

Drought in California

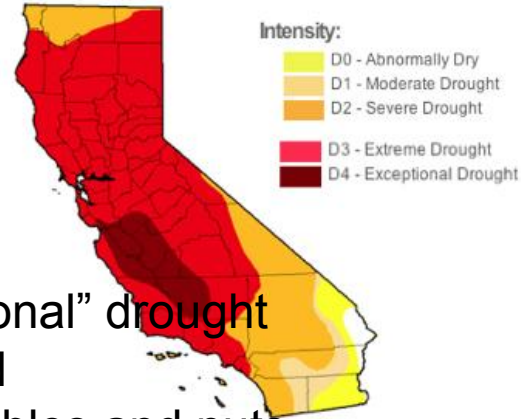
Josh Jossart, Quinton Graybeal, Ben Klinge



Facts

- 98% of California
- Over half of the state in D4 “exceptional” drought
- 5th-largest food supplier in the world
- Grows 43% of nation’s fruits, vegetables and nuts
- Grows 90% of nation’s almonds, grapes, and broccoli

Drought Intensity



Central Valley



Excerpted from map by Anthony S. White, [U.S. Drought Monitor Center](http://www.usdroughtmonitorcenter.org)

California drought becoming much, much worse every year

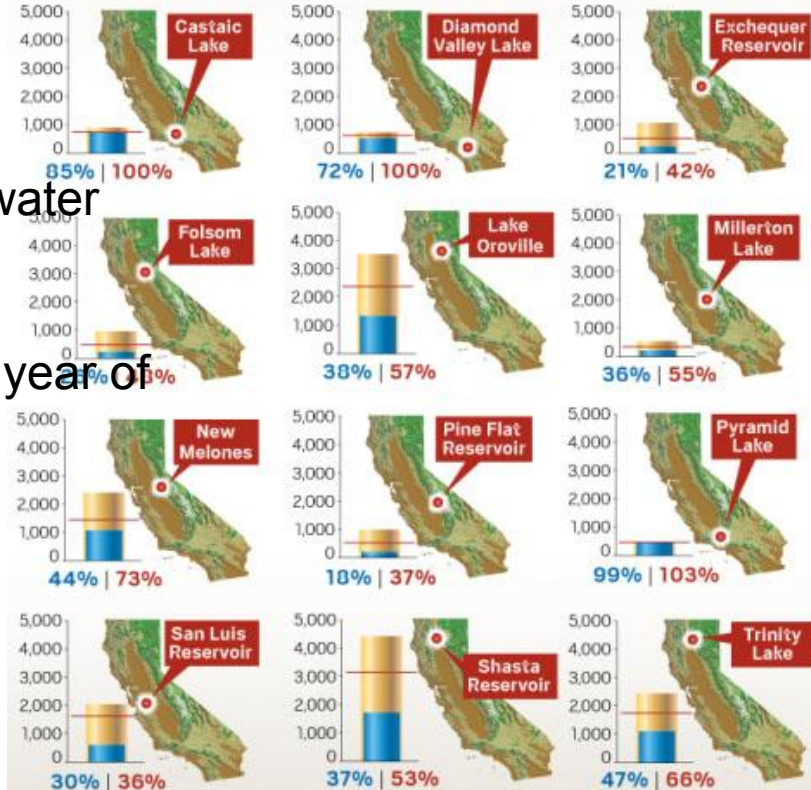
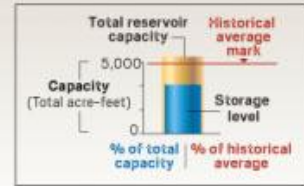


Facts

- Almond trees consume 1.07 trillion gallons of water
- Drought cost farmers \$2.2 billion
- California reservoirs at all time low
- Some reservoirs predicted to have less than 1 year of water left

CALIFORNIA RESERVOIRS



Facing a major statewide drought, the water levels in California's reservoirs are substantially lower than their capacity and their historical averages (except for the state's two smallest, Castaic and Pyramid lakes).



Source: California State Department of Water Resources

Note: 1 acre-foot = 325,853 gallons (enough to supply two families in Southern California for a year)

Landsat-derived reservoir area

-  Difference between August 8, 2011 and August 16, 2014
-  August 16, 2014

Trinity Lake, CA
(53% area loss)

August 8, 2011 lake area

August 16, 2014 lake area

Shasta Reservoir, CA
(47% area loss)

Trinity Lake and
Shasta Lake, 2 of
California's biggest
reservoirs have both
lost about 50% of
their area



Folsom Lake

No Snowpack in the Sierras

- Snowpack provides 30% of water
- Snowpack at second lowest ever
- Where there was 66 inches now barren areas

