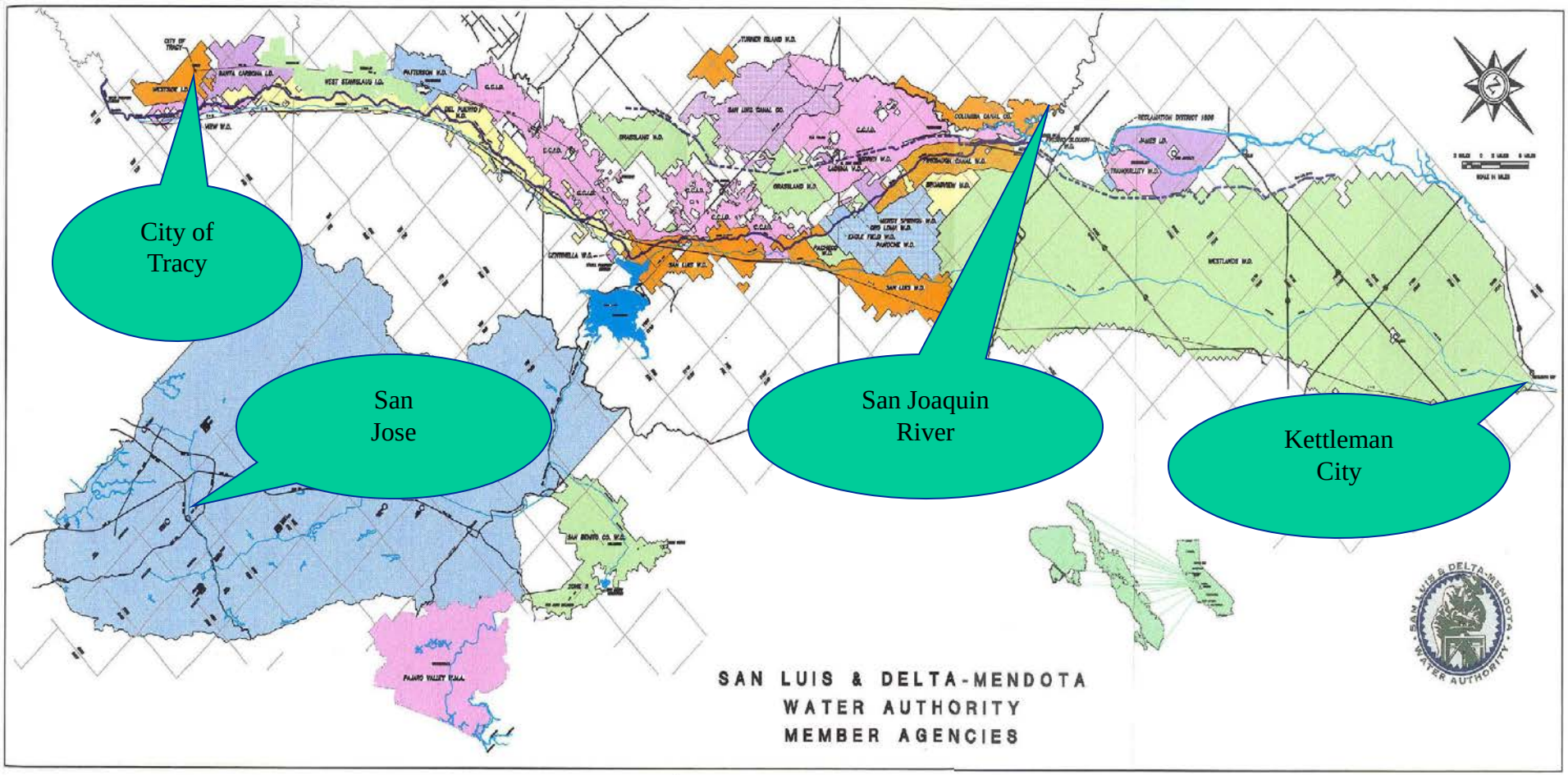
Central California Irrigation District

California State Board of Food and Agriculture

California Water Commission

September 2013

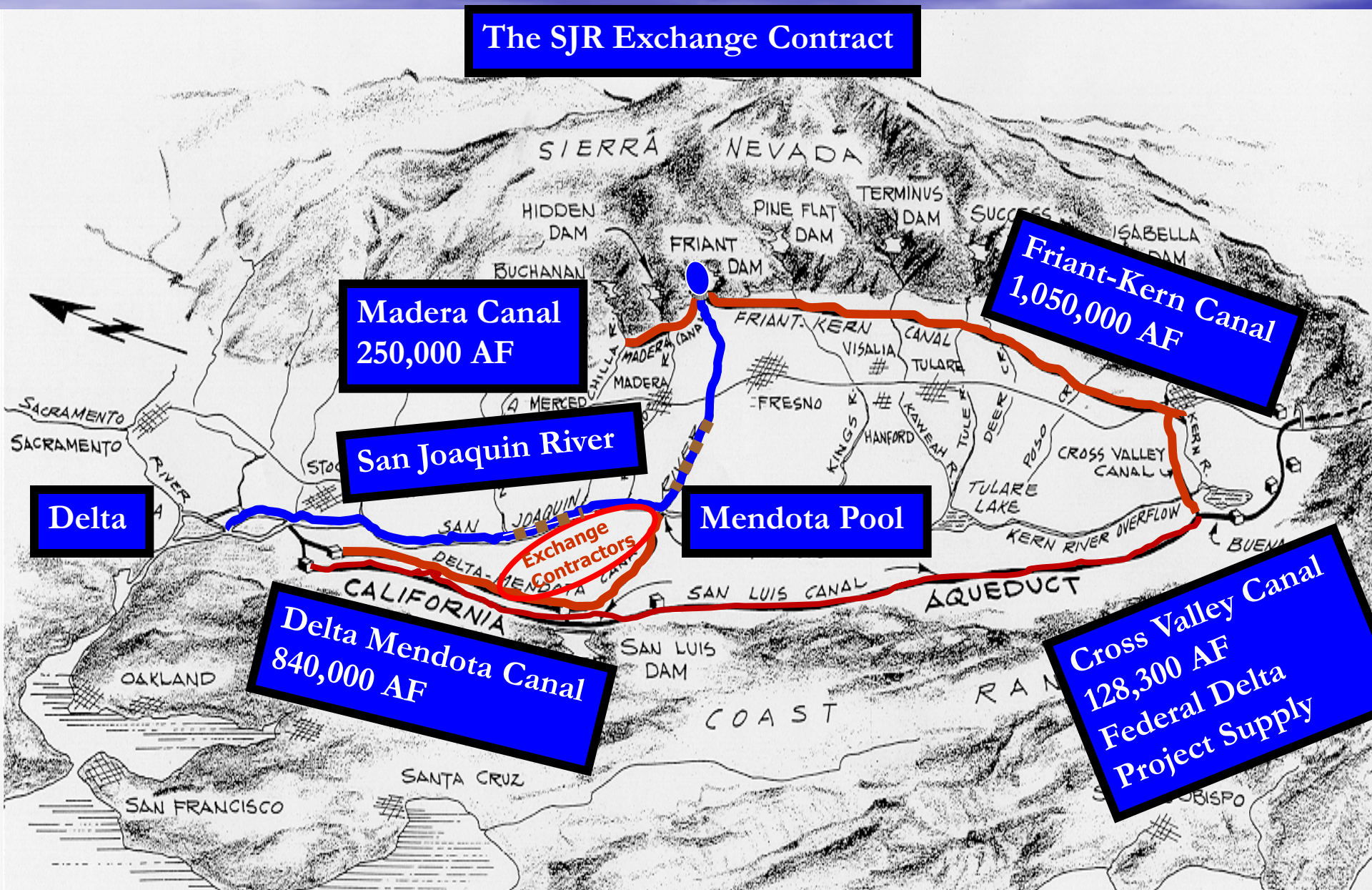


Banta-Carbona Irrigation District, Broadview Water District, Byron Bethany Irrigation District (CVP), Central California Irrigation District, Centinella Water District, City of Tracy, Columbia Canal Company, Del Puerto Water District, Eagle Field Water District, Firebaugh Canal Water District, Fresno Slough Water District, Grasslands Water District, James Irrigation District, Laguna Water District, Mercey Springs Water District, Oro Loma Water District, Pacheco Water District, Pajaro Valley Water Management Agency, Panoche Irrigation District, Patterson Irrigation District, Pleasant Valley Water District, Reclamation District 1606, San Benito County Water District, San Luis Canal Company, San Luis Water District, Santa Clara County Water District, Tranquillity Irrigation District, Turner Island Water District, West Side Irrigation District, West Stanislaus Irrigation District, Westlands Water District, Widren Water District.

