



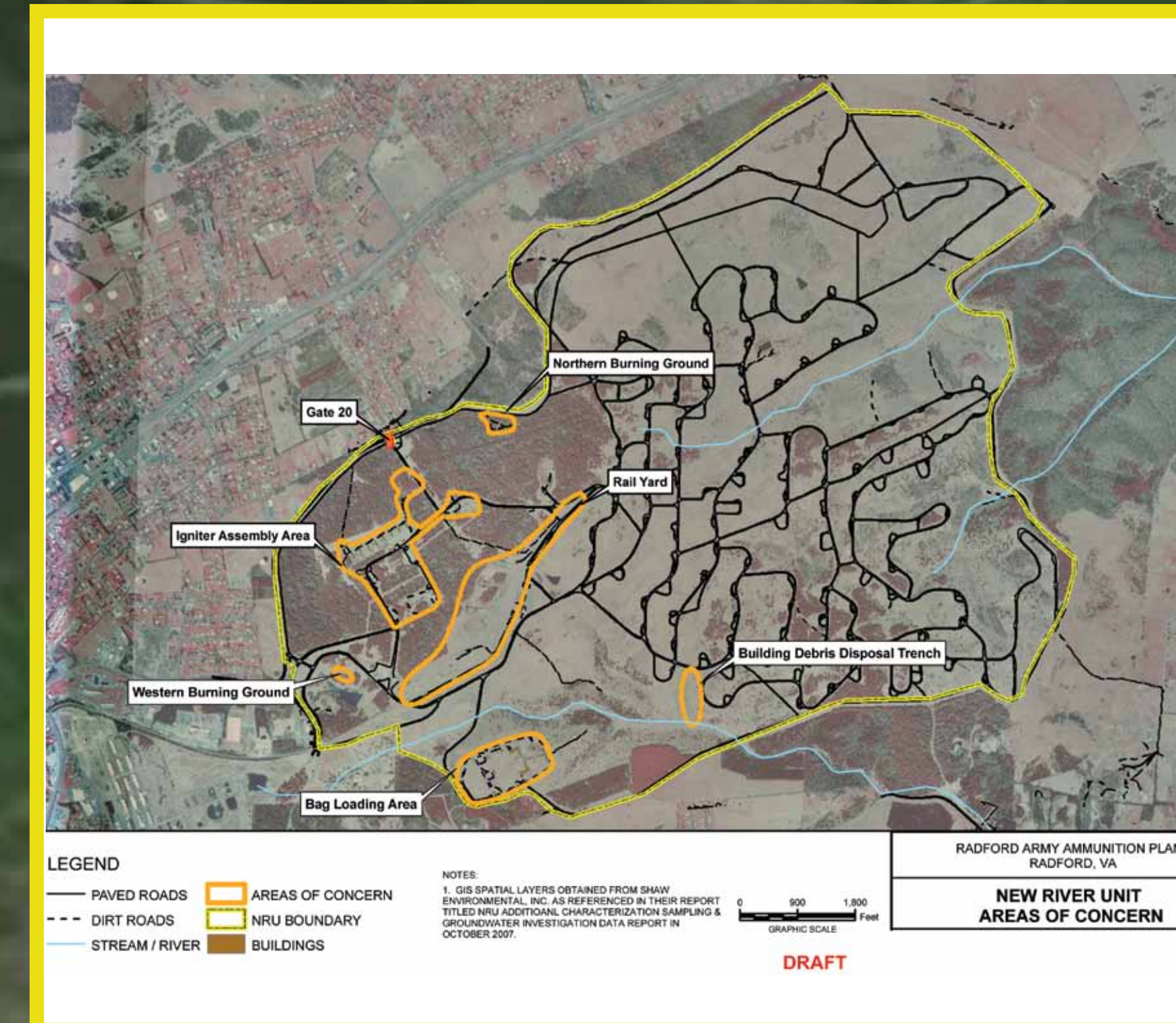