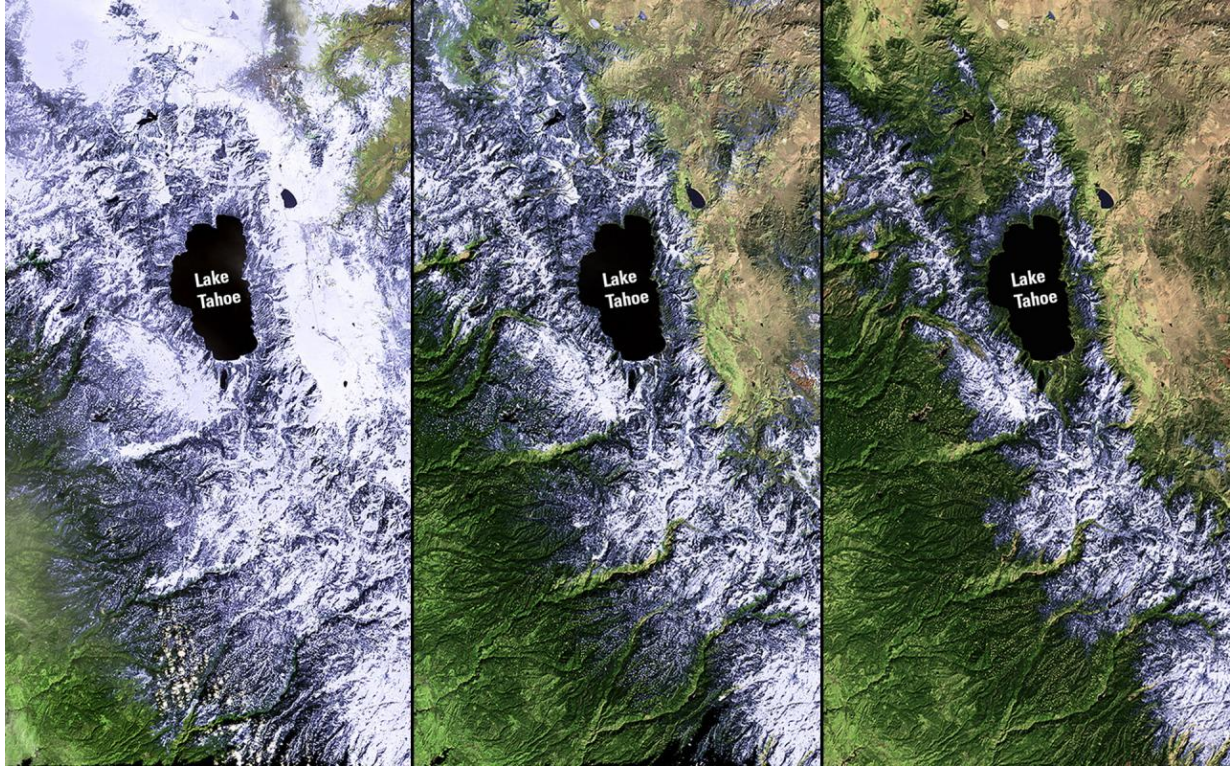
2011

2012

2013

2014

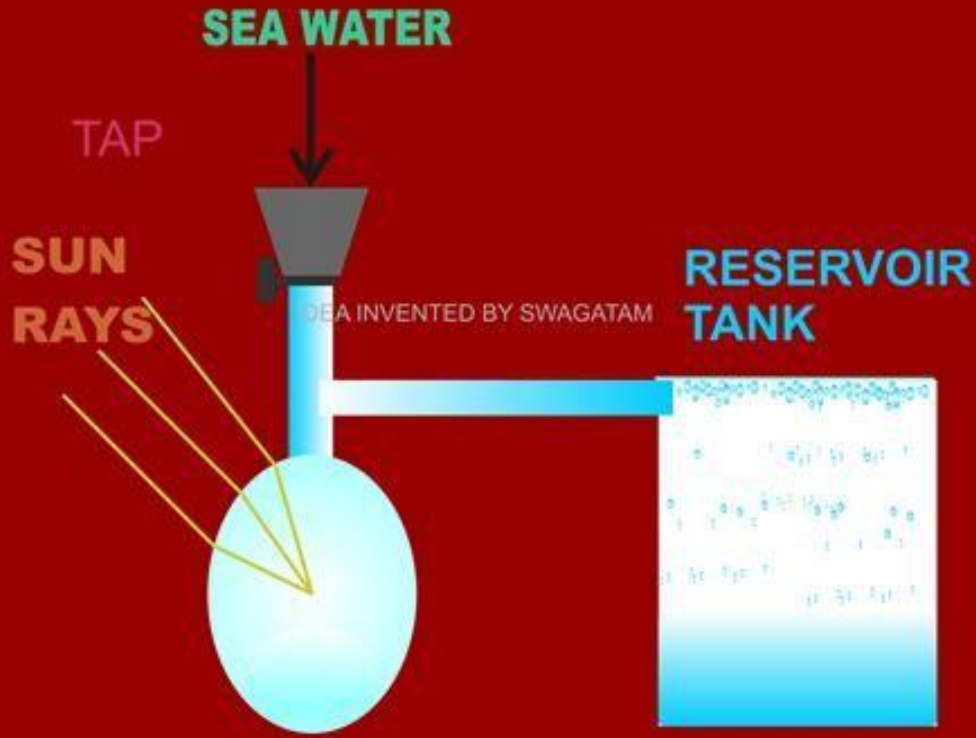
2015



Tahoe snowpack over 3 years

OUR SOLUTION

SIMPLE SOLAR DESALINATION SET UP



First Schematic
Kind of like ours, but not exact

DESALINATOR

Our Solution

1. Sunlight goes into glass
2. Water slowly evaporates
3. Water vapor goes up tube
4. Leaves drinkable water in tank







Pros

- Very cost efficient
- Easy to do
- Can be built to any scale
- Renewable Energy

Cons

- Cannot provide water for more than a few people
- Takes very long to provide for 1 person



"That's all Folks!"



Cartoon Songs From

MERRIE MELODIES & LOONEY TUNES