Background of the Exchange Contractors

- The SJRECWA is a Joint Powers Authority that was formed in 1992, the office was opened 1993
  - Central California Irrigation District (145,000 ac)
  - Columbia Canal Company (16,000 ac)
  - Firebaugh Canal Water District(22,000 ac)
  - San Luis Canal Company (47,000 ac)
- Pre-1914 and Riparian Rights on the San Joaquin and Kings Rivers dating back to late 1870's
- Irrigate approximately 240,000 ac in 4-counties

How The Friant – SJR Exchange Contract Works



CCID Water Conservation / System Modernization Program Update (Since 1992)

- Conserved and transfer about 35,000 af annually, the quantity has grown since 1992.
  - $13 Million on-farm Loans
  - $8 Million on-farm Grants
  - $58 Million in District Projects
- In addition, growers will transfer up to 20,000 af of well water (Shallow Wells)

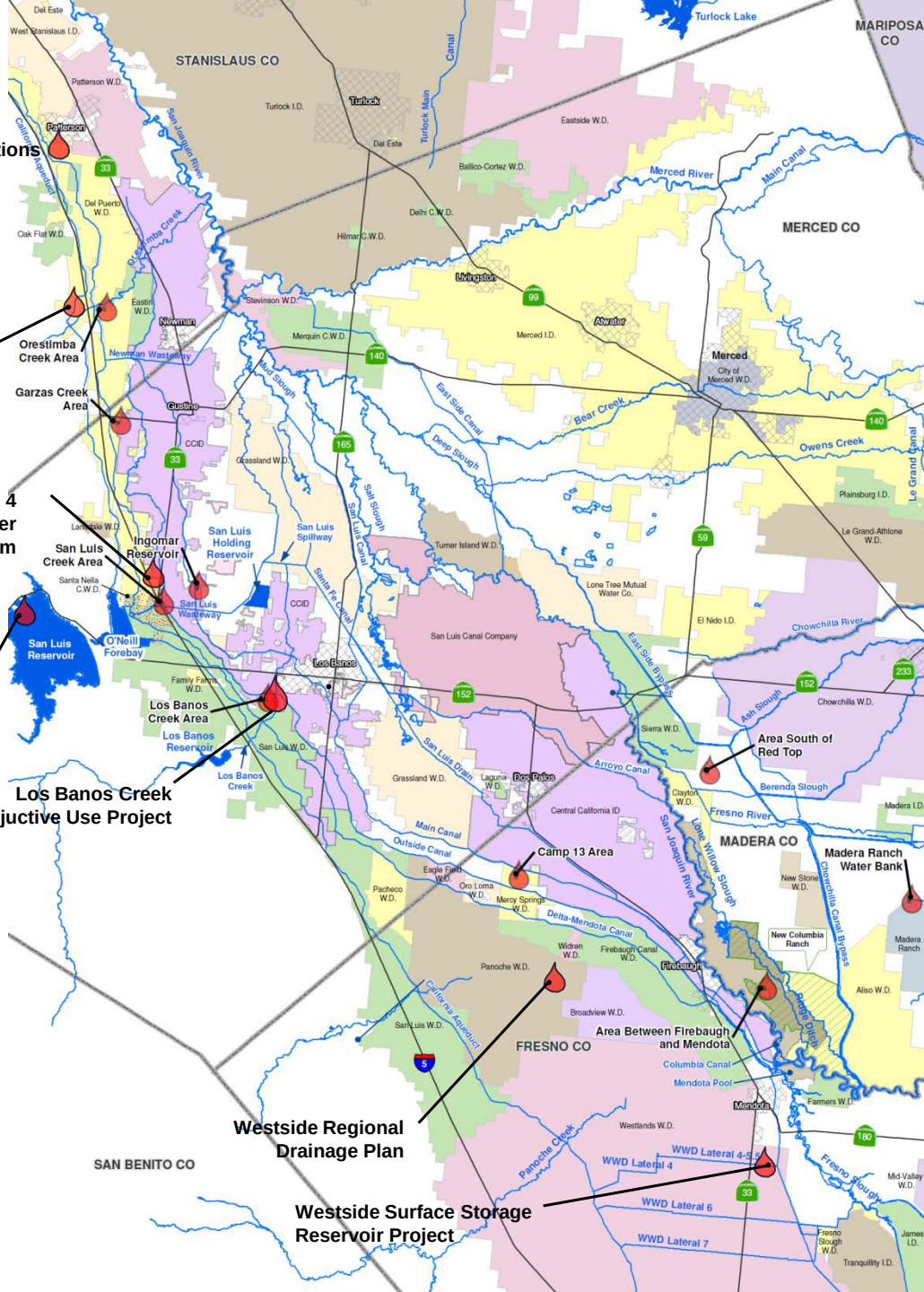
CCID Water Conservation / System Modernization/ Water Resources Plan (Next 10 years)

