



Climate change, water and freshwater ecosystems

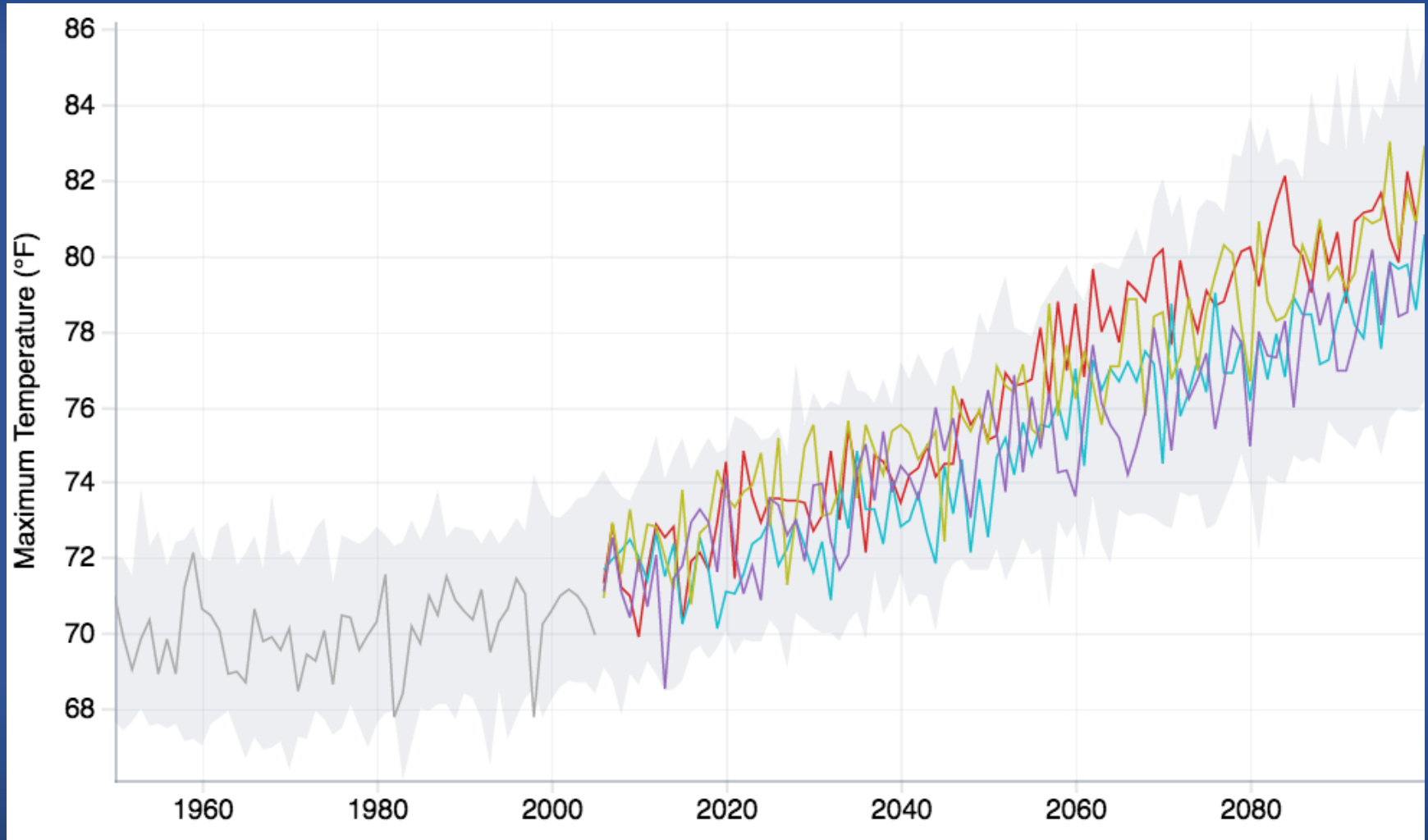
Ted Grantham

UC ANR Climate Change Workshop
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University of California
Agriculture and Natural Resources

