

Water Conveyance and Resilience: Considerations for State Support

October 21, 2020

Ellen Hanak
Senior Fellow and Director, PPIC Water Policy Center
California Water Commission meeting



PPIC

PUBLIC POLICY
INSTITUTE OF CALIFORNIA

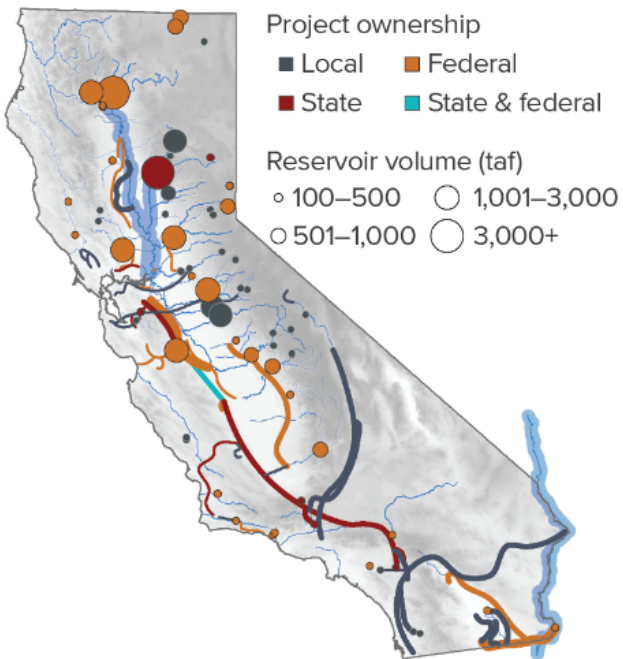
PPIC WATER POLICY CENTER

Top considerations for building water system resilience

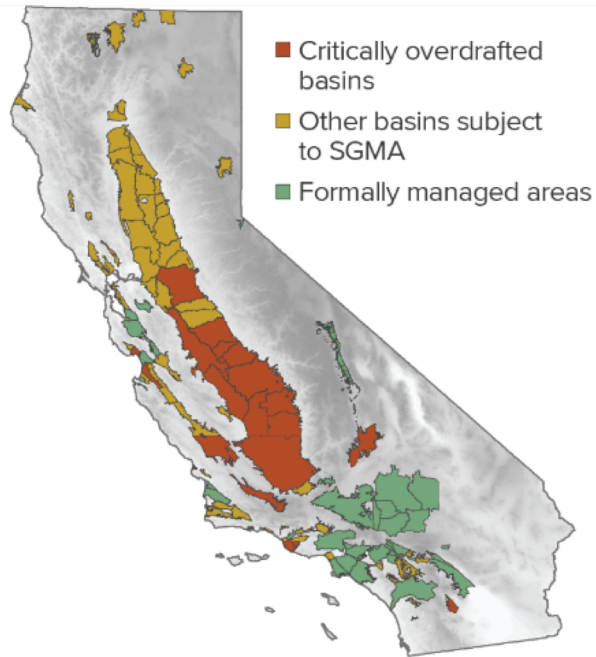
- **Changing climate:** warming, more volatile precipitation, more intense droughts and floods
- **Increasing water scarcity:** especially in overdrafted basins
- **Growing water equity concerns:** safe and affordable drinking water, flood protection

Adapting statewide, regional, and local water grids will be key....

