

SEDIMENT SCIENCE

Debris Flow Studies and Modeling:

- Las Conchas fire
- Track fire

Long-Term Data:

- 417 years of combined data
- 9 sites; 6 sites on the Rio Grande, 3 sites on the Rio Puerco
- Many of these sites have data starting in the 1940's

Lab Capabilities:

- Suspended sediment concentration
- Particle size
- Visual accumulation/pipet analysis

Data Collection:

- Suspended sediment cross-section samples
- Daily/event pump sampler point samples
- Bed materials
- Yearly record: tons/day, concentration
- Total load data: mean velocity, discharge, mean depth, particle size, temperature, and suspended sediment concentration.

Dear Colleague/Cooperator/Stakeholder:

The U. S. Geological Survey (USGS), New Mexico Water Science Center (NMWSC), works in cooperation with State and Federal agencies in New Mexico to provide reliable and impartial sediment data and interpretation to resource managers, planners, and other stakeholders, and the general public. The NMWSC routinely collects suspended sediment, bed sediment, turbidity, and bed load data for size and water quality analysis. The NMWSC has been collecting suspended sediment data on the major rivers of New Mexico since about 1942. Sediment data are collected using cross-sectional collection techniques or by automated point samplers. Most of the sediment data are analyzed by the NMWSC Sediment Laboratory. The Sediment Laboratory can analyze sediment samples for suspended sediment concentration, sand/silt split, or particle size.

The NMWSC is currently collecting daily suspended sediment samples and periodic turbidity, bed material, suspended sediment samples at many sites on the Rio Grande and its tributaries. The results of the daily suspended sediment samples are analyzed along with the streamflow record to determine daily values of suspended sediment load. This data are used by State and Federal agencies for many purposes including reservoir management, channel geomorphology, endangered species habitat improvement, and river restoration.

For additional information on USGS activities and capabilities, or for access to historical sediment data please visit the New Mexico Water Science Center Web site at <http://nm.water.usgs.gov> or the national website at: <http://water.usgs.gov>. If we can assist you with data collection or interpretation to address a specific sediment related issue or concern that you may have, please contact us directly at one of the phone numbers or e-mail addresses provided on the reverse side.



MISSION: To provide reliable, impartial, timely information that is needed to understand the Nation's water resources. The Water Mission Area actively promotes the use of this information by decision makers to:

- Minimize the loss of life and property as a result of water-related natural hazards, such as floods, droughts, and land movement.
- Effectively manage groundwater and surface-water resources for domestic, agriculture, commercial, industrial, recreational, and ecological uses.
- Protect and enhance water resources for human health, aquatic health, and environmental quality.
- Contribute to wise physical and economic development of the Nation's resources for the benefit of present and future generations.



Management staff and key specialists of the USGS New Mexico Water Science Center:

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