

# BENJAMIN L.WEAR, III

Hydrographic Survey and Mapping Bureau  
Litigation and Adjudication Program  
New Mexico Office of the State Engineer

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## Education:

- ▶ Master of Science, Honors, Environmental Engineering, 1998  
New Mexico Institute of Mining and Technology.
- ▶ Bachelor of Science, Honors, Environmental Engineering, 1995  
New Mexico Institute of Mining and Technology.

## Experience Summary:

- ▶ My professional experience includes a wide variety of air and water resource management projects, as well as many environmental investigation and remediation projects. Duties of my current position include development and management of a geospatial database for the San Juan River Basin adjudication, review of geospatial data provided for various other adjudications, and general creation and management of geospatial information. I have over 12-years of experience in the water resource management and environmental fields.

My previous employment with the Pueblo of Jemez entailed the management of a variety of environmental projects funded by Federal and State agencies, as well as private organizations, involving environmental monitoring, assessment and remediation, environmental health studies, and alternative energy assessment. My primary duties during my six years at Jemez were based around the development and management of both an EPA-funded air-monitoring project and an EPA-funded water quality monitoring project. While these were my main projects, I have also developed and managed environmental health studies, evaluated alternative energy resources and assisted in various drinking water and wastewater projects. These projects all involved review, use and management of geospatial data.

Prior to my position with Jemez Pueblo, I worked on many environmental investigation and remediation projects, primarily consisting of underground storage tank release characterization and abatement. I have over six years of experience in design, assembly, operation and maintenance of soil and ground water remediation systems, as well as soil and ground water sampling methods. My professional experience has also involved multiphase subsurface and atmospheric air-plume modeling. I have been involved in several emergency response situations involving overturned petroleum tanker trucks and petroleum pipeline ruptures. As a small business owner, I have also been involved in all aspects of running a business, including contract negotiation and acquisition, equipment and supply purchasing, project management and accounting. All of these projects included surveying, review of aerial imagery, creation of maps, and use and management of geospatial data

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## Professional History: 2007-2008

### ► **New Mexico Office of the State Engineer, Hydrographic Survey Bureau Santa Fe, New Mexico**

*Engineer Specialist, Operational*

Develop and maintain geospatial database for the San Juan River Basin Adjudication. Research historical data, including court documents, aerial imagery and maps, and compile that information into one central location that is linked to the earth's surface geospatially. Develop hydrographic survey based on the geospatial database. Develop queries and reports to assist legal and support staff in maintaining accurate records and producing accurate consent orders. Meet with water rights claimants during Field Offices to communicate the processes utilized to develop their water right offer. Perform crop surveys for field verification of crop identification based on satellite imagery. Review geospatial data submitted by outside entities and analyze aerial imagery for evidence of irrigation.

## 2001-2007

### ► **Pueblo of Jemez Department of Resource Protection Jemez Pueblo, New Mexico**

*Air Quality Program Manager/Water Resource Program Manager*

Developed and managed all aspects of both an EPA 103b Air Quality grant and an EPA 106 Water Quality grant, including annual proposal preparation, budget estimation, Quality Assurance Project Plan and Standard Operation Procedure preparation, equipment and supply purchasing, equipment installation, equipment operation and maintenance, data validation and verification and report preparation. Developed and managed all aspects of an Indoor Air Monitoring Project to investigate extremely high asthma rates within the Pueblo of Jemez, including the same duties described for the Air and Water Monitoring Projects. Created and managed several new positions for tribal employees. Managed various grants for water quality projects which consisted of installing and restoring drought relief wells and conveyance works, decommissioning monitoring wells and utilizing geothermal wells. Collected, created, and managed geospatial data, as well as created maps from that data for project reports.

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## Professional

### History:

1996 to 2001:

► **Rio Grande Environmental Consulting, Inc.**

**Albuquerque, New Mexico**

*Environmental Engineer/Partner*

Performed all aspects of business management, including estimating, bidding, and proposal writing. Conducted site investigations for Phase I and II Environmental Site Assessments, including the advancement of soil borings, monitoring well installation, and soil and ground water sampling. Conducted hydrogeologic testing to characterize aquifers. Designed, constructed, operated, and maintained in-situ soil and ground water remediation systems involving remote and logic-controlled telemetry and data acquisition systems. Conducted computer modeling of subsurface contaminant flow, surface-water infiltration, and airborne contaminant dispersion. Conducted emergency response measures for overturned petroleum tanker trucks and crude oil pipelines. Collected, created, and managed geospatial data, as well as created maps from that data for project reports.

1996 to 1997:

► **New Mexico Institute of Mining and Technology**

**Socorro , New Mexico**

*Research/Teaching Assistant – Graduate Student*

Designed and conducted experiments to determine possible in-situ treatment alternatives for remediation of ground water contaminated with ethyl mercaptan. Also instructed and aided undergraduates in performing laboratory experiments.

1995 to 1996:

► **INTERA, Inc. /Duke Engineering**

**Albuquerque, New Mexico**

*Project Engineer*

Designed and implemented soil and ground water remediation systems. Performed subsurface investigations at petroleum-contaminated sites, including advancement of soil borings, monitoring well installation, soil and ground water sampling and analysis. Compiled and analyzed data and made necessary field adjustments for optimal system performance. Performed vadose-zone and aquifer characterization involving pumping, tracer, and surfactant transport tests. Performed atmospheric air plume modeling for determination of stack heights for extraction vapor releases.

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- Relevant Credentials:**
- ▶ OSHA 29 CFR 1910 40-Hour Hazardous Waste Operations and Emergency Response Training
  - ▶ OSHA 29 CFR 1910 8-Hour Hazardous Waste Operations and Emergency Response Supervisor Training

- Professional Appointments:**
- ▶ Tribal Co-Chairperson for the Western Regional Air Partnership's Technical Oversight Committee
  - ▶ Member the Western Regional Air Partnership's Tribal Data Development Workgroup

- Relevant Coursework:**
- ▶ Groundwater Hydrology
  - ▶ Hydrogeochemistry
  - ▶ Soil Mechanics
  - ▶ Soil and Groundwater Remediation
  - ▶ Environmental Risk Assessment
  - ▶ Advanced Water Chemistry
  - ▶ Transport Processes
  - ▶ Differential Equations
  - ▶ Fortran
  - ▶ AutoCAD

- Relevant Trainings:**
- ▶ EPA Quality Assurance Management, Data Quality Objectives, and Quality Management Plan – Quality Assurance Project Plan Trainings
  - ▶ USGS Field Water-Quality Methods for Ground Water and Surface Water
  - ▶ Fundamentals of Air Pollution Modeling
  - ▶ Beginning and Intermediate Microsoft Access Database Training
  - ▶ Database Management using Microsoft Access
  - ▶ Cartography
  - ▶ Introduction to ArcGIS 9
  - ▶ Beginning and Intermediate AutoCAD
  - ▶ Native American Graves Protection and Repatriation Act

- Computer Proficiency:**
- ▶ MS Office, including Word, Excel, Access, Powerpoint and Outlook - High
  - ▶ ArcGIS - High
  - ▶ MODFLOW - Medium
  - ▶ Groundwater Vistas – Medium
  - ▶ Fortran - Medium
  - ▶ AutoCAD - High