



# **Impact of HAB and Public Input on Record of Decision for Remediation of 200-CW-5, 200- PW-1, 200-PW-3, 200-PW-6 Operable Units**

**Presented to: Hanford Advisory Board  
River and Plateau Committee**

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**U.S. DEPARTMENT OF  
ENERGY**

# Overview

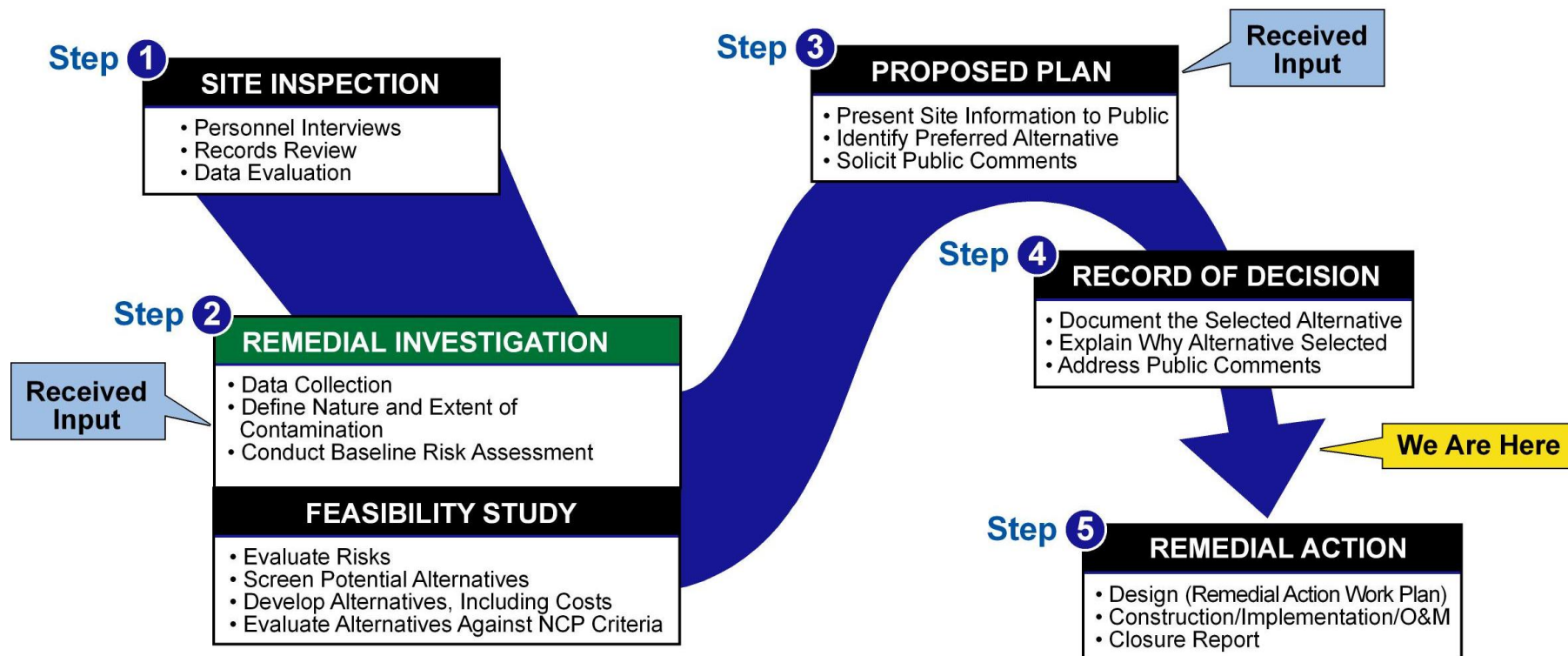
*Today's goal: Discuss input received, how it influenced the decision, continue the dialogue on Central Plateau cleanup*

- **Background**
- **Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) process**
- **What we heard**
- **How input influenced the decision**
- **A closer look at the Record of Decision (ROD)**
- **Other information available for discussion**

# Background

- **60-day public comment period on the Proposed Plan ended September 6, 2011**
- **Received 318 comments from 122 individuals/groups**
- **The U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) signed the ROD on September 30, 2011**
- **Remedial Design/Remedial Action Work Plan is due to EPA by September 2015**

# CERCLA Process



CHPRC1106-30

# What we heard

- **Excavate and remove all plutonium and cesium**
- **Dig deeper than two feet in the high-salt waste sites**
- **Ship plutonium offsite**
- **Plutonium is mobile**
- **Don't rely on caps/barriers/institutional controls**
- **Government control is not long-term stewardship**
- **Model for seismic activity, floods, climate change**
- **Use a more conservative (lower) cleanup level for plutonium**
- **Insufficient scientific data**
- **Use Resource Conservation and Recovery Act (RCRA) to determine cleanup for the Settling Tanks**
- **Support for leaving cesium in place**

# How input influenced the ROD

- **Earlier input (2008) shaped the proposal, moving from primarily capping to including more Removal, Treatment, Disposal (RTD)**
- **DOE will consider removing more plutonium-contaminated soil at the High-Salt Waste Sites**
- **A more conservative cleanup value was selected for plutonium 239/240**
- **A requirement was added to ensure the Settling Tanks are cleaned up to satisfy state regulations**

# A closer look at the Record of Decision

Waste Group	Waste Sites Description	Selected Remedy
Z-Ditches	3 Shallow ditches, 1 tile field, and 1 unplanned release site received cooling water containing plutonium, americium, cesium and other contaminants.	RTD of contaminated soil to meet cleanup levels with disposal at the Environment Remediation Disposal Facility (ERDF) or Waste Isolation Pilot Plant (WIPP), as appropriate.
High-Salt	3 below surface waste sites received highly acidic liquid waste containing plutonium, americium, and carbon tetrachloride.	RTD to remove soil to 0.6 m (2 feet) below the bottom of the disposal structure to a depth of 20 – 23 feet from the surface. Plutonium-contaminated soil will be disposed of at WIPP or ERDF, as appropriate. A soil vapor extraction system will continue to be used to treat organic contamination. Evapotranspiration (ET) barriers will be constructed over the remaining contamination.
Low-Salt	4 cribs received liquid waste containing plutonium and americium. This waste was not acidic.	RTD to remove soil up to a depth of 22 - 33 feet from the surface. Plutonium-contaminated soil will be disposed of at WIPP or ERDF, as appropriate. ET barriers will be constructed over the remaining contamination.

# A closer look at the Record of Decision (cont'd.)

Waste Group	Waste Sites Description	Selected Remedy
Cesium-137	4 cribs and 1 unplanned release site received liquid waste containing cesium-137.	A 15-foot layer of soil cover will be maintained over these waste sites.
Settling Tanks	2 settling tanks collected waste particles (sludge) before the liquid waste was discharged.	The remaining sludge in the tanks will be removed. The sludge will be sent to WIPP for disposal.
Other Sites	1 French drain and 1 injection/reverse well that do not have high levels of contamination.	No action since these waste sites do not pose an unacceptable risk to human health and the environment



# Conclusion

- ✓ **Background**
- ✓ **CERCLA process**
- ✓ **What we heard**
- ✓ **How input influenced the decision**
- ✓ **A closer look at the ROD**
- **Other information available for discussion**
  - **Human Health Cleanup Levels for Plutonium**
  - **Plutonium Mobility in the Subsurface at the Hanford Site**