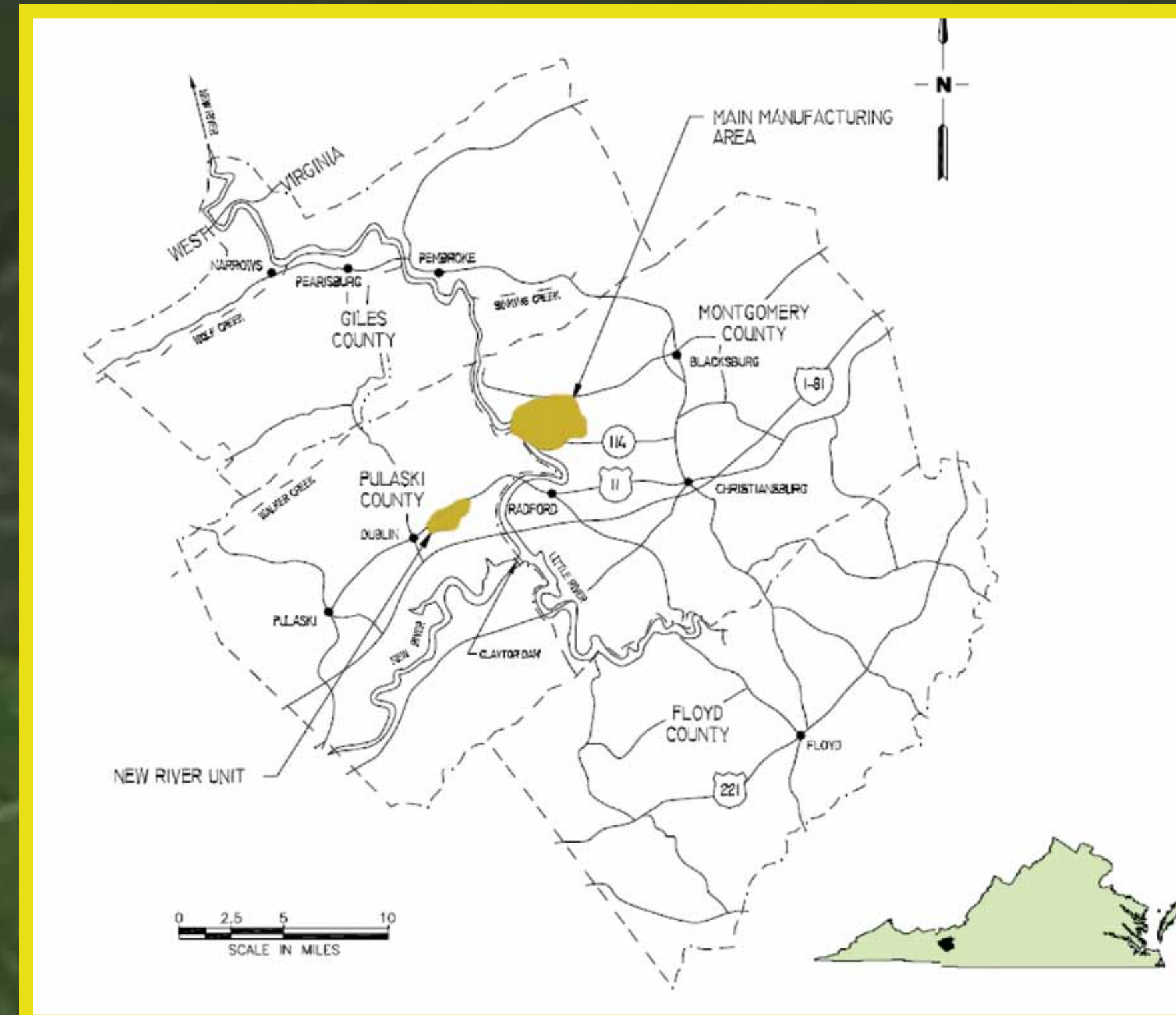
Radford Army Ammunition Plant



