



SOURCE Overview
Water & Natural Resources Committee
8.27.24

SOURCE GLOBAL

Certified Public Benefit Corporation

Founded in 2014 from research
conducted at Arizona State University

Mission to make clean drinking water
an unlimited and renewable resource



Nearly 97% of New Mexico is in some kind of drought

NM officials distributing water to Las Vegas residents; non essential businesses closed

Floods on 2022 Hermits Peak Calf Canyon burn scar prompt Las Vegas water crisis

Agriculture built these High Plains towns. Now, it might run them dry.

As the Ogallala Aquifer dwindles, rural towns try to keep their sole water source.

When PFAS hits home: Poisoned wells in La Cieneguilla

SOLAR ATMOSPHERIC WATER HARVESTING (SAWH)

UTILIZING NEW MEXICO'S ABUNDANT SOLAR RESOURCES
TO ACCESS THE CONSTANTLY REPLENISHING
SUPPLY OF WATER VAPOR IN THE AIR
TO PROVIDE DRINKING WATER WHEREVER IT IS NEEDED

MEET THE SOURCE HYDROPANEL

Makes, stores and dispenses clean, mineralized water



Drinking water from
sunlight and air



Self-contained,
durable design



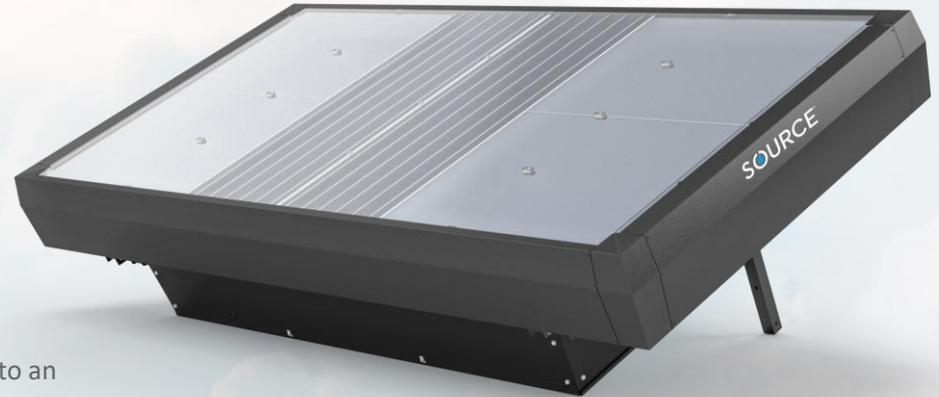
Delivers water directly
to tap or faucet



Cloud-connected for monitoring
& optimization

HOW DOES THE SOURCE HYDROPANEL WORK?

- 1** Fans powered by an onboard solar module draw air over a hygroscopic material that's efficient at attracting and absorbing water molecules
- 2** Using the sun's energy, the water that has been stored in the hygroscopic material is respired as water vapor inside the panel
- 3** Water vapor inside the panel is increased in concentration until it has a dew point above the ambient temperature, causing condensation, which is collected in a reservoir
- 4** Sterilization occurs in the on-board reservoir then water is plumbed to an external pressurized tank where it is mineralized prior to being dispensed
- 5** Digital sensors give us real-time operation data for every panel connected to a digital network, or accessed locally at the panel level



