

SARM Prado Dam Tour FY-12

Rep. Ken Calvert, 44th District

20 April 2012, 09:00 – 11:00

Los Angeles District

Project Management Division

Appropriation/Phase: Construction General

Business Line: Flood Risk Management

Local Sponsors: San Bernardino, Riverside and Orange County Flood Control Districts

Congressional Interest: Lewis (CA-41), Miller (CA-42), Royce (CA-40), Bono-Mack (CA-45), Rohrabacher (CA-46), Calvert (CA-44), Baca (CA-43), Sanchez (CA-47), Sen. Feinstein, Sen. Boxer

Project Manager: Tom Bucklew



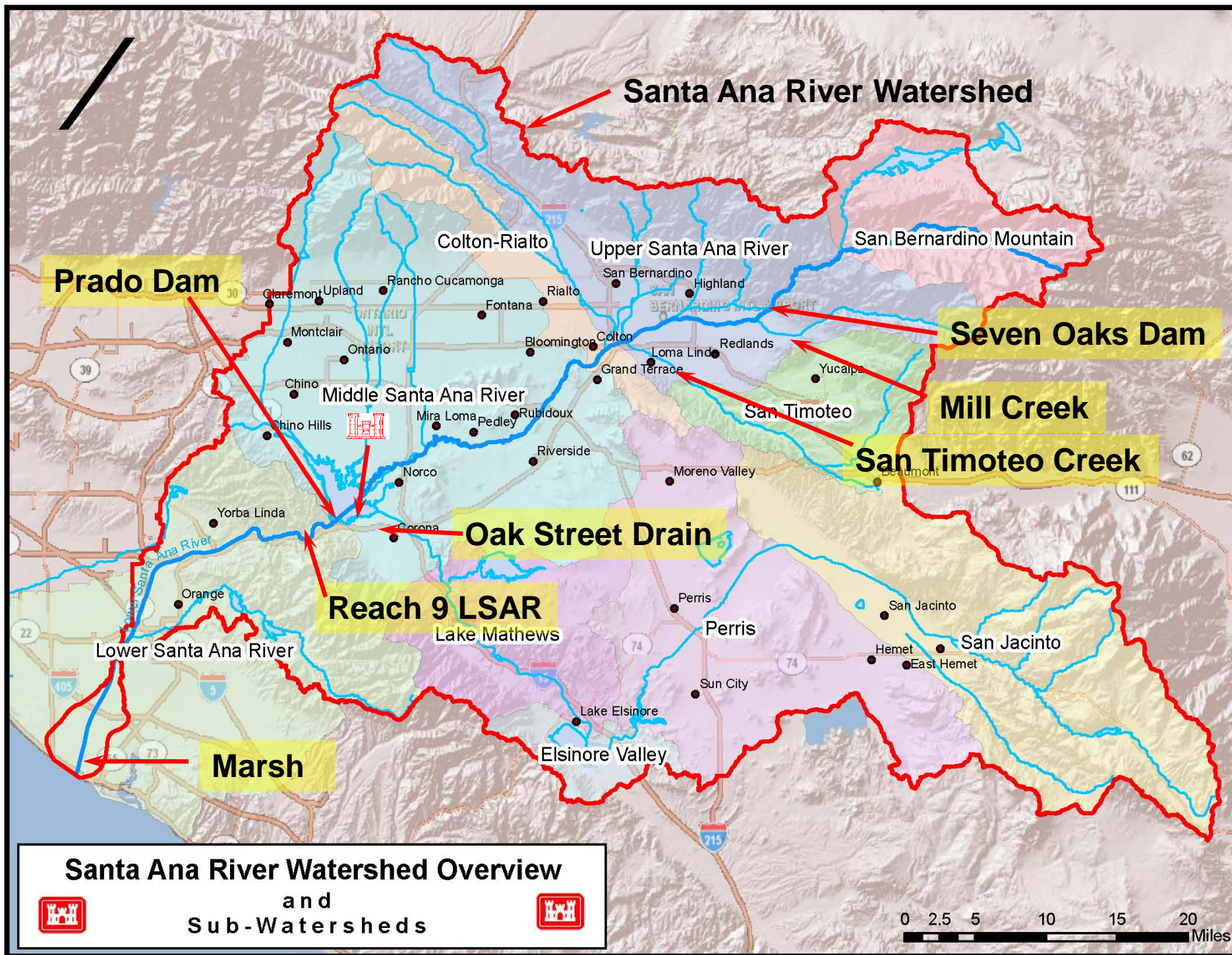
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Santa Ana River Mainstem, CA

