

Emergency Drought Barriers

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State Water Resources Control Board Workshop
February 18, 2014

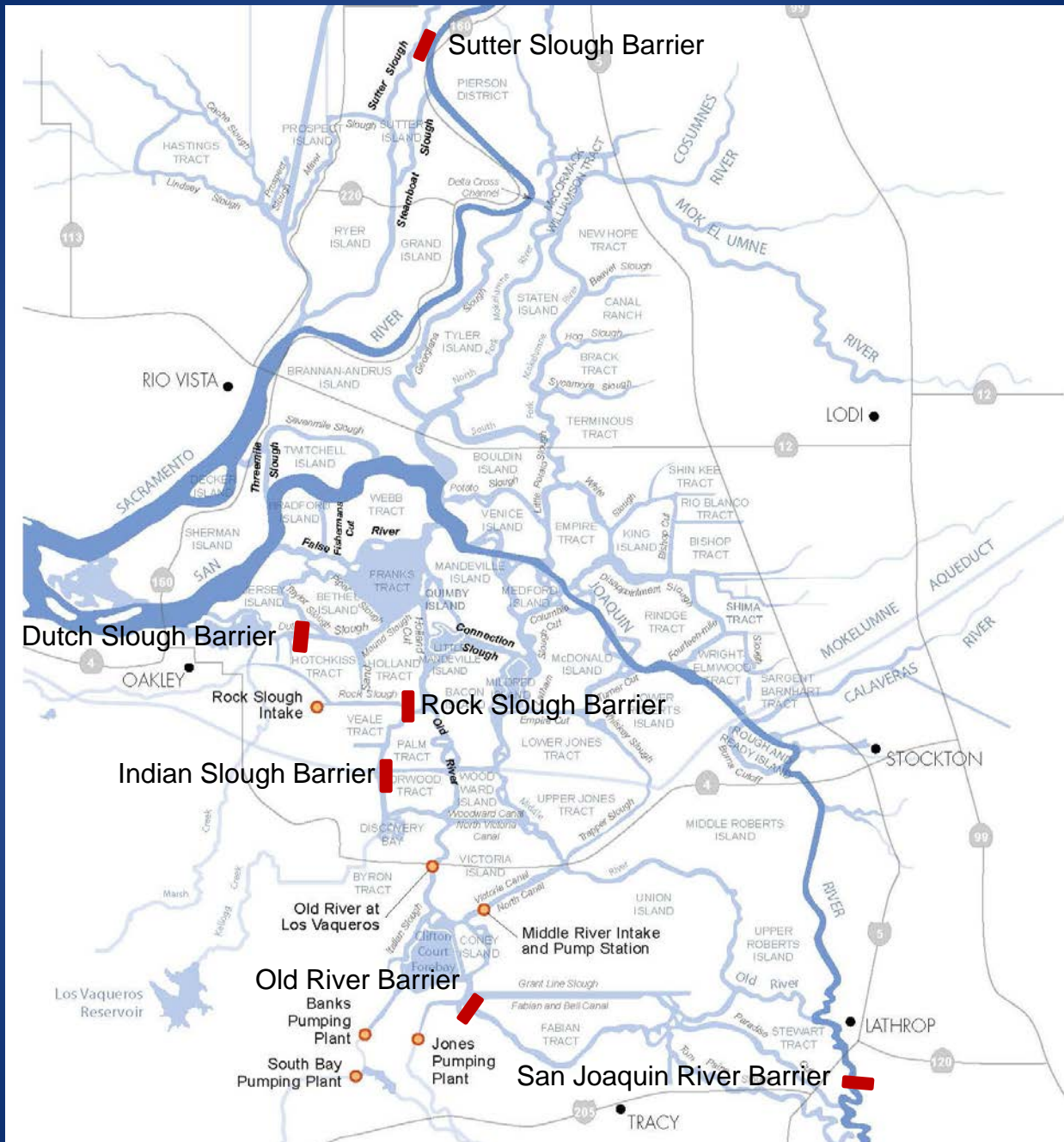
Drought Barriers 2009

State of California
The Resources Agency
Department of Water Resources
Bay-Delta Office

