ITRC Provides Cost Savings for the U.S. Army Corps of Engineers

Using ITRC guidelines prepared by the Small Arms Firing Range Team, the U.S. Army Corps of Engineers recently helped save costs for a Washington Army installation relocating its firing range.

The former Evergreen firing range at Fort Lewis, Washington was used for military training in the 1950s and 1960s. After years of absorbing bullets, the backstop berm behind the firing range was stippled with projectile contaminants, some containing lead. Left unmanaged, these contaminants could leach into the groundwater and pose a health risk to people or wildlife.

When the Seattle District Army Corps of Engineers was charged with the task of determining the nature and extent of contamination in preparation for cleanup of this range, the corps looked at alternatives to traditional excavation and landfill disposal. As a result of these explorations, Fort Lewis used the ITRC technical guidance document, "Characterization and Remediation of Soils at Closed Small Arms Firing Ranges," in its plans to reuse contaminated soil at the facility's active firing range rather than disposing of it at a hazardous waste landfill.

The Washington State Department of Ecology accepted Fort Lewis's remediation proposal on the condition that bullet fragments be removed from the soil and residual soils be treated to reduce lead content to below hazardous waste levels.

"The ITRC technical guidelines provided our team with a tool to assist in negotiating remediation options with the State Department of Ecology—specifically Section 4.8, which addresses relocating soil for reuse as a backstop on range property," said Kira Lynch of the Seattle District Army Corps of Engineers. "It encouraged us to consider soil reuse as a remedy. We also used the ITRC guidelines to successfully document that soil reuse is an environmentally protective and sustainable alternative."

The cleanup, completed in July 2005, removed approximately 9,000 tons of soil, which contained about 1 ton of bullets and stainless steel. The metal fragments were sent to a recycling facility, and the treated soil was used as backstop for a new firing range at Fort Lewis. The total project cost of approximately $800,000 represented a cost savings when compared to the traditional dig and haul approach.