



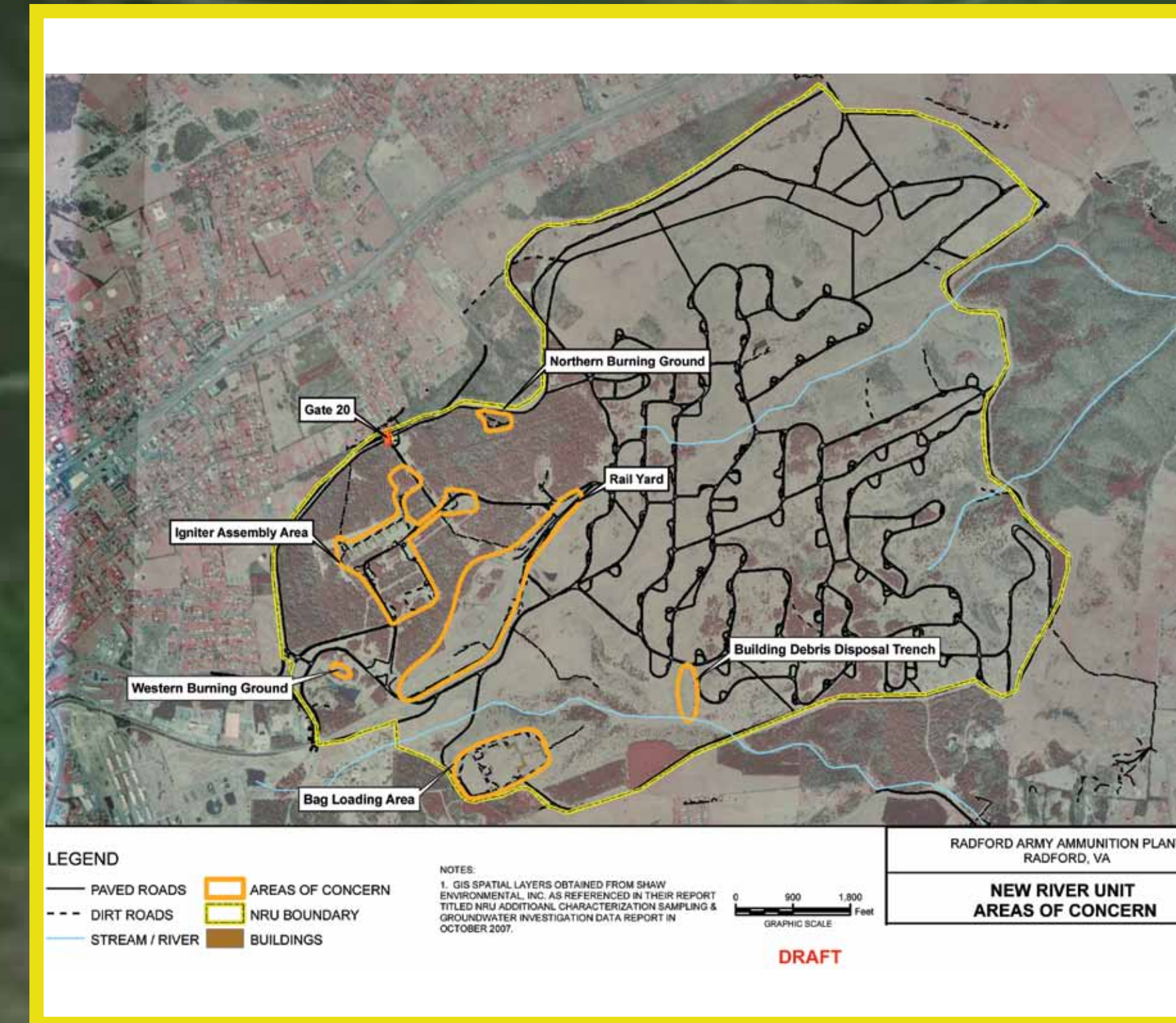
