

#### Defense Environmental Restoration Program Overview of Challenges and Opportunities

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# DoD Cleanup Program Scope

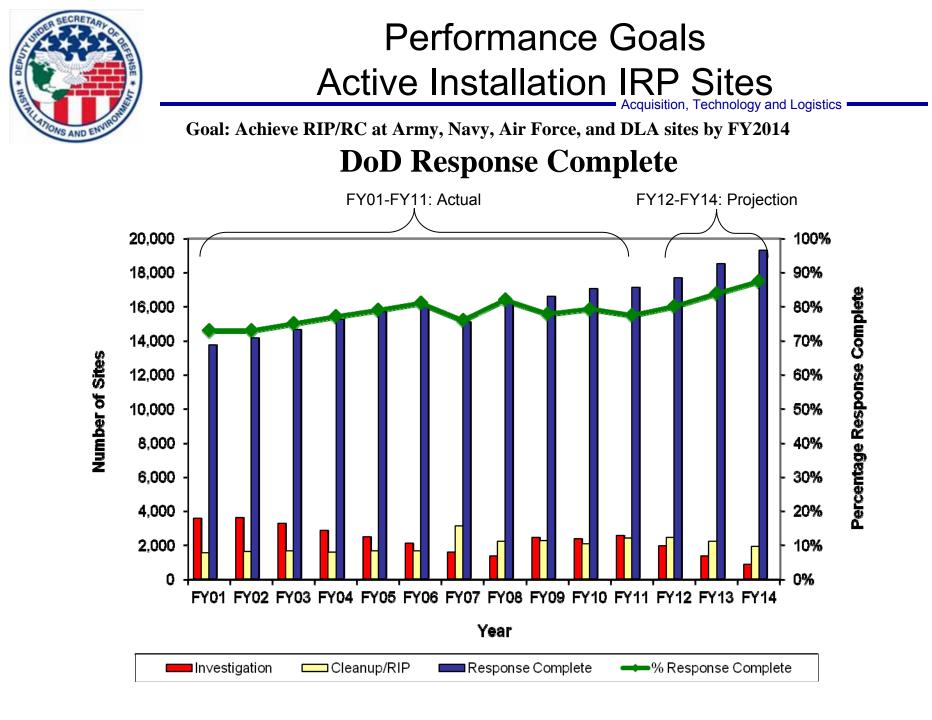
- The Defense Environmental Restoration Program (DERP) addresses the impacts of releases of hazardous substances, military munitions, and building demolition and debris removal
- Authorities: CERCLA, SARA, RCRA, and EO 12580
- DoD budgets approximately \$2 billion annually
- There are 34,869 DERP sites at:
  - 1,733 Active installations
  - 234 BRAC installations
  - 2,696 FUDS properties
- Program supports military readiness by protecting human health and the environment, and access to critical resources vital to mission training and operations
  - In 50 states, District of Columbia and U.S. Territories

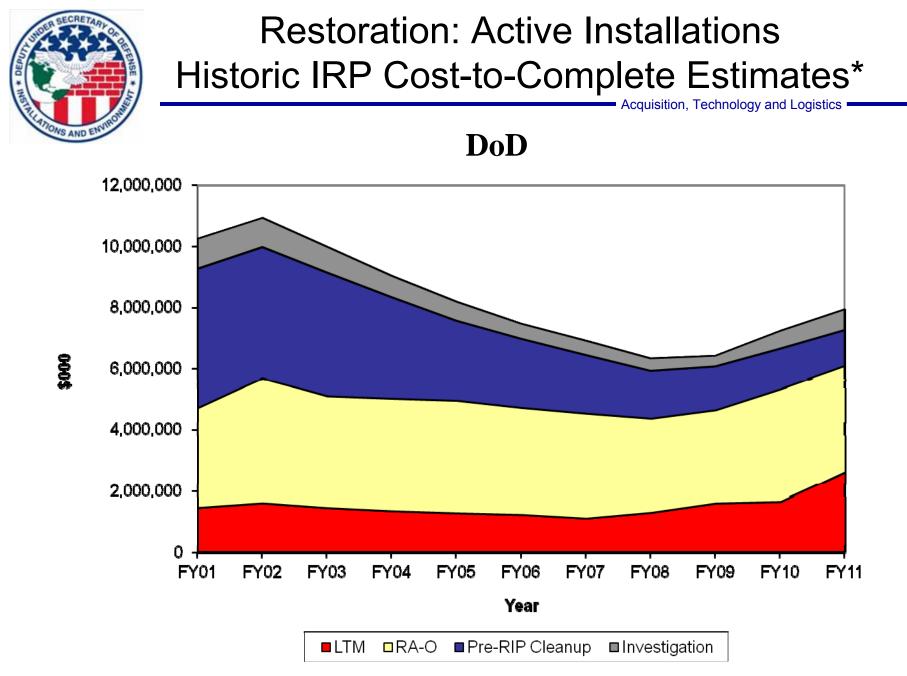


### **DERP** Goals

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- Select and implement remedies at all sites to be protective of human health and the environment and reduce risk
- Use a prioritization system to address highest risk sites first
- Make well informed, intelligent, responsible remedy decisions:
  - Obtain adequate site characterization data
  - Consider current and reasonably anticipated land use
  - Evaluate risk scenarios and appropriate response actions to be protective
  - Consider time and points of compliance when selecting remedies
  - Consider regulatory and stakeholder concerns
  - Consider green and sustainable remediation scenarios
  - Implement fiscally responsible remedial solutions





\* Includes installation project funding allocated to individual sites and does not include program management and other support costs.



### **Problematic Groundwater Sites**

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- Technical Issues
  - Large (expansive) plumes with low concentrations
  - High concentration source areas where even very aggressive treatment has little effect on mass flux, site risk, or timeframe for remediation
  - Source term desorbing from low permeability layers at low concentrations for long periods
  - Karst/Fractured rock sites
- Regulatory Issues
  - MNA perception is no action
  - TI waiver Inconsistent implementation across Regions and States
  - ARAR (i.e., MCL) applied at remedial investigation phase without site-specific risk assessment; can result in an unattainable goal where risk reduction plateaus



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- The NAS Study points to alternative endpoints, exit strategies, and revised decision frameworks
- How do we implement the findings and results of the NAS study?
- With Remedy in Place (RIP), assess operations that have reduced contamination but are no longer adding value (update risk analysis)
- Can we achieve the same results at a lower cost?
- Develop decision criteria to select sites and change remedies while staying protective of human health and the environment
- Assess trade-offs and apply savings at lower risk sites that could achieve site closure
- Evaluate and continue to assess sites at 5-year reviews



# **Questions?**

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