



Tuba City, Arizona, Disposal Site

COMMUNITY INVOLVEMENT PLAN

**U.S. Department of Energy Office of Legacy Management
Tuba City, Arizona, Disposal Site (Former Rare Metals Processing Site)**

January 2019

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Section 1: Overview

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) developed this *Community Involvement Plan* (CIP) to facilitate communication and encourage community involvement within Navajo Nation and Hopi communities surrounding the Tuba City, Arizona, Disposal Site. LM will use the community involvement activities outlined in this plan to ensure that community members are informed and provided opportunities to be involved.

LM plans to support public awareness of the Tuba City site through the following activities:

- Inform the public about current and planned activities related to the site
- Educate the public about site activities
- Present information to correct misperceptions about the site
- Provide public access to site information, reports, and other documents
- Promote use of the LM internet as a source of information

LM will foster communication with Tuba City site stakeholders by:

- Participating in regular meetings with stakeholders
- Sharing information
- Remaining open to all input and suggestions

Multiple information sources were used to develop this plan, including community interviews, site files, and community meeting records.

Section 2: Site Overview

2.1: Tuba City, Arizona, Disposal Site History

Rare Metals Corporation of America and its successor, El Paso Natural Gas Company, operated a uranium mill at the Tuba City site between 1956 and 1966. During 10 years of operation, the Tuba City mill processed approximately 800,000 tons of uranium ore. Milling operations created low-level radioactive mill tailings, a predominantly sandy material. The tailings were conveyed in slurry from the mill to a tailings impoundment and process ponds at the site. The impoundment and ponds covered a 55-acre area, and windblown tailings affected an additional 250 acres northeast of the mill site. DOE began site surface remedial action in 1988. All uranium mill tailings from the onsite piles, debris from demolished mill buildings, and windblown tailings were moved and stabilized in an onsite engineered disposal cell. The primary reason for stabilizing and covering the tailings and other mill-related debris was to reduce the radon exposure risk. DOE completed surface remediation in 1990.

Handling waste created during historical milling operations resulted in contaminated groundwater in the Navajo aquifer. The primary source of contamination is water that drained from the unlined tailings impoundment and process ponds, and infiltrated into the subsurface. Groundwater contaminants with concentrations that exceed standards in Title 40 *Code of Federal Regulations*, Part 192 (40 CFR 192), *Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings*, are molybdenum, nitrate, selenium, and uranium. High levels of sulfate, total dissolved solids, and chloride are also present in the groundwater. Although these constituents are not regulated in 40 CFR 192, their concentrations in groundwater are high enough to cause concern, and restoration goals were established (in collaboration with cooperating tribal agencies) for comparison to monitoring results.

2.2: Site Description and Location



Location of the Tuba City Disposal Site

The Tuba City site is within the Navajo Nation and in close proximity to the Hopi Reservation. The site is approximately 5 miles east of Tuba City and 85 miles northeast of Flagstaff, Arizona. Land near the site is used only for occasional grazing, adjacent land was used for dry and irrigated farming, and historically, although not extensively, rural residential purposes. There is no known domestic, industrial, or agricultural groundwater use from the contaminated region of the aquifer within the site. Nearby residences receive water from the Navajo Tribal Utility Authority. This water comes from a well in the bedrock aquifer approximately 1.5 miles northwest (hydraulically upgradient) of the site.

The only surface water associated with the Tuba City site is located approximately 4,000 feet south of the site, where seeps are present along cliff bands that border Moenkopi Wash. Surface-water flow in Moenkopi Wash is seasonal. Water from the wash may occasionally be used for stock watering and agricultural diversions by Navajo and Hopi residents. Early site characterization efforts and ongoing annual monitoring have found no contamination from former milling operations in the seeps in this area.

Section 3.0: Community Background

3.1: Community Profile

The community of Tuba City is located within the Navajo Nation and is governed by a local Navajo Nation government Chapter House. The Hopi Tribal village of Moenkopi is located southeast of Tuba City. According to the 2015 U.S. Census Bureau, Tuba City is the largest tribal community within the Navajo Nation with a population of 9,722 people in 2,360 households. Of these households:

- 52.9 percent include children under the age of 18
- 49.0 percent are married couples living together
- 26.0 percent have a single female head of household
- 17.7 percent are not families
- 15.1 percent are individuals living together
- 2.3 percent are individuals living alone who are 65 years or older
- The average household size is 4.0
- The average family size is 4.5

Racial makeup is:

- 79 percent Native American
- 14.5 percent Hispanic or Latino
- 4 percent Caucasian
- 1 percent two or more races
- 0.7 percent Asian or Pacific Islander
- 0.5 percent other races
- 0.3 percent black or African American

Age distribution of the population shows:

- 42.8 percent under the age of 18
- 27.5 percent from 25 to 44
- 15.7 percent from 45 to 64
- 9.8 percent from 18 to 24
- 4.3 percent are 65 or older
- The median age is 23 years