- Well and fallowing transfers expected to continue contingent on groundwater monitoring.
- $17 Million Budgeted for Water Conservation Grants
- $6 Million rotating Water Conservation Loan Fund
- $20 Million budgeted for District Water Conservation Projects (Plus Grants)
- $ 36 Million budgeted for Water Resources Plan

Current Activities CCID

- On Farm Water Conservation Loan and Grant Program
- Water Conservation Improvement 10 Year Plan (District Facilities)
- Drainage Activities relative to the RWQCB Ag-Waiver Program
- San Joaquin River Restoration Program ($80 Million spent by Restoration Program since 2009, not a single project built)
- Joint Water Resources Plan with Exchange Contractors
- Joint Water Resources Plan with the San Luis & Delta Mendota Water Authority
- Subsidence

Exchange Contractors & SLDMWA Projects to Evaluate



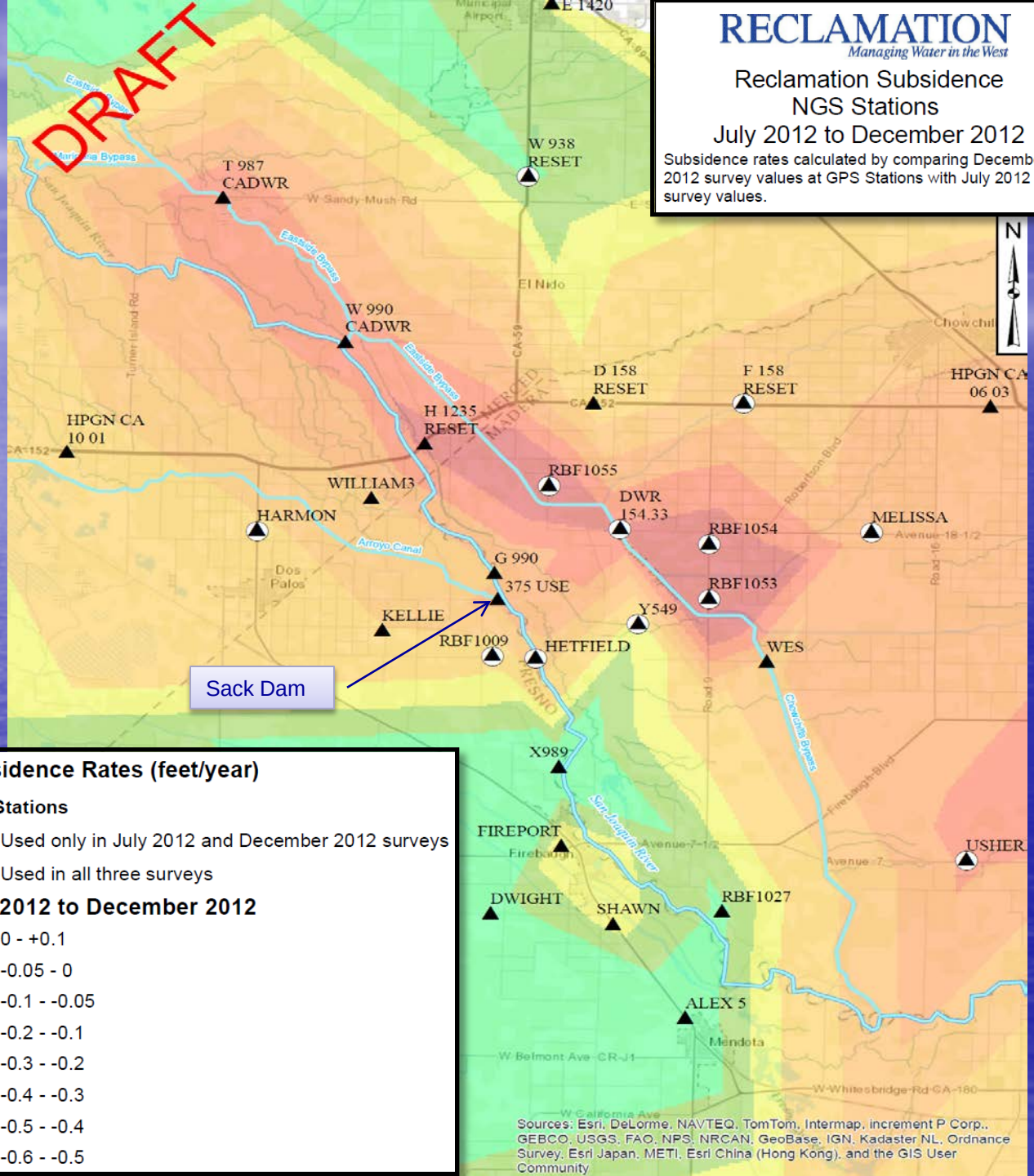
EST. 1968
PROVOST & PRITCHARD
CONSULTING GROUP
An Employee Owned Company

