COMMUNITY INVOLVEMENT PLAN

Lukachukai Mountains Mining District (LMMD) National Priorities List (NPL) Site



U.S. Environmental Protection Agency Region 9

July 2025

Approval:_____

Title Page

Project Title:	Lukachukai Mountains Mining District (LMMD) National Priorities List (NPL) Site
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ACTIVE PUBLIC INVOLVEMENT IS CRUCIAL TO THE SUCCESS OF ANY PUBLIC PROJECT

The U.S. Environmental Protection Agency's (USEPA) Superfund Community Involvement Program is committed to promoting communication between citizens and the agency. USEPA's community involvement activities at the Lukachukai Mountains Mining District (LMMD) National Priorities List (NPL) site are to:

- Inform the public of the nature of the environmental issues associated with the site.
- Involve the public in the decision-making process that will affect them.
- Involve the public in the responses under consideration to remedy these issues.
- Inform the public of the progress being made to implement the remedy.



Photograph provided by USEPA.

Figure 1. Lupine on Cove Mesa V

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Section 1.0 Overview of the Community Involvement Plan

Preparing a community involvement plan (CIP) is one of the steps required under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), or Superfund, for sites where the U.S. Environmental Protection Agency (USEPA) is planning a cleanup action. USEPA's Region 9 Office, in coordination with the Navajo Nation Environmental Protection Agency (NNEPA) Superfund Program, will oversee the implementation of the community involvement activities outlined in this CIP. Unless otherwise specified, references to USEPA in this CIP refer to USEPA Region 9.

USEPA developed this CIP in coordination with NNEPA to facilitate communication between the community, USEPA, and NNEPA. The impacted communities include the Cove, Lukachukai, and Round Rock Chapters of the Navajo Nation and other communities surrounding the Lukachukai Mountains Mining District (LMMD) National Priorities List (NPL). USEPA encourages community involvement in site activities. USEPA will use the community involvement activities outlined in this plan to ensure that residents have access to information and opportunities to be involved.

This CIP provides a background of the community (Section 2.0), presents USEPA's community involvement action plan (Section 3.0), explains the Superfund program (Section 4.0), describes the LMMD NPL site (Section 5.0), and provides maps of the LMMD NPL site and a listing of resources available (appendices). USEPA used several information sources to develop this plan, including community interviews, community resources, internet research, and site files.

This CIP will be revised as community concern warrants. The revision process may include conducting additional community interviews, updating mailing lists, updating the files at the designated information repository, and updating the contacts and resources provided in the appendices.

If you are interested in submitting comments or have questions or suggestions concerning the CIP, please contact:

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Section 2.0 Community Background

This section presents a description of the local community and the history of community involvement with the LMMD NPL site.

2.1 Community Profile

The Cove, Lukachukai, and Round Rock communities are in the Northern Abandoned Uranium Mine (AUM) Region of the Navajo Nation. The communities include people in both rural areas and more populated areas around the Cove, Round Rock, Lukachukai, and Red Valley Chapter Houses. The communities follow the Life Way of the Diné People as described in the Diné Fundamental Law. Individuals within these communities may also have their own traditions, religious and spiritual beliefs, and cultural practices.

Residents rely on raising livestock and farming, moving up the mountains into sheep camps during early summer and staying until late fall. Sheep raised for meat also provide wool for rug weaving. Fall activities include wood hauling and hunting. Additionally, many plants within the region have cultural significance. Plants are gathered by individuals to be used for ceremonial and medicinal purposes, as well as:

- Sustenance and nutrients
- Medicinal herbs for health and well being
- Tobacco for personal use, ceremonies, and cleansing
- Wool dyes
- Household tools and utensils
- Building hogans, corrals, sweat lodges, shade houses, fencing and firewood
- Protection and talismans



