Groundwater Supply

Kleinfelder provides specialized groundwater supply services to address many of our clients' water supply challenges, from initial source assessment and siting to well design, construction, and long-term operation/maintenance. By determining our clients' needs, Kleinfelder strives to provide the most effective and cost-efficient solutions.

Services include:

- Aquifer modeling, testing, storage, and recovery
- Basin studies
- Conjunctive use planning and implementation
- Construction dewatering
- Extraction/injection well design
- Feasibility studies
- Floodplain/watershed management
- Geothermal (ground source heat pumps)
- Groundwater management/ protection
- Hydrostratigraphy
- Numerical groundwater modeling
- Quality assurance
- Source supply siting analysis
- Urban/rural/industrial water management
- Water rights support and expert witness testimony/ litigation support
- Water supply assessments
- Water-quality-based well design
- Well assessment and rehabilitation
- Well installation and construction observation

MAINTAINING RELIABLE AND EFFICIENT WATER SOURCES

The key factors that influence long-term well performance includes initial well design and construction, operation, biological and mechanical plugging, and maintenance. The extra attention and money expended to address these factors during design and development will result in wells with maximized production capacity and minimized repair downtime. Kleinfelder's use of innovative approaches and technologies help clients maintain water supply sources that are reliable and efficient.

WIDE RANGE OF CAPABILITIES

Kleinfelder's team of groundwater experts—including engineers, hydrogeologists, geologists, hydrologists, and scientists—is capable of solving our clients' unique water supply challenges. Our registered and licensed professionals oversee water supply projects throughout North America in both the private and the public sectors, while maintaining successful relationships with an array of regulatory agencies.

Demand for high-quality water continues to grow, and Kleinfelder has the qualifications and experience to meet this demand. We plan and design total water solutions to help our clients supply and distribute safe drinking water.

KLEINFELDER
Bright People. Right Solutions.

Groundwater Supply

Software we use include:

- Groundwater Vistas V7/ Professional
- ICPR4
- HydroCAD
- MODFLOW
- WinPEST
- SEAWAT
- 3D Explorer
- Aqtesolv
- AquiferTest Pro
- AquiferWin32P
- MT3D99
- SAMG
- PONDS
- SURFACT
- SESOIL
- Rockworks
- HydroGeoAnalyst

Kleinfelder offers seminars, workshops, and clinics on many aspects of well operations. We participate in water supply industry association meetings, continued education training for well owners and operators, internal public utility district "brown bag" sessions, and other learning forums.

WELL DESIGN AND CONSTRUCTION

Whether it is water right adjudication issues, drill site selection, preparation of bid specifications, screen design, or aquifer testing, Kleinfelder understands the key requirements that are necessary to successfully bring a new well into production.

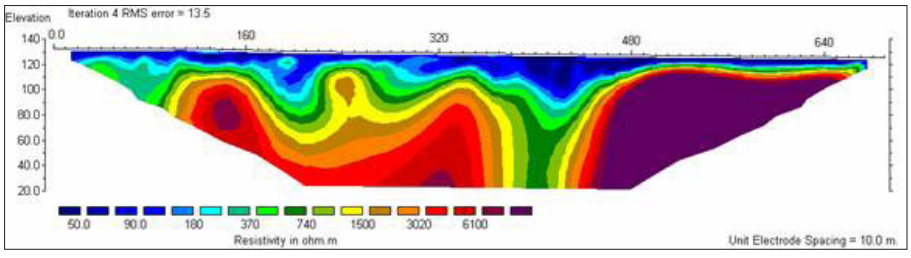
REGIONAL AND WELL FIELD GROUNDWATER MANAGEMENT

Kleinfelder staff has worked on all phases and elements of groundwater management and protection, including watershed characterization, numerical modeling of complex aquifer flow systems, well head protection delineation, and analysis of source supply issues.

AQUIFER MODELING SERVICES

Kleinfelder uses computer modeling to better understand site data and predict groundwater and contaminant migration under natural and remediation conditions. Our groundwater professionals and modeling specialists use groundwater computer modeling software to integrate data into a single dynamic system, which can be used to analyze aquifer management strategies and contaminant plume sources.

Using a variety of tools and programs, we can simulate and predict 3D groundwater flow and contaminant transport. We can apply our modeling expertise to projects ranging from resource management, agricultural nutrient management, and remedial investigations, to construction dewatering and regulatory compliance. Other modeling software options provide tools to simulate vadose zone conditions.



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