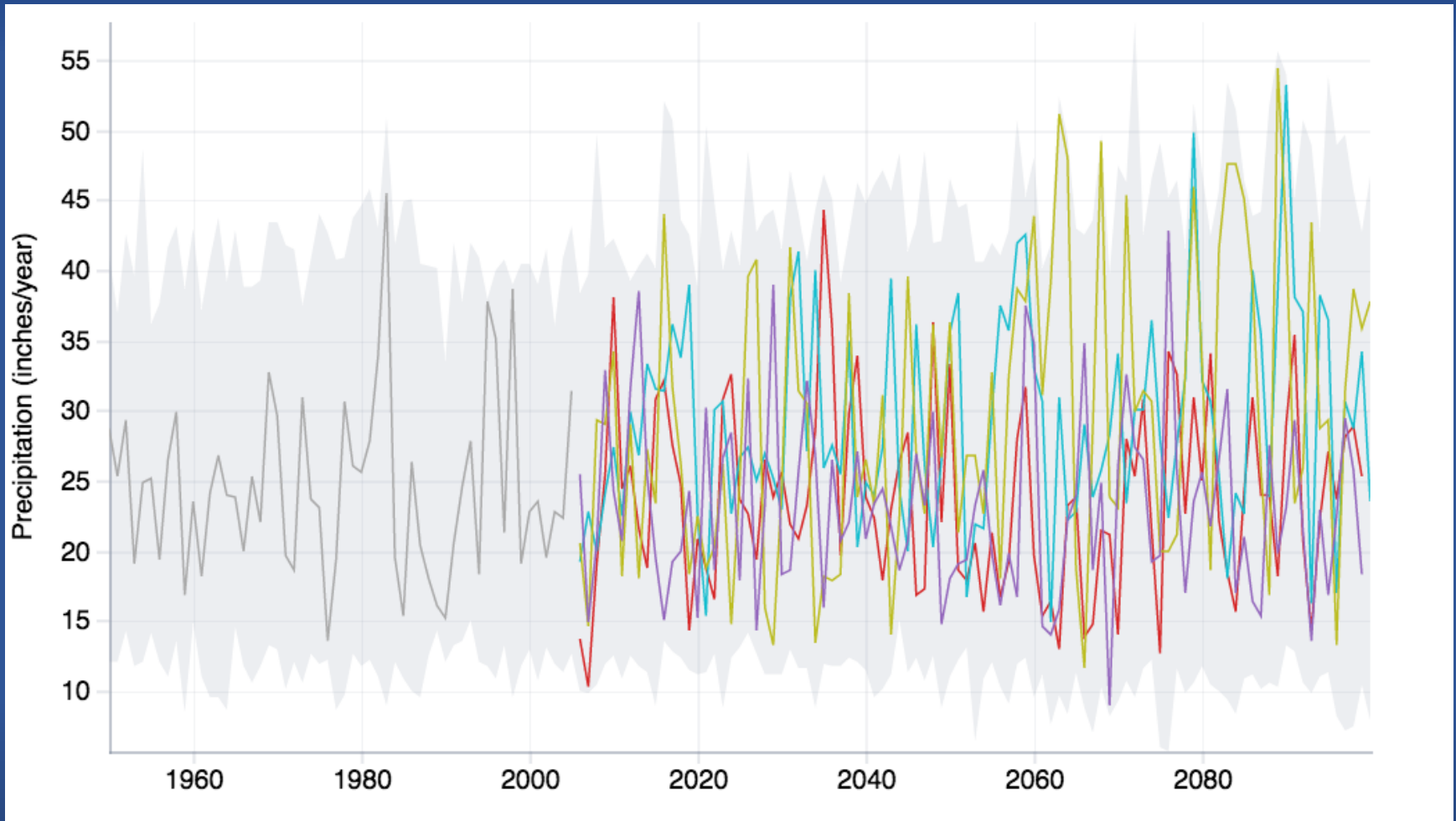
Berkeley
UNIVERSITY OF CALIFORNIA

Maximum temperature projections



Source: Cal-Adapt.org

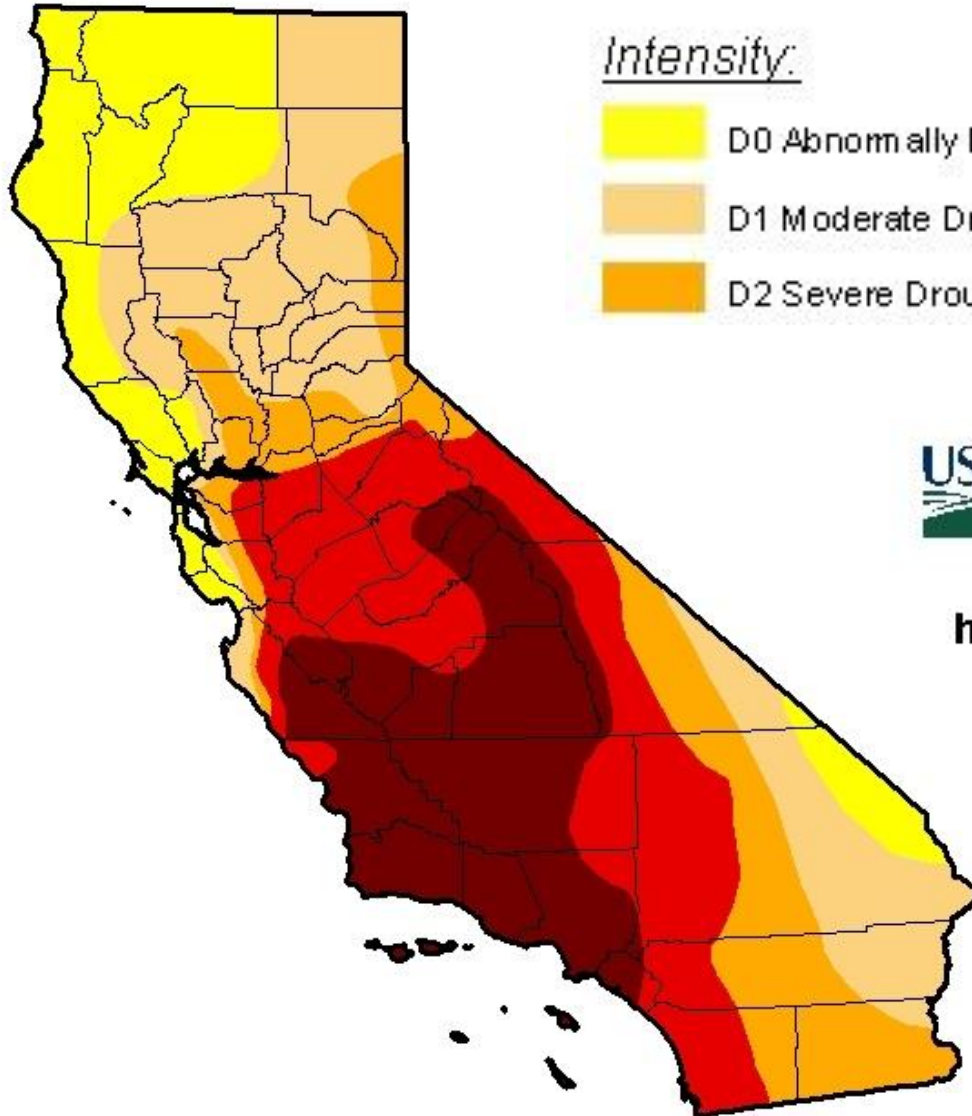
Precipitation projections



Source: Cal-Adapt.org

California

July 12, 2016



Intensity:



D0 Abnormally Dry



D1 Moderate Drought



D2 Severe Drought



D3 Extreme Drought



D4 Exceptional Drought



<http://droughtmonitor.unl.edu/>

2012-2016 as “trial run” for future multi-year droughts





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Jeffrey Mount,
Brian Gray,
Caitrin Chappelle,
Greg Gartrell,
Ted Grantham,
Peter Moyle,
Nathaniel Seavy,
Leon Szeptycki,
Barton "Buzz"
Thompson

