



Introduction to 100-D/H and 100-F/IU Draft A Proposed Plans Overview

Presented to: Hanford Advisory Board
River and Plateau Committee

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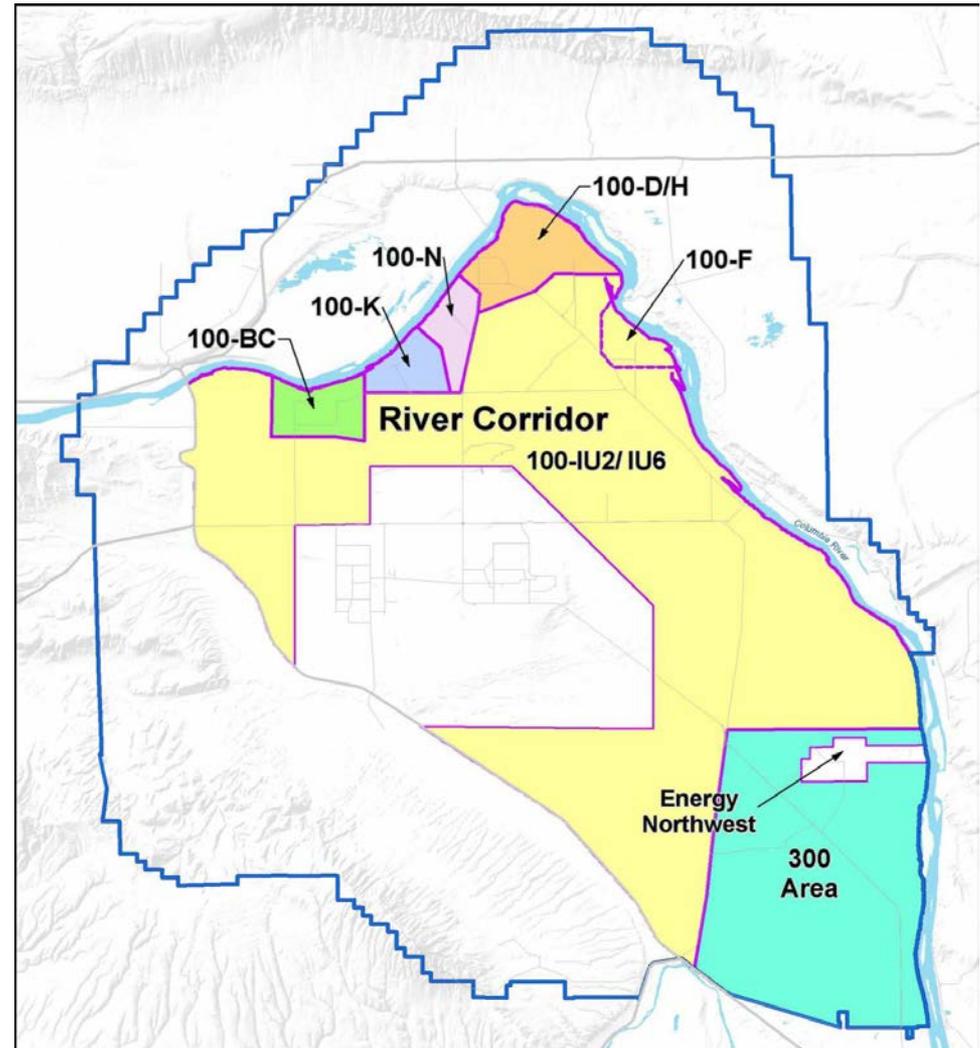
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U.S. DEPARTMENT OF
ENERGY

Agenda

- Background
- Decision Process
- Land and Groundwater Use Assumptions
- Cleanup levels
- 100-D/H Operable Unit Proposed Plan
- 100-F/IU Operable Unit Proposed Plan



100-D/H and 100-F/IU Background

- 100-D/H and 100-F/IU are two of six Hanford cleanup areas along the Columbia River
- Past reactor and production operations resulted in soil and groundwater contamination
- *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Interim Action Records of Decision (IARODs) issued in 1990s*
 - Considered stakeholder input
 - Evaluation indicates that previous actions have been protective
 - Cleanup ongoing

	100-D/H	100-F/IU
Waste sites addressed under IAROD and requiring no further action	148	153
Waste sites anticipated to be addressed under IAROD	59	81
Waste sites anticipated to be addressed in upcoming RODs	84	52
Total waste sites included in ROD	291	286

Decision Process

- Remedial Investigation/Feasibility Study
- Draft A Proposed Plan – Regulatory Agency Review
- Rev. 0 Proposed Plan – Public Comment
- Record of Decision
- Remedial Design/Remedial Action

Land and Groundwater Use Assumptions

- DOE's reasonably anticipated land use is conservation and preservation, but agreed to use residential-based cleanup values with irrigation assumptions for consistency with interim actions
- Chemical contaminants – updated Model Toxics Control Act (MTCA) B and MTCA A for a few
- Radionuclides – based on residential exposure with the lower of dose and risk based values
- Groundwater – to achieve standards

Backup Slides

Final Action Cleanup Levels

	Final Action PRG Development
Direct Exposure - Chemicals	<ul style="list-style-type: none">• Updated MTCA unrestricted (2007)• Surface to -15ft
Direct Exposure - Radionuclides	<ul style="list-style-type: none">• Current risk based levels (10^{-4} excess cancer risk above background)• Use lower of risk or dose based levels• Rural resident scenario• Surface to -15ft
Groundwater Protection	<ul style="list-style-type: none">• Migration modeling [Subsurface Transport Over Multiple Phases (STOMP)] is based on both irrigation and natural recharge considering revegetation• Calculation of soil concentration (STOMP) that will not exceed groundwater or surface water standards• No dilution at groundwater river interface accounted for• If exceeds irrigation-based but not natural recharge-based cleanup levels, the agencies may elect to apply an institutional control for no irrigation rather than continue excavation.
Ecological Protection	<ul style="list-style-type: none">• Calculated values from bioassay, eco studies, risk modeling, and published standards• Evaluate to be protective to eco populations or communities