

## **Stewardship examples for completed areas of the Hanford Site**

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- Manages CERCLA cleanup of 2 Hanford chemical processing “canyons”
- RCRA permits for both active and closing Hanford facilities
- Manages permits for 3 non-Hanford mixed waste Facilities
- Hanford water permits
- *Hanford 300 Area National Priority List/Ecology Proj Mgr*



# Hanford is “typical” of large US Department of Energy sites



- Pacific Northwest National Laboratory (PNNL) is partially on, partially off Hanford
- Large expanses of relatively pristine habitat; some high quality
- Extensive progress made 1989-Present
- Still highly contaminated in places
- Three tribal nations have treaty rights



# 4 National Priority List (NPL) sites 100 & 300 Areas largely completed



Part of 100 Area NPL site (right)



Industrial core, 300 Area NPL site



# Active CERCLA\* disposal cell – Environmental Restoration Disposal Facility



\*Comprehensive Environmental Response, Compensation and Liability Act



# 100 Area NPL Site example



- “Cocooned” reactor buildings remain under regulatory jurisdiction
  - CERCLA removal action memorandum and work plan
  - Surveillance & maintenance required
  - Entry into cocoon every 10 years, to check for water or biological intrusion
  - Anticipate future (~2065) decommissioning and disposal of reactor blocks and buildings
- Surrounding soil and water
  - Interim remedy complete
  - Final remedy includes monitored natural attenuation
- Long Term Stewardship manages Columbia River Corridor



# Looking North from Richland



300 Area NPL site  
industrial area

PNNL (not on NPL)

1100 Area NPL site industrial area  
(off frame to left)

Ecology office

Richland - residential



# Pacific Northwest National Laboratory RTL complex demolition





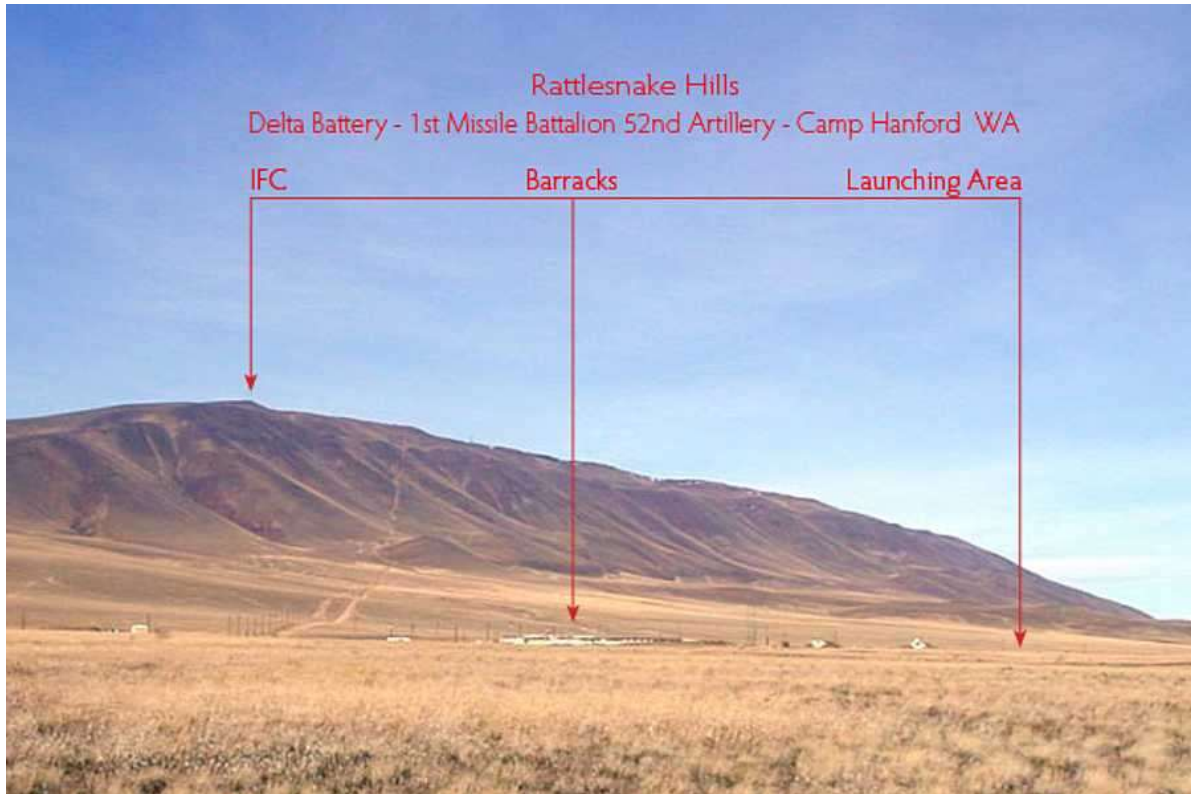
# Arid Lands Ecology reserve (back) Rattlesnake Mountain (front)



- 1100 Area NPL site included several operable units
- The operable unit located on ALE included several individual releases
- Horseshoe Landfill was a general purpose landfill associated with Army air defense of Hanford



# 1100 Area NPL Site – Horseshoe Landfill



- Cleanup completed 1996, site deleted from NPL
- Natural Resource Trustees raised issues about residual contamination
- Non-NPL second phase cleanup completed 2005
- Waste disposed in ERDF



# 200 Area NPL Site

*Mt Adams*



*Mt Rainier*



# Conclusion

- Hanford cleanup long time frame for active cleanup is challenging: 100 years
- Conversely, active cleanup allows leveraging the CERCLA work plans and disposal cell (ERDF) for occasional waste disposal for legacy management issues
- Flexibility of state and Federal regulators is required to leverage active cleanup



# More info:

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