



# Richland Operations Office **HAB Agency Update** Tom Fletcher, Deputy Manager

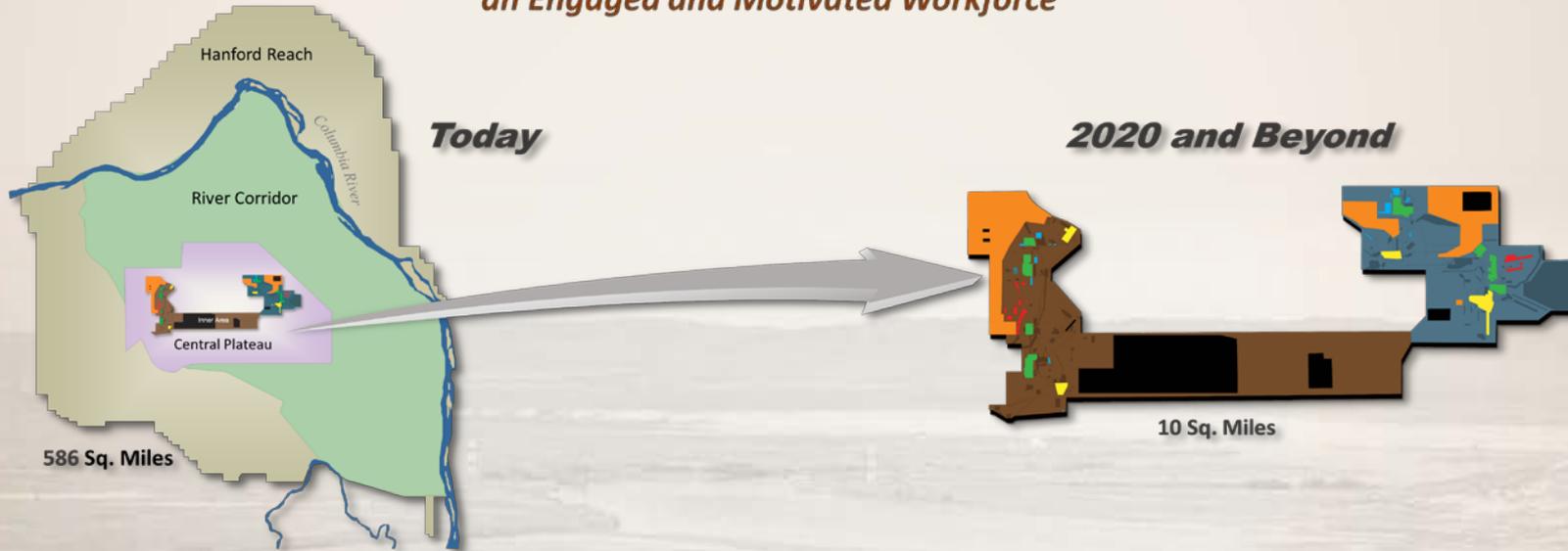
*November 8, 2017*

**RICHLAND**  
**OPERATIONS OFFICE**  
United States Department of Energy



# Richland Operations Office 2020 Vision

*"Safe, Secure, and Compliant Mission Accomplishment by an Engaged and Motivated Workforce"*



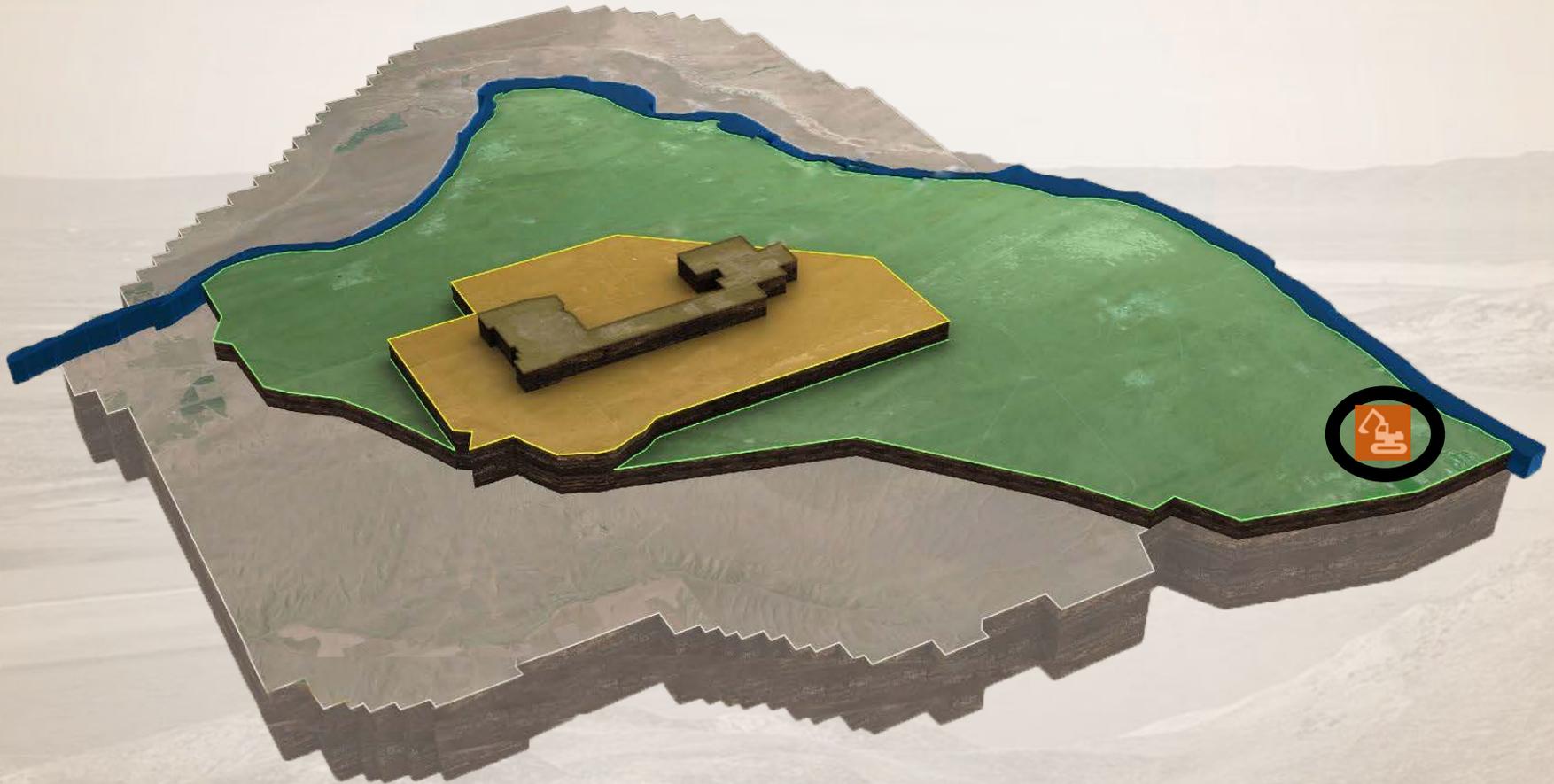
## Key Accomplishments Completed by:

CY 2017	CY 2018	CY 2019		
<ul style="list-style-type: none"> <li>Cleanup Projects</li> <li>Manhattan Project National Park Transition Plan Completed</li> <li>Restore Lands</li> <li>Protocols for Open and Transparent Access and Use of Remediated Lands Established</li> </ul>	<ul style="list-style-type: none"> <li>Cleanup Projects</li> <li>River Corridor Orchard Lands Remedial Investigation Report Completed</li> <li>Cleanup Projects</li> <li>618-10 Burial Ground and Associated Waste Sites Completed</li> <li>Cleanup Projects</li> <li>Initiate Characterization of the Central Plateau 200-WA-1 Operable Unit</li> <li>Manhattan Project National Park Transition Plan Implementation Initiated</li> </ul>	<ul style="list-style-type: none"> <li>Cleanup Projects</li> <li>River Corridor Capital Asset Project Completed</li> <li>Cleanup Projects</li> <li>All (6) River Corridor Records of Decision Completed</li> <li>Cleanup Projects</li> <li>All River Corridor Remedial Actions (except 618-11 and K Area) Completed</li> <li>Protect Groundwater</li> <li>All River Corridor Groundwater Remedial Actions Implemented</li> <li>Cleanup Projects</li> <li>Remote Excavation of Waste Site under 324 Building Completed and Demolition Initiated</li> <li>Cleanup Projects</li> <li>K Area Sludge Removal Capital Asset Project Completed</li> </ul>	<ul style="list-style-type: none"> <li>Cleanup Projects</li> <li>K Area Sludge Transferred to T Plant for Storage, Treatment, and Disposal</li> <li>Cleanup Projects</li> <li>Cleanup of K Reactor Area Initiated</li> <li>Cleanup Projects</li> <li>Cesium/Strontium Capsules Storage Area and WESF Modifications Initiated</li> <li>Protect Groundwater</li> <li>All Central Plateau Groundwater Records of Decision Completed and Treatment Capacity Increased to 1.3 Billion Gallons a Year</li> <li>Key Infrastructure Projects Completed and Remaining Essential Infrastructure Projects Prioritized</li> </ul>	<ul style="list-style-type: none"> <li>Cleanup Projects</li> <li>Hanford Site RCRA Permit Finalized and Signed</li> <li>Restore Lands</li> <li>All Signed Tribal MOA Commitments Completed</li> <li>Cleanup Projects</li> <li>New Cleanup Contracts Awarded and Contract Transition Completed</li> <li>Restore Lands</li> <li>Partial Natural Resources Damage Assessment Settlements Initiated</li> <li>Manhattan Project National Park Transition Plan</li> <li>Collaboration, Coordination and Communications with ORP improved</li> </ul>

- Key:**
- Cleanup Projects
  - Protect Groundwater
  - Restore Lands
  - Provide Services

