

YMD Joint Water Management District

Water Supply And Watershed Management

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- Stoneville, Mississippi



Mississippi River Valley Alluvial Aquifer

- The aquifer is the source of **~90% of irrigation** used in Mississippi Delta.

Map credit: US Geological Survey





JUN 3 2010

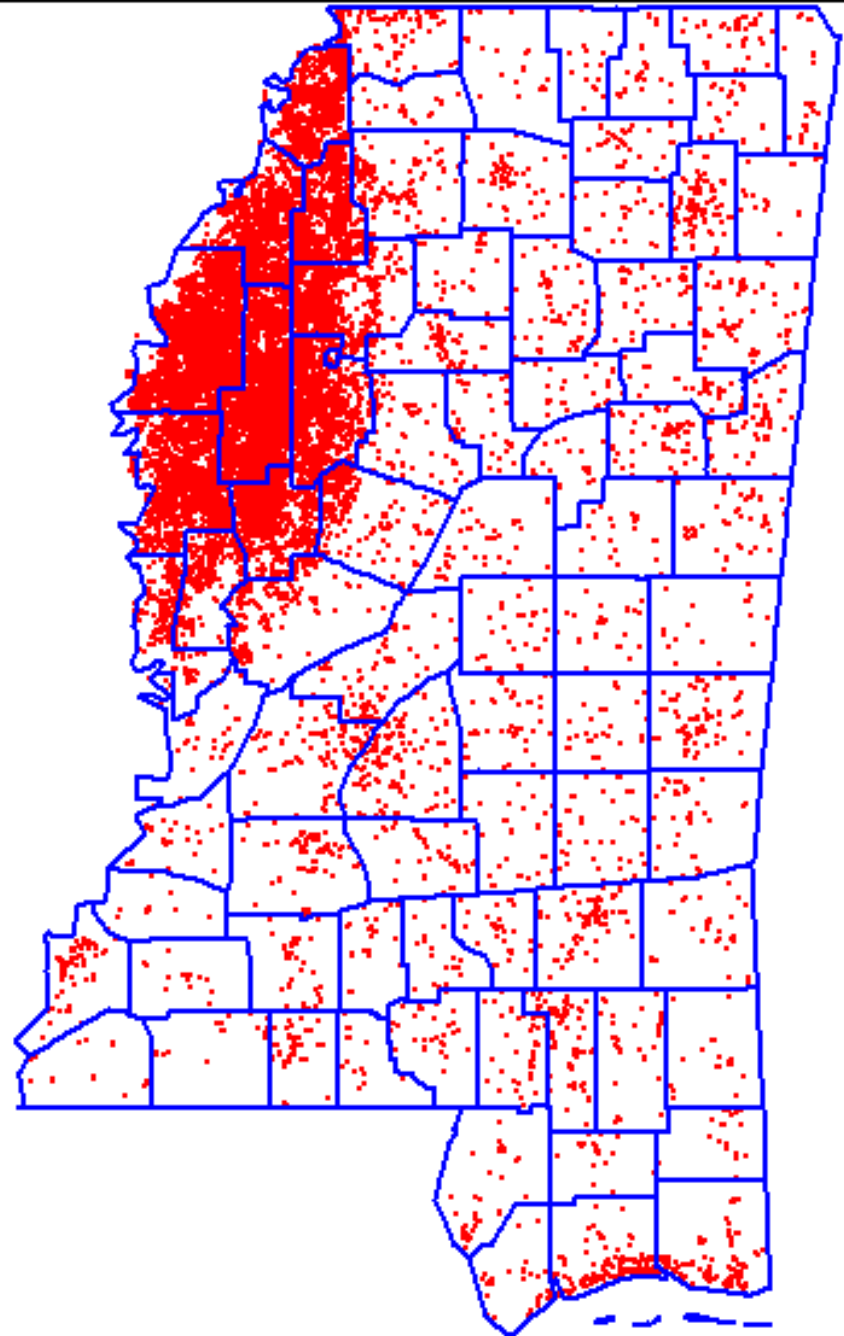




Permitted Water use locations in Mississippi

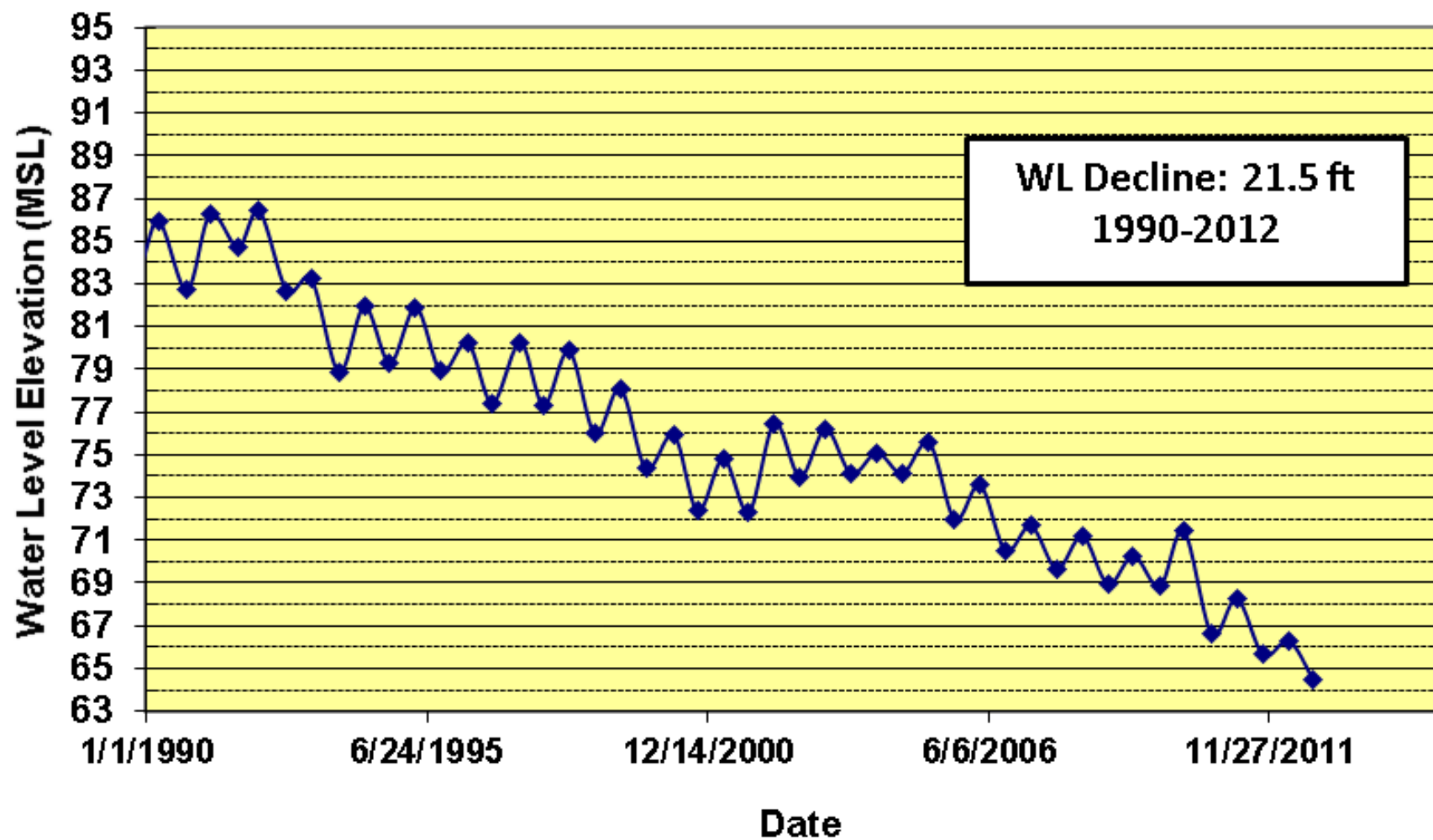
+90%
Groundwater

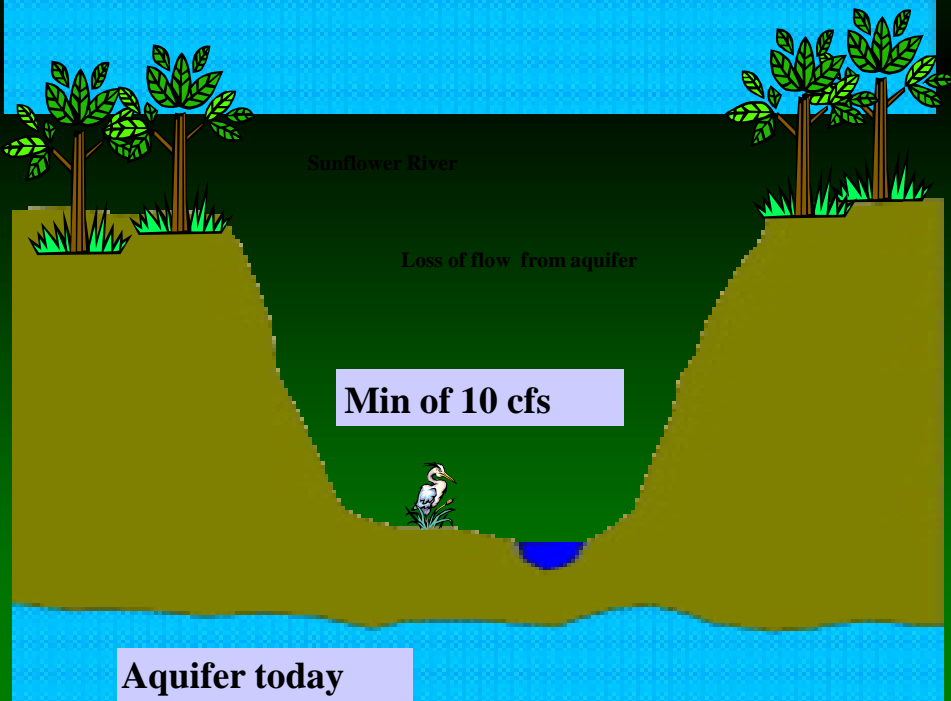
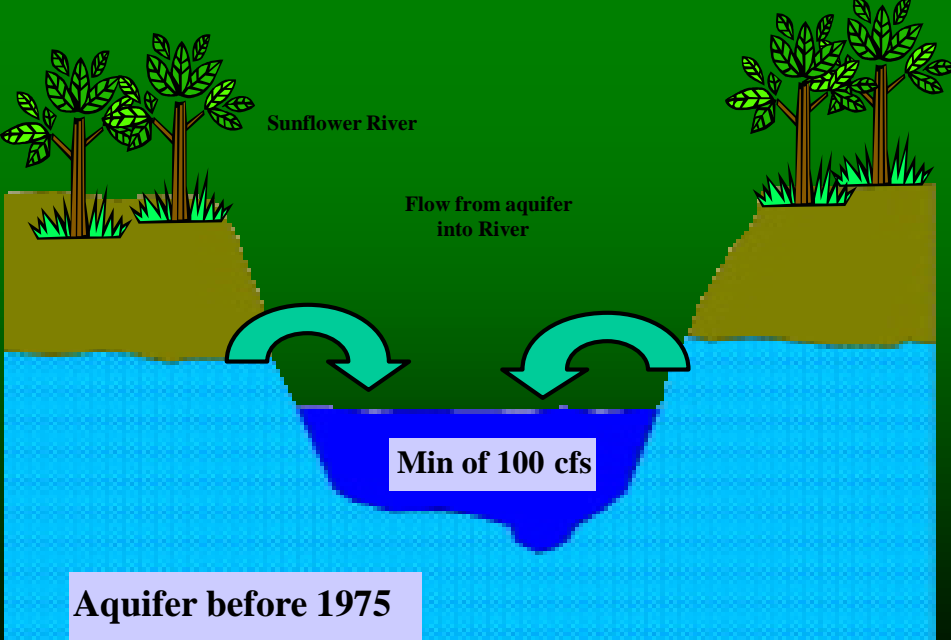
Delta
3,000,000 acres farmed
2,000,000 irrigated