Photograph provided by USEPA. Figure 2. Cove Chapter Community Welcome Sign

Cove Chapter: The Cove community lies at the foot of the northeast slope of the Lukachukai Mountains. Cove Chapter residents reside in two principal settlements and scattered home sites closer to the chapter house. The first is the Cove Chapter housing division complex area consisting of 44 units where a Navajo Housing Authority (NHA) subdivision is located. The second is employee housing within the Cove Day School site operated by the Bureau of Indian Education (BIE), which is currently closed. Small family clusters are also spread across the Cove Chapter. Drinking water is generally obtained via ground water. Many homeowners do not have their own source of water and must haul water to their properties. The Navajo Tribal Utility Authority (NTUA) provides domestic potable water through community wells connected to a water tank for temporary potable water storage. Additionally, residents may water livestock through seasonal ponds. Some families maintain camps in the mountains where they move to during the summer months. The main public facilities situated around this area are the Cove Chapter House, Cove Day School (currently closed for renovation), Cove Senior Citizens Center, Chapter Warehouse, Veteran Memorial Park, and church facilities. No commercial establishments and no health care facilities are in the immediate area. The nearest health care facility is the Shiprock Northern Navajo Medical Center in Shiprock, New Mexico. The other nearby comprehensive care unit is the San Juan Regional Medical Center in Farmington, New Mexico. Residents use the mountains for livestock grazing, recreation, and hunting. Livestock grazing occurs near the mines within the LMMD NPL site.

The Cove Chapter is an area of land designated as tribal trust land. Located in Land Management District 12, the Cove Chapter shares its borders with the Round Rock, Lukachukai, Red Valley, and Sanostee Chapters; however, the LMMD NPL site is not located within the Red Valley and Sanostee Chapters. The chapter land base is estimated at 50,585 acres.

As of April 2025, the Cove Chapter House elected officials are:

- Chapter President James Benally
- Vice President Lorraine Johnson-Roy
- Secretary/Treasurer Tia Randall
- Land Board Member Raymond Benally
- District Grazing Member Benjamin Hosteen
- Council Delegate Amber Kanazabah Crotty

Cove Chapter House staff are:

- Chapter Manager Sonya Panigeo
- Administrative Assistant Marita John
- Office Assistant Lavina Martin-Wilson
- Community Health Representative Latisha Begay
- Chapter Maintenance Jonas Benally



Photograph provided by USEPA.

Figure 3. Entrance to the Cove Day School

<u>Round Rock Chapter</u>: The Round Rock Chapter housing division complex consists of 538 units. Most of the housing within the chapter are one-room units, and one quarter of housing units are mobile homes. Drinking water is generally obtained via ground water. Many homeowners do not have their own source of water and must haul water to their properties. NTUA provides domestic potable water through community wells connected to a water tank for temporary potable water storage. Additionally, residents may water livestock through seasonal ponds. The main public facilities situated around this area are the Round Rock Chapter House, Round Rock Elementary and Junior High School, Round Rock Senior Center, and church facilities. The nearest fire stations are in Lukachukai and Rock Point communities. Law enforcement is provided from Chinle, Arizona. Additionally, there are no commercial establishments or healthcare facilities in the area. The nearest facilities include the Chinle Comprehensive Health Care Center, Tsaile Clinic and the Red Mesa Four Corners Regional Health Care Center.

The Round Rock Chapter is an area of land designated as tribal trust land. Located in Land Management District 11, the Round Rock Chapter shares its borders with Lukachukai, Cove, Sweetwater, Many Farms, and Rock Point Chapters. The chapter land base is estimated at 171,520 acres.

As of April 2025, the Round Rock Chapter House elected officials are:

- Chapter President Tashina Nelson
- Vice President Crystal Littleben
- Secretary/Treasurer Savaleah Tsosie
- Community Land Use Board Member Valencia Harvey
- District Grazing Member Robert Wagner
- Council Delegate Carl Slater

Round Rock Chapter House staff are:

- Chapter Manager Dianne Yazzie
- Administrative Assistant Keshaun Jones
- Office Assistant Bianca McKinley
- Community Health Representative None
- Chapter Maintenance Terique Descheny

Lukachukai Chapter: The Lukachukai Chapter has one principal settlement with residences near the schools, NHA subdivision, and Lukachukai Chapter House. There are 527 occupied housing units and approximately 370 vacant units within the Lukachukai Chapter. The main public facilities include the Lukachukai Chapter House, Lukachukai Community School, Preschool, Senior Citizens Center, and chapter storage and warehouse. Drinking water is generally obtained via ground water. Many homeowners do not have their own source of water and must haul water to their properties. NTUA provides domestic potable water through community wells connected to a water tank for temporary potable water. Additionally, residents may water livestock through seasonal ponds. There are two commercial facilities, the Totsoh Trading Post and the Mustang Convenience Store. Fire protection and law enforcement are both provided from Chinle, Arizona. No health care facilities are in the immediate area. Lukachukai Chapter residents rely on the Tsaile Health Care Center and the Chinle Medical Center.