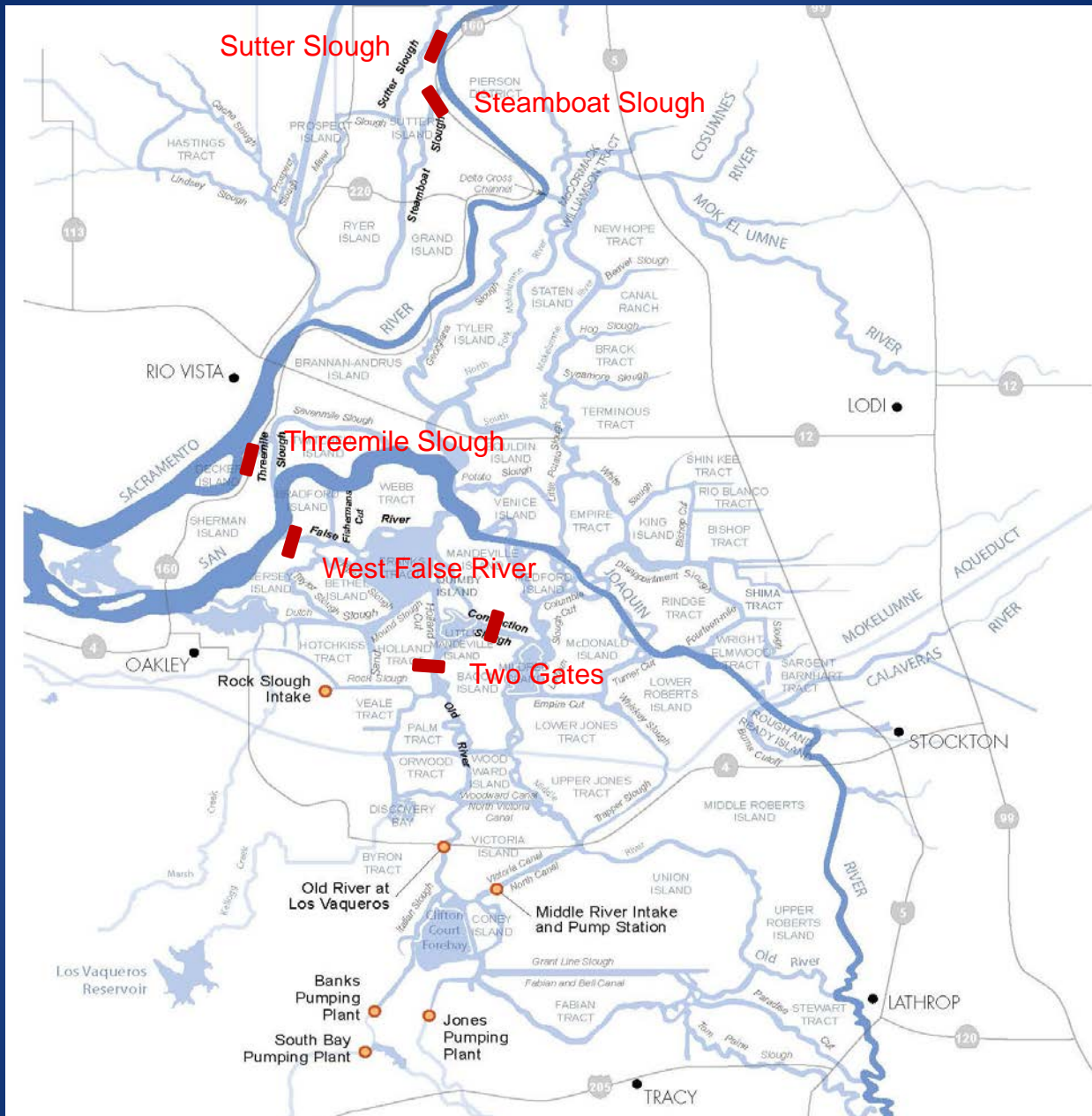
Administrative Draft
April 2009

**Delta Drought
Emergency Barriers**

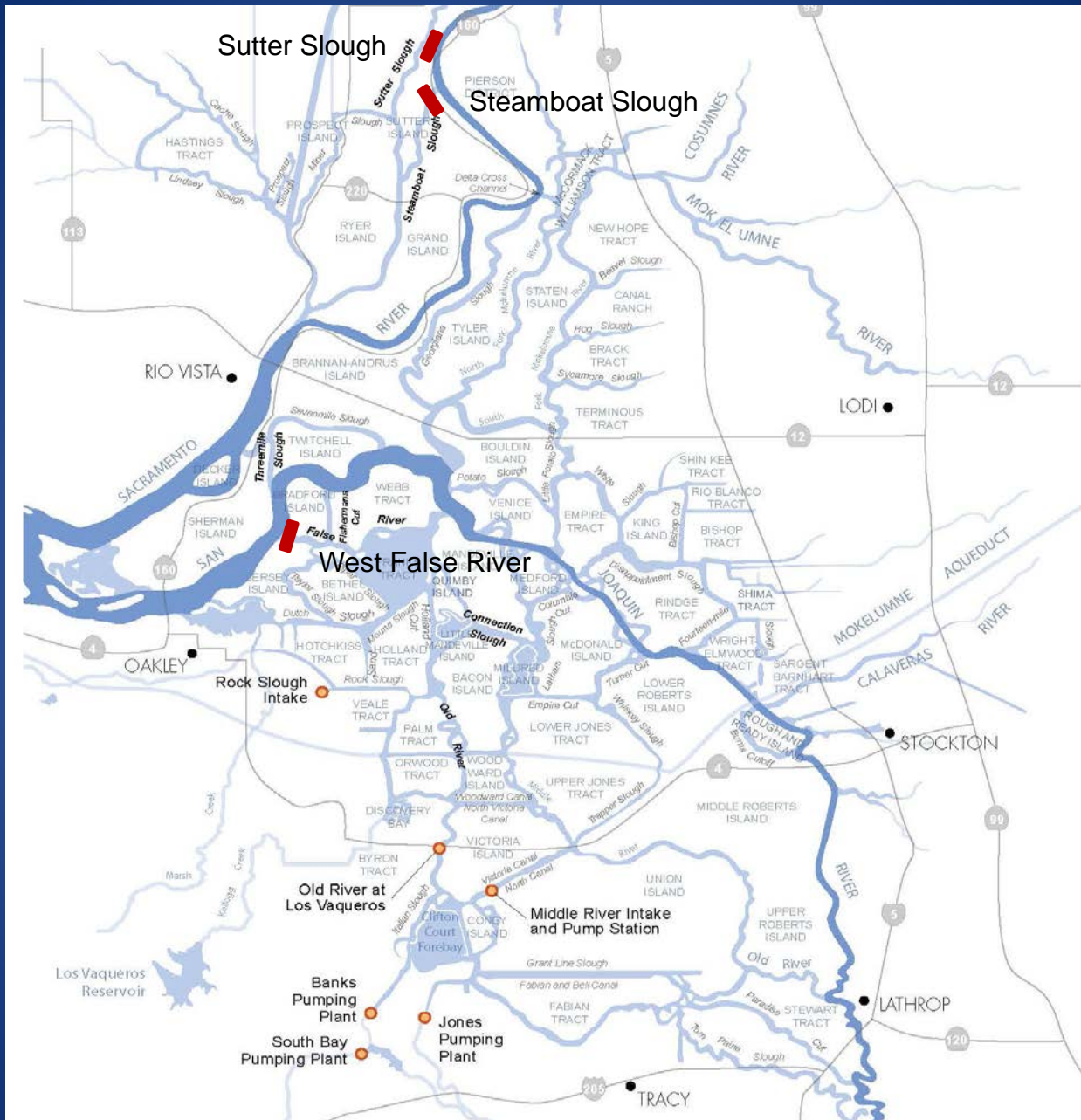




