



Water Resources Solutions



Solutions Today for Tomorrow's Decisions

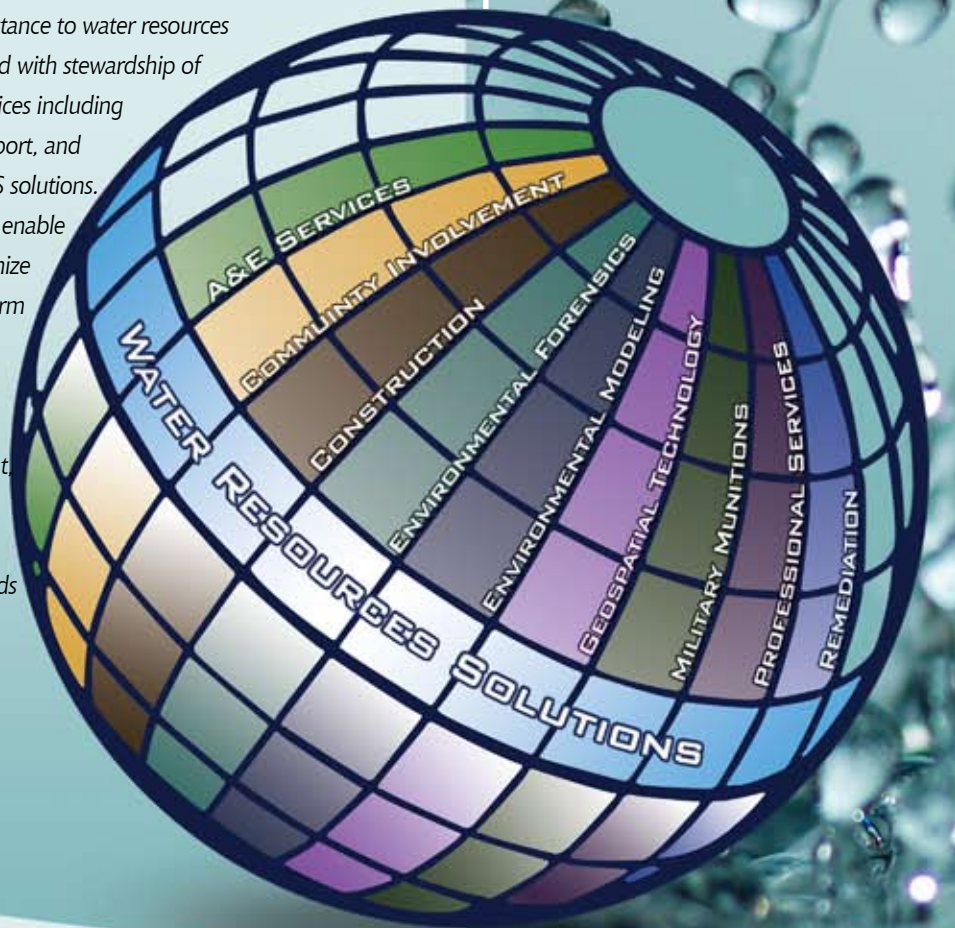
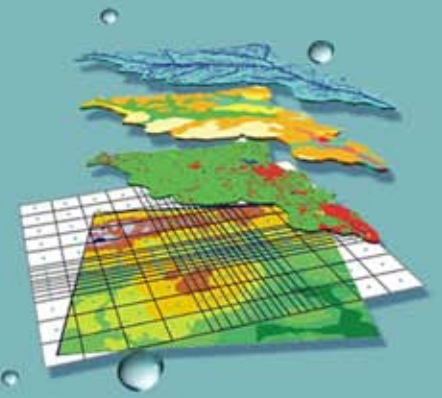
Today's water resources planners face ever-increasing challenges in managing water as a sustainable resource. They must provide quality water for potable, agricultural, and industrial use; ensure flood protection; and meet recreational demand while balancing protection of ecological resources. Making better decisions now requires that water managers think strategically and harness the powerful technologies that will allow them to meet these challenges. HGL's Sustainable Water Resource Solutions™ bring all the best investigative, assessment, management, and restoration technologies right to your doorstep. We then help you integrate these solutions into effective resource management strategies.

Aquifer and Watershed Assessment

Across the nation, HGL has been brought in to characterize and assess the full range of supply planning and resource development challenges—from saltwater intrusion in coastal aquifers to the effects of groundwater extraction on stream flows and other groundwater/surface water interactions. Because of the interconnected nature of hydrologic systems, many water resource assessments and planning issues impacting groundwater and surface water are most appropriately addressed on a watershed scale. Sophisticated tools such as MODHMS allow HGL to leverage its expertise in groundwater and surface water modeling to conduct the integrated hydrologic assessments needed for watershed analysis and management. In fact, the insight and acumen we bring to developing regional models for long-term water supply planning and water resource development are unmatched in the industry.

