Public Workshop on the Emergency Levee Erosion Repair Project

Rio Vista, California
June 20, 2006

US Army Corps of Engineers ®

Items to be Discussed

- Purpose of Public Meeting
- Overall Project Description
  - Background
  - Estimated schedule
- Lower Delta area critical erosion sites
  - Specific sites: Steamboat Slough 16.2, Cache Slough 16.5 & 21.8, Sacramento River 20.8, 26.5, 26.9, 32.5 & 34.5
  - Repair designs
  - Environmental issues
  - Photographs of affected sites
  - Repair schedules
  - Routes
  - Material quantities
  - Construction Safety
  - Additional sites
- Where to get additional information
- Q & A

Purpose of the Public Workshop

- Inform local community and general public about the project work
- Answer questions from the public
- Discuss the potential for other levee repairs

Notified Stakeholders of Public Meetings

- Federal Elected Officials - Senate and House of Representatives;
- State Elected Officials - Governor, Senate and Assembly;
- County Officials - Board of Supervisors, County Administrators;
- City Officials - City Councils, City Managers;
- Federal Agencies;
- State Agencies;
- Water Agencies - Water Districts, Irrigation Districts, Water Companies, etc.
- Reclamation Districts
- Business Organizations - Chambers of Commerce, BIA, etc.
- Community Organizations - Farm Bureaus, RCRC, Port of Sacramento, etc.
- Environmental Organizations - Nature Conservancy, Friends of the River, etc.)
- General Public – Advertisements in local and regional newspapers.

Background

Central Valley Flood Control System Projects:

- 2.5 million people
- 2 million acres of cultivated land
- 200,000 structures with an estimated value of $57 billion

