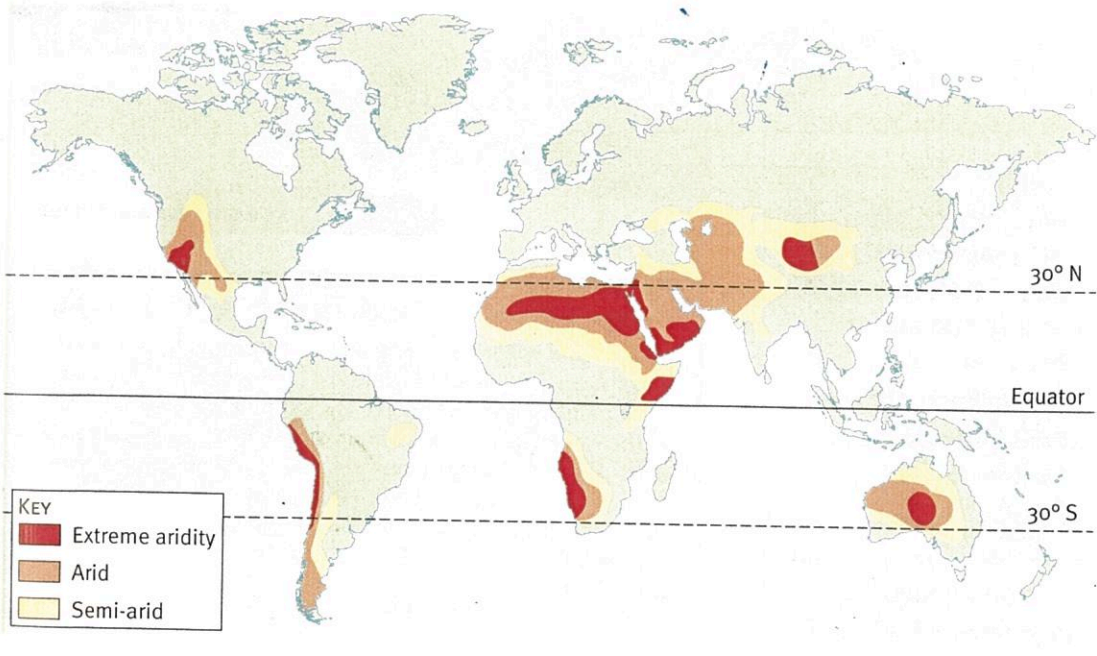


Resource 1

(A)

The global distribution of drought areas.