Western Madera County and Merced County

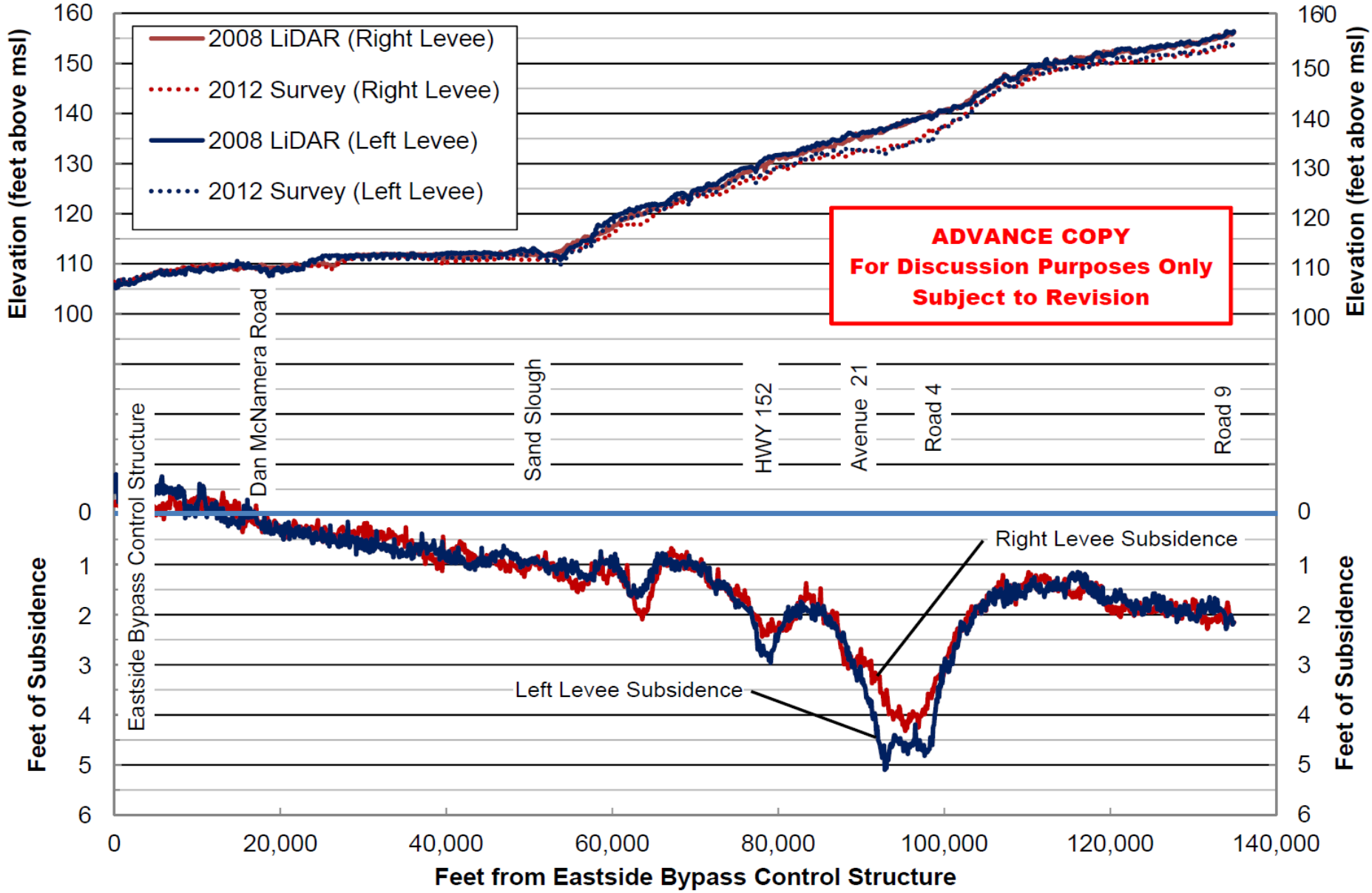
GROUNDWATER PUMPING AND LAND SUBSIDENCE SOLUTIONS

Chris White
Central California Irrigation District

In Association with Washington Avenue Growers, Red Top Area Growers, Merced and Madera County

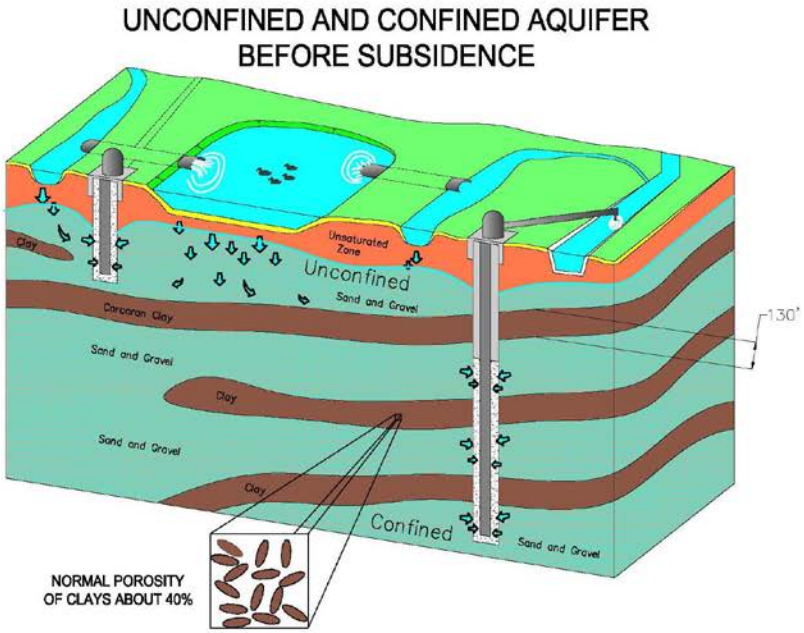

DRAFT
RECLAMATION
Managing Water in the West
Reclamation Subsidence
NGS Stations
July 2012 to December 2012
Subsidence rates calculated by comparing December 2012 survey values at GPS Stations with July 2012 survey values.
N
E 1420
W 938
RESET
T 987
CADWR
W 990
CADWR
D 158
RESET
F 158
RESET
HPGN CA
06 03
HPGN CA
10 01
H 1235
RESET
RBF1055
WILLIAM3
HARMON
DWR
154.33
RBF1054
MELISSA
G 990
375 USE
RBF1053
KELLIE
Y549
RBF1009
HETFIELD
WES
Sack Dam
X989
FIREPORT
USHER
DWIGHT
SHAWN
RBF1027
ALEX 5
Subsidence Rates (feet/year)
GPS Stations
Used only in July 2012 and December 2012 surveys
Used in all three surveys
July 2012 to December 2012
0 - +0.1
-0.05 - 0
-0.1 - -0.05
-0.2 - -0.1
-0.3 - -0.2
-0.4 - -0.3
-0.5 - -0.4
-0.6 - -0.5
Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

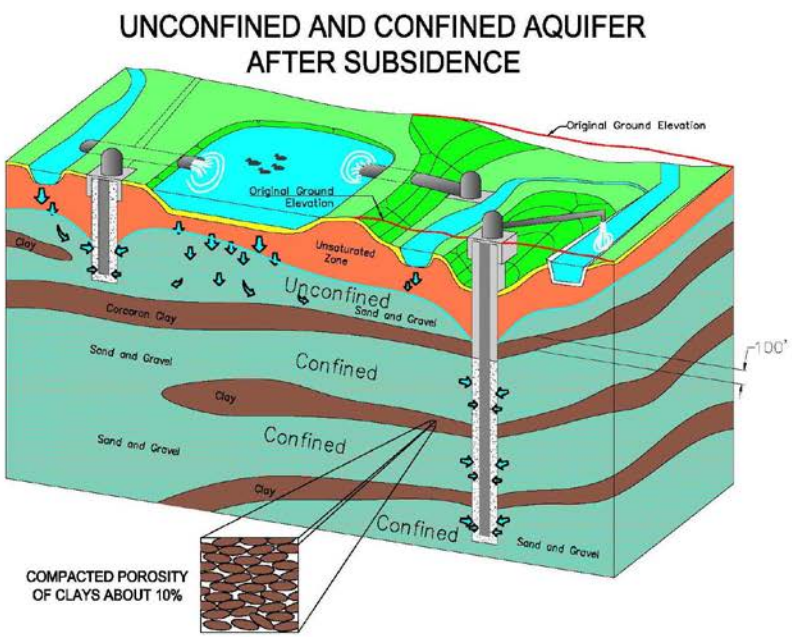
2008 to 2012 Subsidence Along the Eastside Bypass



San Joaquin River Exchange Contractors
Merced and Madera County Subsidence Study

What Is Subsidence?





