DEPARTMENT OF ECOLOGY
State of Washington

# Central Plateau Principles Regulatory Perspective

River & Plateau Committee

December 11, 2014

# Presentation Overview

- Prior work by HAB, DOE, others (including substantial public participation*) regarding Principles
  - Prior work didn't call them Principles, but included many of the same elements
- What's changed from prior work to current draft Principles?

*Not included: discussions between tribal nations and one or more of the Tri-Party agencies

# 1992: The Future for Hanford: Uses and Cleanup

*Summary of the Final Report of the Hanford Future Sites Uses Working Group*

- Eight Open Houses in Richland, Pasco, Toppenish, Mattawa and Seattle, WA &
  Portland, Mission, and The Dalles, OR
  - summary of written comments in Appendix H of the full report
- Report
  - establish "buffer zone" around "exclusive area"
  - access to "buffer zone" and "exclusive area" restricted to properly trained, monitored personnel

# National Environmental Policy Act (NEPA) Environmental Impacts Statements (EIS)

- 1999 Hanford Comprehensive Land Use Plan EIS (CLUP EIS) and Record of Decision (ROD)
  - Formal public hearings in Portland, Richland, Mattawa, and Spokane
  - More than 200 detailed comments were given individual responses in the Comment Response Document.
- 2013 Tank Closure-Waste Management (TC-WM) EIS:
  - Public hearings in Washington, Oregon, & Idaho
  - Final EIS includes responses to comments on draft
  - 6 letters on final EIS

# 2001-2002 Exposure Scenarios Task Force

- Task Force, including HAB, looked at many (not all) of these same principles
- Two 2-day meetings attended by over 100 people
- Report, Appendix (~65 pg workshop notes) found at HAB "Key Board Products & Special Reports"
  - http://www.hanford.gov/files.cfm/HAB_TaskForceFinalReport.pdf
  - http://www.hanford.gov/files.cfm/HAB_TaskForceCompAppen.pdf
- Resulted in Advice #132 and Tri-Party response
  - Tri-Party response attached a "Risk Framework Description (Tri-Party Agreement)" with seven elements

# 2005 Hanford End States Vision
# 2009 DOE/RL Hanford strategies

- DOE Policy 455.1, Use of Risk-Based End States
  - Two-day 200 Area workshop August 11-12, 2004
  - DOE/RL-2005-57 (unavailable on-line*)
  - Workshop Feedback captured in report pg. 3.55
- Central Plateau Cleanup Completion Strategy
  - DOE/RL-2009-81
  - HAB Advice #226
- Hanford Site Cleanup Completion Framework*
  - DOE/RL-2009-10

*A footnote (pg. 1) in DOE/RL/2009-10,
states that the latter replaces DOE/RL-2005-57

# *some* work by others

## web links following slide

- Dec 2007, Ecology-EPA Considerations for Cleanup of the Hanford 200 Area National Priorities List Site
- May 2014, Hanford's Central Plateau, A perspective on cleanup decisions and priorities, Oregon Hanford Cleanup Board
  - esp. statements on Institutional Controls
- Oct 31, 2014 Oregon Dept of Energy comments on Principles

# Work by others

## web links

- http://yosemite.epa.gov/R10/CLEANUP.NSF/6ea33b02338c3a5e882567ca005d382f/2f133ac95a7d2684882564ff0078b367/$FILE/Hanford%20200%20Area%20white%20paper%20final%202.pdf
- http://www.oregon.gov/energy/NUCSAF/docs/CentralPlateauOHCB.pdf
- http://www.oregon.gov/energy/NUCSAF/docs/Oregon%20Comments%20on%20draft%20Inner%20Area%20Principles%20-%20OCT2014.pdf

# What's changed/has it changed?

## Inner Area Land Use is Industrial

- Future Sites Uses Working Group
  - Waste Mgmt & compatible industrial/commercial use (option 6)
- Comprehensive Land Use Plan
  - Consolidated Waste Management
- Tri-Party Response to HAB Advice #132
  - Attachment #2, allow for "other uses" consistent with an industrial scenario (environmental industries)
- Ecology-EPA Considerations for Cleanup
  - Portions of the core zone are expected to remain waste management areas for the foreseeable future

