



Tuba City Dump Cleanup and Closure Community Meeting

*Environmental Protection Agency
Pacific Southwest - Region 9*

Itinerary

Introductions

Presentation

Questions and answers

Closing and next steps

Guide for a productive meeting

- ▶ Be respectful to all other members and perspectives.
- ▶ Stay focused on the topic.
- ▶ Be concise when contributing to optimize time for everyone to contribute.

EPA's mission: to protect human health and the environment.

Ensure people have clean air, land, and water.

Ensure compliance with federal laws that protect human health and the environment.

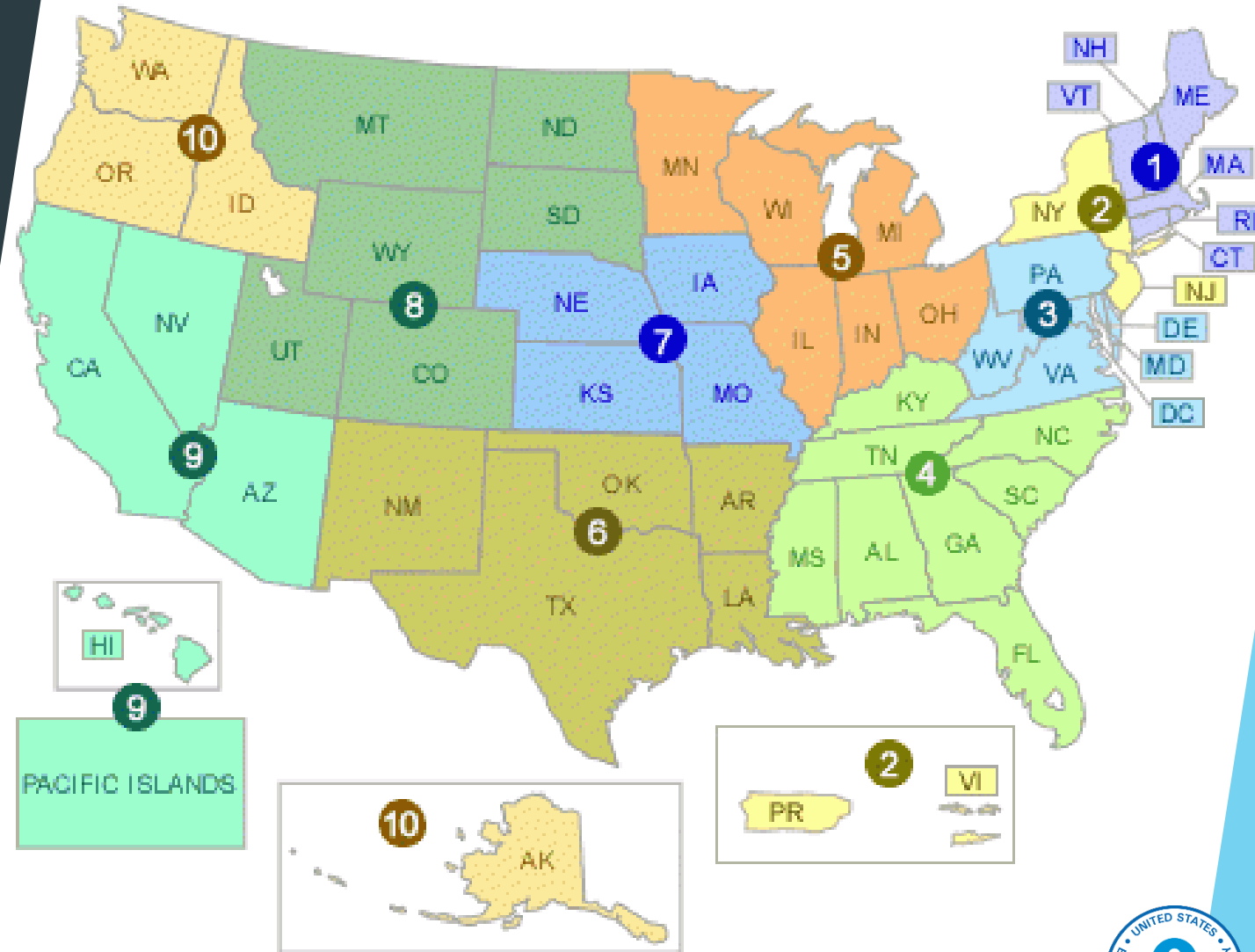
Interact with communities in meaningful ways to discuss and address environmental and public health concerns.