NEW RIVER UNIT (NRU)

History

- NRU is located approximately six miles southwest of the Main Manufacturing Area (MMA), near the town of Dublin, VA
- Currently used as storage and the property is largely undeveloped
- Regulated under CERCLA and managed under the VA Department of Environmental Quality
- The Draft Remedial Investigation / Feasibility Study (RI/FS) is under review by VDEQ
- Remedial actions are planned to be completed in 2009 and 2010



- In addition to site-wide groundwater, six study areas are included in the CERCLA work at the RFAAP:
 - Bag Loading Area
 - Igniter Assembly Area
 - Building Debris Disposal Trench
 - Western Burning Ground
 - Northern Burning Ground
 - Rail Yard

Bag Loading Area (BLA) and Igniter Assembly Area (IAA)

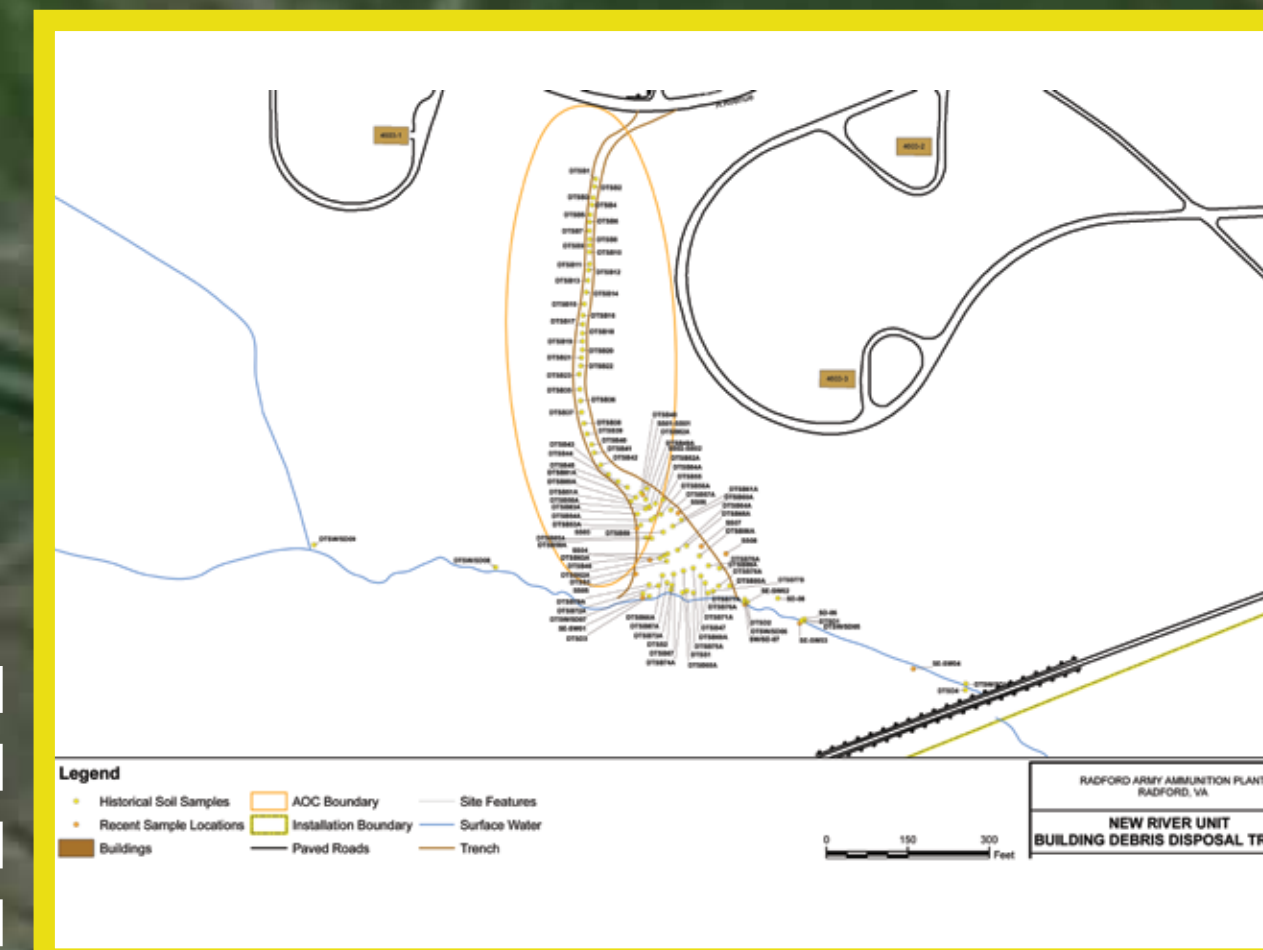
- Both sites were utilized during WWII to assemble and pack propellants. Active Operations ceased in 1945.
- Several buildings at each site contained a metallic conductive flooring material to prevent buildup of static charges. This flooring material was exposed to weathering when wooden roofs and walls were removed from the buildings. The flooring material has degraded due to weathering and has potentially leached metals to the soils surrounding the buildings.
- Approximately 44,000 ft² of the flooring material has been identified within the buildings at the BLA and the IAA.
- Soil is primarily affected by lead, copper and asbestos detected above industrial screening levels. Generally limited to soils immediately adjacent to buildings with conductive flooring.
- IAA: The recommended Response Action is the removal of conductive flooring and the excavation and off-site disposal of risk drivers in soil to achieve residential clean up levels. Land Use Controls will be required to restrict access due to the presence of the building remnants.
- BLA: The recommended Response Action is the removal of conductive flooring and the excavation and off-site disposal of risk drivers in soil to attain industrial/commercial clean up levels. Land Use Controls will be required to prevent future residential land use and to restrict access to the building remnants.