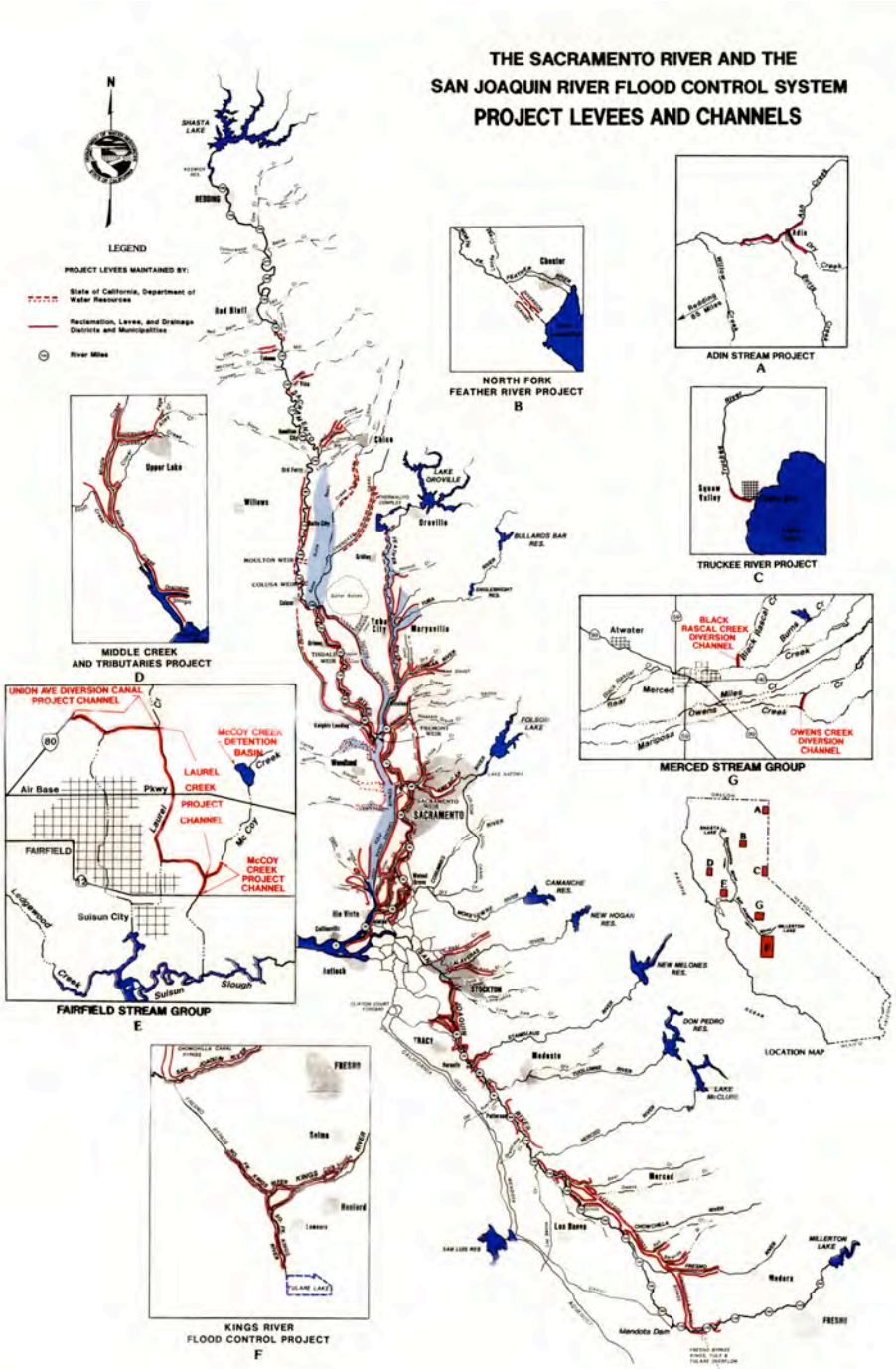
The system is aging and under funded

KEY CHALLENGES IN CENTRAL VALLEY

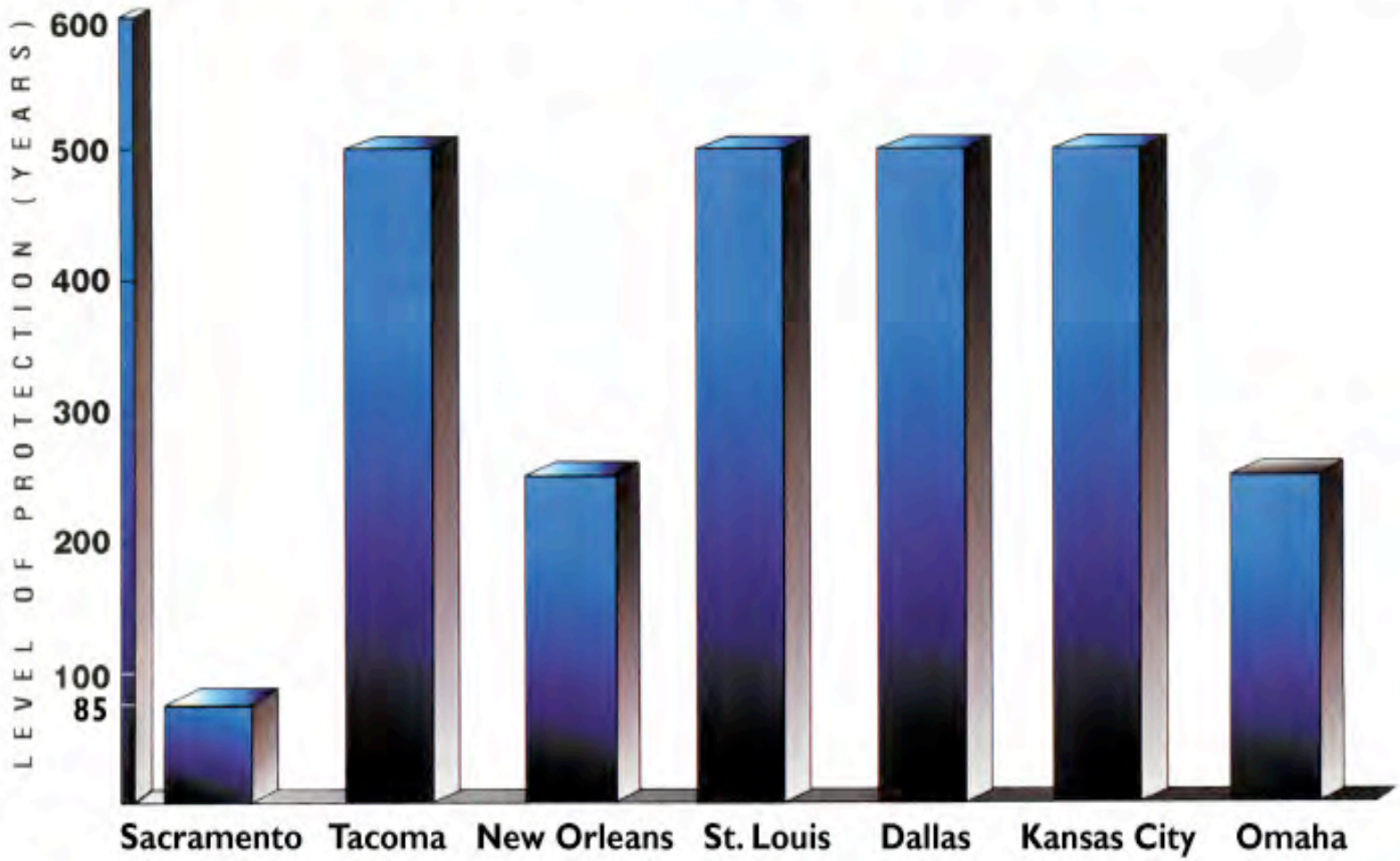
1600 miles of Federal Project Levees
700 miles of local Delta Levees
2300 miles of Levees

- Old levees, many originally built by farmers, most without adequate engineering

- Aging system, continuing deterioration (e.g. erosion, seepage distress, burrowing rodents)