Redtop Gas Well

Redtop water well

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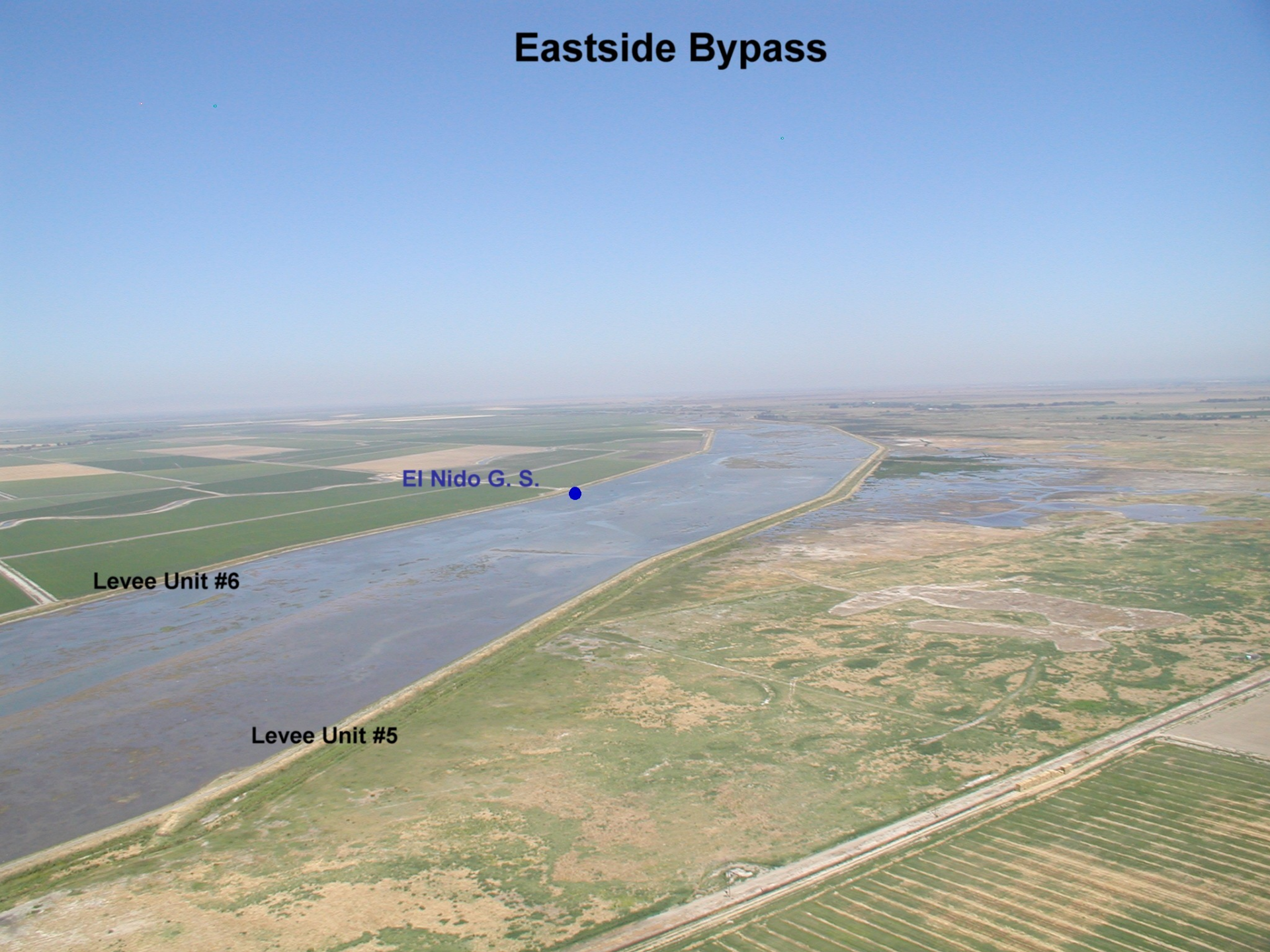
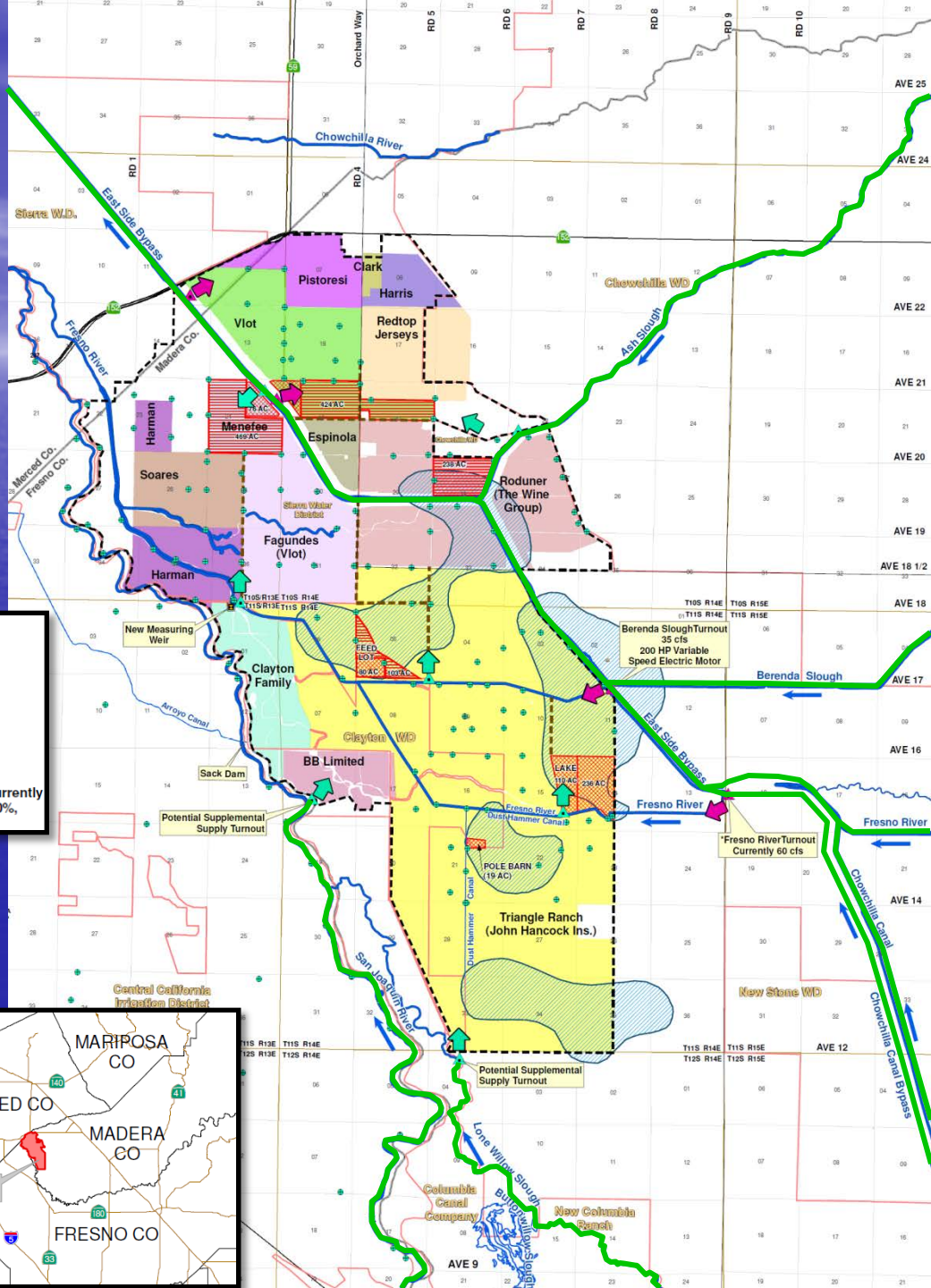
Eastside Bypass