Based on Funding Profile of ~\$900M

# River Corridor Cleanup



*Building 324 and its proximity to the river.*

# Work Toward Completing 300-296 Waste Site "Remote Excavation" and Initiating Demolition of Building 324 Demolition

*December 2019*



# Work Toward Completing 300-296 Waste Site "Remote Excavation" and Initiating Demolition of Building 324 Demolition

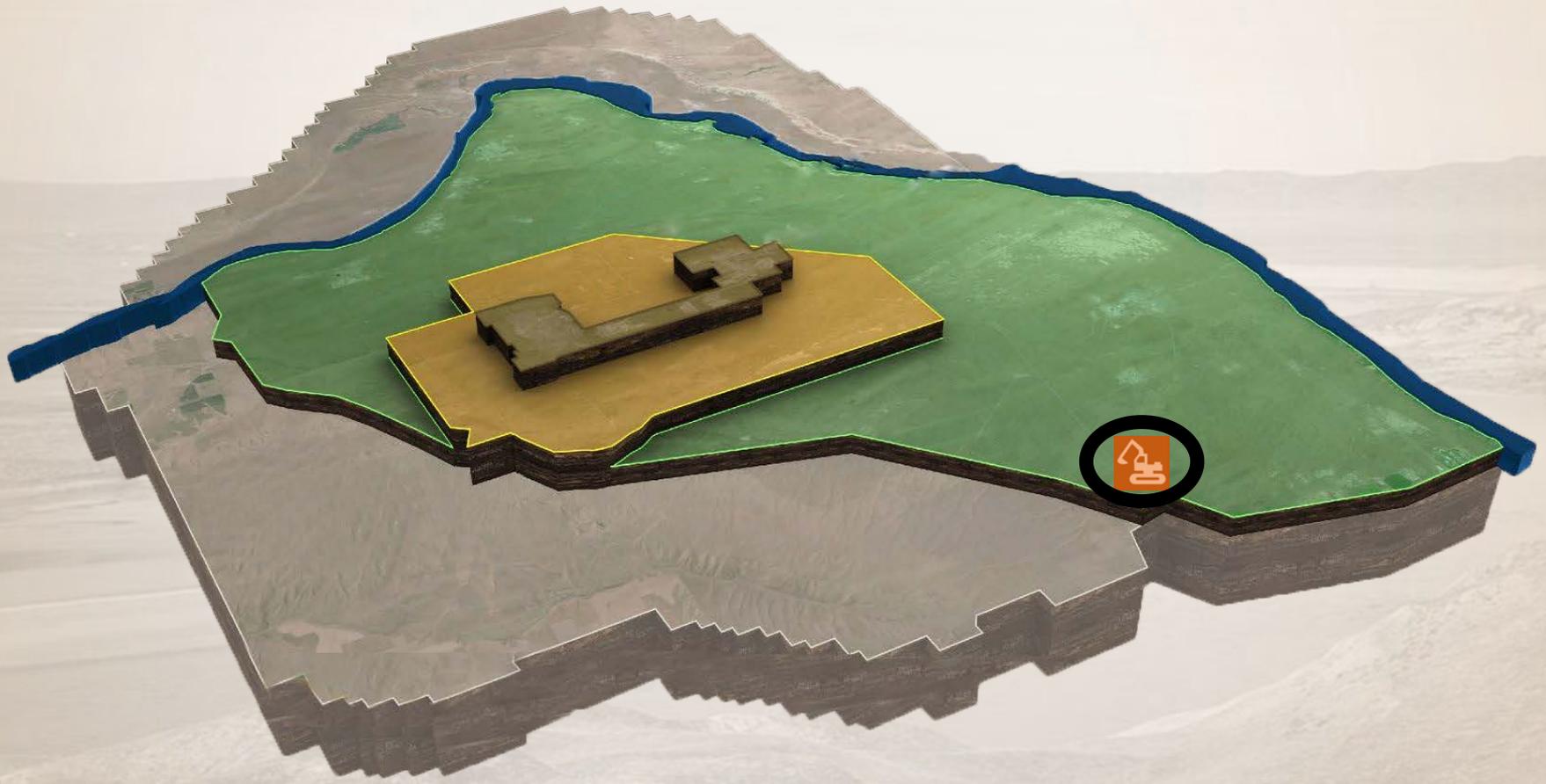


*Workers at Building 324 entered the airlock to clean out soft debris.*

*Crews finished drilling holes in the concrete walls of the mock-up, which replicates portions of Building 324.*