SOLVING WATER CHALLENGES: INDIVIDUAL HOMES TO ENTIRE COMMUNITIES

RURAL & WATER-STRESSED
COMMUNITIES



SCALED RESIDENTIAL



HOSPITALITY



REMOTE WORKSITES



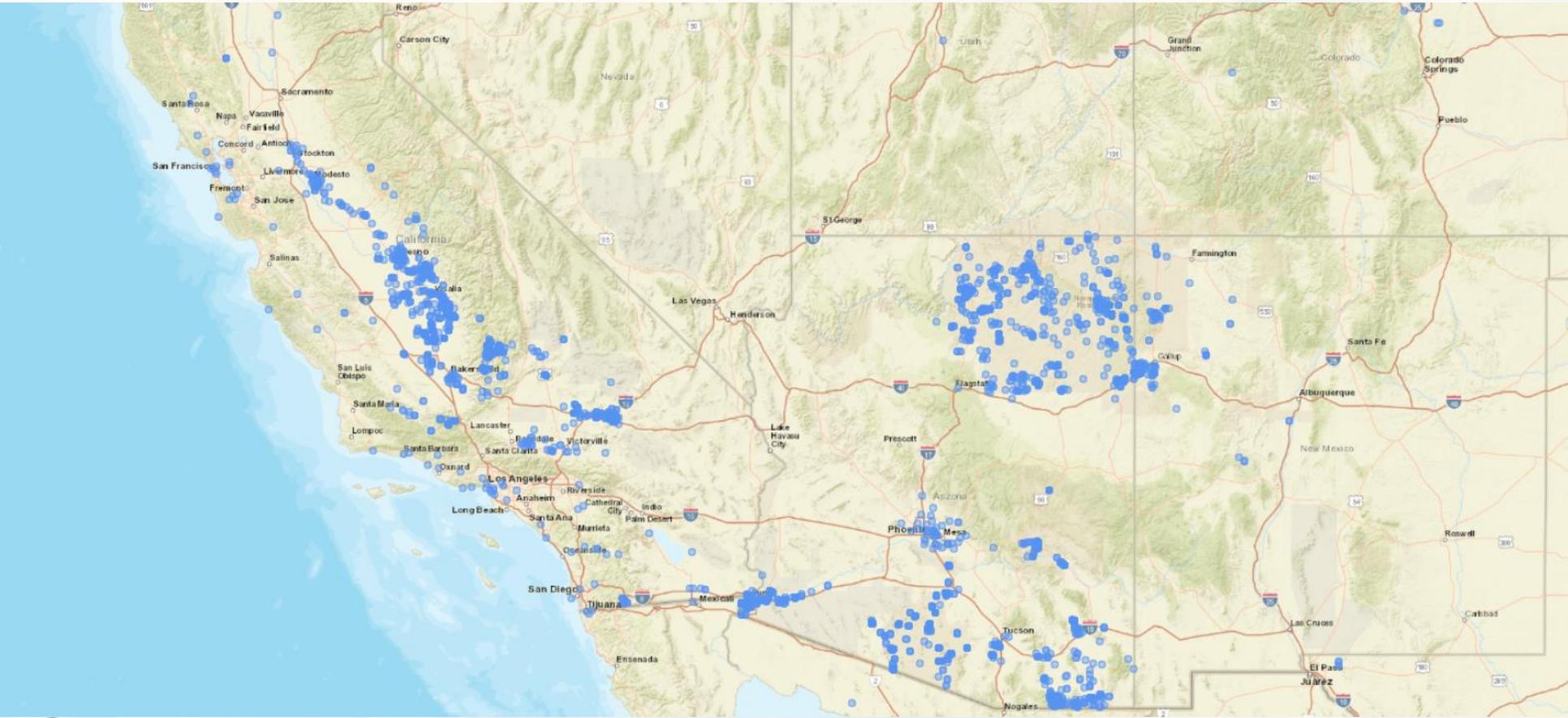
COMMERCIAL



SCHOOLS



OVER 3,000 HOMES DRINKING SOURCE WATER ACROSS SOUTHWEST



SERVING HOMES WHERE SAFE WATER IS OUT OF REACH

The Navajo Nation

CHALLENGE

An estimated 15 percent of the homes on Navajo Nation do not have piped water connections. The rural terrain and sparse population in many areas makes extending water lines economically challenging and abandoned uranium mines have contaminated many groundwater sources. Drought, made worse by climate change, is making clean water supplies even more difficult to find.

SOLUTION

SOURCE has partnered with the Navajo Nation Department of Water Resources and trained over a dozen local technicians to equip over 1,000 remote families with Hydropanel drinking water systems. This collaboration is bringing clean, safe drinking water into the homes of many families for the first time and improving health, security, and opportunity.

[Video](#) [In the news](#)

“As a community and as a Nation, we have to embrace technology, and I’m grateful for this project, because these folks have drinking water, every day. It’s needed. It’s needed all over the Reservation.”

JERRY WILLIAMS, FORMER LECHEE CHAPTER PRESIDENT



SOLVING A CENTURY-OLD WATER QUALITY ISSUE BY TAPPING THE SKY

Tulare County, California

CHALLENGE

Allensworth has been plagued by arsenic in its water for more than 100 years, with contamination sometimes rising 60 percent above safe levels. New infrastructure is out of reach for this disadvantaged community, forcing residents to travel to the next county to buy drinking water in single-use plastic bottles.

SOLUTION

SOURCE® Hydropanels installed on homes and at the community center are providing the people of Allensworth safe, high-quality drinking water for the first time in decades, and SOURCE technology is now part of the local school's STEM education curriculum.

[Video](#) [In the news](#)

“ With the resilience and vision of the people here, we are taking control of our future and ensuring that we consider all sustainable and regenerative processes in our decision making. SOURCE® Hydropanels fit into the community's plans for a viable option for the delivery of sustainable drinking water.”