Ground ZERO well

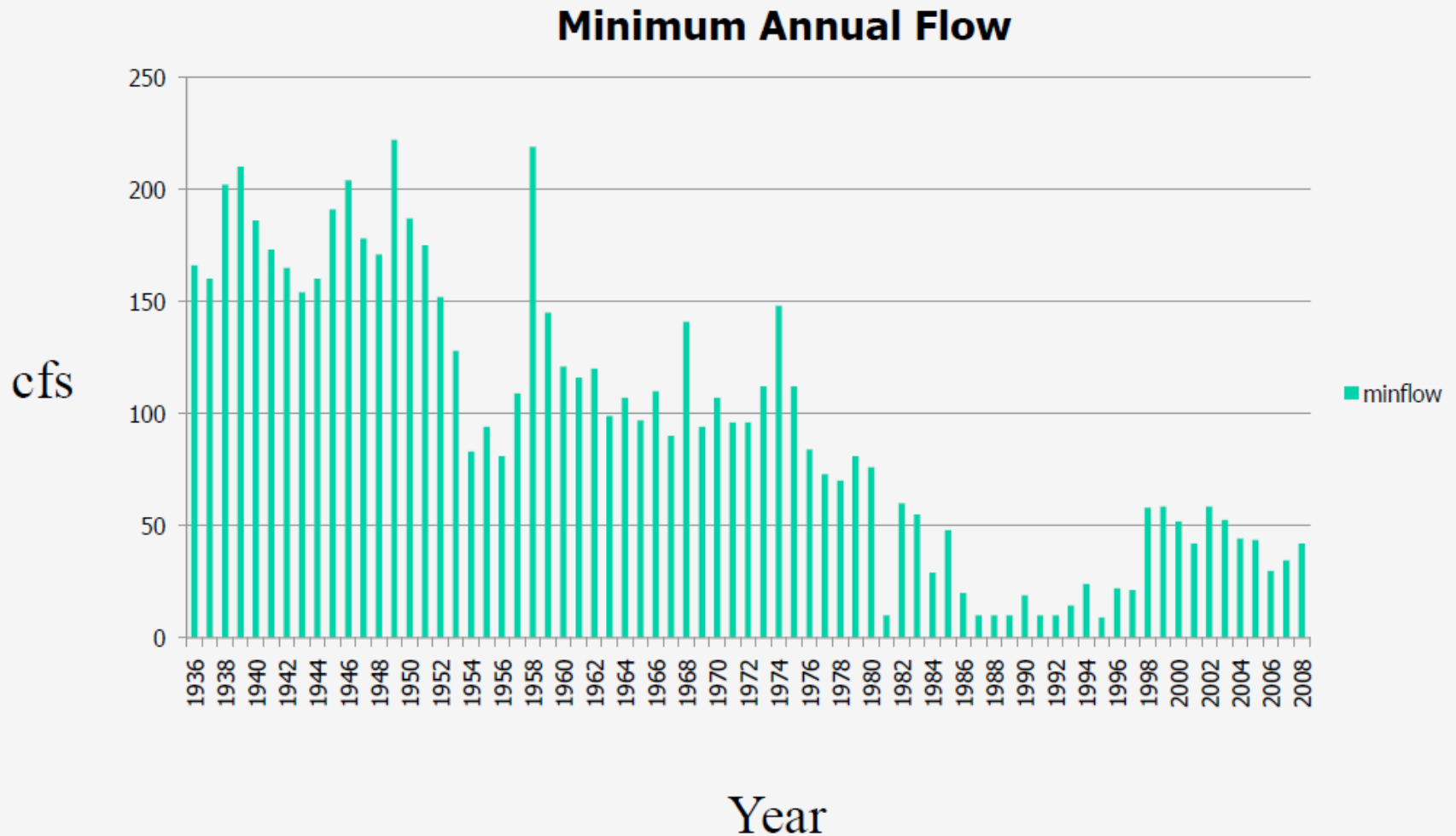
Sunflower - L027



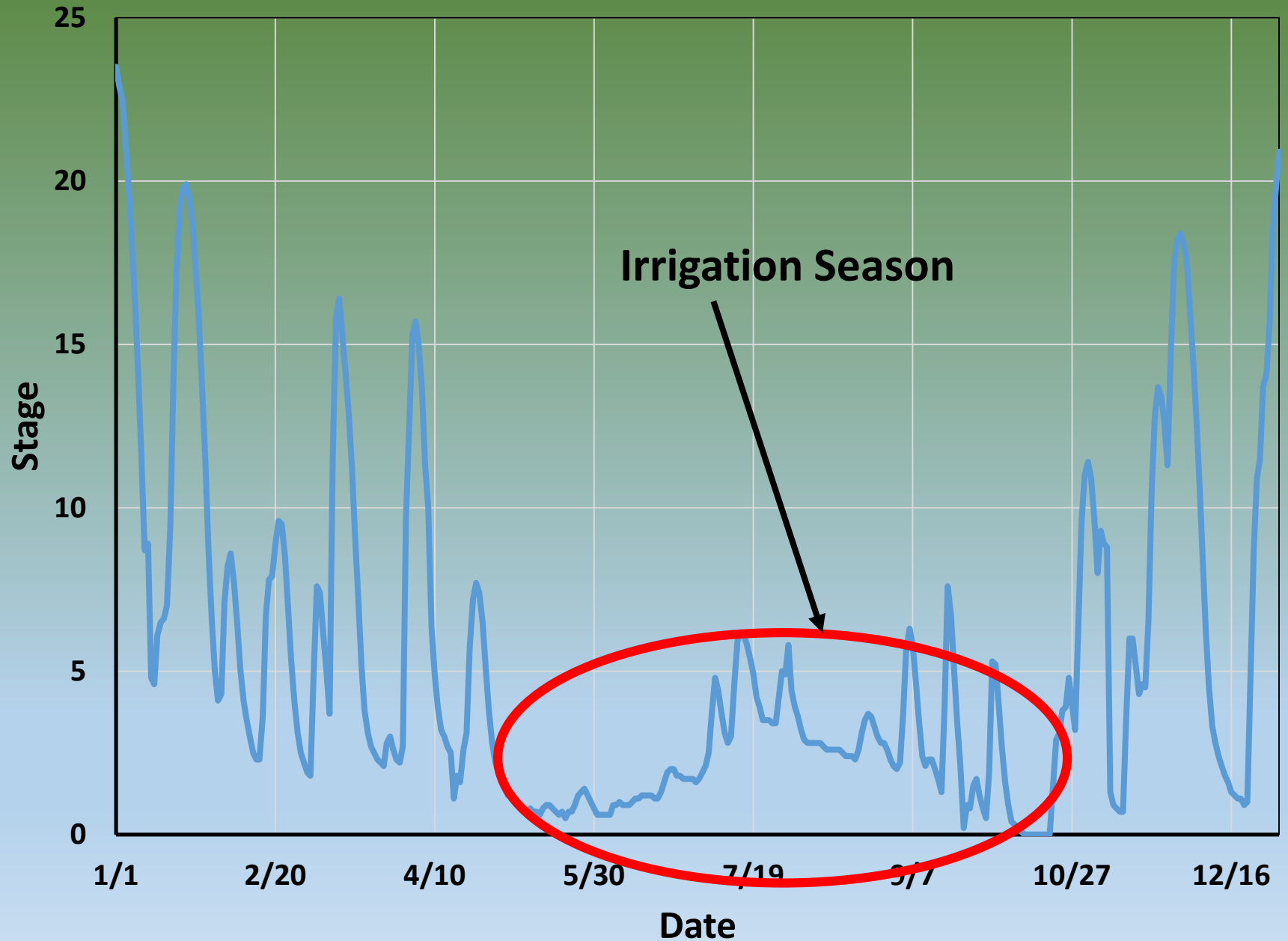


