AMERICAN RIVER
COMMON FEATURES 2016
SACRAMENTO RIVER EAST
LEVEE (SREL), CONTRACT 1
PROJECT OVERVIEW

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Senior Project Manager

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Technical Lead

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• Together, the U.S. Army Corps of Engineers, State of California, and the Sacramento Area Flood Control Agency (SAFCA) have made tremendous progress in reducing flood risk for Sacramento – perhaps America’s most at-risk city for severe flooding.

• Modernizing Sacramento’s aging flood infrastructure still requires a lot of work. The authorized project includes approx. $1.8 billion in further improvements to modernize Sacramento’s flood infrastructure so it reliably and sustainably reduces Sacramento’s flood risk for generations to come.

• The authorized project includes up to:
  - 13 miles of cutoff walls
  - 21 miles of bank protection
  - 5 miles of levee stabilization
  - 5 miles of levee raises
  - Widening the Sacramento Weir by 1,500 feet

• The Corps, Central Valley Flood Protection Board, California Department of Water Resources, and SAFCA have a coordinated plan that works to achieve the goals of each partner.

• Tonight’s meeting is to discuss how we will be executing the Sacramento River East Levee Contract 1 construction contract, which was awarded to Maloney Odin Joint Venture of Novato, California, on February 14, 2020. This project will be constructing approximately three miles of levee improvements beginning as soon as March, and continuing through the end of 2020.
**TIMELINE: ARCF 2016**

**Seepage/Stability/Overtopping**

- **Project Authorization**
  - WRDA '99 - levee improvements on the American River
- **Project Authorization**
  - '06 PACR - slurry wall & relief wells in Pioneer Reservoir
- **Local Initiative**
  - Letter of permission for SAFCA construction of Arcade Creek
- **SAFCA Construction of Arcade Creek**
- **Sac River Contract 1** Construction of cutoff walls/seepage berm
- **Sac River Contract 3** Construction of seepage/stability/overtopping levee improvements

- **Local Initiative**
  - Letter of permission for SAFCA construction of Arcade Creek
- **SAFCA Construction of Arcade Creek**
- **Sac River Contract 1** Construction of cutoff walls/seepage berm
- **Sac River Contract 3** Construction of seepage/stability/overtopping levee improvements

- **Project Authorization**
  - WRDA '96 – levee improvements for underseepage
- **Project Authorization**
  - '03-'04 SAFCA initiates levee improvements for underseepage
- **Study/EIS**
- **Local Initiative**
  - Letter of permission for SAFCA construction of Arcade Creek
- **SAFCA Construction of Arcade Creek**
- **Sac River Contract 1** Construction of cutoff walls/seepage berm
- **Sac River Contract 3** Construction of seepage/stability/overtopping levee improvements

- **Local Initiative**
  - Letter of permission for SAFCA construction of Arcade Creek
- **SAFCA Construction of Arcade Creek**
- **Sac River Contract 1** Construction of cutoff walls/seepage berm
- **Sac River Contract 3** Construction of seepage/stability/overtopping levee improvements

- **Project Authorization**
  - WRDA '16 – levee improvements for seepage/stability/overtopping, and erosion
- **Fully Funded**
  - ARCF 2016 fully funded through Bipartisan Budget Act, P.L. 115-123
- **Construction of Front Street Seepage Berm and Beach-Stone Lakes Mitigation Site**
- **Sac River Contract 2** Construction of cutoff walls/seepage berm/relief wells
- **Magpie Creek & NEMDC** Construction of seepage/stability/overtopping levee improvements

- **Public Meetings for Supplemental Environmental Documents**
- **TODAY – Sac River Contract 1 Construction Update**
- **Major Construction Complete**
  - Bipartisan Budget Act target completion by Jan '24 for all flood risk reduction features.

- **Ongoing Mitigation and Monitoring**
AGENDA

- System Overview
- ARCF 2016 Overview
  - Project Partners
  - Project Progress
- SREL C1 Contract Overview
  - Technical Overview
  - Haul Routes/Access Points
  - Alternative Bike Routes
  - Impacts
  - Schedule
- Contact Information
AMERICAN RIVER COMMON FEATURES (ARCF) 2016

Authorized Plan

<table>
<thead>
<tr>
<th>Features</th>
<th>Miles/Feet</th>
</tr>
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<tbody>
<tr>
<td>North Area Streams Seepage</td>
<td>4</td>
</tr>
<tr>
<td>Sacramento River Seepage</td>
<td>9</td>
</tr>
<tr>
<td>American River Erosion</td>
<td>11</td>
</tr>
<tr>
<td>Sacramento River Erosion</td>
<td>10</td>
</tr>
<tr>
<td>Levee Stabilization</td>
<td>5</td>
</tr>
<tr>
<td>Levee raises</td>
<td>5</td>
</tr>
<tr>
<td>Widen Sacramento Weir and Bypass</td>
<td>1500 feet</td>
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</tbody>
</table>