Building Debris Disposal Trench

- The Building Debris Disposal Trench (BDDT) is located in the southern portion of the RFAAP-NRU and was originally a natural surface water drainage channel.
- The BDDT was formerly used as a disposal site for construction debris from the RFAAP-NRU buildings.
- The construction debris and visibly stained soil was removed from the trench in 1998. The excavated soils were replaced with clean fill and the base of the trench was lined with a geotextile material. The trench was then filled with rip-rap to prevent erosion.
- Investigations at site have focused on PAH detections in soil downgradient of the trench and potential impacts to a downgradient unnamed creek.
- PAH detections typically confined to surface soils (i.e., 0-1 ft bgs) with a limited area extending to a depth of approximately 3-4 ft bgs. PAH concentrations exceeding residential and industrial screening levels have been delineated.
- The recommended Response Action is Land Use Controls to prevent future residential land use.

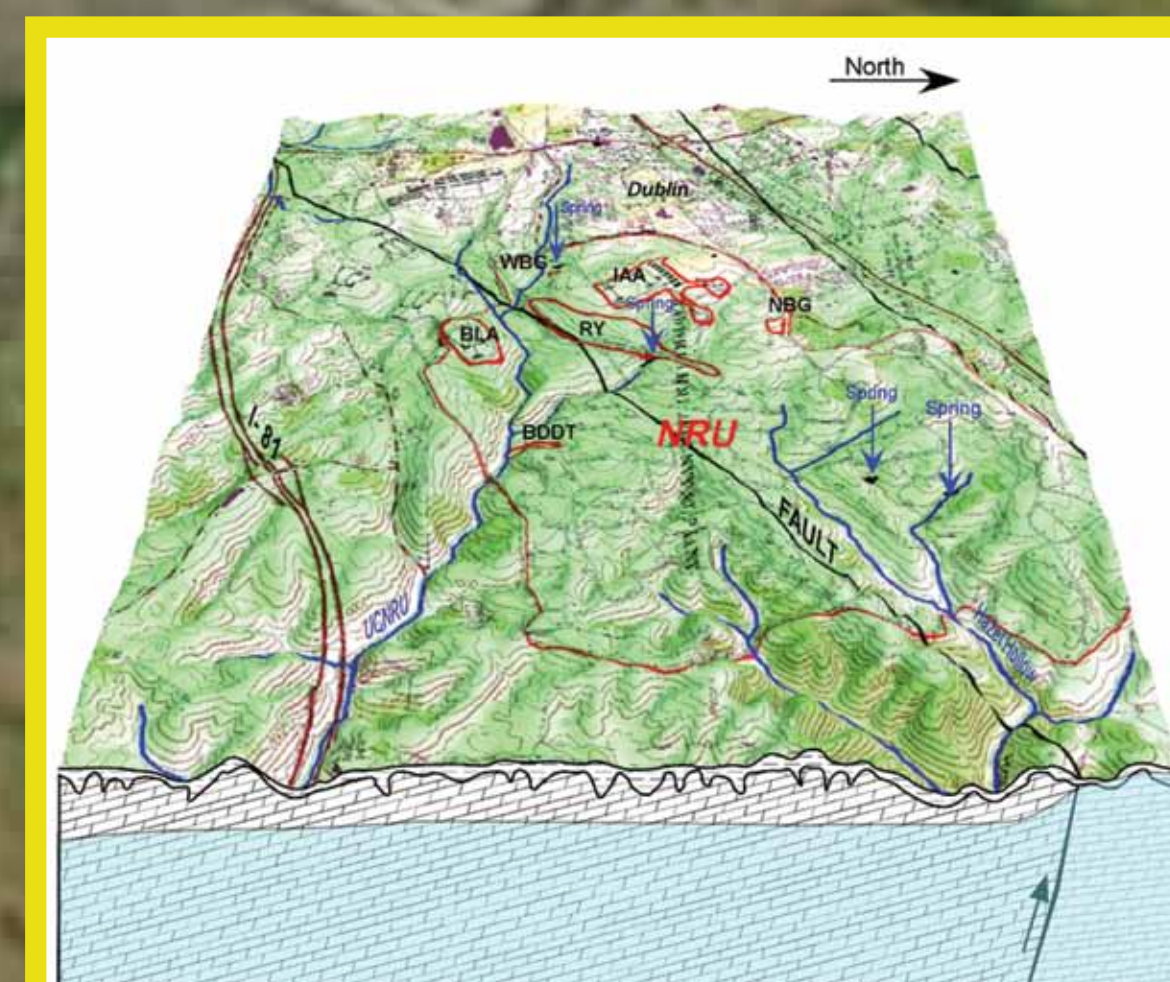
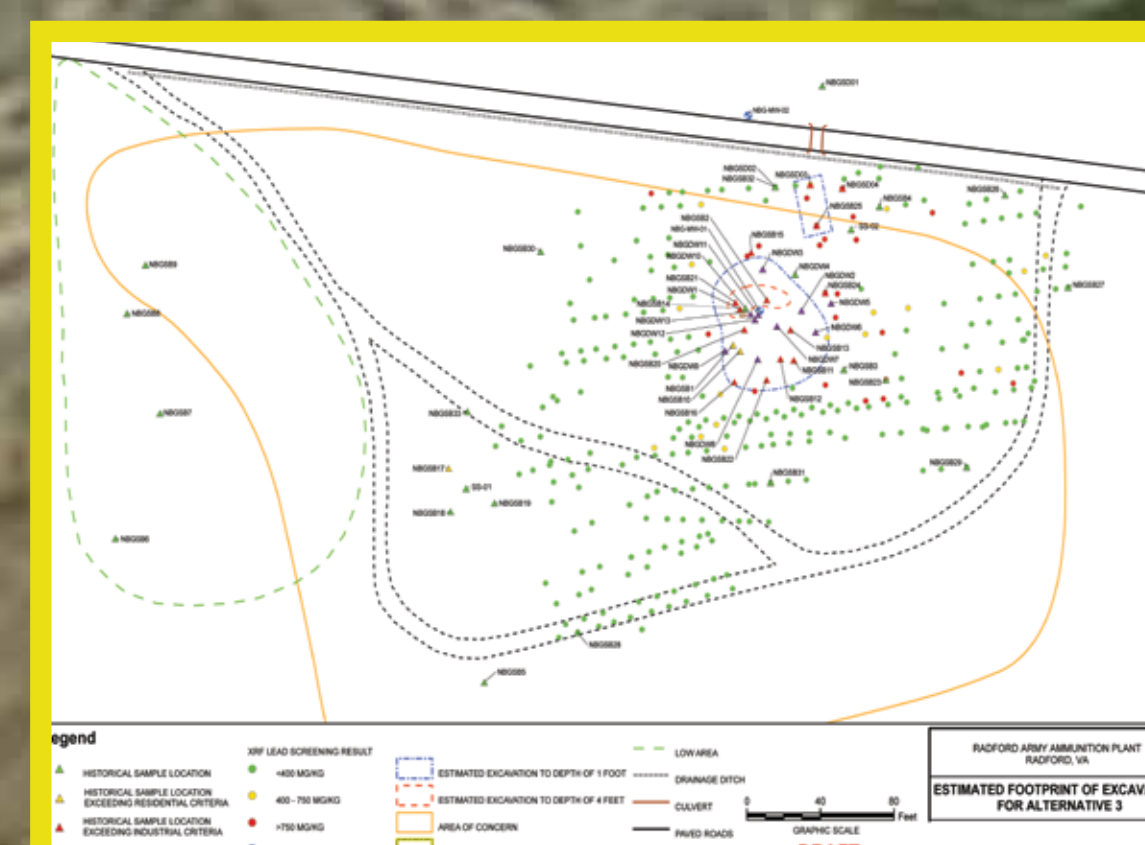
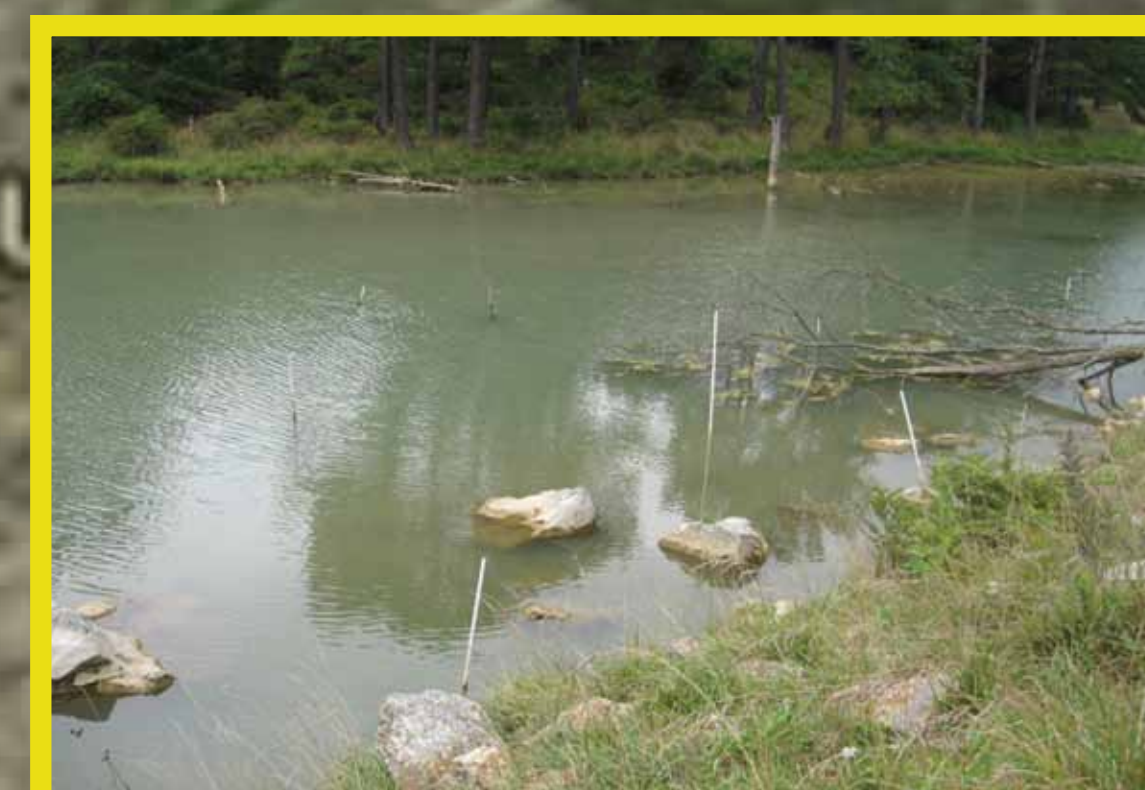
Rail Yard