What is the Environmental Protection Agency (EPA) ?



What is the EPA?

- Who: Federal government employees protecting community health and the environment.
- Where: Our head office is located in Washington, DC, and there are 10 regional offices located across the country.
- EPA's Region 9 office is headquartered in San Francisco and our area covers CA, AZ, NV, HI, the Pacific Islands, and 148 Recognized Tribal Nations.



Resource Conservation and Recovery Act (RCRA) compliance (RCRA Act of 1976, Subtitle D)

EPA regulates the generation, transportation, treatment, storage and disposal of waste, including solid waste.

The EPA regulates municipal solid waste under 40 CFR Part 258.

Resource Conservation and Recovery Act (RCRA) compliance (RCRA Act of 1976, Subtitle D)

Dust and other particles in the air can be a threat to human health.

Chemicals that contaminate groundwater can be a threat to human health.

Tuba City Dump (TCD)



- TCD is located primarily on Hopi Tribe land, and a small portion of TCD is also on Navajo Nation land.
- The TCD is approximately 41 acres and holds approximately 307,000 cubic yards of material in its disposal areas.
- EPA monitors facility compliance with regulatory requirements and consults with tribal government when compliance issues are identified.

Tuba City Dump Operation

BIA operated TCD from the 1950s through 1997.

TCD was used primarily for disposal of municipal waste

Municipal waste:

- *Commercial and industrial wood waste,*
- *Glass, metals, plastics, fabrics,*
- *Household waste.*

1997 - Present

- ▶ 1997: BIA stopped receiving waste at TCD.
- ▶ BIA regraded some of it before placing a temporary soil cover and encircling the site with a fence.
- ▶ EPA determined that this site is a solid waste dump, and EPA found that BIA had not complied with closure requirements, groundwater monitoring, and recordkeeping, and other requirements of RCRA.



The federal government works with state and tribal governments to support environmental health and regulatory compliance

Federal Level

United States Environmental Protection Agency (US EPA)

- Federal enforcement authority

Statewide

Arizona Department of Environmental Quality (ADEQ)

- No state authority

Tribe

Hopi Department of Public Works (HNDEPW) and the Navajo Nation Environmental Protection (NNEP)

- Granted limited enforcement authority



EPA Enforcement Process

Inspection

Investigation

Notice of Violation

Settlement Discussions/Negotiations

Settlement Agreement

Administrative Order on Consent (AOC)

- ▶ BIA and EPA negotiated and signed an Administrative Order on Consent (AOC) which is an agreement for the cleanup of TCD.
- ▶ We consulted with tribal representatives on the draft AOC prior to signing.
- ▶ The AOC, including its initial workplan, went into effect on November 28, 2023.
- ▶ The public comment period will end June 28, 2024.
- ▶ EPA will take all public comments into consideration and the AOC and its workplan may be revised.

Administrative Order on Consent (AOC)

- ▶ Most solid waste dumps are closed in place. However, for this site, tribal representatives requested off-site disposal. In this AOC, BIA agreed to the off-site disposal.
- ▶ BIA agreed to close the TCD by cleaning up the site and moving the waste contained in the TCD to landfills located off of Hopi Tribe and Navajo Nation lands.
- ▶ BIA will use either Painted Desert Landfill near Joseph City or the Cinder Lake Landfill in or near Flagstaff as the primary disposal site. In addition, BIA may use secondary disposal sites, provided that they are permitted landfills and otherwise appropriate for such disposal.
- ▶ The Hopi Tribe has a self determination contract (Public Law 93-638 Contract) with BIA to manage the construction contract.