The Lukachukai Chapter is an area of land designated as tribal trust land. Located in Land Management District 11, the Lukachukai Chapter shares its borders with Cove, Round Rock, Sanostee, Tsaile-Wheatfield, and Red Valley Chapters. The chapter land base is estimated at 97,080 acres.

As of April 2025, the current Lukachukai Chapter House elected officials are:

- Chapter President Paula Begay
- Vice President Connette Blair
- Secretary/Treasurer MaryAnn Leonard
- Community Land Use Board Member None
- District Grazing Member Larsen Nez
- Council Delegate Carl Slater

Lukachukai Chapter House staff are:

- Chapter Manager Marla Sandoval Redhouse
- Administrative Assistant Tenderia Jones
- Office Assistant Johnnita Malone
- Community Health Representative Lyle Begay
- Chapter Maintenance None



Photograph provided by Tetra Tech, Inc. Figure 4. Lukachukai Chapter LMMD NPL Site Open House Meeting

Demographic Information

Table 1, Table 2, and Table 3 list the demographic data for the Cove, Round Rock, and Lukachukai Chapters, respectively, along with general Navajo Nation data, based on the 2019 U.S. Census Bureau American Community Survey 5-year estimate.

Table 1. Oove onapter Demographics, 2015	
Cove Chapter Population	514
Navajo Nation Population on Reservation	173,637
Tribal Enrolled Members of Cove Chapter	581
Median Age of Cove Chapter	27.4
Female Population of Cove Chapter	251
Male Population of Cove Chapter	263
Median Household Income of Cove Chapter	\$37,031
Households of Cove Chapter	121
Workers Aged 16 Years and Over Commute to Work of Cove Chapter	158
Employed Population 16 Years and Over of Cove Chapter	156
Unemployed Population 16 Years and Over of Cove Chapter	18
High School Graduate or Higher Population Aged 25 Years and Older of Cove Chapter	220
Population 5 Years and Over who Speaks English Only at Home of Cove Chapter	153
Population 5 Years and Over who Speaks Navajo Only at Home of Cove Chapter	334

Table 1. Cove Chapter Demographics, 2019

Source: Data from Navajo Nation WIND, n.d., "Navajo Chapter Profile." View by Chapters, Navajo Nation WIND. Accessed September 26, 2024. https://navajoprofile.wind.enavajo.org/Chapter/Cove.

Table 2. Round Rock Chapter Demographics, 2019

Round Rock Chapter Population	1,409
Navajo Nation Population on Reservation	173,637
Tribal Enrolled Members of Round Rock Chapter	1,603
Median Age of Round Rock Chapter	36.5
Female Population of Round Rock Chapter	734
Male Population of Round Rock Chapter	675
Median Household Income of Round Rock Chapter	\$21,406
Households of Round Rock Chapter	366
Workers Aged 16 Years and Over Commute to Work of Round Rock Chapter	273
Employed Population 16 Years and Over of Round Rock Chapter	277
Unemployed Population 16 Years and Over of Round Rock Chapter	55
High School Graduate or Higher Population Aged 25 Years of Round Rock Chapter	583
Population 5 Years and Over who Speaks English Only at Home of Round Rock Chapter	171
Population 5 Years and Over who Speaks Navajo Only at Home of Round Rock Chapter	1,122

Source: Data from Navajo Nation WIND, n.d., "Navajo Chapter Profile." View by Chapters, Navajo Nation WIND. Accessed September 26, 2024. https://navajoprofile.wind.enavajo.org/Chapter/Round%20Rock.