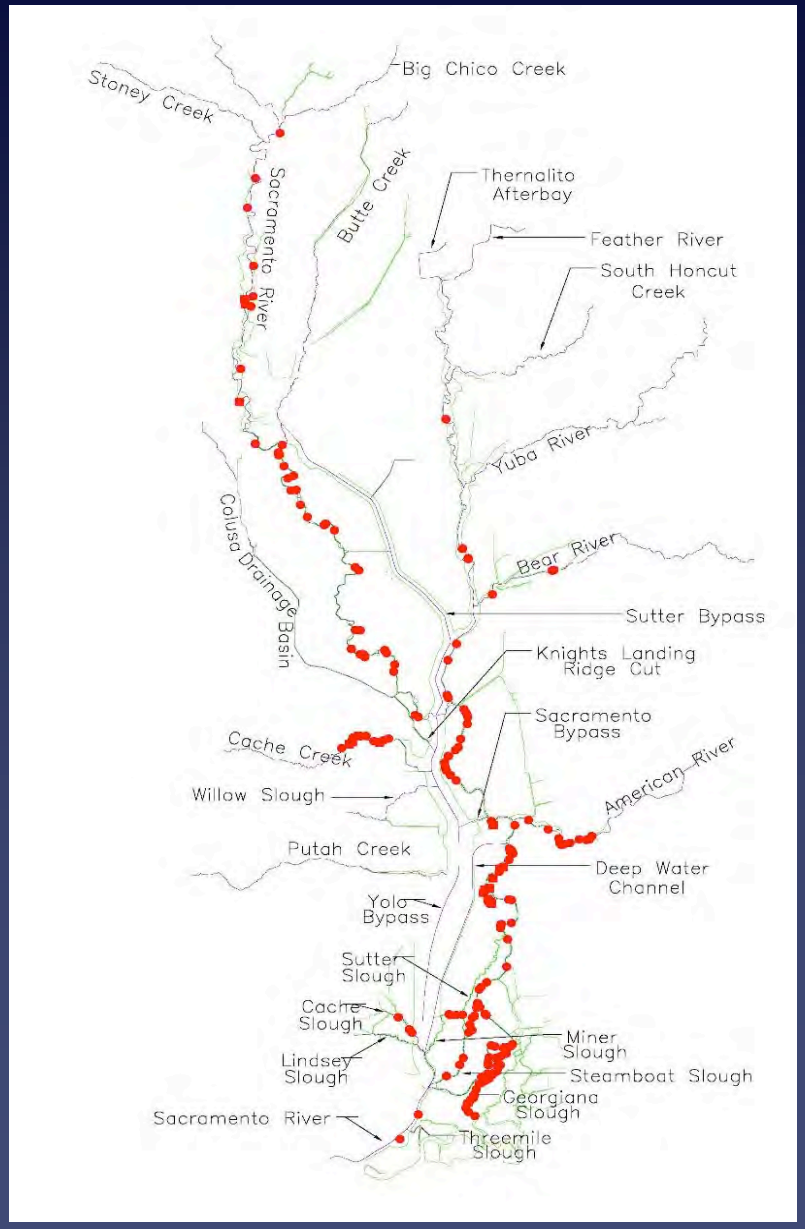


Sacramento's Level of Flood Protection by Comparison to other River Cities



SAFCA

Levee and Bank Erosion

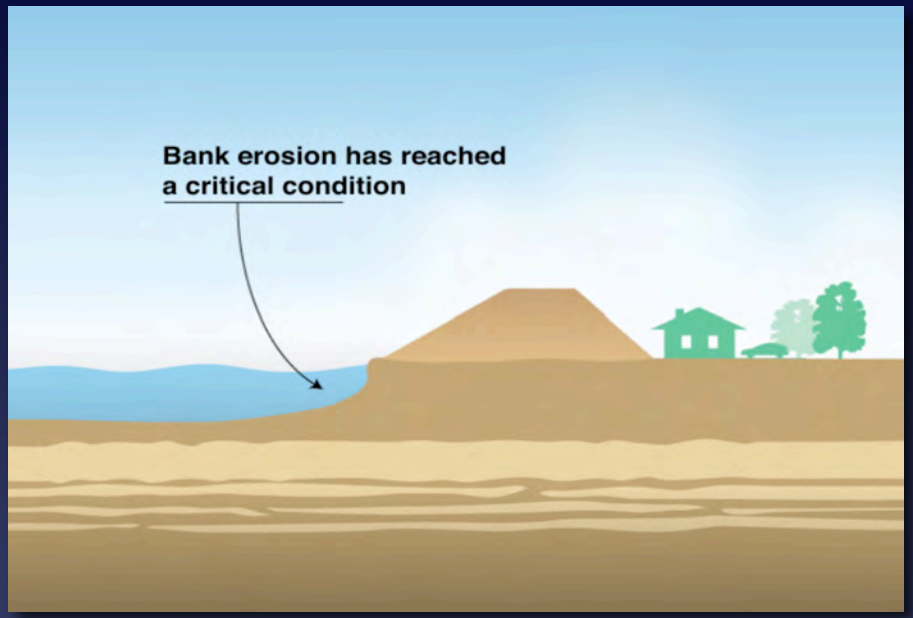


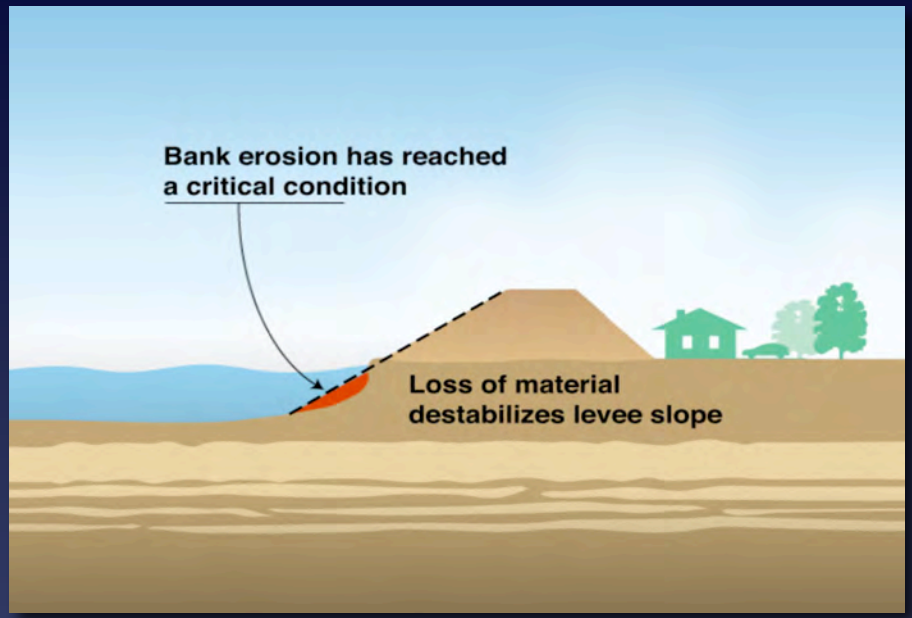
2005 US Army Corps of Engineers Field Reconnaissance Study

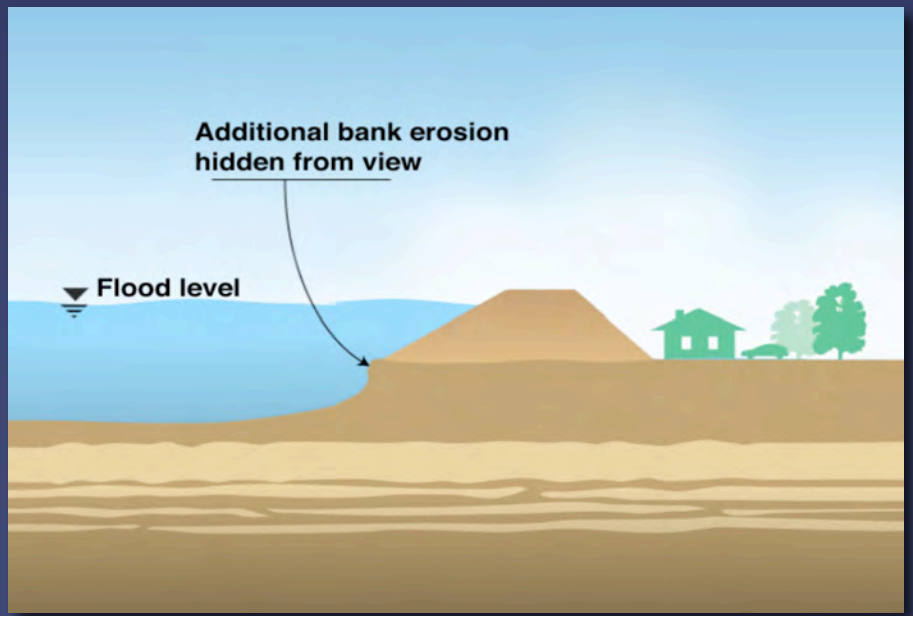
This December 29, 2005 Study is the basis for 24 sites on the State's levee system being identified as being "critical".