Big Sunflower River at Sunflower

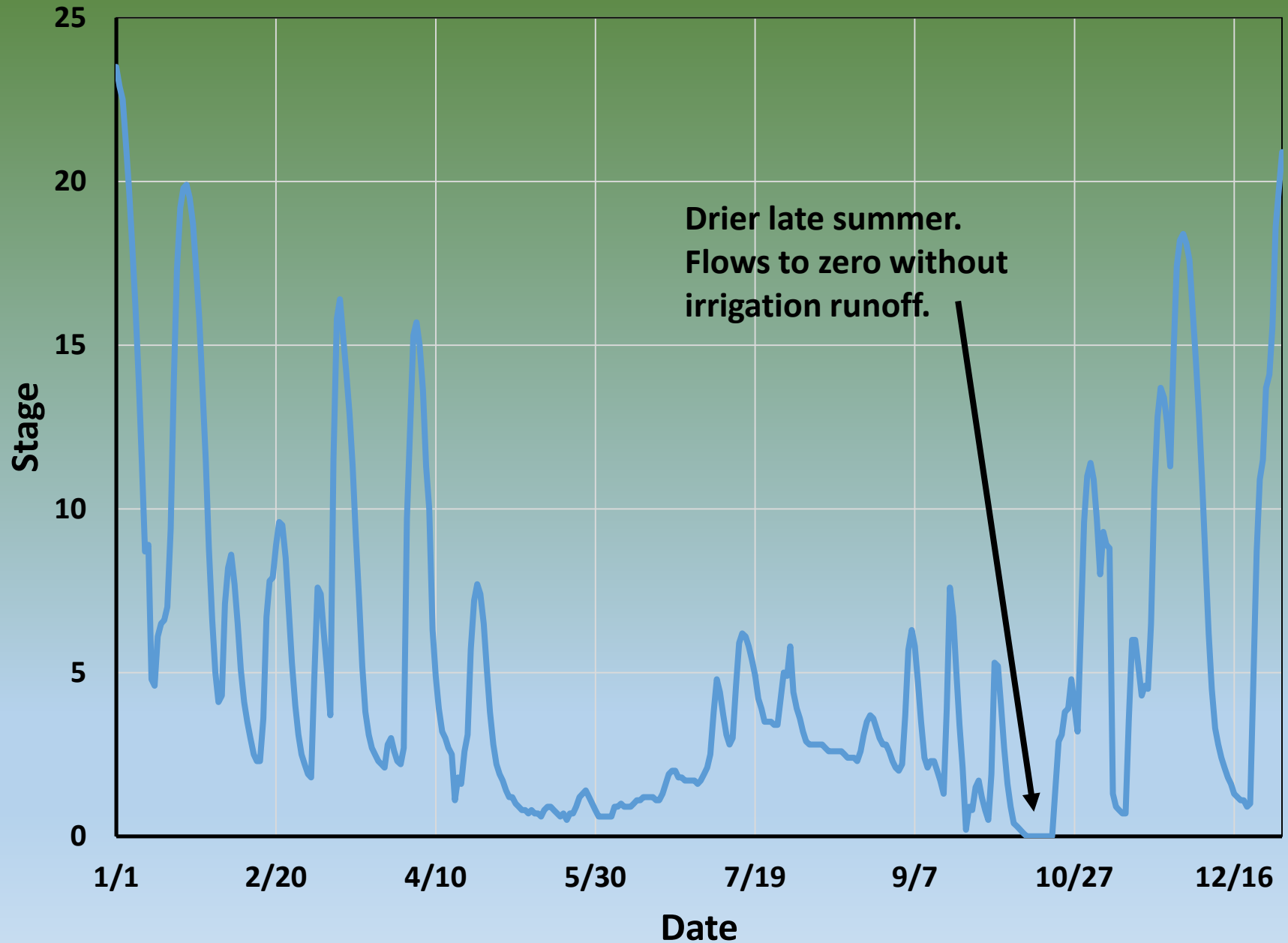
Annual Minimum Flow



1988 Sunflower at Sunflower