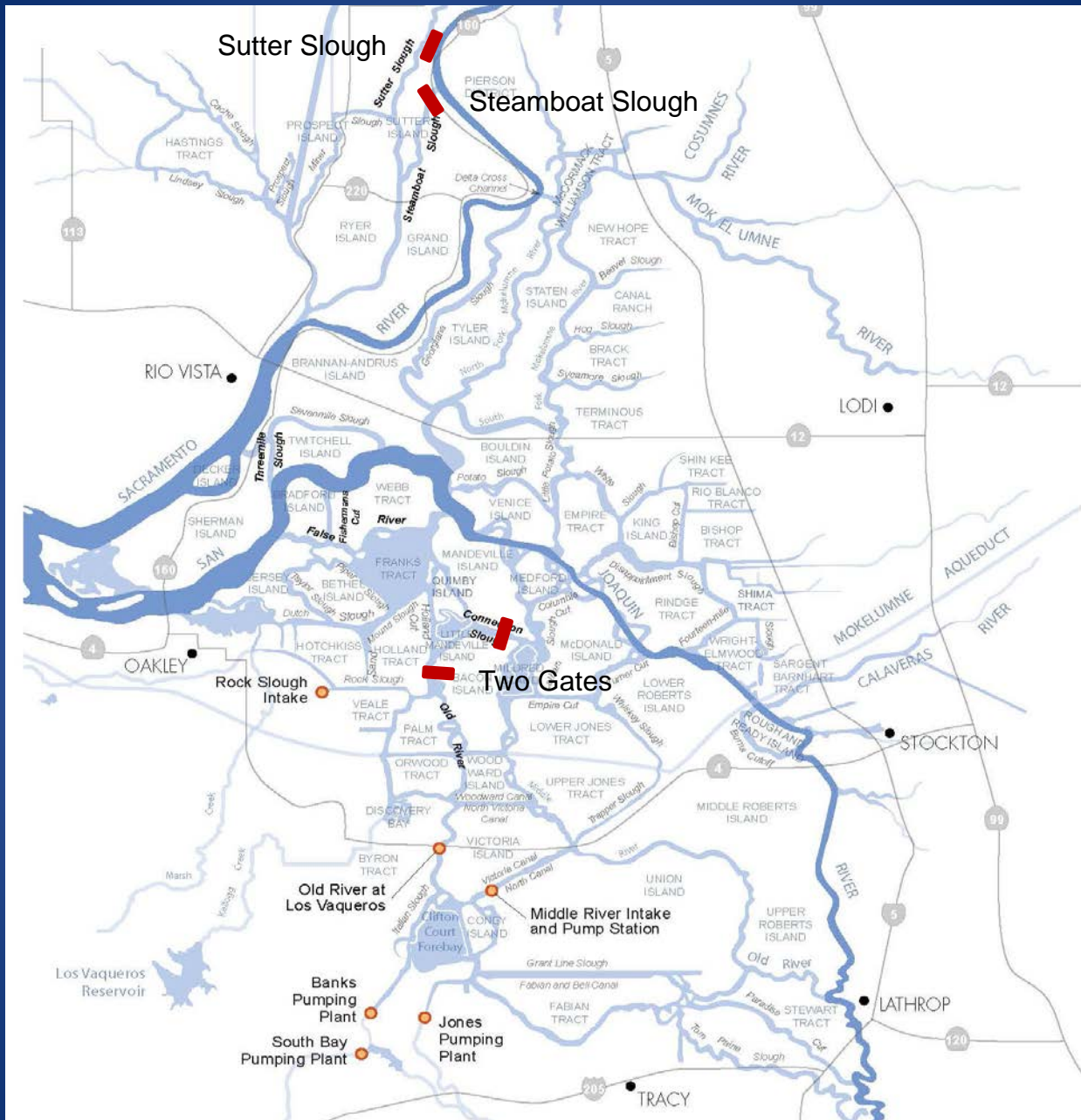
Barriers installed in 1976-77 Drought



Barriers locations in 2009 DWR Drought