

**Draft Final Proposed Plan - Landfill No. 14  
FTLE-11\_CLOSED LANDFILL No.14  
Site ID 51315.1011  
Fort Gregg-Adams, Virginia**



July 2024

<b>PUBLIC COMMENT PERIOD</b>		
<b>July 8, 2024 – August 7, 2024</b>		
<i>During the comment period, interested parties may submit written comments on the Proposed Plan.</i>		
<b>Virtual Public Meeting:</b>	<b>Document Repository location:</b>	<b>For additional information contact:</b>
<b>Date:</b> July 24, 2024 <b>Time:</b> 6:30 to 7:30pm	<a href="https://home.army.mil/greggadams/about/Garrison/directorate-public-works/environmental-management/documents-review">https://home.army.mil/greggadams/about/Garrison/directorate-public-works/environmental-management/documents-review</a>	Mr. Craig Norris Environmental Engineer Directorate of Public Works Environmental Management Division Building 6005 825 19th Street USAG Fort Gregg-Adams, Virginia 23801 Desk: (804)734-3772 <a href="mailto:craig.a.norris10.civ@army.mil">craig.a.norris10.civ@army.mil</a>

**1.0 INTRODUCTION**

This Proposed Plan (PP) describes land use controls (LUCs) proposed remedy for Landfill 14 and provides the rationale for selecting this preferred alternative. This site is located on the Fort Gregg-Adams Military Reservation (Fort Gregg-Adams) in Virginia and is indicated in the database of record as FTLE-11\_Closed Landfill No.14 and the WBS number is 51315.1011. It is the U.S. Army's (Army's) judgment that the preferred remedy identified in this Proposed Plan is appropriate, as no current or potential threat of releases of hazardous substances, and therefore no current or potential threat to human health and the environment, is present at the site as long as contact with landfill waste is prevented.

This PP summarizes information presented in the Preliminary Assessment/Site Inspection (PA/SI), Landfill

Final Site Inspection Report, the Final Interim Action (IA) Report, November 2015 Annual LTM Groundwater Monitoring Report 2014 and other documents contained in the public information repository at the Appomattox Regional Library in Hopewell, VA,

The Army is issuing this Proposed Plan as part of its public participation responsibilities under Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and Section 300.430(f)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This Proposed Plan is issued by the Army (the lead agency for site activities), in consultation with the Virginia Department of Environmental Quality (VDEQ; the support agency).

This Proposed Plan informs the public of the remedy preferred by the Army in consultation with VDEQ and acts as a mechanism to solicit public comments pertaining to the preferred remedy. The Army, in consultation with VDEQ, will make a final remedy for the site following review and consideration of all information received during the 30-day public comment period. The public is encouraged to review the PA/SI and IA reports and the Administrative Record (AR) available at the Document Repository (noted above) to gain a better understanding of the site and investigation activities conducted at the site to date. In accordance with NCP Section 300.430(f)(3)(i)(D), a public meeting will be held during the public comment period.

## **2.0 SITE BACKGROUND**

This Proposed Plan provides a brief description of the site, an overview of the site history, as well as summary of previous investigations, and is divided into the following sections:

- Introduction (1.0)
- Site Background (Section 2.0)
- Site Characteristics (Section 3.0)
- Scope and Role of Response (Section 4.0)
- Remedial Action Objectives (Section 5.0)
- Summary of Remedial Alternatives (Section 6.0)
- Summary of Preferred Decision (Section 7.0)
- Community Participation (Section 8.0)
- Glossary – Provides definitions of terms.

Landfill 14 is a pie shaped, approximately 11-acre, parcel of land located in the northwest portion of Fort Gregg-Adams (Figure 1) and is bounded primarily by undeveloped land. A line from the Norfolk & Western Railroad and Highway 144 run adjacent to the southern boundary. River Road runs adjacent to the eastern boundary. The undeveloped land on the other side of these roads is part of Fort Gregg-Adams. A borrow pit is located near the western boundary and a trailer park is

located approximately 1,000 feet northwest of the tip of Landfill 14.