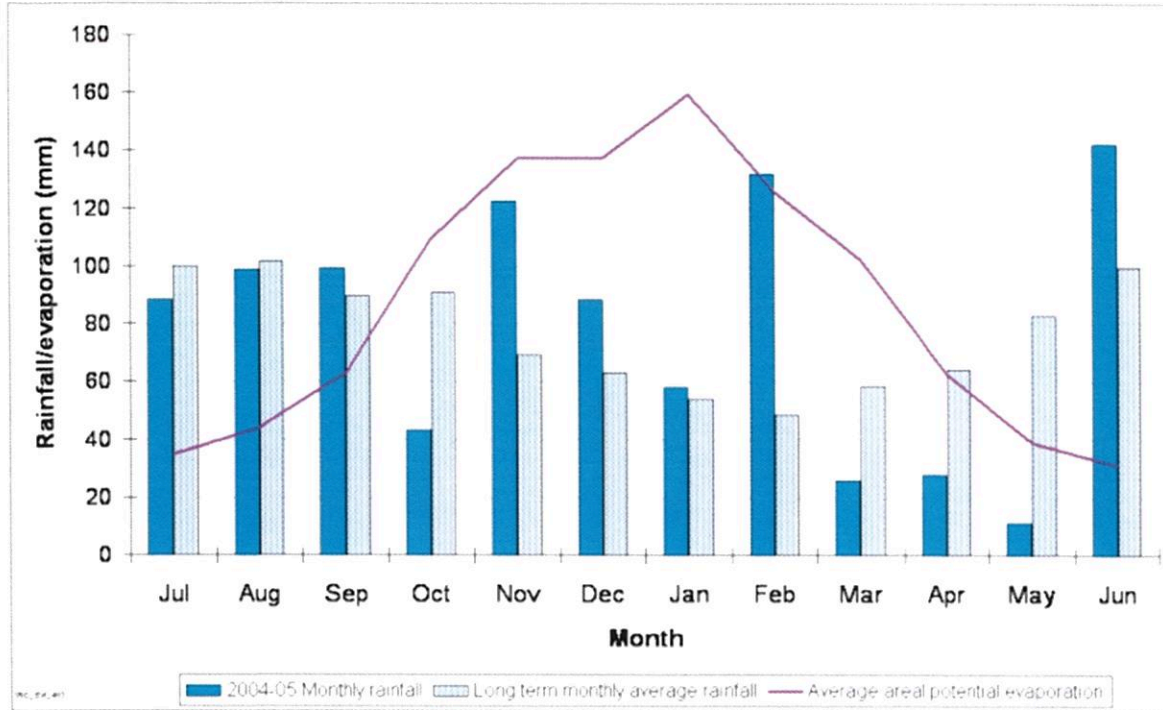


(B) Causes of droughts:

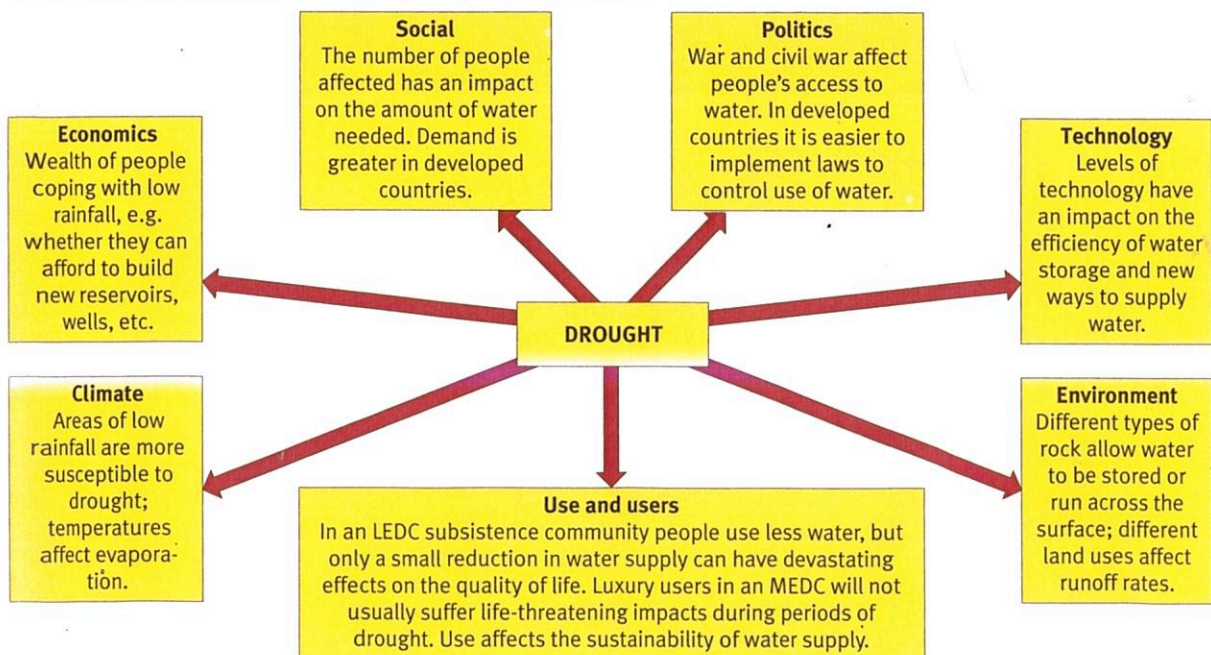
Human	Physical
<ul style="list-style-type: none">• Deforestation• Over use of water – golf courses, farming etc• Over grazing the land• Population pressure	<ul style="list-style-type: none">• Lack of rain• Excessive heat• Impermeable rock type

