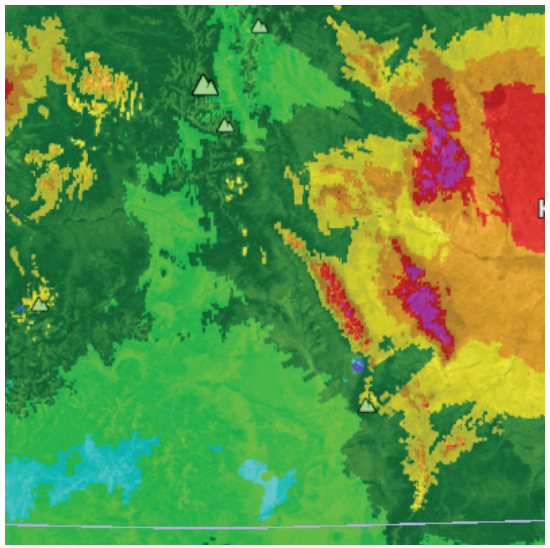
RADAR IN THE SAN LUIS VALLEY

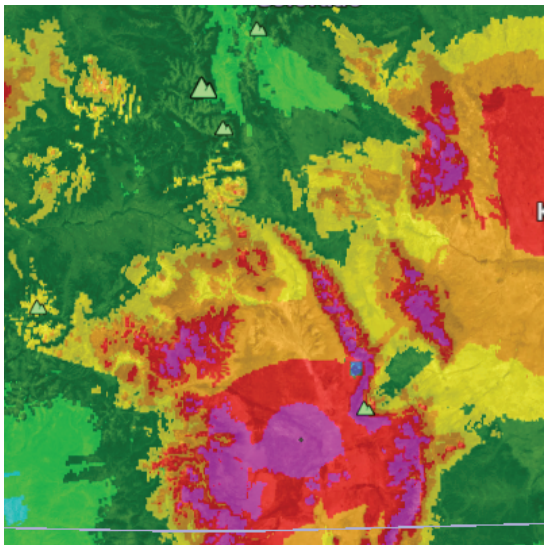
BACKGROUND:

The San Luis Valley is in a radar desert. Coverage from nearby radar stations in Grand Junction and Pueblo is blocked by the San Juan and Sangre de Cristo mountain ranges. The data gap negatively affects efforts in water supply forecasting, hydrologic modeling, as well as public safety and emergency management in the San Luis Valley. Existing water supply forecast data have shown discrepancies in comparison to actual event flows, making administration of the rivers for water rights and accurately meeting the compact obligation difficult tasks.

By securing permanent radar in the San Luis Valley, local hydrologic modeling data can be coupled with national modeling systems and local SNOTEL sites to help with water rights administration and interstate river compact obligations. Additionally, the radar will provide local emergency managers the ability to recognize threats to public safety, including fire and flood events.



Current Radar Gap



Estimated Future Radar Coverage (Coverage improves as you move from green to pink)

PRIMARY BENEFITS:

- Streamflow Forecasting
- Water Rights and Compact Administration

SECONDARY BENEFITS:

- Weather Forecasting
- Emergency Management and Public Safety
- Hydrologic Modeling
- Improved Visibility for Aviation

COSTS:

- $70,000 Tower and Setup Costs
- $750,000 Radar Purchase
- ~$50,000/yr O&M

PARTNERS:

Rio Grande Water Conservation District, Conejos Water Conservancy District, San Luis Valley Water Conservancy District, San Luis Valley Irrigation District, Rio Grande Watershed Emergency Action Coordination Team, Colorado Water Conservation Board, EWR Radar, Division of Water Resources, Alamosa County, Conejos Water Users Association, Rio Grande Water Users Association