Summarized Financial Data -Total Project

Total Estimated Project Cost	\$2,108,000,000
Estimated Federal Cost	1,284,000,000
Estimated Non-federal Cost	824,000,000
902 Limit	2,290,000,000
Total Sunk Cost	1,634,000,000
Fed Sunk Cost	1,015,000,000
Non-Fed Sunk Cost	619,000,000
Fed Allocation for FY-12	23,090,000
Balance to Complete after FY12	474,000,000
Fed Balance to Complete*	269,000,000
Non-Fed Balance to Complete	205,000,000
FY13 President's Budget	7,200,000

* Includes 7 Oaks Judgment fund \$38M



Santa Ana River Mainstem, CA

Summarized Financial Data – Prado Dam PCA

Total Estimated Cost*	\$758,000,000
Estimated Federal Cost (50%)	379,000,000
Estimated Non-Federal Cost (50%)	379,000,000
 Total Sunk Cost	 405,000,000
Fed Sunk Cost	205,000,000
Non-Fed Sunk Cost	200,000,000
 Balance to Complete after FY12	 353,000,000
Fed Balance to Complete**	174,000,000
Non-Fed Balance to Complete**	179,000,000

*Total Construction Cost is \$380M, LERRDS is \$378M.

**Includes \$38M federal reimbursement for LERRDS. If a deferral of payment is approved, move \$151M from non-fed to fed balance to complete.



Prado Related Contracts to Complete

- FY12 Contracts

Adobe Dike	\$4 Million
Santa Ana Regional Interceptor (SARI) Line - Sponsors	

- FY13 Contracts

CIW Prison Dike	\$12 Million
Reach 9, Phase 3	\$10 Million
BNSF Bridge Piers	\$15 Million

- FY14 Contracts

Alcoa Dike	\$20 Million
River Road Dike	\$6 Million

- Beyond FY14 Contracts

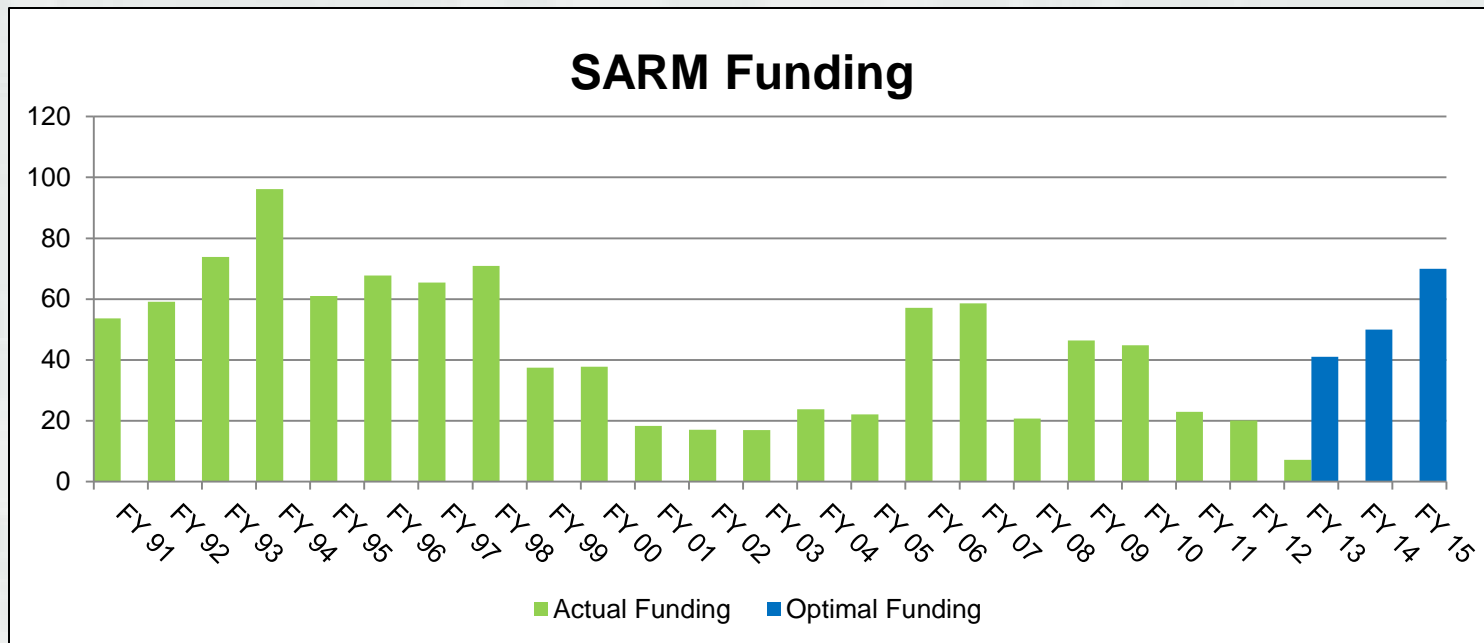
Norco Bluffs	\$21 Million
Spillway Walls and Crest	\$59 Million



