

ASTM E2893-16 Greener Cleanup Self-Declaration at Marine Corps Base Camp Lejeune

Monica Fulkerson, P.E. (Monica.Fulkerson@ch2m.com) (Jacobs, Charlotte, NC, USA)

Betsy Collins (Jacobs, Raleigh, NC, USA)

Paul Favara (Jacobs, Gainesville, FL, USA)

Matt Louth (Jacobs, Virginia Beach, VA, USA)

David Cleland (NAVFAC, Norfolk, VA, USA)

Charity Delaney (MCB Camp Lejeune, NC, USA)

Background/Objectives. Since 2009, the Naval Facilities Engineering Command (NAVFAC) and CH2M have worked to reduce environmental footprints in the core elements of energy, air, water, materials and waste, and land and ecosystems throughout every phase of site work at Marine Corps Base (MCB) Camp Lejeune. To document that MCB Camp Lejeune's Installation Restoration Program (IRP), Military Munitions Response Program (MMRP), and Resource Conservation and Recovery Act (RCRA) Program are in conformance with the Standard Guide for Greener Cleanups (ASTM international; 2016) a Greener Cleanup Self-Declaration (as defined in ASTM E2893-16) was completed in 2017.

Approach/Activities. The five steps of the Greener Cleanups Self-Declaration process were conducted as described below:

Step 1 – A total of 31 best management practices (BMPs) in eight categories (Buildings, Materials, Power and Fuel, Project Planning and Team Management, Residual Solid and Liquid Waste, Site Preparation and Land Restoration, Surface and Storm Water and Vehicles and Equipment) were selected as potentially applicable and were carried forward to Step 2.

Step 2 – Selected BMPs were prioritized based on the relative probability of each BMP to reduce the environmental footprint. During the prioritization process, seven BMPs were given a low designation, 18 a medium designation, and six a high designation.

Step 3 – From the prioritized list, 20 BMPs were selected for inclusion. Rationale for exclusion included potential environmental impact reductions in addition to implementability, effectiveness, reliability, short-term risks, community priorities, and cost.

Step 4 – These 20 BMPs were implemented at sites across the Base during site assessments; remedy selections; remedy designs and implementation; operations, maintenance and monitoring; and optimization.

Step 5 – This process was documented in the Greener Cleanup Self-Declaration and made available to the public.

Results/Lessons Learned. This presentation will detail the five steps of the Greener Cleanups Self-Declaration process that were conducted and provide examples of the BMPs that were selected, examples of prioritization ratings with rationale, examples of BMPs excluded with rationale, and examples of BMPs that were implemented as part of this process. Further details will be provided on the impacts BMP implementation had on environmental footprints and how SiteWise™ was utilized in the BMP evaluation and implementation process.