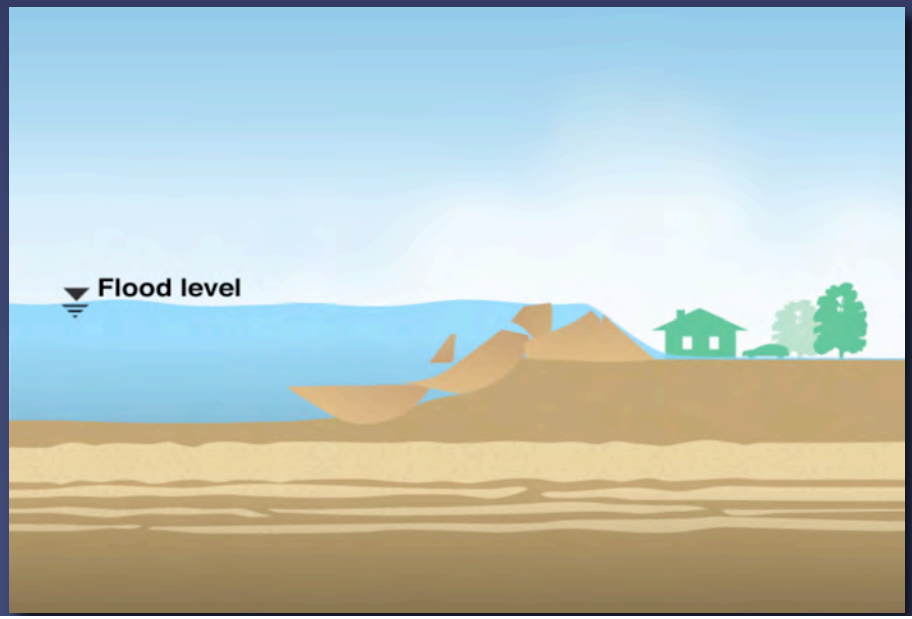
Critical sites are levee locations where the erosion encroaches near or into the levee crown and where further erosion may result in a bank failure These sites are recommended as the highest priority for repair.

Levee Erosion









State Emergency Declaration

- Governor declared State of Emergency for State's levee system (February 24, 2006)
- Provides additional resources to fast-track the repair of critical erosion sites before the next flood season
- Streamlines California Permitting Processes

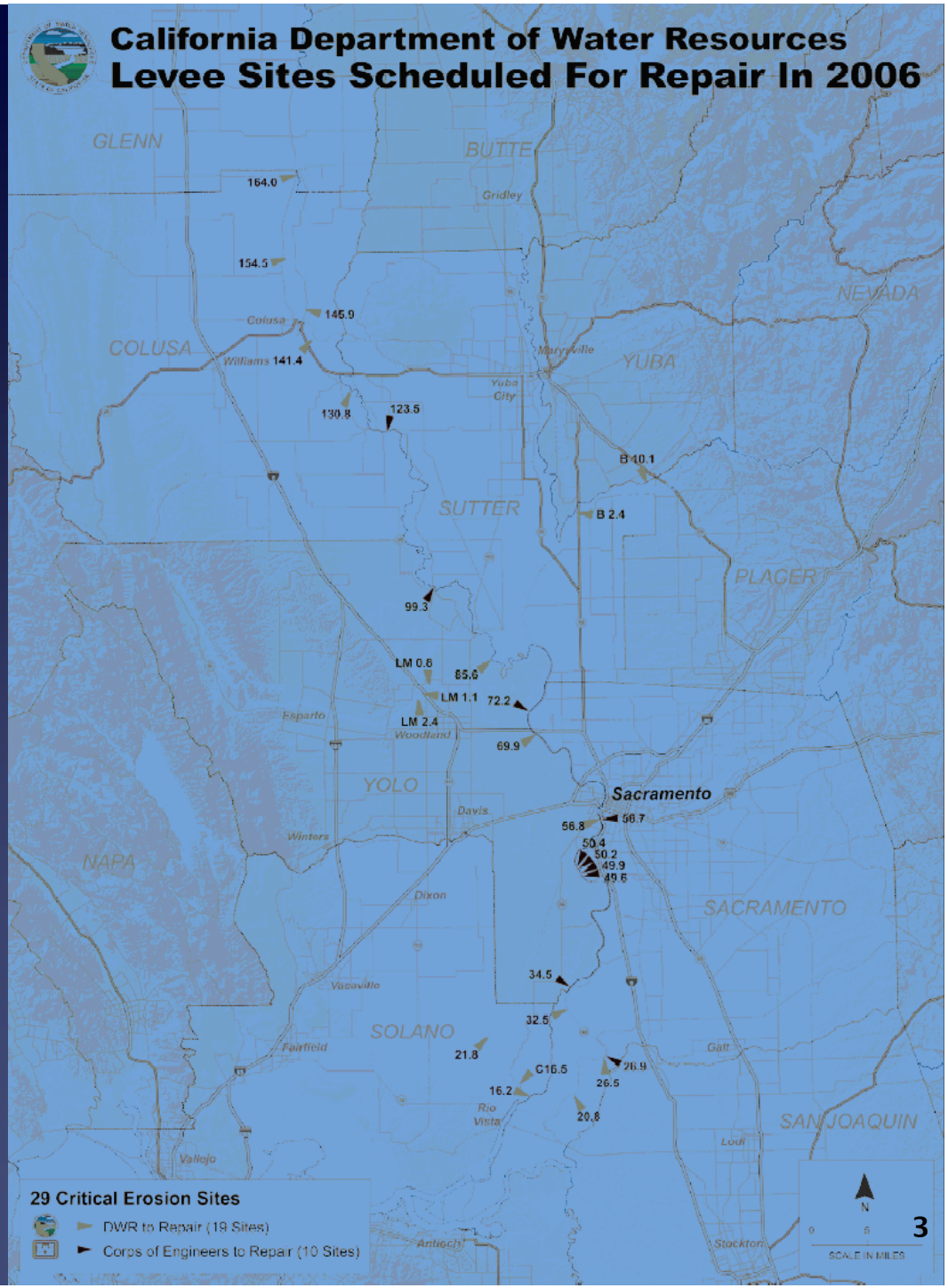
Critical Site: Sites where further erosion may result in a bank failure, which encroaches near or into the levee crown and is recommended as the highest priority for repair