Emergency Barriers Draft Report



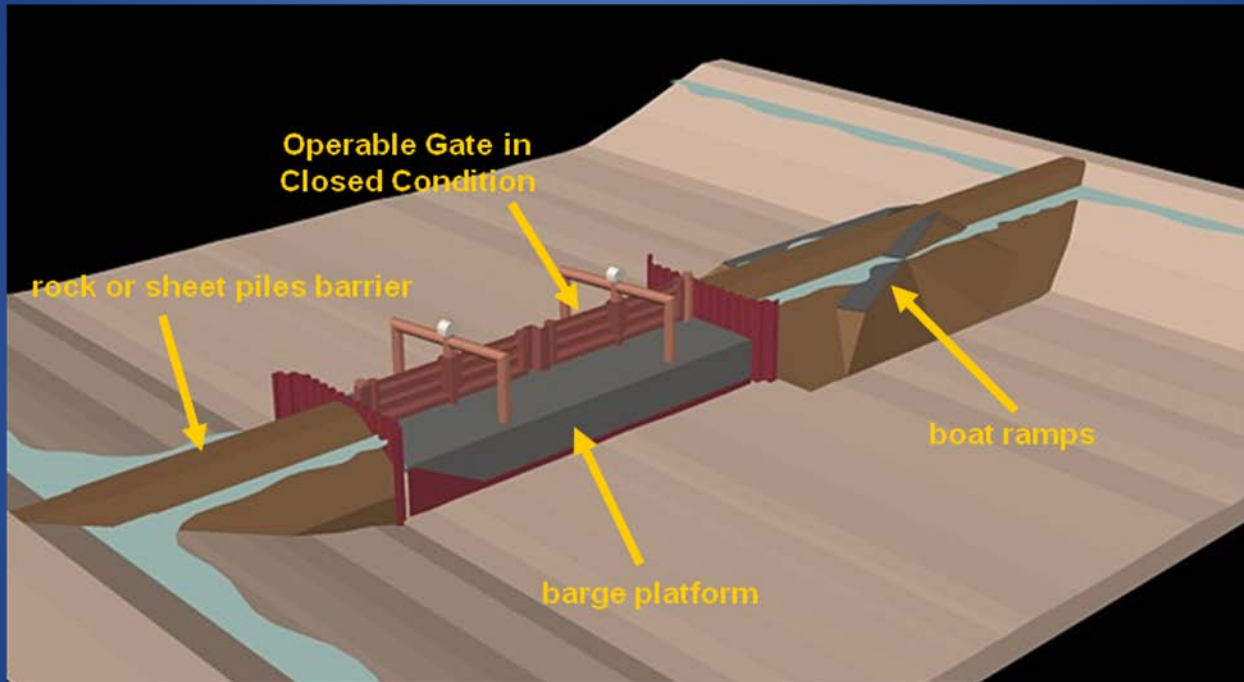
Sutter/Steamboat Sloughs and West False River Alternative



