Uniapped Potential



Innovative water efficiency, water reuse, and stormwater capture approaches for California

CHALLENGE: Mismatch between water supply and water use

ANNUAL URBAN WATER USE



Estimated annual urban water use across California.



That's enough to fill about **3.3 million** Olympic-sized swimming pools.



Urban areas account for **20%** of statewide water use. While the remaining **80%** is for agriculture, urban water solutions can deliver dramatic results.

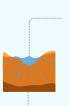
DROUGHT & CLIMATE CHANGE WIDEN THE GAP



The 22-year megadrought in the US West is **the worst in 1,200 years** (Williams et al. 2022).

Droughts are becoming more frequent and severe as climate change intensifies reducing traditional water supplies.

OVERTAPPED WATER SUPPLY

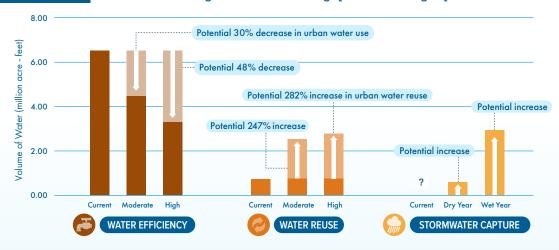


Surface water is overtapped:
The State Water Board estimates that nearly 5 million acre-feet (1.6 trillion gallons) of water is taken out of the Sacramento-San Joaquin River Delta each year beyond what is compatible with a healthy ecosystem.

Groundwater is overdrafted:21 groundwater basins in California are critically overdrafted.

URBAN WATER SOLUTION:

Innovative strategies can narrow the gap, reduce drought pressures, and build resilience



Reduce urban water use through water efficiency improvements



Untapped potential for water efficiency:

- Urban water use could be reduced by 30% to 48%.
- That's a savings of 2.0 million to 3.1 million acre-feet (640 billion to 1.0 trillion gallons) per year.

Here's how:







Boost local water supplies through water reuse and stormwater capture

Untapped potential for water reuse:

- Current estimate of water reuse is 728,000 acre-feet (240 billion gallons) per year.
- Urban water reuse could increase to: 2.5 million to 2.8 million acre-feet (820 billion to 910 billion gallons) per year.



- No statewide estimate of current stormwater captured and reused.
- Urban stormwater capture in areas above public supply aquifers could increase to:
 - 580,000 acre-feet (190 billion gallons) in a dry year to 3.0 million acre-feet (970 billion gallons) in a wet year.



could be more than tripled in California.

(This represents potential net increase between 247% and 282% above current levels.)

THESE STRATEGIES PROVIDE IMPORTANT CO-BENEFITS:











Leading the Way



Communities across California are already implementing these innovative urban water solutions with success!



Rapidly scaled across the state, these solutions can provide shorter-term drought relief and longer-term water resilience for millions more Californians. They can also inspire water decisions across the United States and beyond.



KEY REGIONAL OPPORTUNITIES

All regions of California have the potential to save water through water efficiency improvements and to augment local supplies through water reuse and stormwater capture. Three regions, which are among the most populated in the state, have the greatest volumetric potential for efficiency, reuse, and stormwater capture.



Home to major cities, including Los Angeles and San Diego, the South Coast Hydrologic Region has the greatest potential for all three strategies:

- Water efficiency: 1.1 million to 1.7 million acre-feet (340 billion to 540 billion gallons) of water savings possible per year. That's 50% of the total statewide water savings potential!
- Water Reuse: 1.1 million acre-feet (350 billion gallons) per year.
- Stormwater Capture: 260,000 to 1.4 million acre-feet (84 billion to 470 billion gallons) per year.*



SAN FRANCISCO BAY HYDROLOGIC REGION

- Water efficiency: 0.23 million to 0.39 million acre-feet (73 billion to 130 billion gallons) per year of water savings possible.
- Water Reuse: 500,000 acre-feet (160 billion gallons) per year.
- Stormwater Capture: 85,000 acre-feet to 460.000 acre-feet (28 billion to 150 billion gallons) per year.*



SACRAMENTO RIVER HYDROLOGIC REGION

- Water efficiency: 0.20 million to 0.32 million acre-feet (66 billion to 100 billion gallons) per year of water savings possible.
- Water Reuse: 78,000 acre-feet (25 billion gallons) per year.
- Stormwater Capture: 84,000 acre-feet to 350,000 acre-feet (28 to 110 billion gallons) per year.*

*Urban stormwater potentially available in urban areas above public supply aquifers.



The Pacific Institute is a global water think tank that combines science-based thought leadership with active outreach to build water resilience at the local, national, and international levels. The Pacific Institute report "The Untapped Potential of California's Urban Water Supply" outlines the potential for urban water efficiency, water reuse, and stormwater capture strategies to reduce unsustainable surface water and groundwater withdrawals, part of a broader transition to more resilient 21st century approaches.