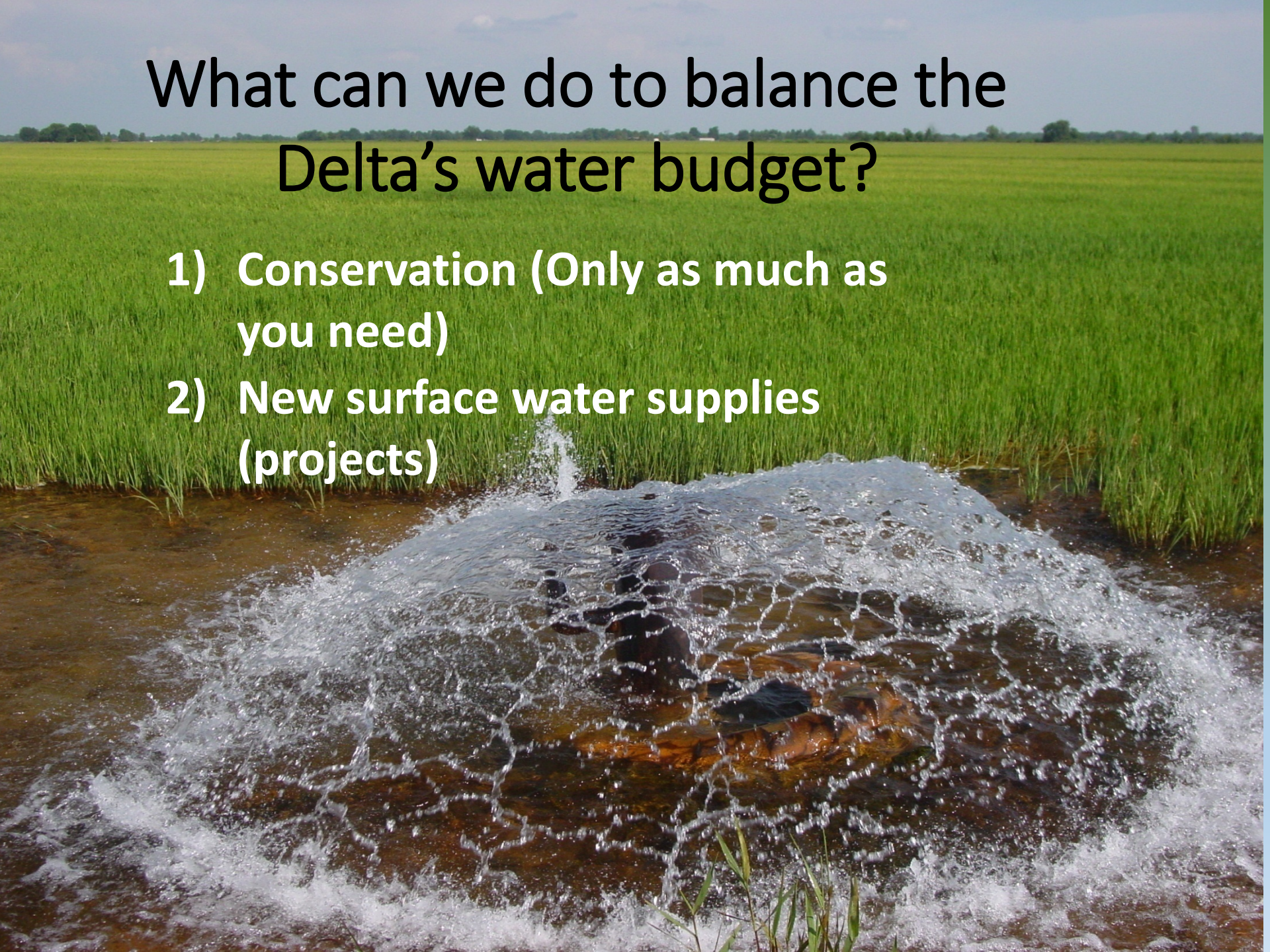


1988 Sunflower at Sunflower



What can we do to balance the Delta's water budget?