For every 100 females there are 94 males. For every 100 females age 18 and over, there are 87 males.¹

¹ American FactFinder. United States Census Bureau.
Tuba City, Arizona, Disposal Site **Community Involvement Plan**

Tuba City's median household income is \$47,091, and the median income for a family is \$37,813. Males have a median income of \$29,280 versus \$26,855 for females. The per capita income for the census-designated area is \$14,140. Approximately 23.1 percent of families and 28.2 percent of the population are below the poverty line, including 33.0 percent of those under age 18 and 44.8 percent of those aged 65 or over.²

Educational institutions in Tuba City include:³

- Tuba City High School
- Greyhills Academy High School
- Tuba City Boarding School
- Tuba City Primary School
- Tuba City Junior High School
- Eagles Nest Intermediate School
- Nizhoni Accelerated Academy
- Diné College

Education attainment (for a total population of 5,385, ages ranging from 25 and over):

- 231 are less than grade 9
- 410 are grades 9 to 12 (no diploma)
- 1,820 are high school graduates (includes equivalency)
- 1,122 have some college or associate's degree
- 836 have an associate's degree
- 496 have a bachelor's degree or higher.
- 470 have a graduate or professional degree

The community of Moenkopi, Arizona, is located within Coconino County, adjacent to the southeast side of Tuba City, off U.S. Route 160. Founded in 1870, it is divided into the villages of Upper and Lower Moenkopi. According to the 2010 U.S. Census Bureau, Moenkopi has a population of 964 people in 253 households. Of these households:

- 24.9 percent include children under the age of 18
- 37.2 percent are married couples living together
- 33.2 percent have a single female head of household
- 17.8 percent are not families
- 14.2 percent are individuals living together
- 5.6 percent are individuals living alone who are 65 years or older
- The average household size is 3.81
- The average family size is 4.24

² American FactFinder. United States Census Bureau.

³ Navajo Nation Division of Community Development, Navajo Chapter Profiles.

Racial makeup is:

- 98.5 percent Native American
- 1.3 percent Hispanic or Latino
- 0.8 percent Caucasian
- 0.5 percent two or more races
- 0.1 percent other races

Age distribution of the population shows:

- 33.6 percent under the age of 18
- 25.9 percent from 45 to 64
- 19.9 percent from 25 to 44
- 13.1 percent are 65 or older
- 7.8 percent from 18 to 24
- The median age is 31.7 years

Moenkopi's median household income is \$49,762, and the median income for a family is \$65,083. Males have a median income of \$48,472 versus \$32,393 for females. The per capita income for the census-designated area is \$16,364. Approximately 8.8 percent of families and 19.9 percent of the population were below the poverty line, including 8.4 percent of those under the age of 18 and 10.3 percent of those 65 and older.⁴

Educational institutions in Moenkopi include:

- Tuba City High School
- Greyhills Academy High School
- Tuba City Boarding School
- Tuba City Primary School
- Tuba City Junior High School
- Eagles Nest Intermediate School
- Nizhoni Accelerated Academy
- Diné College

Education attainment (for a total population of 544, ages ranging from 25 to 64 years)

- 29 are less than a high school graduates
- 301 are high school graduates (includes equivalency)
- 186 have some college or associate's degree
- 28 have a bachelor's degree or higher

⁴ U.S. Census Bureau, 2011-2015 Community Survey 5-Year Estimates
Tuba City, Arizona, Disposal Site **Community Involvement Plan**

3.2: Community Involvement

By 1994, all surface remediation including disposal of residual radioactive material and debris had been completed in compliance with U.S. Environmental Protection Agency (EPA) cleanup standards and regulations (Tuba City site, Upper and Lower Moenkopi). DOE's involvement with the communities continues today with participation in technical meetings, open houses, and other outreach events. It is mission-critical for LM to work and collaborate with affected communities to ensure their health and the environment are protected. In-person meetings are opportunities for LM to gather with stakeholders to discuss and address their concerns relating to ongoing groundwater remediation activities, technical studies conducted on behalf of tribal agencies, and any potential community impacts.

Under a cooperative agreement, LM works with the Navajo Abandoned Mine Lands Reclamation/ Uranium Mill Tailings Remedial Action (AML/UMTRA) Program Department to conduct long-term surveillance and maintenance at the four Navajo Nation sites in Mexican Hat, Utah; Shiprock, New Mexico; and Monument Valley and Tuba City, Arizona, to ensure community and environmental safety. LM also works with a variety of departments within the Navajo Nation government to help identify and protect cultural resources.

In 2007, Congress directed DOE and other federal agencies including EPA, Bureau of Indian Affairs, U.S. Department of Health and Human Services, U.S. Nuclear Regulatory Commission (NRC), and the Center for Disease Control (CDC) to work collaboratively with the Navajo Nation to address uranium issues on the Navajo Nation through a Five-Year Plan Community Outreach Network.