24 Original Critical Sites
5 Additional Sites Found to be Critical (previously potentially critical sites that have deteriorated over the last year)

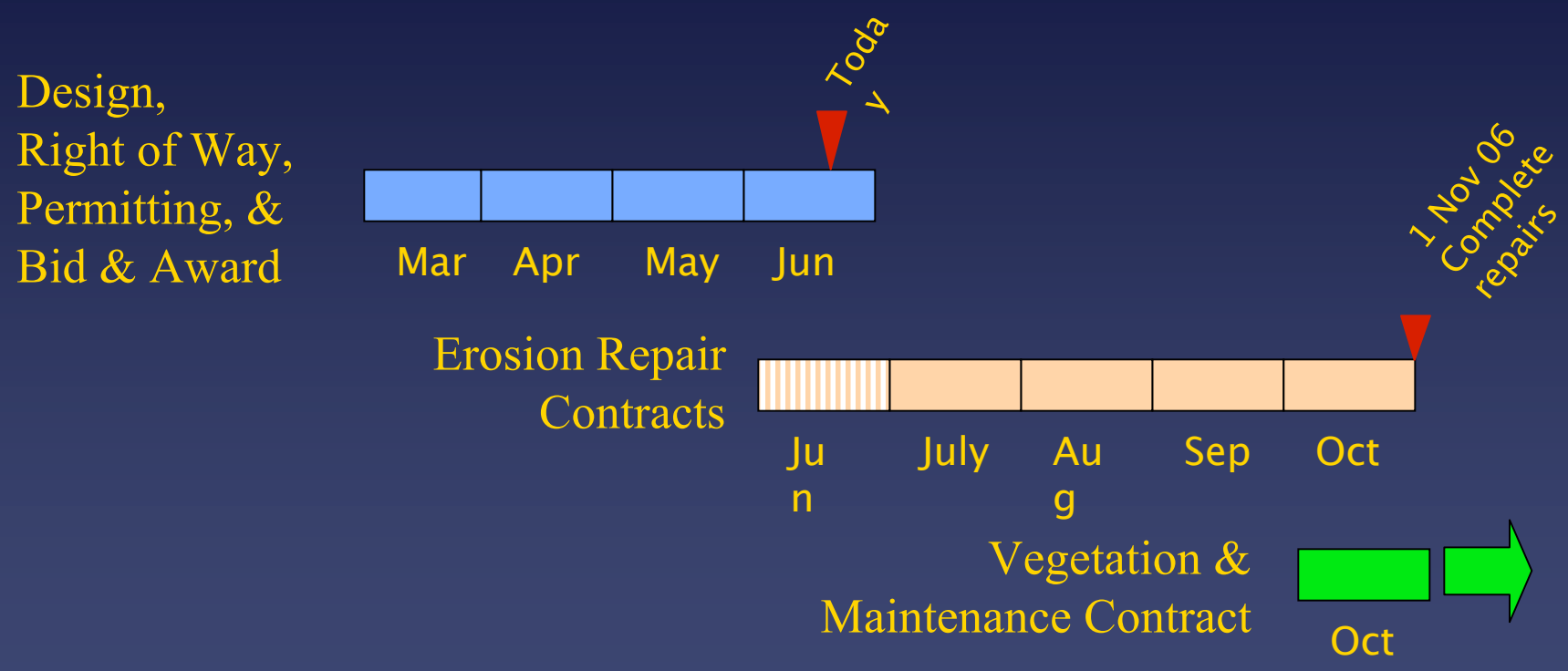
29 Current Critical Sites

10 Critical Sites to be repaired by USACE
19 Critical Sites to be repaired by DWR

29 Current Critical Sites



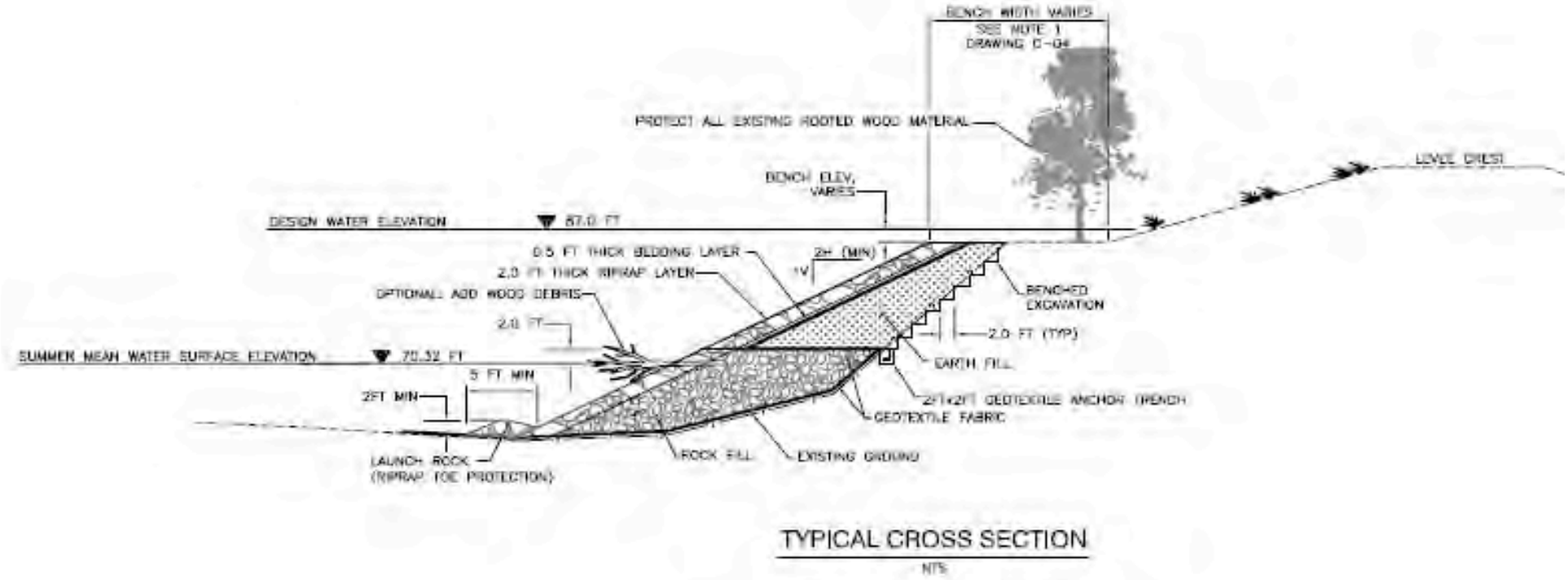
Emergency Levee Repair Project General Schedule



Types of Repairs Used for Lower Delta Sites

- ***Rock Fill*** -- Most repair work will consist of placing soil and rock on the water side of the levee, with the goal of reestablishing the damaged levee slope and supporting toe structure. Rock for construction will be transported to the sites by barge and/or truck.

