	\$0	\$0
	Roadway Excavation Ditch Excavation	2,539	CY	\$30.00	\$76,164	30%	\$22,849	\$99,014
	Roadway Embankment	670 26,320	CY	\$35.00	\$23,440	30%	\$7,032	\$30,471
	Scraper Hauf Cost - Embankment	32,900	CY	\$4.50 \$2.00	\$118,440	30%	\$35,532	\$153,972
	Demolish Roadway	17,889	SQYD	\$5.00	\$65,800 \$89,444	30% 30%	\$19,740	\$85,540
	Residential Access/Driveway	0	EA	\$5,000.00	\$0	30%	\$26,833 \$0	\$116,278
	New Intersection (Signage)	2	EA	\$5,000.00	\$10,000	30%	\$3,000	\$0 \$13,000
	Bridge Cost	1	LS	\$1,840,000.00	\$1,840,000	25%	\$460,000	\$2,300,000
	Mobilization and Demobilization (10%)	1	LS	\$64,094.05	\$64,094	30%	\$19,228	\$83,322
	Clearing and Grubbing (5%)	7	LS	\$32,047.03	\$32,047	30%	\$9,614	\$41,661
	Traffic Control (Urban) (3%) Subtotal - Roads	1	LS	\$19,228.22	\$19,228	30%	\$5,768	\$24,997
					\$2,596,310		\$686,893	\$3,283,203
11	Levee Improvements							
	Mobilization and Demobilization (5%)	1	LS	\$437,162.88	\$437,163	30%	\$131,149	\$568,312
	Traffic Control (Urban) (3%)	1	LS	\$252,452.10	\$252,452	30%	\$75,736	\$328,188
	Top Soil Stripping	84.5	AC	\$3,500.00	\$295,645	30%	\$88,694	\$384,339
	Clearing and Grubbing Inspection Trench Excavation	4.2	AC	\$2,800.00	\$11,826	30%	\$3,548	\$15,374
	Existing Levee Degrade & Haul - For Seepage Berm	3,653 183,924	CY	\$4.00	\$14,611	30%	\$4,383	\$18,994
	Seepage Berm - Placement	176,538	CY	\$2.90 \$3.50	\$533,380 \$617,883	30%	\$160,014	\$693,393
	SB Wall - Conventional Method	15,399	SF	\$6.10	\$93,934	30% 30%	\$185,365 \$28,180	\$803,249
	Levee Embankment - Placement of Setback & Adj.	323,269	CY	\$4.50	\$1,454,708	30%	\$436,413	\$122,114 \$1,891,121
	Scraper Hauf Cost - Setback & Adjacent	404,086	CY	\$2.00	\$808,171	30%	\$242,451	\$1,050,623
	Bedding Material for Erosion Control	4,667	TN	\$40.00	\$186,680	30%	\$56,004	\$242,684
	Partial Degrade Erosion Control	2,829	LF	\$450.00	\$1,273,109	30%	\$381,933	\$1,655,041
	Inlet/Outlet Erosion Control Excavate Unsuitable Material from Offset Area, Haul &	11,000	TN	\$40.00	\$440,000	30%	\$132,000	\$572,000
	Place in Landside Borrow Area	52,770	CY	\$6.40	\$337,728	30%	\$101,318	\$439,046
	Revegetation	84.5	AC	\$4,800.00	\$405,456	30%		
	Subtotal - Levees			7.7	\$7,162,746	30/4	\$121,637 \$2,148,824	\$527,093 \$9,311,569
					100 m			20,000
8	Cultural Preservation							
	Environmental/Road/Levee (1%) Subtotal - Cultural				\$132,371	30%	\$39,711	\$172,083
					\$132,371		\$39,711	\$172,083
80	Planning, Engineering, & Design							
	Struc, Demo & Utility/Environmental/Road/Levee (15%)				\$3,348,755	30%	\$1,004,626	64 352 301
	Subtotal - PED				\$3,348,755	3476	\$1,004,626	\$4,353,381
							,000,000	٥٥٥ ودودوس
31	Construction Management							
	Road/Levee (8%) Subtotal - CM				\$1,007,582	30%	\$302,275	\$1,309,856
	SECULOI - CIVI				\$1,007,582		\$302,275	\$1,309,856
MICA SOLUTION			-	ESTIMATED TOTAL	\$27,075,540	CONTRACTOR SAME AND ADDRESS OF THE PARTY OF	\$8,030,662	\$35,106,202

ATTACHMENT 1: Setback Levee 15% Cost Estimate

7m w/ certaingoug (\$5m n cotter)

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(\$11.2 in other)

\$38.5

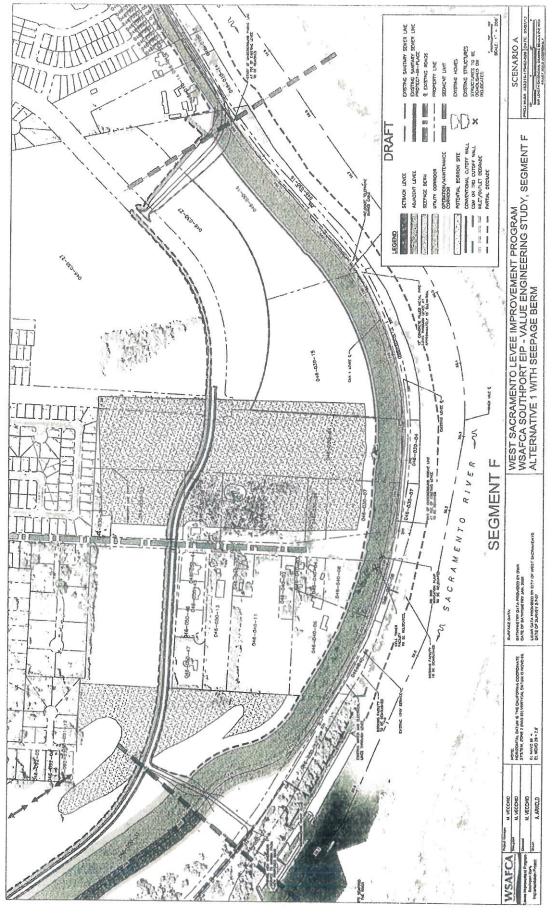
ATTACHMENT 2: Adjacent Levee 15% Cost Estimate

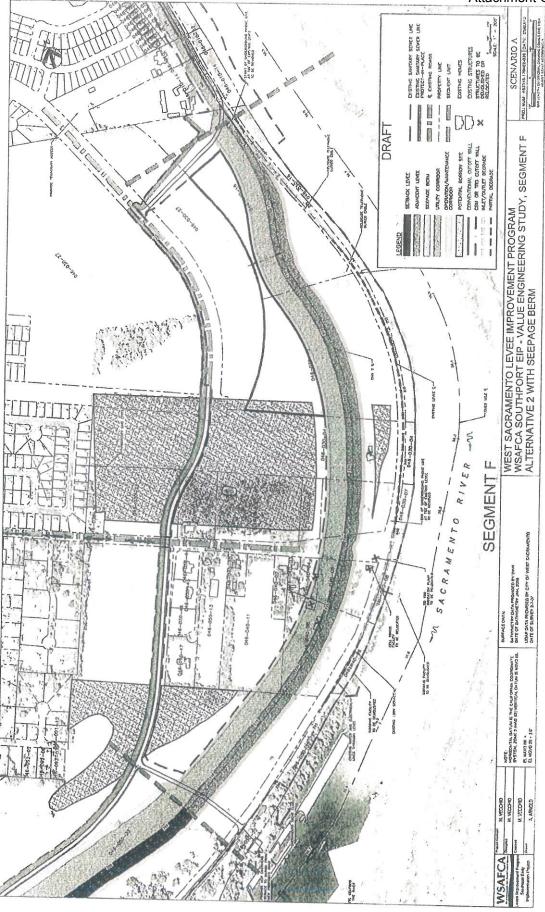
West Sacramento Area Flood Control Agency SOUTHPORT EIP LEVEE IMPROVEMENT PROJECT TO #3 - 15% DRAFT PROJECT COST OPINION PROPOSED COMBINED MEASURE ALTERNATIVE - 4

Real Estate Acquisition 1	ACCUPANT OF THE PARTY OF THE PA		ADIACCA	AND DESCRIPTION OF THE PERSON	TF - DETAIL	DEDA/	-		
Real Estate Acquisition 1	SACE	AL THE PROPERTY OF THE PROPERT	ADJACEN	II LEVEE V	WITH SEEPAGE	BEKIVI	THE RESERVE OF THE PERSON NAMED IN	Backback and the Control	
2 Structural Demolision & Utility Relocation Remove Power Foles Install Power Foles Install Power Foles Install Power Foles Install Power Foles Relocate Civer Foles Relocate Relocation Relocate Relocatio	ccoun		Quantity	Unit	Unit Price	Cost			Cost w/Contingence
Remove Power Poles		Real Estate Acquisition	1	EA	\$3,818,435	3,818,435.00	30%	\$1,145,531	\$4,963,966
Instill Power Pales Power	2	Structural Demolition & Utility Relocation							
Instill Prover Poller 40			12	EA	\$500.00	\$6,000,00	30%	\$1,800	\$7,800
Relocate Overhead service to Existing Structures		Install Power Poles				2000			\$520,000
Provide Temp. Power to Mulrina's 0 MO \$4,000.00 \$0		Relocate Overhead Service to Existing Structures	0						100
Relocate Buriel of Telephone Cable Relocate Cell Earlity Buildings Tower 1 EA \$300,000 \$500,000 00 500,000 00 500,000 500 Relocate Street Dewarener Pipes 0 LF \$300,000 05 500,000 00 500,000 00 500 Demoitsion, Relocation, Includes Cell Tower 1 EA \$500,000 05 \$580,000 00 500 \$152,000 Demoitsion, Relocation, Includes Cell Tower 1 EA \$500,000 05 \$580,000 00 500 \$152,000 Telephone Cells Substand: Relocation 0 Horizon		Provide Temp. Power to Marina's	0	MO			30%		\$0
Refocts to Cell Facility Buildings R Tower		Relocate Buried Telephone Cable	510	LF					\$66,300
Remove 12" Steele Dewatering Pipes 0 IF \$20.00 \$50 \$50 \$50 \$50			1	EA	\$300,000.00	\$300,000.00	30%	\$90,000	\$390,000
Demolition, Relocation, Includes Cell Tower					\$500,000.00	\$500,000.00	30%	\$150,000	\$650,000
Deter Costs 1 EA S88,000.00 SS8,000.00 30% \$174,000 \$764, 500 \$34,000					\$20.00	\$0	30%	\$0	\$0
Subtotal Relocation 56,787,700 50,000,300 56,787,700 56,787,700 56,787,700 56,787,700 56,787,700 56,787,700 56,787,700 58,788,700 58,788,78							30%	\$1,524,810	\$6,607,510
Environmental Mitigation			1	EA	\$588,000.00	The state of the s	30%	\$176,400	\$764,400
Onulte Nignation Miligation Onulte Waters of the U.S. Miligation Onulte Waters of the U.S. Miligation Onulte Waters of the U.S. Miligation Onulte Sevarinor's Heavit Keraging Habitat Miligation 23.6 AC \$38,875.00 \$40,333.75 306 \$27,160 \$117,000 Subtotal Environmental Miligation 23.6 AC \$38,875.00 \$40,333.75 306 \$27,160 \$177,000 Subtotal Environmental Miligation VS \$117,460 \$743,400 Subtotal Environmental Miligation VS \$117,460 \$743,400 Subtotal Environmental Miligation VS \$12,800.00 \$40,330.00 \$00 \$27,1460 Subtotal Environmental Miligation VS \$12,800.00 \$40,000 Subtotal Sub		Subtotal - Relocation				\$6,927,700		\$2,078,310	\$9,006,010
Onsite Waters of the U.S. Miligation 2.35 AC 538,555.00 \$93,933.75 30% \$377,160 \$177,100 \$177	5								
Construction Cons						\$426,762.00	30%	\$128,029	\$554,791
Subtotal - Environmental Mitigation							30%	\$27,160	\$117,694
Roads - Transportation/Access Hot Mix Asphalt 1,842 TON \$100,00 \$184,195 30% \$55,258 \$239, Aggregate Base 1,836 CV \$40,00 \$73,467 30% \$52,2037 \$95,6 \$40,00 \$73,467 30% \$52,2037 \$95,6 \$40,00 \$73,467 30% \$52,2037 \$95,6 \$60,00 \$70,407 \$90,00 \$0 30% \$0 50 \$0 \$00			23.61	AC	\$2,300.00		30%	\$16,291	\$70,594
Hot Mix Asphalt 1,642 TON \$10,000 \$184,195 30% \$55,258 \$239, Aggregate Base 1,636 CY \$40,000 \$73,457 30% \$52,037 \$95,6 \$0.0000 \$0.000 \$0.000 \$0.000 \$0.000		Subtotal - Environmental Mitigation				\$571,599		\$171,480	\$743,078
Aggregate Base	3							\$1,800 \$120,000 \$0 \$0 \$15,300 \$59,000 \$15,000 \$15,000 \$1,524,810 \$176,400 \$2,078,310 \$128,029 \$27,160 \$16,291 \$171,480 \$55,258 \$22,037 \$0 \$22,289 \$7,032 \$58,491 \$33,495 \$26,833 \$0 \$3,000 \$2,078,310 \$128,029 \$1,445,840 \$269,036 \$1,445,840 \$269,036 \$1,445,840 \$80,726 \$2,583,064	
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Roadway Excavation						\$73,457	30%	\$22,037	\$95,495
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May 9, 2012

President William Denton and Members of the Board Board of Directors West Sacramento Area Flood Control Agency 1110 West Capitol Avenue, 2nd Floor West Sacramento, CA 95691

Re:

Consideration and Identification of a Preferred Design Alternative for Levee Segment F, Sacramento River Southport Early Implementation Project; Item 6 on the Board's Agenda for May 10, 2012

Honorable President Denton and Members of the Board:

Our office represents Seecon Financial and Construction Co., Inc. ("Seecon"), the owners of approximately 100 acres of real property (the "Seecon Property") which includes the northerly portion of Levee Segment F. The Seecon Property has approvals for Newport Estates, a residential project with other uses, through the approval of a Development Agreement and both tentative and final subdivision maps, covering a significant portion of the property. Most importantly, a significant portion of the Seecon Property (as shown on the enclosed site plan) is designated in the General Plan as RMU, Riverfront Mixed Use, and is zoned Waterfront (WF) Zone. This zoning allows development for mixed uses oriented principally to the river, public and quasi-public uses and allows marinas, restaurants, retail, amusement, hotel and motel uses, midrise and highrise offices, and multifamily residential units. Our clients have been extremely concerned over the Agency's possible selection of the preferred alternative for levee strengthening under the Southport Early Implementation Project. The effect of selecting Alternative 2, the Setback Levee Alternative, would be to block off and make unusable the large portions of the Seecon Property currently entitled and planned for residential development, as well as that portion which is currently zoned for high end and extensive waterfront and riverfront mixed use development. This is one of the few areas included in the Southport Area Plan that is so designated for riverfront mixed use and its loss would be a tremendous economic and planning loss for our client and the entire community.

A. <u>History of Agency Determinations on Preferred Levee</u>

<u>Alternative</u>: Work by the Agency's consultants has gone on since 2007 in determining the preferred levee strengthening alternative. Task Order No. 1 of the Design Services Contract with HDR Engineering was completed in January, 2011,

and identified hydraulic impacts, environmental impacts and geotechnical constraints associated with each potential levee alternative alignment selected for consideration. Task Order No. 2 under the Design Contract was completed in September, 2011, with the delivery of the Final Preliminary Design Report which identified potential levee alternatives. Task Order No. 3 completed in February, 2012, narrowed the number of alternatives to three: an in place levee, with cutoff wall; a setback levee; and an adjacent levee. The completed Task Order recommended a preferred alternative as to Segments A, C, D, E and G. However, the Agency Board directed staff to perform supplemental evaluations in Segments B and F to address a number of issues and analyze the advantages and consequences of a setback levee in those two segments. The Agency's Staff Reports for February 9, 2012 and March 8, 2012 both indicate quite clearly that the selection of setback levees as a part of the preferred levee improvement alternative would have significant impacts upon the property involved and would raise a number of issues that needed more complete and extensive analysis.

B. Board Directions to Staff for Segments B and F Analysis: At your meetings on February 9, 2012 and March 8, 2012, the Board directed staff and consultants to proceed to develop project construction documents, cost estimates and related data for improvement of project segments other than Segments B and F. The Board also specifically directed staff and consultants to prepare and present final supplemental evaluations in Segments B and F to include technical feasibility, regulatory acceptability, constructability, long-term operations and maintenance issues, impacts to the community and the implications of achieving the Agency's goal of improving the entire Southport levee reach. The third full paragraph on page 3 of the March Staff Report reads as follows:

"The next design decision stages will place increasing emphasis upon minimizing impacts to private properties and maximizing benefits for the community. The Task Order No. 4 scope of work includes refinements that will achieve the primary flood risk reduction objective for Southport and the City while causing the least private injury and providing supplemental benefits to the community. In particular, further design investigation in Segments B and F will determine technically feasible measures to minimize impacts upon private property adjacent to the proposed levee improvements. The results of the investigations will include refined estimates of construction, operations and maintenance costs for technically feasible measures, evaluations of residual construction and operational risks of novel design measures, description of regulatory compliance and agency acceptability. The WSAFCA Board will be

asked to consider these segments in the context of the entire Southport EIP before directing the WSLIP team to complete design in Segments B and F. This sequence of work will allow design development of the most expeditious pace and support timely delivery of flood risk reduction improvements for Southport and the City."

It is clear from both the February 9 and March 8 Staff Reports that not only Seecon but also the Board was significantly concerned about the feasibility and the effect of establishing setback levees through the Seecon Property in an area that would have significant economic and planning impacts upon the City of West Sacramento. Our clients were heartened by the Board's evidence of concern of these crucial issues and your directions to staff and consultants to fully and accurately address them.

What Is Being Presented To You Thursday: Given the C. detailed instructions from the Board to Staff as to the information necessary to select the preferred alternative in Segments B and F, it is extremely disappointing to review the Staff Report for your meeting on May 10. The agenda item is entitled "Consideration on Identification of a Preferred Design Alternative for Levee Segment F" and the comments listed immediately after that item indicate that the staff and consultants have completed a "Supplemental Value Engineering Evaluation of Segment F Levee Alternatives." No mention is made of the proposed alternative for Segment B even though it was assumed that these two recommendations would be brought back at the same time. This staff report does not comply with the Board's direction and cannot adequately guide the Board in determining the preferred alternative. Most importantly, the only item covered and analyzed in the Staff Reports and its enclosures is the "value engineering" aspect of the alternatives. It is clear that funding issues are now driving this determination and the Staff Report recommends adoption of the setback levee alternative, requiring a take of 400 feet of property throughout the Seecon Property and a take of the entire portion of the Property currently zoned Waterfront (WF) and planned for extensive high end riverfront related development. The "value engineering" analysis determines that the setback levee alternative, although totaling approximately \$38.5 million as opposed to the adjacent levee alternative which totals \$36 million is preferable because funding sources available to the Agency would require only an Agency contribution of \$10.8 million for the setback levee as opposed to \$16.2 million for the adjacent levee alternative.

