

# California Sportfishing Protection Alliance

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## State Water Resources Control Board Drought Workshop

18, 19 February 2014

# Fish Suffer in Drought

- Population crashes and regime shifts tend to occur during serious drought
  - ESA listings for Delta smelt and Winter-run salmon followed the 1987 – 1992 drought.
  - Asian clam and other invasive species secured a toehold and expanded their range following the 1987 – 1992 drought
  - Drought effects on fish ripple forward for decades
- SWP and CVP mismanagement has exacerbated drought impacts on fish.

# California Department of Fish and Wildlife

## Percent Decline in Delta Fish Population Abundance Indices

### Fall Midwater Trawls

<b>Species</b>	<b>1967 v. 2013</b>	<b>Five Year Average 67-71 v. 09-13</b>
Striped Bass	- 99.6%	- 98.8%
Delta Smelt	- 95.6%	- 89.8%
Longfin Smelt	- 99.8%	- 99.4%
American Shad	- 90.9%	- 99.4%
Splittail	- 98.5%	- 87.7%
Threadfin Shad	- 97.8%	- 98.1%

### Summer Townet Survey

<b>Species</b>	<b>1967 v. 2013</b>	<b>Five Year Average 67-71 v. 09-13</b>
Striped Bass	- 98.2%	- 98.1%
Delta Smelt	- 94.2%	- 93.8%

Population abundances of many native anadromous species and lower trophic orders reflect similar magnitude declines.

# Dry Year Sequences are Frequent

- According to DWR, there have been 10 multi-year droughts of large-scale extent in the last 100 years, spanning 40 years.

1918-1920    1923-1926    1928-1935    1947-1950    1959-1962  
1976-1977    1987-1992    2000-2002    2007-2009    2012-2014

*Drought in California, 2012, Department of Water Resources*

- **How can we be surprised and unprepared for something that occurs 40% of the time?**

# SWP & CVP Operate As If There Is No Tomorrow

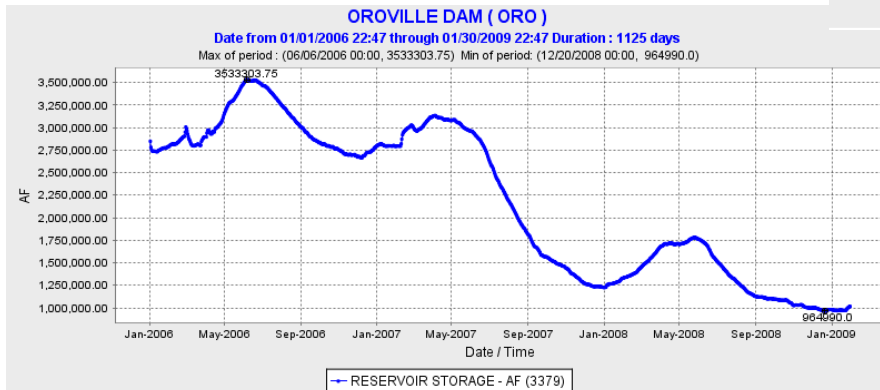
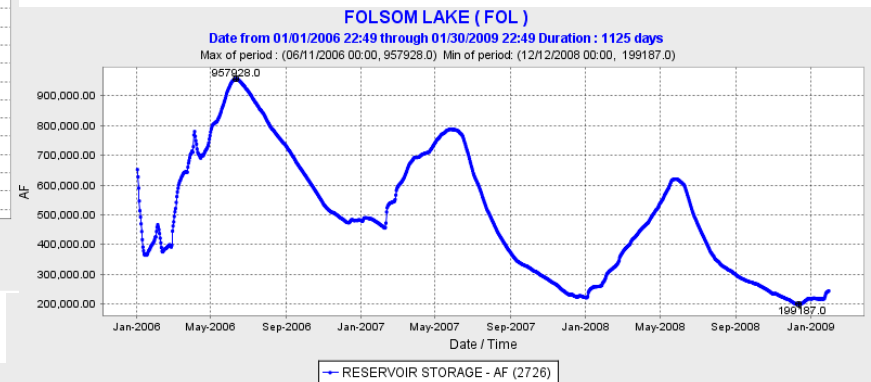
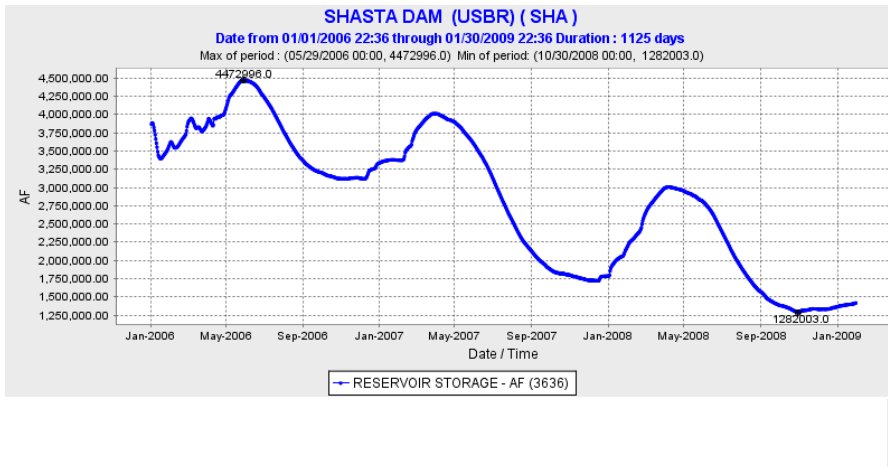
“The usual strategy described in discussions with Central Valley surface water project operators who are experiencing a below-normal supply is to serve all the water possible on demand of the users, carrying little or no water over to guard against a dry 1977...”