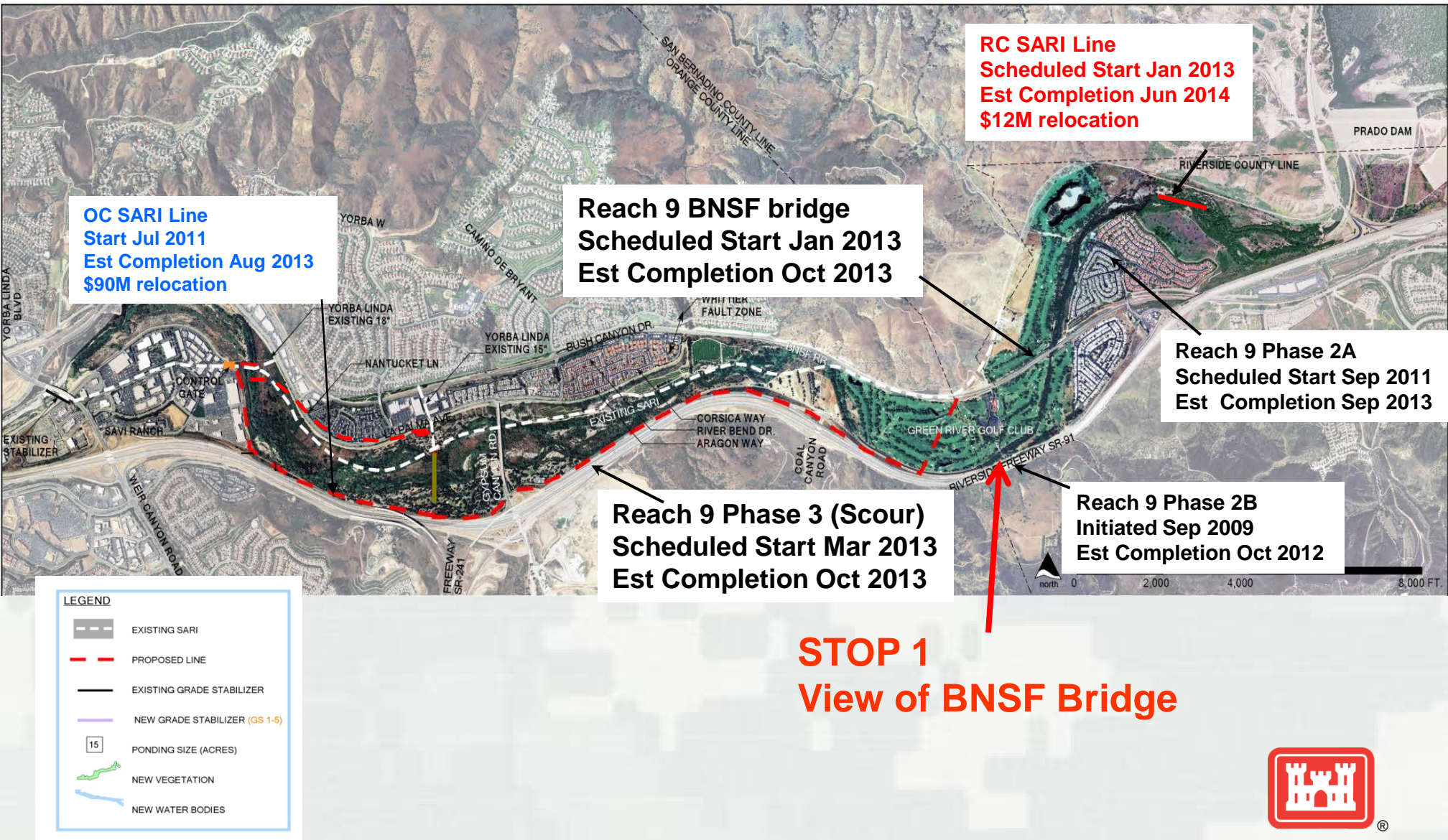
Santa Ana River Mainstem Project, CA

Project Issues

- Prado releases limited to 5,000 cfs until SARI Line and downstream improvements are completed.
- Real Estate must be purchased by OCFCD for Prado Basin before Spillway can be raised. Possible Section 103a deferral for Sponsor.
- Funding History: \$7M in FY13 is well \$20M Budgeted in FY12.



Santa Ana River Reach 9



Reach 9 Progress

- Phase 2 A and 2B are in construction, completion scheduled for Sep 2013
- Scour study for SARI line identified two areas of concern:
 - SAR embankment by Gypsum Canyon, now Phase 3
 - BNSF Bridge piers
- Green River BNSF Bridge pier protection design initiated, construction scheduled for January 2013