Administrative Order on Consent (AOC)

- ▶ Hopi will backfill the original TCD dump site with clean, fill material.
- ▶ Hopi will carry out a routine monitoring program during the cleanup, including groundwater monitoring and site maintenance.
- ▶ EPA will continue to work with BIA, Hopi Tribe, and Navajo Nation and will provide regulatory oversight.



Public Comments

- ▶ Please email comments and questions to Daniel Fernandez at Fernandez.Daniel@epa.gov by June 28, 2024.
- ▶ If you would like, please include full name, mailing address, telephone number, e-mail address, and Docket Number (Docket No. RCRA-09-2024-0017).

How do I get further information ?

- ❑ Copy of Administrative Order on Consent (AOC) to BIA: <https://www.epa.gov/az/tuba-city-dump-aoc>
- ❑ Copy of TCD Workplan: <https://www.epa.gov/az/tuba-city-dump-aoc>
- ❑ Environmental Justice Hotline: (800) 962 -6215
- ❑ Report a violation: <https://www.epa.gov/report-violation>



Timothy Nuvangyaoma
Chairman



Dr. Carrie Joseph
Director
Natural Resources Dept.



Deputy Director



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Water Resources
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Tuba City Dump (TCD) Site Background

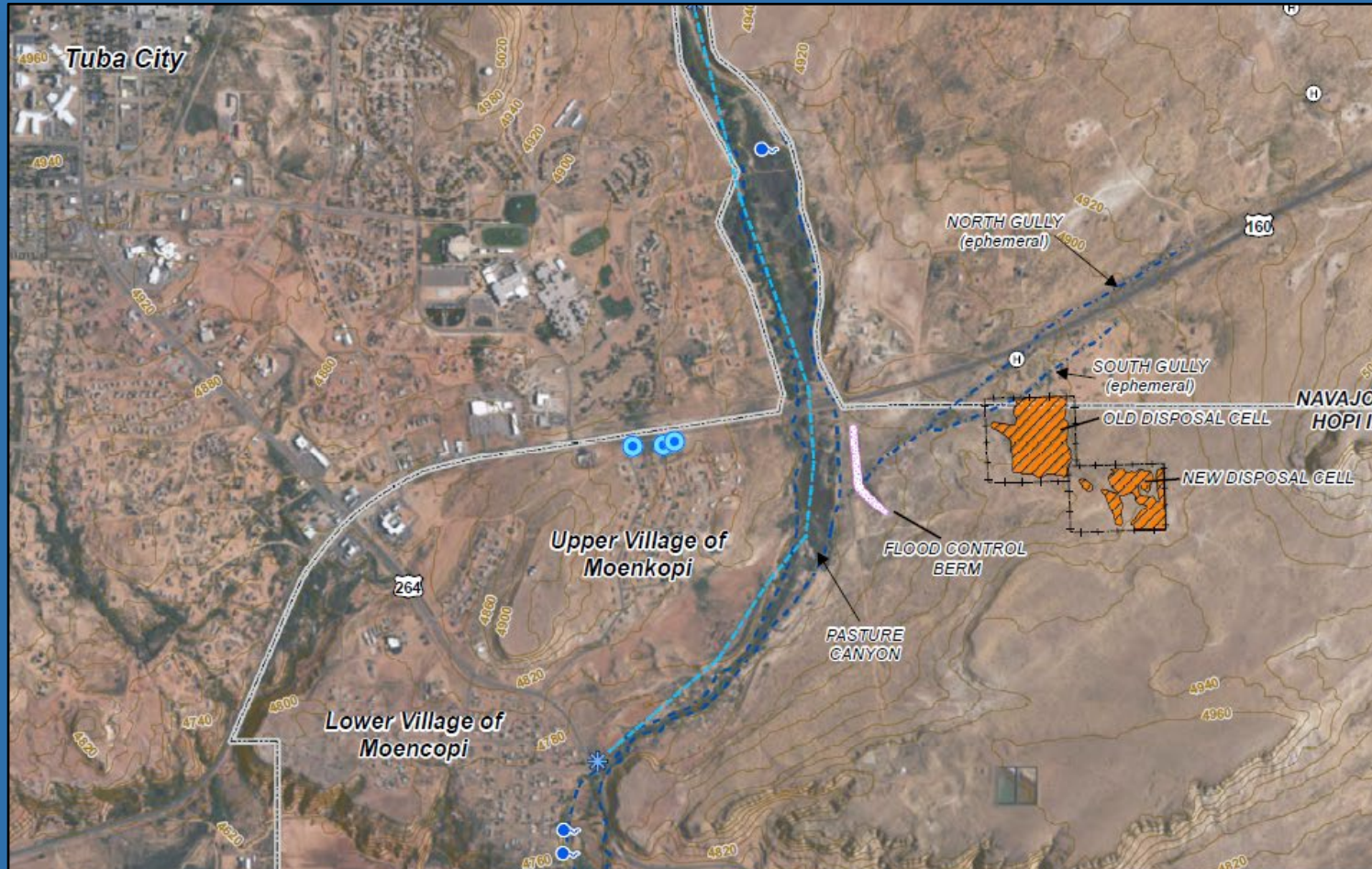
Open Dump operated 1950s - 1997

- Open Trenches and Burning of Wastes
- ~40 Acres (95% on Hopi/ 5% on Navajo)
- Two Disposal Cells (330,000 cubic yards of waste)

Past Environmental Studies

- No evidence of radioactivity in the TCD waste.
- Leachate from TCD causes naturally occurring uranium to dissolve into shallow groundwater.
- Uranium in the shallow groundwater decrease to background levels in the immediate vicinity of the TCD.