Resource 2

Graph showing monthly rainfall and the amount of evapotranspiration



Factors affecting the severity of drought



Resource 3

Effects of Droughts



California, USA



Awash River, Kenya



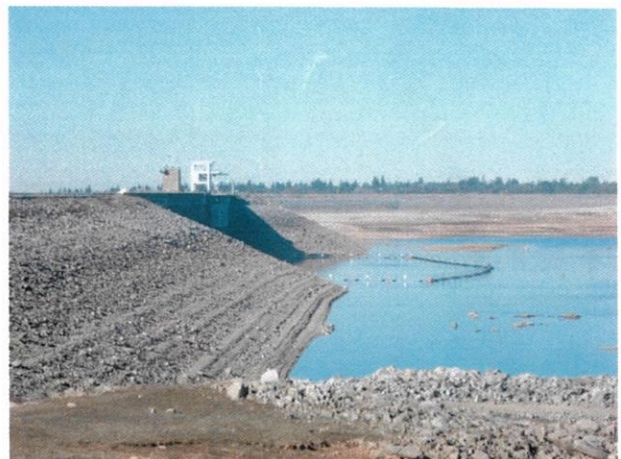
Australian East Coast



Golf course, South Spain



West Somalia, Africa



Californian reservoir

Ethiopian drought

Background

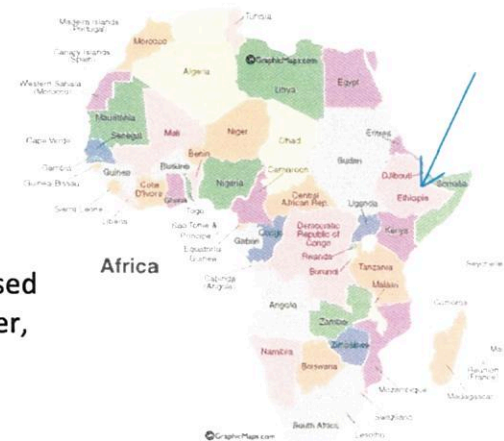
The **Sahel** is located south of the Sahara desert – between 12 and 17 degrees north of the equator

Cause

Both rainy seasons of February and June failed to provide enough water for crops to grow. Population pressures on water – the population has doubled since 1984. 85% of people rely on farming so the water can be used unsustainable. Temperatures have reached over 50 degrees in the summer, meaning very quick evapo-transpiration but no rain to replace it

Effect

Animals are dying in the Awash River, this is the main source of water in Ethiopia, this is spreading Cholera. With no food 6 million people needed aid or faced death. The Afar people have migrated with their animals, to find new grazing land as their cattle and only food supply dies (a response as well)