Reduces Risk

- 500,000 people
- 125,000 structures
- $62 billion
SEEPAGE ISSUES ADDRESSED
SACRAMENTO RIVER EAST LEVEE C1 OVERVIEW

MARCH – DECEMBER 2020
SACRAMENTO RIVER EAST LEVEE,
CONTRACT 1

Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Measurement</th>
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<tbody>
<tr>
<td>Seepage &amp; Stability Berms</td>
<td>Approximately 1,000 feet</td>
</tr>
<tr>
<td>Cutoff Wall</td>
<td>Approximately 13,900 feet (2.6 miles)</td>
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</tbody>
</table>
SEEPAGE & STABILITY BERMS

Notes:
1. Berm thickness at hinge point minimum 3 feet.
2. Berm thickness at levee toe minimum 5 feet.

Source: DEI 2018

Exhibit: Seepage Berm Cross Section (Typical)
SEEPAGE CUTOFF WALLS

SEEPAGE CUTOFF WALL

Notes:
1. Levee height shown at 20 feet. Dimensions will vary based on actual levee height.
2. Levee to be degraded by a minimum of 3 feet, up to 1/2 levee height, for cutoff wall construction and then rebuilt with low permeability levee embankment fill (Type 1).
3. Existing vegetation on the waterside and landside would not be disturbed unless designated to be removed.

Source: GSI & HDR 2014, adopted by GSI 2018

Exhibit: Cutoff Wall Cross Section (Typical)
CONTRACT 1 – MILLER PARK AREA

APRIL – DECEMBER 2020

SACRAMENTO RIVER EAST LEVEE, CONTRACT 1

Features

- Drained Stability Berm: 550 feet
- Seepage Berm: 527 feet
- Cutoff Wall: 950 feet
- Staging Area: Miller Park Overflow Parking Lot; Front Street
- Access Points: 4

CONSTRUCTION: Monday - Friday 7:30 AM - 7:00 PM
Saturday, 7:00 AM - 5:00 PM

Legend:

- Proposed Improvements
- Johnstown Dam
- Main Channel
- Control Structures
- Proposed Improvements
- Drainage Berm
- Levee Berm

CONSTRUCTION:

- Miller Park Overflow Parking Lot
- Front Street Access Points
CONTRACT 1 – LITTLE POCKET AREA

APRIL – SEPTEMBER 2020

SACRAMENTO RIVER EAST LEVEE, CONTRACT 1

Features

- Conventional Cutoff Wall: 700 feet
- DMM Cutoff Wall: 1790 feet
- Erosion Repair: 30 feet
- Staging Area: Waterside of Levee; Entrance to levee crown at the western end of Sutterville Rd
- Access Points: 4

Legend

- Staging Areas
- DMM Cutoff Wall
- Erosion Repair
- Proposed Improvements
- Oregon Avenue
- Memphis Street
- Oregon Street

WORK HOURS

CONSTRUCTION MONDAY – FRIDAY: 7AM – 7PM
Saturday: 7:30AM – 1:30PM

3/5/2020 NVRM
CONTRACT 1 – BIG POCKET AREA

MARCH – SEPTEMBER 2020

SACRAMENTO RIVER EAST LEVEE, CONTRACT 1

Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Length</th>
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<tbody>
<tr>
<td>Conventional Cutoff Wall</td>
<td>9,280 feet</td>
</tr>
<tr>
<td>DMM Cutoff Wall</td>
<td>1,560 feet</td>
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<tr>
<td>Erosion Repair</td>
<td>50 feet</td>
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<tr>
<td>Staging Area</td>
<td>Garcia Bend Park; Freeport Regional Water Authority; Sump 132</td>
</tr>
<tr>
<td>Access Points</td>
<td>5</td>
</tr>
</tbody>
</table>
IMPACTS

Mar-Sep 2020
(common to all sites)

Traffic

Biking
Pocket levee bike trail from Miller Park to Sutterville Rd. – closed from April 2020 to October 2020

South Pocket trail from Garcia Bend to Freeport Intake – closed from March 2020 to October 2020

Boating & Fishing
Miller Park:
Marina – After Labor day – working with contractor
Boat Launch – No closure anticipated


Dust

Access

Noise

Vibration
Submit Questions to spk-pao@usace.army.mil

- This is an exciting opportunity
- You are a part of it
- There will be inconvenience
- We will mitigate and try to minimize
- We will be transparent
- We will be honest
- We will keep communication lines open

www.sacleveeupgrades.com

U.S. Army Corps of Engineers
Sacramento District
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