

## Closure and Post-Closure Plan Preparation for the Ordot Dumpsite on the Island of Guam

Ordot Chalan-Pago, Guam

### Client

Brown and Caldwell

### Timeframe

2011 - Present

### Contract Amount

\$600,000 (GLA Part w/o CQA)

### Personnel

Jake Russell, PE

Monte Christie, PE, GE

Michael Yacyshyn, PE

Neven Matasovic, PhD, PE, GE

Bryan Fritzier, PE

Robbie Warner, PE, GE

Adrienne Thibeault



The Ordot Dump is a high-profile site located on the Island of Guam. The site had been in use for over 60 years as an open dump. It became a Superfund Site when it was placed on the National Priorities List (NPL) of the US EPA. However, it continued to be used as an open dump. Three years later, the site was found in violation of the Clean Water Act for discharging leachate into a nearby river. Ultimately, the Ordot Dump closure project was placed in receivership and GBB was appointed by the Guam Court as the receiver on the project. An RFP was issued in 2011 for closure design and Brown and Caldwell was selected as the prime consultant with GLA as a subconsultant responsible for geotechnical analysis, final cover system design, including water and water conveyance, and closure and post-closure plan preparation.

The project team designed a temporary exposed geomembrane cover system, conducted a geotechnical investigation, prepared site development alternatives, provided closure and post-closure plans, prepared construction-level design and closure documents, and provided construction quality assurance. This site poses unique waste, geographic, and climatic challenges including difficult soils, a widespread waste footprint, and extremely high rainfall. Due to the location of Guam in the Pacific Ocean, the design storm for the facility accounts for the occurrence of typhoons.

GLA, as subconsultant to GBB, was selected to provide construction observation for the closure construction. The complex construction was conducted over two consecutive dry seasons (January to June). The construction for this project was completed in December of 2015 and subsequently approved by all regulatory agencies.

The site is now in its post-closure monitoring period with GLA providing environmental monitoring services. This work includes groundwater, leachate, surface water, and landfill as sampling.

### Project Highlights

- Field geotechnical Investigation including laboratory analyses of soils
- Seismic hazard assessment and global/cover system stability analyses
- Site Development Alternatives evaluating various grading plans
- Closure and Post-Closure Plans
- Temporary Cover design
- Design Report
- Stormwater and hydrologic evaluations
- Perimeter Leachate Collection System
- Test pitting and potholing to determine extent of waste
- Construction Specifications
- Construction Quality Assurance Plan
- Construction Drawings
- Bid Item Determination and Engineer's Estimate
- Construction Quality Assurance during Construction