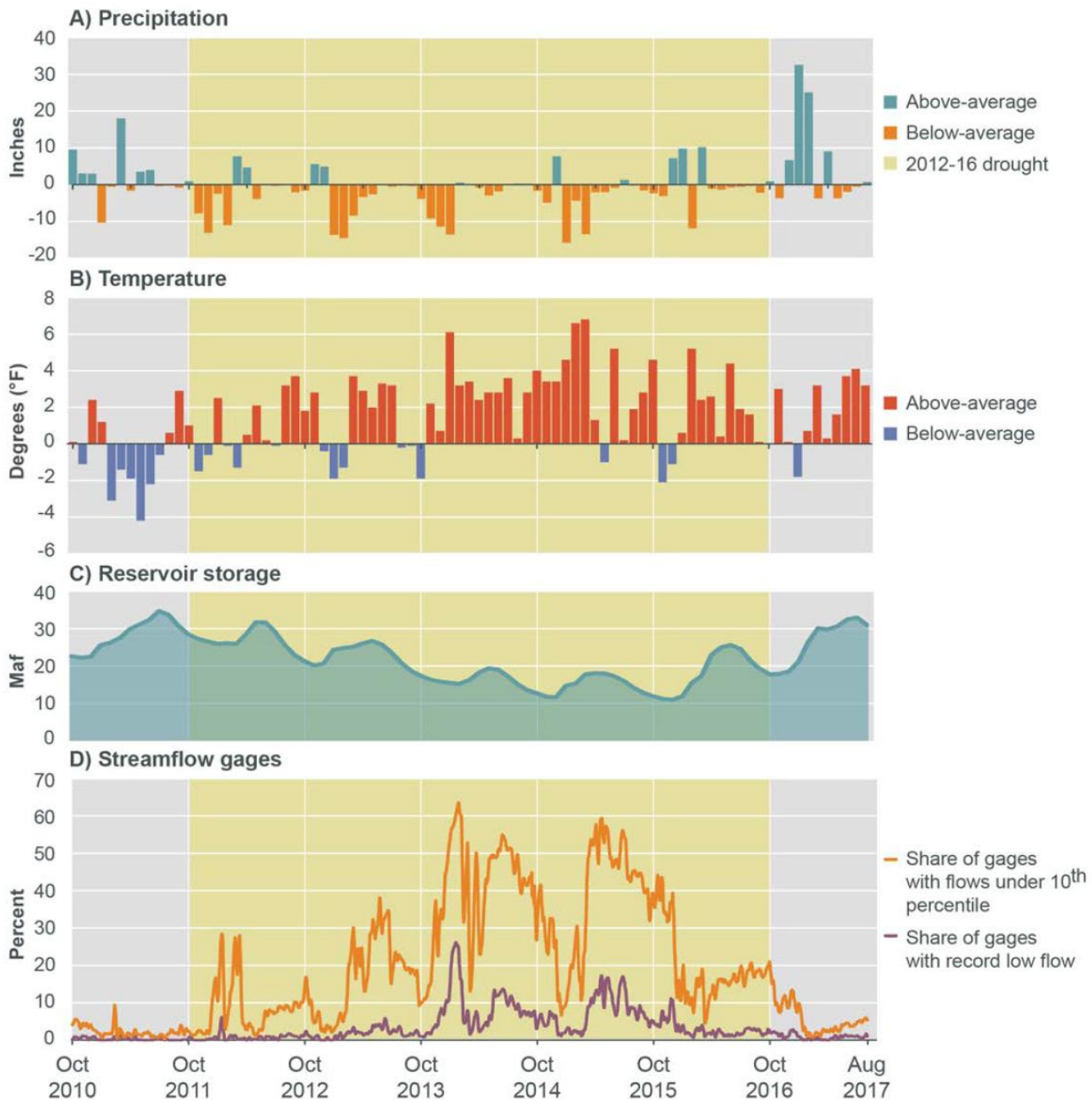
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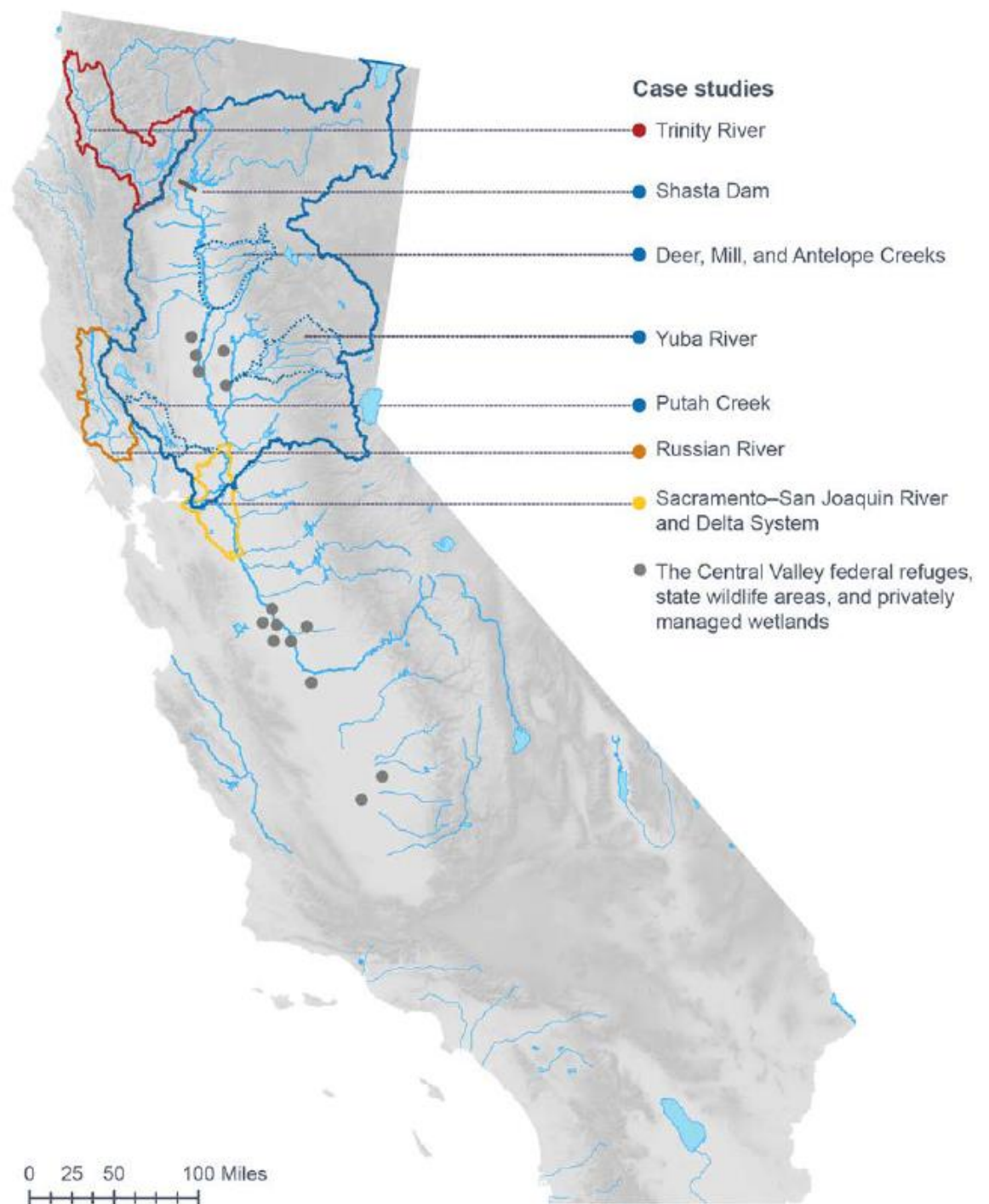
Managing California's Freshwater Ecosystems

Lessons from the 2012–16 Drought





Case studies



Key findings

- Water managers unprepared for the environmental consequences of drought
- Minimum water allocations for the environment were frequently curtailed
- Population declines of sensitive species
- Water allocated for endangered species had limited impact on water supplies
- California's system for tracking water use and availability is inadequate for managing freshwater ecosystems

Conclusion

Climate trends and recent drought offers glimpse into California's future

We recommend policy changes that:

- Strengthen drought planning
- Improve water accounting
- Establish environmental water budgets

A scenic view of a forest stream. The foreground is dominated by dark, moss-covered rocks and patches of brown, dried grasses. The water is clear and reflects the surrounding dense green forest. The background shows a misty or foggy atmosphere, with tall trees and a soft light filtering through the canopy. A semi-transparent black banner is overlaid across the middle of the image, containing the email address.

tgrantham@berkeley.edu