Upper Rio Grande Water Operations Model (URGWOM)

URGWOM Project Manager
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US Army Corps of Engineers
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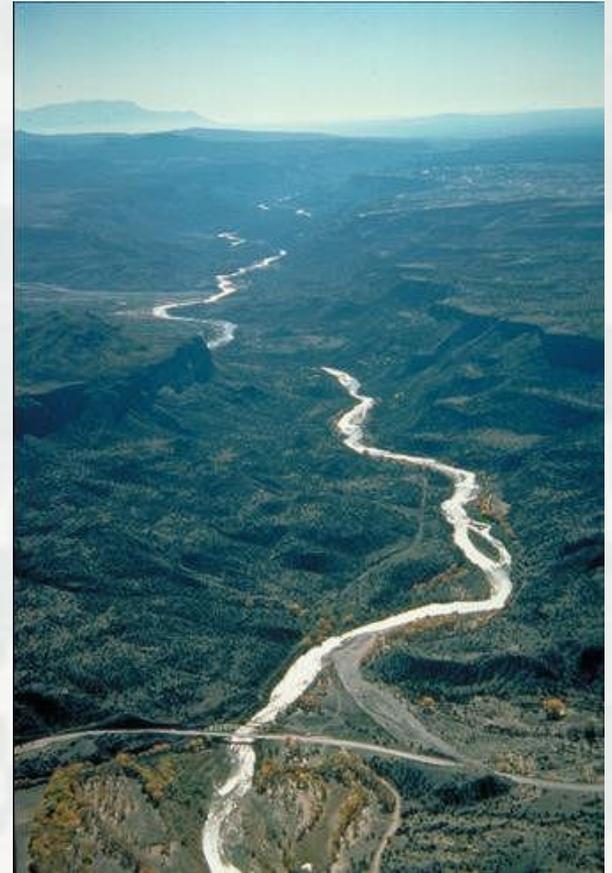# Outline

- Needs & Interests Identified
- What is URGWOM?
- Memorandum of Understanding
- Ongoing Development
- Projects
- Future Development & Use

Needs & Interests Identified

- Prior to 1996 - Simulations were completed with multitude of independent cumbersome programs, spreadsheets, and paper records for water operations, forecasting, and planning

- Comprehensive reservoir and river model of entire basin

- Collaboration of water management organizations

- Flood control

- Reservoir operations

- San Juan-Chama Project Water

- Endangered Species Act

- Rio Grande Compact

- Native American water rights

- Municipal and industrial demands

- Irrigation, etc.

What is URGWOM?

Upper Rio Grande Basin
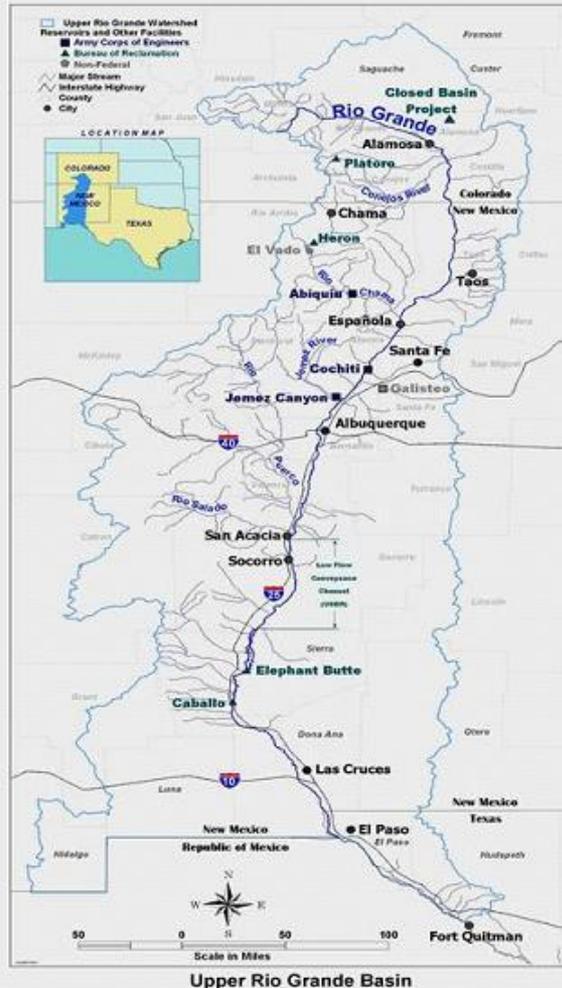
- Critical tool for accounting and managing water in complex policy restricted Rio Grande watershed
- Daily time-step
- RiverWare® software
- Water Operations
- Accounting
- Planning
- Forecasting

URGWOM MOU

- ## Signed in 1996

- ## Renewed in 2007

  - ► USACE, Bureau of Reclamation, NMISC

  - ► BIA, CADSWES, FWS, NMDA, PDNWC, IBWC, UNM, USGS

  - ► Santa Fe, Caballo Soil & Water Conservation District, Colorado Division of Water Resources, Desert Research Institute, NMSU, Ohkay Owingeh Pueblo, Rio Grande Restoration

  - ► ABCWUA, EBID, El Paso Water Utility, Isleta Pueblo, Jemez Pueblo, MRGCD, NMDG&F, NOAA, Santa Ana Pueblo, Water Sage, Zia Pueblo

Ongoing Development

► **Accounting**

► **Rules and Policy**

► **Database**

► **Monthly Model – URGSiM**

► **Middle Rio Grande – development & calibration**

► **Colorado – water rights**

► **Lower Rio Grande – water quality**

► **RiverWare®**

Azotea Tunnel

URGWOM Projects

- Funding for Project Manager & Modeler
- Technical Support
  - ► USGS
  - ► Sandia National Labs
  - ► NMISC
  - ► Contractors
- Ft Worth District
  - ► HEC Forecasting
  - ► Software Maintenance
- Water Quality
- RiverWare ® Development - CADSWES
- Biological Assessment/Biological Opinion

Future Development & Use

- **Five-Year Plan**
- **Long-term tasks include**
  - ► **Real-time water operations model into CWMS**
  - ► **Colorado & Lower Rio Grande**
  - ► **Representation of the system and policy**
  - ► **Model accuracy and forecasts**
  - ► **Transparency of the model**
  - ► **Data management**
  - ► **Simulation efficiency**

Upstream from Lobatos Gage

Questions?

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