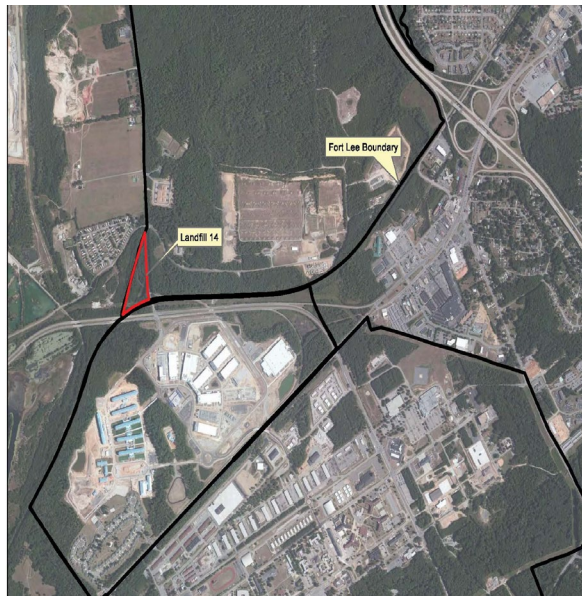
Landfill 14 was permitted as a construction demolition/debris (CDD) landfill (VDEQ Solid Waste Permit Number 237) on December 15, 1977. Although LF14 is a VDEQ permitted landfill, historically the regulatory driver in HQAS and IRP work conducted at this site has followed the CERLA process. The landfill was utilized from the early 1970's and closed in 1979. Landfill 14 was reportedly used to dispose of construction debris, primarily from the demolition of the old Army hospital. The construction debris was reported to have been contaminated with asbestos materials although none were detected during the SI. No other hazardous substances were believed to have been deposited at this site. Yard wastes from Ft. Gregg-Adams were also reportedly taken to this landfill. The actual area of the landfilled material is approximately 0.41 acres. No enforcement action has been taken at Landfill 14.

A PA/SI was conducted in 1995 and 1997/1998 at the request of VDEQ. The PA/SI evaluated the actual and/or potential hazards to human health and the environment.

The PA/SI included the installation of four monitoring (Figure 2) along the boundary of the suspected landfilled areas and the collection and analysis of groundwater, soil (surface and subsurface), sediment, and surface water samples. Subsurface soil samples and test pits were also used to determine the boundaries and the depth of the landfill. Samples were analyzed for volatile organic compounds (VOCs), semi volatile organics (SVOCs)/base-neutral-acid compounds (BNAs), metals, pesticides, polychlorinated biphenyls (PCBs), herbicides and asbestos.

Four surface water/sediment sample pairs were also collected from the southern portion of the site. Sample were analyzed for VOCs, SVOCs, chlorinated pesticides, PCBs, chlorinated herbicides, metals, and TOC.

Metals were detected in concentrations exceeding background levels in soil and groundwater and detections were widely distributed across Landfill 14.



**Figure 1 - Site Location Map**

Various chemicals were detected in all the media sampled, however the results of the PA/SI indicated contamination was not migrating from the buried waste.

A Pre-Remedial Toxicological Evaluation (PRTE) risk evaluation was completed as part of the PA/SI process. The PRTE concluded Landfill 14 does not present a significant risk to human health from soils based on current and predicted future land uses. However, potential risks to ecological receptors from surface soils were identified. Based on the results of the PRTE and the condition of the cover material, an interim action (IA) was performed in October 2000. The purpose of the IA was to provide adequate landfill cover and drainage, cover soils that posed a potential risk to ecological receptors, and control site access through fencing. The VDEQ requested that groundwater monitoring be conducted at Landfill 14 to demonstrate continuing compliance with Virginia Solid Waste Regulations (VSWR). Groundwater samples were analyzed for select

Virginia Solid Waste Regulations (VSWR) Table 3.1, Column B constituents (9 VAC-20-81-250). Groundwater sampling was conducted from 2003 through 2014 at various frequencies.

