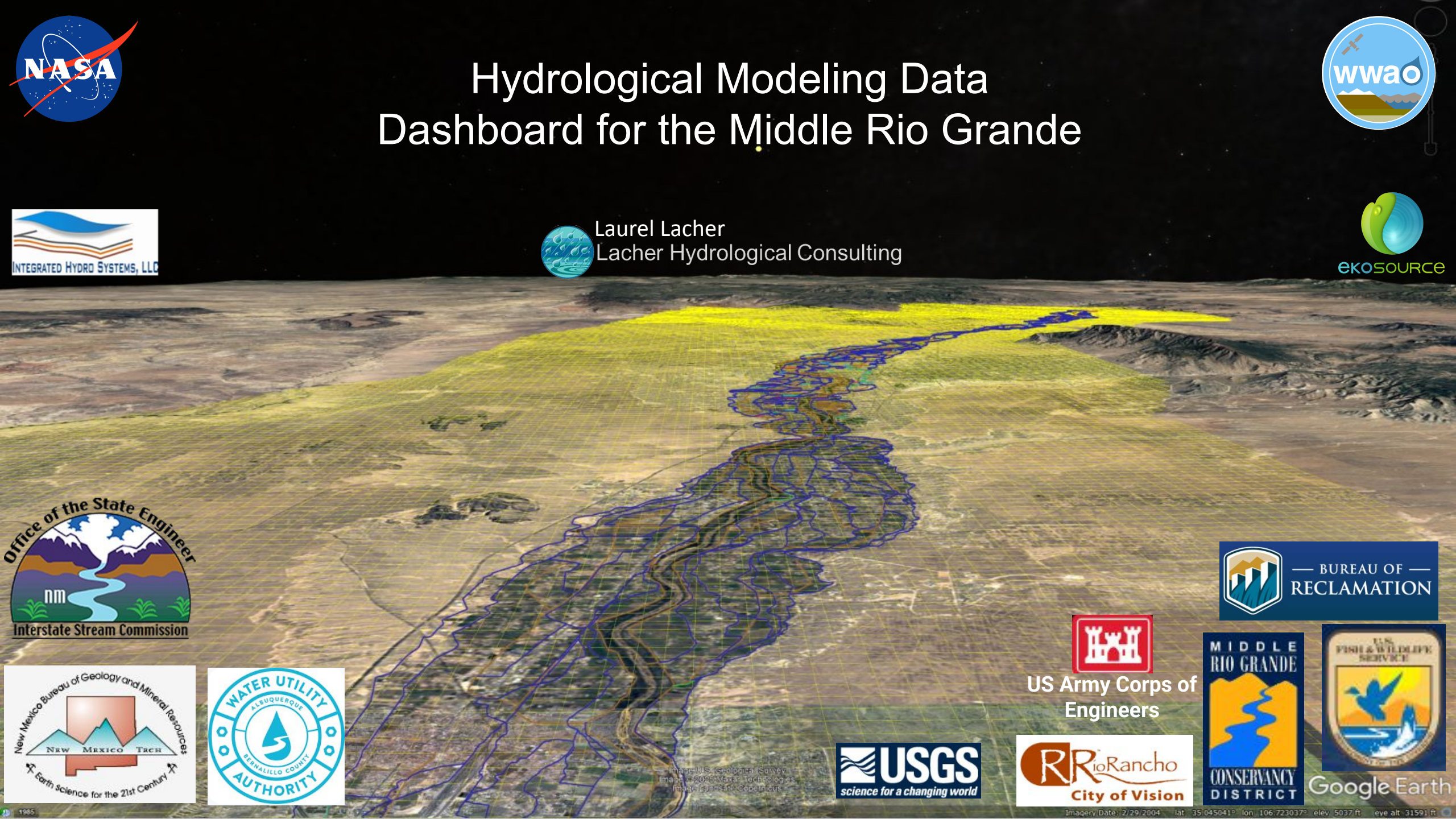
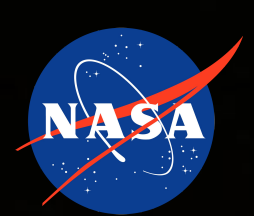




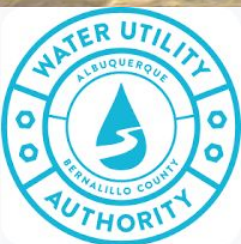
Hydrological Modeling Data Dashboard for the Middle Rio Grande



ekosource



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Introduction

- NEED ADDRESSED: **Better understanding of water resources and physical processes, and addressing vulnerability to climate and the potential effects of climate change.**

Source of Need: Rio Grande Needs Assessment (DBS&A, 2022)

Primary NASA Tools: NLDAS (precip, air temp, potential ET), MODIS (snow cover extent, LAI), GRACE TWS

- Hourly weather data drive MIKE SHE integrated and other hydrologic models
- MODIS- calibration to snowpack; LAI to drive simulated snowmelt and ET
- GRACE provides a calibration check on simulated total water storage change over time (experimental for Rio Grande Basin)

The background of the slide features a satellite image of a river delta, likely the Rio Grande, showing intricate patterns of water and land. The NASA Earth logo is overlaid on the right side of the image. The logo consists of the word "NASA" in a bold, sans-serif font, with the word "earth" in a larger, lowercase, sans-serif font below it. The "e" in "earth" is particularly large and stylized, with a small dot that forms a circular shape around the "a" in "NASA".

NASA
earth



Partners

- Interstate Stream Commission/OSE (primary)
- Middle Rio Grande Conservancy District
- New Mexico Tech/NMBGMR/NMWDI
- BOR, ACOE, USFWS, ABCUA, Rio Rancho, USGS

Partner Benefits:

- Facilitated development/updating of high-resolution models
- Ability to widely share select outputs, including water balance by river reach, Actual ET components, etc.

Decision Making and Impact:

- Much faster sampling of NLDAS data saves thousands of dollars in modeler time
- High-resolution models permit testing of various water and vegetation management alternatives
- Technology is transferable to other basins