The Board in March was rightly concerned about a number of issues and impacts in selecting the preferred alternative for Segment F. Those included the following:

Technical feasibility;

- 2. Regulatory acceptability;
- 3. Constructability;
- 4. Long term operations and maintenance issues;
- 5. Impacts to the community; and
- 6. Impacts upon the property owners.

Nowhere in the May 10 Staff Report are any of these issues even mentioned, let alone analyzed or discussed. Instead, staff is recommending that you select an alternative based solely upon its cost to the Agency. None of the other issues have even been considered as directed by the Board, and the recommendation is for the alternative that will cost approximately \$2.5 million of taxpayer dollars more than the adjacent levee alternative.

- D. Value Engineering Estimates Inaccurate: While we have had less than 48 hours to review the "value engineering" estimates provided with the Staff Report, it appears that as to the setback levee alternative they are woefully understated. As mentioned previously, a significant portion of the Seecon Property is zoned Waterfront (WF) and is slated for extensive riverfront mixed use development including possible hotel development and highrise office or residential development. The estimate of cost of the setback levee alternative includes the approximately \$7 million in real estate acquisition costs through eminent domain. You should be aware that a taking of the required portion of the Seecon Property will not be a simple acquisition of property slated for residential development but will involve the much more expensive take of one of the few properties in Southport designated for marina and riverfront development. We are working on estimates to what that take will actually involve but it is clear that the actual acquisition costs will be significantly higher than predicted. Most of these costs can be avoided if the adjacent levee alternative were selected.
- E. <u>CEQA/NEPA Analysis</u>: A part of Task Order No. 4, currently underway, is the finalization of the EIR/EIS, the draft of which is due out in the fall. At this stage it is mystifying why a determination of the preferred alternative on Segments B and F must go ahead before that document is available. It is clear from the Board's actions in February and in March that a determination of the preferred alternative for these segments is much more difficult than the others. A number of the issues that must be considered in order to decide on the preferred alternative are environmental issues and the Board could make the determination in a much more intelligent and studied fashion if the environmental document was available. At this stage it will not delay the process to wait until that document is available and we urge you to not only delay your decision on the preferred alternative until the

information demanded by the Board in March is available, but also to delay that decision until the environmental document is ready.

Property: Within the last few days, Seecon has received requests from a subcontractor for a right of entry upon the Seecon Property to perform borings, the purpose of which could only be to bolster the determination of the setback levee alternative. Seecon is extremely disappointed that the Agency has not performed the analysis they were directed to perform to properly site the appropriate levee protection improvements but will allow the consultant to perform the required drilling if it is part of an effort to provide the information required by the Board in March and if any final determination on the preferred alternative is delayed. My clients will not allow the consultants on the Seecon Property unless and until it is clear that it is a part of the necessary analysis to determine the levee alternative which best meets the criteria you have set forth in Task Order No. 4.

<u>Conclusion</u>: The Board must delay any determination on the preferred alternative for Segment F until the information that you requested in March has been provided. We request that you not make a decision on Segment F until the information on Segment B is also brought back to you and the two can be considered at one time. The issues are similar and the two determinations should not be separated.

The selection of the setback alternative will have enormous impacts not only on Seecon's development of its property but also on the City of West Sacramento. The development of a riverfront oriented project on the WF zoned portion of the Seecon Property will bring enormous economic benefits including significant increased tax revenue and transient occupancy tax from hotel development. All of this information needs to be carefully analyzed before such development is precluded.

Very truly yours,

MILLER STARR REGALIA

Wilson F. Wendt

Wilson F. Wendt

WFW:ji

cc: Jeanne C. Pavao

Kenneth Ruzich, General Manager/Secretary

Albert D. Seeno, III



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July 12, 2012

President William Denton and Members of the Board Board of Directors West Sacramento Area Flood Control Agency 1110 West Capitol Avenue, 2nd Floor West Sacramento, CA 95691

Re: Seecon Financial and Construction Co., Inc.; Continuing Concerns
Regarding Sacramento River Southport Early Implementation Project

Honorable President Denton and Members of the Board:

Our office represents Seecon Financial and Construction Co., Inc. ("Seecon"). We have appeared before you on several occasions to voice our client's concern over the severe and irremediable impact that the selection of the setback levee alternatives in Segment F and the implementation of the EIP will have on the Seecon property. Last month, we submitted a letter requesting a reconsideration of the Board's determination that the preferred alternative affecting the Seecon property was the setback levee. We also filed a Public Records Act request and have been reviewing the materials provided in response. We remain significantly concerned about the design of the levee improvements in Segment F and the Agency's implementation of the EIP, as set out in our prior letters and as mentioned below. However, at this time we think it would be extremely helpful for both sides in this dispute to sit down and discuss the design of the improvements and the data provided affecting levee protection in Segment F, keeping in mind the Board's directive to minimize impacts upon private property. We hereby request that Mr. Ruzich, Mr. Bessette and a representative from HDR Consultants meet with us and our consultant to make sure that we understand precisely what has gone into the Board's determinations relating to design and implementation of the EIP. We would appreciate it if the Board would direct staff to meet with us.

- A. Remaining Concerns Over Impacts Upon the Seecon
 Property: We are concerned over these various impacts and we have reviewed the
 Flood Protection Progress Report dated July 6, 2012 and have the following
 concerns and comments:
- 1. <u>Engineering Design</u>: This section of the Progress Report appearing at the bottom of page 2 reiterates that "minimizing impacts on

private property" is a real and significant concern of the district. Obviously, we share that concern and do not see how the prior actions of the Board in selecting the setback levee alternative as appropriate for Segment F evidences the intent to minimize impacts.

Cost to the Agency Seems to Override All Other Considerations: After reviewing the materials submitted in response to our Public Records Act demand and the "value engineering" analysis specifically addressed to Segment F which was presented to you at your May meeting by the consultant, it seems clear that cost to the Agency and not cost to the public is the overriding consideration in Board determinations. The information provided to us indicates clearly that the setback levee is substantially more expensive in total cost than the adjacent levee in Segment F. However, the share of the cost attributable to the Agency is less under the setback levee alternative. This is because state funds are available which increases the state share and makes the Agency's share significantly less. However, the result of this choice is to create an enormous swath of unusable property and require the construction, not only of the setback levee but also a large seepage berm. This construction requires an enormous amount of fill material, the source of which is problematic and the environmental impacts of which will be enormously significant. Additionally, this will require ongoing maintenance expense and cause significant public safety problems for the police.

paragraph on page 3 identifies (and we feel understates) the significant problem facing the Agency in identifying sufficient borrow material for levee and seepage berm construction and does not address the truly enormous environmental impacts that will be caused by excavating, trucking and putting in place the staggering amounts of borrow material that will be necessary. We understand that the second administrative draft EIS/EIR is being prepared by the consultants and we look forward to participating in a full and complete comment analysis on its adequacy. One of the areas of most significant concern will be the significant environmental impacts caused by selecting the setback levee alternative in Segment F, the most severe and socially wasteful of the levee protection alternatives.

"consideration of borrow sources is now a primary critical path item due to the large volume of material needed, high costs/impacts of transporting materials via roadways, potential to impact land development and uses, complexities of synchronizing harvest and delivery of materials with construction phasing, and limited availability of sites that can provide materials suitable for project construction." Our clients are unsure as to whether you can even find the amount of necessary satisfactory borrow material available in the immediate area. This will require literally thousands of truck transports with resulting significant air pollution and damage of City streets. It is possible that material will have to be barged in from significant distances. The cost of this will be enormous, both from a fiscal and

an environmental standpoint. The solutions under consideration highlight possible conflicts with existing general and specific plans as discussed below addressing the statement that the proposed Village Parkway may be used as a "rural roadway". All of this appears to be unsettling indications that the amount of borrow material may not physically be available for this project.

2. State Funding Agreement: The agenda report goes on to discuss reimbursement payment under the Design Funding Agreement which is interpreted as a firm commitment by State of California to the success of the West Sacramento Levee Improvement Program. No one doubts the state's commitments nor the necessity for timely and successful implementation of the improvement program. However, the Central Valley Flood System Conservation Framework and Strategy Funding Guidelines issued by the Department of Water Resources, dated February 14, 2012 includes the following requirement for funding agreements:

"The funding recipient will defend, indemnify, and hold and save the State, its officers, agents, and employees, free and harmless from any and all claims or damages arising out of or in connection with the planning, design, construction, evaluation, repair, replacement, or rehabilitation of the project facilities and properties, and any activity under the Project, including claims based on inverse condemnation." (Emphasis added)

Thus, these expenses, including damages for inverse condemnation will fall squarely on the Agency and its constituent members.

Village Parkway: Village Parkway is partially constructed through the Seecon property providing ingress and egress for homeowners and others. Final maps are of record and improvements constructed on a portion of the Seecon property. Tentative maps have been approved and a development agreement is in place for the Seecon property. Village Parkway is an essential element of the circulation system not only for the Newport Estates development but also as a part of the Southport Specific Plan. This is the primary north-south circulation element and is crucial to the implementation of the Southport Specific Plan. To change this to a "rural road" or to delete it entirely (as seems to be the suggestion in the discussion of flood plain administration and the liberty development) would create a significant inconsistency with the Southport Specific Plan and the City General Plan. This also highlights the significant impact that the implementation of the EIP will have on the Seecon property. All of that property designated currently for water-related marina and resort uses would be deprived of access and development.

Conclusion: The selection of the most socially wasteful of the levee design alternatives, the setback levee with an additional significant seepage berm, will have enormous, unexamined impacts on the Seecon property and the community in general. The Board's directions to staff in February and March specifically identified a number of concerns that were to be analyzed and reviewed and reported back on to the Board. Instead, it appears to us that the in-place or adjacent levee with cutoff wall was never seriously considered for Segment F; and, instead, the costs to the Agency overrode all other considerations. The very real problem of identifying sufficient borrow materials to accommodate the setback levee alternative is new information calling for a re-evaluation of levee alternatives by the Agency. We urge the Board to direct staff to review and reconsider the applicability of a cutoff wall in Segment F to alleviate some of the needless impacts upon private property.

Very truly yours,

MILLER STARR REGALIA

Wilson F. Wendt

WFW:jj

CC:

Kenneth Ruzich Michael Bessette James Day, Esq. Albert D. Seeno, III Jeanne C. Pavao, Esq.



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January 10, 2013

President William Denton and Members of the Board of Directors West Sacramento Area Flood Control Agency 1110 West Capitol Avenue, 2nd Floor West Sacramento, CA 95691

Re:

Item No. 6 on WSAFCA Board Agenda for January 10, 2013; Resolution Authorizing the General Manager to Execute Options to Purchase Borrow Materials

Honorable President Denton and Members of the Board:

As you know, our office represents Seecon Financial and Construction Co., Inc., the owners of significant acreage in Segment F of the Southport EIP. The purpose of this letter is to point out the illegality of adopting the resolution recommended by staff in Item No. 6 and to urge that no options to acquire borrow material be negotiated or entered into until the requirements of the California Environmental Quality Act and the National Environmental Protection Act have been fully satisfied. The negotiation and execution of these proposed options is the first step in a project that will have enormous foreseeable impacts upon the physical environment of the West Sacramento area and upon the region. The agenda report points out that primarily because of what we feel to be the improper design of the Southport EIP, enormous amounts of borrow material will be required. The report states that up to 2,000,000 cubic yards of additional suitable material (above that provided by degrading the current levees and excavating in the offset area) will be required from other sources. To put that in perspective, that amounts to excavation of soil in a 50acre area to a depth of 25 feet. Not to mention the impacts of excavation, the impacts of transporting this material to its site of intended use will be enormous and are currently being analyzed in the EIR/EIS which the Flood Protection Progress Report, Item 9 on the January 10, 2013 agenda states to be in its second administrative draft iteration, currently under review by the Army Corps of Engineers and other governmental agencies. A third administrative draft is anticipated. The Flood Protection Progress Report goes on to underline the indispensability of securing borrow material to the implementation of the Southport EIP:

> "Consideration of borrow sources is a primary critical path item due to the large volume of material needed, high cost/impacts of transporting materials via

President William Denton and Members of the Board of Directors January 10, 2013 Page 2

roadways, potential to impact land development and uses, complexities of synchronizing harvest and delivery of materials with construction phasing and limited availability of sites that can provide materials suitable for project construction."

The adoption of the requested resolution authorizing the General Manager to negotiate and execute option agreements to reserve the right to purchase borrow materials is clearly an initial step in implementing the Southport EIP project and cannot be undertaken until full and complete CEQA and NEPA compliance has been obtained. Case law is clear that an agency approval that starts in motion a chain of events that will result in foreseeable impacts on the physical environment constitutes approval of a project subject to CEQA. An agency action is not exempt from CEQA simply because it will not have an immediate or direct effect on the environment. CEQA applies and requires a full and complete analysis if the activity may cause a direct physical change or a reasonably foreseeable indirect physical change to the environment. Muzzy Ranch Co. v. Solano County Airport Land Use Comm'n. (2007) 41 Cal.4th 372; California Unions for Reliable Energy v. Mojave Desert Air Quality Mgmt. Dist. (2009) 178 Cal.4th 1225.

The negotiation and execution of the option agreements will, if nothing else, particularize and specify the exact location of the borrow material. It will also limit and preclude the ability to change and modify the project as it goes through the CEQA/NEPA review and entitlement process. There is no guarantee once these option agreements are entered into and the Agency pays consideration for the option, that the Agency will not go ahead and simply exercise the options and enter into contracts to purchase the materials.

Case law and the CEQA Guidelines indicate that not all agency activities constitute a "project" that requires environmental review immediately under CEQA. Guidelines section 15378(b)(4) provides that the creation of government funding mechanisms or other government fiscal activities which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment do not constitute a project. However, that is not the case here. Based on the information contained in the Agenda Report alone, it is clear that HDR, the Agency's consultant, has already developed a list of the locations where borrow material can be obtained. The report also points out that state funding is an important factor in going ahead with this premature commitment to acquire borrow materials in specific places. The Agenda Report states that the Agency is partnering with the state and that in order to secure maximum state funding, the Agency must be able to demonstrate to the state that the price paid for the borrow is reasonable and appropriate.

It is surprising that the Agency would attempt to authorize execution of option agreements that will significantly limit the range of mitigation discussed in the

President William Denton and Members of the Board of Directors January 10, 2013 Page 3

EIR/EIS at a time when a draft document has not even been released for public review. The requirements of CEQA and NEPA are clear. The negotiation and implementation of the requested option agreements is the first step in the implementation of the Southport EIP. Both CEQA and NEPA require that the environmental analysis take place at the first possible stage of the project and adoption of the requested resolution and negotiation and execution of the option agreements cannot legally take place until full and complete environmental analysis has been effected.

<u>Conclusion</u>: This proposed action is another example of the Agency attempting to "fast track" this impactful entitlement process. The Agency should delay negotiation and implementation of any option agreements or other borrow acquisition arrangements until a requisite environmental analysis has been completed and all impacts of acquiring borrow materials from the designated locations fully analyzed and mitigated.

Very truly yours,

MILLER STARR REGALIA

Wilson F. Wendt

WFW:ii

CC:

Client

Kenneth Ruzich

Wilson F. Wendt wilson.wendt@msrlegal.com

April 12, 2013

VIA U.S. MAIL AND E-MAIL LCHEW@WATER.CA.GOV

Lori Clamurro Chew State of California Dept. of Water Resources 901 P Street, Room 411A Sacramento, CA 95814

Re:

Comments upon Preliminary Funding Recommendations, Central Valley Flood System Conservation Framework and Strategy PSP; WSAFCA Application for Grant Funds

Dear Ms. Chew:

Our office represents Seecon Financial and Construction Co., Inc., the owners of a large amount of real property in Segment F of the Southport Early Implementation Project ("Southport EIP"). The West Sacramento Area Flood Control Agency ("WSAFCA") applied for Proposition 1E funding pursuant to your Proposal Solicitation Package issued in September 2012. WSAFCA filed an application for funding in the amount of approximately \$5,000,000 and the recommended grant amount proposed in your Preliminary Funding Recommendations was to grant the entire \$5,000,000.

The purpose of this letter is to strongly object to a grant of any funds to WSAFCA based upon their application. We have submitted communications to FloodSAFE Environmental Stewardship and Statewide Resources Office ("FloodSAFE") on October 22, 2012 and on December 27, 2012. In both of those letters, we have objected to any grant funds being afforded WSAFCA for a variety of reasons. including the fact that your own self-announced scoring system for considering grant applications indicated clearly that no points would be awarded to the applicant in the Project Schedule and Readiness category if there existed significant constraints or active opposition to the project and the project enjoyed only a minimum of property owner cooperation. We pointed out at that time that our clients and others had steadfastly and consistently opposed this project mainly because it sought to implement the Setback Levee alternative, the alternative most harmful to private property and the most expensive because of a number of reasons, including the need for significant additional borrow material. Our clients have opposed this project in its current configuration at every opportunity and have clearly and forcefully notified WSAFCA that they will challenge the EIR/EIS for the project and will challenge any eminent domain take because it seeks to take far more property than is required for the implementation of the flood control project.

Lori Clamurro Chew State of California Dept. of Water Resources April 12, 2013 Page 2

This letter is to reiterate our opposition to any grant money being afforded to WSAFCA because the WSAFCA application was not validly authorized by its Board and the project for which the grant funds are sought is beyond the legal powers of WSAFCA to implement. Most recently, we learned that an essential element of the Southport EIP and, indeed, the application that was submitted to FloodSAFE and upon which you have recommended funding is an application for the creation and maintenance of a Flood Plain Mitigation Bank. There have been literally thousands of words of testimony and discussions before the WSAFCA Board regarding the Southport EIP and not until the April 11, 2013 Board Agenda were the words "Mitigation Bank" even mentioned. Purely and simply, this proposed project attempts to establish a "Mitigation Bank" on the backs of West Sacramento property owners, businesses and homeowners in order to allow mitigation of impacts for State agencies and other entities arising out of projects far removed from and having no relationship to the Southport EIP. On its face, this is inequitable and a breach of WSAFCA's duty to proceed in a transparent manner.

More importantly, the submission of an application for funding for and the design and implementation of a Mitigation Bank is beyond the legal powers of WSAFCA and was not authorized by the Board Resolution that was adopted on December 13, 2012, which directed filing of an application with FloodSAFE. We are enclosing a copy of the letter that we delivered to the WSAFCA Board at their meeting on April 11, 2013, which clearly shows that WSAFCA is a flood control agency and does not have the legal power and authority to apply for, design, construct, implement and maintain a Mitigation Bank which is a very different animal from the flood control improvements that WSAFCA is charged with implementing and maintaining. We urge you to carefully consider our letter to the WSAFCA Board and to determine that no grant funds should be afforded to the WSAFCA Flood Plain Mitigation Bank enterprise application.

