GLA-Data Online GIS-Based Database Management System

Various Sites throughout California

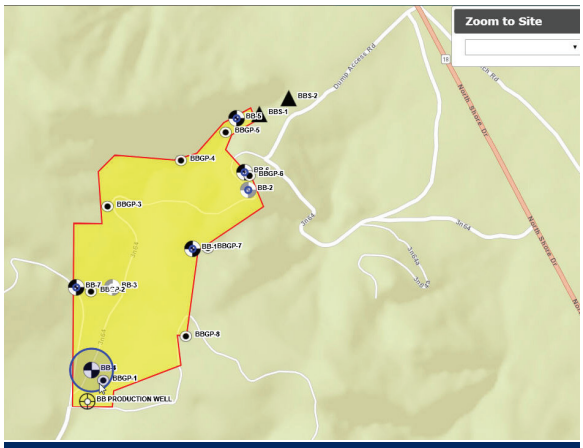
CLIENT

Multiple Clients

HIGHLIGHTS

- **Developed a comprehensive, web-accessible GIS-based DBMS**
- **Online data import and collection**
- **Custom tools and queries**
- **Access and view information related to landfills, wells, events, and data**
- **Customized for 12 landfill clients**

DBS&A developed GLA-Data, a comprehensive, web-accessible GIS-based database management system (DBMS) to manage and analyze water quality information at landfills/disposal sites for ongoing groundwater monitoring contracts with 12 Geo-Logic Associates, Inc. (GLA) clients in California.*



GLA-Data reduces data entry and associated quality control requirements, provides easy-to-use data output and graphing functions, and provides real-time access to data

The waste disposal system includes more than 50 landfills/disposal sites. Routine monitoring has occurred at almost 1,000 monitoring points at more than 30 of these sites. Sampling began in 1987, and historical monitoring data had been stored in MS Excel spreadsheets to date. A relational database was needed to reduce data entry and associated quality control requirements, provide easy data output and graphing functions, and allow our clients to have access to their data at their fingertips.

GLA-Data was designed and implemented using an MS SQL Server database with an ASP. Net front-end web application. Database capabilities include data import and collection using online forms and documentation, and custom tools and queries to support permitting, monitoring, and reporting to outside agencies.

A main GIS map webpage is the portal (entry point) to the system for internal users and our client to:

- Access and view information related to specific landfills, wells, sample events, or analytical data
- View and analyze historical water quality data for a specific monitoring event, a custom range, or all historical data
- Generate and export custom graphs, including hydrographs, time-series charts for analytical data, Stiff Diagrams, and Piper Diagrams
- Develop and export reports used for reporting to state agencies
- Manage any documents related to the clients' landfills

* Acme Landfill, Athens Services, Inc., Bonzi Landfill, Burrtec Landfill, Calaveras County, City of Redlands, Goldstone Deep Space Communications Complex, Republic Landfill, Salinas Valley Solid Waste Authority, San Bernardino County, Tuolumne County, and Waste Connections