Western Madera County Subsidence Solution Project

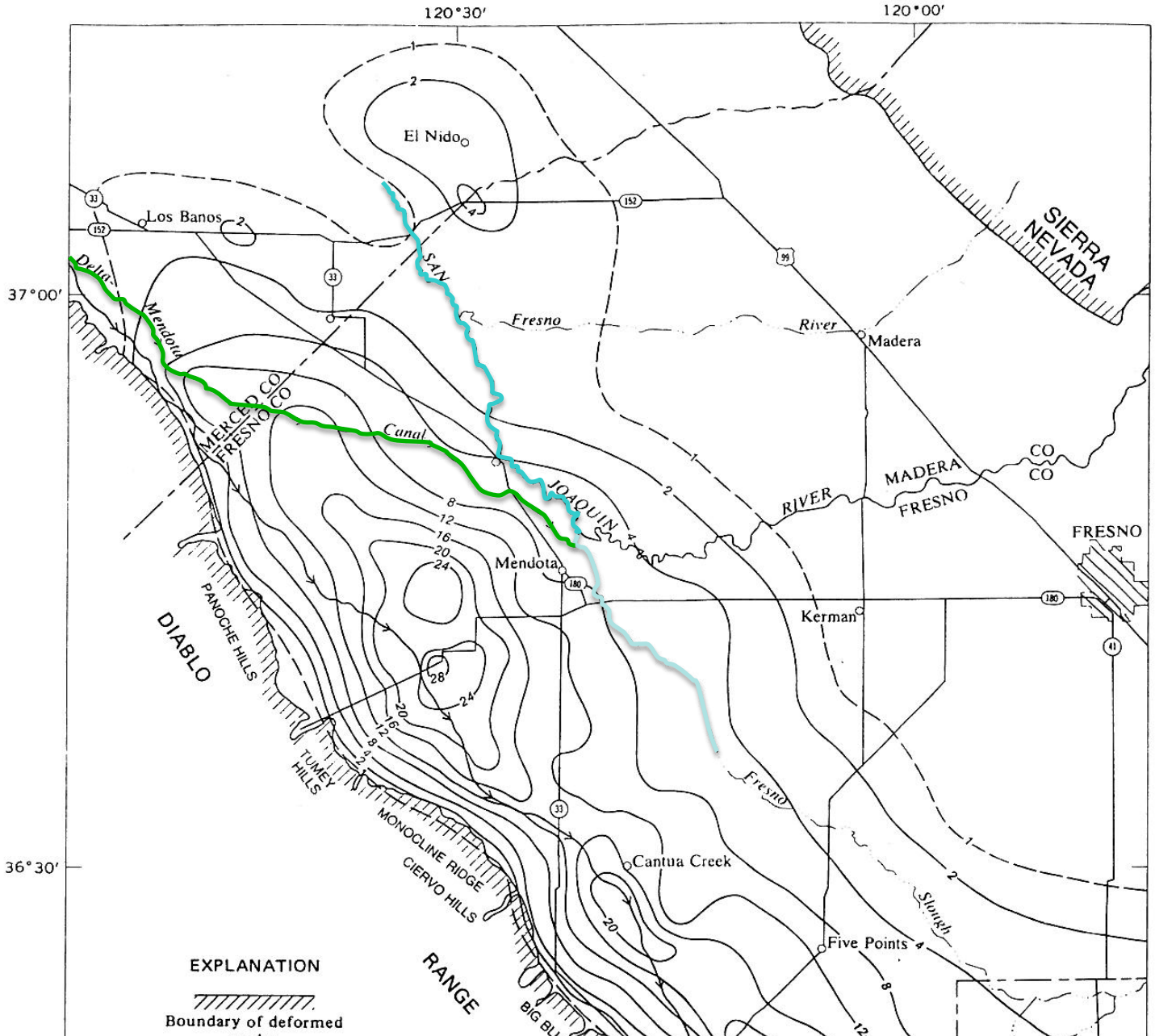


Current Status and Summary

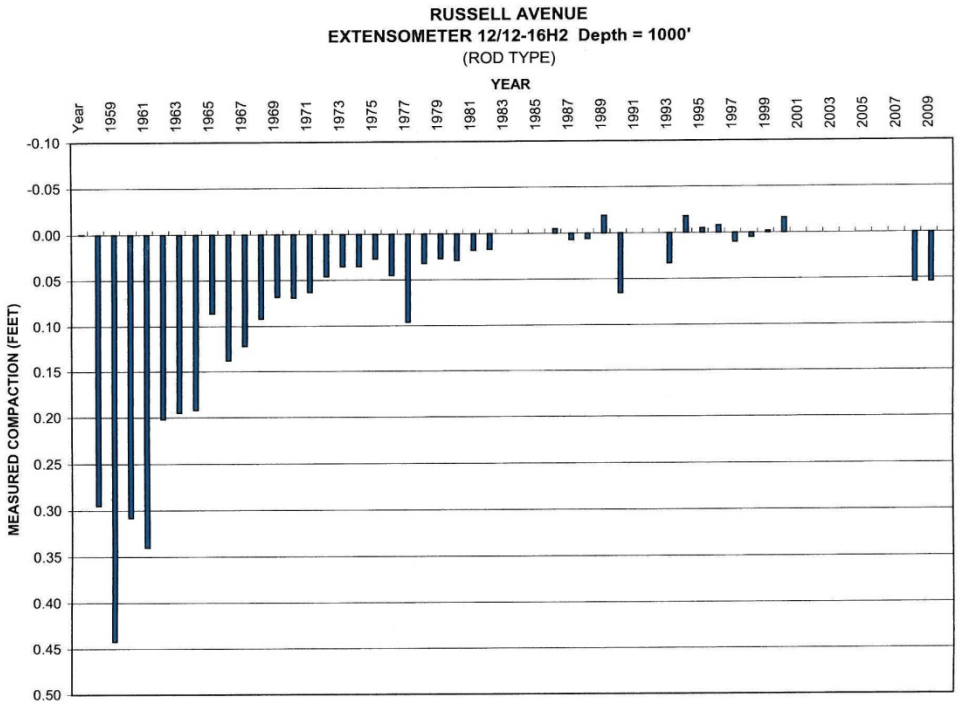
- USBR discovered new subsidence last May.
- A locally led effort has resulted in a feasible plan to stop subsidence.
- The landowners are very motivated.
- The plan converts the subsidence area into a shallow groundwater storage