There have been limited maximum contaminant levels (MCL) exceedances during historical long-term monitoring (LTM) sampling events with no MCL exceedances during the last three LTM sampling events conducted in May 2011, June 2012, and May 2014 for the selected VSWR Table 3.1, Column B constituents (9 VAC-20-81-250). This being the case, per VDEQ Solid Waste Regulation 9VAC20-81-260. H.1.a (Corrective Action Program), the groundwater monitoring implemented under IA shall be considered complete. The November 2015 Annual LTM Groundwater Monitoring Report for 2014, recommended Landfill 14 be removed from the LTM program, thereby considering response action being completed with concurrence from VDEQ.

A site inspection was conducted to document the existing condition including access control system, augmented cover system, gas vents, illegal dumping/disposal, and monitoring wells/additional observations (as necessary). No deficiencies were noted during the landfill inspection conducted in June 2014.

*Although this is the initial request for public comment, the public is encouraged to review the background data contained in the Administrative Record.*

### **3.0 SITE CHARACTERISTICS**

Landfill 14 is inactive. The trailer park located approximately 1,000 feet from the northern boundary of the site, is upgradient of Landfill 14. Shallow groundwater flows away from the residential area in a southerly direction across Landfill 14.

The topography is generally flat with a gentle slope toward the south. Both surface water and groundwater flow are in this direction toward a drainage ditch that runs southwest to southeast along the Norfolk railroad, and parallel to the southern boundary of Landfill 14. Depth of groundwater is ranges from approximately 2 (northern end) to 12 feet below ground surface (bgs) that occurs at the southern end of the Site.

The northern end of the site is underlain predominantly by fine grained, slightly silty sand. Intertonguing of clay occurs at approximately 7-1/2 feet bgs, surfaces at the southern end, and extends to a thickness of approximately 7 feet. Fine to medium grained sand mixed with clay, silt and some gravel then extends to approximately 75 feet bgs. The silty clay and clayey sand surface soils inhibit infiltration of precipitation and encourage surface water ponding and runoff. Beneath the sand layer the material graded back to dark gray, medium plasticity clay. The thickness of this deeper clay unit was not determined, but it is believed to be the upper confining unit for the shallow aquifer in the Petersburg area.

Shallow groundwater at the site was found in the sand unit located through out the Site. Recharge of the sand unit occurred primarily through infiltration due to precipitation.

The most common waste materials identified in the landfill were a combination of wood, metal, and foundation (bricks and concrete) debris.

No source materials were identified as principal threats based on detected concentration in groundwater or soil or by way of potential migration.



Figure 2 - Site Map

### Human Health Risk

The Human Health Risk Assessment (HHRA) conducted as part of the 1999 SI Report determined the most sensitive receptor under the current and predicted future land use scenario was determined to be the child trespasser exposed by ingestion, dermal absorption or inhalation to contaminants in the surface soil.

The acceptable cancer risk range, measured in terms of probability of increased cancer risk, based on United States Environmental Protection Agency (USEPA) guidance is  $1 \times 10^{-6}$  to  $1 \times 10^{-4}$ . The noncarcinogenic effects are evaluated in terms of a hazard index (HI). The target HI based on USEPA guidance is 1.

The surface soils have been covered as part of the IA and no longer present a complete pathway for exposure. Therefore, is no current or future risk to human receptors from soils is evident.

Although there is no planned future use of Landfill 14, a hypothetical future onsite resident and/or construction worker exposed to groundwater could be subject to an unacceptable risk level. The total excess risk for lifetime exposure was calculated to exceed the target risk range. The major chemicals of concern (COCs) for the hypothetical tap water scenario included bis(2-ethylhexyl)phthalate, heptachlor epoxide, antimony,

arsenic, chromium, iron and manganese. Although bis(2-ethylhexyl)phthalate was identified as groundwater COC, this compound is a common laboratory analysis artifact.