- Former loading/unloading area for rail cars (3 tracks and 3 open transfer platforms).
- Metals detections within background limits.
- No detections above industrial screening levels in sediment.
- No Action based on unrestricted land use (i.e., residential) is recommended.
- Investigations have included surface soil, subsurface soil, sediment and surface water sampling activities.
- Isolated detections of PAHs and Aroclor-1254 in surface soil, below industrial screening levels.



Western Burning Ground (WBG) and Northern Burning Ground (NBG)

- The two burning grounds were used to decontaminate explosives contaminated materials and to dispose of off-spec energetics.
- **WBG**
 - A test pitting investigation was completed at the WBG in 1999 that effectively removed soils above residential screening levels in the source area.
 - Lead was detected in an ashy layer of material beneath the road within the WBG at concentrations greater than the residential screening level.
 - Arsenic, lead, chromium and iron were detected in pond sediments at concentrations greater than industrial screening levels.
 - Various PAHs were detected at concentrations greater than industrial screening levels in stream sediments downgradient of the pond and in soil within the site drainage ditch.
 - The recommended Response Action is excavation of sediment to achieve residential clean up levels.
- **NBG**
 - Lead and chromium have been identified as the primary constituents of concern at the site.
 - A Removal Action was completed in December 2009 under which 384 tons of lead-bearing soils were excavated and disposal of off-site. The Removal Action was designed to achieve unrestricted future land use and was identified as the final remedy for the Site.



Groundwater

- The geology/hydrogeology is typical of the surrounding limestone/dolomite karst environment.
- Groundwater typically occurs within the open fractures in the bedrock. Groundwater flow is fairly rapid in this type of system.
- The sampling program has included 11 groundwater monitoring wells and several springs.
- Several metals (arsenic, iron, lead, manganese) have been detected at concentrations above Federal Maximum Contaminant Levels (MCLs).

- Detected metals appear to be naturally occurring — same metals that are present in background soils.
- Detections of metals above MCLs only occurred in wells with high turbidity indicating that the well installation and development may be a contributing factor.
- Detection of metals in the dissolved phase (soluble) samples were below MCLs.
- No Action based on unrestricted land use (i.e., residential) is recommended.