- Reach 9 Phase 3 embankment protection design underway, construction scheduled for March 2013
- Goal is completion of reach 9 by 2013-14 rain season to enable release of 30,000 cfs from Prado Dam to Santa Ana River



Stop 1 - Reach 9

BNSF Bridge Piers

Cost \$15.0 M FY-13

Essential for operation of Prado at 30,000 cfs

Recent scour study shows bridge piers subject to scour

6 sets of piers will be encircled with slurry wall

BNSF must concur with design, meeting date TBD

Phase 3 (not visible on tour)

Cost \$10.0 M FY-13

Essential for operation of Prado at 30,000 cfs

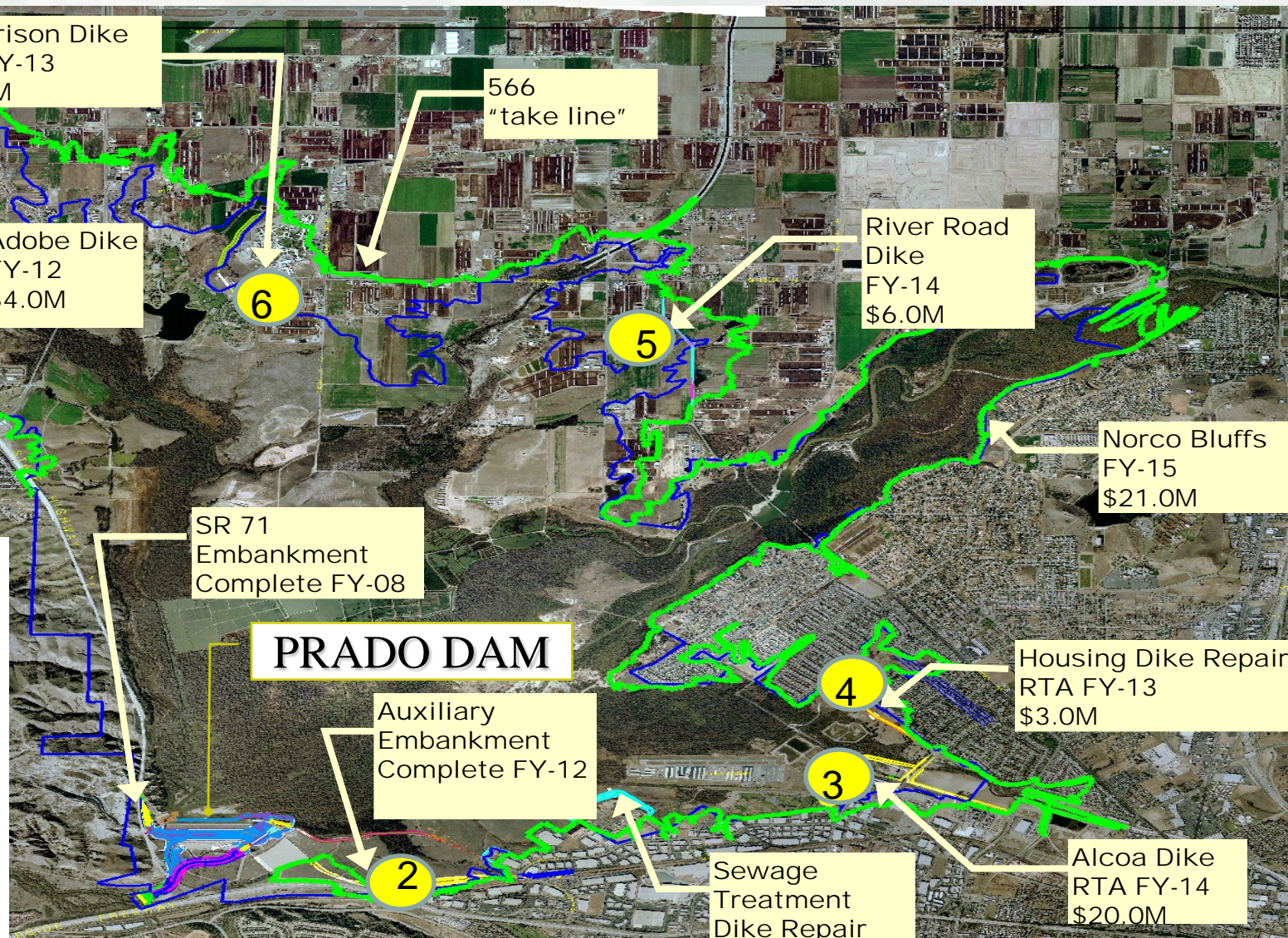
Recent scour study shows 91 embankment subject to scour