### **Ecological Risk**

No exposure pathways exist for ecological receptors to soils after the completion of the IA. The soil cover provides a protective barrier for ecological receptors identified in PRTE to have potential risk. The results of the PRTE did indicate that there was a potential risk to ecological receptors from pesticides and heavy metals in surface water and sediments in the southern portion of the Site. This area receives surface run off from River Rd and the railway which provides a major influx of flow during storm events. Surface water results were also based on unfiltered samples which overestimate the actual risk to ecological receptors. The PA/SI determined that actual risk posed to ecological receptors from Landfill 14 was minimal compared to the influx of surface run off from other sources.

### **Risk Summary**

Site contaminants do not present an unacceptable risk to human health based on the current and predicted future land use of Landfill 14. Although there is no planned future use, a future hypothetical onsite resident exposed to groundwater used as tap water would be subject to an unacceptable risk level. No significant ecological risks were identified from exposure to site-related contaminants.

The preferred remedy is protective of human health and the environment since it prevents exposure to the landfill waste.

## **4.0 SCOPE & ROLE OF RESPONSE**

Remedial actions are unwarranted. However, IAs were conducted to reduce risk and exposure potential. The

proposed remedy described in this PP addresses the entire site and will be the final remedy for Landfill 14.

The remedy will address the protection of human health and the environment as well as compliance with Applicable or Relevant and Appropriate Requirements (ARARs). The VDEQ regulations identified and utilized as ARARs are as follows:

- Virginia Groundwater Standards: Virginia administrative Code 9 VAC20-81-250 Table 3.1 Groundwater Solid Waste Constituent Monitoring List
- Virginia Solid Waste Management Regulations: 9 VAC 20-81-10 to 760
- Monitoring Well Installation and Abandonment: 12 VAC 5-630-420 to 450
- Virginia Water Protection Permit Program Regulation: 9 VAC 25-210-50

Remedial actions are unwarranted. Potential future risk to onsite human health will be addressed by restricting future land and groundwater use. LUCS and landfill inspections/cover maintenance will continue, and five-year reviews will be performed as required by the NCP. These activities will be required for as long as the landfill waste is left in place.

## **5.0 REMEDIAL ACTION OBJECTIVES**

Remedial Action Objectives (RAOs) are site-specific, qualitative, or quantitative initial cleanup objectives established based on the nature and extent of contamination, the resources that are currently and potentially threatened, and the potential for human exposure.

The results of the 1999 SI HHRA identified no unacceptable risks based on the current land use scenario. Total cancer and non-carcinogenic risks to these receptors were determined to be less than target levels.

A hypothetical future land use scenario based on residential exposure (prepared for informational

purposes only) determined that exposure to groundwater could exceed acceptable levels if groundwater is used as a tap water source.

The anticipated RAOs will be to:

- Prevent contact with wastes left in-place.
- Ensure compliance with chemical specific applicable or relevant and appropriate requirements (ARARs) outside the waste boundary.

Current site land use, as well as anticipated future land use, is expected to remain as undeveloped/recreational.

## **6.0 SUMMARY OF REMEDIAL ALTERNATIVE**

The IA Completion Report was submitted in May 2001. Upon review of this document, VDEQ indicated that no further remedial action was required. Based on this decision no additional remedial alternatives were evaluated.

In addition, the November 2015 Annual LTM Groundwater Monitoring Report recommended that based on the absence of detections exceeding MCLs in all monitoring wells, Landfill 10 be removed from the LTM program, thereby considering response action being completed with concurrence from VDEQ. There were no detections exceeding MCLs in all wells during the last three LTM sampling events

Therefore, the Army proposes the remedy of LUCs, landfill inspections/cover maintenance, and statutory five-year review as required by NCP. Because this remedy will “result in hazardous substances, pollutants or contaminants remaining on site above levels that allow for unlimited use/unrestricted exposure” (NCP), a statutory review will be conducted within five years of the initiation of the remedial action to verify that the remedy is, or will be, protective of human health and the environment.