Very truly yours,

MILLER STARR REGALIA

Wilson F. Wendt

WFW:elt Enclosure

Enclosu

Ms. Alicia E. Kirchner, USACE (via U.S. Mail and E-mail)

Mr. Thomas D. Karvonen, USACE (via U.S. Mail and E-mail)

Mr. Marc A. Fugler, USACE (via U.S. Mail and E-mail)

Ms. Tanis Toland, USACE (via U.S. Mail and E-mail)

Ms. Megan Smith, ICF (via U.S. Mail and E-mail)

Mr. Mark Cowin, Director, DWR (via U.S. Mail and E-mail)

Ms. Cathy Crothers, Chief Legal Counsel, DWR (via U.S. Mail and E-mail)

Clients (via E-mail)



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April 11, 2013

VIA U.S. MAIL AND EMAIL

President William Denton and Members of the Board **Board of Directors** West Sacramento Area Flood Control Agency 1110 West Capitol Avenue, 2nd Floor West Sacramento, CA 95691

Objections to Creation of the West Sacramento Flood Plain Mitigation Re: Bank: Southport Early Implementation Plan

Honorable President Denton and Members of the Board:

As you are aware, our office represents Seecon Financial and Construction Co., Inc. ("Seecon"), the owners of real property in Segment F of the Southport Early Implementation Project ("Southport EIP"). For over a year we have been involved in reviewing and commenting upon actions of WSAFCA in designing and implementing the Southport EIP. Our comments are voluminous and have touched on a number of issues in the processing including our perceived lack of transparency in the process. We are surprised and shocked that after literally tens of thousands of words of reports and commentary presented to the Board and the public by WSAFCA staff and consultants, to our knowledge, the words "Flood Plain Mitigation Bank" have never appeared in any public discussion or in response to the Public Records Act requests we have filed on behalf of our client with WSAFCA until the Flood Protection Progress Report for April 1, 2013 attached to your agenda for your meeting of April 11, 2013, as Item No. 9, just posted. That innocuous statement appears on page 3 of the Flood Protection Progress Report and reads as follows:

> "DWR released its preliminary funding recommendations to direct Proposition 1(e) funding to flood management projects and activities in support of the Central Valley Flood Protection Plan (CVFPP) in Conservation Strategy. WSAFCA's titled 'State of California West Sacramento Flood Plain Mitigation Bank' has been initially recommended for approximately five million dollars in funding."

President William Denton and Members of the Board April 11, 2013 Page 2

The original consultant's recommendation to the Board for the preferred alternative for flood control improvements in Segment F was an Adjacent Levee. In May, 2012, WSAFCA staff and consultants cited a "Value Engineering Report" as the reason that the setback levee should be selected as the preferred alternative in Segment F to proceed to 65% design completion, despite failing to report back to the Board on the advantages and disadvantages of a Setback Levee in Segment F, an analysis that was supposed to look at "technical feasibility, regulatory acceptability, constructability, long term maintenance issues (and) impacts to the community. .". This recommendation was adopted by the Board despite the fact that the Setback Levee is several million dollars more expensive than the Adjacent Levee and the alternative requiring the most borrow material and the one which is the most injurious to private property. One of the reasons advanced for the Board's choice was that WSAFCA could extract millions of dollars more from the State if the Setback Levee were selected, thus making the ultimate cost to WSAFCA lower than their share if the Adjacent Levee alternative were selected.

We have pointed out on many occasions that under principles of Eminent Domain law, WSAFCA is limited to taking only that amount of private property necessary to effect the purpose of the take; that being the construction of flood protection improvements. Nowhere in all the materials prepared and presented to the Board was there an explanation that WSAFCA proposed to create a "Flood Plain Mitigation Bank", an enterprise that would be imposed upon private property owned by West Sacramento businesses and residents and would produce extra mitigation credits that would be sold for use by the State of California to offset environmental impacts of other projects in other locations throughout the State of California totally unrelated to the Southport E.I.P. This creation of a Mitigation Bank enterprise on the back of West Sacramento property owners for the benefit of other governmental and, perhaps, private interests, is inequitable, improper and beyond the legal authority of WSAFCA. We urge the Board to direct staff to immediately begin an investigation of how this Application for funding of a Mitigation Bank was developed and the unauthorized Application filed with the Department of Water Resources (see Exhibit B). That investigation should focus, among other things, upon why no public discussion was held at any time as to the creation of such a Mitigation Bank enterprise.

Applications Filed With the State of California Department of Water

Resources: We just became aware of the proposed creation of a Mitigation Bank when our research was triggered by the Flood Protection Progress Report posted with today's agenda.

On December 13, 2012 the Board adopted Resolution 12-12-01, a copy of which is attached as Exhibit A, which, in part, "approved the filing of an application to the Department of Water Resources for grant funding under the Central Valley Flood System Conservation Framework and Strategy Program to fund the construction of habitat in the Southport Sacramento River Early Implementation Project Setback

President William Denton and Members of the Board April 11, 2013 Page 3

Area". Nothing in the resolution referenced the creation of a "Flood Plain Mitigation Bank" enterprise with "for sale" mitigation credits created, to be sold to mitigate impacts of other projects of other agencies or private persons outside of the Southport area and totally unrelated to the Southport Early Implementation Plan. The public was not made aware that a "Mitigation Bank" would be created involving the setback area on private property for mitigation of impacts caused by projects in remote areas of the state.

On January 7, 2013, WSAFCA staff submitted on Application to DWR for the West Sacramento Flood Plain Mitigation Bank Work Plan, Schedule and Budget, a copy of which is attached as Exhibit B, seeking funding from the \$25,000,000 available. That application was clearly for an unauthorized "Flood Plain Mitigation Bank Proposal". Again, nothing in any of the discussion before the Board or the documentation leading up to this submittal had ever referenced the creation of a Mitigation Bank. It is our opinion that Resolution No. 12-12-01 did not authorize the filing by staff of an Application for the creation of a Mitigation Bank and the action of WSAFCA to create and implement such a Mitigation Bank would be beyond the powers of the staff member filing the application and the Agency under their Joint Powers Agreement. These unauthorized actions should be immediately and thoroughly investigated. We are enclosing a legal memorandum setting out the legal reasoning supporting our opinion as Exhibit C.

The Application filed by staff on behalf of the Board with DWR acknowledges that creation of the Mitigation Bank by WSAFCA would be at the periphery of the Agency's powers and subject to "some uncertainties and constraints". The Application states as follows:

"As a flood risk reduction agency, WSAFCA has limited financial and political ability for habitat restoration beyond that required for project mitigation associated with the Southport EIP. WSAFCA will partner with the state to identify responsible parties for land ownership, bank ownership and operations and maintenance, given that the majority of the mitigation credits will be utilized by the state. Further, WSAFCA and the state will need to work closely together on the financial details of the project to ensure that the interests of both agencies are met."

The creation of a Mitigation Bank by WSAFCA is beyond the scope of the Agency's powers. The resolution adopted by the Board authorizing the filing of the Application with DWR does not authorize the filing of an application for a Mitigation Bank with "for sale" mitigation credits. We have obtained a copy of the Department of the Army Corps of Engineers' permit application dated January, 2013, filed by WSAFCA. In that application there is a general description of the flood control

President William Denton and Members of the Board April 11, 2013 Page 4

improvements and the fact that certain of the setback areas would be used for fish and wildlife habitat restoration. Nowhere in the application is it stated that a Mitigation Bank enterprise will be created with mitigation credits to be sold for projects outside of the Southport area.

Conclusion: The creation of a Mitigation Bank enterprise by WSAFCA and its continuing maintenance into the future is well beyond its authority under the Joint Powers Agreement or applicable law. The mitigation of impacts for just the Southport EIP on site are more clearly within the Agency's powers and authority. We urge the Agency to commence an investigation of why the concept of the Mitigation Bank enterprise was not clearly and transparently disclosed to the public and why the Application was submitted without proper Board authorization. We urge the Board to withdraw the Application to DWR to avoid further complications to the already difficult process of building needed levees in the Southport area, which complications may delay the approval of the environmental documents and cause the Agency to miss applicable Federal and State funding windows.

It is shameful that WSAFCA would attempt to create this Mitigation Bank enterprise by unnecessarily displacing families from their homes and taking exorbitant and unnecessary amounts of private property for a commercial enterprise which could generate millions of dollars of profit from sale of credits for projects totally unrelated to Southport. At least we now understand why WSAFCA switched positions leading to the 65% design stage, abandoned the Adjacent Levee alternative, while advancing the more lucrative Setback Levee alternative.

Very truly yours

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WFW:jj

Mr. Kenneth Ruzich

Mr. Ralph Nevis

Ms. Alicia E. Kirchner, USACE

Mr. Thomas D. Karvonen, USACE

Mr. Marc A. Fugler, USACE

Ms. Tanis Toland, USACE

Ms. Megan Smith, ICF

Mr. Mark Cowin, Director, DWR

Ms. Cathy Crothers, Chief Legal Counsel, DWR

Ms. Lori Clamurro Chew, DWR

Clients

Resolution 12-12-01

RESOLUTION OF BOARD OF DIRECTORS OF THE
WEST SACRAMENTO AREA FLOOD CONTROL AGENCY
APPROVING THE APPLICATION FOR GRANT FUNDS FROM THE CENTRAL VALLEY FLOOD
SYSTEM CONSERVATION FRAMEWORK AND STRATEGY PROGRAM UNDER THE DISASTER
PREPAREDNESS AND FLOOD PREVENTION BOND ACT OF 2006 (Proposition 1E)

WHEREAS, the Legislature and Governor of the State of California have provided funds for the program shown above, and

WHEREAS, the Department of Water Resources has been delegated the responsibility for the administration of this grant program, establishing necessary procedures; and

WHEREAS said procedures established by the Department of Water Resources require a resolution certifying the approval of application(s) by the Applicants governing board before submission of application(s) to the State; and

WHEREAS, the Applicant, if selected, will enter into an agreement with the State of California to carry out the project.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the West Sacramento Area Flood Control Agency.

- Approves the filing of an application to the Department of Water Resources for grant funding under the Central Valley Flood System Conservation Framework and Strategy Program to fund the construction of habitat in the Southport Sacramento River Early Implementation Project setback area.
- Certifies that Applicant understands the assurances and certification in the application; and,
- Certifies that Applicant or title holder will have sufficient funds to operate and maintain the project(s)consistent with the land tenure requirements; or will secure the resources to do so; and.
- 4. Certifies that it will comply with all provisions of Section 1771.5 of the California Labor Code, and,
- 5. If applicable, certifies that the project will comply with any laws and regulations including, but not limited to, the California Environmental Quality Act (CEQA), legal requirements for building codes, health and safety codes, disabled access laws, and, that prior to commencement of construction all applicable permits will have been obtained; and,
- 6. Appoints the General Manager, or designee, as agent to conduct all negotiations, execute and submit all documents including, but not limited to applications, agreements, payment requests and so on, which may be necessary for the completion of the aforementioned project(s).

PASSED AND ADOPTED by the West Sacramento Area Flood Control Agency on this 13th day of December, 2012, by the following vote.

Attachment G - Protest Package

Flood Conservation and Strategy Program Grant Application Resolution December 13, 2012 Page 2

AYES: Denton, Kristoff, Rames

NOES: home ABSTAIN: none ABSENT: hone

William E. Denton, President

ATTEST:

Kenneth A. Ruzich, General Manager

APPROVED AS TO FORM:

James M. Day, Jr., WSAFCA Attorney

17117

Proposal Full View

Print

Applicant Information

Organization Name

West Sacramento Area Flood Control Agency

Tax ID

942362970

Proposal Name

State of California West

Sacramento Floodplain Mitigation

Bank Proposal

The State of California West Sacramento Floodplain Restoration Bank (Bank) project would create a mitigation and conservation bank that would yield approximately 120 riparian floodplain and endangered species conservation credits, and has the potential to create approximately 21,000 linear feet of restored and enhanced shaded riverine aquatic (SRA)/channel margin habitat available as mitigation credits on a per-linear foot basis. Specifically, the proposed Bank project would create riparian floodplain and off-channel refugia habitat for native fish, including Chinook salmon and Sacramento splittail, and to a limited extent, Central Valley steelhead. The West Sacramento Area Flood Control Agency (WSAFCA) would partially utilize the Bank to fulfill mitigation that will be obligated to the Southport Early Implementation Project (Southport EIP), but substantial credits will remain for use by the State to mitigate for

future project impacts resulting from implementation of the Central Valley Flood Protection Plan (CVFPP).

Budget

Other Contribution

Proposal Objective

Local Contribution

Federal Contribution

Inkind Contribution

Amount Requested

Total Project Cost

\$0.00	
\$0.00	
\$0.00	_
\$0.00	
\$4,996,957.00	— — *
\$4,996,957.00	

Geographic Information

Latitude *

Longitude *

Longitude/Latitude Clarification

County

DD(+/-) 38 MM 31 SS 52 DD(+/-) 121 MM 31 SS 54

Location

Yolo *

EXHIBIT B

Ground Water Basin

Hydrologic Region

Watershed

Sacramento Valley-Yolo

Sacramento River

Legislative Information

Assembly District

Senate District US Congressional District 4th Assembly District *

3rd Senate District *

District 5 (CA)

Project Information

Project Name

State of California West Sacrame

Implementing Organization	West Sacramento Area Flood Control Agency
Secondary Implementing Organization	MBK Engineers
Proposed Start Date	2/28/2013
Proposed End Date	7/6/2018
Project Scope	The scope of work for the project will be to design, entitle, implement, maintain, and monitor the proposed Bank project
Project Description	The Bank project would create a mitigation and conservation bank that would yield approximately 120 riparian floodplain and endangered species conservation credits, and has the potential to create approximately 21,000 linear feet of restored and enhanced shaded riverine aquatic (SRA)/channel margin habitat available as mitigation credits on a per-linear foot basis. The Bank would be partially utilized by WSAFCA to fulfill mitigation that will be obligated to the Southport EIP project, but will have substantial remaining credits for use by the State for future project impacts resulting from implementation of the Central Valley Flood Protection Plan (CVFPP). The Southport EIP project reach extends approximately 5.6 miles from the termination of the USACE Sacramento River Bank Protection Project at River Mile 57.2R south to the South Cross Levee (Figure 1). The Southport EIP project will be constructed using a combination of methods to create a system of new levees or reinforced existing levees. Portions of the new levee segments will be constructed 400' to 1000' away from the Sacramento River channel to create a setback area. The Bank will be

developed in the setback area for approximately four miles along the Sacramento River (Figures 2 and 3). The setback area will be excavated down to an elevation of between +7.0' and +10.0' NAVD88 and the excavated material will be utilized in constructing portions of the new flood control features. A low-flow swale will be excavated within the restored floodplain at approximately +7.0' NAVD88 to provide access to the vegetated floodplain terrace and a drainage point back to the main river channel to minimize the potential for fish stranding during flood water recession. The existing Sacramento River levee will be degraded and breached in places in order to create full hydrologic connectivity between the setback area and the main river channel.

Project Objective

Project Benefits Information

Project Objective

Budget

Other Contribution	0
Local Contribution	0
Federal Contribution	0
Inkind Contribution	0
Amount Requested	5000000
Total Project Cost	5000000

Geographic Information

Latitude DD(+/-)	38	MM 31	SS 52
Longitude DD(+/-)	121	MM 31	SS 54
Longitude/Latitude		11211	33 34

Clarification Location

County Yolo Ground Water Basin Sacramento Valley-Yolo Hydrologic Region Sacramento River WaterShed

Legislative Information

Assembly District	4th Assembly District		
Senate District	3rd Senate District		
US Congressional District	District 5 (CA)		
Section · Conoral Danie 18			

Section: General Project Information

This section contains seventeen general questions about the proposal that all applicants are required to answer.

G1 - Applicant Contact Information

Provide contact information (name, organization, address, phone number, and e-mail address) for the individual who would be the primary contact regarding the grant proposal.

If the Project Lead organization is a local government, nonprofit, or consortium, attach a resolution from the appropriate applicant organization authorizing the Applicant to sign a funding agreement on its behalf.

West Sacramento Area Flood Control Agency 1110 West Capital Avenue, West Sacramento, CA 95691 Attn: Kenneth Ruzich Title: General Manager Telephone: 916-606-6435 email address: wsrd@pacbell.net

G2 - Key Cooperators

Provide contact information (name, organization, address, phone number, and e-mail address) for any (sub)contractors, advisors, or other technical personnel identified as being necessary for successful completion of the project ("Key Cooperators").

Attach a resume for each person identified as a "Key Cooperator".

Carl Jensen ICF International 630 K Street Suite 400 Sacramento, CA 95814 Telephone: 916-231-7668 email address: carl.jensen@icfi.com Derek Larsen MBK Engineers 1771 Tribute Way, Suite A Sacramento, CA 95815 Telephone: 916-456-4400 email address: larsen@mbkengineers.com Chris Bowles cbec ecoengineering 2544 Industrial Blvd West Sacramento, CA 95691 Telephone: 916-231-6052 email address: c.bowles@cbecoeng.com

G3 - Project Title

Give your project a short title.

State of California West Sacramento Floodplain Mitigation Bank

G4 - Project Location

List all the counties and/or cities in which project activities would occur under this proposal.

In addition, list all river systems, and approximate locations (in river miles, if applicable), on which project activities would occur under this proposal.

City of West Sacramento, Yolo County Sacramento River Miles 52.8 to 57.2

G5 - Current Zoning and Land Use

Describe the current zoning and land use for the parcel(s) that are the subject of this proposal.

If there is a likelihood of zoning or general plan changes for the property in the next year (e.g., a General Plan update is in process, or a zoning code amendment is or will soon be proposed), provide a brief explanation of the expected changes.

The land use in the proposed mitigation reserve is currently identified for future urban development in the City of West Sacramento General Plan. The zoning varies depending on location from low, medium, and high density residential, water front development, public open space, and recreation.

G6 - Description of Parcel(s)

Give the size of the property (in acres) that is the subject of this proposal, and briefly describe the natural resources on the property currently.

In addition, identify the approximate size (in acres and/or linear feet) of the project's footprint on the property.

Provide information about any surveys that have been conducted on the property, including biological, archaeological, pipeline/transmission, topographical, etc.

The project footprint is approximately 120 acres. The following surveys and studies have been completed to date: 1. Baseline topographic surveys; existing utility surveys and mapping; bathymetric surveys; hydraulic data development including Acoustic Doppler Current Profile (ADCP flow and velocity) measurements and river stages for model calibration purposes; geomorphic data development including suspended and bedload sediment transport measurements; and erosion assessments along the river bank of the Sacramento River through the project reach. 2. Extensive geotechnical investigations, including numerous boreholes and soils tests in the setback area and existing levee, to characterize geologic conditions including underseepage issues. 3. Assessment of biological and ecological conditions along the riverbank and setback area, including identification of sensitive species. 4. Hydrodynamic and sediment transport modeling to identify system-wide and localized impacts of levee setback alternatives, and potential mitigation options. 5. Property surveys and investigations. 6. Optimization of setback grading to provide material for levee construction and identification of additional borrow material sites. 7. Development of preliminary erosion control measures for the setback area, the new Southport EIP levee, and the remnant riverbank of the Sacramento River, including biotechnical bank stabilization measures. 8. Development of 65% design level plans, specifications and cost opinions for the Southport EIP. 9. Preparation of the Southport EIP draft EIS/EIR for public review and preliminary regulatory permitting applications.