Project Location Map and Surrounding Area/Features



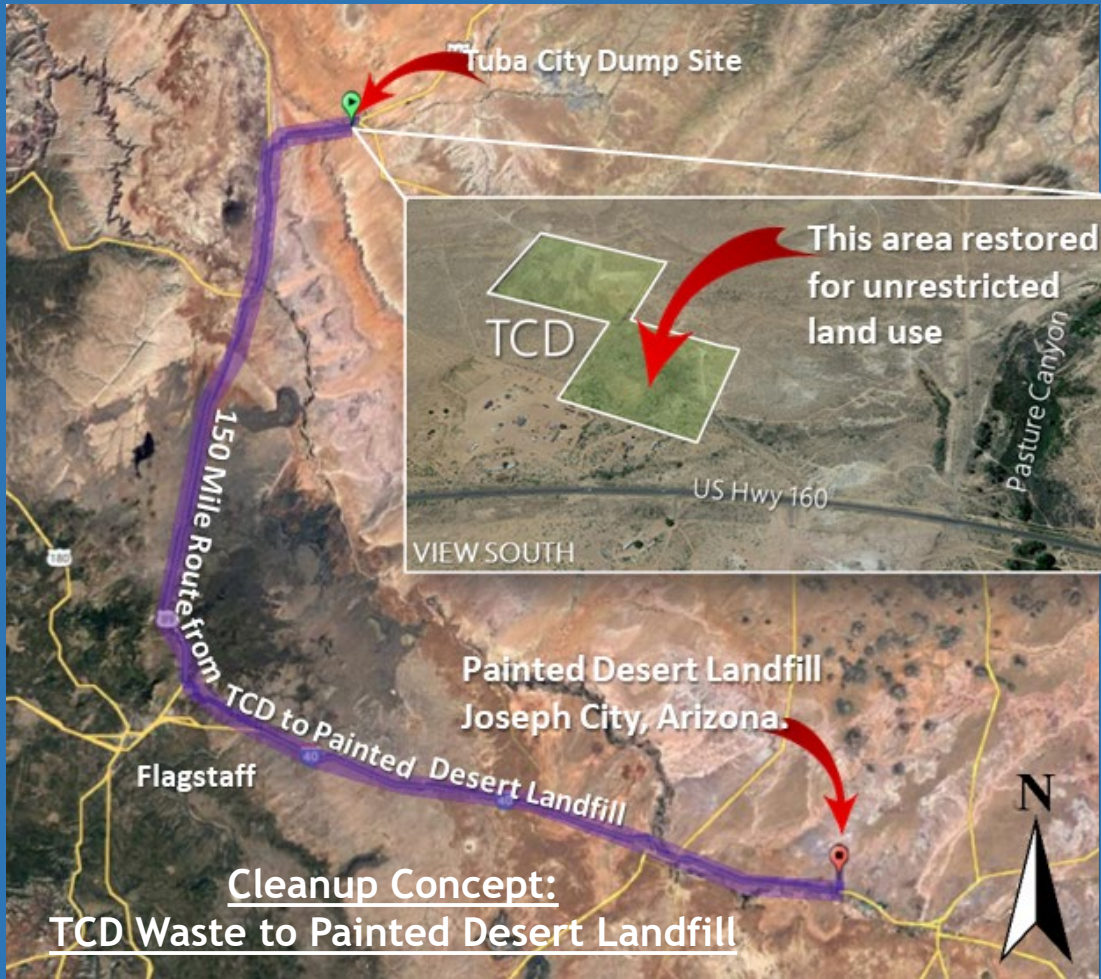
Taken: April 3, 2023

Decision Making Process and Closure Benefits

- The Hopi Tribe and Navajo Nation Cooperated in the Development of All Cleanup Options in the Feasibility Study.
- Community Involvement in, and Acceptance of, the Cleanup Approach Required Further Outreach.
- Both Hopi and Navajo have expressed their desire for Clean Closure removing the TCD wastes from tribal lands
- Closure has permanence with limited future operation and maintenance.
- Closure does not impact other Hopi land.
- Closure restores site to unrestricted, beneficial use.

Cleanup Approach

Move TCD Wastes to Landfill Off Hopi and Navajo Lands



Description

TCD wastes are excavated and hauled to Painted Desert Landfill located in Joseph City, Arizona and/or Cinder Lake Landfill in Flagstaff, Arizona.

- Waste is excavated from both cells and moved to an existing permitted facility
- Resulting pits at the TCD are backfilled with clean soils to match existing grade
- Former TCD land returned to unrestricted use