area for use on overlying land, using flood flows from San Joaquin, Kings, Fresno and Chowchilla Rivers for recharge.

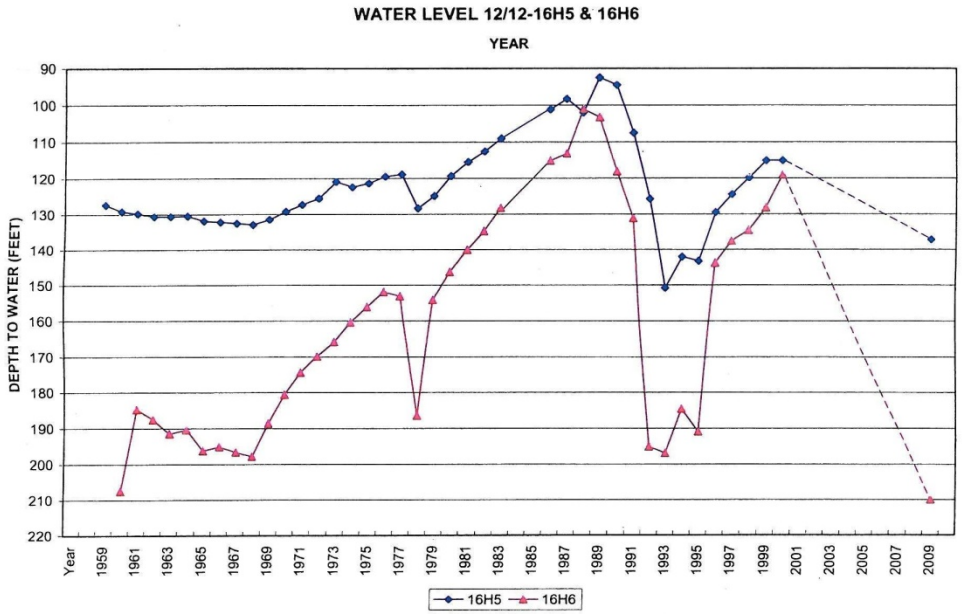
Historical Subsidence Issues on the West Side Of the San Joaquin River

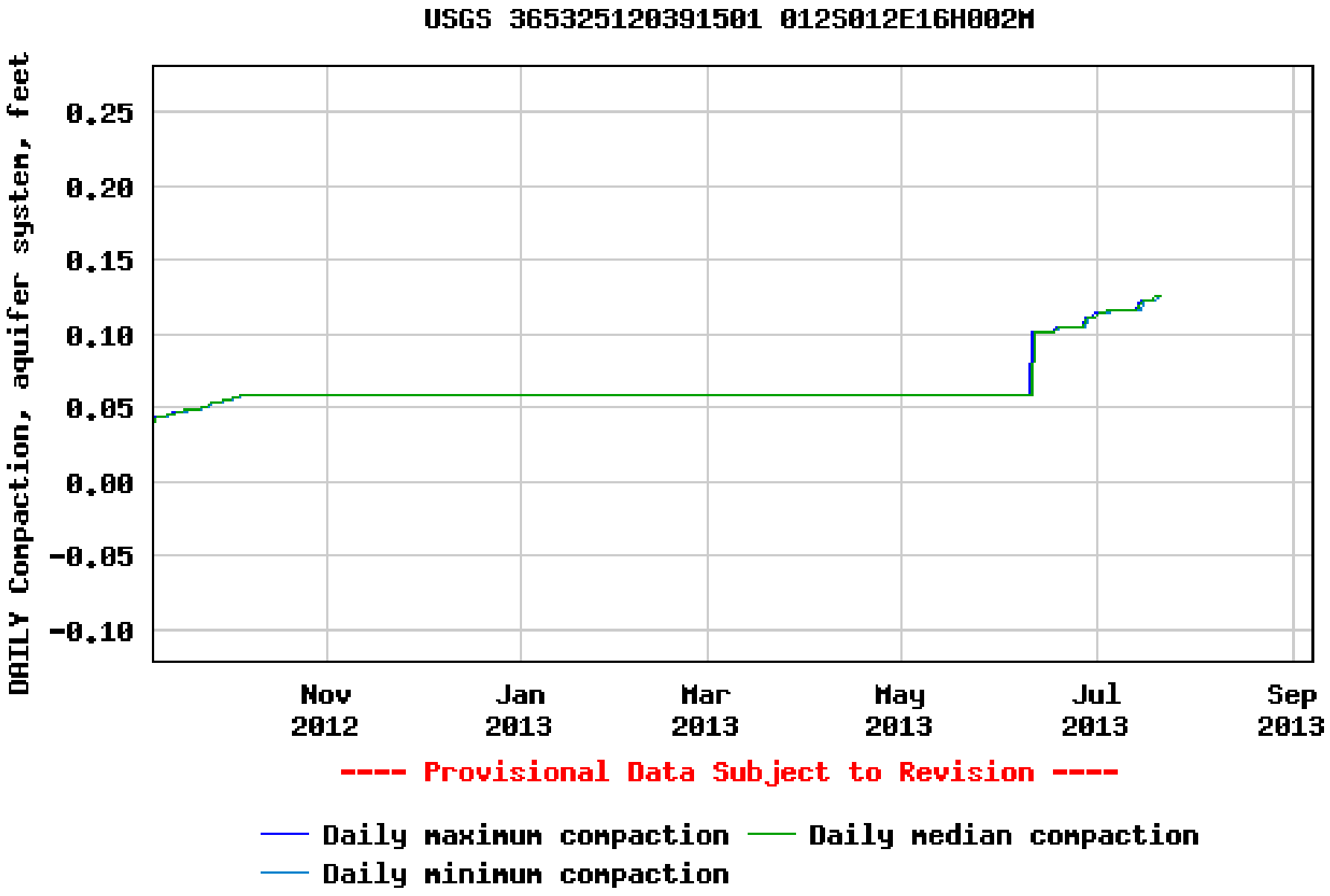
The site is in the San Joaquin Valley southwest of Mendota, California.(About 15 miles Southwest of Sack Dam.)