# What's changed? 10 $mi^2$ Inner Area footprint will not be reduced further

- Future Sites Uses Working Group
  - Establish buffer zone in addition to the 9.4 square miles
- Comprehensive Land Use Plan NEPA EIS and ROD
  - 20 square miles (includes buffer zone)
- HAB Advice #132
  - the core zone should be as small as possible
- HAB Advice #226
  - not demonstrated that designating the entire 200-W & 200-E as a contiguous waste site will meet industrial scenario, vs using specific waste management areas

# What's changed? 10 $mi^2$ Inner Area footprint will not be reduced further

- May 2014 Oregon Hanford Cleanup Board *Perspective*
  - The areas identified for waste management and containment of residual contamination should be as small as practical while ensuring that the entire area requiring protection is encompassed in contiguous areas.

# What's changed? The only institutional control is the industrial land use.

- Comprehensive Land Use Plan
  - ICs currently in place will continue at some level for at least 50 years
- HAB Advice #132
  - A continued human presence in the core zone would provide an ongoing, active institutional interest vested in future management of the risks posed by Hanford waste.
- Oregon Hanford Cleanup Board May 2014 *Perspective*
  - Among 5 statements on ICs, "To ensure protection of human health and the environment, federal ownership and active control is required as long as the potential hazard exists. "

# What's changed? Baseline Risk Assessment (BRA) will not include residential or tribal scenarios.

- HAB Advice #132
  - exposure scenarios should include a reasonable maximum exposure to a worker/day user, to possible Native American users, and to intruders.
- Tri-Party Response to Advice #132, Attachment, #2
  - "Exposure scenarios used for this zone should include a reasonable maximum exposure to a worker/day user, to possible Native American users, and to intruders."
- Tank Closure-Waste Management EIS
  - DOE evaluated three different tribal scenarios
  - DOE evaluated a resident farmer scenario
  - One point of analysis was inside Core Zone; another at Core Zone boundary

# What's changed? **Conditional Point of Compliance for Groundwater**

- HAB Advice #132
  - "Groundwater is a valuable resource with beneficial future uses that must not be restricted outside of the individual waste management unit points of compliance within the core zone."
- Tri-Party Response to Advice #132, Attachment, #3
  - "DOE will follow the required regulatory processes for groundwater remediation (including public participation) to establish the points of compliance and remedial action objectives."
- Principles:
  - If a conditional point of compliance is proposed as an alternative in the FS, a remedial action alternative based on the standard point of compliance will also be presented and evaluated.

# What's changed? **Depth Point of Compliance**

- 1999 Comprehensive Land Use EIS
  - "Deed restrictions or covenants for activities that potentially may extend more than 4.6 m (15 ft) below ground surface are expected for CERCLA remediation areas in the Central Plateau."
- 2007 Ecology-EPA Considerations for Cleanup
  - "Unplanned releases should undergo RTD at least down to 15 feet and whether or not deeper material is excavated should be made in accordance with CERCLA (RCRA for RCRA sites)."
- Principles:
  - If a conditional point of compliance is proposed as an alternative in the FS, a remedial action alternative based on the standard point of compliance will also be presented and evaluated.

# What's changed? engineered structures and/or mass of contamination

- 2007 Ecology-EPA Considerations for Cleanup
  - "Concrete-lined structures like vaults and diversion boxes could be cleaned out and the remaining structures either removed or grouted. "
  - "Removing the mass of contamination may be more appropriate where site conditions and uncertainty warrant excavation below 15 feet. It is understood that excavation below 40 to 60 feet is less practicable and less implementable."
- Principles:
  - Unlike in the River Corridor, engineered structures and/or mass of contamination will not be removed unless it is a risk management decision.

# Final thoughts ~

- there's been a lot of previous work, including much public participation
  - These are just some of the possible excerpts
- it's challenging to summarize past work with fidelity
  - HAB may benefit from having committee member review past work, extract key themes, and present to HAB in a future workshop