Drought Response:

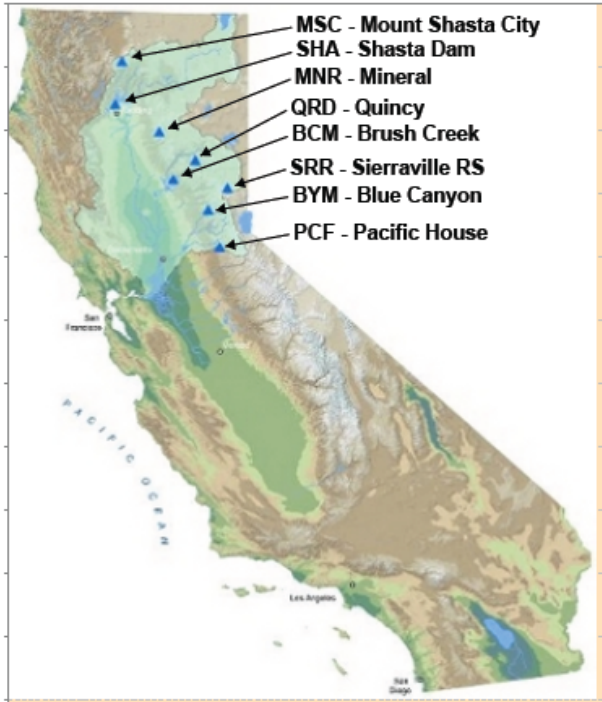
Emergency Drought Barriers in the Delta

Effects on Delta Levees

March 28, 2014

Dave Mraz
Delta Levees and Environmental Stewardship Branch
FESSRO
California Department of Water Resources

Northern Sierra Precipitation: 8-Station Index, March 17, 2014



Percent of Average for this Date: 54%

1982-1983 (wettest) 88.5

2005-2006 Daily Precip. 80.1

Average (1922-1998) 50.0

2012-2013 Daily Precip. 44.3

Current Daily Precip: 20.9

1923-1924 (driest) 17.1

1976-1977 (2nd driest & driest thru Aug) 19.0

Cumulative Daily/Monthly Precipitation (inches)

Total Water Year Precipitation

Water Year (October 1 - September 30)

Oct 1 Nov 1 Dec 1 Jan 1 Feb 1 Mar 1 Apr 1 May 1 Jun 1 Jul 1 Aug 1 Sep 1 Oct 1

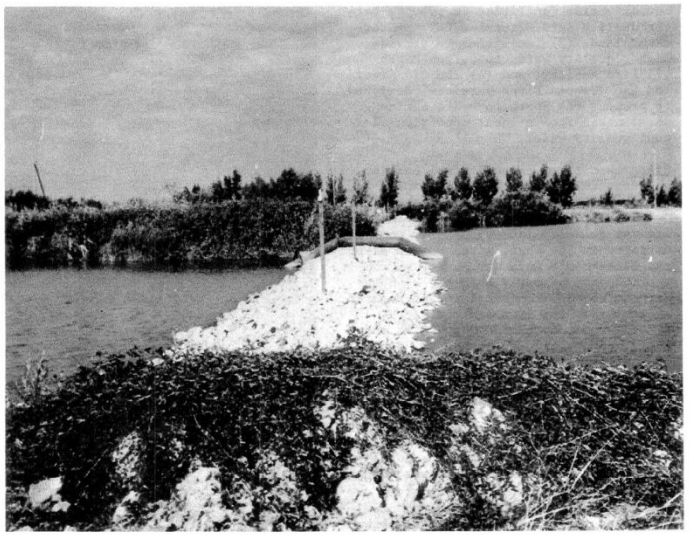
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

1977 Emergency Barriers

- 37 years ago
- California's population
  - 22 million then (1977).
  - 38 million now (2014).
- The '76-77 barriers helped:
  - Delta farmers
  - City of Antioch
  - City of Tracy
  - Contra Costa Water District
  - Export water users

dards even though the modification had as one of its purposes the protection of the Delta against future loss of salinity control because of insufficient upstream storage. Before that suit could be tried, it was necessary for the SWRCB to hold an emergency hearing to deal with the fact that actual hydrologic conditions were very much worse than had been projected. Even under the Interim Plan's modified criteria, Lake Oroville no longer would be able to generate electricity by late summer and would end 1977 only 14 percent filled -- an insufficient amount of storage to protect the Delta if the drought continued into 1978.

