



## Long-Term Stewardship Assessment Report

### BAE Systems Norfolk Ship Repair

EPA ID #: VAD003175072

Norfolk, Virginia 23523

Prepared by: John Hopkins

Report Date: March 13, 2017

**Introduction:** Long-term stewardship (LTS) refers to the activities necessary to ensure that engineering controls (ECs) are maintained and that institutional controls (ICs) continue to be enforced. The purpose of the EPA Region 3 LTS program is to periodically assess the efficacy of the implemented remedies (i.e., ECs and ICs) and to update the community on the status of the RCRA Corrective Action facilities. The assessment is conducted in twofold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance to the final decision.

**Site Background:** BAE Norfolk Ship Repair (BAE NSR) is a 110-acre industrial area located on the eastern side of the Elizabeth River. The facility has been used to repair military and private commercial ships since 1915. Built on various fill material, the shipyard accommodates two dry docks and five piers. A variety of activities are present at the shipyard including ship repair, machine shops, offices, a waste water treatment plant, an oil recovery and treatment facility, grit blasting, painting, dry docks, metal works, hazardous material use and storage, scrap metal containers, fire protection services, and other shipyard related services. The facility is bounded on the east, west, and north by Interstate 464, the Elizabeth River and parking areas, respectively.

**Current Site Status:** In 2009, interim measures were complete after the excavation of PAH impacted soils at RA-111. In 2011, EPA issued the Final Decision and Response to Comments (FDRTC). The final remedy determination is No Further Action with Controls. Controls include a Materials Management Plan and a residential land use restriction. No further action is required for groundwater. The final remedy detailed in the FDRTC is implemented through an Environmental Covenant between USEPA and BAE NSR dated September 28, 2012. The property is currently under continued use as described above.

**Long-term Stewardship Site Visit:** On March 1, 2017, EPA conducted a long-term stewardship site visit with Facility representatives and its contractor to discuss and assess the status of the implemented remedies at the site. The attendees were:

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## **Institutional Controls (ICs) Status**

***UECA Environmental Covenant:*** This covenant is the method for implementing institutional controls required as a condition of the Statement of Basis and Final Decision. The following ICs apply to the BAE NSR facility, shown in Figure 1:

***Land Use Restriction:*** The Property may not be used for any purpose other than Industrial. There were no residential structures or residential uses of the property observed at the time of the visit. BAE NSR continues to use the property as a ship repair facility and is in compliance with the land use restriction.

***Materials Management Plan:*** The Materials Management Plan (MMP) details how all excavated soils will be handled and disposed in areas of known contamination (RA-114 and SWMU-105). Soils removed from MMP areas must be sampled, characterized and handled accordingly. The areas subject to the MMP were observed intact with no signs of earth-moving activities. Also, BAE NSR requires any soils removed on-site to be characterized similar to the requirements of the EPA approved MMP. This provides additional assurance that contaminated soils moved on-site will be managed properly. SWMU-105 occupies an office building surrounded by grass, sidewalks and a few plants. RA-114 is currently an unused area of the facility where vegetation is not maintained. The vegetation acts as a buffer zone between the facility and the Elizabeth River.

**Financial Assurance:** No financial assurance for corrective action is required at the Facility.

**Reporting Requirements/Compliance:** BAE is required to submit annual compliance reports regarding activity and use restrictions recorded in the Environmental Covenant. There are no issues of noncompliance in regards to reporting requirements as the facility has submitted this documentation annually. The latest compliance report was received on September 6, 2016. No transfer of property, changes in use of the property, or work that will affect contamination at the property has been reported.

**Mapping:** The EPA Facility website map is accurate and includes the 110-acre BAE NSR parcel. The map was field-verified and no issues were noted. A downloadable geospatial pdf map is available on EPA's corrective action facility webpage under the "Reports, Documents and Photographs" section, found [here](#).

**Conclusions and Recommendations:** No EC/IC deficiencies were identified. EPA has determined that the remedy EC/ICs have been and are being implemented. EPA recommends that BAE NSR survey areas RA-114 and SWMU-105 to defined the extent of the Materials Management requirements.