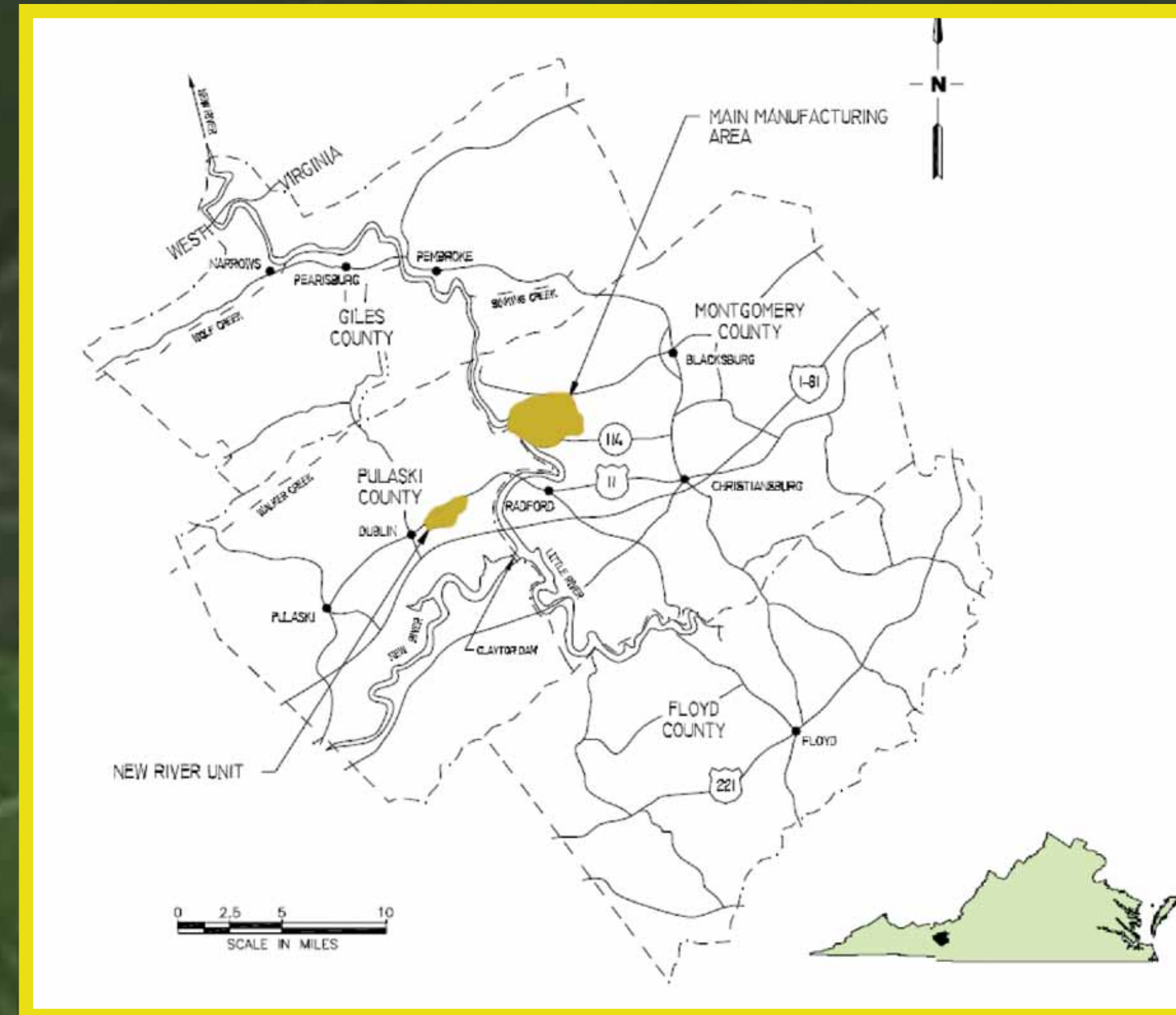
# Radford Army Ammunition Plant