In early June 1977, the SWRCB issued an emergency regulation which superseded the Interim Delta Quality Control Plan by temporarily eliminating most water quality standards and limiting SWP exports to unstored water. The regulation was necessary to preserve Oroville storage levels to the greatest extent possible. This emergency regulation was to have terminated no later than December 31, 1977, but with some modifications was extended in mid-December because of continued low reservoir levels.



4. Dams in the Delta. Two barriers, one at Rock Slough (shown) and the other at Indian Slough, actually saved water during the drought. By redirecting fresher water to the Contra Costa Canal Intake, less water had to be released from upstream reservoirs to maintain the same level of water quality.

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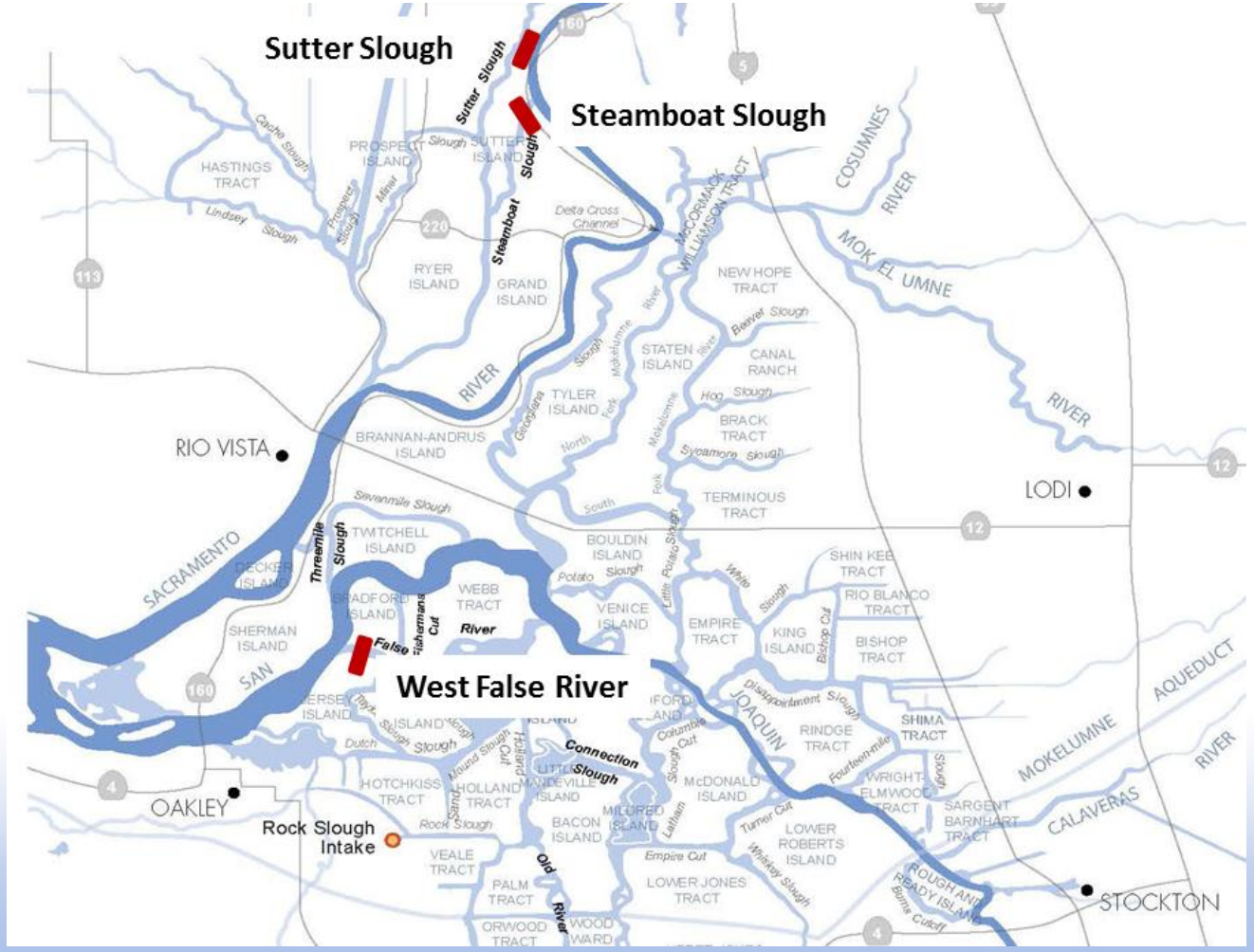
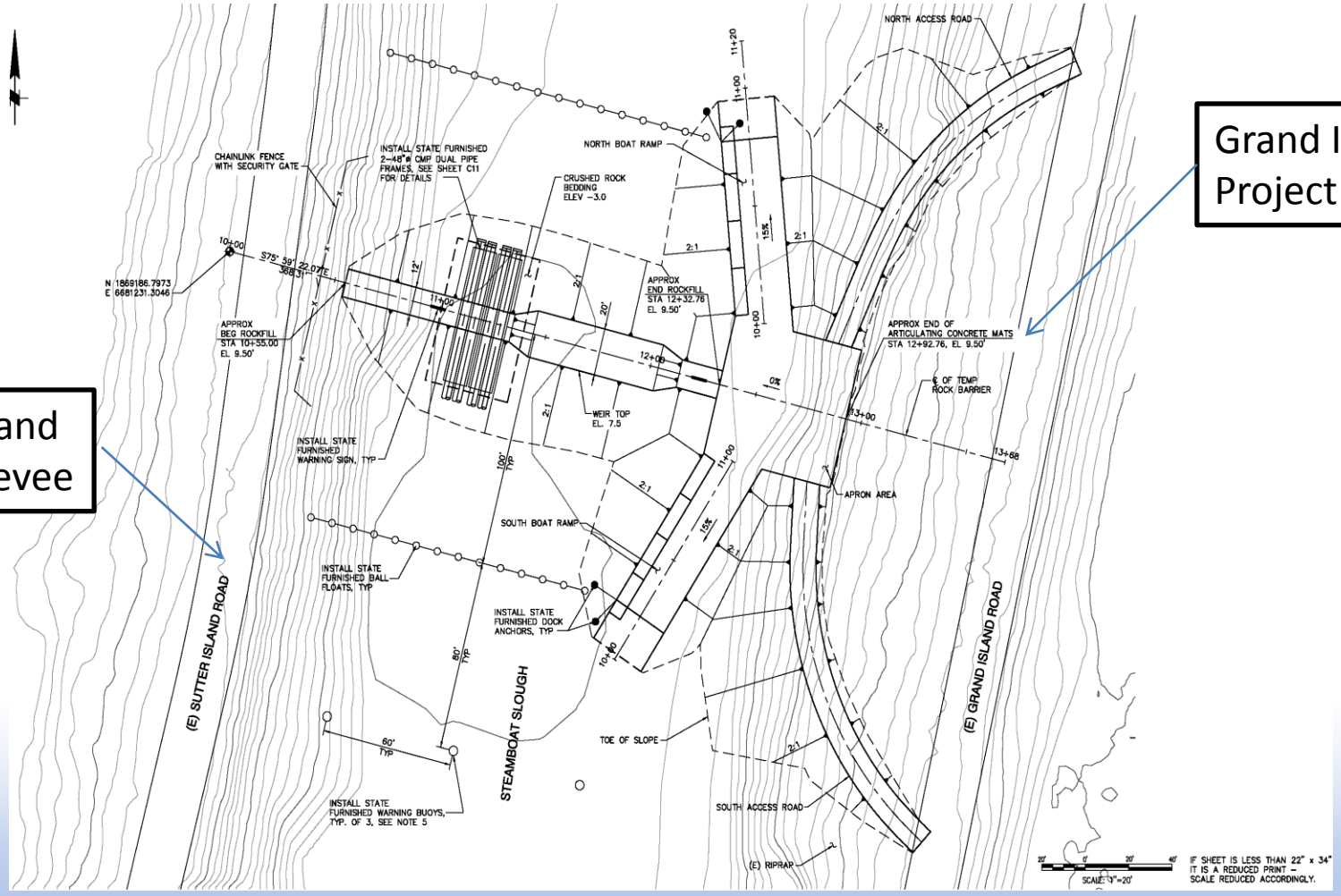
Proposed Emergency Drought Barriers for 2014