Table 3. Lukachukai C	hapter Demographics.	2019
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Lukachukai Chapter Population1,984Navajo Nation Population on Reservation173,637Tribal Enrolled Members of Lukachukai Chapter3,329Median Age of Lukachukai Chapter31.5Semale Population of Lukachukai Chapter1,052Male Population of Lukachukai Chapter932Median Household Income of Lukachukai Chapter\$22,596Households of Lukachukai Chapter513Workers Aged 16 Years and Over Commute to Work of Lukachukai Chapter381Employed Population 16 Years and Over of Lukachukai Chapter389
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Workers Aged 16 Years and Over Commute to Work of Lukachukai Chapter 381 Employed Population 16 Years and Over of Lukachukai Chapter 389
Employed Population 16 Years and Over of Lukachukai Chapter 389
Unemployed Population 16 Years and Over of Lukachukai Chapter 138
High School Graduate or Higher Population Aged 25 Years and Older of Lukachukai Chapter 911
Population 5 Years and Over who Speaks English Only at Home of Lukachukai Chapter
Population 5 Years and Over who Speaks Navajo Only at Home of Lukachukai Chapter 1,552

Source: Data from Navajo Nation WIND, n.d., "Navajo Chapter Profile." View by Chapters, Navajo Nation WIND. Accessed September 26, 2024. https://navajoprofile.wind.enavajo.org/Chapter/Lukachukai

2.2 History of Community Involvement

USEPA has been conducting work in the Lukachukai Mountains for over a decade, as such, USEPA Region 9 established community involvement activities prior to beginning work at the LMMD NPL site. Since the beginning, community members have been involved in the cleanup activities and helped shape cleanup decisions. USEPA Region 9 is responsible for investigation and cleanup of site across the Navajo Nation including the LMMD NPL site.

Prior to the NPL listing, the first preliminary assessments and site screenings took place from 2008 through 2010 to record the status and location of identified AUM sites. In 2018, USEPA conducted a removal site evaluation (RSE) field investigation and completed the report in 2019. In 2021, USEPA and NNEPA evaluated cleanup alternatives for 31 Cove Tronox mines on the north side of the Lukachukai Mountain, which resulted in draft engineering evaluation/cost analysis (EE/CA) reports for 20 mesa complexes (corresponding to the 31 mines). Mine cleanup alternatives were presented to the Cove community in 2023 and 2024.

Since 2024, USEPA and NNEPA started several community involvement programs and worked with community leaders for all outreach activities and information sessions. Meetings are conducted primarily in person and with cultural sensitivity. Navajo language translation is provided to facilitate communication with community members who speak only Navajo or who prefer speaking in Navajo. Input for this CIP was received from community members, council delegates, chapter representatives, and grazing and land board officials. To keep the community informed, USEPA and NNEPA have:

• Developed and distributed outreach materials such as fact sheets, flyers, and direct mail postcards to every door

- Published public notices through local newspapers and radio stations
- Developed a social media account on Facebook to publish public notices
- Created animations describing LMMD geology and cleanup alternatives in both English and Navajo narrations
- Attended local chapter meetings to share information on site investigations and cleanup progress
- Held community meetings about the NPL listing, April 19 22, 2023, at the Cove, Lukachukai, Kayenta, and Oljato Chapters
- Held two open house meetings to share and receive input on community involvement in August 2024
- Met with chapter officials from Cove, Lukachukai, and Round Rock Chapters
- Informed chapter officials and community members of field events at the mine sites
- Held 2-hour radio forum about the NPL listing on the KTNN radio station, May 3, 2023



Figure 5. Superfund Job Training Initiative

After the LMMD site was placed on the NPL, USEPA initiated planning to conduct a Superfund Job Training Initiative (SuperJTI) event for the site. SuperJTI is a free environmental remediation job readiness program providing career development opportunities for communities impacted by NPL sites. USEPA held the LMMD SuperJTI for community members in the area near the LMMD NPL site from April 11-24, 2025, with a graduation ceremony held on April 25, 2025. A total of 24 trainees participated and graduated from the SuperJTI, receiving the following trainings and certificates:

- Work Readiness Training
- CPR/First Aid
- OSHA-10
- Flagging
- Fall Protection
- Radiation Awareness
- 40-hour HAZWOPER.

In the 6 months following the program, USEPA will stay in contact with the graduates to track their employment and provide support as needed. Throughout the SuperJTI process, USEPA worked with their contractors to tailor the trainings to currently available and anticipated jobs in LMMD. As of May 2025, 11 of the graduates are actively working using their certifications and 4 are employed with a USEPA subcontractor working on cleanup at LMMD.



Figure 6. Superfund Job Training Initiative – HAZWOPER Training

2.3 Key Community Concerns

USEPA conducted interviews with local community members of Cove, Lukachukai, Round Rock Chapters and surrounding areas to learn about key community concerns. Interviews provided insight from each community member, giving USEPA a better understanding of how to improve communication and engagement.