Along with the Five-Year Plan Community Outreach Network, a Tribal Intergovernmental Relations group, composed of LM, Hopi, and Navajo counterparts was created to elevate community outreach and engagement with the Hopi and Navajo communities. The group was designed to provide tribal information sharing and to understand the lines of communication between all tribal and government entities.

In June 2016, LM and its contractor, Navarro Research and Engineering, Inc., opened an outreach office in Window Rock, Arizona. The Window Rock outreach office provides a place for the public to learn about LM and the sites on the Navajo Nation, the Navajo Nation Five-Year Plan, and the work being conducted to address uranium issues within the Navajo Nation. It provides community outreach and coordination assistance to LM, Navajo Nation leadership, and coordinating tribal programs, and offers public affairs services to affected tribal communities.

3.3: Outreach Events

In recent years, LM has attended, participated, and/or led the following outreach events:

2014

- December 5-6: Discovery Festival, Farmington, New Mexico
- December 12-14: Monument Valley, Utah, Balloon Festival

2015

- February 18: LM, Navajo, and Hopi Quarterly Meeting and Technical Exchange
- March 24-26: Navajo Land Summit II, Twin Arrows, Arizona
- May 1-2: Shiprock, New Mexico, Marathon
- May 26: Developing Productive Tribal Government and Community Relations Training
- May 28-29: San Juan Mining and Reclamation Conference (presentation), Telluride-Mountain Village, Colorado
- June 3-4: Traditional Law and Cultural Awareness Training, Grand Junction, Colorado
- June 24: LM, Navajo, and Hopi Quarterly Meeting and Technical Exchange
- July 2: Tuba City, Arizona, Chapter House Planning Meeting (presented to Chapter officials)
- September 23-25: LM Tribal Summit
- September 27-30: National Association of Abandoned Mine Land Programs Conference, Santa Fe, New Mexico
- October 15: EPA Senior Leadership Meeting at Navajo Nation President's Office, Window Rock, Arizona
- October 15-18: Western Navajo Nation Fair, Tuba City, Arizona
- October 16-17: Discovery Festival, San Juan, New Mexico
- October 27: LM, Navajo, and Hopi Quarterly Meeting and Technical Exchange
- October 28: Navajo Five-Year Plan Outreach Network Meeting
- November 2: Oljato, Utah, Chapter House Planning Meeting (presented to Chapter officials)
- December 6: Shiprock, New Mexico, Regular Chapter House Meeting (presented to the public)
- December 4-6: Monument Valley, Utah, Balloon Festival

2016

- February 17: LM, Navajo, and Hopi Quarterly Meeting and Technical Exchange
- February 18: Tuba City, Arizona, Technical Presentations
- March 9-12: National Environmental Justice Conference and Training Program, Washington, DC
- March 19: Western Agency Chapter Meeting
- March 29-31: Navajo Division of Natural Resources Summit, Flagstaff, Arizona
- April 5: Tuba City, Arizona, Site Tour for Regulators and Agency Officials
- April 6: Tuba City, Arizona, Public Open House and Scoping Meeting
- April 7: Mexican Hat, Utah; and Monument Valley, Arizona, Site Tours for Regulators and Agency Officials
- April 8: Navajo Five-Year Plan Outreach Network Meeting, Monument Valley, Utah
- April 9: Public Open House at Monument Valley, Utah
- August 24: LM, Navajo, and Hopi Quarterly Meeting and Technical Exchange
- August 30-September 1: Citizen Participation Training
- September 6-11: 70th Annual Navajo Nation Fair, Window Rock, Arizona
- September 27-October 2: Northern Navajo Nation Fair, Shiprock, New Mexico
- October 7-8: Discovery Festival, San Juan, New Mexico
- October 13-16: Western Navajo Nation Fair, Tuba City, Arizona
- October 17-21: Radiation 101 Training
- October 21: Tuba City, Arizona, Open House and Public Site Tour

- November 15-16: LM, Navajo, and Hopi, Quarterly Meeting and Technical Exchange
- November 17-19: Monument Valley, Utah, Balloon Festival
- December 9: Shiprock, New Mexico, Christmas Parade of Lights