Main above-ground storage and conveyance



Main groundwater basins



Source: Priorities for California's Water, PPIC 2019

...and conveyance is the lynchpin for grid upgrades

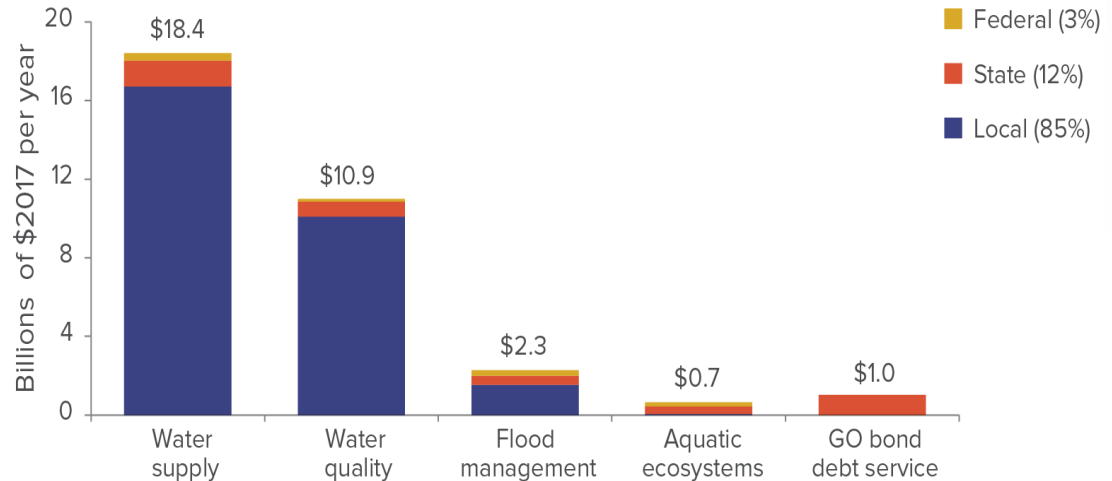
- Adapting to changing water storage and flood risk realities (greater role for groundwater storage)
- Increasing flexibility to manage drought risk (more water trading and banking)
- Addressing inequities in drinking water access, reliability within regions (more interties, consolidations)
- **Investment strategy:** fix what's broken and make smart new investments

Local water users, taxes pay for most water solutions in California

“Fiscal orphans” lack reliable funding:

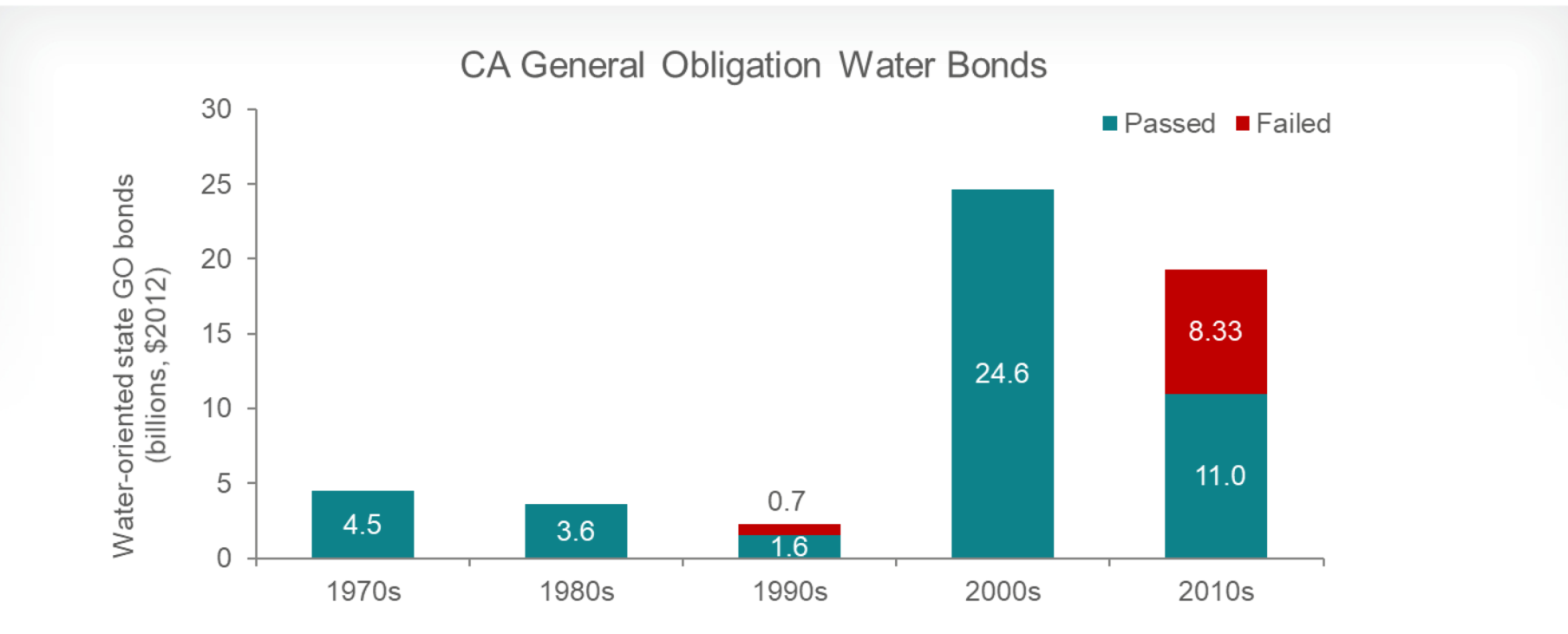
- Poor rural communities
- Flood protection
- Ecosystems
- Collaborative management

