









# ACCELERATING BREAKTHROUGH TECHNOLOGY AND DRIVING INNOVATION FOR A SECURE WATER FUTURE

#### **WHO WE ARE**

The United States (U.S.) Department of Energy's National Alliance for Water Innovation (NAWI) is the largest federal investment in water treatment, desalination, and water reuse since the 1960s. NAWI is a research and development program that brings together an extensive community of researchers and scientists in industry, academia, and national labs, as well as stakeholders in federal, state, and local governments, water users, entrepreneurs, investors, advocacy groups, and more. Together, this NAWI Alliance is converting unconventional water sources into secure, desalinated water supplies at a cost equivalent to other available water sources.



### THE CHALLENGE

The U.S. faces many challenges on the road to sustainable water security, including climate change shocks and stressors, changing consumption patterns, increasing pollution, and depletion of water sources. It is essential for the U.S. to find and tap alternative water sources such as agricultural, urban, and industrial wastewater and conventionally unusable brackish (or salty) sources. Desalination technologies can also help to build a modern infrastructure that equitably delivers water to every sector of our economy.

# **OUR VISION AND GOALS**

NAWI aspires to develop a circular water economy by supporting water reuse and valorizing constituents we currently consider to be waste. The program is designed to accelerate breakthroughs in technologies that can convert nontraditional water sources into clean, usable, and affordable water supplies for all. NAWI-supported research contributes to the decarbonization of the water and wastewater sectors through investments in technologies that enhance the efficient use of energy in the use, treatment, and distribution of water.

nawi-info@lbl.gov • www.nawihub.org





U.S. DEPARTMENT OF ENERGY

### WHAT WE DO – OUR FOCUS AREAS



#### Data, Modeling, and Analysis

of nontraditional water sources as well as water treatment materials, processes, and treatment trains to demonstrate the cost and energy impacts of our innovations, and collect shareable data that impacts that broader water community.



#### **Process Innovation** and Intensification

to develop novel and intensified water treatment processes and autonomous adaptable water systems.



#### **New Materials and Manufacturing**

methods for advanced water desalination and reuse systems to optimize energy use and cost.

## AT-A-GLANCE



# 430+ Organizations

Partner organizations include water research facilities such as the Brackish **Groundwater National Desalination** Research Facility; nonprofits such as the Water Research Foundation; universities such as Stanford; government organizations such as the Metropolitan Water District of Southern California; and laboratories such as Argonne National Laboratory.



### 1400+ Members

NAWI Alliance members enjoy exclusive access to research results, industry developments, and opportunities to directly connect with leaders in water treatment technology research and development. Members are also provided with access to a range of member-only activities, including webinars, conferences, and an internal networking website.



# **40+ Projects**

NAWI's robust research portfolio spans analysis for water-energy grid integration to development of sensors, models, and adaptive process controls for resilient operations. All projects are competitively selected and funded through requests for proposals (RFPs) that focus on A-PRIME-C, or Autonomous, Precise, Resilient, Intensified, Electrified, and Circular.

# CONTACT



**Iennifer Berrie** NAWI Alliance Manager

jennifer.berrie@nrel.gov (303) 275-3629 (970) 215-1324



**Peter Fiske** Executive Director

jpfiske@lbl.gov (415) 309-0336



**Matthew Ringer** Partnerships Director

Matthew.Ringer@nrel.gov (720) 320-3205

nawi-info@lbl.gov • www.nawihub.org







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**BERKELEY** 





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