2017

- January 24 and 26: Presented with Navajo Nation AML/UMTRA at Diné College Campuses in Tsaile, Arizona; Shiprock, New Mexico
- January 25: Window Rock, Arizona Open House with Navajo Nation Council Delegates
- February 27: Governance Conference, Albuquerque, New Mexico
- February 27: Health Education and Human Services Committee Meeting, Window Rock, Arizona
- March 1: LM, Navajo, and Hopi Quarterly Meeting and Technical Exchange, Flagstaff, Arizona
- March 24: Navajo Five-Year Plan Outreach Network Meeting, Window Rock, Arizona; Shiprock, New Mexico
- March 25: Fun Run and Site Tour, Shiprock, New Mexico
- April 11: Eastern Agency Abandoned Uranium Mines Open House, Gallup, New Mexico
- April 12: Navajo Utah Commission Presentation, Mexican Water, Utah
- April 15: Tuba City, Arizona, Site Tour for Shonto Middle School Students
- April 27-28: Tuba City, Arizona, Site Tour for Tuba City Middle School Students
- May 1: Navajo Utah Commission Presentation, Window Rock, Arizona
- May 8-12: LM Director Navajo Nation Uranium Mill Tailings Radiation Control Act Site Visit, Arizona, Colorado, New Mexico, Utah
- July 24-26: LM, Navajo, and Hopi Quarterly Meeting, Grand Junction, Colorado
- July 20-22: Youth Day at the Boys and Girls Club and Parade, Crownpoint, New Mexico
- September 5-10: 71st Annual Navajo Nation Fair, Window Rock, Arizona
- September 21-23: American Indian Science and Engineering Society Conference, Denver, Colorado
- October 5-10: Northern Navajo Nation Fair, Shiprock, New Mexico
- October 12-15: Western Navajo Nation Fair, Tuba City, Arizona
- October 18-19: Tuba City, Arizona/Moenkopi Open House and Site Tour
- November 7-8: LM, Navajo, and Hopi Quarterly Meeting, Shiprock, New Mexico
- November 15-17: Navajo Nation Division of Natural Resources Summit, Flagstaff, Arizona
- November 17-18: Monument Valley Balloon Festival, Monument Valley, Utah
- December 4: Keshmish Tree Lighting Ceremony, Window Rock, Arizona

2018

- January 3: Oljato, Utah, Chapter House Planning Meeting (presented to Chapter officials)
- January 7: Oljato, Utah Regular Chapter House Meeting (presented to the public)
- January 8: Kayenta, Arizona, Kayenta Township Meeting (presented to the Commission and public)
- January 25: Diné Uranium Remediation Advisory Commission (DURAC) Meeting, Tse Bonito, New Mexico
- January 30: Coconino County Supervisor Meeting, Flagstaff, Arizona
- February 2: Dennehotso, Arizona, Chapter House Planning Meeting (presented to Chapter officials)
- February 10: Navajo YES Lower Colorado Marathon AML/UMTRA Outreach, Cameron, Arizona
- February 11: Dennehotso, Arizona, Regular Chapter House Meeting (presented to public)
- February 2018: Navajo Nation Governance Conference
- March 7-8: LM, Navajo, Hopi Quarterly Meeting and Technical Exchange
- March 12: Halchita and Kayenta Township meetings
- March 14: STEM Event in Shiprock (9th to 12th grades), Shiprock, New Mexico
- April 14: Open House and Site Tour, Mexican Hat, Utah
- April 15: Open House and Site Tour, Monument Valley, Arizona
- September 6-8: Navajo Nation Fair, Window Rock, Arizona
- September 13: STEM-sation Day Outreach, Kirtland Central High School, Kirtland, New Mexico
- September 19: Chartering Session with Navajo AML/UMTRA Program
- September 26: Shiprock Site Tour for DURAC, Shiprock, New Mexico
- September 27: DURAC Meeting, Shiprock, New Mexico
- October 4: National American Indian Science and Engineering Society (AISES) Conference, Oklahoma City, Oklahoma
- October 4-6: Northern Navajo Nation Fair, Shiprock, New Mexico
- October 11-13: Western Navajo Nation Fair, Tuba City, Arizona
- October 16-17: Navajo/Hopi/DOE Quarterly Meeting, Flagstaff, Arizona
- October 23: Halchita Community Information Meeting, Halchita, Utah
- November 8: STEM-sation Day Outreach, Chinle High School, Chinle, Arizona
- November 17: Monument Valley Marathon, Monument Valley, Utah
- November 26 and 28: Diné College STEM Fest, Tsaile, Arizona
- November 29: International Uranium Film Fest, Navajo Nation Museum, Window Rock, Arizona

3.4: Outreach Materials

LM provides informational materials at outreach events, including:

- Site fact sheets
 - Mexican Hat, Utah, Disposal Site
 - Monument Valley, Utah, Processing Site
 - Shiprock, New Mexico, Disposal Site
 - Tuba City, Arizona, Disposal Site
 - Tuba City Uranium Ore Deposit Formation in the Tuba City, Arizona, Area fact sheet

