





#### The Nevada Water Initiative:

Advancing Understanding of Groundwater Availability and Management Across Nevada

> Joint Interim Standing Committee on Natural Resources May 10, 2024

#### Presented by:

Adam Sullivan, P.E., State Engineer

#### **BACKGROUND**

- 1939: groundwater in state law; nearly full appropriation of surface water; improvements in well technology
  - New development of water in the state dependent on groundwater sources
- 1945- 1970: Legislature authorized the State Engineer to conduct statewide investigations of groundwater cooperatively with USGS and NDCRN
- This initial investment yielded substantial returns, saving the state significant long-term costs.

### CHALLENGES IN GROUNDWATER MANAGEMENT

- Escalating economic growth and development pressures
- Questions about the reliability of aging science
- Concerns about potential overuse or improper use of this critical resource
- Nevada needs to update the baseline science to meet current and future needs using contemporary data and advanced scientific methods.

### THE NEVADA WATER INITIATIVE

- In January 2023, Nevada authorized \$6,400,000 in ARPA (Water/Sewer/Lead) funds to launch NWI.
- Collaboration with the United States Geological Survey and Desert Research Institute provides access to impartial experts with no vested interest.
- Updates baseline science and improves understanding of groundwater availability.

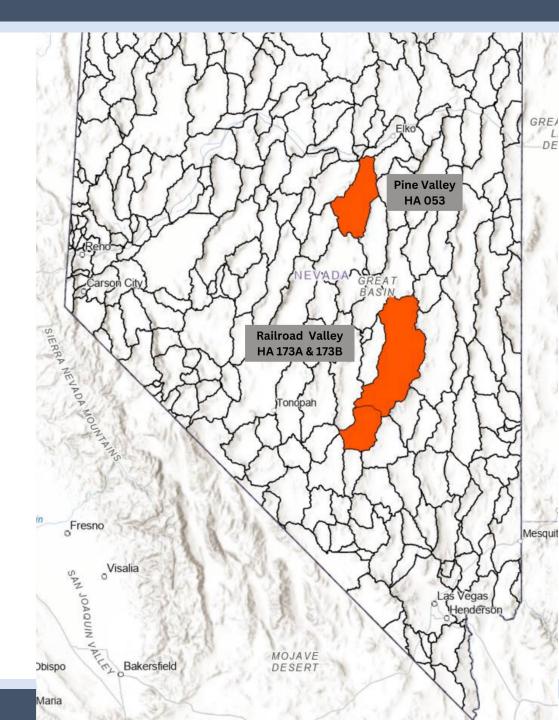
Nevada Investment Breakdown (displayed in millions)			
Partner	ARPA	Match	Total
DRI	\$ 3.2	\$ 1.4	\$ 4.6
USGS	\$ 3.2	\$ 1.4	\$ 4.6
Total	\$ 6.4	\$ 2.8	\$ 9.2

#### **BUILDING THE TOOLBOX**

- Developing methodologies and statewide datasets for:
  - ✓ groundwater recharge
  - ✓ groundwater discharge
  - ✓ interbasin flow
- Building on proven watershed-scale methods across diverse hydrographic basins and regions.
- Applying identified methods to Demonstration Basins to demonstrate their utility.
- Publishing results and toolbox in Water Resources Bulletin reports.

# **DEMONSTRATION BASINS**

Pine Valley – HA 053 Railroad Valley – HA 173A & 173B

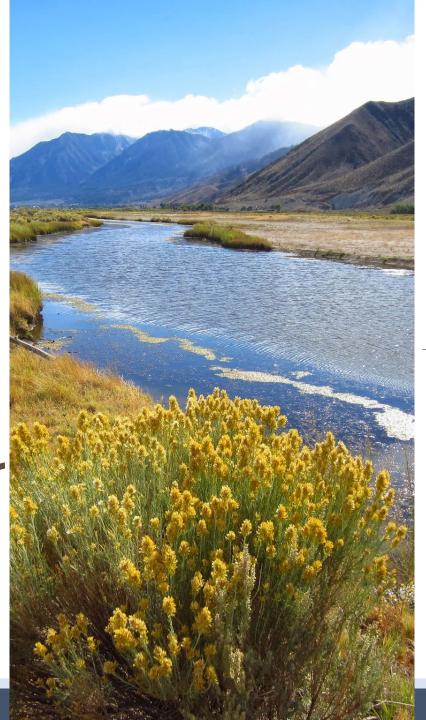


## **NWI's FOUNDATIONAL ROLE IN WATER MANAGEMENT**

- NWI is essential for:
  - ✓ Understanding groundwater consumptive use
  - ✓ Developing water budgets
  - ✓ Ensuring water availability for municipal, agricultural, and industrial uses
  - ✓ Safeguarding future public health and economic prosperity
- Future phases of the initiative will expand the developed scientific methods to additional priority groundwater basins or regional flow systems.
- NDWR is actively seeking funding for future implementation phases - currently funded through CY 2026.

### WATER SECURITY: A TOP PRIORITY FOR NEVADA

- Nevada is the most water-limited state in the nation.
- Investment in forward-looking water resource management is essential.
- Prioritizing water security through proactive management and leveraging NWI's expertise is crucial for sustaining Nevada's future.



# Contact

Adam Sullivan, State Engineer Division of Water Resources

Phone: 775-684-2800

Email: asullivan@water.nv.gov