Typical Rock Fill Repair Design



TYPICAL CROSS SECTION

NTS

Environmental Issues and Permits

Endangered Species – U.S. Fish and Wildlife Service

- Delta Smelt (and critical habitat)
- Valley Elderberry Longhorn Beetle
- Giant Garter Snake

Endangered Species – National Oceanic & Atmospheric Administration Fisheries Service

- Winter Run Chinook (and critical habitat)
- Spring Run Chinook (and critical habitat)
- Steelhead (and critical habitat)
- Green Sturgeon (recently listed)

Efforts to Protect Environment

- Environmental features to mitigate impacts include:
  - Preserve rooted vegetation in water and on benches.
  - Include woody material to preserve fish habitat and reduce erosion.
  - Avoid Valley Elderberry Longhorn Beetle habitat.
  - Pre-survey for Bank Swallow, Swainson's Hawk and burrowing owl.

Mitigation Components Example

Willow stalk plantings

In-stream woody material (IWM)

Environmental Permitting and Right of Way

All environmental permits and right of way will be secured by DWR and USACOE

Right of Way

- Goal is to work in partnership with land owners to secure access to levee sites and/or adjacent property.
- Temporary access for construction purposes
- For more information, visit the Property Owners web page at:

  www.levees.water.ca.gov/owners/

Lower Delta Sites Scheduled for Repair

Steamboat Slough RM 16.2

Location/Truck Route:

- From Rio Vista, north 2 miles on SR 84 to Ryer Island; cross Cache Slough by ferry; right on levee road about 1.5 miles. Or from Walnut Grove head west on SR 160; take Highway 220 by ferry across Steamboat Slough; south on levee road.

Repair type:

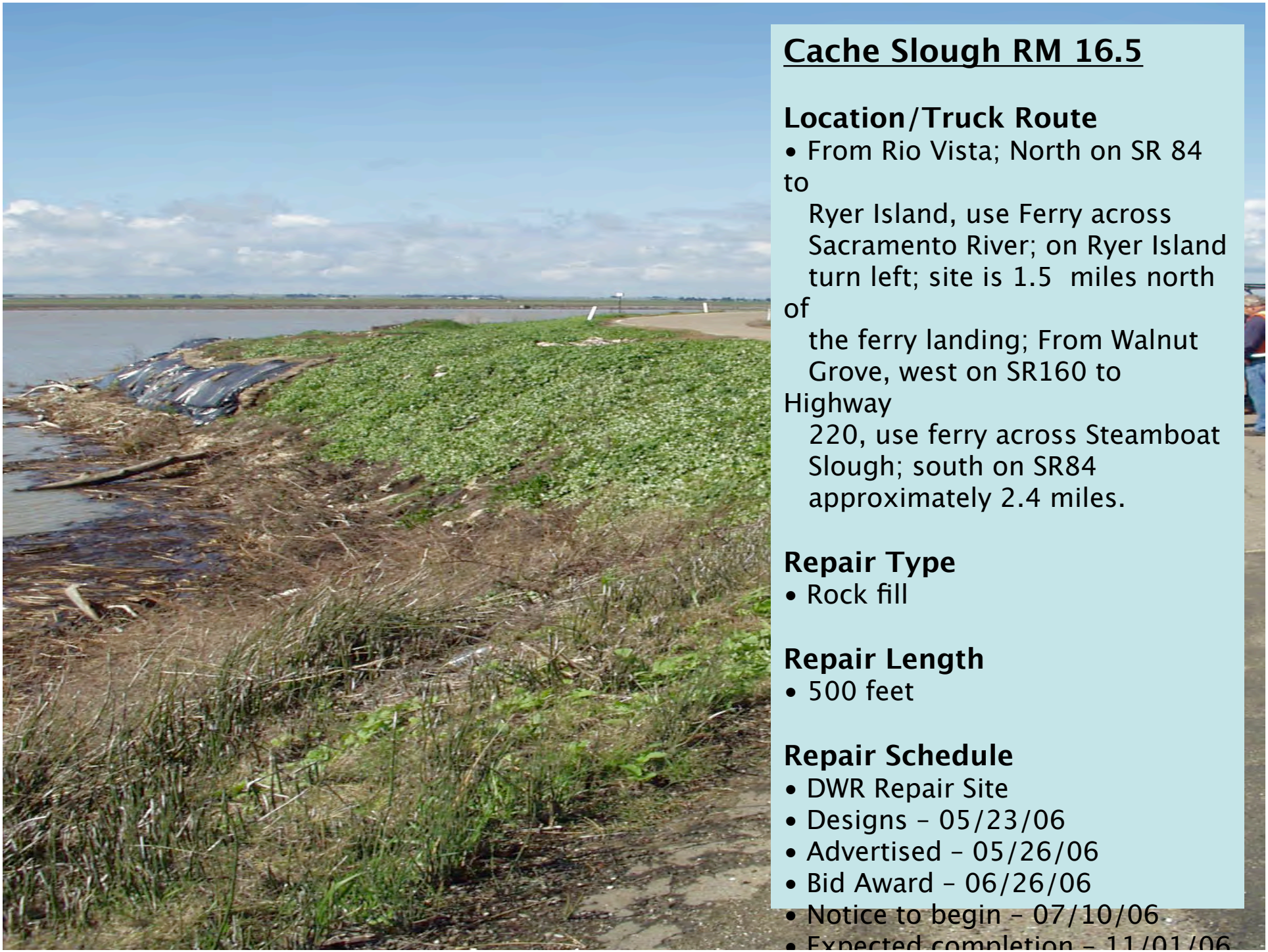
- Rock fill

Repair Length

- 350 feet (approx.)