- Window Rock, Arizona, Navajo Nation Community Outreach Network Office Fact Sheet
- Community information sheets
 - Mexican Hat, Utah, Disposal Site
 - Monument Valley, Utah, Processing Site
 - Shiprock, New Mexico, Disposal Site
 - Tuba City, Arizona, Disposal Site
- Energy Ant coloring book
- Gamma Goat coloring book
- LM overview brochure
- LM Sites on Navajo Nation Land brochure
- LM Strategic Plan brochure
- Uranium and Radiation on the Navajo Nation Agency Resource List
- LM Video detailing the work conducted on the Navajo Nation
- Window Rock, Arizona, Outreach Office Map
- Working with the Navajo Nation fact sheet
- Uranium and Radiation on the Navajo Nation Resource List 2018

Section 4.0: Community Concerns

Through a series of informal interviews and discussions, community meetings, and open houses, tribal community members and officials (tribal programs staff, Navajo Chapter representatives, and Moenkopi village council members) from the Navajo Nation and the Hopi Tribal village of Moenkopi expressed the following concerns related to the Tuba City site:

- Uranium contamination in groundwater making its way to Moenkopi Wash
- Uranium-contaminated groundwater at the site affecting the tribal community's drinking water
- Uranium-contaminated groundwater at the site affecting livestock wells located near the site (southern and northern wells)
- A dangerous level of radiation is emitted from the disposal cell
- The site is contributing to cancer within the tribal communities
- Radioactive dust is blowing off the site and into the communities
- The former housing for the site is contaminated
- Weekday-evening meetings are a challenge to attend
- There needs to be more outreach to the Hopi Tribal village of Moenkopi
- Confusion about the LM "Highway 160 site" and the Tuba City open dump

4.1: Response to Community Concerns

LM has conducted the following recent community involvement activities directly responding to community concerns:

- **April 6, 2016, Open House.** Materials provided to the community included site fact sheets detailing remediation activities related to groundwater, sampling and monitoring, and disposal cell design. LM technical staff was present to answer community questions and concerns.
- **April 6, 2016, National Environmental Protection Act (NEPA) Scoping Meeting in Tuba City, Arizona.** Scoping meeting held on water treatment options for the Tuba City site. Lessons learned include: engage community prior to hosting NEPA scoping meeting for in-depth dialogue on site activities; simplify technical slides for community understanding; ensure DOE participation at critical information points; and ensure that Navajo and Hopi translation providers are familiar with technical terms. Engagement plan will include timely outreach utilizing local media resources and local government chapter and village offices, and coordination with tribal governmental partners on pre-NEPA community meetings.
- **October 13-16, 2016, Western Navajo Nation Fair in Tuba City, Arizona.** Information provided included information sheets detailing cleanup activities at the Tuba City site related to groundwater, sampling and monitoring, and disposal cell design. LM technical staff was present to answer community questions and concerns. Staff from the Navajo AML/UMTRA Program Department was present to provide information on their coordination with LM, and their work to address AUMs within the Navajo Nation. Staff from the Birth Cohort Study was present to provide information on their findings related to the health impacts of uranium.

- **October 28, 2016, Open House and Site Tour.** The open house provided an opportunity for community members to learn about remediation activities at the site, and to learn about the disposal cell design. It was also an opportunity for Five-Year Plan member agencies to provide information on their work related to the site. The CDC Agency for Toxic Substances and Disease Registry (ATSDR), EPA Region 9, the Navajo AML/UMTRA Program Department, and the Navajo Nation AUM Environmental Response Trust participated in the open house. The site tour provided community members with an opportunity to see and learn about the remediation activities, including groundwater monitoring, the use of the evaporation pond to remove contamination from groundwater, and the design and construction of the disposal cell.
- **March 2, 2017, LM, Navajo, and Hopi Quarterly Meeting and Technical Exchange.** A site tour was conducted for Navajo representatives from the Navajo AML/UMTRA Program Department, including the LM director, public information officer, Navajo EPA hydrologist, the director of the Hopi Tribe Department of Natural Resources, and three Moenkopi village council representatives.
- **October 12-15, 2017, Western Navajo Nation Fair in Tuba City, Arizona.** Information provided included information sheets detailing cleanup activities at the Tuba City site related to groundwater, sampling and monitoring, and disposal cell design. Staff from the Navajo AML/UMTRA Program Department was present to provide information on their coordination with LM, and their work to address AUMs within the Navajo Nation. Staff from the Birth Cohort Study was present to provide information on their findings related to the health impacts of uranium. Navajo EPA and U.S. EPA was present to inform the community of AUMs and the cleanup process of these mines.
- **October 18-19, 2017, Tuba City, Arizona/Moenkopi Open Houses and Site Tours.** Materials provided to the community included site fact sheets detailing remediation activities related to groundwater, sampling and monitoring, and disposal cell design. LM technical staff was present to answer community questions and concerns. Also, Hopi officials was present to ask questions regarding concerns related to the Moenkopi Wash. Staff from the Navajo AML/UMTRA Program Department was present to provide information on their coordination with LM, and their work to address AUMs within the Navajo Nation.
- **November 7-8, 2017, LM, Navajo, and Hopi Quarterly Meeting, Shiprock, New Mexico.** LM staff, Navajo representatives from the Navajo AML/UMTRA Program Department, the director of the Hopi Tribe Department of Natural Resources, and Shiprock Chapter President Chili Yazzie was present for this meeting.