120°30′
120°00′
37°00′
36°30′
El Nido
Los Banos
Madera
Mendota
Kerman
Cantua Creek
Five Points
FRESNO
SIERRA NEVADA
SAN JOAQUIN
Fresno River
MADERA CO
FRESNO CO
Delta Mendota Canal
Fresno Slough
DIABLO RANGE
PANOCHE HILLS
TUMEY HILLS
MONOCLINE RIDGE
CIERVO HILLS
BIG BU
EXPLANATION
Boundary of deformed

COMPACTION VS. GROUNDWATER



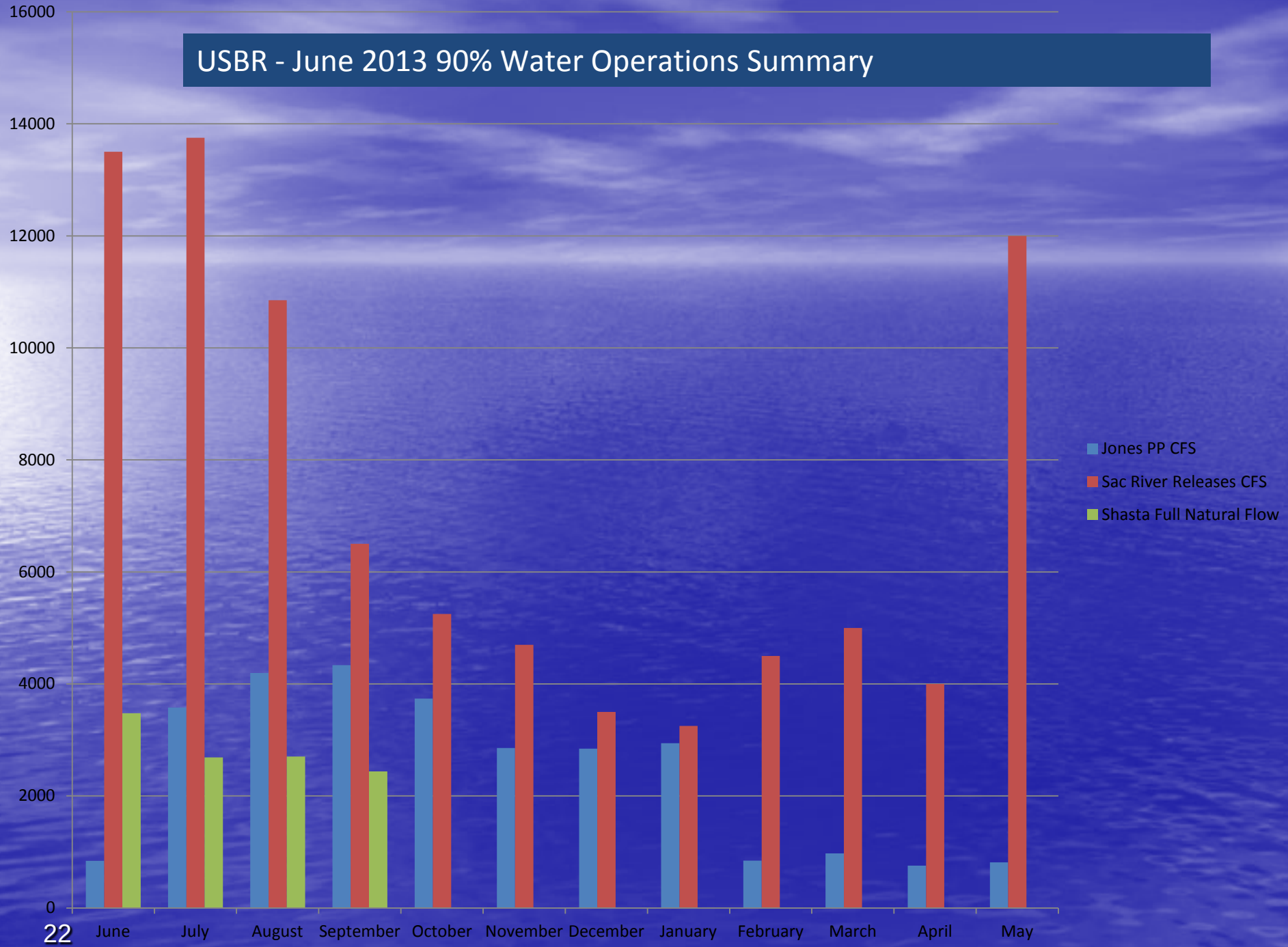



USGS 365325120391501 012S012E16H002M
DAILY Compaction, aquifer system, feet
0.25
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
Nov 2012
Jan 2013
Mar 2013
May 2013
Jul 2013
Sep 2013
---- Provisional Data Subject to Revision ----
Daily maximum compaction
Daily median compaction
Daily minimum compaction

Federal Facilities

1950s

USBR - June 2013 90% Water Operations Summary



Needed

- Flexibility in transfers and exchanges
- Support for local projects
  - Numerous small water recourse projects which provide for increased water management flexibility and yield.
  - Creative solutions which provide for mitigation for subsidence reduced flood capacity and ground/surface water storage
- Flexibility in the routing of the SJRRP flows

Contact Information

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  - cwhite@ccidwater.org