Water Resources Management

For over 20 years, HGL has been providing expert assistance to water resources management organizations nationwide that are charged with stewardship of precious water resources. We offer comprehensive services including management planning, permitting and regulatory support, and development of customized data management and GIS solutions. Most importantly, our industry-leading modeling tools enable us to design cost-effective remediation strategies, optimize well field and reservoir operations, and analyze long-term solutions for aquifer and watershed restoration. HGL's comprehensive services include engineering studies, environmental risk management, permitting and regulatory support, remedial construction and oversight, and litigation support. Clients also benefit from our Multidisciplinary Project Team (MPT)™ approach to integrating the dynamics of nature and human demands to ensure long-term sustainable use of surface and groundwater resources.



Innovative Solutions

MODELING AND SIMULATION

HGL established a business niche 20 years ago when it began developing and implementing computer simulation models for water resources planning and environmental restoration. Demonstrating our commitment to research and development, HGL's groundbreaking work on numerical modeling algorithms and code development for water resources and environmental applications has won us a well-earned reputation for unsurpassed modeling expertise. Today, hundreds of organizations around the world use HGL's sophisticated, 3-D modeling codes, including DSTRAM, MODFLOWSURFACT, and MODHMS, to analyze groundwater flow, groundwater/surface water interactions, contaminant fate and transport, and non-point source pollution; predict floods; and determine risks so that site owners and regulators can make cost-effective, defensible management decisions.

CUSTOM DATA MANAGEMENT

Managers must have access to the right data to make good decisions; HGL has a proven track record of providing our clients with exceptional data management tools that combine state-of-the-art information technology with in-depth understanding of our clients' requirements. The results are data management tools that work the way you do. For example, our Data Management and Analysis System for Lakes, Estuaries, and Rivers (DASLER) has been adopted by more than a dozen U.S. Army Corps of Engineers districts, as well as other organizations ranging from the Tennessee Valley Authority (TVA) to multiple Native American Nations. Because spatial relationships are important in nearly all water resources issues, HGL's data management and analysis tools are closely integrated with ESRI™ ArcGIS products, and we provide custom web browser-enabled GIS solutions using ESRI's latest ArcGIS server technology.

PUBLIC RECORD SUPPORT

HGL's in-house regulatory and public involvement experts understand that reporting requirements vary across agencies, programs, and projects. HGL uses its extensive programming and regulatory support experience to assemble data—documents, correspondence, maps, photographs, regulations, directives, and monitoring data—and integrate it with state-of-the-art information management tools. With an HGL solution, you will have a content-rich information library that allows personnel secure, easy access to legacy data resources to support your mission and goals. We not only assist you with planning, reporting, and auditing, we also provide day-to-day support—freeing your staff to focus on value-added critical tasks.



HGL's Unique Offerings

AQUIFER AND WATERSHED ASSESSMENT

- Aquifer Characterization
- Engineering Studies
- Groundwater-Surface Water Interactions
- Risk Assessment
- Safe Yield Analysis
- Saltwater Intrusion
- Source Water Assessment
- Streamflow Analysis and Flood Prediction
- Water Quality Studies

WATER RESOURCE MANAGEMENT

- Construction Management
- Data Management and GIS
- Permitting and Regulatory Support
- Well Field and Reservoir Operations

INNOVATIVE TECHNOLOGY

- Custom GIS/Data Management Tools
- Document Management/Public Record Support
- Modeling and Simulation

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About HGL

HGL is a full-service environmental science, engineering, and construction firm (small business under NAICS 562910) with 20 years of experience responding to environmental challenges. As a performance-based contractor, HGL excels at implementing cost-effective solutions, deploying advanced technologies, meeting milestone objectives under time-critical and limited resource projects, and successfully interacting with regulatory authorities and stakeholders. Whether it's developing innovative solutions, expediting removal activities, or negotiating restoration exit strategies, HGL's multidisciplinary project teams of scientists, engineers, forensic specialists, information and geospatial technologists, numerical modelers, and munitions response professionals focus on integrating their specialized skills and experience to exceed client expectations, minimize performance risk, and optimize limited resources.

As one of the few companies that remain committed to research and development, HGL has unique capabilities to develop tailored models for the most complex and demanding applications that can (1) ensure environmentally safe disposal and re-use of hazardous and industrial wastes, (2) ensure long-term sustainable use of groundwater and surface water resources, (3) assess the risks associated with industrial pollutants in groundwater and surface water, and (4) design cost-effective cleanup remedies.

In addition to emphasizing in-house technology development for environmental analysis, HGL is the prime contractor for DoD's Strategic Environmental Research and Development Program and the Environmental Security Technology Certification Program and participates in the evaluation and demonstration of innovative environmental technologies that solve complex environmental problems and reduce the cost of DoD operations.