This remedy was selected for the following reasons:

- The SI sampling results demonstrated there is no evidence that groundwater is significantly impacted by buried wastes.
- The IA implemented provided soil cover material, surface drainage and access control to be compliant with VDEQ Solid Waste Regulations. The cover will be inspected and maintained.
- The addition of soil cover material provided a protective barrier that eliminates soil exposure to human and ecological receptors. No threatened/endangered species have been identified at Landfill 14.
- Although, groundwater is used for drinking water purposes in the vicinity; the wells are upgradient and groundwater utilized for drinking is obtained from a much deeper aquifer.
- Current site restrictions and controlled access prohibit any residential use and should be maintained.

The Commonwealth of Virginia concurs with the Army's proposed remedy decision. Community acceptance will be evaluated after the public comment period ends and will be described in the Decision Document (DD).

## **7.0 SUMMARY OF PREFERRED DECISION**

LUCs with landfill inspections/cover maintenance, and statutory five-year review was selected as the preferred remedy. It is anticipated these activities will continue for as long as landfill waste is left in place. This remedy complies with the VDEQ Solid Waste Management Regulations and other ARARs Containment, which includes LUCs, is the United States Environmental Protection Agency (USEPA's) Presumptive Remedy for historic land filling operations. This indicates that the selection likely meets the nine criteria defined in the

NCP for an acceptable remedy. The preferred remedy would not reduce toxicity, mobility, and volume of COCs. However, there are no COC exceedances beyond the waste boundary, which complies with the Virginia Solid Waste Management Regulations and other ARARs as listed in Section 4. There is no evidence of a contiguous plume of contamination migrating past the landfill/waste boundary.

LUCs will be used to eliminate potential contact with contaminated media to eliminate risk to human health impacts associated with COCs. LUCs will be used at the site to provide adequate protection against changes in land use that could create new exposure pathways and receptors.

*This selection is preliminary and subject to public comment. The selection could subsequently be changed if additional information is presented.*

## **8.0 COMMUNITY PARTICIPATION**

The Fort Gregg-Adams Public Affairs Office canvassed the surrounding communities for potential interest in establishing a Restoration Advisory Board (RAB) in October 2021. No responses were received from the local community. Based on the results of Fort Gregg-Adams's efforts to determine interest in forming a RAB, it was determined that there was not enough community interest to establish and sustain a RAB at this time. The surrounding community for Fort Gregg-Adams includes the Cities of Petersburg (population of approximately 32,000), Hopewell (population of approximately 22,000), and Colonial Heights (population of approximately 17,000), and the County of Prince George (population of approximately 36,000).

The Installation Restoration Program (IRP) at Fort Gregg-Adams operates under the guidelines established by the Fort Gregg-Adams Community Relations Plan, whose implementation and maintenance are the

responsibility of the Fort Gregg-Adams Public Affairs Office. The site reports, including the PA/SI and the Proposed Plan, have been made available at the public information repository at the Appomattox Regional Library in Hopewell, VA, for a public comment period, which will begin on July 8, 2024 and end on August 7, 2024.

In accordance with NCP Section 300.430(f)(3)(i)(D), a public meeting will be held during the public comment period. The meeting format is anticipated to be virtual, and an advance copy of the Proposed Plan will be provided electronically.

