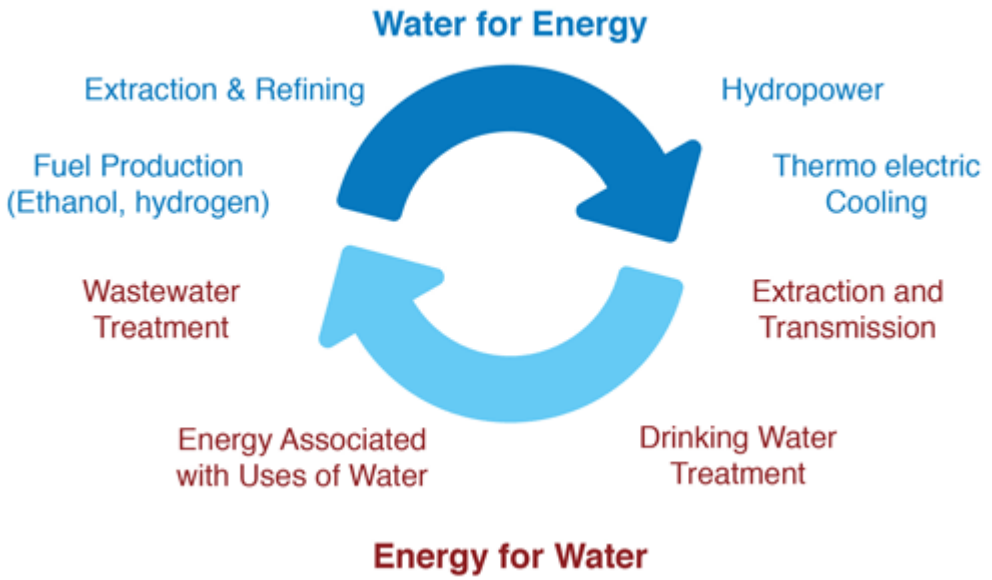
WATER - ENERGY - CLIMATE NEXUS

Water Savings = Energy Savings = GHGs

- End-user energy savings (reduction in the amount of energy needed to heat, cool, and pressurize water in homes and businesses)?
- System-wide/embedded energy savings (reduction in energy used to collect, treat, and deliver water and collect and treat wastewater)
- Hot and cold water energy savings



Alliance for Water Efficiency

Los Angeles Times

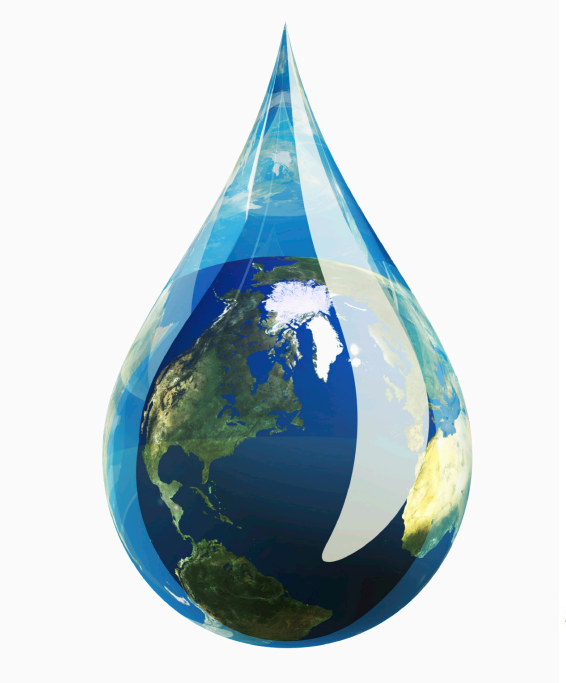
Want to save energy and fight climate change? Try using less water

BY SAMMY ROTH. STAFF WRITER
MARCH 4, 2021

Water Efficiency is Important Even Where Water is Plentiful

- Support for energy efficiency has little to do with “energy scarcity” and preventing brownouts.

- Similarly, water efficiency has multiple benefits that go beyond water scarcity and preventing water restrictions.



Water Efficiency and Conservation:
Important Even When Water is Abundant

Alliance for Water Efficiency

Water efficiency and conservation are typically the fastest and least expensive ways to help ensure that communities and agriculture have access to affordable, sustainaable water supplies. Climate change is fueling hotter, dryer weather, and nearly every state experienced drought in 2022, which was the worst drought in hundreds of years in the Western U.S.

However, water efficiency and conservation offer multiple sustainability benefits beyond keeping the water running, just as energy efficiency does more than keep the lights on. It's time to **de-bunk the common misperception** that water efficiency and conservation are only important in arid regions or when drought sets in.

A brief overview of water efficiency and conservation's other benefits:

Mitigating climate change by reducing energy use and greenhouse gas emissions associated with heating, pumping, and treating water/ wastewater.

