

# ENVIRONMENTAL & OTHER A/E SERVICES

Scientific Solutions: Sustainable Results



The HGL team brings exceptional qualifications in the fields of environmental engineering, site characterization, risk assessment, remedial design, and remedy implementation. HGL builds project delivery teams that combine in-house expertise in design, engineering, remediation, construction, and geospatial technology to deliver top quality services that integrate green practices and sustainable solutions. HGL's environmental and other A/E service areas encompass the following:

#### Environmental Engineering

- Investigation and Modeling
- Title I and II for Environmental Projects
- Compliance Assurance and Pollution Prevention
- Management, Planning, and Reporting
- Project Plan Development
- Analytical Chemistry Management
- Green and Sustainable Remediation Practices
- Value Engineering

#### Professional Services

- Environmental Planning and Programming
- Program Management and Implementation Support
- Scientific Peer Review Support Services
- Regulatory and Policy Support
- Sustainable Practices Consulting
- Technical/Training Support
- Health and Safety Compliance Support
- Information Technology

#### Litigation Support

- Expert Witness Services
- Records Management Support
- Technical Support Services
- Environmental Forensics
- Historical Research and Environmental History

#### Geospatial (GIS) Technologies

- Data Management
- Analysis/Cartography
- GeoDatabase/Database Design, Programming, and Management
- Data Animations

#### RCRA

- RCRA Facility Assessment (RFA)
- RCRA Facility Investigation (RFI)
- Corrective Measures Study (CMS)

#### Environmental Risk Management

- Exposure and Risk Assessment Modeling
- Probabilistic (Monte Carlo) Simulation
- Risk-based Performance Assessment

#### Regulatory Compliance

- Resource Conservation and Recovery Act
- Hazardous Materials/Hazardous Waste Management
- Emergency Planning and Community Right-to-Know
- Clean Water Act
- Spill Prevention, Control, and Countermeasures (SPCC)/Discharge Cleanup and Removal (DCR) Requirements
- Clean Air Act
- Risk Management Planning
- National Environmental Policy Act
- National Historic Preservation Act
- Archeological and Historic Preservation Act

#### NEPA

- Environmental Assessment (EA)
- Environmental Impact Statement (EIS)
- Programmatic EA and Programmatic EIS
- Supplemental EA and Supplemental EIS
- Environmental Planning Documents Requiring an EA or EIS
- Notices of Intent, Findings of No Significant Impact, and Records of Decision

#### CERCLA

- Preliminary Assessment/Site Inspection (PA/SI)
- Remedial Investigation/Feasibility Study (RI/FS)
- Proposed Plan/Record of Decision (PP/ROD) Support
- Remedial Design (RD)
- Regulatory Support
- Human Health Risk Assessment
- Ecological Risk Assessment

#### Optimization Strategies

- Environmental Restoration Programs
- Water Resources Management
- Mining Dewatering Operation Design
- Energy Production Management



## HGL DISTINCTIONS

ENR Top 200 Environmental Firm

Applies state-of-the-art engineering technologies and forensic science in developing cost-effective and defensible solutions

Over 30 years' experience with environmental laws and regulations

Proven ability to facilitate interagency coordination

Advanced visualization tools that allow customers to understand complex data

# ENVIRONMENTAL & OTHER A/E SERVICES

HGL integrates in-house environmental engineers, applied scientists, risk assessors, regulatory specialists and GIS specialists into seamless project teams capable of solving the most complex problems. HGL employs knowledge and lessons learned through the implementation of

our own Corporate Sustainability Program. We are committed to practicing sustainable principles to achieve the integrated benefits of environmental, social, and economic sustainability. Since HGL's founding in 1987, we have been employing sustainable practices in daily operations to reduce our resource burden on the environment and to ensure we have a positive impact on our communities.



HGL's subject matter experts provide strategy development, litigation support, expert testimony, and technical peer review services. HGL works closely with its clients to carefully define the cause and nature of a problem and applies state-of-the-art engineering technologies and forensic science in developing cost-effective and defensible solutions.