To send written comments during the comment period or obtain further information, contact:

**Mr. Craig Norris**  
Environmental Engineer  
Environmental Management Division  
Building 6005  
825 19th Street  
USAG Fort Gregg-Adams, Virginia 23801  
Desk: (804)734-3772  
Email: [craig.a.norris10.civ@mail.mil](mailto:craig.a.norris10.civ@mail.mil)

The VDEQ representative reviewing and providing concurrence for the PP is:

**Mr. Kyle Newman**  
Risk Assessor  
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Virginia Department of Environmental Quality  
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A suggested comment form is included at the end of this Proposed Plan. Besides being available in the public information repository, copies of the PA/SI and Proposed Plan are available in the Administrative Record (AR) file for Fort Gregg-Adams or by contacting Mr. Craig Norris in Fort Gregg-Adams's Environmental Management Office.

## GLOSSARY OF TERMS

**Asbestos:** A material use in building materials and insulation that protects against heat.

**Administrative Record:** The official records containing all public information regarding the site. A copy of the Administrative Record is maintained at the Fort Gregg-Adams Environmental Management Office.

**Applicable or Relevant and Appropriate Requirements (ARARs):** The regulatory requirements set forth by federal and state environmental rules, regulations, and standards, which must be reached during the implementation of the remedial action.

**Below Ground Surface (BGS):** Reference point used in measuring depth. It is used to indicate that the depth was measured from the ground surface.

**Background samples:** Samples collected in the environmental media that are not expected to be influenced by the source of contamination or by other sites.

**Base-Neutral-Acid Compounds (BNAs):** Semi-volatile organic compounds.

**Bioaccumulation:** The increase in chemical concentration in animals through the food they eat.

**Cancer risk:** Cancer risks are expressed as a number reflecting the increased chance that a person will develop cancer if exposed to chemicals or substances. (i.e.,  $1 \times 10^{-6}$  means one extra cancer in 1,000,000 people)

**Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):** The federal law initially passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA). The law establishes the program commonly known as Superfund, and regulated by the United States Environmental Protection Agency, to investigate and remediate uncontrolled or abandoned hazardous waste sites.

**Confining unit:** Is a rock or sediment unit with very low permeability that water is hardly transmitted through the unit. Confining units are often rich in clays and are called confining units because they may be above or below an aquifer and restrict the vertical flow of water through the aquifer.

**Conservative:** Biased high or overestimation. For example, in relation to environmental risk evaluation, the prescribed methodologies lead to an overestimation of risk. This way, if the results indicate no risk then it will be safe to assume, they are acceptable but if a potential risk is indicated then a more in-depth analysis is carried out to determine if there really is unacceptable risk.

**Chemicals of Concern (COCs):** Chemicals presenting a significant risk to human health or the environment.

**Constituents of Potential Concern (COPCs):** Are those constituents at a site which have been shown through laboratory analysis to most likely be causing potential risk to human health. Hundreds of constituents can be detected by typical laboratory methods, and it is necessary to focus investigations on the subset that could logically result from site activities.

**Constituents of Potential Ecological Concern (COPEC):** See COPC, except for ecological instead of human health risk.

**Decision Document (DD):** A legal public document that describes the cleanup action or remedy selected for a CERCLA site, the basis for the choice of that remedy, and public comments on alternative remedies. The DD is based on information and technical analysis generated during the RI/FS.



## GLOSSARY OF TERMS (Continued)

**Groundwater:** Underground water that fills pores in soils or openings in rocks to the point of saturation. Groundwater is often used as a source of drinking water via municipal or domestic wells.

**Groundwater monitoring:** Ongoing collection of groundwater data that helps gauge the effectiveness of actions to verify that contaminants are not migrating beyond the expected concentrations.