## 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 Decision Document is currently under review by VDEQ
- RI and FS Reports approved by VDEQ in 2010
- Proposed Plan published in September 2010 followed by 30 day public comment period; Public meeting held on October 19, 2010
- Remedial actions were completed in 2011



- 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
  - NRU to RFAAP (i.e., RFAAP-NRU)

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

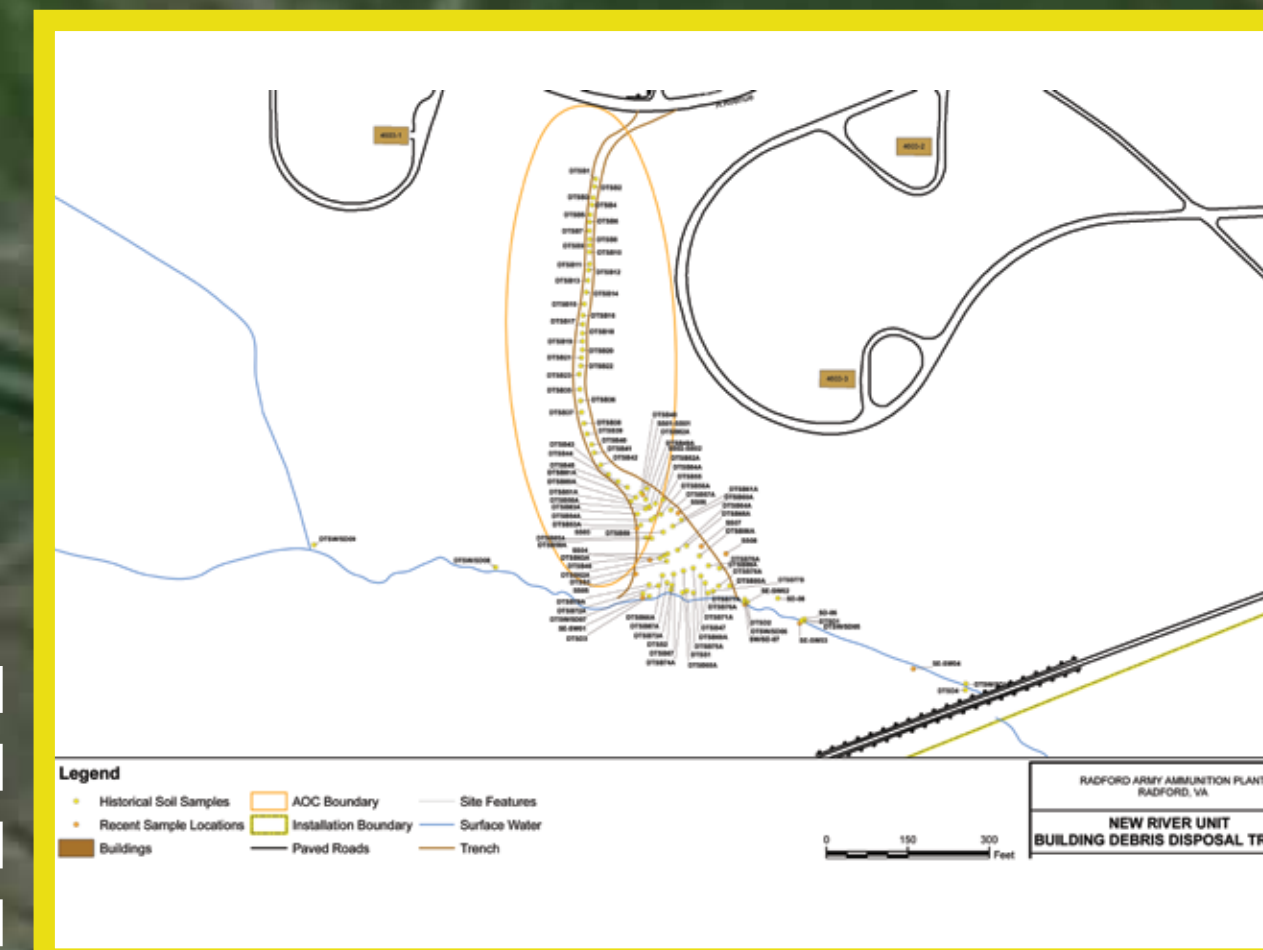
- Both sites were utilized during WWII to assemble and pack propellants. Active Operations ceased in 1945.
- Approximately 44,000 square feet of metallic conductive flooring material was removed from the former buildings at the IAA and BLA in 2011. Due to the presence of asbestos in the flooring, the removal activities were performed following asbestos abatement protocols. The flooring was originally installed to prevent the buildup of static charges; however, the material degraded following the dismantling of the roofs and walls of the buildings and was identified as a source of metals (lead and copper) and asbestos that were released to the surrounding soils.
- Following the flooring removal activities, lead, copper, and asbestos impacted soils were excavated from the areas around the BLA and IAA buildings. The excavation activities at the IAA also included the removal of soils impacted with Aroclor 1254 (a PCB compound) from a few discrete areas at former electrical transformers locations.
- Land Use Controls (LUCs) will be established for the BLA and IAA sites. The LUCs will document access restrictions to the building remnants at the BLA/IAA due to the potential for residual lead based paint and asbestos containing materials. The LUCs for the BLA will also prevent residential/unrestricted use of the area due to residual Aroclor 1254 and benzo(a)pyrene in surface soil.