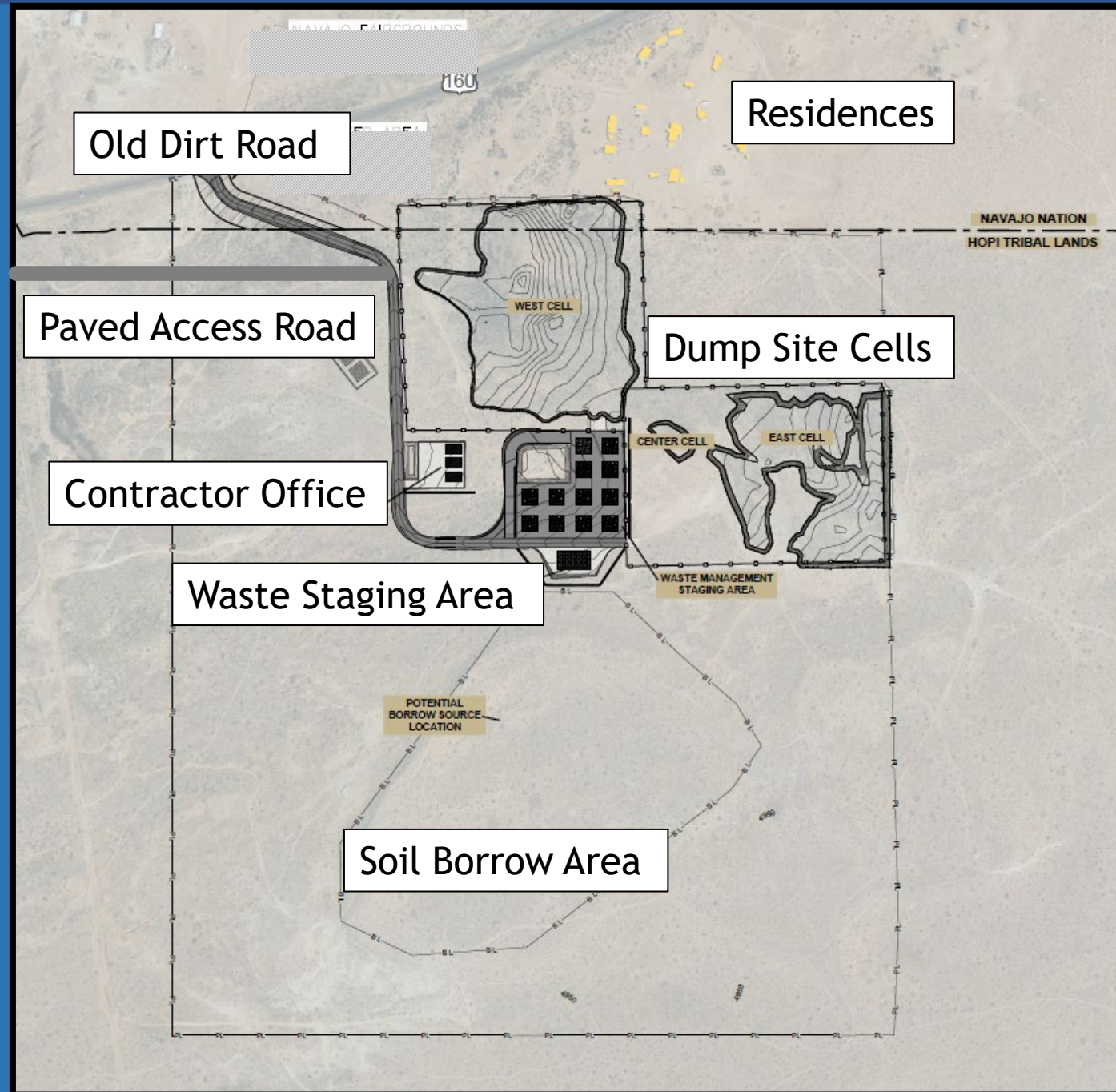
Nearby Resident Protection Plan

- ▶ No temporary relocation plan
- ▶ Pre-construction resident surveys
- ▶ Paved roads to limit dust generation
- ▶ Monitoring measured at dump boundary includes
 - ▶ Air quality for dust
 - ▶ Vibration