Adapting to climate change by making communities more resilient to drought and heavy rain events.

Reducing costs for businesses and supporting corporate sustainability goals.

Making more water available to support healthy stream flows and lake levels for plants and animals.

Reducing the need to build or expand expensive drinking water and wastewater systems.

Limiting nutrient runoff associated with landscape and agriculture.

Helping communities manage water shortages related to water quality problems.

Using technologies that detect leaks to save water and help prevent property damage.

Making water bills more affordable.

Minimizing land subsidence linked to excess groundwater withdrawals.

ALLIANCEFORWATEREFFICIENCY.ORG CHICAGO, IL 773.360.5100 INFO@A4WE.ORG

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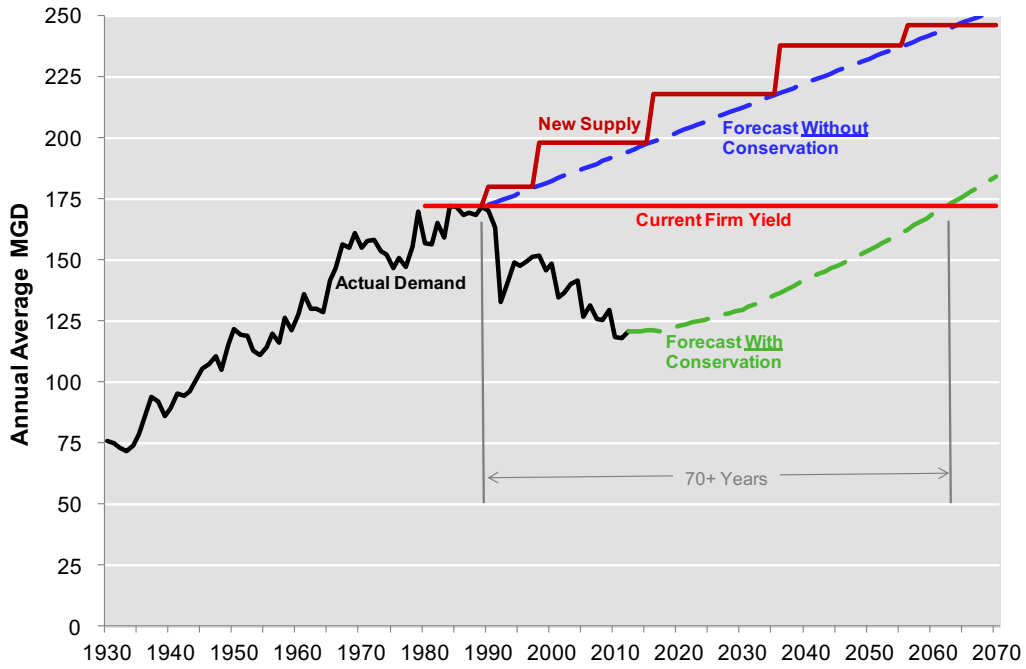
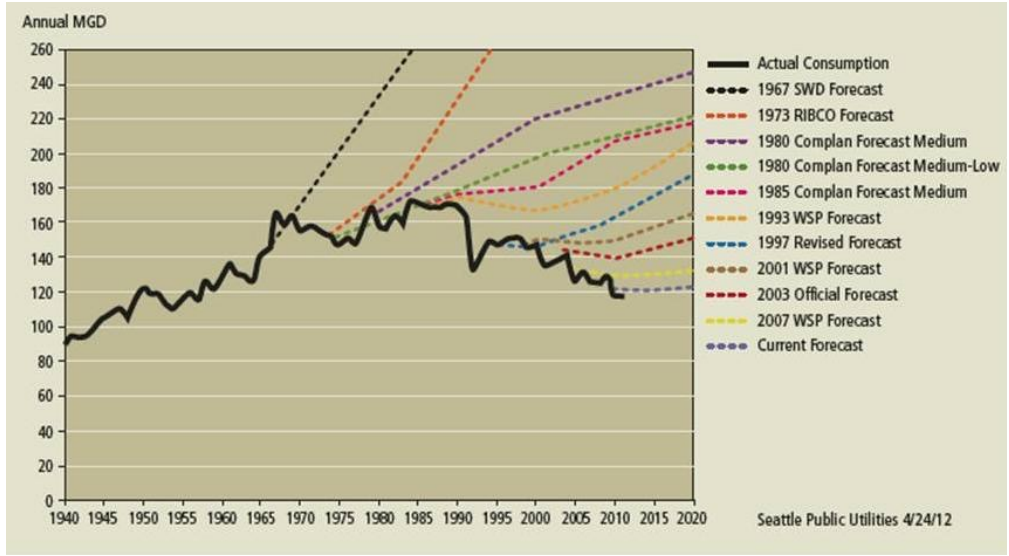
WATER EFFICIENCY
HELPS UTILITIES AVOID COSTS