At each of these community involvement events, information was shared with the community about the status of the groundwater contamination plume, the construction of the disposal cell, and efforts to remove uranium from the groundwater, including the distillation treatment plant that is currently on safe standby. The LM site manager and staff provided information on the location and characteristics of the contamination plume, with the assurance that the contamination will not reach Moenkopi Wash due to hydrological conditions at the site. Additional information was provided to inform tribal communities about the design and construction of the disposal cell that mitigates radiation exposure.

4.2: Summary of Communication Needs

Community members have said their communication needs should be addressed through meeting notices provided at the Tuba City Chapter House, published in local newspapers, and aired on KTNN (Navajo AM radio station) and KUYI (Hopi FM radio station) stations, and in the Hopi village of Moenkopi. Tribal community members also expressed their desire to have public events held on non-payday weekends when community members are more likely to attend meetings, and to present and receive community feedback at Chapter planning meetings and Chapter meetings.

Section 5: Community Involvement Strategy

The goal of this strategy is to facilitate communication between community members and LM, and to provide opportunities for meaningful and active involvement by Navajo and Hopi tribal communities in Tuba City site activities. The strategy is based on feedback from community involvement interviews, previous community meetings, and comments received from local officials.

5.1: Community Involvement Activities

1. Information on current and proposed site activities	
<i>Activity 1A: Present information at Tuba City Chapter meetings.</i>	
Objective:	Present information regarding site activities.
Method:	LM representatives will present an update at Tuba City Chapter meetings, and Moenkopi community meetings. Tools may include presentations, site information fact sheets, and the LM website address for detailed site information.
Timing:	Semiannually.
<i>Activity 1B: Conduct open houses and site tours.</i>	
Objective:	LM site manager and staff will provide in-depth information to community members about site activities and the scientific and engineering rationale for activities.
Method:	Host semiannual open houses at community meeting locations (i.e., Chapter House, Moenkopi Legacy Inn, local high school). Conduct mid-morning site tours that will include maps detailing cell location, extraction and monitoring well placements, the evaporation pond, the contamination plume, and construction graphics of cell, pond, and wells.
Timing:	Late spring and early fall.
2. Timely outreach and information on community meetings, site open houses, and site tours.	
<i>Activity 2A: Post flyers in public locations about upcoming community meetings, site open houses, and site tours.</i>	
Objective:	Post information about community meetings, site open houses, and site tours.
Method:	Post meeting information at the Tuba City Chapter House public information board; U.S. Post Office; local businesses; and tribal, state, and federal offices.
Timing:	As needed.
<i>Activity 2B: Advertise on local radio stations, tribal newspapers, and newsletters.</i>	
Objective:	Provide public service announcements on community meetings, quarterly updates, site open houses, and site tours.
Method:	Contact KTNN and KUYI, place information ads in the <i>Navajo Times</i> and in Hopi newsletters with information announcing upcoming community meetings, quarterly updates, site open houses, and site tours. Establish a site point-of-contact for follow-up purposes.
Timing:	Fifteen days and five days prior to site meetings, open houses, and site tours.

2. Timely outreach and information on community meetings, site open houses, and site tours. (continued)	
<i>Activity 2C: Mail informational post cards.</i>	
Objective:	Mail informational postcards detailing upcoming community meetings, quarterly updates, site open houses, and tours.
Method:	Collect physical mail and email addresses from community members during community meetings, quarterly updates, site open houses, and site tours for distributing information announcing upcoming community meetings, quarterly updates, site open houses, and site tours.
Timing:	Fifteen days prior to planned community meetings, quarterly updates, site open houses, and site tours.

3. Make times and dates for site open houses and site tours more accessible for members of the community.	
<i>Activity 3A: Work with community leadership and community members to determine optimal date, time, and location for community meetings, site open houses, and site tours.</i>	
Objective:	Determine the best time frame to conduct community meetings, site open houses, and site tours.
Method:	Poll community leaders and community members during Chapter meetings (engage with Chapter House coordinator to schedule) and outreach events to determine the best time frame for conducting community meetings, site open houses, and site tours. Coordinate community meetings with scheduled events and gatherings in the community. Explore developing regular hours at the site to provide tours to the public.
Timing:	Conducted during Chapter House quarterly updates, informal polling within the community.

4. Address community concerns that contaminated groundwater plume will reach Moenkopi Wash and the community water system.	
<i>Activity 4A: Provide information on contaminated groundwater plume location and movement history.</i>	
Objective:	Inform community about the site’s groundwater contamination, plume movement history, and the site’s hydrology and geology.
Method:	LM site manager and technical staff presentations at community meetings, quarterly updates, site open houses, and site tours. Give presentations illustrating the location and depth of the contamination, plume movement history, site hydrology, and geology.
Timing:	Semiannually in the spring and fall.