Repair Schedule:

- DWR Repair Site
- Designs – 05/23/06
- Advertised – 05/26/06
- Bid Award – 06/26/06
- Notice to begin – 07/10/06
- Expected completion – 11 /01/06



Cache Slough RM 16.5

Location/Truck Route

- From Rio Vista; North on SR 84 to Ryer Island, use Ferry across Sacramento River; on Ryer Island turn left; site is 1.5 miles north of the ferry landing; From Walnut Grove, west on SR160 to Highway 220, use ferry across Steamboat Slough; south on SR84 approximately 2.4 miles.

Repair Type

- Rock fill

Repair Length

- 500 feet

Repair Schedule

- DWR Repair Site
- Designs – 05/23/06
- Advertised – 05/26/06
- Bid Award – 06/26/06
- Notice to begin – 07/10/06
- Expected completion – 11/01/06

Cache Slough RM 21.8

Location/Truck Route

- From Rio Vista, northwest along Airport Road about 3 miles; north on Liberty Road about 4 miles; cross bridge over Lindsay Slough; turn right and continue upstream on local road atop levee for about 2 miles. Or, from Rio Vista, west on SR 12 (Rio Vista Rd.); north on SR 113 (Rio Dixon Rd.); right on Hastings Road across Hastings Tract; continue on levee road about 2 miles.

Repair Type

- Rock fill

Repair Length

- 2,000 feet

Repair Schedule

- DWR Repair Site
- Designs – 05/23/06
- Advertised – 05/26/06
- Bid Award – 06/26/06
- Notice to begin – 07/10/06
- Expected completion – 11/01/06

Sacramento River RM 20.8

Location/Truck Route

- From Isleton head northeast on SR 160 about 1 mile to Isleton Road; continue 2 miles; site is located along Isleton Road on left. From Walnut Grove head south on River Road about ½ mile; cross bridge over Georgiana Slough to Andrus Island; right on Isleton Road; continue about 4 miles; site is located on the right.

Repair Type

- Rock fill

Repair Length

- 700 feet (approx.)

Repair Schedule

- DWR Repair Site
- Designs – 05/23/06
- Advertised – 05/26/06
- Bid Award – 06/26/06
- Notice to begin – 07/10/06
- Expected completion – 11/01/06

Sacramento River RM 26.5

Location/Truck Route:

- Located in Walnut Grove. Site is along River Road between Theater Street and Depot Lane. From Sacramento, take SR 160 south to Walnut Grove cross bridge over Sacramento River. From Bay Area, take SR 160 toward Antioch; continue through Antioch on SR 160 to Walnut Grove.

Repair Type:

- Rock fill

Repair Length:

- 650 feet (approx.)

Repair Schedule:

- DWR Repair Site
- Designs – 05/23/06
- Advertised – 05/26/06
- Bid Award – 06/26/06
- Notice to begin – 07/10/06
- Expected completion – 11/01/06

Sacramento River
RM 26.9

Location/Truck Route

- Located in Walnut Grove. Site is along River Road between Theater Street and Depot Lane. From Sacramento, take SR 160 south to Walnut Grove cross bridge over Sacramento River. From Bay Area, take SR 160 toward Antioch; continue through Antioch on SR 160 to Walnut Grove.

Repair Type

- Rock fill

Repair Length

- 300 feet (approx.)

Repair Schedule

- U.S. Army Corps of Engineers
- Designs – 05/25/06
- Advertised – 06/26/06
- Bid Award – 06/28/06
- Expected completion –
- 11/01/06

Sacramento River RM 32.5

Location/Truck Route

- From Walnut Grove, cross bridge on west side of river; head northwest on SR 160 for about 7 miles; site located along SR 160 immediately after crossing bridge over Steamboat Slough. Or from Courtland, take SR 160 about 1 mile; cross bridge over Sacramento River; continue south on SR 160 for about ½ mile.