Annual water system spending (2014 - 2016)



Source: Hanak et al. [California's Water: Paying for Water](#) (PPIC 2018)

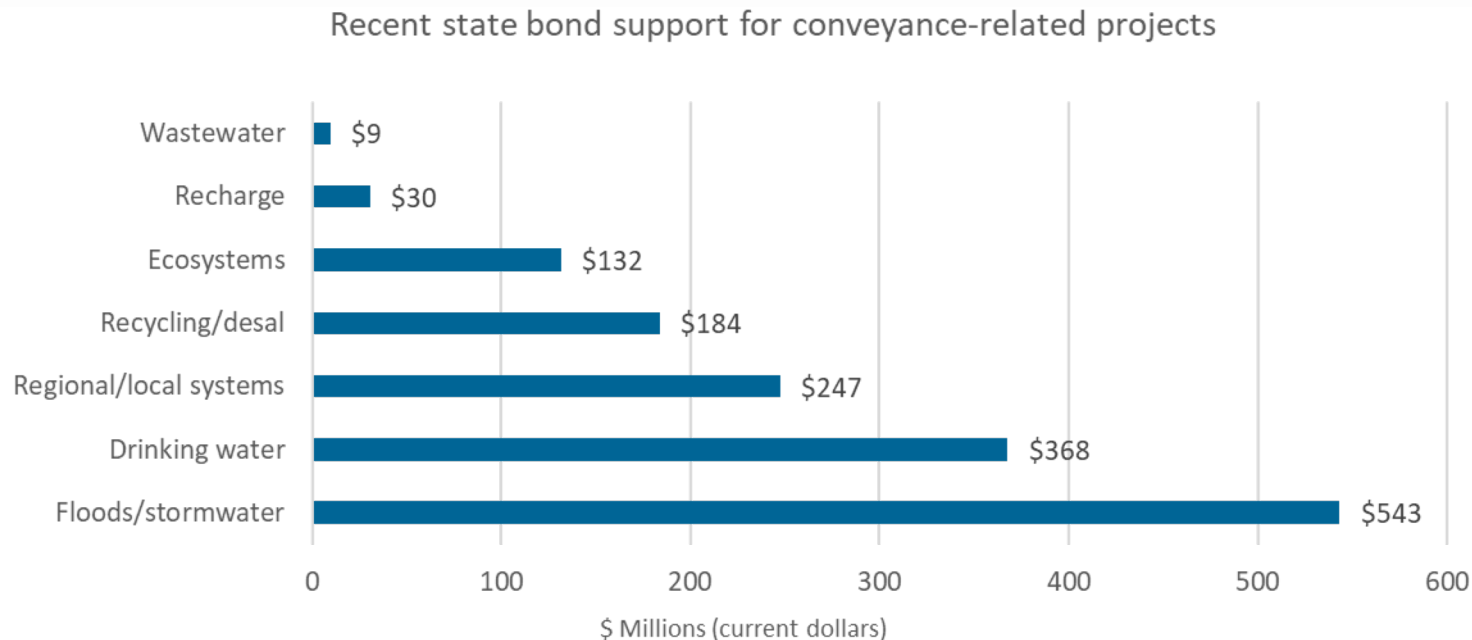
State has used water bonds to help fill gaps—but bonds rarely spend more than \$1B annually



Source: Compiled by PPIC from Department of Finance.

PPIC WATER POLICY CENTER

Since late 2000s, state bonds have funded ~\$1.5 billion for conveyance-related projects



Source: PPIC estimates using DWR bond tracking data for Props 40, 50, 1E, 84, 1, 68—most projects were funded since 2010

How should we pay for smart water grid investments?

- Water users will need to be the main funders
- Other local, regional sources possible too (e.g., land assessments)
- But important to align incentives, avoid leaning on regressive taxes (e.g., sales tax)

What roles for the state?

- Support analysis that sheds light on smart, cost-effective strategies
- Use grants to fill gaps for fiscal orphans, spur innovative collaboration
- Facilitate pooling of resources, low-cost borrowing
- Align regulatory approaches to make it easier to use the grid well



Some principles for building and funding resilience

- Increase **flexibility**
- Develop **incentives**
- Encourage **alignment** across agency programs, requirements
- Promote **multi-benefit approaches**



Notes on the use of these slides

These slides were created to accompany a presentation. They do not include full documentation of sources, data samples, methods, and interpretations. To avoid misinterpretations, please contact:

Ellen Hanak (hanak@ppic.org; (415) 291-4433)

Thank you for your interest in this work.