- 1) Conservation (Only as much as you need)
- 2) New surface water supplies (projects)



Irrigation Method



Contour 3.8 ft



Straight 3.1 ft



Side Inlet 2.3 ft

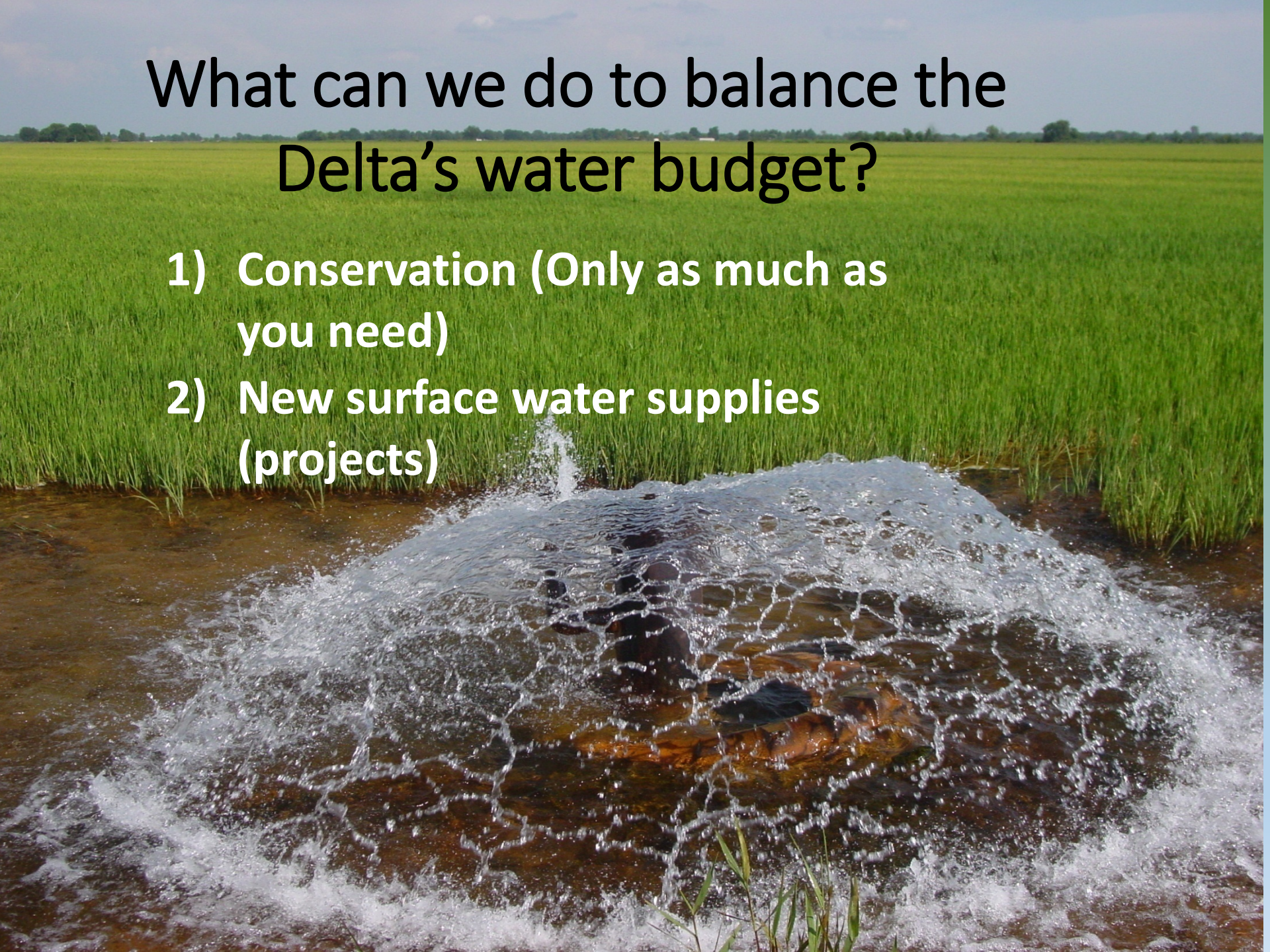


Zero Grade 1.6 ft



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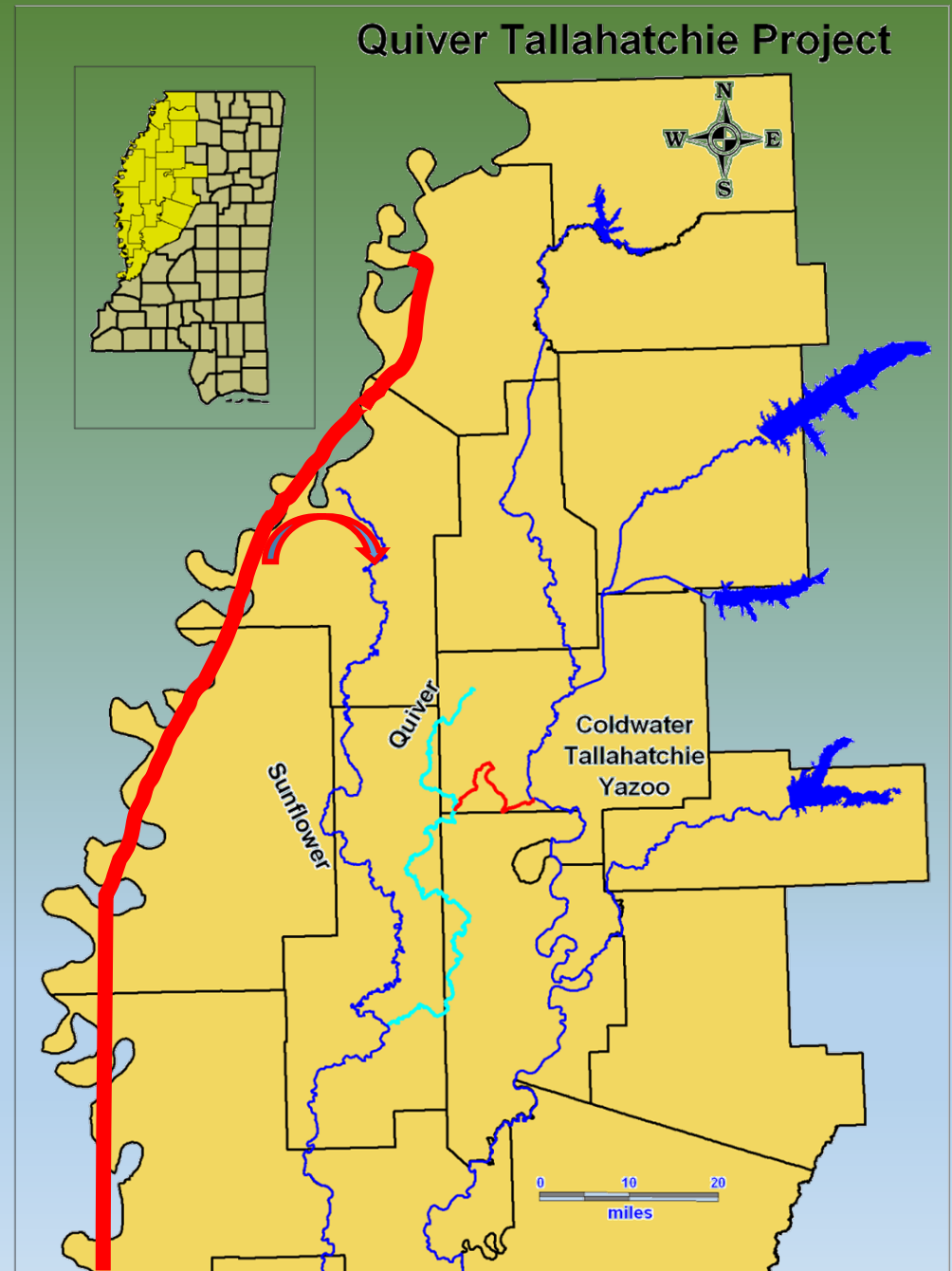