KAYODE KADARA, COMMUNITY LEADER

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ENSURE CLEAN DRINKING WATER ACCESS TO ALL NEW MEXICANS

- Increase climate resiliency and public health while decreasing contamination risks, groundwater use & plastic waste
- Existing local interest to utilize solar atmospheric water harvesting from rural NM communities, municipalities, Tribes, and State agencies
- Need enabling policies & programs to empower local communities to utilize this strategy to ensure access to clean drinking water





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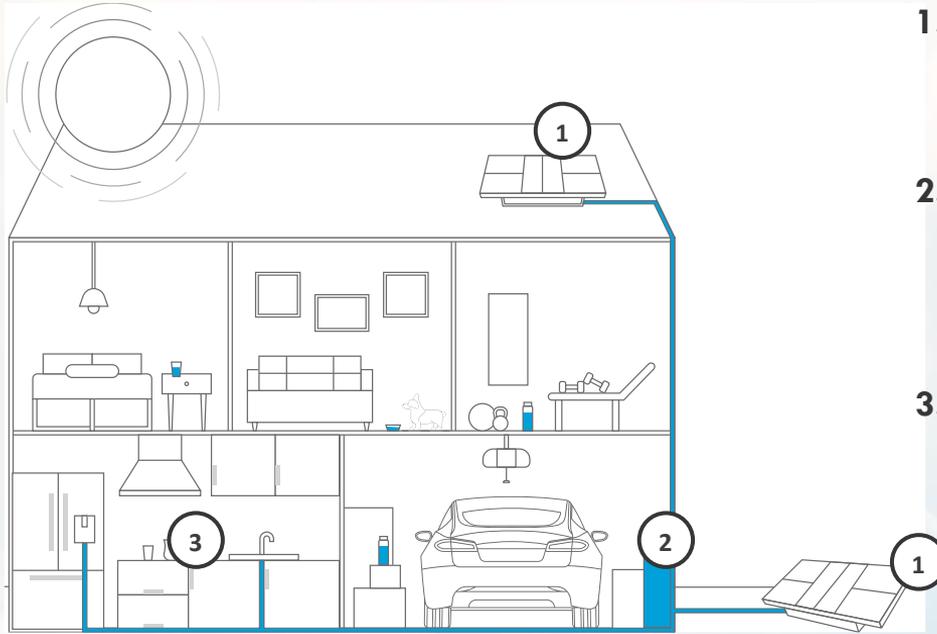
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HOW SOURCE WORKS FOR HOMES

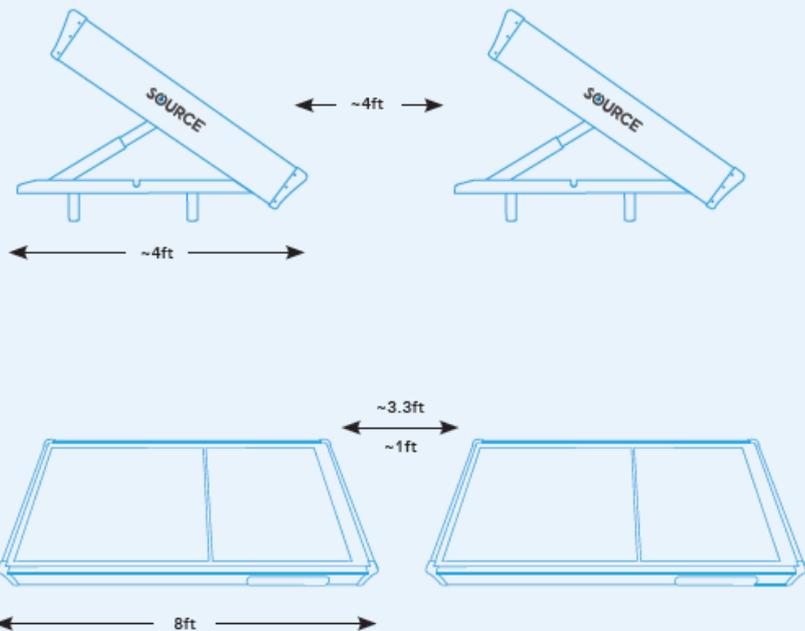
With multiple configurations available, the SOURCE team meets the needs of any home or community



- 1. Harnessing sunlight and air:** SOURCE Hydropanels are located in a sunny area on the on the roof or on the ground next to a residence
- 2. Storing water:** As water is produced, it will flow through flexible piping to a water reservoir located inside the residence. Reservoirs are available in multiple sizes and configurations.
- 3. Convenient ways to enjoy:** The reservoir can be connected to your refrigerator, sink, wall, or counter-top dispenser for the most convenient in-home drinking water experience.

INSTALLATION

BASIC ARRAY DIMENSIONS



SPECIFICATIONS

Dimensions: 4ft x 8ft x 8.5in

Lifespan: 15 years

Weight: 455 lbs (Field) - 475 lbs (Small arrays)

Sterilization: Provided by accompanying SAS Solution or Commercial Reservoir (or onboard for small arrays)

Mineralization: Provided by accompanying SAS Solution or Commercial Reservoir (or under-sink cartridge for small arrays)

Operational Angles: 5° to 45° from horizontal $\pm 5^\circ$ zenith mounting tolerance

Ambient Operating Range: Minimum 41F, Maximum 85% Relative Humidity

Ambient Survivability Range: Maximum 131F, Maximum 100% Relative Humidity

HYDROPANEL DECIBEL RATINGS

Sound Rating (dBa)

Semi Anechoic chamber @16ft

Daytime – 60 dBa

Nighttime – 60 dBa