

**NAVAL ACTIVITY PUERTO RICO (former Naval Station Roosevelt Roads)  
Ceiba, Puerto Rico  
(October 2016)**

**Facility/unit Type:** SWMU 68 - Former Southern Fire Training Area

**Contaminants:** copper, lead, and zinc

**Media:** surface and shallow subsurface soil (ground surface to approximately two feet below the ground surface)

**Proposed Final Remedy:** Excavation and off-site disposal of approximately 555 cubic yards of contaminated soil (to a depth of two feet below the ground surface)

**FACILITY DESCRIPTION**

The USEPA issued a RCRA 7003 Administrative Order (EPA Docket No. RCRA-02-2007-7301) (effective January 29, 2007), which identifies SWMU 68 (formerly referred to as ECP Site 14) – the Former Southern Fire Training Area as having documented releases of solid and/or hazardous waste and hazardous constituents and required additional investigation in the form of a Phase I RFI.

SWMU 68 is located at the southwest end of the Ofstie Airfield adjacent to the Clear Zone off the end of the main runway (see Figure 1). SWMU 68 covers approximately 18 acres of mostly upland habitat; portions of this area include a freshwater wetland classified as Palustrine Emergent Persistent (PEM1) wetland.

The site was first identified through an aerial photography analysis conducted as part of a Phase I Environmental Condition of Property (ECP) Report due to the observation of a circular, graded area with an aircraft fuselage and two stained areas consistent with a fire training area on photographs from 1961 through 1964. Dates of usage of the area are unknown but are suspected to be in the 1950s and 1960s.

Phase I RFI and CMS investigations identified only limited surface soil contamination associated with this site. No previous corrective action activities or interim measures have been conducted at this SWMU.

In 2016, an assessment was completed to determine if historical firefighting activities conducted at SWMU 68 potentially released per- and polyfluoroalkyl substances (PFAS) to the environment. Based on the SMWU history and timeframe of use for firefighting training no further investigation for PFAS is warranted.

Ownership of the airfield parcel (Ofstie Airfield) was transferred from the United States Navy to the Puerto Rico Ports Authority on February 7, 2008. The Ports Authority has developed the Ofstie Airfield into a regional airport (operation as a regional airport began in December 2008).

**EXPOSURE PATHWAYS**

Based on data from the Phase I RFI and CMS investigations, screening of soil and groundwater data from the SWMU did not indicate unacceptable carcinogenic or noncarcinogenic risks to human health.

Potential unacceptable ecological risks were identified for terrestrial plants and invertebrates exposed to surface soil and direct dietary intake (ingestion) by terrestrial avian receptors. Constituents of concern and clean up objectives are listed on Table 1.

**SELECTED REMEDY**

The goal of the proposed remedy is the removal of contaminated surface soil thereby eliminating potential exposure by terrestrial plant, invertebrate and avian receptors.

The proposed remedy for SWMU 68 consists of the excavation and off-site disposal of approximately 555 cubic yards (CY) of contaminated soil (to a depth of two feet below the ground surface) from two areas at the site (see Figure 2). Approximately 370 CY of lead and zinc contaminated soil will be excavated from the first area; and approximately 185 CY of lead and copper contaminated soil will be excavated from the second area. Confirmation samples will be collected from the sidewalls of the excavation, however samples from the excavation bottom are not warranted because the exposure pathway (top 2 feet of surface soil) has been removed.

No long term restrictions, controls or monitoring are required with this remedy.

Table 1 – Constituents of Concern and Clean Up Objectives

Media	Estimated Volume (CY)	Contaminant	Maximum Concentration (mg/kg)	Clean-up Objective (mg/kg) <sup>(1)</sup>	Point of Compliance <sup>(2)</sup>
Surface Soil	185	Copper	250	168	Confirmation Samples
	555	Lead	230	87	Confirmation Samples
	370	Zinc	130	120	Confirmation Samples