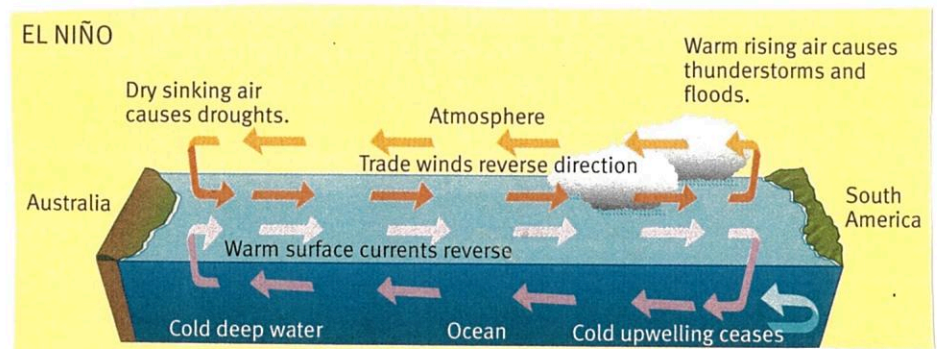
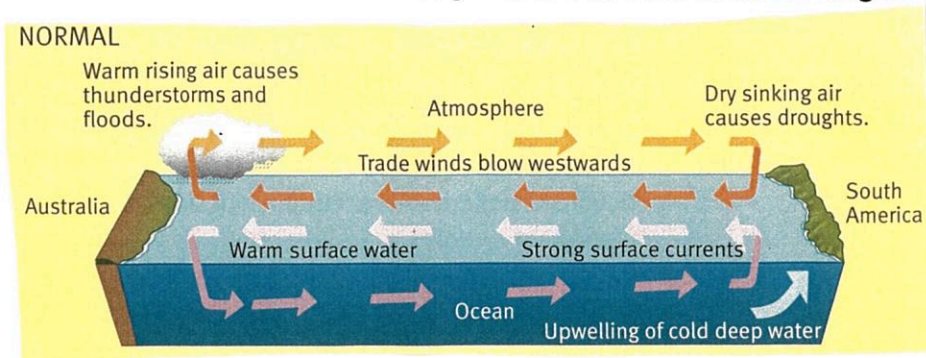
Australian drought 2006

Background

Australia is the world's driest inhabited country and often suffers droughts

Cause