## CREDENTIALS

- Certified Construction Managers
- Certified Hazardous Materials Managers
- Certified Industrial Hygienists
- Certified Project Management Professionals
- Certified Safety Professionals
- Certified Sustainable Development Professionals
- Certified Wastewater Treatment Plant Operators
- LEED® Accredited Professionals
- Professional Engineers
- Professional Geologists
- Subject Matter Experts
- USAESCH Certified UXO Personnel

## CLIENTS

- US Air Force
- US Army Corps of Engineers
- US Army Environmental Command
- US Bureau of Reclamation
- US Department of Energy
- US Environmental Protection Agency
- Department of Justice
- Environmental Security & Technology Certification Program, DoD
- Federal Bureau of Prisons
- National Aeronautics and Space Administration
- National Park Service
- Strategic Environmental Research and Developmental Program, DoD
- Arizona Department of Environmental Quality
- Florida Water Management Districts
- International Public and Private Clients

## CASE STUDIES

**Perfluorinated Compound (PFC) Enterprise-Wide Response at 82 Air Force and Air National Guard Installations Nationwide:** fire training areas and other release sites potentially contaminated with PFCs. Project highlights:

- Developed a sequenced technical/logistical approach, used experienced team leaders and trained additional staff, and incorporated input from PFC subject matter experts to complete the project in under 18 months.
- Performed chemical testing on a range of media (groundwater, soil, sediment, surface water, and indoor air) for a full range of contaminants of concern, and managed the large volumes of data generated using established tools and procedures to ensure that all data quality objectives and reporting requirements were met.
- Used the results of the investigations to score each location and develop a list of installations and locations recommended for advancement to the site inspection phase.

**Historical Research and Litigation Support for the Arizona Department of Environmental Quality:** industrial and commercial properties contaminated with a variety of hazardous substances. Project highlights:

- Worked closely with ADEQ and AGO to develop an approach for meeting the WQARF statute's unique "best efforts" requirement in which the liability allocation process is based on each PRP's proportionate share of liability, a standard more rigorous than CERCLA's "joint and several" liability scheme.
- Developed a matrix to identify the statutorily required PRP and community relations tasks to be completed at each stage of the WQARF process.
- Managed over 20 Concordance® databases with an average of 2,400 documents (24,000 pages) each for WQARF sites for which PRP investigations have been conducted.
- Completed four industrial surveys and 90 facility letter reports, and compiled a Microsoft Access database documenting relevant information from a review of regulatory records for over 1,600 facilities to support the Remedial Investigation of a WQARF site in a heavily industrial part of Phoenix, Arizona.
- Conducted over 1,000 interviews with private and government parties to identify over 250 PRPs associated with a landfill site in Tucson, Arizona.

**West Highway 6 & Highway 281 Superfund Site, Hastings, Nebraska:** a former industrial site contaminated with volatile organic compounds (VOCs) and chromium. Project highlights:

- Used the Triad approach for systematic project planning, dynamic work strategies, and innovative rapid sampling and analytical technologies.
- Developed an accurate conceptual site model, which was used to identify data gaps so that additional data collection efforts could be targeted to support the quantification of risk posed by the site and lead to an effective site cleanup strategy.
- Conducted on-site sample analysis in a mobile lab that allowed for rapid field decision-making on sample locations and depths as new data was obtained.
- Determined from the RI that the groundwater contaminant plume extended 2.4 miles off site and was co-mingled with the plume of an adjacent Superfund site, which caused the treatment plant being designed for the adjacent site to be expanded to treat the co-mingled portion of the plume.

**Misawa Air Base, Misawa, Japan:** an active United States air base that required hazardous materials/waste management support. Project highlights:

- Instituted effective management and cost controls that resulted in substantial cost savings.
- Ensured that no violations occurred when operations were shut down because of a tsunami through proactive education/training and HM/HW management processes.