“This strategy is based on the belief that a good crop this year is desirable, since next year will probably be a near-normal or better water supply.”

*The California Drought – 1976, May 1976, Department of Water Resources*

This was written following a dry winter in 1976 and, of course, we know the disaster that occurred in 1977. Little has changed.

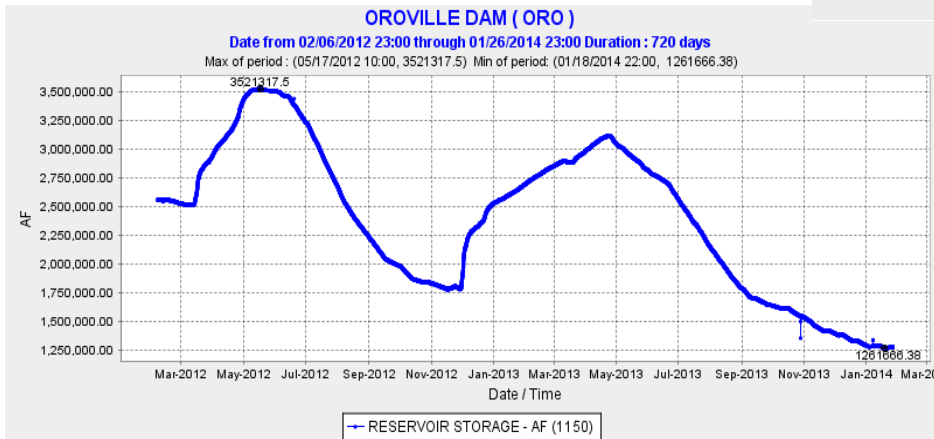
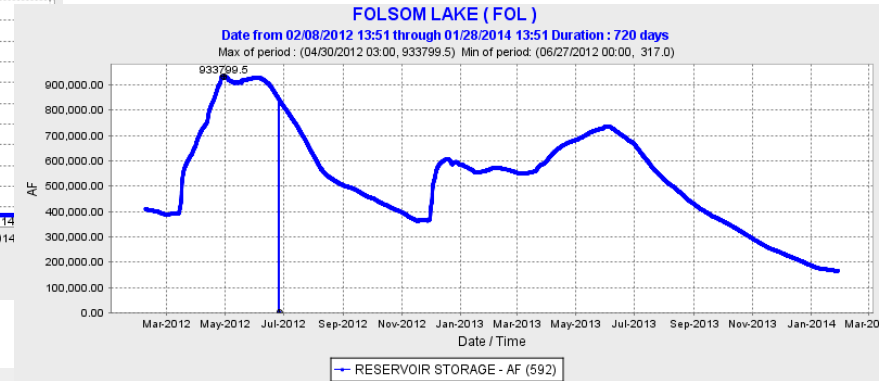
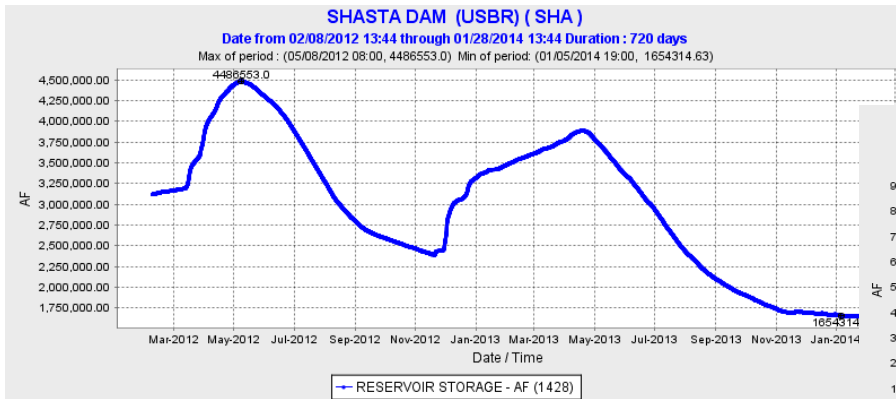
# 2007 – 2009 Drought