The El Niño effect caused the drought as can be seen from the diagram below:



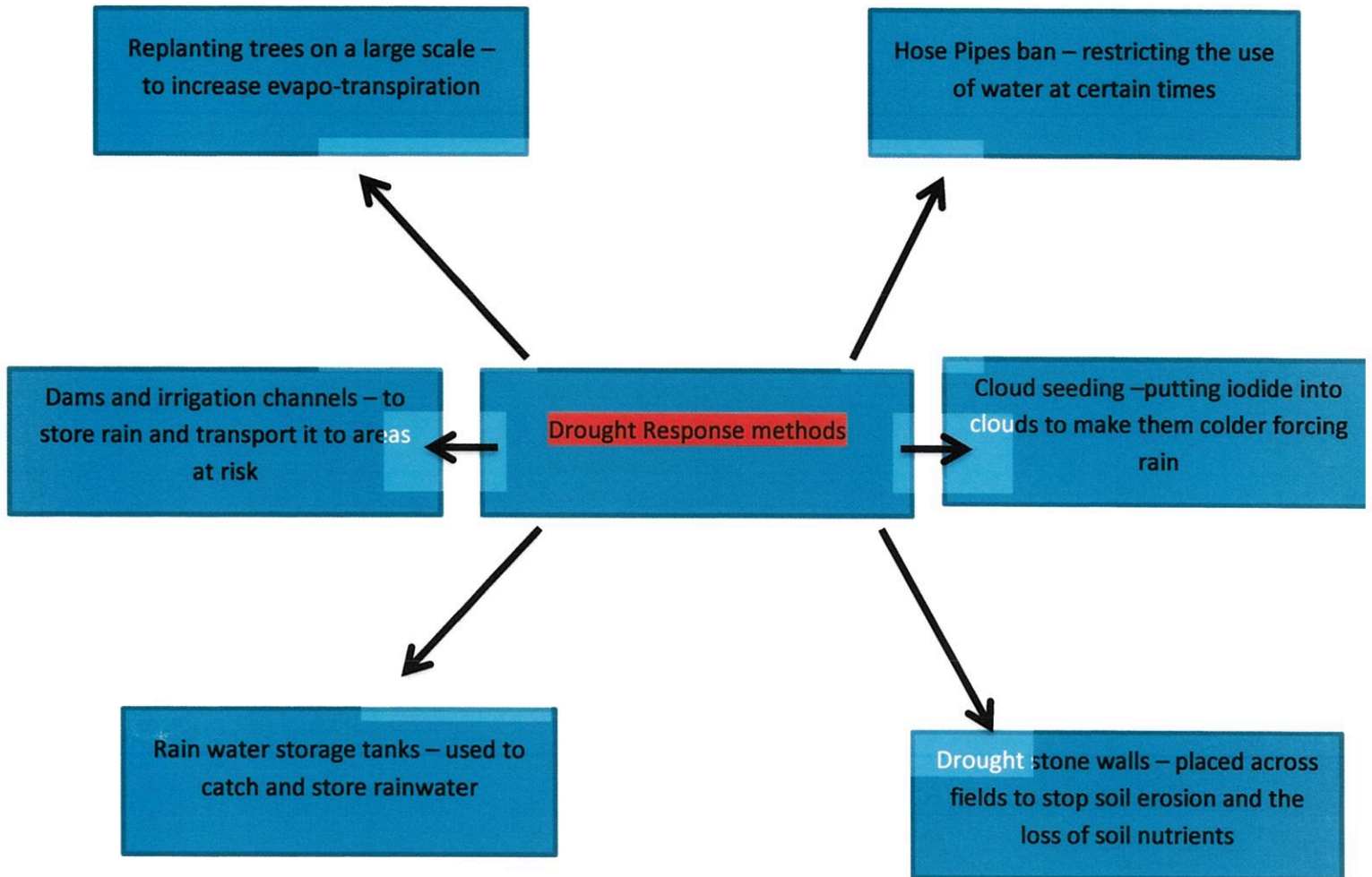
As the cold upwelling current stops near South America, it effects the trade winds that move across the ocean.