5. Address community concerns that radioactive waste is contributing to cancer in the community.	
<i>Activity 5A: Provide joint information and presentations from ATSDR, Indian Health Service, and LM on cancer, indeterminate causes for cancer, and site cleanup and monitoring activities reducing community's exposure to radioactive waste.</i>	
Objective:	Inform community of indeterminate causes of cancer. Provide information on site activities that reduce the community's exposure to radioactive waste. Foster informational community dialogue involving multiple federal and tribal agencies and programs on community concern, and identify health resources available to community members. The information can explain the lack of exposure pathways and the low-level nature of the tailings wastes if they are encountered. The key is increasing awareness and understanding of actual risks and how to personally mitigate or avoid them, such as: do not access restricted water or use livestock water for drinking, stay out of mines, report suspicious areas to Navajo EPA or other agencies.
Method:	This discussion may be included in community meetings, Five-Year Plan agencies' meetings, quarterly updates, site open houses, and site tours, or it may be conducted at a community meeting designed to specifically address this community concern.
Timing:	Ongoing.

6. Address community recommendation that all outreach materials need to have a cultural connection to the community for better interpretation and understanding.	
<i>Activity 6A: Provide the site leads/site managers expertise on culturally appropriate outreach materials regarding the four former uranium mill processing sites.</i>	
Objective:	Inform community about the site's groundwater contamination, plume movement history, and the site's hydrology and geology in all outreach materials, while being culturally sensitive to community interpretation.
Method:	This discussion may be exchanged between all site leads and managers for the four former uranium processing sites, community members, tribal officials, and the Navajo Nation Community Outreach Network Office located in Window Rock, Arizona.
Timing:	Ongoing.

5.2: Community Involvement Activities Time Frame Summary

Activity	Time Frame
Chapter House update meetings	Held semiannually: To be determined
Site open houses and site tours	Held in early fall and late spring
Announcements of meetings, open houses, and site tours	Distributed/published 15 days and five days prior to activity date(s)
Meetings to address community concerns related to cancer	To be determined

5.3: Community Notification

As part of DOE's ongoing effort to reach out to the Tuba City community regarding work conducted at the disposal site, it is vital that any public interaction involving federal, tribal, and contractor personnel, such as door-to-door notifications, be conducted in a safe manner. Staff will perform the following actions to ensure that the necessary steps are taken to thoroughly and safely communicate to the Tuba City community about site work:

- Attend regular meetings to notify community members and tribal members of DOE activities, as well as answer questions about upcoming site work
- Produce and post outreach flyers at public places, including the Chapter Houses and area businesses in Tuba City
- Post temporary announcement signs about site work along roadsides near the disposal site
- Produce door hangers, which communicate a clear description of the work that will be performed, and distribute to area residents in person or left on the door
- Conduct door-to-door outreach with no fewer than two staff members, including one member who is fluent in Navajo or Hopi, if possible
- Exercise situational awareness before approaching homes. Do not approach if it doesn't seem safe
- During door-to-door notifications, keep a record of which homes are contacted and when, the result of that contact effort, and resident feedback. This record is to be provided to the Public Affairs manager and the site lead, for distribution

Appendix A: LM Regional Contacts

Acting Environment Team 1 Leader	Art Kleinrath U.S. Department of Energy Office of Legacy Management 2597 Legacy Way Grand Junction, CO 81503 (970) 248-6034
Tuba City Site Manager	Mark Kautsky U.S. Department of Energy Office of Legacy Management 2597 Legacy Way Grand Junction, CO 81503 (970) 248-6020
Public Participation Specialist	Karen Edson U.S. Department of Energy Office of Legacy Management 11035 Dover St. Westminster, CO 80021 (202) 631-5417
Public Affairs Specialist <i>Navarro Research and Engineering, Inc.</i>	Chrissy Largo Navarro Research and Engineering, Inc. 47552-D State Hwy 264 Window Rock, AZ 86515 (928) 810-2100
Outreach Liaison <i>Navarro Research and Engineering, Inc.</i>	Milton Bluehouse Navarro Research and Engineering, Inc. 47552-D State Hwy 264 Window Rock, AZ 86515 (928) 810-2101
Site Lead <i>Navarro Research and Engineering, Inc.</i>	Peter Lemke 2597 Legacy Way Grand Junction, CO 81503 (970) 248-6103