**Hazard Index (HI):** A number indicative of noncarcinogenic health effects. It is the ratio of the existing level of exposure to an acceptable level of exposure. A value equal to or less than one indicates that the human population is not likely to experience adverse effects

**Hazard Quotient (HQ):** See HHRA.

**Herbicides:** A class of compounds to kill plants

**Human Health Risk Assessment (HHRA):** Evaluates potential exposures and risks of site-related constituents (e.g., inorganics and organic compounds) detected in the environmental media (i.e., soil, groundwater, surface water and sediments) at a site to human health. Potential risks to human health are evaluated quantitatively by combining calculated exposure levels and toxicity data. A distinction is made between non-carcinogenic and carcinogenic endpoints, and two general criteria are used to describe the HQ for non-carcinogenic effects and ELCR for COPCs evaluated as human carcinogens. The HQ for non-carcinogenic effect is evaluated as the ratio of the estimated exposure dose and the toxicity value. HQ greater than 1 indicates that the estimated exposure level for that constituent exceeds the toxicity value. Although an HQ less than 1 indicates that health effects should not occur, an HQ that exceeds 1 does not imply that health effects will occur, but that health effects are possible. The sum of the HQs estimates the hazard index (HI) benchmark. The ELCR is calculated as the product of the exposure dose and a unit risk factor. The risk estimate is an upper-bound estimate; therefore, the true risk is far less than that predicted by the model. The USEPA considers ELCRs within and below the range of  $10^{-6}$  to  $10^{-4}$  as cancer risks that require no remedial action.

**Hypothetical future development:** Army sites are required to be evaluated for risk under “reasonably anticipated future use” as per the Defense Environmental Restoration Program (DERP) manual (available on the internet).

**Indicator species:** Plants or animals selected to represent those that are actually present.

**Infiltration:** Movement of precipitation through surface soil to underlying layers.

**Ingestion:** Intake through the mouth.

**Inhalation:** Intake through breathing.

**Interim Actions (IA):** Interim action means a response action taken to contain, stabilize or recover a discharge of a hazardous substance, in order to minimize any threats to public health or safety, while other response actions may be taken or planned for the site or facility.

**Installation Restoration Program (IRP):** Set up by the Department of Defense to restore sites affected by our past operations. The IRP provides money for bases to locate, investigate and clean up waste sites. Under the IRP we are cleaning up waste sites to protect human health and the environment.

**Land Use Controls (LUCs)** - may consist of non-engineered instruments, such as administrative and legal controls or engineered and physical barriers, such as fences and security guards. LUCs help to minimize the potential for exposure to contamination and/or protect the integrity of a response action and are typically designed to work by limiting land and/or resource use or by providing information that helps modify or guide human behavior at a site.

## GLOSSARY OF TERMS (Continued)

**Long Term Monitoring (LTM):** Monitoring of groundwater to confirm continued degradation of constituents at a sufficient rate to ensure that the wider environment is unaffected and that remedial objectives will be achieved within a reasonable timescale.

**Maximum Contaminant Levels (MCLs):** MCLs were developed by the EPA, in accordance with the Safe Drinking Water Act. MCLs are legally enforceable for drinking water supplies and represent the allowable concentration for a given constituent in drinking water.

**Monitoring well:** Consists of a small diameter borehole tube that is sealed in the earth with a permeable screen section at the bottom, in an underground reservoir where water is expected to collect. It is used to monitor and visualize how groundwater is stored and moves underground and to help in identifying the groundwater quality through sampling and analysis. Because monitoring wells are designed to sample groundwater, they are typically relatively shallow and have low yield as they are only used to obtain small quantities of water from the aquifer. In contrast, water supply wells are usually constructed much deeper than monitoring wells and have much larger water intake intervals to extract high yields of groundwater for drinking or industrial supply. Additionally, a water supply well will have a permanent pump associated with it to bring water to the surface, whereas water from monitoring wells is typically sampled by bailers or other temporary extraction methods.

**National Oil and Hazardous Substances Pollution Contingency Plan (NCP):** The, NCP, more commonly called the National Contingency Plan, is the federal government's blueprint for responding to both oil spills and releases of hazardous substances, pollutants, or contaminants. This national response capability plan promotes the overall coordination among a hierarchy of responders and contingency plans.

**No Action Decision:** A decision that no remedial or cleanup action is required at a site because the site currently poses no unacceptable risk to human health and the environment and is not reasonably anticipated to do so. The No Action decision differs from the No Action alternative, which is required by Federal regulation to be used for comparison purposes when a site does pose an unacceptable risk that requires a remedial action.