1,300 feet of soil cement on embankment near 91 above Gypsum Canyon Road



Prado Flood Control Basin Structures

The Prado Spillway will be raised 20 ft to Elev. 563'. As a result the sponsor must acquire an additional 2,300 acres (area between green and blue lines). Nine dikes are also being constructed to protect existing property around the basin.



Stop 2 - Auxiliary Embankment and Floodwall

- Construction complete in June 2012, \$14M
- 5,370 feet in length, 74' max height, 30' ave. height
- Floodwall 1,200 feet east of Rincon Rd., ranging 16' down to 2' high
- El 594.4, extension of Prado Dam prevents flanking of dam by water when spillway is raised
- Connections to Corona bridge over BNSF planned following completion of bridge by city, est. 2014.



Stop 3 - Alcoa Dike

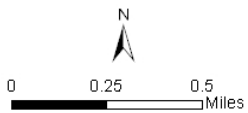
- Construction scheduled FY14, est. \$20M
- 3,500 foot earth fill embankment with rip rap on basin side.
- Over 60 relocations of utilities. Roads will be built to future configuration
- Rincon Rd and Auburndale Rd. will be elevated to cross over dike
- Corona airport concerned about proximity of dike to airport glide slope for proposed precision landing system
- The Corona Airport and dike alignment will be discussed later this morning