G7 - Landowner(s)

Identify all recorded legal rights on the property, including but not limited to ownership titles, easements, liens or other encumbrances for the property that is the subject of this proposal.

Land will be purchased as part of the Early Implementation Project being advanced by WSAFCA in partnership with the State of California. For purposes of this project it can be assumed that the property for the mitigation bank will be held by WSAFCA of the Sacramento-San Joaquin Drainage District prior to initiation of the project.

G8 - Holder(s) of Water and Mineral Rights, and Rights of Way

Rights of Way (ROWs) and possible implications for land management.

To verify that any water rights necessary to implement the project have been obtained, indicate the basis and source of those rights.

Not applicable

G9 - Landowner(s) Willingness to Participate

If the property is in private ownership, is there a legally binding agreement with the landowner that would allow habitat to be developed and sustained into perpetuity on the parcel? If so, attach a copy of the agreement.

Also, if the property is in private ownership, is there an agreement with or written authorization from the owner that DWR or its multi-agency group can visit the site for reconnaissance level visits? If so, attach a copy of the agreement/authorization.

Not applicable

G10 - Project Description

Describe your project and explain how it will advance the goals of ecological enhancement while providing mitigation for future work at State Plan of Flood Control (SPFC) facilities.

Attach a detailed description of the project and clearly indicate which portions are proposed for DWR's bond funding. The project description should include, at a minimum:

* the goals and objectives of the project;

. the activities that will be undertaken under this proposal to achieve the project objectives;

• relationships to other projects or activities that may benefit from implementation of this project, as well as any existing mitigation obligations of these projects or activities, if known;

· the approximate timelines for deliverables associated with this proposal; and

• a brief description, including approximate timelines and expected deliverables, of any future phases that would result in full implementation of the project, if applicable.

Refer to the Work Plan, Budget, & Schedule: Grantee Guidance document.

Attach a Scope of Work - Task Outline describing the work to be performed for each task, as well as the deliverables (see Table 1).

Attach a Schedule (see Table 4).

Attach location maps, designs, color photographs, or other information that describes the project.

The State of California West Sacramento Floodplain Restoration Bank (Bank) is the final phase of the Southport Early Implementation Project (EIP) (Southport EIP), which is a proposed multi-objective flood control project for the City of West Sacramento that advances the primary goals of achieving a minimum level of 200-year flood protection, providing flood-compatible recreational opportunities, and habitat restoration when economically feasible. The Bank project would create a mitigation and conservation bank that would yield approximately 120 riparian floodplain and endangered species conservation credits, and has the potential to create approximately 21,000 linear feet of restored and enhanced shaded riverine aquatic (SRA)/channel margin habitat available as mitigation credits on a per-linear foot basis. The Bank would be partially utilized by WSAFCA to fulfill mitigation that will be obligated to the Southport EIP project, but will have substantial remaining credits for use by the State for future project impacts resulting from implementation of the Central Valley Flood Protection Plan (CVFPP). The Southport EIP project reach extends approximately 5.6 miles from the termination of the USACE Sacramento River Bank Protection

Project at River Mile 57.2R south to the South Cross Levee (Figure 1). The Southport EIP project will be constructed using a combination of construction techniques to create a system of new levees or reinforced existing levees. Portions of the new levee segments will be constructed 400? to 1000? away from the Sacramento River channel to create a setback area. The Bank will be developed in the setback area for approximately four miles along the Sacramento River (Figures 2 and 3). The setback area will be excavated down to an elevation of between +7.0? and +10.0? NAVD88 and the excavated material will be utilized in constructing portions of the new flood control features. A lowflow swale will be excavated within the restored floodplain at approximately +7.0? NAVD88 to provide access to the vegetated floodplain terrace and a drainage point back to the main river channel to minimize the potential for fish stranding during flood water recession. The existing Sacramento River levee will be degraded to a lower elevation or completely breached in places in order to create full hydrologic connectivity between the setback area and the main river channel. The restoration objectives developed for the Bank include provide compensatory mitigation credits for impacts to protected land cover types and to special-status species and potential habitat for these species; restoring portions of the historic Sacramento River floodplain (i.e., waters of the United States); restoring riparian and oak woodland habitat on the restored floodplain that will create continuous habitat corridors for wildlife movement; designing habitat features to minimize future maintenance obligations (e.g., reduce opportunities for sediment and debris accumulation); and designing floodplain planting and vegetation management schemes to avoid undesirable hydraulic and sediment transport impacts to the setback levee and offset area.

G11 - Habitat Connectivity

If the property is located near any protected habitat areas or high-quality habitat types, describe these areas/habitat types and indicate their proximity (in linear miles) to the project site.

Attach map(s) showing the location of nearby habitat and conserved areas.

The project site is surrounded by developed areas of single-family residences, active and fallow agricultural lands, and the Sacramento River. The proximity of the project site to the Sacramento River and length of frontage along the river channel provides an excellent opportunity to restore a portion of the historic Sacramento River floodplain and recreate some of the historic functions and values that were lost when the river was channelized. Existing riparian habitat in the project area and immediate vicinity consists of a narrow, discontinuous band on the water side of the Sacramento River levee. This riparian strip provides limited shaded riverine aquatic (SRA) habitat. Large areas of cultivated and fallow agricultural land occur directly adjacent to the project area. These areas could provide foraging habitat for raptors including Swainson's hawk.

G12 - Benefits to Sensitive Habitats and/or Species

Describe any benefits that are expected to accrue to fish, wildlife, or plant species listed as threatened, endangered, of special concern, or otherwise protected by law, as well as any benefits to sensitive habitats on which these species depend, as a result of this project.

Indicate the specific amounts of mitigation/compensation areas (if known) that would result from implementation of this project and could be applied to future work at State Plan of Flood Control facilities.

The proposed project will create riparian floodplain and off-channel refugia habitat for native fish, including Chinook salmon (Oncorhynchus tshawytscha) and Sacramento splittail (Pogonichthys macrolepidotus), and to a limited extent Central Valley steelhead (Oncorhyncus mykiss). Floodplains are now recognized as major contributors to aquatic production and species diversity in large river systems where native fish species have evolved specific adaptations to exploit these

variable but highly productive habitats. Floodplains can greatly expand the quantity and quality of habitat available to juvenile salmon, splittail and other fishes during seasonal inundation periods. After young salmon have dispersed from spawning areas, the distribution and abundance of young salmon is determined largely by their preferences for shallow water and low water velocities, which in large rivers are found mostly along channel margins, floodplains, and other off-channel habitats. Floodplain habitat is extremely limited along the Lower Sacramento River. It is generally assumed that the number or biomass of fish and other organisms that can be supported by a habitat is directly proportional to the area of suitable habitat. Larger floodplains may also enhance growth and survival of rearing juveniles by increasing the amount of living space, reducing competition for food, and reducing potential encounters with predators. Floodplain area may also affect the productivity of river-floodplain systems by affecting hydraulic residence time, water temperature, and inputs of organic matter, plankton, and invertebrates from the floodplain into river channels (Ahearn et al. 2006). Floodplains can greatly expand the quantity and quality of habitat available to juvenile salmon, splittail and other fishes during seasonal inundation periods. After young salmon have dispersed from spawning areas, the distribution and abundance of young salmon is determined largely by their preferences for shallow water and low water velocities, which in large rivers are found mostly along channel margins, floodplains, and other off-channel habitats (Beechie et al. 2005, Lestelle et al. 2005). The Swainson?s hawk is a state-listed threatened species. Swainson?s hawks are summer residents in the study area. The nesting season extends from approximately early March through August. In the Central Valley, Swainson?s hawks nest occur primarily in riparian areas adjacent to agricultural fields or pastures, although isolated trees or roadside trees are sometimes used (California Department of Fish and Game 1994). Swainson?s hawks nest in mature trees; the preferred tree species are valley oak, cottonwood, willows, sycamores, and walnuts. Nest sites typically are located in the vicinity of suitable foraging areas. The primary foraging areas for Swainson?s hawk are open agricultural and pasture lands (California Department of Fish and Game 1994).

G13 - Project Support and/or Opposition

Describe the outreach that has been conducted to date for this project.

Characterize the level of support for this project among nearby landowners and local interests, entities, and organizations.

Describe any known opposition to the project.

WSAFCA has taken a proactive, transparent approach throughout all stages of the Southport Sacramento River Early Implementation Project. WSAFCA has kept the West Sacramento community informed about their role to ensure the community at large is safe from flooding. The agency simultaneously stresses their commitment to ensure the least damage to private property owners as possible as part of the levee improvement project. Private property owners and at-large residents alike have received updates throughout the process and at key project milestones through public meetings, small group meetings, one-on-one meetings, media relations, mailers, utility bill inserts, community presentations and additional outreach channels. Many community members have expressed their support of the project as a result of the outreach to nearby property owners, stakeholders, community members and the public. Organizations including the West Sacramento Chamber of Commerce, community leaders and business owners have endorsed and supported the project, citing the need for levee improvements in the south area of the city and city-wide. While the most impacted property owners expressed their desire for a different project alternative, many have also expressed appreciation for the transparent process WSAFCA has employed since the beginning. By the end of preliminary design, the property owner representative?s attorney said she had ?never worked with a public agency more committed to working with residents than West

Sacramento.? Her comments were a result of the significant number of public meetings, community meetings and one-on-one meetings. Several homes slated to be removed have been saved due to property owner outreach and continual dialog between the owners, WSAFCA and the project?s design team. Some of the property owners who formerly opposed the project are now working with solutions. Formal public comment will be secured and considered through the NEPA/CEQA process identified in the preferred project alternative. WSAFCA has received letters of opposition from some of the affected property owners related to the extent of setback currently identified in the preferred project alternative. Overall WSAFCA believes that there is general support from the community for the project.

G14 - Status of Permits and Documents

Briefly describe the permits and environmental document that will be applicable to your project, and the status of obtaining those permits and preparing those documents.

Include information about possible permitting obstacles for getting the project implemented such that it provides advancem itigation for future work at SPFC facilities (this could include conflict with an existing easement or revocability of existing permits).

Implementing the Bank project will require compliance with several local, state, and federal regulatory processes. The following is a list of the anticipated approvals that will be needed: CEQA/NEPA Compliance Clean Water Act Section 404 Compliance (Section 404) Federal Endangered Species Act (Section 7) National Historic Preservation Act Section 106 Documentation Fish and Wildlife Coordination Act Support California Endangered Species Act (Section 2081) Clean Water Fish and Game Code (Section 1602) Clean Water Act Section 402 Compliance Clean Water Act Section 401 Compliance Central Valley Flood Protection Board (CVFPB) Encroachment Permit (Title 23) Yolo County Grading Permit For the purposes of this submittal it the Southport EIP. If bond funding could be secured in early 2013, many efficiecies in the permit applications.

G15 - Funding Requested

Refer to the Work Plan, Budget, & Schedule: Grantee Guidance document,

Attach a Task Budget (see Table 2). Indicate within the budget sheet how much bond money is being requested from DWR, and how much money or in-kind service is being provided by the Applicant, Key Cooperators, and other partnering entities. (If in-kind services or resources are being provided, estimate their monetary value.)

Last Uploaded Attachments: FESSRO Budget.pdf

G16 - Estimates of Costs for Future Phases

Refer to the Work Plan, Budget, & Schedule: Grantee Guidance document.

If this project is anticipated to have subsequent phases, attach a Task Budget (see Table 2) and indicate within the table the needs (activities and deliverables) and approximate costs of the future phases needed for the project to be fully implemented in the future.

(If this project does not include future phases, indicate this as your response and proceed to Question G17.)

Last Uploaded Attachments: NA.pdf

G17 - Management and Maintenance Responsibilities

Identify who will be responsible for management and maintenance of the constructed project during the establishment phase, and identify who will be responsible for long-term management and maintenance.

Identify the amount of endowment that will be used to fund the long-term management of the project, and the source of those funds.

If the proposal is for a mitigation bank for which the applicant entity will be responsible for all management and maintenance, as well as the endowment, indicate that in your response and identify the amount of the endowment.

As a flood risk reduction agency, WSAFCA has limited financial and political ability for habitat restoration beyond that required for project mitigation associated with the Southport EIP. WSAFCA will partner with the State to identify responsible parties for land ownership, bank ownership, and operations and maintenance, given that the majority of the mitigation credits will be utilized by the State. Further, WSAFCA and the State will need to work closely together on the financial details of the project to ensure that the interests of both agencies are met.

Section: Advance Mitigation ("IRT" and/or "Other Mechanisms")

DWR is interested in creating mitigation banks with regulatory agencies participating on the Interagency Review Team (IRT) as the signatories, and to provide advance mitigation credits for sensitive habitats and species that are expected to be impacted by future SPFC projects, including but not limited to:

- Riparian forest and shrub-scrub (e.g., mitigation for implementation of Life Cycle Management)
 - Shaded riverine aquatic (SRA) areas
 - Channel margin and floodplain areas
- · Salmon and steelhead; green sturgeon (mitigation for impacts to habitat from alterations to SPFC facilities)

Please refer to Table 1 of the PSP for the list of species and natural communities targeted by this PSP.

If your proposal is to create a mitigation bank in accordance with the existing Interagency Review Team (IRT) mitigation banking process, answer questions AMI through AM4. If your proposal is to formulate "umbrella" banking instruments or other mechanisms, answer questions AM5 through AM7.

AM1 - Land Control (privately-owned lands)

Describe whether acquisition from willing sellers of private lands will be through fee title or conservation

- If acquisition will be through fee title, note that and proceed to the next question (AM2).
- If acquisition will be through conservation easement, provide an answer (Yes/No) to the following three questions:
 - o Is there a legally binding agreement with the landowner that would allow habitat to be developed o Is the conservation easement already recorded?

 - o Is the conservation easement under development? (If Yes, explain the status of the recording of the conservation easement and provide an expected timeline.)

Acquisition of land for the Southport EIP and Bank projects will be done through fee title.

AM2 - IRT Mitigation Banking Enabling Instrument Checklist

Completion of specific activities (refer to the Mitigation Banking Enabling Instrument checklist currently utilized by the Interagency Review Team (IRT), provided as Attachment B1 to the PSP on the website) is currently required by regulatory agencies for the establishment of a mitigation or conservation bank.

For this PSP, DWR is soliciting proposals that will serve as 'advance mitigation' for SPFC facilities' evaluation, repair, reconstruction, or replacement projects; therefore, habitat and/or species credits at the bank site may be determined at a later date in light of future permit needs of the individual facilities (a situation sometimes referred to as a "turn-key" or "single-user" mitigation bank.)

Describe which specific component(s) of these IRT requirements are being proposed as part of this project. All componenets of the IRT bank enabling instrument checklist will be prepared or secured as part of this project. This will include: 1. BEI 2. Location maps 3. Service area maps and description 4. Development plan 5. Bank management and operation documents 6. Real estate records and assurances 7. Bank crediting and credit transfers 8. Phase 1 Environmental Site Assessment 9. Biological resources survey 10. Wetland delienation verification letter 11. Cultural, historical, archaeological and Native American resources information 12. Other documents and permits

AM3 - Land Improvement (State or federal lands)

If the proposal is to establish a bank site on real property that is already under the control of a State or federal agency, describe which specific component(s) of the IRT requirements are being proposed as part of this project (refer to the Mitigation Banking Enabling Instrument checklist provided as Attachment B1to the not applicable

AM4 - DFG Mitigation Policy on Publicly Owned and Conserved Lands

If the proposal is to establish a bank site on real property that is already under the control of a State or federal agency and/or was acquired for conservation purposes, and if the California Department of Fish and Game (DFG) is one of the regulatory agencies that would be a signatory for the development and use of mitigation credits, please check the box to indicate that you have read and understand DFG's new policy for mitigation on publicly owned and conserved lands (included as Attachment B2 to the PSP on the website).

AM5 - Umbrella Bank Development

Indicate whether you would like your proposal to be considered for inclusion under one or more umbrella mitigation banking instruments by listing any and all species (refer to Table 1) or vegetation communities (riparian forest and shrub scrub, shaded riverine aquatic, and/or channel margin and floodplain) that would benefit from your project. Note that funding for such a project or activity will be contingent upon approval by the relevant regulatory agencies that the project meets the mitigation requirements for inclusion in an umbrella mitigation bank in the future, including but not limited to long-term management and funding assurances.

AM6 - DFG Mitigation Policy on Publicly Owned and Conserved Lands

If you answered Question AM5 (Umbrella Bank Development) and your proposal is to establish an umbrella bank site on real property that is already under the control of a State or federal agency and/or was acquired for conservation purposes, and if the California Department of Fish and Game (DFG) is one of the regulatory agencies that would be a signatory for the development and use of mitigation credits, please check the box to indicate that you have read and understand DFG's new policy for mitigation on publicly owned and conserved lands (included as Attachment B2 to the PSP on the website).

a) VII have read and understand the DFG policy.

AM7 - Other Proposed Mitigation Mechanisms

If Applicants feel they cannot or may not need to meet IRT requirements described in Attachment B1, they are encouraged to identify potential alternatives that can provide equivalent information for consideration by applicable regulatory agencies outside of the IRT process. Describe those alternatives here. Note that funding for such a project or activity will be contingent upon the relevant regulatory agencies' approval of these alternatives as functionally equivalent to the information required by the IRT, such that they can formally become a signatory for the development and use of mitigation credits in permit negotiations on SPFC projects.

Section: Additional Application Questions

This tab includes additional questions that the PET will use to evaluate your proposal.

Q1 - Significant Impacts under CEQA

List any potentially significant impacts the proposed project could result in. If available, list mitigation measures that have been incorporated into the proposal.

There may be significant impacts regarding air quality and sensitive biological resources. For air quality impacts, mitigation measures to reduce emissions from construction equipment and a fugitive dust control plan may be required. For impacts to sensitive biological resources, construction work windows, pre-construction clearance surveys, exclusion devices, and biological monitoring during project implementation may be required.

Q2 - List of required permits

List the required permits and provide an implementation plan for their procurement.

