

Integrating Green and Sustainable Practices with Navy Restoration Projects
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The Naval Facilities Engineering Command (NAVFAC) is taking essential actions to incorporate the concepts of green and sustainable remediation into the Navy's Environmental Restoration Program. These actions include tasking the NAVFAC workgroup on optimizing remedial actions with assessing the available sustainability evaluation tools, conducting case studies on Navy sites, developing technology transfer items, and providing guidance to the Navy remedial program managers (RPMs). Examples of other NAVFAC actions include a pilot project for the use of alternate fuels (biodiesel blend), and a case study for remedy selection that includes sustainability considerations.

For the pilot project, the Navy and Marine Corps partnered with the EPA, cleanup contractor, and equipment suppliers to reduce emissions during a large soil excavation project at a contaminated site. The project used retrofitted equipment to use biodiesel blends. For the remedy selection case study, the project demonstrated a comparison between three remedial options - air sparging / soil vapor extraction (AS/SVE), combination of soil excavation and AS/SVE, and combination of soil excavation and monitored natural attenuation. The demonstration quantified greenhouse gas emissions and energy use for the three options, and also provided qualitative assessment of sustainability factors such as water and land use, and collateral risk.

The Navy plans to conduct additional case studies at environmental restoration sites and use the lessons learned from these case studies to develop guidance for Navy RPMs. The Navy is also collaborating with other DoD agencies, and other interested parties such as EPA, SuRF, and ITRC to draw on their experiences with implementing green and sustainable remediation practices.