- Sustained reductions and peak demand mitigation, can help avoid, reduce, or delay new capital costs related to new/expanded water and wastewater infrastructure
- In the short-term, can achieve savings through operational costs, including energy costs
- Can also achieve long-term cost benefits from less water entering the wastewater and/or stormwater systems

Example: Seattle Public Utilities, $75M in conservation and efficiency avoided $800M in new supply costs
Credit: Bruce Flory, Seattle Public Utilities



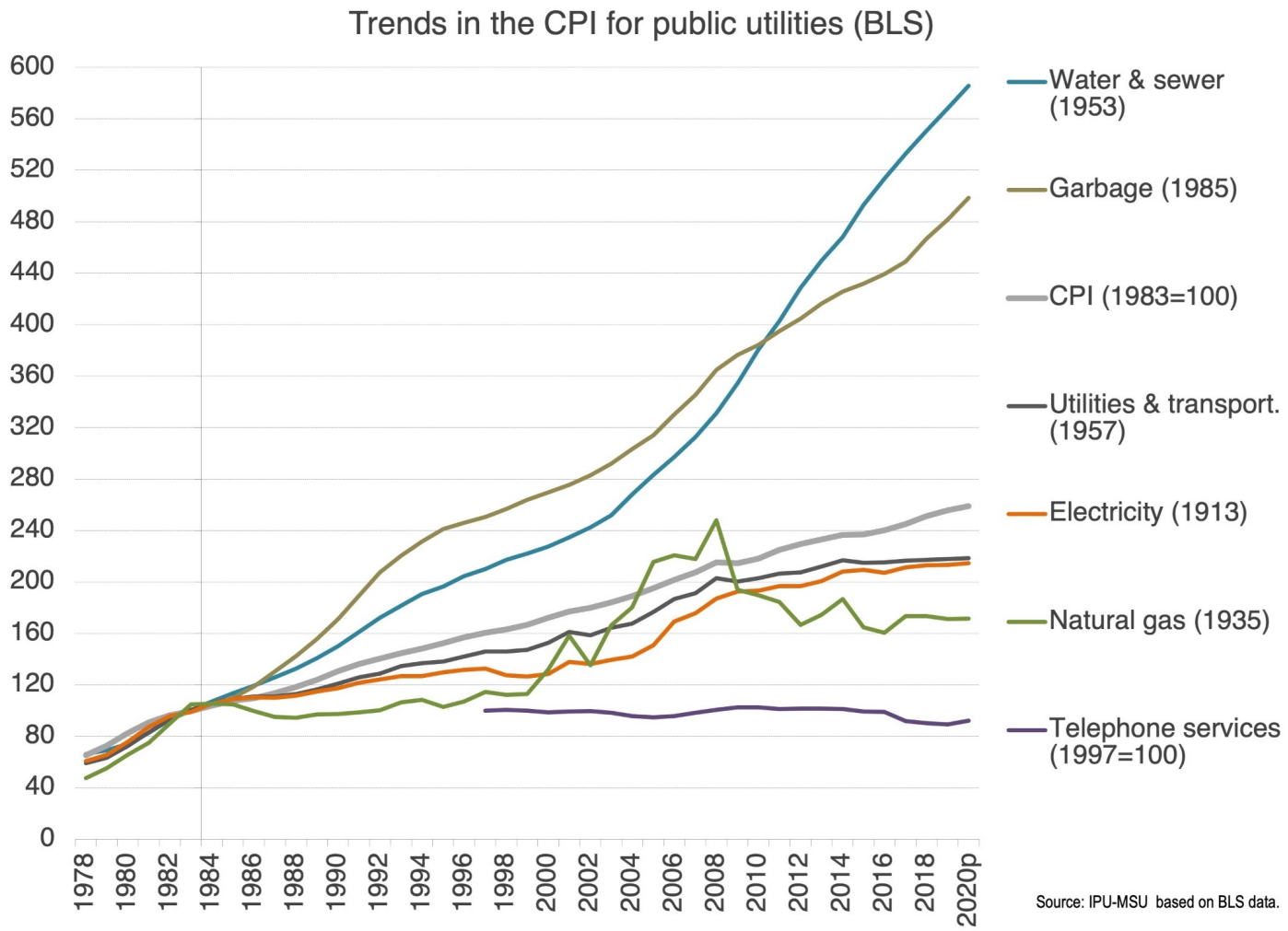


WATER EFFICIENCY: AVOIDED COSTS, LOWER BILLS

	Avoided Costs	And bills are…
Westminster, CO	$592M	47% lower
Tucson, AZ	$244M	12% lower
Gilbert, AZ	$344M	6% lower
Los Angeles, CA	$11B	27% lower

https://www.financingsustainablewater.org/water-efficiency/when-everyone-conserves-everyone-saves