The following is a list of the anticipated regulatory permits and approvals needed for implementation of the Bank project: CEQA/NEPA Compliance Clean Water Act Section 404 Compliance (Section 404) Federal Endangered Species Act (Section 7) National Historic Preservation Act Section 106 Documentation Fish and Wildlife Coordination Act Support California Endangered Species Act (Section 2081) California State Fish and Game Code (Section 1602) Clean Water Act Section 402 Compliance Clean Water Act Section 401 Compliance Central Valley Flood Protection Board (CVFPB) Encroachment Permit (Title 23) Yolo County Grading Permit WSAFCA will establish communication, in coordination with DWR or its designee, with the resource and regulatory entities. The purpose of communication at this stage is to ensure that regulatory triggers and approval pathways are identified early, a spirit of cooperation is established, and agency feedback is integrated into the project design to facilitate a smooth process and fair outcome for WSAFCA relative to permit conditions. It is intended that communication at this stage will be informal and preparatory for formal pre-application meetings. The communication will focus on agency preferences for analytical methods and documentation standards, with the overall intent of establishing constructive rapport for the project and WSAFCA, as well as determining pathways among variable permit parameters (such as for Clean Water Act [CWA] Section 404). WSAFCA will apply the information and agency communication to develop a permitting strategy, detailed workplan, and schedule. The workplan and schedule will prioritize the permits as individual tasks based on duration of document preparation time, elements common and essential to multiple permit applications, agency processing time, design milestones, and additional data needs, reflecting the dependencies between permits. This task will also include coordination with the design and modeling consultant as well as the lead for the CEQA document. WSAFCA will provide feedback on the design and CEQA document relative to likely permit conditions and to ensure avoidance and minimization of environmental effects or permitting challenges. Finally, this task will include a cultural resources record search from the county information center and a search of the California Native Diversity Database for special-status species.

Q3 - Property Acquired or Restored used for Mitigation

Will any of the property acquired or restored with this grant funding be used to meet mitigation requirements for another project? (Yes or No)

If yes, please indicate the number of acres and the specific project(s) for which the property to be acquired or restored would provide mitigation.

Yes, it is anticipated that between 20 and 30 of the credits from the Bank project will be assigned to the Southport EIP as project mitigation.

Q4 - Project Acquisition and Easement Description

Provide a description of how the property improvements or acquired property interests funded by the grant will be conserved in perpetuity, either by a recorded conservation easement, deed restriction or similar limitation to fee title held and enforced by an unidentified third party, or other mechanism acceptable to the State. Upon project implementation, it must be in first position ahead of any recorded mortgage or lien on the property unless this requirement is waived by the State.

The Bank project site will be located in a California state designated floodway which will restrict future activities on the site. As a flood risk reduction agency, WSAFCA has limited financial and political ability for habitat restoration beyond that required for project mitigation associated with the Southport EIP. WSAFCA will partner with the State to identify responsible parties for land ownership, bank ownership, and operations and maintenance, given that the majority of the mitigation credits will be details of the project to ensure that the interests of both agencies are met.

Section: Attachments

The following items will be uploaded onto the application as attachments. All attachments must be kept under the 50MB maximum allowed on the BMS/GRanTS, so it may be necessary for applicants to submit the attachments as separate files (up to five files may be uploaded per question, or to zip them, prior to uploading. Also, BMS/GRanTS requires the file name to be less than 50 characters in length.

Attachment 1 - Signature Page

Download the Signature Page from DWR's CVFS Conservation Framework and Strategy website. Upload a scanned version onto the BMS/GRanTS and send by mail, delivery service, or hand carry an original (wet signature) signed form with hard copy of the proposal to the physical address noted in your invitation letter. Last Uploaded Attachments: Signature Page.pdf

Attachment 2 (see Question G1) - Resolution

Download the resolution from DWR's CVFS Conservation Framework and Strategy website. Attach a resolution from the applicant organization's governing board authorizing submittal of a grant application, indicating their intent to accept the grant if awarded, and authorizing specific individuals to sign the funding agreement on behalf of each applicant organization.

Last Uploaded Attachments: Signed Res. 12-12-01.pdf

Attachment 3 (see Question G2) - Resumes for Key Cooperators

Provide a resume (up to 2 pages) for each identified Key Cooperator.

Last Uploaded Attachments: Carl Jensen resume.pdf, Derek Larsen resume.pdf, Chris Bowles resume.pdf

Attachment 4 (see Question G9) - Landowner Agreements

If applicable, attach (1) a copy of any agreement authorizing creation of habitat on a private parcel; and (2) written authorization to access the project site for reconnaissance purposes.

Last Uploaded Attachments: NA.pdf

Attachment 5 (see Question G10) - Project Description; Scope of Work; Schedule

Attach a detailed description of the project and clearly indicate which portions are proposed for DWR's bond funding. The project description should include, at a minimum:

- the goals and objectives of the project;
- the activities that will be undertaken under this proposal to achieve the project objectives;
- relationships to other projects or activities that may benefit from implementation of this project, as
 well as any existing mitigation obligations of these projects or activities, if known;
- the approximate timelines for deliverables associated with this proposal; and
- a brief description, including approximate timelines and expected deliverables, of any future phases that would result in full implementation of the project, if applicable.

Scope of Work-Task Outline - Refer to the document *Work Plan, Budget, & Schedule: Grantee Guidance* from DWR's CVFS Conservation Framework and Strategy website. Use the example provided (Table 1) to create a Scope of Work - Task Outline, and upload it to BMS.

Schedule - Refer to the document *Work Plan, Budget, & Schedule: Grantee Guidance* from DWR's CVFS Conservation Framework and Strategy website. Use the example provided (Table 4) to create a Schedule, and upload it to BMS.

Last Uploaded Attachments: Southport FESSRO Final Proposal Scope.pdf

Attachment 6 (see Questions G10 and G11) - Project Drawings and Sketches; Maps

Project Drawings and Sketches - Provide location maps, designs, drawings, color photographs, or other information that describes the project features.

Project Location/Site/Vicinity Map - Provide a map and/or diagrams depicting locations of nearby conservation properties and projects in relation to the project site.

Last Uploaded Attachments: Figures 1-3.pdf

Attachment 7 (see Question G15) - Task Budget

Refer to the document Work Plan, Budget, & Schedule: Grantee Guidance from DWR's CVFS Conservation Framework and Strategy website. Use the example provided (Table 2) to create a Task Budget that reflects the contents of the Scope of Work-Task Outline submitted in Attachment 5, and upload it to BMS. Make sure the task budget includes all costs for developing agreements with regulatory agencies, and long-term maintenance costs for the site as well as flood maintenance costs.

Last Uploaded Attachments: FESSRO Budget.pdf

Attachment 8 (see Question G16) - Task Budget for Potential Future Phases

Refer to the document Work Plan, Budget, & Schedule: Grantee Guidance from DWR's CVFS Conservation Framework and Strategy website. If applicable to your project, use the example provided (Table 2) to create a Task Budget reflecting expected costs of future phases that will need to occur to bring this project to completion.

Last Uploaded Attachments: NA.pdf

West Sacramento Area Flood Control Agency (WSAFCA)

1110 West Capitol Avenue West Sacramento, CA 95691

Authorized Representative: Kenneth A. Ruzich

WSAFCA General Manager Phone: (916) 371-1483 Fax: (916) 371-1494

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January 7, 2013

Submittal to:

Lori Clamurro Chew

Department of Water Resources

FloodSAFE Environmental Stewardship and Statewide Resources Office

901 P Street, Room 411A

Sacramento, California 95814

Submittal includes:

2 copies of the West Sacramento Area Flood Control Agency's State of California West Sacramento Floodplain Mitigation Bank Work Plan, Schedule, and Budget

California Department of Water Resources Central Valley Flood System Conservation Framework and Strategy Grant Application Form November 2012

Applicant Signature Page

Applicant: West Sacramento Area Flood Control Agency

Project Title: State of California West Sacramento Floodplain Mitigation Bank

By signing below, the official declares the following:

The truthfulness of all representations in the proposal;

The individual signing the form has the legal authority to submit the proposal on behalf of the applicant, and the applicant has the legal authority to enter into a contract with the State;

There is no pending litigation that may impact the financial condition of the applicant or its ability to complete the proposed project;

The individual signing the form waives any and all rights to privacy and confidentiality of the proposal; [Note: DWR will keep confidential sensitive information related to property negotiations or legal proceedings to the extent allowed under public information disclosure laws.]

The applicant will comply with all terms and conditions identified in the Central Valley Flood System Conservation Framework and Strategy Guidelines, PSP, and future Funding Agreement if selected for funding.

Kenneth A. Ruzich, General Manager

West Sacramento Area Flood Control Agency

1/7/13

Date

STATE OF CALIFORNIA WEST SACRAMENTO FLOODPLAIN MITIGATION BANK WORK PLAN, SCHEDULE, AND BUDGET

Submitted By: West Sacramento Area Flood Control Agency

Submitted On: January 7, 2013

Prepared by:







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PROJECT INFORMATION

The State of California West Sacramento Floodplain Restoration Bank (Bank) project would create a mitigation and conservation bank that would yield approximately 120 riparian floodplain and endangered species conservation credits, and has the potential to create approximately 21,000 linear feet of restored and enhanced shaded riverine aquatic (SRA)/channel margin habitat available as mitigation credits on a per-linear foot basis. Specifically, the proposed Bank project would create riparian floodplain and off-channel refugia habitat for native fish, including Chinook salmon and Sacramento splittail, and to a limited extent, Central Valley steelhead. The West Sacramento Area Flood Control Agency (WSAFCA) would partially utilize the Bank to fulfill mitigation that will be obligated to the Southport Early Implementation Project (Southport EIP), but substantial credits will remain for use by the State to mitigate for future project impacts resulting from implementation of the Central Valley Flood Protection Plan (CVFPP).

Southport Early Implementation Project (Southport EIP)

The Bank project represents the final phase of the Southport EIP, which is a proposed multi-objective flood control project for the City of West Sacramento that advances the primary goal of achieving a minimum level of 200-year flood protection and when compatible providing recreational opportunities, and restoring habitat and floodplain values when economically feasible. The Southport EIP reach extends approximately 5.6 miles from the termination of the U.S. Army Corps of Engineers' (USACE's) Sacramento River Bank Protection Project at River Mile 57.2 south to the South Cross Levee (Figure 1). While the Southport EIP is still undergoing environmental and public review pursuant to NEPA and CEQA, the currently identified preferred alternative would create a new setback levee and reinforce existing levees. The new levee segment would be constructed between 400 and 1,000 feet away from the Sacramento River channel to create a new setback floodplain area.

A setback levee has a number of extended floodplain management benefits, including a reduction in operations and maintenance (O&M) for levees and capital costs to mitigate for erosion. Additionally, a fully engineered levee section will better withstand seismic events, further reducing O&M and future capital investments. An important threshold criterion for all flood risk reduction projects is ensuring that no significant adverse system-wide hydraulic impacts result from a project. WSAFCA has performed extensive hydraulic and geomorphic modeling of the proposed setback levee and the results to date indicate that the levee improvements, including restoration of the setback area, would not result in significant adverse hydraulic impacts. Accordingly, WSAFCA is proposing the Bank project to improve floodplain values and recreation opportunities while maintaining a sustainable flood risk reduction system.

West Sacramento Floodplain Mitigation Bank (Bank Project)

The Bank project would be developed in the setback area of the Southport EIP. It would extend approximately four miles along the Sacramento River and vary in width between 400 and 1,000 feet (Figures 2 and 3). Design of the Bank project in the setback area would be initiated once the Southport EIP 65% design and the public review period for the EIS/EIR are underway, which is expected in early 2013. Based on designs for the Southport EIP, which are currently being finalized, it is anticipated that much of the setback area would be excavated down to a floodplain elevation of approximately 10.0' NAVD88 and the excavated material would be



utilized in constructing portions of the new flood control features. A low-flow swale would be excavated within the restored floodplain with an invert elevation at approximately +7.0' NAVD88 to provide access to the vegetated floodplain terrace and a drainage point back to the main river channel, which would minimize the potential for fish stranding during flood water recession. The existing Sacramento River levee would be excavated to a lower elevation or completely breached in places to create effective hydrologic connectivity between the restored floodplain and the main river channel.

Seasonal inundation of the floodplain, including restored riparian, woodland, and grassland habitats, would provide seasonal rearing habitat for juvenile salmonids. After young salmon have dispersed from spawning areas, their distribution and abundance is determined largely by their preferences for shallow water and low water velocities, which in large rivers are found mostly along channel margins, floodplains, and other off-channel habitats. Based on a habitat suitability index (HSI) developed for juvenile salmonids by ICF International, the restored floodplain is likely to provide optimal or near-optimal rearing habitat for juvenile salmonids. Floodplain and riparian habitat inundation may also benefit other native fishes, including Sacramento splittail and steelhead trout.

Existing SRA habitat/channel margin in the Southport EIP project area is limited to a narrow, discontinuous band of riparian vegetation on the Sacramento River levee and at isolated locations in the levee setback area. The primary area for restoring SRA/channel margin habitat would be focused along the existing riverbank of the Sacramento River. The existing levee is positioned along the top of the riverbank. Implementation of the Southport EIP would set back the new levee and the existing levee would be partially or entirely degraded along the riverbank. Removing the existing levee from the riverbank will allow substantial lengths of channel margin to be enhanced with riparian vegetation, slope flattening, and in-stream habitat structures. Riparian scrub and cottonwood forest habitat may be established on portions of the restored and/or lowered floodplain relatively close to the Sacramento River and would be subject to recurrent inundation. Riparian shrub habitat would include several willow species, buttonbush, and seedlings of other native riparian species. Cottonwood forest habitat would be subject to recurrent flooding and would include an overstory of cottonwood, sycamore, willow, box elder and Oregon ash. Understory riparian species such as California grape and California blackberry would be included in both planting palettes to provide diversity in vegetative structure. Elderberry shrubs may be included in the restoration design if they would not conflict with managing the flood control features. Current project designs call for sections of the existing levee to be stabilized with biotechnical treatments to minimize bank erosion in critical areas. These erosion treatments be modified with additional plantings and habitat structures such as root wads or engineered log jams to maximize benefits to aquatic species.

Between the riverbank and the new setback levee alignment, a system of swales will be designed that will form the primary riparian and aquatic habitat corridors and provide floodplain drainage of the setback area. Substantial aquatic-to-terrestrial transition "edge" habitat would be created along these swales. In addition, topographic heterogeneity will be incorporated into the project design grading plans that will allow for a mosaic of seasonal wetland, riparian wetland, and riparian upland habitats. Seasonal wetland areas will be enhanced with wetland vegetation, while riparian upland habitats will include a variety of willow-scrub, cottonwood forest, and oak woodland plantings.



Finally, other enhancements may be incorporated, such as the inclusion of large woody material (root wads/engineered log jams) to provide for additional flow diversity and habitat refugia valuable for aquatic habitats in the setback area.

Ultimately, its anticipated that implementation of the Bank Project could yield up to approximately 120 riparian floodplain and endangered species conservation credits and approximately 21,000 linear feet of restored and enhanced SRA/channel margin habitat available as mitigation credits on a per-linear foot basis. WSAFCA would partially utilize these credits to fulfill mitigation obligations resulting from the Southport EIP, but substantial credits would remain available.

A Bank Enabling Agreement (BEI) will be prepared for the Bank project and will serve as the agreement between the bank sponsor and the appropriate natural resource agencies "regarding the establishment, use, operation, and maintenance of the Bank" to compensate for unavoidable impacts on, and conserve and protect, waters of the U.S., endangered species, and other protected habitat.

Commercially available riparian habitat credits sell for approximately \$100,000 to \$150,000 per credit acre, and native fish conservation credits sell for between \$75,000 and \$180,000 per credit acre. The pricing of each credit type is dependent on location, availability, and entitlement and construction costs.

Technical Approach for the Bank Project

During planning and design of the Southport EIP, WSAFCA analyzed several project alternatives including multiple setback levee lengths and setback widths (i.e., distance the levee was setback from the existing levee). Through this process, WSAFCA has identified an alignment that best meets the flood risk and recreation objectives while also providing for floodplain and habitat restoration opportunities. This alignment is presented in the 65% design that is scheduled for release in January 2013.

Design of the Bank project in the setback area would be initiated once the Southport EIP 65% design and the public review period for the EIS/EIR are underway, which is expected in early 2013. WSAFCA has assembled a multidisciplinary team of experts in levee design, hydraulic modeling, mitigation bank design, and geomorphology. This multidisciplinary team's approach is to integrate hydraulic modeling with geomorphic interpretation to maximize restoration benefits while balancing flood objectives. The approach utilizes the two-dimensional, hydrodynamic and morphological model MIKE21C to develop a geomorphically-based analytical tool for assessing the timing, duration, location, depth, and flow direction of floodplain inundation under existing and setback conditions for a 12-mile reach of the Sacramento River. An improved understanding of the timing, extent, frequency, depth, and duration of floodplain inundation is achieved using this approach and this information is extremely valuable in developing restoration designs that will maximize seasonal benefits to aquatic species.

The technical approach for the Bank project will consider eco-hydrologic criteria presented in Table 1.



Table 1. Summary of Eco-hydrologic Criteria and Flows for State of California West Sacramento Floodplain Mitigation Bank

Species	Season	Duration	Interannual Frequency	Flow (cfs)	Approximate Recurrence Interval (years)	Approximate Water Surface Elevation (NAVD 88 - ft) within Offset
Sacramento Splittail ¹	Mar-Apr	>3 weeks	1 out of 3 years ²	33,500	1.05	10.5
Sacramento Splittail ¹	criteria as above		2 out of 3 years ²	18,100	0.6	7
Juvenile Chinook Salmon ³	Dec-May	>2 weeks ⁴	1 out of 3 years ⁵	70,100	1.9	20
Juvenile Chinook Salmon	criteria as above		2 out of 3 years ⁵	32,100	1.05	10.4

Notes:

¹ Unless noted otherwise, the evaluation/design criteria for Sacramento splittail are based on Moyle et al.

Sacramento splittail populations are expected to benefit from increasing frequency of appropriate habitat conditions on floodplains.

³ Unless noted otherwise, the evaluation/design criteria for Chinook salmon are based on Moyle (2002). ⁴ Floodplain benefits for juvenile Chinook salmon increase with increasing duration of floodplain inundation in winter and spring (Sommer et al. 2001); inundation periods of two weeks are considered a minimum duration for juveniles to establish residency and experience enhanced growth on floodplain. ⁵ Chinook salmon populations are expected to benefit from increasing frequency of appropriate habitat conditions on floodplains.

To date, the following elements leading to 65% design (currently under internal review) have been completed.

- Baseline topographic surveys; existing utility surveys and mapping; bathymetric surveys; hydraulic data development including Acoustic Doppler Current Profile (ADCP - flow and velocity) measurements and river stages for model calibration purposes; geomorphic data development including suspended and bedload sediment transport measurements; and erosion assessments along the river bank of the Sacramento River through the project reach.
- Extensive geotechnical investigations, including numerous boreholes and soils tests in the setback area and existing levee, to characterize geologic conditions including underseepage issues.
- Assessment of biological and ecological conditions along the riverbank and setback area, including identification of sensitive species.
- Hydrodynamic and sediment transport modeling to identify system-wide and localized impacts of levee setback alternatives, and potential mitigation options.



- Property surveys and investigations.
- Optimization of setback grading to provide material for levee construction and identification of additional borrow material sites.
- Development of geotechnical designs for the new levee, including seepage berms and cutoff walls.
- Development of preliminary erosion control measures for the setback area, the new levee, and the remnant riverbank of the Sacramento River, including biotechnical bank stabilization measures.
- Development of 65% design level plans, specifications and cost opinions, including the Design Documentation Report (DDR).
- Preparation of the Southport EIP draft EIS/EIR for public review and preliminary regulatory permitting applications.