PRADO DAM CORONA AIRPORT AREA

Legend

- 566' ELEVATION
- ALCOA DIKE
- AUXILIARY DIKE
- SEWAGE TREATMENT PLANT

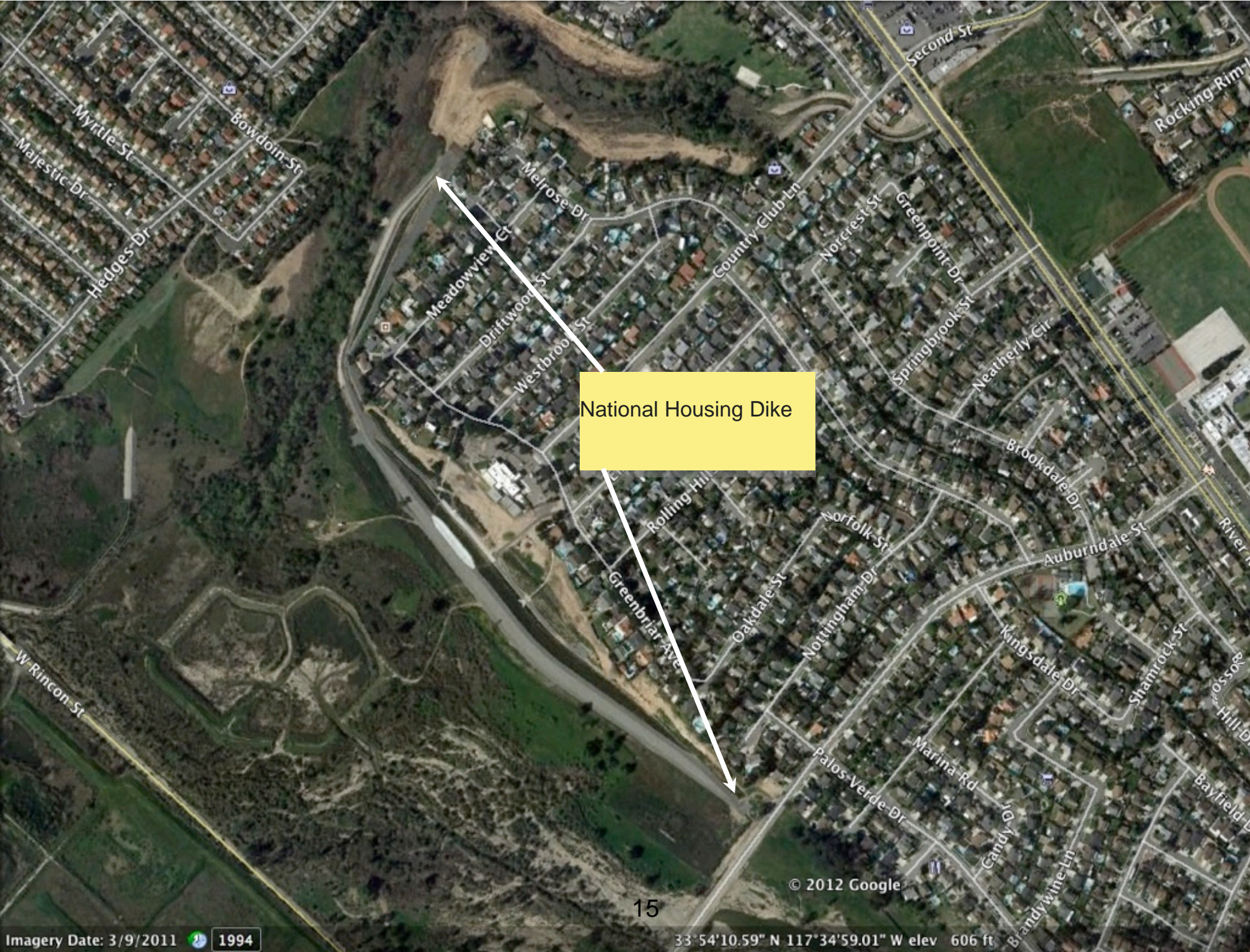


Alcoa Dike

Stop 4 - National Housing Dike Sewage Treatment Dike

- Construction complete 2011, \$13.0 M for both dikes
- First two dikes completed in Prado basin
- Additional work required following review by Dam Safety Committee, estimated at \$3M
- NH Dike 3,800 foot earth embankment with rip rap on basin side, 24' AGL. Protects 30 homes
- Sewage Treatment Dike 3,530 foot embankment, 53' AGL. Protects 49 acres used by the City for sewage treatment.
- Corona requested permit to add solar panels at Sewage treatment plant, to be discussed later this morning





National Housing Dike

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Norco Bluffs (not visible on tour)