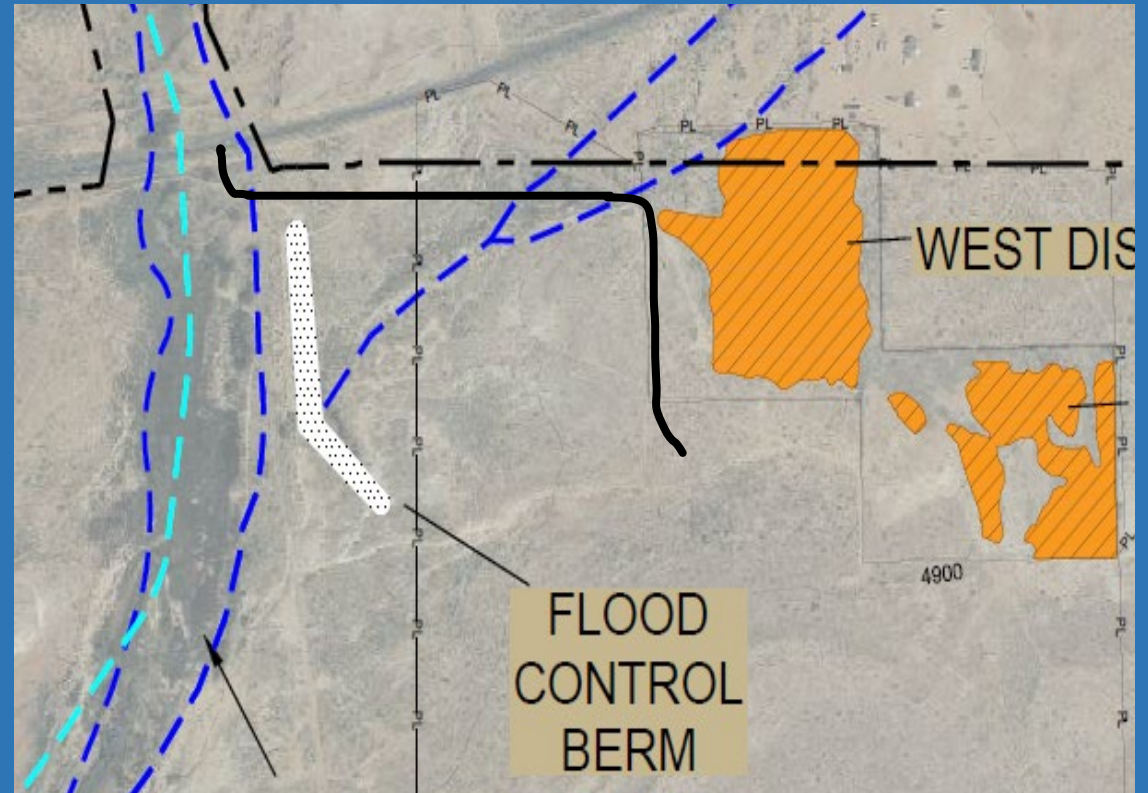
Tuba City Dump Site

- Dump Site
- Residences
- Old Dirt Road
- Paved Access Road to Pasture Canyon
- Waste Staging Area
- Soil Borrow Area
- Contractor Office



Paved Access Road

- Connects the dump site to Highway 160 for truck access
- Route remains on Hopi
- Connects to Pasture Canyon Road
- Working with ADOT on traffic control plan



Construction Plan

- ▶ 2024
 - ▶ Collect groundwater samples
 - ▶ Engineering design
 - ▶ Contractor Selection
 - ▶ Work with ADOT on traffic safety
 - ▶ Site monitoring for noise, air quality, and vibration
- ▶ 2025
 - ▶ Build roads and staging pad
 - ▶ Excavate and Haul Waste \approx 8,000 cubic yards
 - ▶ Hauling waste summer of 2025
 - ▶ 6 to 8 trucks per weekday for 2 to 3 months
- ▶ Following Years: Waste removal and backfilling



Project Budget and Timeline

2024 and 2025 Planned Work - \$10 million

- Construct Infrastructure
- Partial Removal of West Cell Waste

Current Cost Estimate = \$135 million

Current Cost Estimate Range = \$111 to \$150 million

Value engineering and cost savings should reduce cost estimates.



- 330,000 cubic yards are assumed to be transported to an approved landfill facility in Joseph City, Arizona located 147 miles away. Since the dump was created as trenches and since not all the soils and wastes will be transported to the approved facility in Joseph City, Arizona considerable savings in transportation costs and tipping fees are probable.
- The estimate provides for significant staffing and equipment levels which can be reduced.
- The estimate assumes a 6% inflation or escalation factor which should decrease.



▸ Questions ?