Integration of the Southport EIP and Bank Project

Given the integrated nature of the Southport EIP and Bank project, opportunities exist to achieve efficiencies during both design and construction of the projects if conducted concurrently. These could include, for example, design of the floodplain terrace in the setback area, demonstration of the hydraulic feasibility, permitting, and equipment mobilization, among other activities. If the efforts are conducted in parallel, the FESSRO-funded portions of the Bank project would focus on fine grading, plans and specifications, construction of habitat related features, and post-construction monitoring and establishment. An addendum to the Southport EIP would likely be required to secure NEPA/CEQA compliance.

Costs for flood risk reduction components with no nexus to development of the mitigation bank or that solely benefit the flood risk reduction project will be funded through the EIP. WSAFCA will perform all land acquisition required for the Bank project under the State EIP program.

Project Objectives

The Bank project would be developed in the Southport EIP setback area for approximately four miles along the Sacramento River. The Bank would bank would yield approximately 120 riparian floodplain and endangered species conservation credits, and has the potential to create up to approximately 21,000 linear feet of restored and enhanced shaded riverine aquatic (SRA)/channel margin habitat available as mitigation credits on a per-linear foot basis. The objectives listed below are based on maximizing the value of the habitat area. The restoration objectives developed for the Bank include:

- Provide compensatory mitigation credits for impacts on protected land cover types and on special-status species and potential habitat for these species.
- Conduct channel margin habitat/SRA enhancement and preservation activitiesusing biotechnical methods.
- Enhance setback ecological values using topographic and vegetation/habitat heterogeneity.



- Restore portions of the historic Sacramento River floodplain (i.e., waters of the United States).
- Restore riparian and oak woodland habitat on the exposed floodplain that will create continuous habitat corridors for wildlife movement.
- Design habitat features to minimize future maintenance obligations (e.g., reduce opportunities for sediment and debris accumulation).
- Design floodplain planting and vegetation management schemes to avoid undesirable hydraulic and sediment transport impacts on the setback levee and setback area.

The preliminary target habitats to be restored were identified based on an evaluation of the current extent and condition of riparian and upland habitat, the historical conditions of the Sacramento River floodplain and its associated habitat values, the post-project floodplain conditions, and a review of similar projects in the region.

Enhancement and preservation of existing channel margin habitat/SRA will be done on a limited basis in order to work within the budget framework of the FESSRO grant solicitation and create marketable credits comparable to what exists in the commercial market. There is opportunity to carry out more extensive channel margin habitat restoration actions for specific clients or restoration plans (e.g., the proposed Bay Delta Conservation Plan's Biological Goals and Objectives), but implementation of those actions would be subject to unique partnerships with the appropriate public entities and are beyond the scope of the grant solicitation and this proposal.

Project Constraints

Because this project is associated with the Southport EIP and would be implemented by the WSAFCA, the project is being proposed in a context of some uncertainties and constraints. WSAFCA's primary mission is to reduce flood risk for the City of West Sacramento while seeking to maximize recreation opportunities for its residents. The Southport EIP presents an opportunity to achieve this mission and improve environmental floodplain values. Mandatory to the success of the Southport EIP is a hydraulically neutral and sustainable flood project. To the extent that this is achieved, WSAFCA is open to participating in the Bank project. WSAFCA believes the goals of the Southport EIP and Bank project can be balanced for an overall improvement to the flood system and the environment for the benefit of the State, WSAFCA, and the City of West Sacramento. Specific constraints, such as setback area resilience to Sacramento River channel migration caused by failure of erosion control measures, operation and maintenance agreements, and perhaps others, will need to be fully identified and considered during design and implementation of the Bank project.

As a flood risk reduction agency, WSAFCA has limited financial and political ability for habitat restoration beyond that required for project mitigation associated with the Southport EIP. WSAFCA will partner with the State to identify responsible parties for land ownership, bank ownership, and operations and maintenance, given that the majority of the mitigation credits will be utilized by the State. Further, WSAFCA and the State will need to work closely together on the financial details of the project to ensure that the interests of both agencies are met.



Figures

The pages below present figures of the following:

Figure 1 - State of California West Sacramento Flood Mitigation Bank Location Map

Figure 2 - State of California West Sacramento Flood Mitigation Bank Concept Plan

Figure 3 - State of California West Sacramento Flood Mitigation Bank Typical Section

TASKS - SCOPE OF WORK

Task 1.0 Project Management

WSAFCA and team will carry out project management duties including management of the scope, schedule, and budget and communication with agencies and stakeholders. Lastly, WSAFCA will work with the State on administration of the FESSRO grant.

Task 1.1 Project Management

Perform project management duties to ensure the project operates within approved scopes, schedule, and budget and in accordance with all applicable rules, regulations, and laws. Typical duties associated with project management include regular communication with the team, subcontractors, agencies, and stakeholders; preparing for and attending meetings; schedule monitoring and maintenance; scope and budget monitoring; and various written correspondence and product development.

Because this project is dependent upon the Southport EIP, which is already underway, solicitation of additional contractors would not be necessary for the planning and design. However, scopes of work for contractors already under contract would require modification. Scopes of work would be prepared by the contractors and submitted to WSAFCA for review. New scopes of work will be awarded if fair and reasonable. Construction contracts for preparation of the site would likely be included in the Southport EIP construction contract and would be obtained in accordance with EIP guidelines. For construction, a separate contractor specializing in environmental restoration would be hired for installation of vegetation and associated light infrastructure.

Meetings would occur frequently during design development and would continue during construction, although the participants would change from design to construction phases. Frequent conference calls also would be part of the management process.

Deliverables

- Meeting agendas and minutes
- Schedule updates
- Written correspondence
- Memoranda and other written documentation



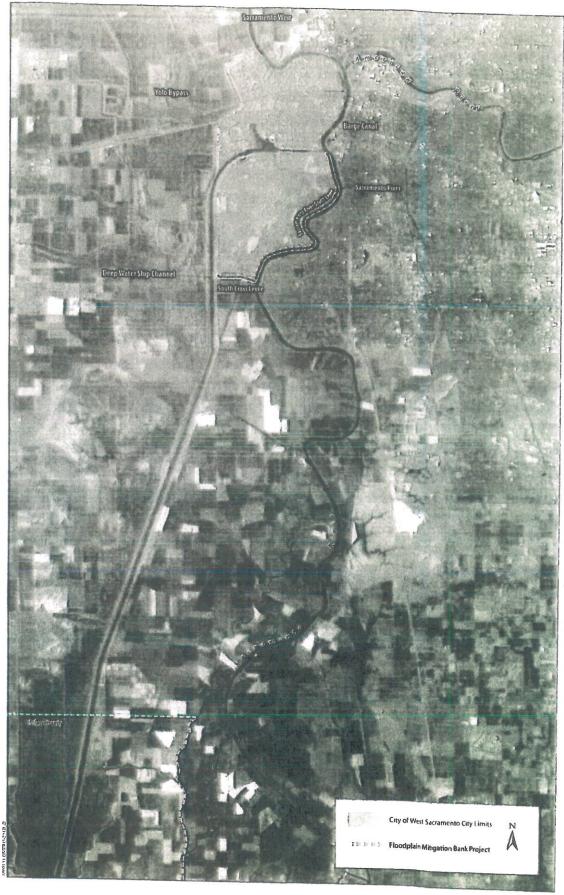


Figure 1
State of California West Sacramento Floodplain Mitigation Bank
Location Map



Figure 2 State of California West Sacramento Floodplain Mitigation Bank Concept Plan

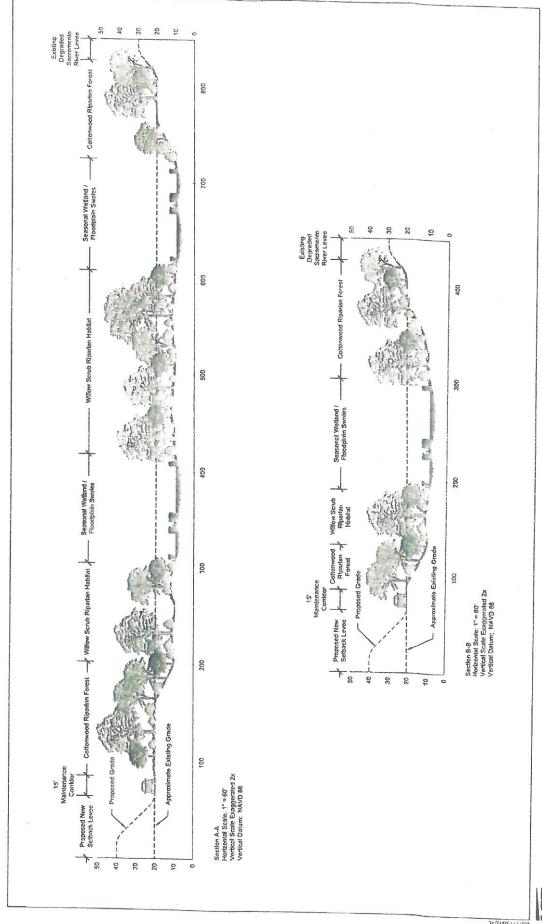


Figure 3 State of California West Sacramento Floodplain Mitigation Bank Typical Sections



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Central Valley Flood System Conservation Framework and Strategy Work Plan for the State of California Work Season	
Work Plan for the State of California West Sacramento Floodplain Mitigation Bank	
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Task 1.2 Grant Administration

Beyond typical project management duties, grant administration services would be required for this grant to ensure it is administered appropriately and within applicable rules, regulations, and laws. This task would include communicating with DWR related to the grant itself (as opposed to the project); preparation of quarterly reports and deliverables; preparation of electronic reports, email and phone correspondence related to the grant; and other necessary tasks.

Deliverables

- Quarterly reports
- Electronic reports
- Invoices, written correspondence
- Memoranda and other written documentation

Task 2.0 Right of Way and Lands

Land and easement acquisitions will be carried out under the Southport EIP, as specified in the Southport EIP funding agreement with DWR. The lands, easements, and rights-of-way necessary for construction, operations and maintenance, including those rights required for the flood management structures, temporary construction areas, mitigation sites, borrow sites, spoil sites, access/haul routes, staging areas, private utility relocations; and providing relocation assistance for qualified occupants of acquired property, as required by state and federal statutes, rules and regulations, will be determined as part of the Southport EIP. This will be accomplished with a Project Real Estate Plan that includes such details as a narrative description of the real estate requirements with a breakdown of the estimate of total acreage to be acquired; type of real property interests to be acquired; and cost projections of eligible real estate project costs, including crop damages and loss of good will. The Project Real Estate Plan will be prepared and submitted to DWR for review and approval as part of the Southport EIP.

Task 2.1 Appraisal Activities

Right of way appraisals will be carried out under the Southport EIP and meet the standards set forth in the EIP program. Activities will include surveys, map development for existing lands, easements, and utilities, plat and legal descriptions, site assessments, right of entry, appraisal services, independent appraisal reviews, and coordination with landowners and agencies.

Deliverables

- Draft and final appraisals
- Independent review certifications

Task 2.2 **Acquisition Activities**

Acquisition will be carried out under the Southport EIP and meet the standards set forth in the EIP program. Activities will include development of contracts, conveyance documents and escrow instructions; meeting with property owners to explain appraisal, contracts, maps,



exhibits or other acquisition-related documents and convey documents until acceptance or impasse is reached; and land acquisition (purchase).

WSAFCA will also provide relocation assistance to affected residential and commercial property owners. Relocation assistance will consist of property owner interviews, site visits, and developing a relocation package specific to each displace. WSAFCA will develop a relocation plan that will conform to the Uniform Relocation Act and that meets DWR requirements.

Deliverables

- Settlements
- Parcel diaries
- Contracts
- Deeds
- Other correspondence including impasse memoranda
- Relocation plan

Task 3.0 Preparation of Mitigation Bank Documents

A BEI will be prepared for the Bank project and will provide all the necessary legal agreements, project background, and operations, monitoring, and maintenance protocols for the project.

Task 3.1 Preparation of Mitigation Bank Prospectus

As part of the mitigation bank approval process, a detailed prospectus for the Bank project will be prepared for review and approval by the appropriate Interagency Review Team (IRT). This prospectus will be used to quantify and assess the merits of the mitigation bank concept at the project site. The prospectus will contain the following information.

- General description of the Bank site.
- Design methodology and rationale.
- Proposed service area.
- Proposed crediting and release schedule.
- Monitoring and contingency plans.
- Site-specific conservation and management agreement outlining financial assurances and proposed long-term management of the site.
- Long term conservation mechanism.

The completed prospectus will be reviewed by the IRT and will serve as the basis for assigning credit value to the restoration actions in the setback area and for preparation of the BEI.

Deliverable

Mitigation Bank Prospectus



Task 3.2 Preparation of Bank Enabling Instrument

The BEI will serve as the legal agreement between the bank sponsor and resource agencies for operation and management of the mitigation bank. The BEI will contain all of the contents of the prospectus but in greater detail, plus the following:

- Recitals and legal agreement
- Bank operation information
- Reporting requirements
- Responsibilities of the bank owner and IRT
- Other provisions
- Appendices, including:
 - Interim and Long-term management plans
 - Real estate records and assurances
 - Credit table, credit purchase agreement, and credit transfer template
 - Phase I Environmental Site Assessment
 - Appropriate resource surveys

Deliverable

Bank Enabling Instrument

Task 4.0 Environmental Permitting and Compliance

Implementing the Bank project will require compliance with several local, state, and federal regulatory processes. The following sub-tasks outline the regulatory permitting and environmental review processes that will be completed as part of the project development.

Task 4.1 Initial Site Assessment

WSAFCA will perform an initial site assessment of the Bank site to document existing physical and ecological conditions and collect information that will support the planning, permitting and design tasks. The project team will conduct an initial site assessment to characterize the geomorphology; and presence of special-status species.

In addition to in-the-field assessments, the site assessment will be supported by existing data, models, studies, and reports developed during the Southport EIP or other relevant efforts.

Deliverable

Initial Site Assessment Report

Task 4.2 CEQA/NEPA Compliance

WSAFCA and USACE are currently developing an environmental document for the Southport EIP but, due to scheduling constraints, the document may not include all relevant information for



adequate environmental analysis of the Bank project. To achieve the necessary CEQA/NEPA compliance, WSAFCA will prepare a supplemental environmental document to accompany the existing Southport EIP EIS/EIR. The purpose of this supplemental document will be to provide additional information and analysis on project features and actions that may not have been covered in the original Southport EIP environmental document.

Activities for CEQA/NEPA compliance will require significant coordination with several State and Federal agencies, as well as with the public and stakeholders. Public noticing and meetings will be required and will require support activities.

Deliverable

- Administrative drafts and final CEQA/NEPA documents.
- Supporting documents such as public notices and response to comments

Task 4.3 Clean Water Act Section 404 Compliance (Section 404)

WSAFCA will work with USACE and other appropriate agencies to obtain the necessary Section 404 approvals. Under Section 404 of the CWA, a permit or Letter of Permission (LOP) is required from USACE for the placement of dredged or fill material into waters of the United States, including wetlands. Most of the Bank site is located within the ordinary high water mark of the Sacramento River and thus falls under Section 404 jurisdiction, necessitating this permit from USACE. Coordination with USACE will determine whether a Nationwide 27, LOP, or Individual Permit is the most advantageous pathway.

WSAFCA will coordinate with USACE throughout the process to seek appropriate compliance documentation. Documentation will include, at a minimum, a wetland delineation, report, and map; preparation of habitat mitigation plan; and preparation of draft and final permit applications. In addition to product-driven activities, WSAFCA will attend meetings and participate in conference calls as necessary.

Because implementation of the Bank project will likely affect sensitive resources or habitats, WSAFCA will need to prepare a Mitigation and Monitoring Proposal (MMP) detailing impacts and the proposed compensatory mitigation. The MMP will be prepared according to Corps Guidelines and the Final Mitigation Rule and will include, but not be limited to, the following:

- List of responsible parties.
- WSAFCA project description (i.e. the project requiring mitigation).
- Discussion of site characteristics including existing wetlands and other waters, and other sensitive resources occurring in the Bank project area.
- Discussion of functions of existing resources.
- Description of the proposed compensatory mitigation (most likely self-mitigating with credits from the Bank project).

Deliverables

- Draft and final wetland delineations
- Draft and permit applications



- Draft and final MMP
- USACE Section 404 approval

Task 4.4 Federal Endangered Species Act (Section 7)

The project is proposed in an area known to have the potential for species and their habitat protected under the Federal Endangered Species Act (ESA), Migratory Bird Treaty Act, and Magnuson-Stevens Act, as administered by USFWS for terrestrial and certain aquatic species and NMFS for aquatic species. ESA compliance is required for USACE authorization.

WSAFCA will conduct a search of existing records and will conduct field surveys (e.g., botanical and elderberry survey, giant garter snake survey, Swainson's hawk and other raptor survey, bat survey) of the project area to assess potentially affected biological resources, supported by information on file from the prior programmatic document and other projects.

WSAFCA will coordinate with the USACE, USFWS, NMFS, and DFG throughout the process to seek a biological opinion (BO) from each Federal agency and the corresponding state agency. WSAFCA will prepare a biological assessment (BA) that will include descriptions of the proposed action, suitable or occupied habitat that may be directly and indirectly affected, the manner in which the action may affect listed species or critical habitat, and proposed measures to minimize or avoid adverse effects. The BA for NMFS will also include an Essential Fish Habitat assessment pursuant to the Magnuson-Stevens Fishery Conservation and Management Act. The BAs are intended to provide incidental take coverage.

WSAFCA will work with the USACE and other appropriate agencies to facilitate and conduct ESA consultation including attendance at and preparation for meetings, preparation of BAs and other documents as necessary, and other activities needed to support ESA consultation.

Deliverables

- Survey reports and technical documents
- Draft and final BAs
- BO/Letter of Concurrence

Task 4.5 National Historic Preservation Act Section 106 Documentation

The project is proposed in areas known to have the potential for cultural resources that are listed or are potentially eligible for listing on the National Register of Historic Places, and are therefore protected under the federal National Historic Preservation Act (NHPA), Section 106. NHPA compliance is required prior to the issuance of a Section 404 permit. The project areas are also known to have the potential for resources that are of interest to Native Americans.

WSAFCA will conduct a records search and reconnaissance-level cultural resources surveys at each site in addition to conducting a field inventory and consulting with interested parties.

Deliverables

- Draft and final NHPA letter of concurrence request and supporting documents
- Letter from SHPO



Task 4.6 Fish and Wildlife Coordination Act Support

This task entails support to USACE and USFWS to prepare the Fish and Wildlife Coordination Act Report (CAR). WSAFCA will prepare and provide necessary information to USFWS and NMFS, via USACE, in support of those agencies' preparation of a CAR. WSAFCA will attend field and office meetings and conference calls, as necessary.