2006 – 8,964,227 AF  
 2009 – 2,446,180 AF  
 Draw Down – 6,518,047 AF

**What if we had not had a  
 March Miracle to bail us out?**

# 2013 -2014 Drought



2012 – 8,941,671 AF  
 2014 – 2,916,297 AF  
 Draw Down – 6,025,374 AF

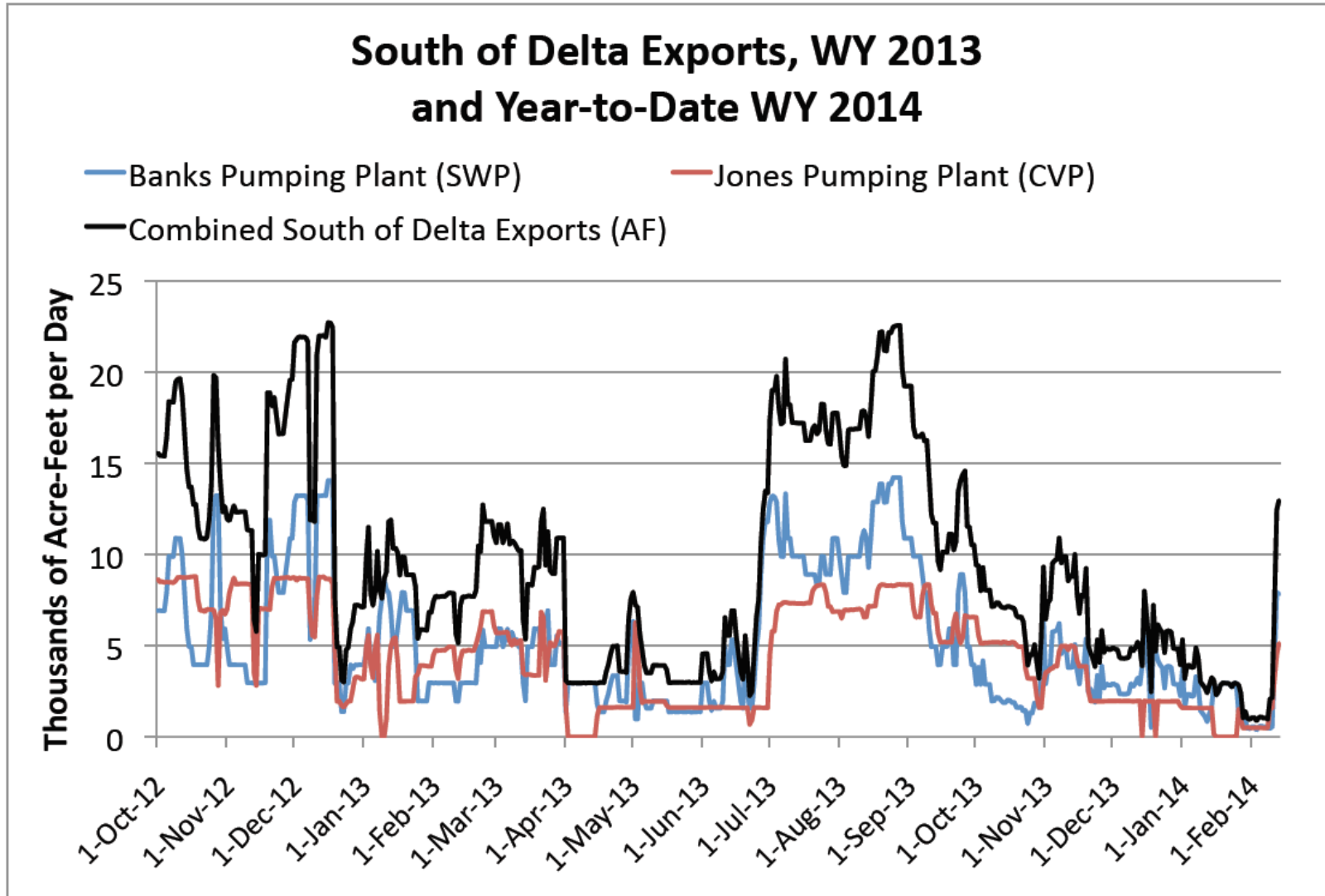
**What if it doesn't rain?**

# Why Conserve: Rain Will Come

- In water year 2011, the Department of Interior used only 348.8 TAF of the 800 TAF of CVPI § 3406(b)(2) water. “Interior decided to not bank the unused (b)(2) water from water year 2011.”
- In water year 2013, DWR exported more than 826,000 acre-feet of water beyond what it had informed its contractors it could deliver.
- **Had DWR and Reclamation exercised prudence, almost 1.3 MAF of water would have remained in storage.**



# Export Regime Fails To Reflect Water Reality



# Gambling With Mother Nature

- With Shasta, Oroville and Folsom storage down almost 2 MAF from previous May, the Projects exported almost 1.7 MAF June to September 2013.
- With no precipitation, SWP & CVP exported another 681 TAF October through December (perhaps 800 TAF, with carriage water).
- Shasta, Oroville and Folsom storage on 31 January 2014 was 3.1 MAF (900,000 AF less than 2013 Delta exports).

# SWP & CVP Mismanagement Places California at Risk

- Contract demands far exceed deliveries and reservoir storage is at an historic low.
- The Projects operate on a year-to-year basis with little thought of tomorrow.
- Projects failed to learn from 76-77 and 1987-1992 droughts. They dodged a bullet in 2007-2009 because of a March Miracle.
- California's economy and ecosystems are facing severe disruption if 2014 rainfall is similar to 2013.
- Projects cannot be relied on to self-regulate.