Addressing Navajo Uranium Contamination
August 2010 Update
5-Year Plan to Address Uranium Legacy

- EPA – Structures, Water, Mines
- Indian Health Service – Health Assessment
- Bureau of Indian Affairs – Tuba City Dump
- Department of Energy – Mill Sites
- Nuclear Regulatory Commission – Regulated Facilities
Structures - Background

- Waste rock used for building homes
- 2007 – EPA mapped and identified ~500 structures near mines
- Plan: Assess 100 structures per year, clean up or replace contaminated homes
Structures - Update

- EPA and Navajo EPA assessed 199 structures in CY 2008 and 2009

New Replacement Home
Structures – Next Steps

- At least 100 additional structures assessed by end of CY 2010
- Clean up or replace 7 structures in FY11
- Goal: Complete 500 structure assessments and remediation by end of CY 2012
Water Sources - Background

- 30% of Navajo families haul drinking water (<1% nationwide)
- Unregulated water sources can exceed uranium, arsenic, and other standards
- Plan: Outreach, pilot hauling program, and new waterlines
Water - Update

- Tested 235 unregulated water sources in CY 2008 and 2009. 27 above uranium standard
- Wells posted, residents notified. Two wells shut down
- In FY 09/10, EPA, IHS & HUD committed over $22 million for infrastructure within 10 miles of 18 contaminated water sources, including:
  - Drinking water infrastructure serving over 300 homes;
  - Funded pilot water hauling program to serve up to 3,000 homes
Water – Next Steps

- Continue outreach and education regarding contaminated water sources
- Oversee waterline construction projects
- Navajo Department of Water Resources will begin implementing the pilot water hauling program funded in FY 09 and 10
- Provide regulated water sources

WATER FROM THIS WELL IS NOT SAFE TO DRINK

This water has been tested and found to exceed Navajo EPA and U.S.EPA human drinking water standards for uranium or other contaminants.

Navajo Nation policy is that livestock-use-only wells are not to be used for human drinking water.
2007: EPA completed multi-year effort to assess uranium contamination – 520 mines identified

Plan: On-site screening of all 520 mines by end of CY 2011; clean up the highest risk mines
Mines - Update

- Completed on-site screening of 197 mines in CY 2008 and 2009
- 87 mine screens in process
- Conducted removal assessments at Northeast Church Rock and Skyline mines
Abandoned Uranium Mines – Next Steps

- Screen remaining mines by end of CY 2011
- Work on highest priority mines
- Identify Potential Responsible Parties for cleanup
- Start removal assessments at Quivira and Mariano Lake mines in CY 2011
Northeast Church Rock Mine

- Largest underground uranium mine in country and highest priority mine for Navajo Nation
- CY 2006-2008: Completed extensive site investigations
- 2007: Completed cleanup of 1 structure and 4 yards
- 2009: Completed Engineering Evaluation of cleanup options
- 2010: Completed the removal of 100,000 cubic yards of contaminated material
Northeast Church Rock Area – Next Steps

- Conduct road paving in CY 2010
- Complete an evaluation of area groundwater in CY 2010
- Assess contamination and cleanup options for the nearby Quivira Mine beginning in CY 2011
- Continue community participation to determine an acceptable way to clean up the area
- Goal is to select a cleanup alternative for NECR mine in CY 2010
Skyline Mine

- Removal Assessment May 2009
- Community Workshops Spring/Summer 2010
- Preparations for Removal Action to begin in CY 2010
Summary

EPA Investment
- Approximately $12 M per year
- Responsible parties spent additional $5 M so far
- 30+ EPA staff
- Grant funding for Navajo EPA

Results
- Assessed 199 structures in three mining regions, remediated 27 contaminated structures and 10 residential yards
- Screened or assessed 197 mines, ordered removal action on highest priority mine
- 235 wells tested, $22M in new water lines serving 300 homes