Deliverables

- Supporting documentation as requested
- E CAR

Task 4.7 California Endangered Species Act (Section 2081)

The project area potentially contains species and their habitat that are protected under the California Endangered Species Act (CESA), as administered by DFG, and an incidental take permit (ITP) will be necessary. WSAFCA will work with DFG and other appropriate agencies to facilitate and conduct ESA consultation, including attendance at and preparation for meetings, preparation of documents as necessary, and any other activities needed to support consultation.

Deliverable

Incidental take permit

Task 4.8 California State Fish and Game Code (Section 1602)

A streambed alteration agreement, in compliance with Section 1602 of the California Fish and Game Code, is required when projects will substantially divert, obstruct, or change the natural flow of a river, stream or lake; substantially change the bed, channel, bank of a river, stream, or lake; or use material from a streambed. The planting activities within the Bank site and any improvements to the Sacramento River channel margin will require this agreement. WSAFCA will work with DFG and other appropriate agencies to facilitate a streambed alteration agreement, including attendance at and preparation for meetings, preparation of documents as necessary to support an agreement, and other activities as necessary.

WSAFCA will prepare and submit the application package, describing the project features; construction period; construction methods; impacts on vegetation, fish, and wildlife; and the proposed monitoring plan. WSAFCA will coordinate with DFG throughout the process to seek appropriate compliance documentation. To support the application, WSAFCA will conduct an arborist survey.

Deliverables

- Draft and final permit applications
- Section 1602 permit

Task 4.9 Clean Water Act Section 402 Compliance

Under Section 402 of the CWA, a Storm Water Pollution Prevention Plan (SWPPP) is required to obtain coverage under the state General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ) (General Permit),



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issued by the State Water Resources Control Board (SWRCB). For reference, the General Permit represents a substantial expansion of the previous general permit and entails a more detailed SWPPP and rigorous site monitoring and reporting to the SWRCB.

WSAFCA will work with the SWRCB and other appropriate agencies to prepare a SWPPP and obtain a Section 402 permit. Activities would include attendance at and preparation for meetings, preparation of documents as necessary to support the SWPPP and permit, field visits and records searches, and other activities as necessary.

Deliverables

- SWPPP
- Section 401 permit coverage

Task 4.10 Clean Water Act Section 401 Compliance

CWA, Section 401, requires that the discharge of dredged or fill material into waters of the United States, including wetlands, does not violate state water quality standards. As required by Section 404 of the CWA, water quality certification from the Regional Water Quality Control Board (RWQCB) must be obtained for permit compliance. WSAFCA will compile the necessary information and submit a complete certification package to RWQCB. WSAFCA will coordinate with the RWQCB throughout the process to seek appropriate compliance documentation.

Deliverables

- Draft and final request for certification
- Certification by RWQCB.

Task 4.11 Central Valley Flood Protection Board (CVFPB) Encroachment Permit (Title 23)

The Bank site is within the Sacramento River floodplain, a California state-designated floodway, and has the potential to affect flood flow conveyance; therefore, a floodway encroachment permit from the CVFPB will be necessary. WSAFCA will work with staff at the CVFPB to develop and process and encroachment permit application. Activities would include attendance at and preparation for meetings; preparation of permit application backed up by hydraulic modeling of the proposed habitat enhancements and other documents necessary to support hearing and approval of the permit; and other activities as necessary.

Deliverables

- Encroachment permit application
- Encroachment permit

Task 4.12 Yolo County Grading Permit

A Yolo County grading permit will be required for the project because it is anticipated that more than 1 acre of ground will be disturbed during fine grading of the Bank site, plant installation, and enhancement of the Sacramento River channel margin. WSAFCA will work with staff at Yolo County to develop and process the necessary documents in support of the permit.



Activities would include attendance and preparation for meetings, preparation of permit application and other documents necessary to support the permit, and other activities as necessary.

Deliverable

Yolo County grading permit

Task 5.0 Conceptual Designs

The team will update existing preliminary sketches of the Bank site to reflect current site conditions and the initial site assessment, and develop detailed conceptual designs for restoration site features. The concept design will focus on two primary areas: SRA, or channel margin habitat, and floodplain habitat. This will include preparing plan view concepts and illustrative cross-sections, along with supporting descriptions, approximate acreages, and typical restoration costs.

Task 5.1 Physical Concept Design

Using information from the Southport EIP and the initial site assessment, WSAFCA will develop a physical concept design for ecological enhancement. Using data and models described above under *Technical Approach for the Bank Project*, the preliminary design will be enhanced to incorporate substantial topographic heterogeneity and other features that will support a diverse mosaic of natural habitats. Enhancements for the transitional "edge" habitat will be analyzed using hydrodynamic and sediment transport models to ascertain design parameters such as water surface elevation, velocity, and shear stress over a range of flows. These parameters will inform planting design such that appropriate vegetation is installed at different elevations. Velocity and shear stress will inform the vegetation design so that vegetation is resistant to shearing forces, and maximize the designs' longevity through resistance to erosive forces. Modeling will also be used to indicate potential areas of sediment accretion and scour.

Similarly, modeling tools will be utilized to predict floodplain inundation area, depth, frequency, timing and duration for a variety of floodplain setback elevations. This analysis combined with habitat evaluation criteria will help inform the selection of vegetation, whether riparian, wetland or upland, for proposed planting palettes. Construction elevation grades will be established that create topographic heterogeneity in order to establish a mosaic of habitats. Potential impacts on flood conveyance will be ascertained by modeling the vegetative roughness of the proposed planting palettes developed through other tasks.

Deliverables

- Concept sketches, including typical sections, profiles, and plans for incorporation into final design.
- Technical memorandum providing details of modeling analysis, as support documentation.

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Task 5.2 Ecological Concept Design

In combination with the physical design elements described in the previous task, WSAFCA will develop an ecological concept design to support habitat enhancements that will benefit an extensive, successful mitigation bank. The main elements of the ecological concept design will include development of habitat evaluation criteria that relate physical modeling predictions to the ecological requirements of a variety of target species, and planting palettes for a mosaic of habitats.

Deliverables

Habitat evaluation criteria and planting palettes for incorporation into the concept designs.

Task 6.0 Detailed Design

Based on plan view concepts, illustrative cross-sections, supporting descriptions, approximate acreages, and typical restoration costs developed during conceptual design, the team will develop 65%, 90%, and 100% designs and cost estimates, and conduct appropriate reviews of these documents.

Task 6.1 65% Plans, Specifications, Design Memoranda, and Cost Estimates

This task entails preparing construction drawings and specifications for revegetation, habitat enhancement, and fine grading of the setback area at a 65% level. WSAFCA will develop detailed construction drawings and specifications that are based on concept drawings for enhancement described under Task 5, and the full Southport EIP construction drawing package. The 65% setback construction drawings will include site preparation plans, planting plans for the setback area habitats, irrigation plans, erosion control plans, and construction detail sheets. If needed, implementation phasing will be included on the plans. Written specifications will be prepared to accompany the construction drawings in a format consistent with the larger Southport EIP.

The conceptual plans will be modified to incorporate updated topographic data, if available. The drawings will be updated to conform to local agency drafting standards.

Coordination with existing utility owners will be required and utility locations will be identified and marked on the plans; however, it is not anticipated that utility relocation or replacement will be required.

Grading plans, including base bid items only, and additive bid items if required, will be produced for the 65% submittal. Following preparation of the 65% grading plans, earthwork volume estimates will be produced based on the grading plans and other construction quantities will be estimated. Cost estimates will be prepared based on these quantities.

Based on the estimated volume of excess material, if any, grading plans will be developed for local placement of excess excavated material, preferably onsite. Coordination will be undertaken with the stakeholder groups to determine the requirements and constraints to onsite soil placement. The plans will include haul roads and stockpile layouts. The grading plans will balance multiple project objectives, including preservation of land proposed for other habitats and flood conveyance.



A third party constructability review will take place once the 65% construction drawings are complete.

Deliverables

- 65% setback construction drawing set.
- Written specifications.
- Cost estimates.

Task 6.2 Partial 90% Plans, Specifications, Design Memoranda, and Cost Estimates

Upon receipt of comments on the 65% design documents and following team meetings and regulatory agency review, WSAFCA will prepare a partial 90% design document set allowing for several iterations for review and development of certain project features without preparation of an entire construction document iteration. Stand-alone exhibits and construction drawing sheets will be accompanied by written memoranda describing design rationale and background. Updated construction quantity estimates will also be submitted to the client for use in preparing the cost estimate.

A third party constructability review will take place once the 90% complete plan sheets and exhibits are complete.

Deliverables

- 90% setback construction drawing set
- Written specifications
- Cost estimates.

Task 6.3 100% Plans, Specifications, Design Memoranda, and Cost Estimates

Final signed and stamped plans and specifications will be submitted to the client for use as bidding documents. All drawings and specifications will be stamped by a California-licensed landscape architect and civil engineer.

In addition, construction documents will be completed and compiled (including preparation of Division 0 documents) to produce a complete bid package with the preparation of the construction schedule.

Deliverables

- Stamped and signed plans
- Specifications
- Cost estimate
- Bid package
- Construction schedule

Central Valley Flood System Conservation Framework and Strategy Work Plan for the State of California West Sacramento Floodplain Mitigation Bank

Task 7.0 Construction

Task 7.1 Bidding

Upon completion of the design documentation, the bidding process will begin. The following elements will be involved with the bidding process.

- Prepare bid documents
- Advertise project
- Award project construction

A bid document package will be prepared for distribution during the construction bidding process. Once the bid package is prepared, the project will be advertised to solicit restoration contractors to submit proposals on the project. The advertisement will include general information about the project and the bidding schedule.

A mandatory pre-bid meeting will be held at which the bid package will be distributed to prospective contractors. The bid package will include a specific date by which contractors will be required to submit their proposals. During the bidding process, bidders' questions will be answered or addenda distributed to clarify information in the bid package.

Once project bids have been submitted, contractor submittals will be reviewed and a summary will be prepared to compare the submittals. WSAFCA and DWR will review this summary and select a contractor.

Deliverables

- Bid notice
- Award notices

Task 7.2 Construction Management

Construction management will occur daily during construction. This will involve the following elements.

- Construction contract administration, including review of work plans, schedules, budgets, and cash flow projections; evaluation of value engineering proposals; evaluation of change orders; and review of invoices for progress payment.
- Preparation of a daily log of construction activities.
- Take photographs to document site conditions, construction progress.
- Conduct weekly progress meetings with the contractor and prepare progress reports.
- Manage the construction schedule.
- Conduct preconstruction biological surveys, special-status species worker awareness training, and construction monitoring for sensitive biological resources during construction.



- Conduct cultural resource surveys, training, and construction monitoring near known cultural resources.
- Coordinate approval of and oversee implementation of design changes.
- Cost management associated with construction of the approved plans and specifications.
- Coordinate construction activities with DWR and USACE staff to communicate issues of concern, provide required information, and respond to questions.
- Review and processing of contractor submittals and requests for information (RFIs).
- Construction inspections to ensure that contractors' work is performed in accordance with construction plans and specifications, and is consistent with the intent of the design.
- Quality assurance (QA) testing to ensure compliance with the requirements of contract documents, and review of the effectiveness and adequacy of the contractor's quality control (QC) program.
- Implement start-up, closeout and acceptance procedures for the systematic, orderly and timely completion, acceptance, and transfer of facilities constructed, as well as contract closeout.
- Prepare a construction summary report that will include a summary of the project history, problems encountered and resolutions made, summary of major changes, summary of bid and final project costs, QA and QC testing results, photographs depicting construction work, and project record drawings.

Deliverables

- Meeting agendas and minutes.
- Memoranda; construction schedules.
- Change orders, logs, reports, and other documentation.

Task 7.3 **Project Construction**

Project construction includes preconstruction and construction activities. Preconstruction activities include preconstruction surveys for special status species, mobilization, and site preparation. Preconstruction surveys will document the presence or absence of special-status species. Once the surveys are complete, appropriate mitigation measures will be taken to protect the resources present, and the methods and findings of the surveys will be documented and submitted to the appropriate resource agencies.

Once preconstruction surveys have been completed, the contractor will mobilize equipment and do the following.

- Establish construction access.
- Installation of erosion crontrol measures.
- Set up the equipment and material staging area(s).



- Establish a construction water source (if needed).
- Install of exclusion fencing.
- Demolition and/or clearing and grubbing.

Construction of the Bank project will begin with fine grading of the setback area (major grading will be conducted as part of the Southport EIP) in compliance with the construction documents and any earthworks measures associated with the SRA/channel margin elements. This will involve grading the channel margin slope to a create inset terraces at a flatter profile, installation of instream woody material, and placement of vegetated rock reinforcement as required. Following this, the irrigation system for the restoration plantings will be installed. Once the plantings will be installed, including container plants or pole cuttings.

Once all planting and irrigation installation activities are complete, the site will be stabilized with the application of an appropriate restoration seed mix and/or other erosion control measures.

As-built record drawings of the completed project will be prepared once all construction activities have been completed and the completed project has been accepted by DWR or its designee.

Deliverables

- Documentation of SWPPP implementation
- As-built records
- Construction completion report
- Photographs

Task 7.4 Environmental Compliance

During construction, WSAFCA and team will conduct environmental compliance activities associated with permits obtained. Examples include special-status species surveys and monitoring, preparation of monitoring reports to resource agencies, and worker awareness training. These activities will be ongoing and subject to the requirements of the appropriate resource agencies. Progress reports (weekly, post construction) will be prepared as needed.

Deliverables

Status and monitoring reports

Task 7.5 Labor Compliance

Labor compliance is planned to be completed by the Department of Industrial Relations under Labor Code section 1771.3. If Proposition 84 funding is utilized, then WSAFCA will adopt and enforce a certified Labor Compliance Program by soliciting quotes from a labor compliance monitoring company, executing an agreement with the most competitive company, and registering with the Depart of Industrial Relations Compliance Monitoring Unit. The budget will assume the cost to be 0.25% of the total construction cost.

Deliverable

Payment or service agreement

Task 8.0 Habitat Performance Monitoring and Adaptive Management

Annual performance monitoring for adaptive management will be conducted for the restored floodplain and SRA/channel margin habitat.

Task 8.1 Riparian Habitat Monitoring

Per the requirements of an accepted BEI and resource agency approvals, performance of the riparian plantings will be monitored annually for the first 10 years following construction and will consist of the following.

- Vegetation monitoring conducted in accordance with the methodology developed by the California Native Plant Society, which includes collection of data along transects or within quadrats, as appropriate to the habitat type.
- Documentation of hydrological conditions, animal species observed or detected, integrity of signage and other general conditions, and corrective measures that may be appropriate to ensure relevant success criteria.
- Initial establishment of photo documentation locations and collection of photographic data.

An annual monitoring report documenting the annual performance-monitoring effort will be prepared for submittal to the appropriate resource agencies. The annual report will contain the maintenance activities conducted the previous year, monitoring methods, results from the annual vegetation monitoring, photos from the designated photo stations, wildlife observations/detections, and detailed information on efforts to remove exotic vegetation. In addition, each annual report will include qualitative field information and a summary of the documentation of the planting area conditions.

Deliverables

Ten annual monitoring reports

Task 8.2 Shaded Riverine Habitat/Channel Margin Habitat Monitoring

Per the requirements of the BEI and resource agency approvals, performance of the SRA/channel margin habitat will be monitored annually for the first 10 years following construction and will consist of the following.

Vegetation monitoring conducted in accordance with the methodology developed by the California Native Plant Society, which includes collection of data along transects or within quadrats, as appropriate to the habitat type.



- Qualitative and quantitative monitoring of the physical structure of the channel margin habitat, including persistence of instream woody material installation, recruitment of additional woody material, and performance of rock reinforcement.
- Documentation of hydrological conditions, animal species observed or detected, integrity of signage, and other general conditions, and corrective measures that may be appropriate to ensure relevant success criteria.
- Initial establishment of photo documentation locations and collection of photographic data.

An annual monitoring report documenting the annual performance-monitoring effort will be prepared for submittal to the appropriate resource agencies. The annual report will contain the maintenance activities conducted the previous year, monitoring methods, results from the annual vegetation and instream material monitoring, photos from the designated photo stations, wildlife observations/detections, and detailed information on the efforts to remove exotic vegetation. In addition, each annual report will include qualitative field information and the summary of the documentation of the planting area conditions.

Deliverables

Ten annual monitoring reports

Task 8.3 Riparian Habitat Establishment

Riparian habitat within the setback area will be maintained for three years following construction. Maintenance activities will include replacing dead plants, removing flood debris and trash, maintaining the irrigation system, and repairing areas of erosion. Site inspections of the plants and irrigation system will take place weekly during the spring and summer months. During the fall and winter, site inspections will take place every two weeks or after the recession of floodwaters following storm events. An annual maintenance report will be prepared and submitted to DWR or its designee at the end of each year.

Deliverables

Three annual maintenance reports

Task 8.4 Shaded Riverine Habitat/Channel Margin Habitat Monitoring

SRA/channel margin habitat along the Sacramento River will be maintained for three years following construction. Maintenance activities will include replacing dead plants, removing flood debris and trash, maintaining the irrigation system, and repairing areas of erosion. Site inspections of the plants and irrigation system will take place weekly during the spring and summer months. During the fall and winter, site inspections will take place every two weeks or after the recession of floodwaters following storm events. An annual maintenance report will be prepared in conjunction with the activities in Task 8.3 and submitted to DWR or its designee at the end of each year.

Deliverables

Three annual maintenance reports



Task 8.5 Geomorphology/Sedimentation Monitoring

Setback area habitats will be monitored for sedimentation. This will consist of installing sediment plates within the setback area and establishing monitoring transects at key locations, such as through swales. These will be monitored yearly after inundation of the setback area. The purpose of this monitoring is to establish the spatial and vertical extents of sediment accretion. It will also establish if drainage swales are becoming blocked or excessive sedimentation of vegetation plantings is occurring.

Deliverables

An annual monitoring report will be produced and submitted to appropriate resource agencies for the first three years after construction.

Task 8.6 Long-term Operations and Maintenance

Once short-term establishment of the Bank has taken place, all habitat performance objectives have been met, and all of the credits assigned, the Bank closure plan will be implemented and long-term operations and maintenance of the Bank site will commence. This will consist of annual site inspections and qualitative observations of the habitat. Vegetation coverage will be measures every 10 years via aerial photograph interpretation of canopy coverage. Annual monitoring inspection reports will be prepared and submitted to the appropriate resource agencies.

Deliverables

Annual monitoring reports

SCHEDULE AND BUDGET

The scope of work submitted with this Work Plan assumes that the Bank Project is a standalone project, and depicts the costs if it were implemented independently of (i.e., after) the Southport EIP. For schedule purposes however, it has been assumed that the projects are implemented in tandem, and that construction of the Bank project would follow completion of the levee.