### 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 selected Response Action is Land Use Controls to prevent future residential land use.

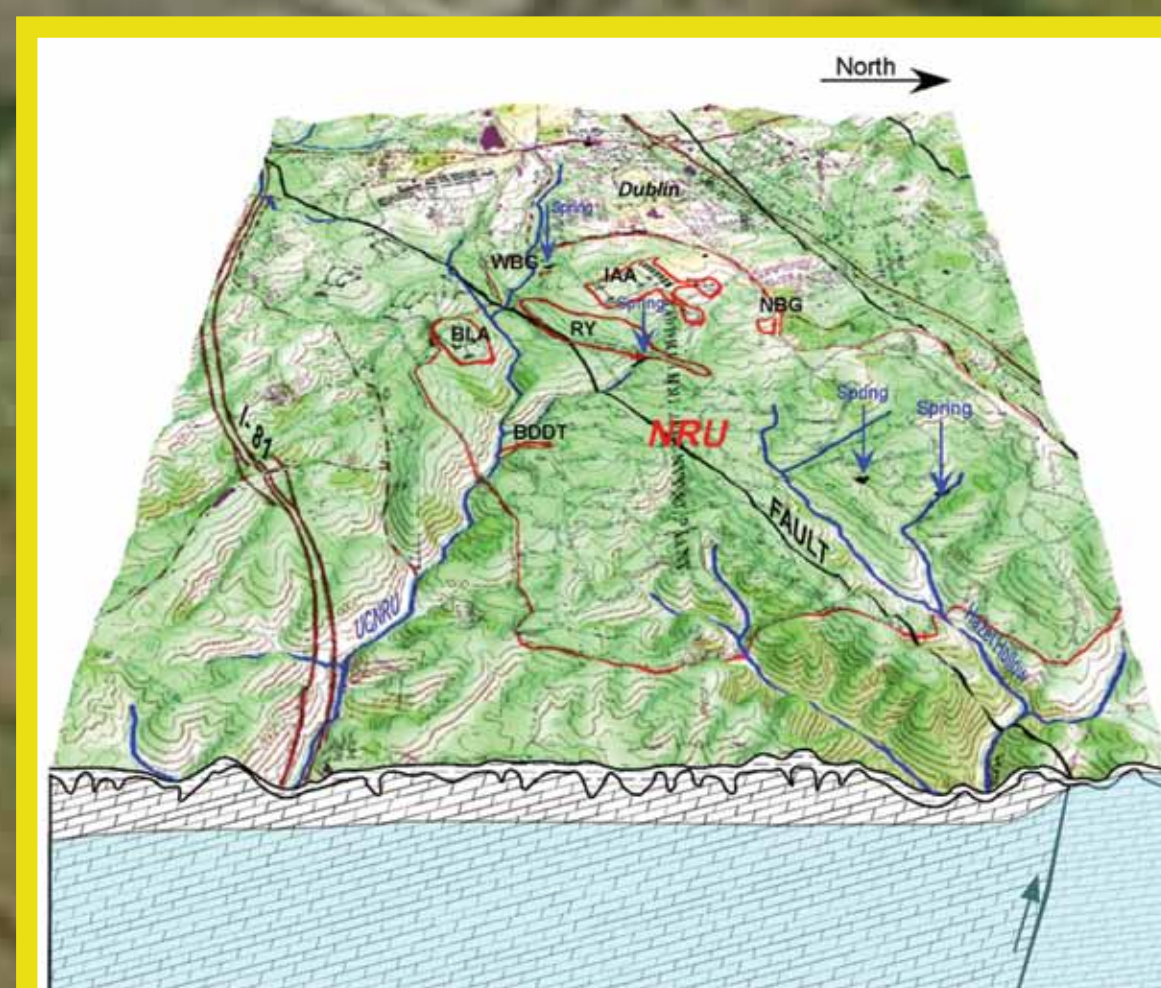
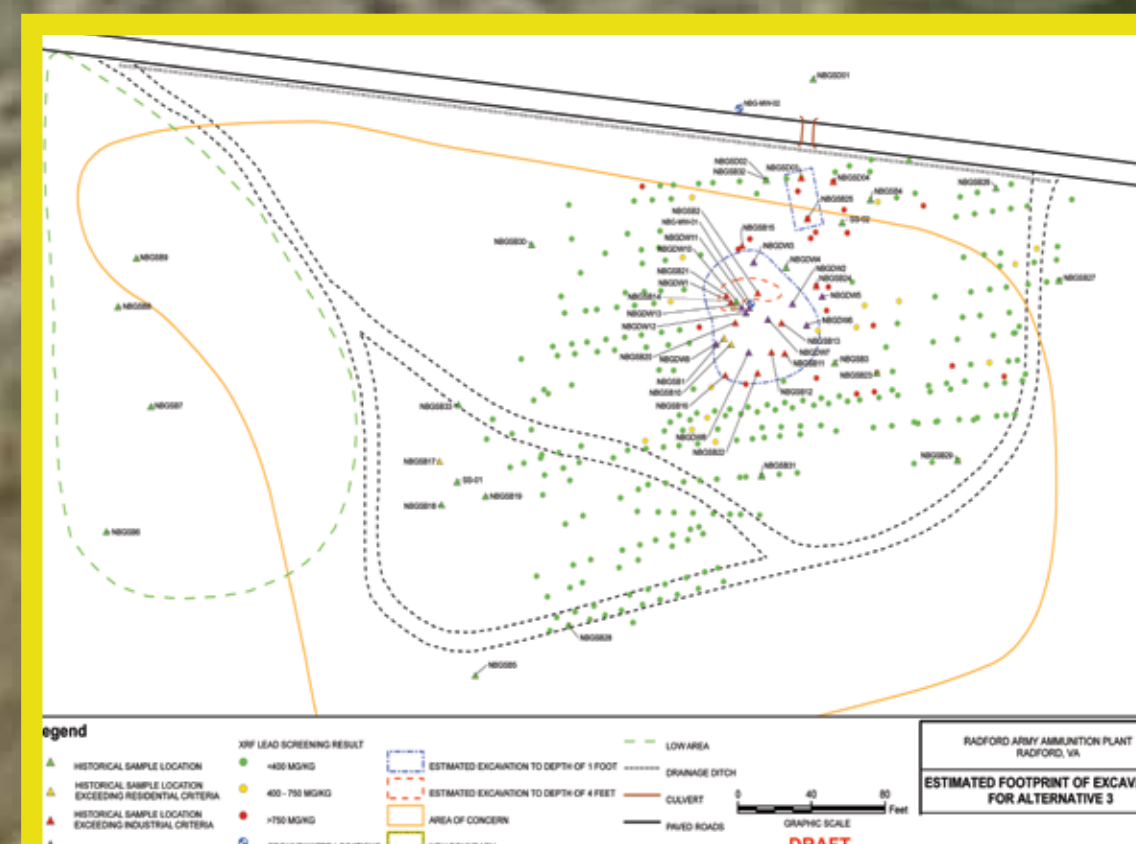
### Rail Yard

- Former loading/unloading area for rail cars (3 tracks and 3 open transfer platforms).
- 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.
- 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.



### 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.
- Sediment within a small portion of the pond adjacent to the former burning area was found to contain lead and chromium at concentrations that would have prevented unrestricted use of the site.
- A sediment removal action (recommended in the Decision Document) was completed for the WBG in May 2011 that included the excavation and off-site disposal of the sediments containing lead and chromium at concentrations greater than the Remedial Action Levels. In total, approximately 75 cubic yards of sediment were removed from the pond.
- There will be no restrictions on the future use/development of the WBG area.
- **NBG**
  - Lead and chromium were identified as the primary constituents of concern for 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 was recommended in the Decision Document and the monitoring well network has been abandoned.