Norco Bluffs is enroute to River Road, but not a stop

Scheduled FY-15, Cost \$21.0 M

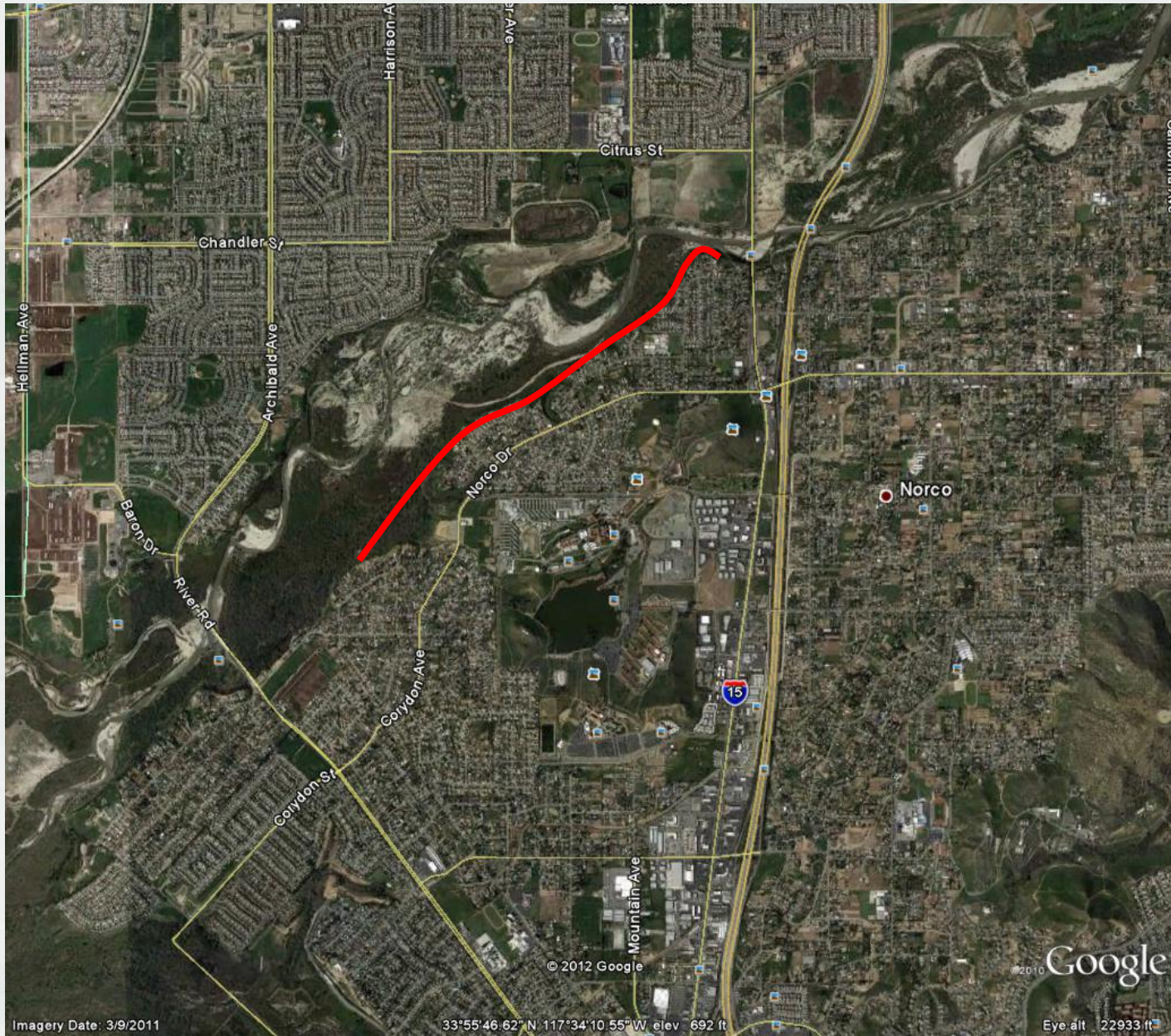
8,400 feet of soil cement embankment protection

Provides Santa Ana River embankment scour protection below bluffs near the 566 flood elevation