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2.2 Acquitition Activities
Trank 3 Preparation of Militation Bank Documents 3.1 Preparation of Mitigation Gank Prespectus 3.2 Preparation of Bank Enabling Instrument 8.4 SRA/Channel Margin Habitat Establishment 7.6 Labor Compliance
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8.1 Rips Ian Matthrs Manitoring
8.2 SRA/Charred Margin Habilat Monitoring Receive DWR Funding Commitment Letter Task Sprik Millestone 8.3 Riparion Mabitat Escablishment Task 2 Right of Way and Lands Task I Project Management 1.1 Project Management 1.2 Grant Administration 7.2 Construction Manager 7.3 Project Construction 6.3 100% Plans and Specs 7.1 Bidding and Award State of California Word Secretario Proodplain Unigation Bent

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Schedule

Budget

breakdown of the projected investment required to complete the Bank project. The table also provides an estimate of the total The budget below assumes that land acquisition will be completed as part of the Southport EIP. Table 8.1 shows a detailed investment required from WSAFCA, DWR EIP, and FESSRO.

Table 8.1: High Level Budget

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Project Role	MBK Cost Subtotal	ICF Cost Subtotal	cher Cost Subtotal	Local Agency Cost Subtotal	Contractor	Project Total	Starte	Starte	WSAFCA
Tesk 1: Project Management Subtotal Tesk 1	068,03	\$ 22,200	5 14,720	\$ 16,300	5	\$ 104,310		\$ 104,310	
Test 2: Right of Way Acquisition Sebronal Test 2		S	\$	\$ 11,866,000	5	\$ 11,866,000	\$ 8,306,200		\$ 3,559,800
Test 3: Preparation of Mingedon Bent Documents. Sebtotel Test 3		\$ 212,650	\$ 2,560	\$	S	\$ 215,210		\$ 215,210	
Test 4: Environmental Permitting and Compliance Subtotal Test 4		\$ 218,240	\$ 20,800	5	S	\$ 239,040		\$ 239,040	
Task 5: Conceptural Design Sebrotal Yask 5		5 40,840	\$ 87,500	-	5	\$ 128,440		\$ 128,440	
Task 6: Detailed Design Sebrotal Task 6		\$ 108,500	\$ 157,360	20	\$	\$ 265,860		\$ 265,860	
Tosk 7: Contraction Sabrotal Tosk 7		\$ 68,820	\$ 56,160	\$5	\$ 2,414,646	5 2,539,626		5 2,539,626	
Task 8: Habitat Establishment and Monitoring Sebrotal Tesk 8	,	\$ 162,300	\$ 93,040	\$ 350,000	\$ 600,000	\$ 1,205,340		\$ 855,340	\$ 350,000
SUBTOTAL COSTS	\$ 50,890	\$ 833,550	\$ 432,240	\$ 12,232,500	\$ 3,014,646	\$ 16,569,626		4,347,826	रकी
				11	П		1,245,930	5 652,174 5	586,470
Total	\$ 58,524	\$ 958,583	\$ 497,076	\$ 14,067,375	\$ 3,466,843	\$ 19,048,400	\$ 9,552,130	\$ 5,000,000 \$	4,496,270



Central Valley Flood System Conservation 5	
Central Valley Flood System Conservation Framework and Strategy Work Plan for the State of California West Sacramento Floodplain Mitigation Bank	
the State of California West Sacramento Floodplain Missasian Devices	
Bank Toodplain Willigation Bank	

Benefit Cost Ratio

Given the integrated nature of this multi-objective flood protection and mitigation bank project many assumptions were required in determining the Benefit Cost Ratio (BCR). Determining the benefit cost ratio for the Bank project is dependent on the assumed market value of the future habitat. Complicating the determination of the BCR for the Bank project is allocation of Southport EIP investments. Many of the investments required to complete the Southport EIP have a strong nexus to the Bank project. For purposes of this analysis land costs it the setback area are included part of the total Bank project. Determining the value of the SRA habitat in this location is difficult given that limited opportunities exist along the Sacramento River main channel to perform the quality of channel margin habitat improvements that can be achieved at this site. Commercially available riparian habitat credits sell for approximately \$100,000 to \$150,000 per credit acre, and native fish conservation credits sell for between \$75,000 and \$180,000 per credit acre. Lower quality SRA habitat can be purchased for about \$250/LF but given the high quality habitat that would be achievable at this site it was assumed that the credit value could be as high as \$500 per linear. The value of the SRA habitat may be low if it is assumed that in order to achieve the same habitat value that an equivalent project would need to construct an expensive adjacent or setback levee along the Sacramento River. Table 8.2 shows a range of BCR's between 1.2 to 1.7 given the assumptions described above. If the land costs associated with the Bank project were fully allocated to the Southport EIP flood project the BCR could be as high as 6.4 assuming the upper habitat credit values.

Table 8.2: Benefit Cost Ratio Range

Habitat Value Created	Quantity	Middle Credit Value		Upper Credit Value	
		Per Credit	Total	Per Credit	Total
Riparian Habitat (acres)	120	\$150,000	\$18,000,000	\$180,000	\$21,600,000
SRA/Channel Margin Habitat (linear feet)	21,000	\$250	\$5,250,000	\$500	\$10,500,000
Total Benefits	-	-	\$23,250,000		\$32,100,000
Projected Cost including ROW	•	**	\$19,048,400	-	\$19,048,400
Approximate Benefit Cost Ratio	-	-	1.2		1,7

California Department of Water Resources Central Valley Flood System Conservation Framework and Strategy Grant Application Form November 2012

Applicant Signature Page

Applicant: West Sacramento Area Flood Control Agency

Project Title: State of California West Sacramento Floodplain Mitigation Bank

By signing below, the official declares the following:

The truthfulness of all representations in the proposal;

The individual signing the form has the legal authority to submit the proposal on behalf of the applicant, and the applicant has the legal authority to enter into a contract with the State;

There is no pending litigation that may impact the financial condition of the applicant or its ability to complete the proposed project;

The individual signing the form waives any and all rights to privacy and confidentiality of the proposal; [Note: DWR will keep confidential sensitive information related to property negotiations or legal proceedings to the extent allowed under public information disclosure laws.]

The applicant will comply with all terms and conditions identified in the Central Valley Flood System Conservation Framework and Strategy Guidelines, PSP, and future Funding Agreement if selected for funding.

Kenneth A. Ruzich, General Manager

West Sacramento Area Flood Control Agency

1/7/13

Date

Resolution 12-12-01

RESOLUTION OF BOARD OF DIRECTORS OF THE
WEST SACRAMENTO AREA FLOOD CONTROL AGENCY
APPROVING THE APPLICATION FOR GRANT FUNDS FROM THE CENTRAL VALLEY FLOOD
SYSTEM CONSERVATION FRAMEWORK AND STRATEGY PROGRAM UNDER THE DISASTER
PREPAREDNESS AND FLOOD PREVENTION BOND ACT OF 2006 (Proposition 1E)

WHEREAS, the Legislature and Governor of the State of California have provided funds for the program shown above, and

WHEREAS, the Department of Water Resources has been delegated the responsibility for the administration of this grant program, establishing necessary procedures; and

WHEREAS said procedures established by the Department of Water Resources require a resolution certifying the approval of application(s) by the Applicants governing board before submission of application(s) to the State; and

WHEREAS, the Applicant, if selected, will enter into an agreement with the State of California to carry out the project.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the West Sacramento Area Flood Control Agency.

- 1. Approves the filing of an application to the Department of Water Resources for grant funding under the Central Valley Flood System Conservation Framework and Strategy Program to fund the construction of habitat in the Southport Sacramento River Early Implementation Project setback area;
- 2. Certifies that Applicant understands the assurances and certification in the application; and,
- Certifies that Applicant or title holder will have sufficient funds to operate and maintain the project(s)consistent with the land tenure requirements; or will secure the resources to do so: and.
- 4. Certifies that it will comply with all provisions of Section 1771.5 of the California Labor Code, and,
- If applicable, certifies that the project will comply with any laws and regulations including, but not limited to, the California Environmental Quality Act (CEQA), legal requirements for building codes, health and safety codes, disabled access laws, and, that prior to commencement of construction all applicable permits will have been obtained; and,
- 6. Appoints the General Manager, or designee, as agent to conduct all negotiations, execute and submit all documents including, but not limited to applications, agreements, payment requests and so on, which may be necessary for the completion of the aforementioned project(s).

PASSED AND ADOPTED by the West Sacramento Area Flood Control Agency on this 13th day of December, 2012, by the following vote:

Flood Conservation and Strategy Program Grant Application Resolution December 13, 2012 Page 2

AYES: Denton, Kristoff, Ramas NOES: none

NOES: none ABSTAIN: none ABSENT: none

William F. Denton, President

ATTEST:

Kenneth A. Ruzich, General Manager

APPROVED AS TO FORM:

James M. Day, Jr., WSAF CA Attorney



MEMORANDUM

TO:

Wilson Wendt

FROM:

Sean Marciniak

RE:

Legal Authority of West Sacramento Area Flood Control Agency to

Apply for and Construct and Implement a Mitigation Bank

DATE:

April 10, 2013

West Sacramento Area Flood Control Agency ("WSAFCA") does not have the authority to apply for or to construct and operate a Mitigation Bank. There exist three separate grounds that preclude the agency's pursuit of such a project: (1) state law that specifically enumerates the powers and authorities of WSAFCA do not permit such an activity; (2) the Joint Exercise of Powers Agreement forming the WSAFCA does not authorize the agency to create or operate a Mitigation Bank; and (3) WSAFCA's constituent members are not authorized to create or operate a Mitigation Bank, precluding WSAFCA from doing so.

A. The Joint Exercise of Powers Act, insofar as it specifically addresses the authorities of WSAFCA, do not permit the creation or operation of a Mitigation Bank. The authority of WSAFCA is set forth in Government Code section 6523, a provision of the Joint Exercise of Powers Act (Government Code section 6500 et seq.) Section 6523 grants the agency (1) the "authority to accomplish the purposes and projects necessary to achieve and maintain at least a 200-year level of flood protection" on the Sacramento River for the City of West Sacramento; (2) the ability to "exercise the authority granted to reclamation districts under Part 7 ... and Part 8 ... of Division 15 of the Water Code for the purposes of Sections 12670.2, 12670.3, and 12760.4 of the Water Code," which essentially involves the financing of a certain federal project using assessments and bonds; and (3) the power to create indebtedness and levy assessments to repay that indebtedness in order to finance the same federal project. In essence, three authorities are enumerated under section 6523, none of which authorize the construction or authorization of a Mitigation Bank.

First, section 6523 empowers WSAFCA to "accomplish the purposes and projects necessary to achieve and maintain at least a 200-year level of flood protection" for the benefit of the City of West Sacramento. (Emph. added.) Such an authorization should be construed narrowly. In Beckwith v. County of Stanislaus (1959) 175 Cal.App.2d 40, 49, the third district court of appeal — the appellate court setting precedential law over the jurisdictions within which WSAFCA operates — held that, in exercising functions under the Joint Exercise of Powers Act, an agency "must be directly concerned with the work to be performed." (See also 83 Ops.Cal.Atty.Gen. 82.) Neither the construction nor operation of a Mitigation Bank is "directly concerned" with the provision of 200-year flood



protections, much less "necessary" for the achievement and maintenance of such protection. After all, the creation and maintenance of a Mitigation Bank easily can, and usually does, function independently of the construction and operation of levees and other methods of flood control.

The second power conferred by section 6523, which contemplates certain activities performed by reclamation districts, is more specific. Specifically, this statute empowers WSAFCA to levy assessments and issue bonds for purposes of implementing a flood protection project specifically contemplated under section 101(4) of the Water Resources Development Act of 1992. (Water Code §§ 12670.2, 12670.3, 12670.4, 51200 et seq., 52100 et seq.; see Pub. Law 102-580) Aside from the fact that the construction and operation of a Mitigation Bank qualifies as neither the levy of an assessment nor the issuance of a bond, we have reviewed engineering reports prepared for the aforementioned federal flood protection project, and these documents do not contemplate a Mitigation Bank component.

The third authority conferred by section 6523 involves the right of WSAFCA to "create indebtedness and thereafter continue to levy special assessments to repay that indebtedness" in order to finance the aforementioned federal flood protection project, pursuant to the Improvement Act of 1911 and the Municipal Improvement Act of 1913. This authority, insofar as it contemplates the implementation of a federal project that does not include a Mitigation Bank, and insofar as it contemplates the accrual of debt to finance this project, is irrelevant.

WSAFCA does not possess the authority to create habitat and sell mitigation credits pursuant to section 6523. In fact, given the statute specifically enumerates certain financing mechanisms for implementing specific flood control projects, section 6523 would appear to expressly preclude WSAFCA from engaging in other financing schemes.

B. Joint Exercise of Powers Agreement forming the WSAFCA does not authorize it to create or operate a Mitigation Bank. Even assuming that the authorities of section 6523 are not inclusive, and that WSAFCA has authorities in addition to those enumerated in that statute, the law would prohibit WSAFCA from undertaking a Mitigation Bank project.

With regard to joint power authorities in general, such an agency "shall possess the common power specified in the agreement [forming it] and may exercise it in the manner or according to the method provided in the agreement." (Government Code section 6508.) The agreement creating WSAFCA, the "West Sacramento Flood Control Agency Joint Exercise of Powers Agreement" dated July 20, 1994 ("JPA"), recognizes only that the parties to the WSAFCA have the power to "acquire and construct Works for the purpose of controlling and conserving waters for the protection of life and property that would or could be damaged by being inundated by still or flowing water." (JPA, p. 1.) The term "Works" specifically is defined to mean "dams, water courses, drainage channels, conduits, ditches, canals, pumping plants, levees, buildings, and other structures" used to control floodwaters. (JPA, p.3) In discussing the power of WSAFCA to implement projects, the agreement specifies the "Agency's Projects are intended to consist of developing, designing, acquiring, and constructing Works and Facilities¹ as well as

¹ Per the JPA, "Facilities" means "any Works financed, acquired, or constructed by the Agency." (JPA, p.3.)

funding (including local cost shares of federal projects) of the same, required to attain interim 100-year and at least 200-year ultimate flood protection." (JPA, p. 9.)

In summary, the JPA only authorizes WSAFCA to develop flood protection projects that are "required" to attain "at least 200-year ultimate food protection," reflecting the narrow scope of section 6523. A Mitigation Bank is by no means a prerequisite to implementing a flood protection project, and thus its development lies outside the jurisdiction of WSAFCA.

C. WSAFCA's constituent members are not authorized to create or operate a Mitigation Bank, precluding WSAFCA from doing so. Regardless of what the JPA says, WSAFCA could not create or operate a Mitigation Bank because at least some of its constituent members, Reclamation District No. 900 and Reclamation District No. 537, do not have the authority to undertake such a project.

Pursuant to the Joint Exercise of Powers Act, if "authorized by their legislative or other government bodies, two or more public agencies by agreement may jointly exercise any power common to the contracting parties" (Gov. Code § 6508 [emph. added].) Essentially, a joint power authority may not exercise a power that all constituent members do not share.

Here, (at least) the two reclamation districts that form WSAFCA have limited authorities, where such authorities do not include the power to create or operate a Mitigation Bank. Reclamation districts may be formed "for the reclamation of any land within any city" that is subject to overflow or incursions from the tide of inland waters. (Water Code § 50110.) In implementing any "reclamation works," state law defines this term to mean "such public works and equipment as are necessary for the unwatering, watering, or irrigation of district lands and other district operations." (Water Code § 50013.) Because the establishment and operation of a Mitigation Bank is not "necessary" for the unwatering, watering, or irrigation of district land, a reclamation district does not have the authority to undertake that type of development project.

In summary, WSAFCA is operating outside its legal authorities insofar as it may apply for monies to create or operate a Mitigation Bank. The statute that specifically speaks to WSAFCA's authorities in the Joint Exercise of Powers Act authorizes only those activities "necessary" to achieve certain standards of flood control. Moreover, the agreement forming WSAFCA, no doubt contemplating this legality, authorizes only those flood control projects "required" to attain certain standards of flood protection. Finally, at least two of WSAFCA's constituent members do not have the power to develop a Mitigation Bank, since these reclamation districts are empowered only to pursue those projects "necessary" to the reclamation of land, where the concept of reclamation is limited to the watering, unwatering, or irrigation of land, and does not include the creation of habitat, much less the sale of mitigation credits.

WSAFCA has overstepped its authorities, and must withdraw any application it has submitted for monies that would finance the design, creation, or operation of a Mitigation Bank.

EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD

3310 El Camino Ave., Rm. 151 SACRAMENTO, CA 95821 (916) 574-0609 FAX: (916) 574-0682 PERMITS: (916) 574-2380 FAX: (916) 574-0682



September 5, 2013

Mr. Wilson F. Wendt Miller Starr Regalia P.O. Box 8177 Walnut Creek, California 94596

Subject: Southport Levee Improvement Project, West Sacramento Area Flood Control Agency

(Board Flood System Improvement Project Application No. 18313-3)

Dear Mr. Wendt:

Central Valley Flood Protection Board (Board) staff has received your protest to the West Sacramento Flood Control Agency's (WSAFCA) Application No. 18313-3. Staff appreciates your interest in the project and thanks you for your timely response to our notification letter regarding this application.

Two Board actions are needed for projects requiring U.S. Title 33, Section 408 (Section 408) approval by the U.S. Army Corps of Engineers (USACE) for major alterations to federal flood protection projects.

The first action requires the Board to approve sending a letter to USACE Washington D.C. Headquarters to formally initiate their Section 408 review of the 65 percent design documents submitted to the Board by WSAFCA. This action is currently scheduled for the September 13, 2013 Board meeting as Item 6B on our agenda posted at http://www.cvfpb.water.ca.gov, which includes a link to our staff report and draft USACE request letter.

The second action requires an evidentiary hearing at a public Board meeting anticipated in the spring of 2014. At this hearing, based on Board and USACE extensive reviews of WSAFCA's final design documents, and consideration of current or future issues raised by federal, State, and local agencies and interested stakeholders, Board staff will make its recommendation to the Board whether or not to approve issuance of a construction permit.

The September 13, 2013 Board action will not involve issuance of a construction permit for the WSAFCA Southport project. Pursuant to California Code of Regulations, Title 23, Waters, Section 12, Board staff will consider the concerns in your August 2, 2013 protest letter that are of a flood control nature as part of its review of the permit application materials in advance of the hearing next spring. Board staff will notify you when the hearing is scheduled.

You are welcome to present your concerns to the full Board at the September 13, 2014 meeting and / or at the spring 2014 evidentiary hearing. You may also provide public written comments directly to WSAFCA on their draft Environmental Impact Report / Environmental Impact Statement anticipated for public release this October or November.

If you have any questions please contact Nancy Moricz, Senior Engineer, Projects and Environmental Branch at (916) 574-2381, or by email at nancy.moricz@water.ca.gov.

Colonel Michael Farrell, Commander August 30, 2013 Page 2

Sincerely,

Eric Butler

Chief, Projects and Environmental Branch

CC:

Ms. Jeanne Pavao Seecon Financial and Construction Co. Inc. 4021 Port Chicago Highway Concord, California 94520

Ms. Jeanne Pavao Forecast Land Investment LLC 4061 Port Chicago Highway Concord, California 94520

Mr. Greg Fabun, Flood Protection Manager City of West Sacramento 1110 West Capitol Avenue, 2nd Floor West Sacramento, California 95691

Mr. Ric Reinhardt MBK Engineers 1771 Tribute Road Sacramento, California 95815