

Range Reconnaissance and GIS Analysis to Estimate MEC Clearance Requirements

The scope of work for these projects includes an onsite ground survey conducted by technical personnel with ordnance related specialties, GIS analysis of field collected and other acquired data, and a report summarizing the current range conditions depicting the level of MEC and severity of risk, necessary to clear the proposed land for new range construction. Through the aid of GIS, ZAPATAENGINEERING and the Corps of Engineers analyzed the sample field data collected and projected values across the subject area to provide prediction models for the remediation and removal efforts associated with MEC, munitions debris, and other scrap debris. ZAPATAENGINEERING acquired additional data for determining soil and vegetation conditions that would affect digging rates, along with historical range maps to determine historical activities that took place in the subject area. The results of the scoped effort were integrated into a report with numerous maps displaying current conditions of the subject site determined from the GIS models. The report results were then used by the Corps of Engineers to determine the best practices to use to remediate or avoid highly contaminated areas; and, determine the cost associated with preparing the site for construction activities. In some cases the actual design of the new range and target locations were impacted by high risk MEC areas, and subsequently moved to lower risk areas. ZAPATAENGINEERING was later awarded the clearance tasks at some of these sites. After the clearance actions were completed, comparisons were made between the actual counts to the estimated range recon counts. This report contains our comparisons and provides our recommendations for this type of project execution. Throughout this project several lessons were learned ranging from data collection to data modeling methodologies.

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