Project Locations

East

Arkabutla,
Sardis,
Enid,
Grenada,
Reservoirs

West

Mississippi River
-Direct
-Well fields





SEP 18 2006

Sunflower Weir in Clarksdale







Mississippi River Valley Alluvial Aquifer

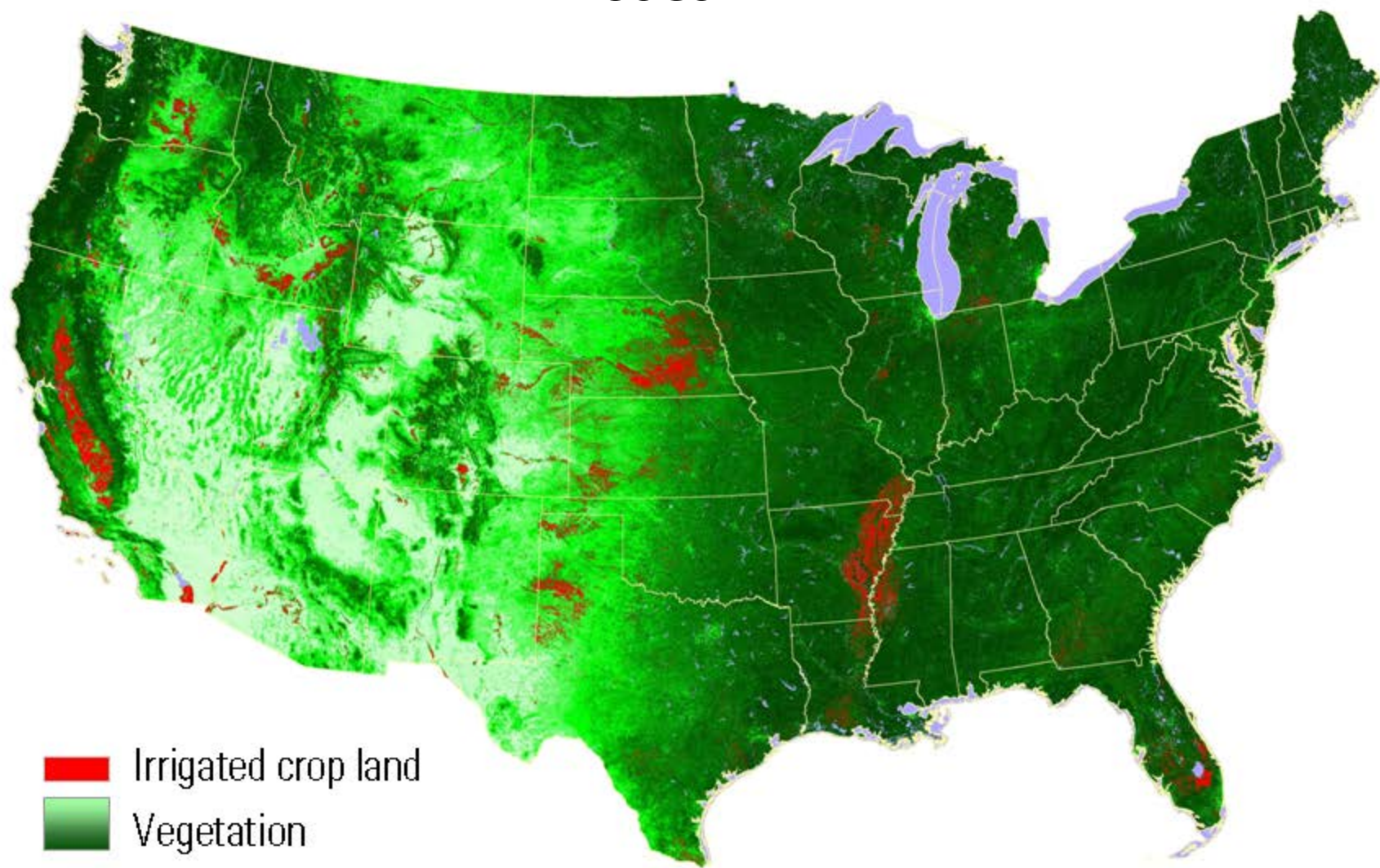
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Major US irrigation areas

