Fort Pickett, Virginia

October 2019

Background

The Department of Defense (DoD) uses and manages operational ranges to support national security objectives and maintain the high state of operational readiness essential to its mission requirements. The Department conducts non-regulatory, proactive, and comprehensive operational range assessments (ORAs) to support the long-term sustainability of these ranges while protecting human health and the environment. The purpose of an ORA is to determine if there is a release or substantial threat of a release of munitions constituents (MC) from an operational range to an off-range area that exceeds an applicable regulatory standard or creates a potential unacceptable risk to human health or the environment.

The Army National Guard (ARNG) ORA effort was developed to address DoD requirements detailed in DoD Directive 4715.11 (10 May 2004) and DoD Instruction 4715.14 (15 November 2018). The overall objective of the ORA is to assess operational ranges/range complexes to determine if an off-range MC release or substantial threat of an off-range MC release exists; if an off-range MC release exists, does it exceed an applicable regulatory reporting standard; and if an MC release or substantial threat of a release exists, determine whether it creates a potentially unacceptable risk to off-range human health or the environment.

Operational Range Assessment Findings (03/2018)

No source was identified at the maneuver and training area. Based on observed migration control measures and results of the 2011 Phase II sampling, the periodic review determined that MC are not migrating from the installation at concentrations that pose an unacceptable risk to human health or the environment.

Next Steps

Fort Pickett should be placed into the Periodic Review cycle to be re-assessed in five years.

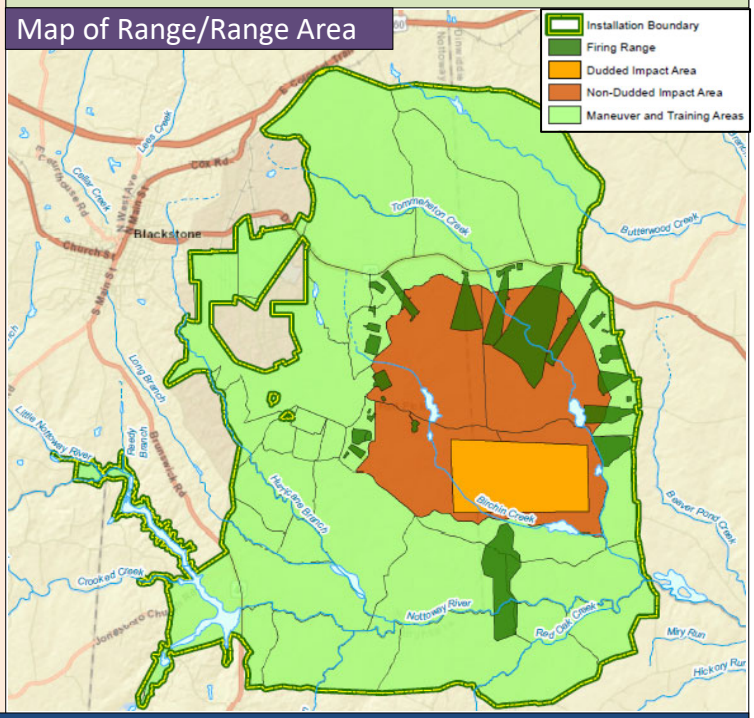
Installation Overview

Fort Pickett is located in Nottoway, Dinwiddie, Lunenburg, and Brunswick counties near the town of Blackstone, Virginia. Fort Pickett was established in 1941 and has been used for live-fire training since its establishment as an Army training facility in 1942 .

Fort Pickett was used for training during World War II and the Korean War, and the VAARNG established a training center at Fort Pickett in the 1950's.The status (i.e., active, closed, semi-active) of Fort Pickett changes multiple times between 1946 and 1997, when finally Fort Pickett was ceded to the VAARNG in a Base Realignment and Closure round.

Currently, Fort Pickett is used by the VAARNG as a maneuver and training center focused on providing realistic joint and combined arms training.

Map of Range/Range Area



Installation Overview (continued)

Fort Pickett is comprised of 62 operational range areas totaling 41,153.3 acres; no portions of the installation are considered non-operational. The operational range areas consist of 27 firing ranges, 33 maneuver and training areas (e.g., maneuver areas, Blackstone Army Airfield, administrative areas), 1 dudded impact area, and 1 non-dudded impact area.

Previous ORA Investigations

In 2008, a Phase I qualitative assessment was performed at Fort Pickett to determine if MC were migrating from the installation's 93 ranges at levels that posed an unacceptable risk to human health or the environment. The Phase I determined that a limited source was present at 37 operational ranges and no MC were migrating from the ranges at unacceptable concentrations. However, at a number of small arms ranges, firing points and impact areas, the Phase I identified a potential MC source, a potential surface water pathway, and downgradient human and ecological receptors. As such, these 56 ranges were classified as Inconclusive and recommended for a Phase II surface water investigation.

A surface water and sediment sampling event was conducted at Fort Pickett in 2011 as part of the ORA Phase II. The purpose of the sampling was to determine whether potential sources associated with operational areas on Fort Pickett introduced an unacceptable risk to off-range human and/or ecological receptors. Analytical results for the samples were compared to Project Action Levels (PALs).

No explosive MCOC were detected in surface water samples. Dissolved MCOC metals concentrations, except for copper, in surface water samples taken at the downstream location were well below the associated PALs, and lead concentrations in downstream samples were lower than lead concentrations at reference locations. Copper was detected in both reference and downstream surface water samples at concentrations that exceeded the PAL; however, lead, antimony, and zinc results indicate that MCOC migration off the operational footprint is not occurring.

In sediment, all detected metals concentrations were at least an order of magnitude below the associated PALs. Therefore, it was concluded that the detected concentrations of metals in sediment were not a concern.

Periodic Review (2018)

Based on information collected during the completion of the 2018 Periodic Review, Fort Pickett's operational range layout has not changed since the 2011 Phase II.

No concentrated MCOC source was identified for the maneuver and training areas at Fort Pickett. However, the firing ranges and impact areas remain a potential source of MCOC. Although a source was identified, groundwater is considered an unlikely migration pathway for Fort Pickett since shallow and deep groundwater at the installation likely discharges to local streams and/or the Nottoway River within the installation boundary.

Because drainage from potential source areas flows towards several major stream networks (i.e., Nottoway River, Hurricane Branch, Birchin Creek, Tommeheton Creek, Butterwood Creek), there is a potential for off-range MC migration within surface water. However, Fort Pickett stream networks eventually discharge to the Nottoway River, and the next nearest downstream surface water intake on the Nottoway River is ~30 miles from the operational range boundary.

Additionally, metals MCOC are not highly mobile and migration control measures (i.e., berms, dense vegetation, sediment trap) are implemented at several of the ranges to further reduce the mobility of MCOC. Based on these observations and results of the 2011 Phase II sampling, the Periodic Review determined that MCOC are not migrating off-range at levels that pose an unacceptable risk to human health and the environment.

For more information on Fort Pickett, visit https://vaguard.dodlive.mil/contactpao/
For more information on the DoD Operational Range Assessment Program visit https://www.denix.osd.mil/orap/home/