# River Corridor Cleanup



*618-10 Burial Ground and associated waste sites.*

# 618-10 Burial Ground and Associated Waste Sites



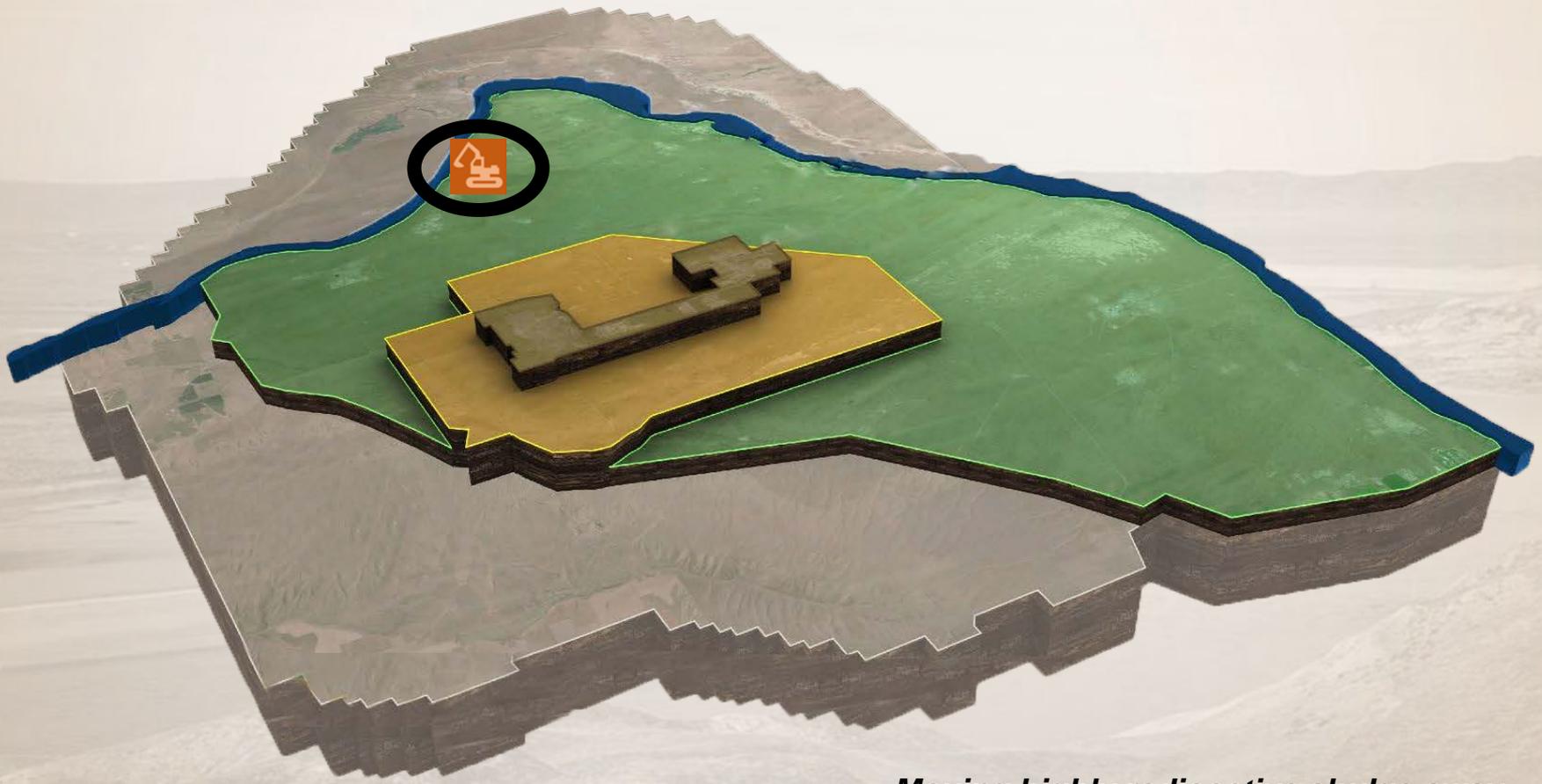
*316-4 and 600-63 Waste Site backfills are now complete.*



*Steel VPU remediation*



# K Area Sludge Removal



*Moving highly radioactive sludge away from the Columbia River.*

# K Area Sludge Removal Project Completion



*The K Basin Pre-operational Acceptance Testing (KPAT) process is important because it proves sludge removal equipment works as designed and is ready to remove sludge.*



# Sludge Retrieval Update



*Workers Complete Integrated KPAT, successfully transferring Basin Water to the 105KW Annex and back, using Process Hose-in-Hose Transfer Lines.*

*Workers in Personal Protection Equipment disconnecting hoses from a Sludge Transport and Storage Container inside the K West Annex during Preoperational Acceptance Testing.*

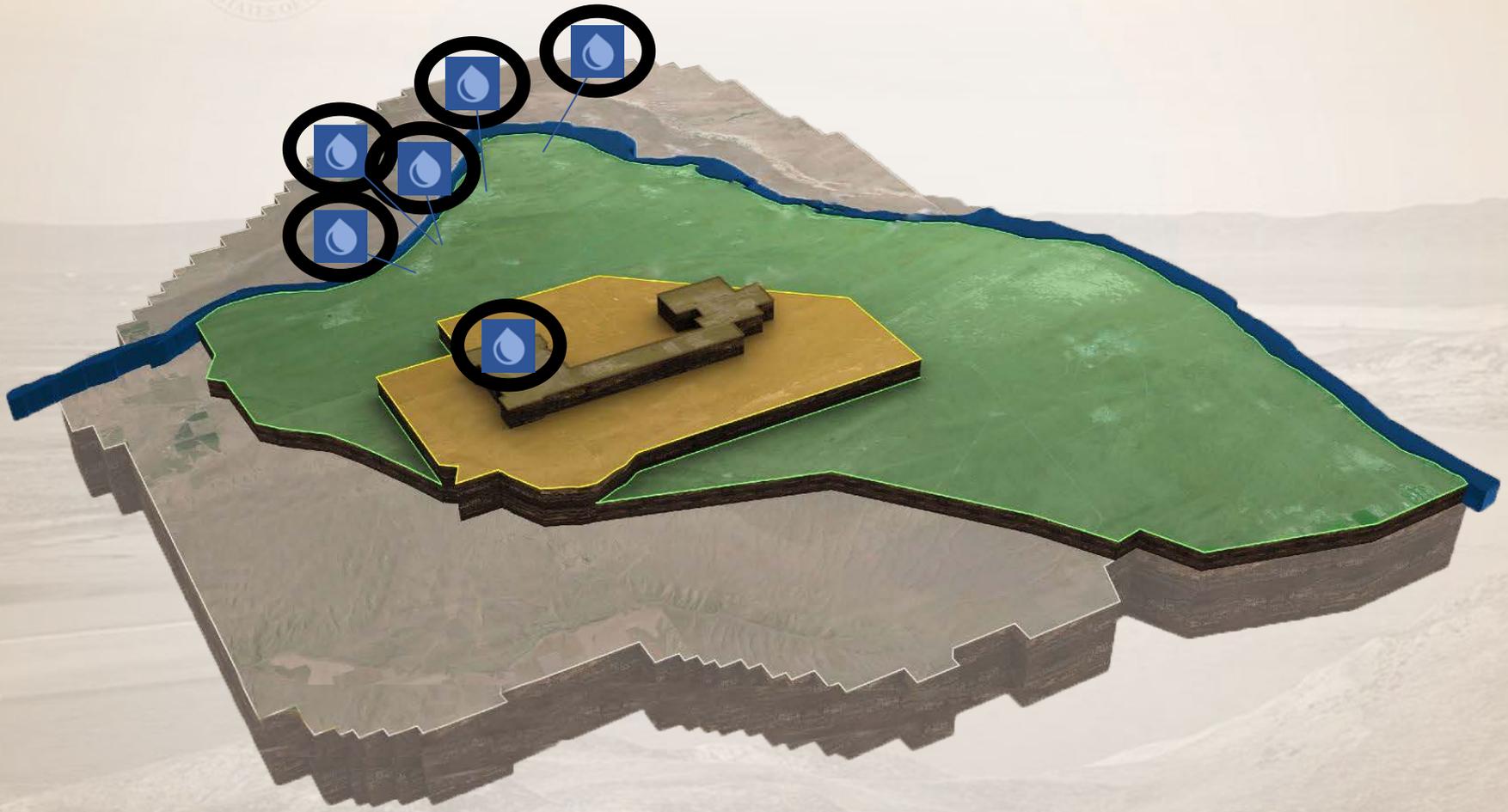
# K Area Sludge Transfer to T-Plant for Storage and Eventual Treatment and Disposal