OCFCD now acquiring land



Norco Bluffs

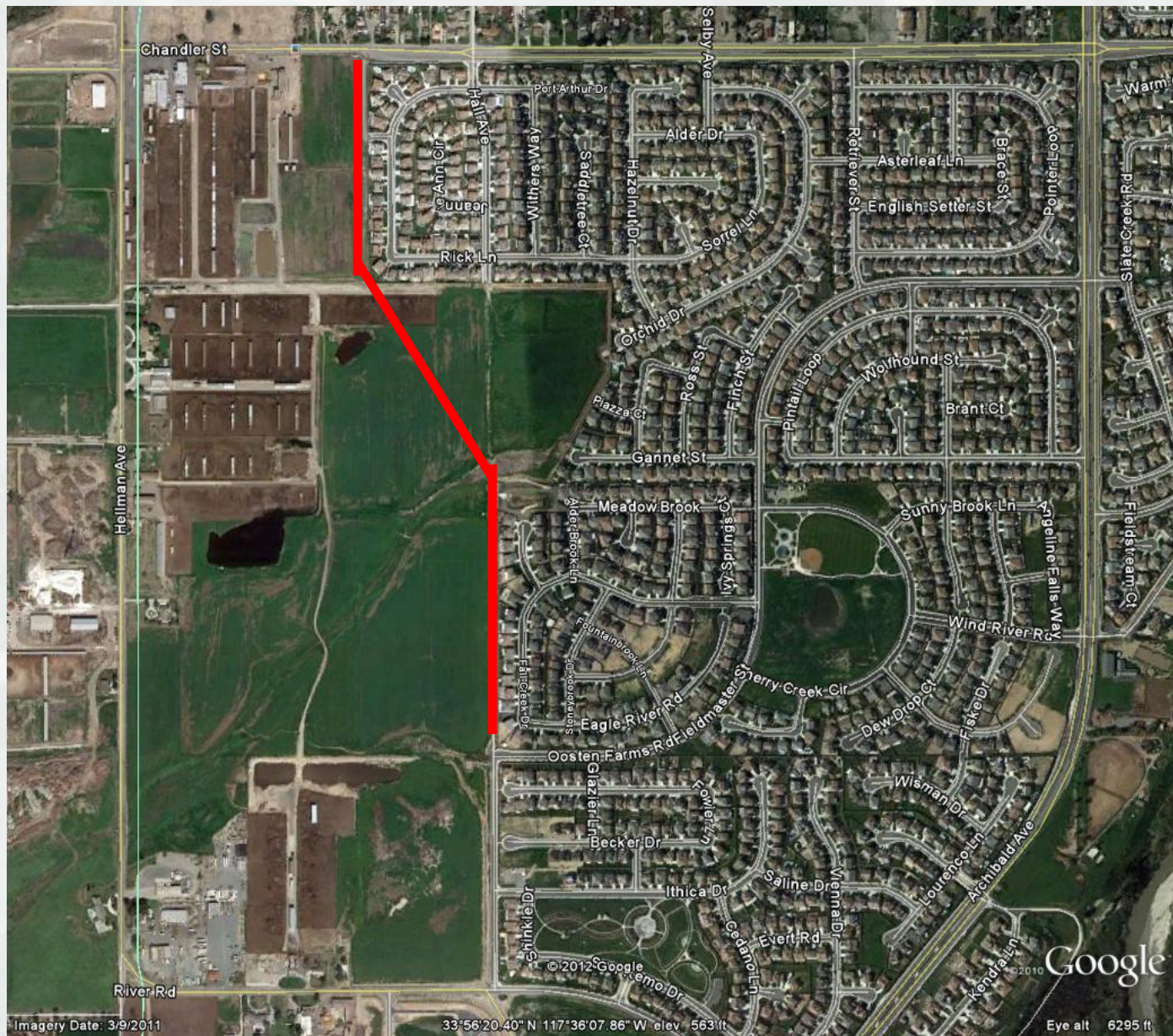


Stop 5 - River Road Dike

- Planned for FY 14, Cost \$6.0 M
- Housing contractor has filled in areas since 1988
- LERRDS study underway by Orange County to optimize land acquisition and construction
- Saves 67 acres of real estate easements



River Road Dike



Stop 6 – California Institute for Women Prison Dike

- Scheduled for FY-13, \$12.0 M
- El. 566' to 570' varies with exposure to waves
- 2,800 feet of earth fill embankment in two segments with rip rap on basin side
- Protects CIW, 12.5 acres



California Institute of Women Prison



Stop 7 - Adobe Dike

Scheduled FY-12 , Cost \$4.0 M (plus significant LERRDs cost)

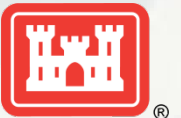
Earth fill embankment with soil cement on reservoir side,

Protects historical structure, oldest home in San Bernardino County

Dike will encircle museum lot

Road next to museum is owned by Chino will be rerouted toward SR71

Full name of structure is Yorba Slaughter Adobe Dike



Yorba Slaughter Adobe