"BUT WATER IS MUCH CHEAPER THAN ENERGY => LESS INCENTIVE TO BE EFFICIENT" THAT IS CHANGING



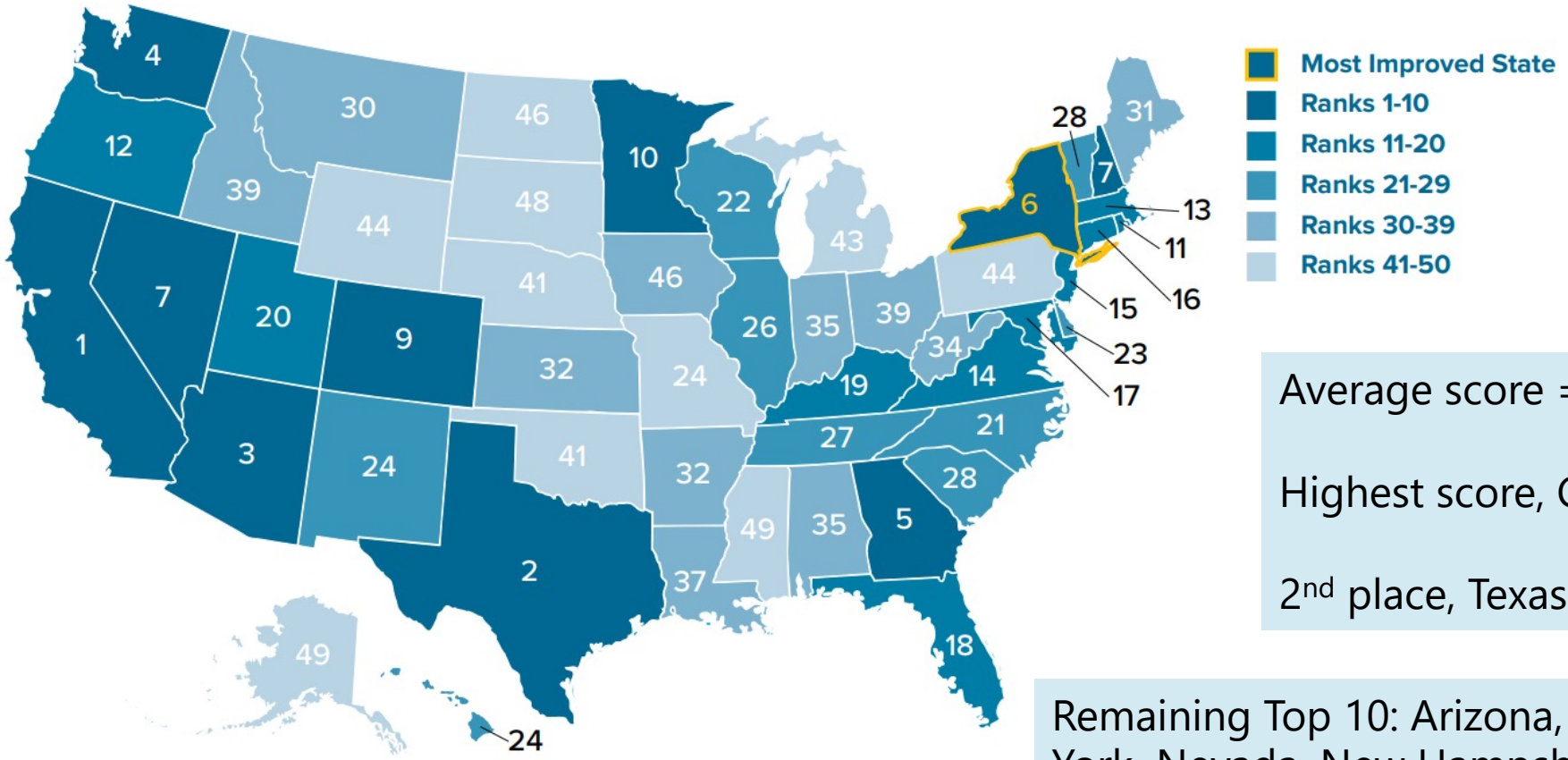
Source: IPU-MSU based on BLS data.

www.allianceforwaterefficiency.org/2022Scorecard

NEW!1-50 STATE RANKING

2022 State Rankings Map

*States with the same score are tied for that ranking



Average score = 23 out of 89 possible points.

Highest score, California = 72.5 points.

2nd place, Texas = 54.5 points.

Remaining Top 10: Arizona, Georgia, Washington, New York, Nevada, New Hampshire, Colorado, and Minnesota .