



NEVADAVIEW 2023 - 2024

AmericaViewSM
Empowering Earth Observation Education
americaview.org

NEVADAVIEW 2023 - 2024 ACTIVITIES

In 2023/2024 NevadaView held a logo contest and adopted its logo. The winner of the competition was Ms. Hannah Potts, an undergraduate at the time in the Department of Geography at the University of Nevada Reno. The logo uses a statewide composite of 2020 Landsat imagery displayed using (shortwave infrared, near-infrared, and red band combinations).

NevadaView now has a website! The website is hosted by the College of Agriculture, Biotechnology, and Natural Resources at the University of Nevada. Please take a moment to check out our website at <https://naes.unr.edu/nevada-view/>.

NevadaView focuses on 1) advancing Earth observation education through remote sensing science, 2) applied research, 3) workforce development, and 5) community outreach. We provide community outreach through the slow development of a web-based agricultural atlas. We conduct applied research and the advancement of Earth observation education through grants to graduate and undergraduate students who conduct remote-sensing-based research in Nevada and the Great Basin.



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In 2023/2024 NevadaView began working on NevadaAtlas and some maps have been made available through ArcGIS Online (search for NevadaAtlas). We look forward to more datasets coming online during 2025.

In 2023/2024 NevadaView dispersed scholarships for three graduate students and one undergraduate student. Congratulations to our contest winners!

- 1) Mr. Weylin Gilbert, PhD candidate and the NevadaView graduate research associate mapping the groundwater resources of the state of Nevada using the GRACE satellite.
- 2) Ms. Sydney Cochran, PhD candidate, is using NASA's ECOSTRESS sensor to conduct "Thermal RS of Evapotranspiration across the Great Basin"
- 3) Mr. Carson Browder, undergraduate, who is assisting the "Seasonal Targeted Grazing Project: "Fuel Loads Reduction of an Annual Invasive in Northern Nevada"
- 4) Mr. ConTuarius Walker, MS graduate student, who is "Mapping Belowground Biomass in Sagebrush Steppe using GPR and Satellite Radar"

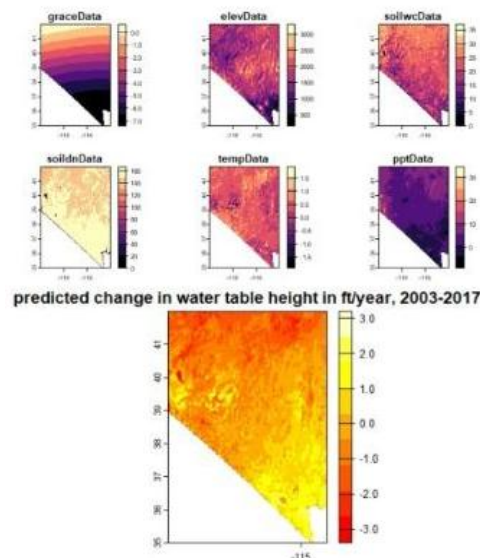
NevadaView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. AmericaView is funded by USGS grant agreement G23AP00683.

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BENEFITS TO NEVADA

- In November NevadaView organized a session at the Nevada GIS (NGIS) conference in Reno in which we brought together speakers from the Desert Research Institute, the University of Nevada Las Vegas, the University of Nevada Reno, and Vibrant Planet to present projects related to remote sensing and academic uses of GIS.
- Mr. Gilbert, NevadaView's Graduate Research Assistant, presented our research utilizing NASA's GRACE and GRACE-FO satellite missions to map and investigate the trend and connectivity of Nevada's groundwater resources at the Nevada GIS Annual Conference in Reno, NV and the International Association for Landscape Ecology (IALE) annual meeting in Oklahoma City, OK. Groundwater is a critical resource in the nation's most arid state, and well-informed management will be needed to ensure that Nevada's ecosystems, agriculture, and strategically-important mining industries remain productive in the face of climate change. The goal of the project is to use the GRACE data and existing well logs to create spatio-temporal maps of groundwater depth across the state of Nevada.



This figure shows the results of integrating GRACE data with precipitation, temperature, elevation, soil density, and soil water capacity data to predict changes in the height of the water table, in this case through a partial least-squares regression. The regression model was validated on in-situ well data.

NEVADAVIEW CONSORTIUM MEMBERSHIP



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