## **Attachments:**

Appendix A: Field Checklist

Figure 1: Aerial Map of BAE Norfolk Ship Repair

Picture 1: RA-114

Picture 2: SWMU-105

Picture 3: RA-111

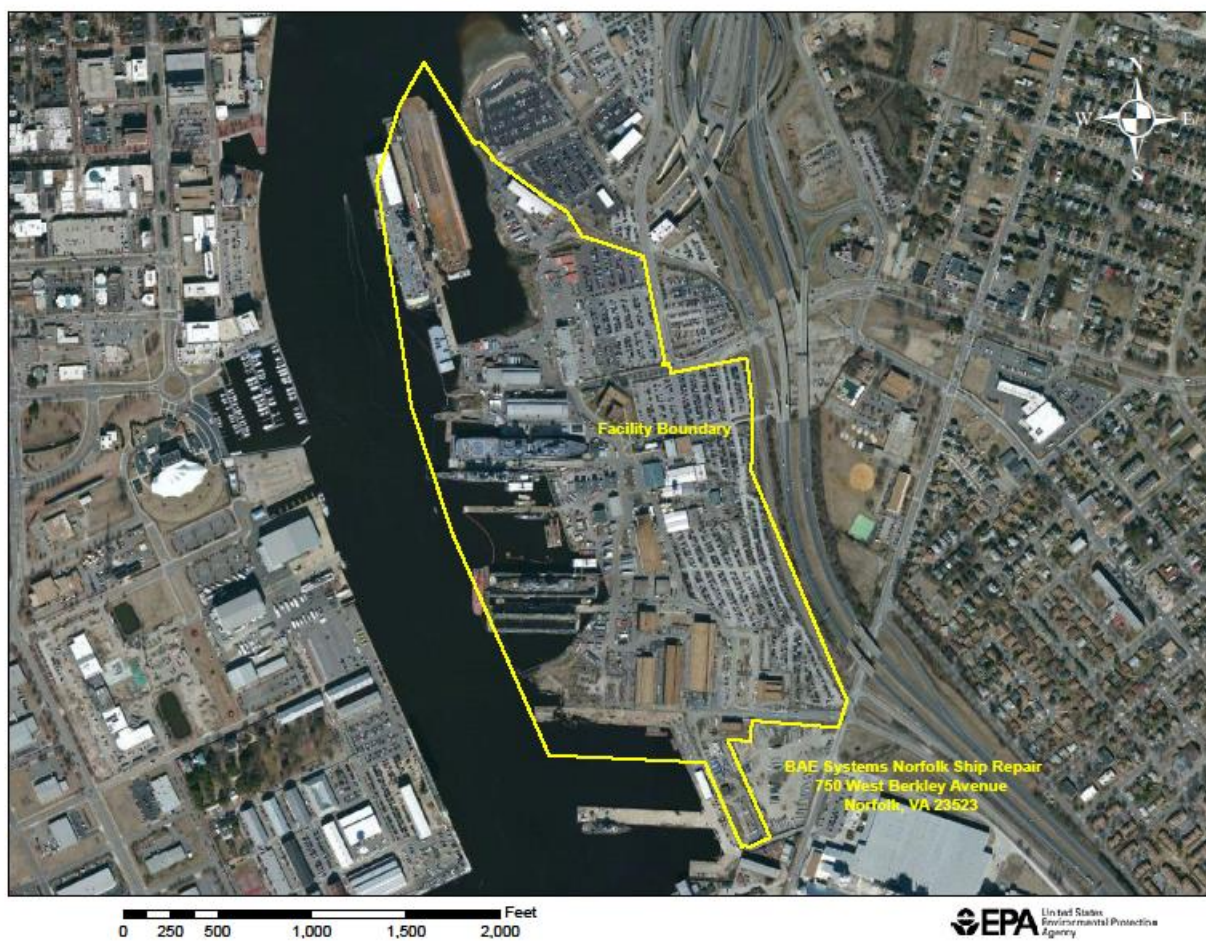
EPA – Long Term Stewardship Checklist  
BAE Norfolk Ship Repair, Norfolk, VA  
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<u>IC Review and Inspection Questions:</u>	<u>Yes</u>	<u>No</u>	<u>Notes</u>
• Have the ICs specified in the remedy been fully implemented?	X		
• Are the covenant restrictions and groundwater ordinance limitations eliminating or reducing exposure of all potential receptors to known contamination?	X		
• Are the ICs effective and reliable for the activities (current and future) at the property to which the controls are applied?	X		
• Are there plans to sell the property, or change the current use of the property?		X	
• Is the Facility connected to a public water supply?	X		
• Is groundwater on-site used as a potable water supply?		X	
• Since groundwater monitoring is not required, will existing monitoring wells be decommissioned?			Wells have been decommissioned
• Do the ICs provide control for the entire extent of contamination (RA-111 and SWMU-105)?	X		
• Are modifications to the Covenant needed?		X	
• Have all reporting requirements been met? (transfer of property, annual activity and use limitations compliance)	X		