USGS



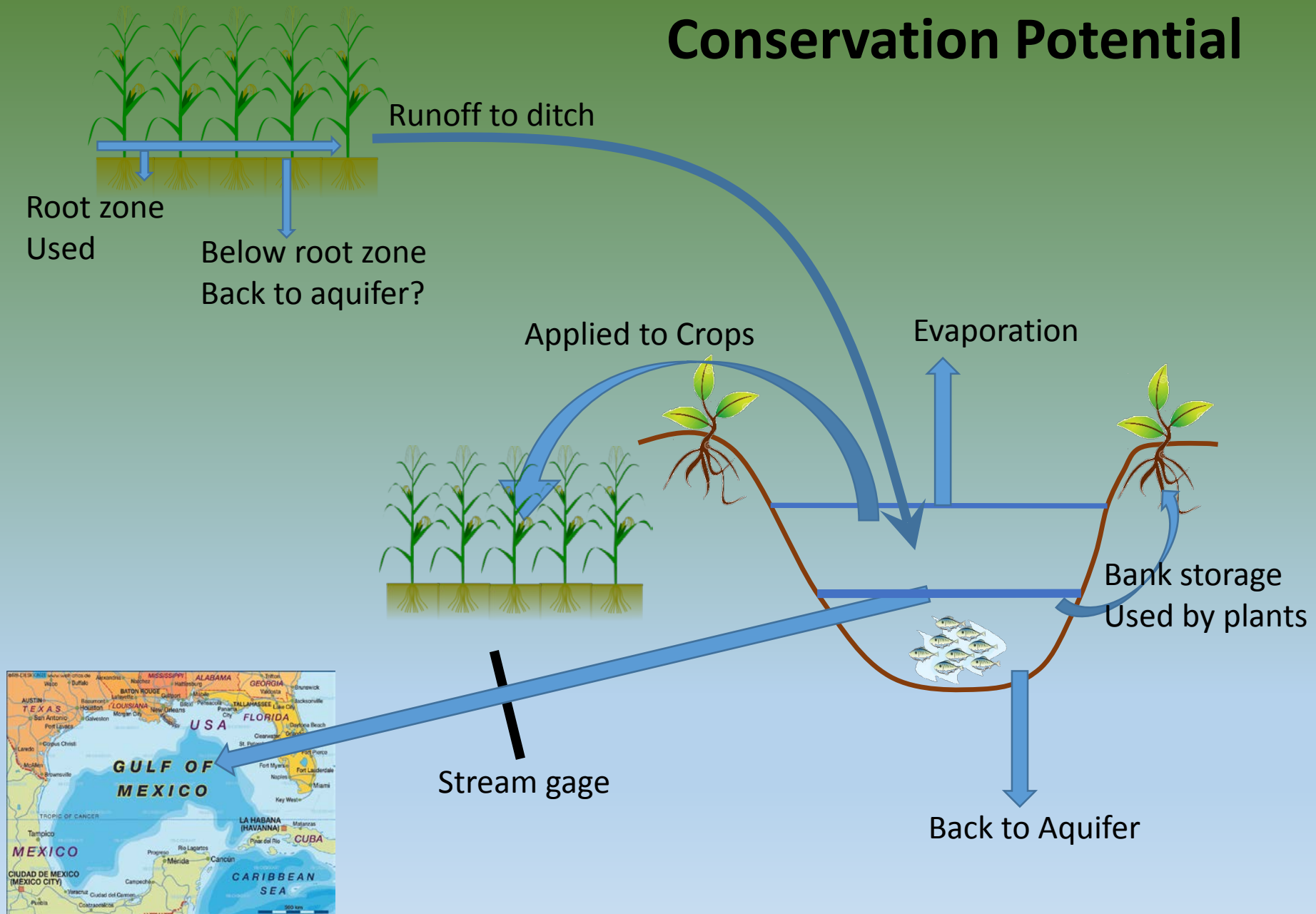
**Lower Mississippi River
has 2 of the top 10
states for irrigated acres**

Top States in Irrigation (millions of acres)

Nebraska	8.3
California	7.5
Arkansas	5.0
Texas	4.5
Idaho	3.5
Kansas	2.9
Colorado	2.3
Montana	1.9
Mississippi	1.7
Washington	1.6

*Source: USDA NASS, 2013 Farm and Ranch
Irrigation Survey (2012 Census of Agriculture).*

Conservation Potential





Groundwater And Surface Water



**Agriculture
And
Environment**

Annual Overdraft

Average = 400,000 acre foot loss per year