- Sutter Slough
- Steamboat Slough

- False River



Steamboat Slough Emergency Drought Barrier

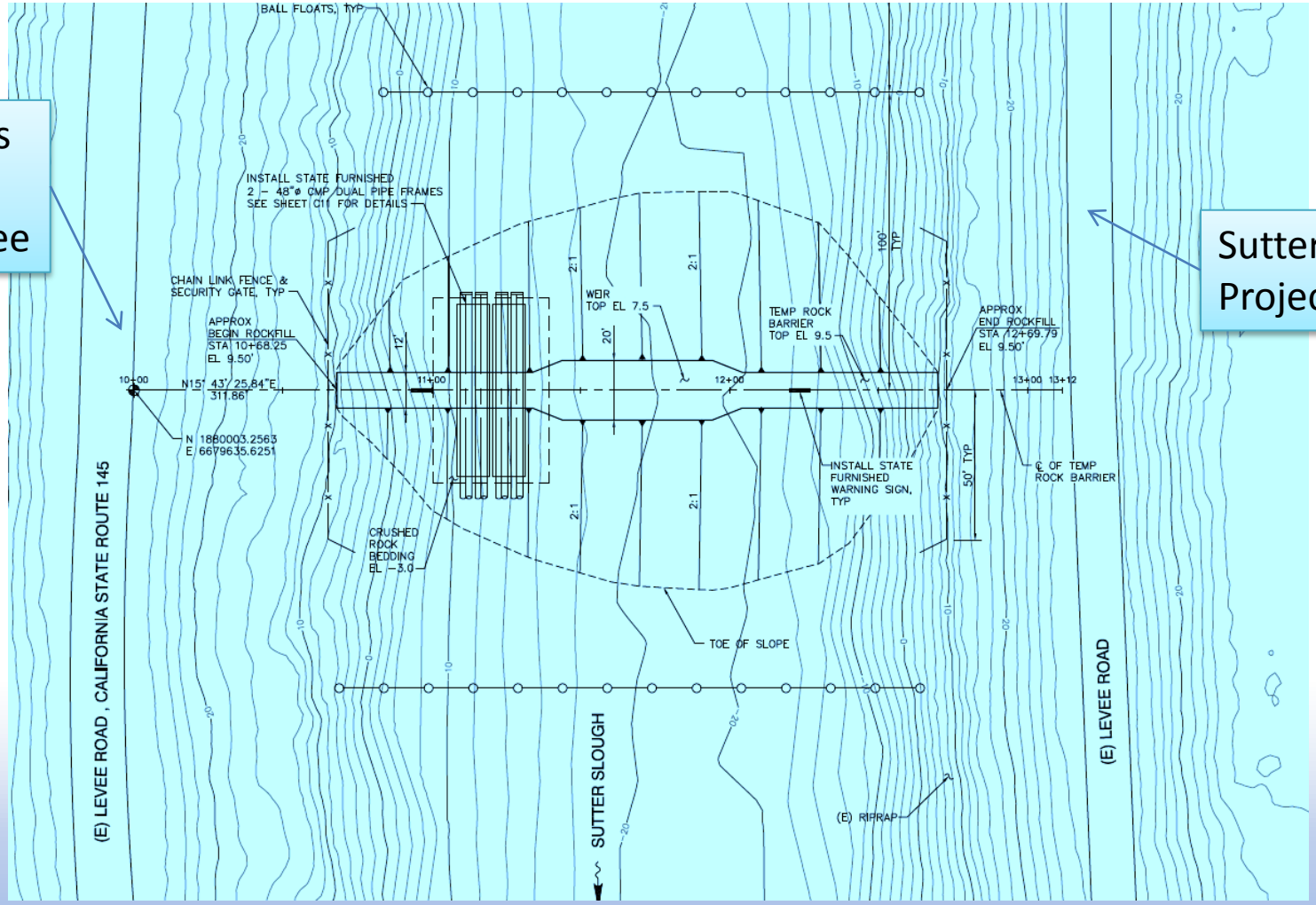


Grand Island Project Levee

Sutter Island Project Levee

Sutter Slough Emergency Drought Barrier

Netherlands (RD-999) Project Levee

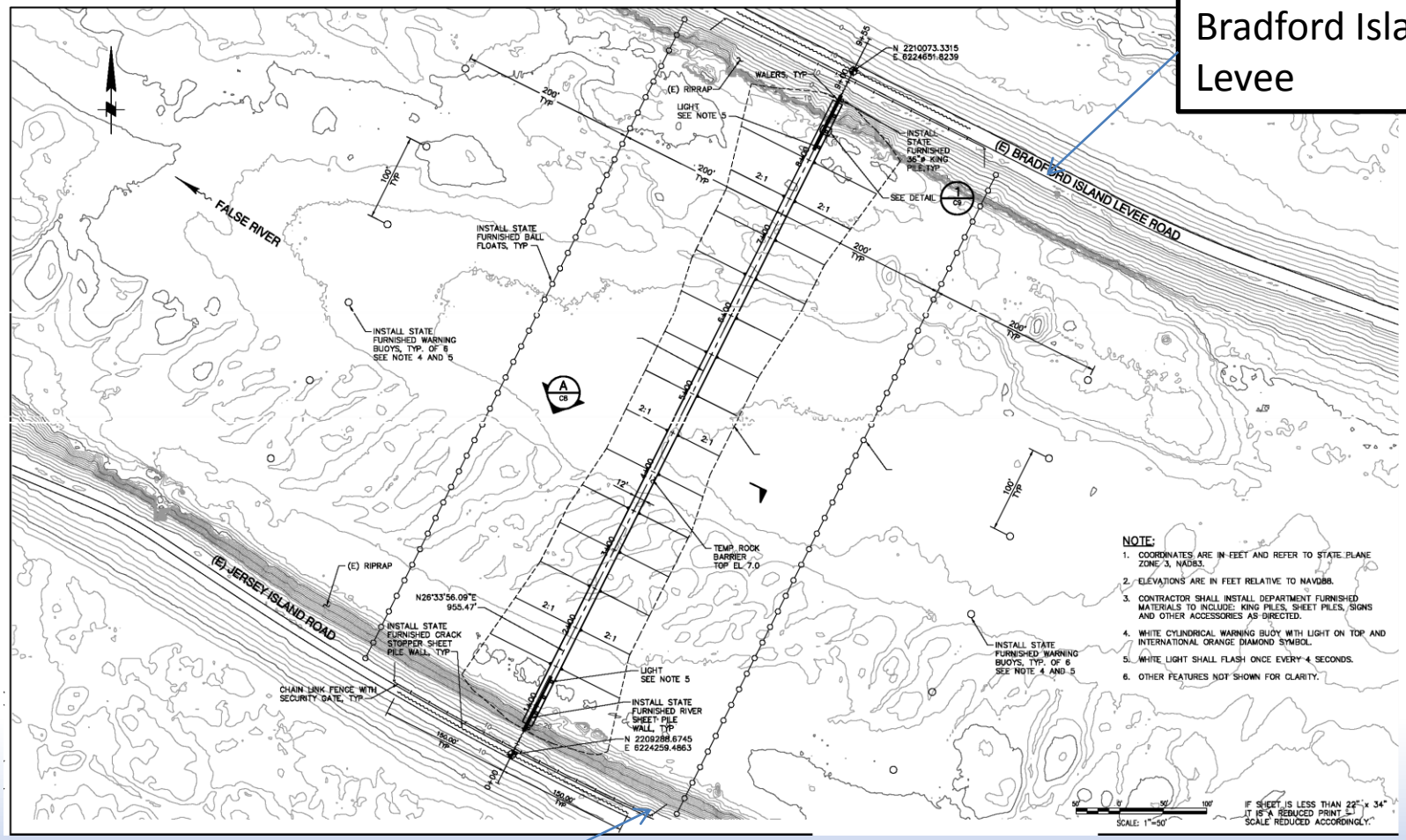


Sutter Island Project Levee

Steamboat and Sutter EDB

- Small waterways
- Mineral soil foundations
- Contain water passage and fish passage features
- DWR is handling EDB construction
- DWR is coordinating permits
  - Will file CVFPB application
  - 404/408

False River Emergency Drought Barrier



Jersey Island Levee

False River EDB

- RDs Preparing their Levees with State funding
- Obtaining all necessary permits
- Contracting levee work

- DWR Contractor build EDB
- Reinforce levees with sheet piles
- Connect EDB to levees

Drought Response:

Emergency Drought Barriers in the Delta

- Barriers will:
  - Extend the beneficial use of stored water.
  - Allow the State to meet commitments to cities and farms inside the Delta and, also, in areas receiving Delta water.

- Questions?