Water Resilience

Resilient & Scalable Water Systems in an Energy-Constrained & Uncertain Water Future—A Berkeley Lab Initiative

BERKELEY LAB

Berkeley Lab recognizes that water and energy are highly interdependent systems where vulnerabilities in one will affect the other. To optimize water systems in an energy-constrained and climate-uncertain future, such as the California drought, we need to move towards science-driven water management practices. Building on its historic strength of team science in tackling complex challenges that require integration of varied expertise, Berkeley Lab is setting out to develop knowledge and approaches to guide optimized investments in water-energy systems and infrastructure. Technical experts and working groups from different Areas across the Berkeley Lab, are leading these efforts for a new initiative called, Water Resilience which comprises of three research themes.

Research Themes
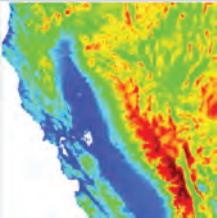
Hydroclimate Predictions—Provide hydroclimate and ecosystem predictions at scales to understand water distribution and to guide actionable California water strategies.

> **Andy Jones | ADJones@lbl.gov | Earth & Environmental Sciences**

Sustainable Groundwater Systems—Approaches to enable safe, efficient and sustainable groundwater storage and beneficial use of produced water at scale.

> **Peter Nico | PSNico@lbl.gov | Earth & Environmental Sciences**

Next Generation Desalination—Desalination at parity – with reduced cost by 5x and energy use by 3x compared to conventional methods – through new water generation technologies.

> **Robert Kostecki | R_Kostecki@lbl.gov | Energy Technologies**

EESA-16-SEP-V1

For more information contact our Research Theme Leads or go to http://WaterResilience.lbl.gov

EARTH & ENVIRONMENTAL SCIENCES

ENERGY TECHNOLOGIES AREA