Aerial photo of T-Plant - 2016



*Preparations underway at T-Plant to receive sludge from the K West Basin.*

# Soil and Groundwater Remediation

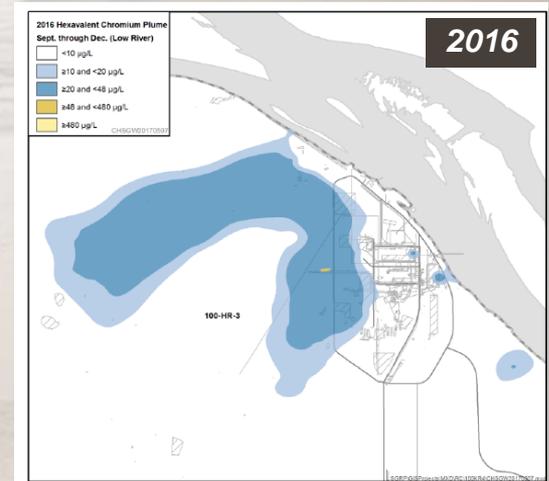
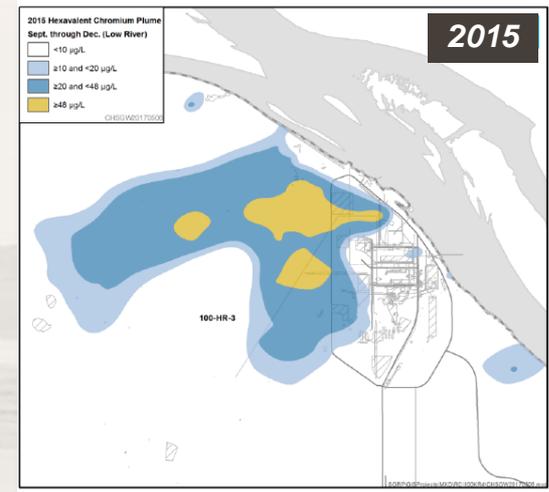