Observed by: John Hopkins, Erich Weissbart, Lisa Silvia,  
Steve Bulleigh

Notes: Need to map SMP areas: SWMU-105 → grassy area near office  
bldg. with sidewalk/pavement; RA-114 → unused part  
of the facility, buffer zone between facility and Elizabeth River

Figure 1: Aerial Map of BAE Norfolk Ship Repair



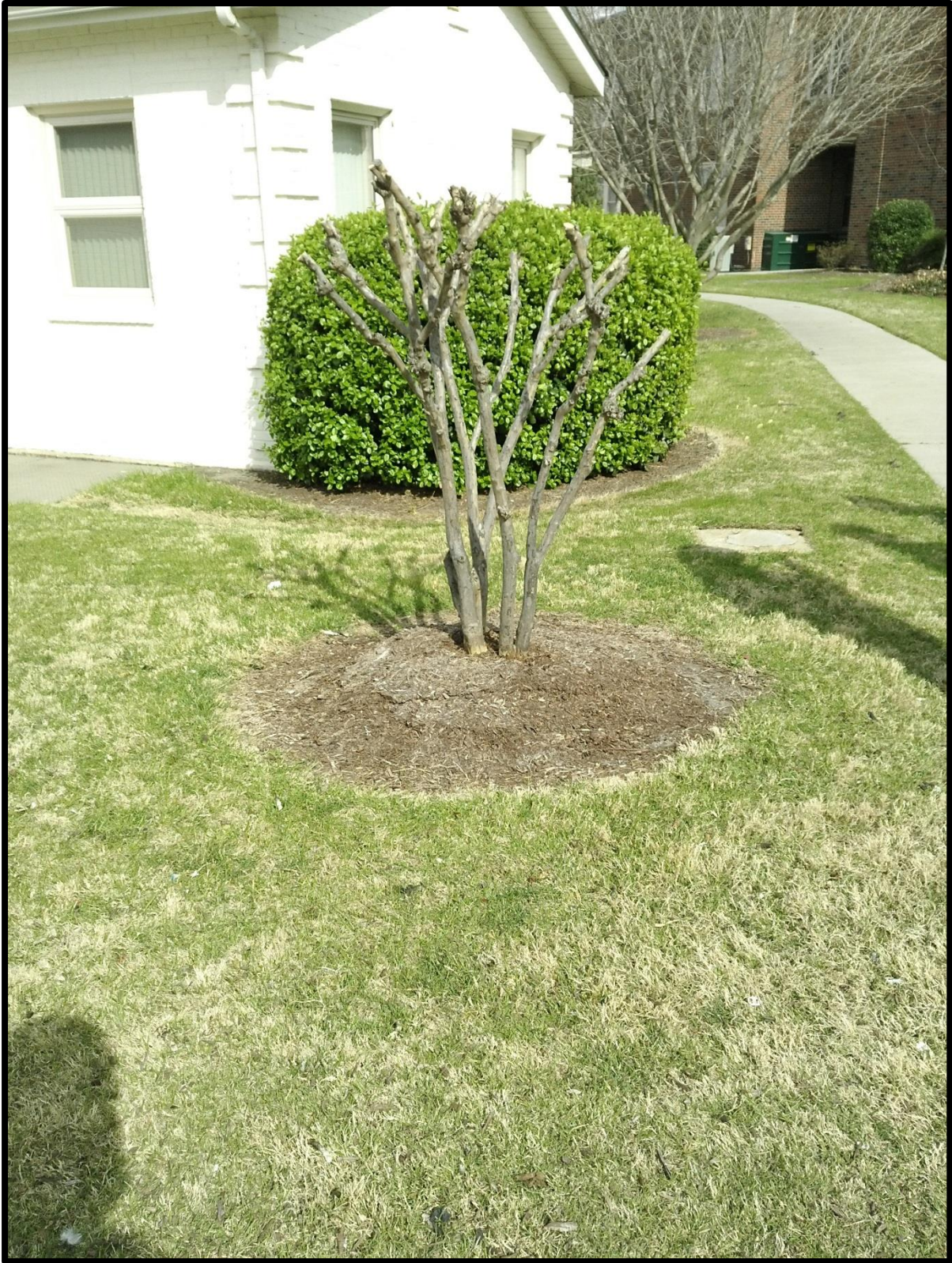


Picture 1: RA-114



Picture 2: SWMU-105





Picture 3: RA-111