The trade winds change direction, meaning that the warm moist air does not move to Australia, leaving drought behind.

Effect

Crops failed meaning loss of income for farmers. Cattle and sheep died due to starvation or thirst, 6 million in total. Farmer sold land and moved away to find other work. Water quality decreased, leading to toxic algae in reservoirs, leading to even less drinking water

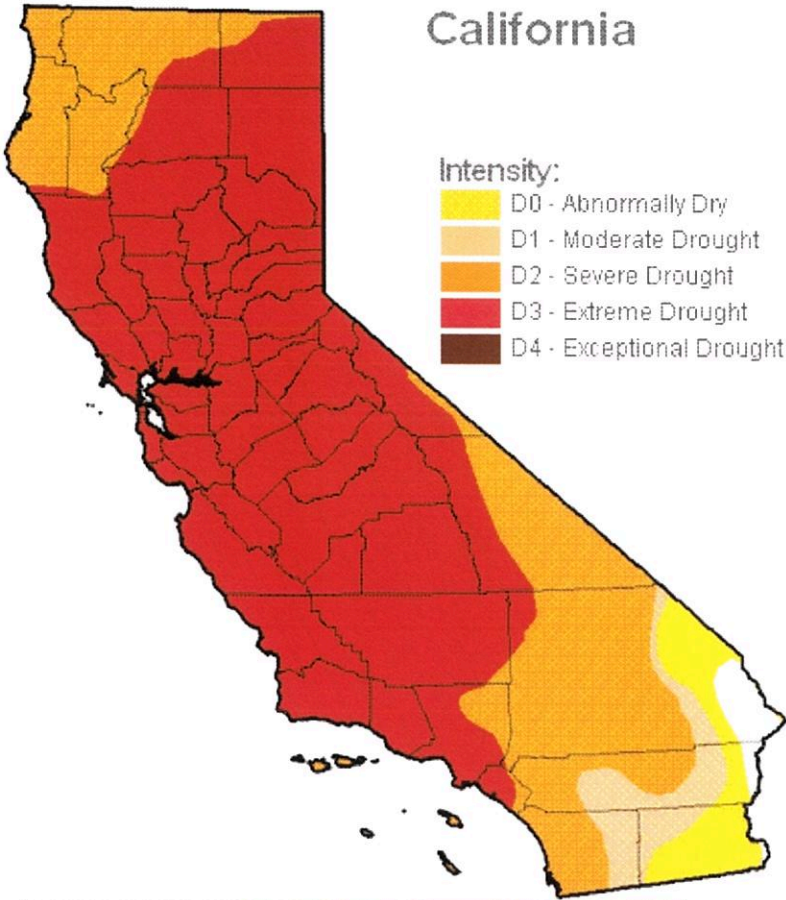
Drought response methods



Drought distribution across California on the west coast of the USA

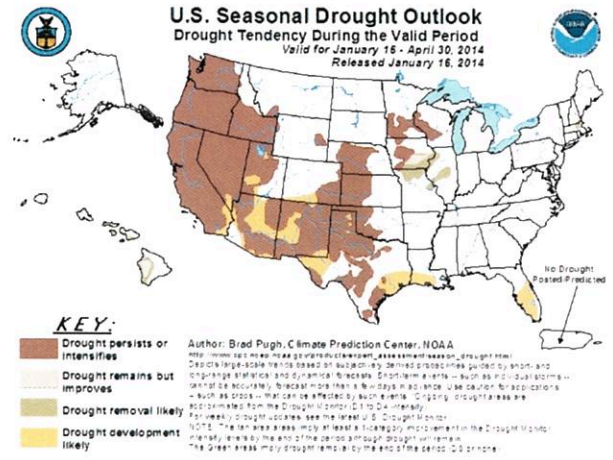
U.S. Drought Monitor

California



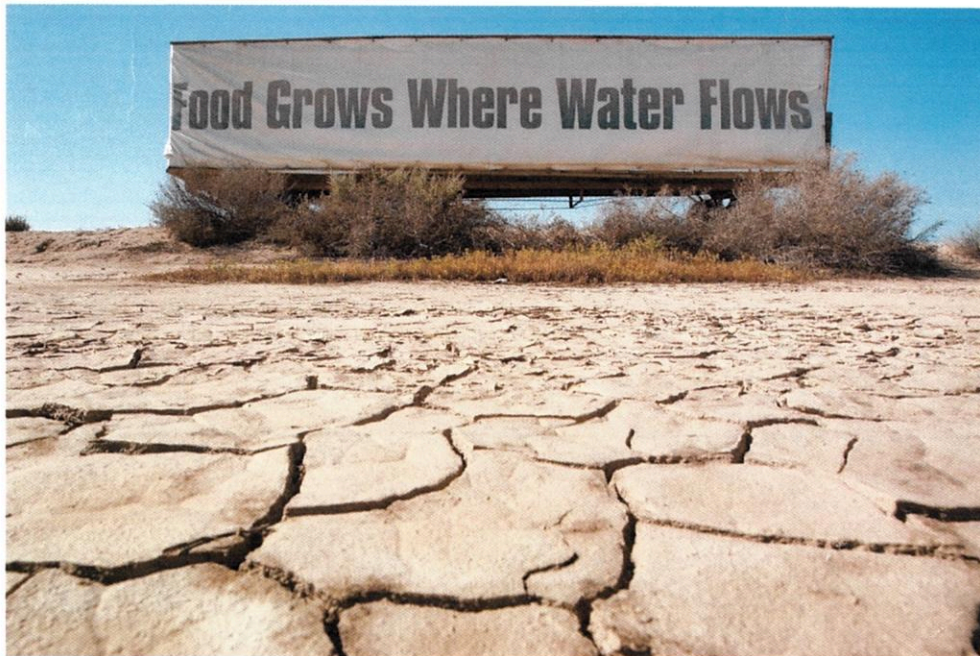
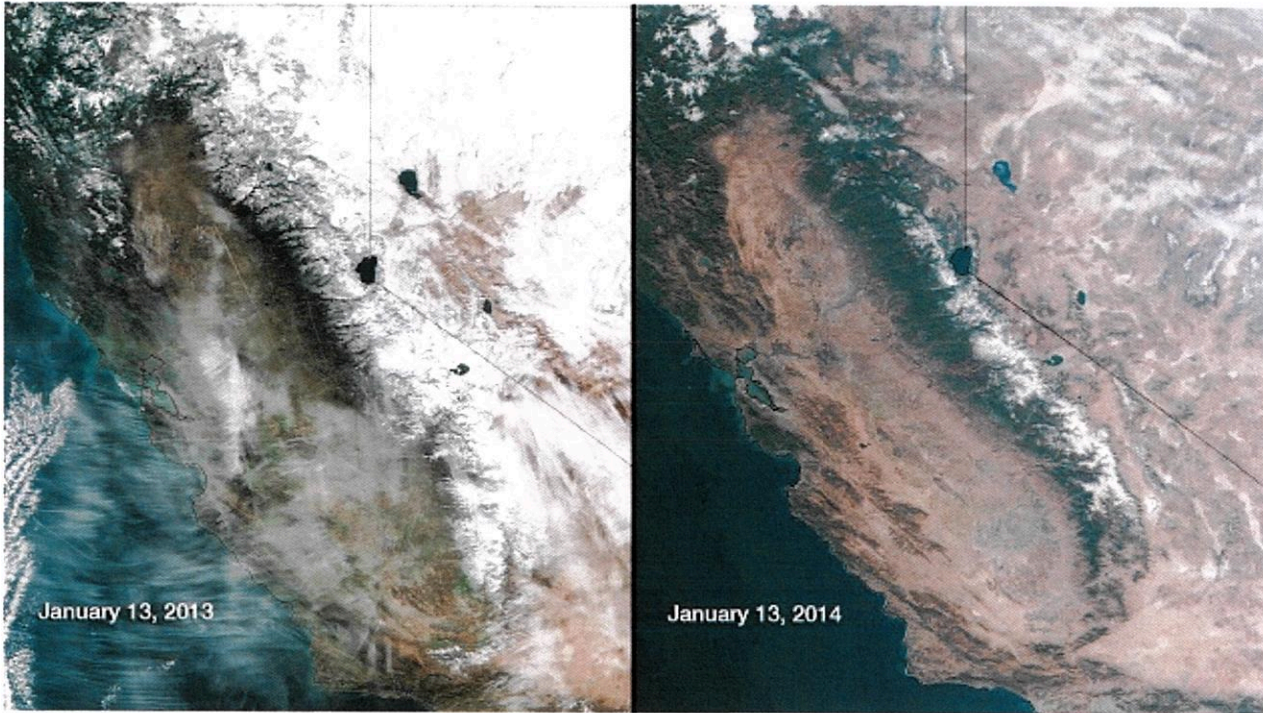
Intensity:

- D0 - Abnormally Dry
- D1 - Moderate Drought
- D2 - Severe Drought
- D3 - Extreme Drought
- D4 - Exceptional Drought



		D0-D4	D1-D4	D2-D4	D3-D4	D4
1/14/2014	1.43	98.57	94.18	89.91	62.71	0.00
1/7/2014	1.43	98.57	94.25	87.53	27.59	0.00

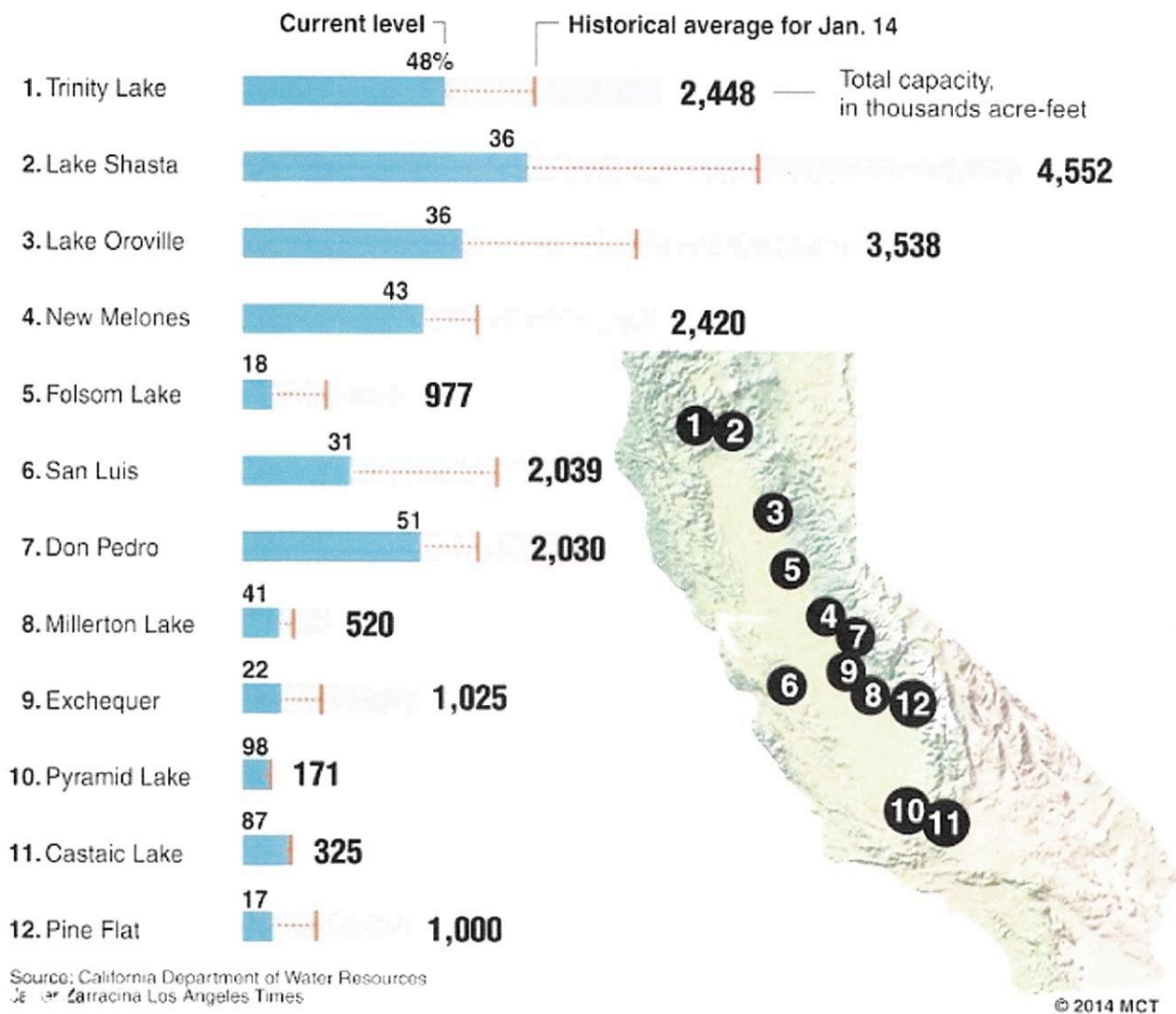
Satellite images of before and after 2014 drought in California



Data on water levels in Californian reservoirs during 2014 drought

California reservoirs drying up

The levels of many of the state's major reservoirs are well below average and dropping.



Effects of 2014 drought on California

1. Running out of drinking water – reservoirs only 30% full



2. Food supply running low – farmers forced to raise prices



3. Unprecedented amount of wildfires – with 406 recorded in January 2014 and the loss of 5 homes.



4. Conflict over remaining water – Farmers in the south want water pumped down from the north, but environmentalists are concerned that this could affect wild salmon in the Northern rivers of the state.



5. Water restrictions and fines – restaurants are not allowed to serve water and families face water rationing



6. Tourism at risk - California has a large ski industry, but this year, there's hardly any snow. Nearly all the snow at major resorts in Lake Tahoe, Mammoth and other parts of the Sierra Nevada mountains this month was made with [expensive snow-making machines](#). If it wasn't for the machines, which require a lot of water and compressed air, the resorts would probably have to close.