CY – cubic yards

mg/kg – milligrams per kilogram

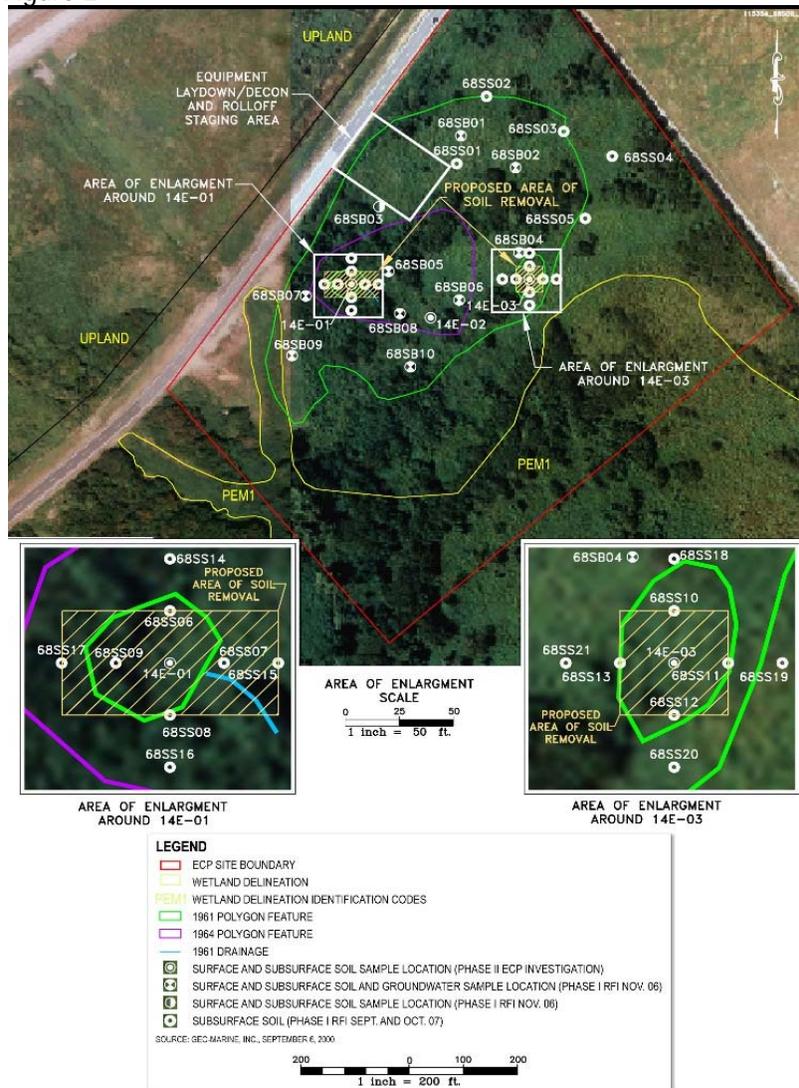
- <sup>(1)</sup> Clean-up objectives are based on surface soil background and on protection of terrestrial plants, invertebrates and avian receptors.
- <sup>(2)</sup> The point of compliance will be various delineation/confirmation sample locations around the perimeter of the excavations.

<p>The estimated capital cost for implementation of the excavation of contaminated soil and off-site disposal corrective measure is \$298,000. Since contamination will be removed from the site, long-term or operation and maintenance costs are not required.</p> <p><b><u>INNOVATIVE TECHNOLOGIES CONSIDERED</u></b> Excavation and off-site disposal of contaminated soil is a presumptive remedy for this SWMU. No innovative technologies were considered.</p> <p><b><u>PUBLIC PARTICIPATION</u></b> Public review and comment on the proposed remedy for SWMU 68 will be implemented as required by the Administrative Order on Consent between the Navy and USEPA. A public notice of the public comment period will be published in both Spanish and English in select Puerto Rico newspapers.</p>	<p><b><u>PUBLIC COMMENT PERIOD</u></b> October 20, 2016-November 20, 2016</p> <p><b><u>SUBMIT WRITTEN COMMENTS</u></b> Written comments on this Statement of Basis for SWMU 68 will be accepted during the public comment period. To submit comments or obtain further information on the proposed remedy for SWMU 68 or request a public meeting, please provide written correspondence to:</p> <p>Jessica Mollin USEPA Project Manager ERRD-SPB-FFS 290 Broadway, 20th floor New York, NY 10007-1866</p> <p>Stacin Martin Navy Remedial Project Manager NAVFAC Atlantic EV31 6506 Hampton Blvd, Bldg A Norfolk, VA 23508</p>
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Figure 1



Figure 2



If requested during the Public Comment Period, a public meeting will be held to respond to any oral comments or questions regarding the proposed determination. The public will be notified of the date, time, and place of any public meeting as soon as it is scheduled.

**NEXT STEPS**

Following completion of public review and comment on the proposed remedy, the USEPA will advise of any required modifications based on the public comments, or its acceptability. Following USEPA's approval of the proposed remedy, NAPR will implement the approved remedy.

Table 2 – Key Documents

Title	Date
Final Corrective Measures Study Report (ARF#01470)	June 12, 2009
Revised Final Corrective Measures Study Work Plan and Design Package (ARF#02644)	September 3, 2010
Per- and Polyfluoroalkyl Substances Assessment for Solid Waste Management Unit 68, Former Southern Fire Training Area (ARF#02645)	August 2016

**KEY WORDS**

Soil, copper, lead, zinc, excavation, off-site disposal, NAPR, SWMU 68, Per- and Polyfluoroalkyl Substances

**FURTHER INFORMATION**

The Administrative Record documents can be reviewed anytime at: <http://go.usa.gov/8mnm>

During regular business hours, a hardcopy of the Statement of Basis and reference documents listed under Key Documents will be available for public review.

**Puerto Rico Environmental Quality Board**

Land Pollution Control Area – 3rd Floor

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