Repair Type

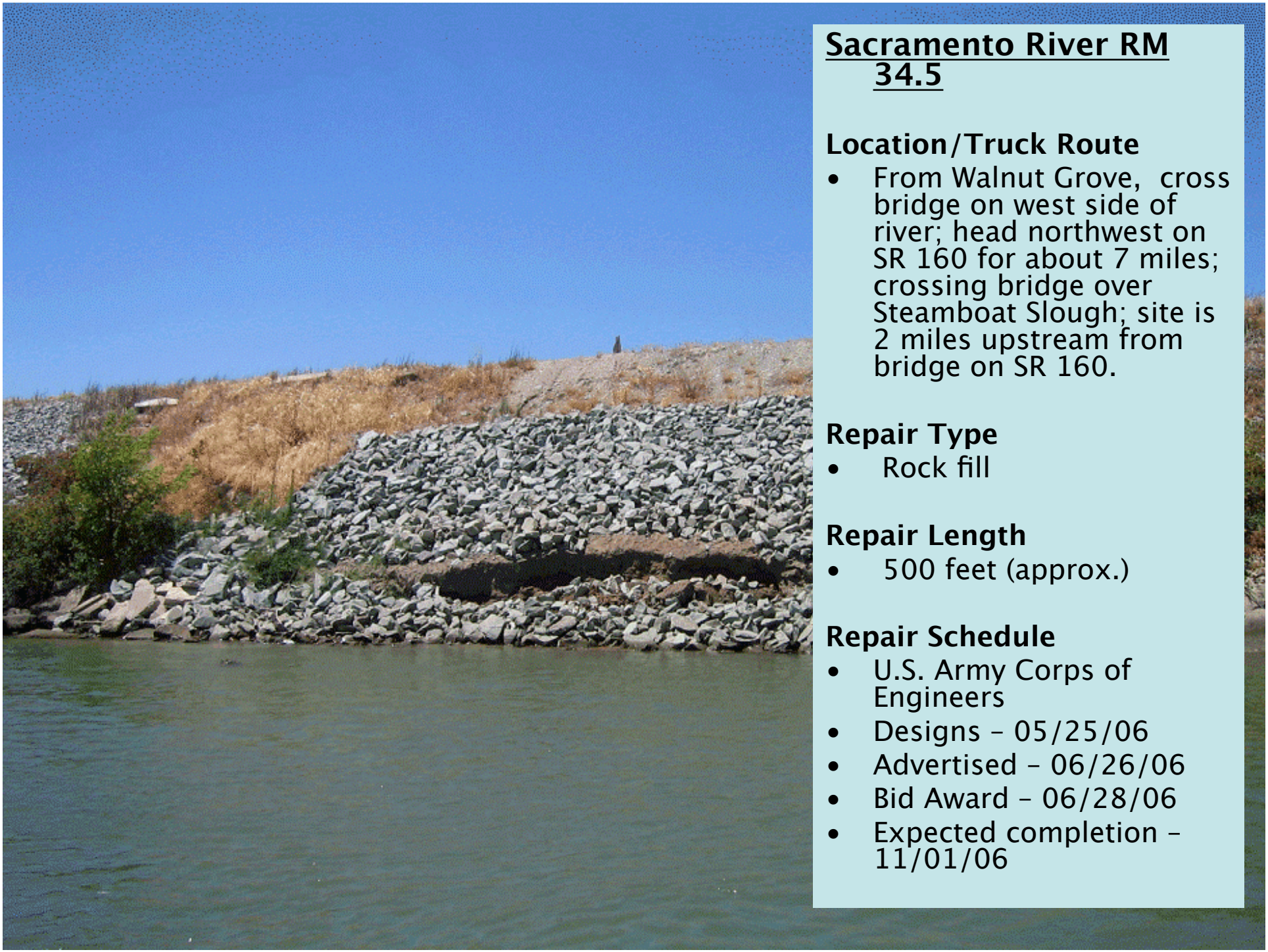
- Rock fill

Repair Length

- 2,250 feet (approx.)

Repair Schedule

- DWR Repair Site
- Designs – 05/23/06
- Advertised – 05/26/06
- Bid Award – 06/26/06
- Notice to begin – 07/10/06
- Expected completion – 11/01/06



Sacramento River RM 34.5

Location/Truck Route

- From Walnut Grove, cross bridge on west side of river; head northwest on SR 160 for about 7 miles; crossing bridge over Steamboat Slough; site is 2 miles upstream from bridge on SR 160.

Repair Type

- Rock fill

Repair Length

- 500 feet (approx.)

Repair Schedule

- U.S. Army Corps of Engineers
- Designs – 05/25/06
- Advertised – 06/26/06
- Bid Award – 06/28/06
- Expected completion – 11/01/06

Material Quantities

Lower Delta Sites:

- Steamboat Slough RM 16.2
  - 11,650 tons of soil and rock material (6 barge trips)
- Cache Slough RM 16.5
  - 7,950 tons of soil and rock material (4 barge trips)
- Cache Slough 21.8
  - 51,300 tons of soil and rock material (26 barge trips)
- Sacramento River 20.8
  - 7,350 tons of soil and rock material (4 barge trips)

Note: Total estimates of trips based on barge holding 2,000 tons of material; typical truck loads are 20 tons.

Material Quantities – Cont.

Lower Delta Sites:

- Sacramento River RM 26.5
  - 95,450 tons of soil and rock material (48 barge trips)
- Sacramento River RM 26.9 (USACE)
  - 67,000 tons of rock material (Two barge trips per day)
- Sacramento River 32.5
  - 256,700 tons of soil and rock material (129 barge trips)
- Sacramento River 34.5 (USACE)
  - 55,000 tons of rock material (Two barge trips per day)

Note: Total estimates of trips based on barge holding 2,000 tons of material; typical truck loads are 20 tons.

TB135

Typical Hours of Construction

All Lower Delta Sites

- 7 a.m. to 7 p.m., Monday through Saturday

Note: Contractors may extend hours and working days for some durations during construction to complete work on time. Times listed my vary.

Construction Safety Tips

Avoid construction sites

- The general public should avoid repair locations during the construction period.
- The general public will not be allowed on the construction sites during construction period without prior approval.
- Be aware of increased heavy equipment traffic traveling to and from construction sites.

Boating safety

- Boats should stay clear on barge traffic.
- Boats should reduce speeds around barges and/or near repair sites.

Additional Sites Surveyed

Additional Sites – Proposed by local officials as critical

Sacramento River RM 43.1

- Approximately 270 feet in length
- Erosion is considered high
- Temporary repairs made but levee slope is less than 1:1.

Project Managers

- DWR Executive Sponsor, DWR Deputy Director ***Les Harder***

- DWR Project Manager, ***Don Kurosaka***
- URS Project Manager, ***Loren Murray***
- Design/Construction Manager, *Ron Lee*
- USACOE Project Manager, ***Stan Wallin***,

E-Mail: leveerepair@water.ca.gov

For More Information visit DWRs Levee Website at:

www.levees.water.ca.gov/

http://www.water.ca.gov/

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DWR Levee Repair
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P. O. Box 942836
Sacramento, CA 94236

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"Increasingly severe weather systems each season have accelerated the deterioration of the state's levee system to the point where they are now in danger of failing during the next major rainfall or earthquake. This worsening situation creates conditions of extreme peril to the public and property protected by the levees, to the environment, and to the very foundation of California's economy."

-- Gov. Arnold Schwarzenegger in a letter to President Bush dated February 27, 2006

Invitation to Contractors -- DWR has scheduled a contractor outreach workshop at 9 a.m. Monday, May 8 to provide an overview of the Emergency Levee Erosion Repair Project and explain the process for applying for construction contracts to prospective contractors. (05/03/06)
▶ more...

State-Federal Agreement on Levee Repairs -- Governor Schwarzenegger and the Bush Administration have finalized an agreement for an expedited permitting process to fix 29 critical levee sites in the Sacramento River basin by November 1, 2006. (05/03/06)
▶ Blog Post... ▶ Press Release... ▶ MOU... (.pdf)

Five Levee Sites Added to Critical Erosion List -- Following Governor Schwarzenegger's plan to restore California's failing levees, DWR has added five levee sites to its critical erosion list. This brings the total number of

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Mike Chrisman
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Related Links

- Levee News Archive
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Questions
&
Answers

Thank you

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