# Groundwater Update

*Workers sample groundwater out of wells near the Columbia River.*

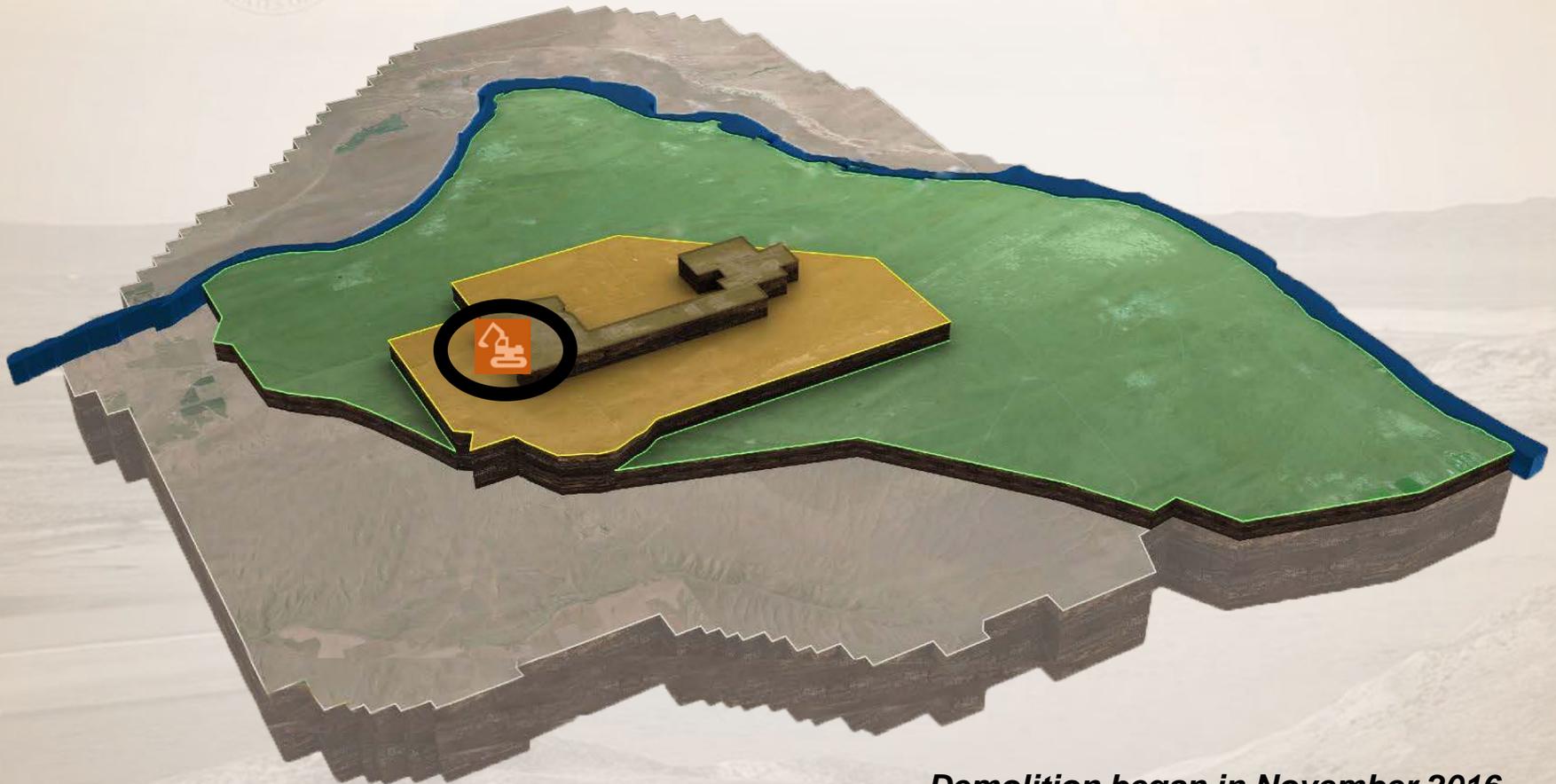


*Workers make upgrades to a fluidized bed reactor.*



**100-HR-3 100-H Hexavalent Chromium Plume: 2015 vs. 2016**

# Plutonium Finishing Plant (PFP)



*Demolition began in November 2016 and is on track for completion later this year or early next year.*