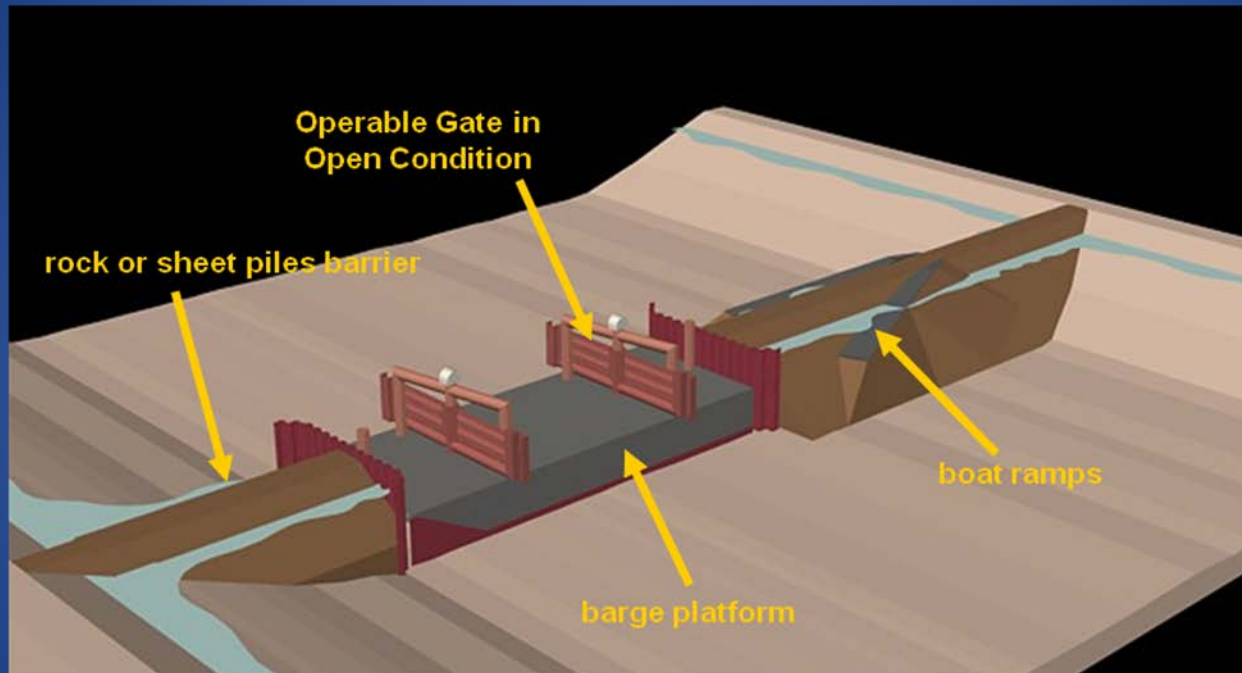
Sutter/Steamboat Sloughs and Two-Gates Alternative



Typical rock barrier with culverts and slide gates
(Head of Old River)



Barrier with operable butterfly gates (closed position)



Barrier with operable butterfly gates (open position)

Percent Normal Precipitation

Year	% Normal Precipitation
1976	65
1977	45
2007	64.07
2008	78.4
2009	81.8
2012	77.15
2013	79.46
2014	26.88 (Oct – Dec)

Contingency Planning for Drought Barriers

- Complete Modeling
- Refine Alternatives
- Present to RTDOMT
- Execute Work Plan
 - Complete Environmental Documents, Design Barriers, Obtain Right-of-way Agreements, Complete Permitting, Develop and Implement Public Outreach, Installation and Operations