Appendix B: Local Officials

Navajo Nation President	Jonathan Nez Navajo Nation Office of the President P.O. Box 7440 Window Rock, AZ 86515 (928) 871-7000
Navajo Nation Vice President	Myron Lizer Navajo Nation Office of the President P.O. Box 7440 Window Rock, AZ 86515 (928) 871-7000
Navajo Council Delegate	Otto Tso Council Delegate Navajo Nation Council P.O. Box 727 Tuba City, AZ 86045 (928) 255-2912
Tuba City Chapter President	Gerald Keetso P.O. Box 727 Tuba City, AZ 86045 (928) 283-3284
Tuba City Chapter Vice President	Joetta Goldtooth P.O. Box 727 Tuba City, AZ 86045 (928) 283-3284
Navajo AML Reclamation/ UMTRA Program Department	Madeline Roanhorse, Director P.O. Box 1875 Window Rock, AZ 86515 (928) 871-6982
Navajo Nation EPA	Dr. Donald Benn, Executive Director P.O. Box 339 Window Rock, AZ 86515 (928) 871-7692

Appendix B: Local Officials (continued)

Hopi Tribe

Norman Honie
Office of Mining and Mineral Resources
P.O. Box 123
Kykotsmovi, AZ 86039
(928) 734-7164

Timothy L. Nuvangyaoma, Chairman
P.O. Box 123
Kykotsmovi, AZ 86039
(928) 734-3102

Clark W. Tenakhungva., Vice Chairman
P.O. Box 123
Kykotsmovi, AZ 86039
(928) 734-3112

Charlene Naha, Community Service Administrator
Upper Village of Moenkopi
P.O. Box 1229
Tuba City, AZ 86045
(928) 283-8051

Governor Hubert Lewis
Upper Village of Moenkopi
P.O. Box 1229 Tuba City, AZ 86045

Clayton Honyumtewa, Director
Department of Natural Resources
P.O. Box 123
Kykotsmovi, AZ 86039
(928) 734-3601

Lionel Puhuyesva
Director, Water Resources Program the Hopi Tribe
P.O. Box 123
Kykotsmovi, AZ 86039
(928) 734-3712

Appendix C: Elected State Officials

Governor of Arizona	Doug Ducey (Republican), Office of the Governor 1700 West Washington Street Phoenix, AZ 85007 (602) 542-4331
State Senator	Jamescita Peshlakai, District 7 Arizona State Capitol Complex 1700 West Washington Street Phoenix, AZ 85007 (602) 926-5160
State Representative	Arlando Teller, District 7 Arizona State Capitol Complex 1700 West Washington Street Phoenix, AZ 85007 (602) 926-5172
County Supervisor	Lena Fowler, Coconino County 219 E. Cherry Avenue Flagstaff, AZ 86001 (928) 679-7751

Appendix D: Elected Federal Officials

Senator	Jon Kyl (Republican) 218 Russell Senate Office Building Washington, DC 20510 (202) 224-2234
Senator	Jeff Flake (Republican) 413 Russell Senate Office Building Washington, DC 20510 (202) 224-4521
Representative	Ruben Gallego (Democrat) 1218 Longworth House Office Building Washington, DC 20515 (202) 225-4065

Appendix E: Environmental and Active Citizens Groups

Southwest Research and Information Center	105 Stanford SE P.O. Box 4524 Albuquerque, NM 87106 (505) 262-1862
Forgotten People CDC	P.O. Box 1289 Tuba City, AZ 86045 (928) 640-6110
Diné C.A.R.E. – Citizens Against Ruining our Environment	10A Town Plaza, Suite 138 Durango, CO 81301 (970) 759-1908
Sacred Water Speaks (To’Nizhoni Ani)	P.O. Box 657 Kykotsmovi, AZ 86039 (928) 265-9459
Black Mesa Coalition	408 E. Route 66 Flagstaff, AZ 86002 (928) 213-5909
Haul No!	stopcanyonmine@gmail.com

Appendix F: Media Contacts

<i>Navajo Times</i>	Krista Allen, Western Agency Reporter (928) 871-1136 Kallen@Navajotimes.com
<i>Navajo/Hopi Observer</i>	Loretta Yerian, Managing Editor (928) 635-4426 Lyerian@williamsnews.com
<i>Associated Press</i>	Felicia Fonseca, Reporter
AM Radio—KTNN	Public Service Announcements (928) 871- 3553 Webmaster@ktnnonline.com
FM Radio—KUYI	Public Service Announcements (928) 738-5530 Info@kuyi.net

Appendix G: Meeting Locations

Tuba City Chapter House

P.O. Box 727
Tuba City, AZ 86045
(928) 283-3284

Moenkopi Legacy Inn and Suites

1 Legacy Lane
Tuba City, AZ 86045
(928) 283-4500

Tuba City High School Gymnasium

Warrior Drive
Tuba City, AZ 86045
(928) 283-1050

Upper Village of Moenkopi Community Center

P.O. Box 129
Tuba City, AZ 86045
(928) 283-8051

Appendix H: Other Local Resources

Tuba City AML Reclamation Program

Ray Tsingine, Program Manager

25 South Main Street

P.O. Box 730

Tuba City, AZ 86045

(928) 283-3188