# PFP Slab on Grade



*PFP crews began demolition of the main processing facility in September.*

*A new water line at PFP supported the restart of demolition in September.*

# PFP Slab on Grade

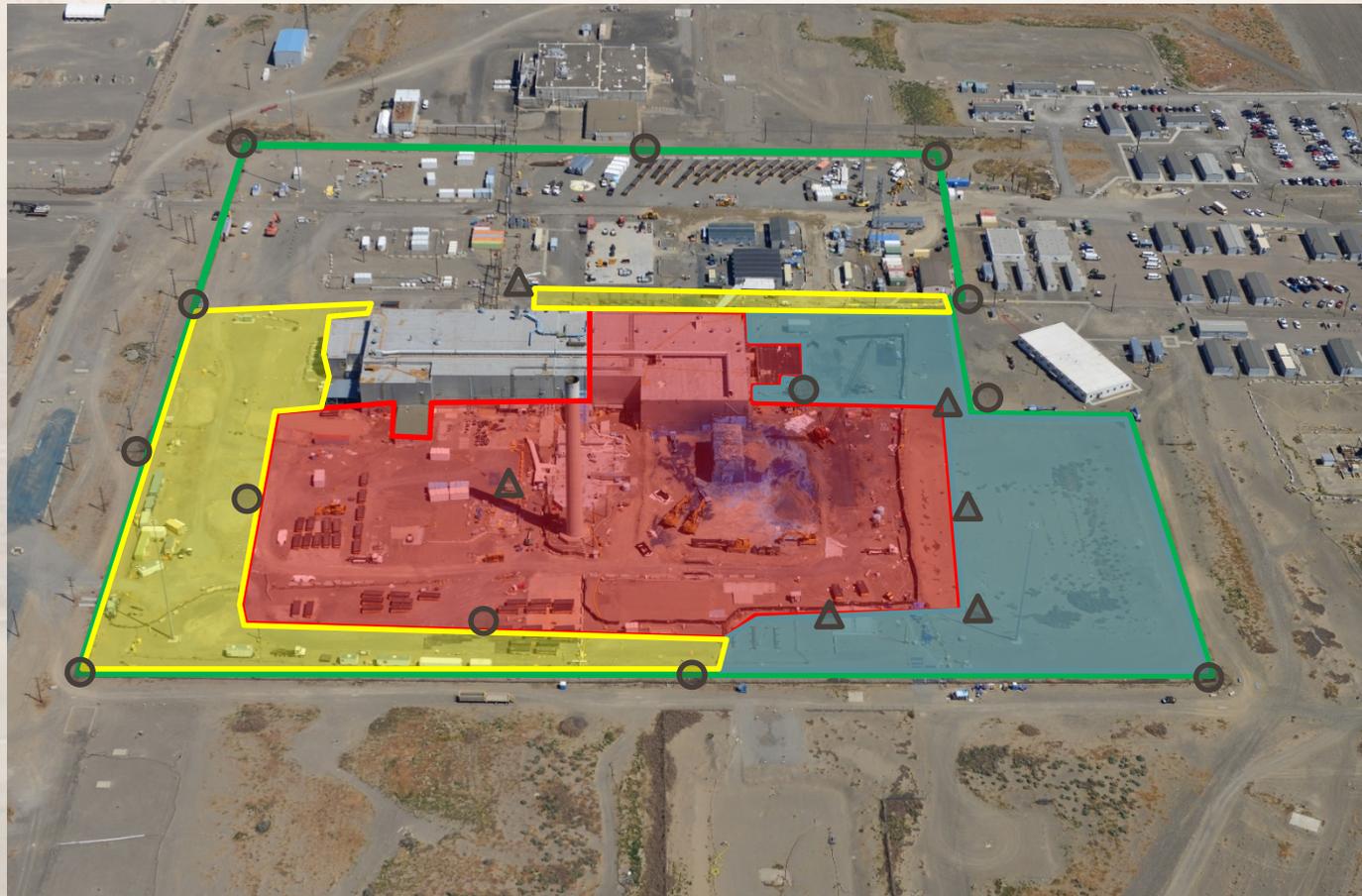


# Continuous Air Monitor (CAM) Alarm and Response Health and Safety at PFP



*CAM sounded during June 8 gallery glove box removal.*

# July 2017 Demolition Boundaries



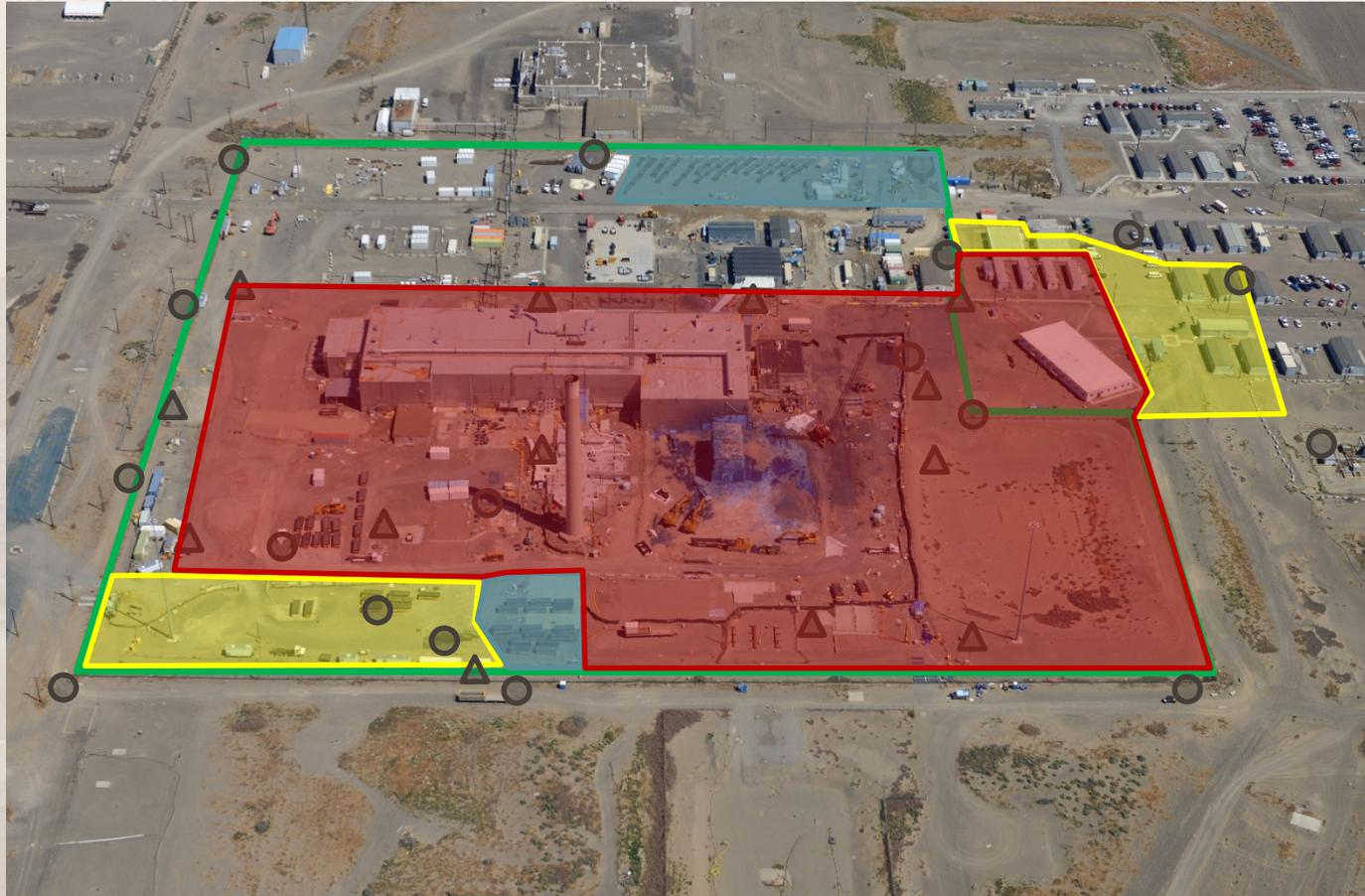
Outer Fence/Laydown Area

High Contamination Area/Airborne Radioactivity Area

Radiological Material Area/Radiological Buffer Area

Contamination Area

# Expanded Demolition Boundaries



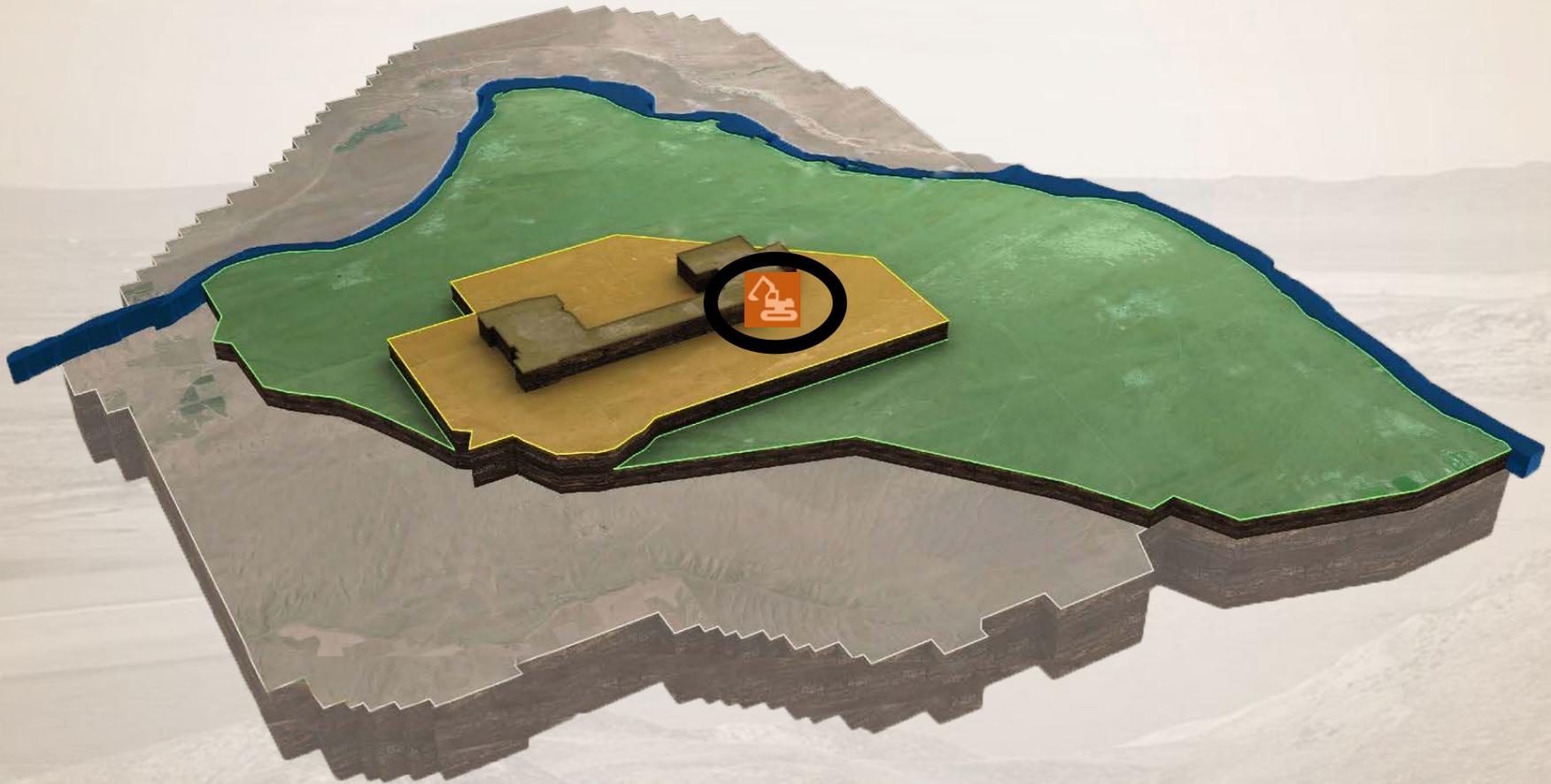
Outer Fence/Laydown Area

High Contamination Area/Airborne Radioactivity Area

Radiological Material Area/Radiological Buffer Area

Contamination Area

# Plutonium Uranium Extraction (PUREX) Tunnels



*Safely stabilizing PUREX Tunnels 1 and 2.*

# PUREX Tunnel 1



*PUREX Tunnel 1 trench box installation.*



*Testing the grout formulation's flow characteristics.*

# PUREX Tunnel 1



*In October, grout placement began at PUREX Tunnel 1.*

*6,000 cubic yards of engineered grout will have been used.*



# Safety, Security and Infrastructure

*Replacement of sections of Hanford's aging water system is necessary for fire protection, construction water, and other support to the Central Plateau.*



*A new wireless system improves connection speeds by up to 10 times, and reduces costs.*

*Through late September, there have been 20 wildland fires, burning more than 22,500 acres on the Hanford Site, compared to only nine wildland fires for the 2016 season.*

# How Can You Get Involved?

[www.hanford.gov/page.cfm/GetInvolved](http://www.hanford.gov/page.cfm/GetInvolved)

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