**Noncarcinogenic effects:** A health condition other than cancer.

**Pesticides:** An agent used to kill pests. Includes insecticides, herbicides, fungicides and rodenticides.

**Phthalates:** A class of chemicals used in making plastics that allow for flexibility.

**Preliminary Assessment/Site Investigation (PA/SI):** Under the scope of CERCLA, the combined PA/SI assessment integrates activities typically performed during the PA (information gathering, site reconnaissance) with activities typically performed during the SI (review of data, development of field work plans, field sampling, filling data gaps) to achieve one continuous site investigation.

**Pre-Remedial Toxicological Evaluation (PRTE):** A risk screening evaluation conducted during the PA/SI that provides information on assessing the risk to human and ecological receptors.

**Polychlorinated biphenyls (PCBs):** A broad family of man-made organic chemicals known as chlorinated hydrocarbons. They were domestically manufactured from 1929 until manufacturing was banned in 1979. They have a range of toxicity and vary in consistency from thin, light-colored liquids to yellow or black waxy solids.

**Principal threats:** Source materials that are dangerous based on potential contact or the ability to move through the environment.

## GLOSSARY OF TERMS (CONTINUED)

**Proposed Plan:** A document that presents a proposed cleanup alternative, rationale for the preference, and requests public input regarding the proposed alternative.

**Restoration Advisory Board (RAB):** are a forum for exchange of information and partnership among citizens, the installation, EPA, and State. Most importantly, they offer an opportunity for communities to provide input to the cleanup process.

**Remedial Action Objective (RAO):** RAOs are site-specific, initial clean-up objectives that are established on the basis of the nature and extent of contamination, the resources that are currently and potentially threatened, and the potential for human and environmental exposure.

**Semi Volatile Organic compound (SVOC):** Are a subgroup of volatile organic compounds that tend to have a higher molecular weight and higher boiling point temperature.

**Site Investigation (SI):** An investigation conducted under CERCLA, following the PA phase and before the RI. The SI involves conducting tests in the environmental media through field sampling to determine what hazardous substances are present and whether they are being released to the environment and are a threat to human health and the environment.

**Total Organic Carbon (TOC):** Is the amount of carbon found in an organic compound. TOC may also refer to the amount of organic carbon in soil, or in a geologic formation. It is often used as an indicator of water quality.

**United States Environmental Protection Agency (USEPA) Residential and Industrial Regional Screening Levels (RSLs):** Are risk-based screening levels, calculated using the most up to date toxicity values, default exposure assumptions and chemical properties to screen chemicals at Superfund sites and are available in two standard exposure scenarios residential and commercial/industrial (available online at: <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>).

**Volatile Organic Compound (VOC):** A class of chemicals, generally man-made, that is considered volatile under normal atmospheric conditions.

**Virginia Department of Environmental Quality (VDEQ):** DEQ administers state and federal laws and regulations for air quality, water quality, water supply and waste management. In addition, other programs cover a variety of environmental activities. The mission of the Department of Environmental Quality is to protect and improve the environment and the wellbeing of all Virginians.

**Virginia Solid Waste Regulations (VSWR):** DEQ regulations require the management of solid waste and hazardous waste in a manner to protect human health and the environment. Solid waste is any discarded material that is identified by the Solid Waste Management Regulations. It includes solid, liquid, semi-solid, or contained gaseous material. Types of solid waste are garbage, refuse, household hazardous waste, industrial waste, demolition waste, construction waste, debris, municipal waste, yard waste and other discarded materials.

FROM:  
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Place USPS  
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TO:  
Department of the Army  
Environmental Management Division  
Building 6005  
825 19th Street  
Fort Lee, Virginia 23801  
**Attn: Mr. Craig Norris**  
Installation Restoration Program Project Manager

Please print or type comments here:

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