Key community concerns include the following:

- Safety and well-being for those living near an AUM
- Personal or family health issues and deaths attributed to LMMD
- Protection of cultural resources and traditional ways of living
- Protection of natural resources
- Protection of land use
- Protection of livestock
- Clear cutting or vegetation removal from construction resulting in increased erosion and potentially opening new contaminant(s) transport pathways
- Delays and long timelines for cleanup progress at LMMD
- Methods of cleanup, with most community members expressing support for removal of the waste away from the community
- Increased erosion of contaminants off site during construction activities and road maintenance
- Cleanup efforts not being completed effectively, and contaminants remaining after construction is completed
- Drinking water and land unsafe to use
- Radioactive contamination of the LMMD NPL site including hazardous dust and other particles settling onto construction workers and nearby homes during construction
- Unknown levels of their risk from radiation exposure where they commonly commute, reside, or conduct their typical lifeways
- LMMD's effect on families, self-sufficient lifestyles, and tribal sacred ways of life
- Money invested into cleanup paid to entities outside Navajo Nation and making other people wealthy; worry that money will not cycle internally into Navajo Nation, but rather be expensed to other non-Navajo entities and workers, for example, non-Navajo contractors
- Providing employment opportunities for local residents

The rest of this section provides detailed statements about these key concerns and others raised by individual community members during interviews.

Understanding of Superfund and the LMMD NPL Site

Most interviewees had no knowledge of the history of the LMMD NPL site, such as its operation, purpose, contamination, and human and environmental health risks. For some, it was their first-time hearing of the LMMD NPL site. Others were partially knowledgeable of the LMMD NPL site and its effects. Most were unaware how the site affected the environment and

their health.

Interviewees are happy to see USEPA conduct cleanups and for the upcoming work. However, there is an overall feeling the process is long overdue and several people would like to see cleanup done quickly and effectively, with no contaminants remaining.

One respondent noted this is the first time they are addressing their concerns directly with USEPA. For some respondents, there is no clear public information to guide communities on where to find information. Some respondents heard of this recent meeting and USEPA's attendance and sought out help to point them in the right direction. A few respondents expressed issues obtaining compensation through the Radiation Exposure and Compensation Act (RECA).

Respondents stated there is a long history of family members, such as grandparents, uncles, or fathers, who either grew up around the mines or worked in the mines at the time of operation. Today, those who are aware of the mine sites know about them because they were told about mines from their elders. For example, a few are familiar with uranium mining around White Ash Peak, how uranium was used during World War II, or why it was taken to Roswell, New Mexico.

Some interviewees struggle with a traumatic past from issues related to uranium mining. These include family loss, environmental contamination, and mistreatment. They have anxiety over issues related to AUMs. In turn, they want USEPA to resolve these issues until there is no more fear surrounding use of the land. They also wish to see greater education of today's youth about the history of Navajo AUM work and current cleanup events.

Difficulty Accessing Site Information

Several interviewees said there is a lack of outreach resources and engagement from USEPA to learn from in order to make sound decisions. The resources available are not effective or community members do not know how to use them. For example, many responded that USEPA's documents are overwhelming— too much to review and the text is too long and complex. One participant stated the LMMD NPL site map provided by USEPA is difficult to use. They noted the labels are not clear and it is difficult to orient where their sheep camp is in relation to the mines. Many attendees noted the public meeting provided a greater understanding of the LMMD NPL site. Others appreciated the outreach materials, such as fact sheets, as easier to understand and utilize. Chapter houses were consistently mentioned as important locations where the community acquires updates on cleanup during regular chapter meetings.

Respondents stated they cannot readily access USEPA's website because most live in rural areas without access to the internet and have limited cell phone coverage. Though a few attendees stated they would use USEPA's website if they knew how to locate it, most still want USEPA to improve their community outreach tools to keep them better informed. Several community members are concerned about USEPA's lack of communication with the local community and the urgency of improving communication and engagement.

Land Use

Land use is significant to the daily lives of community members, both in modern day living and traditionally. In fact, the fear of contaminants moving off the LMMD NPL site and ruining these resources is a primary concern and source of fear. Many community members struggle with a fear of freely using the land. For example, they attribute livestock and animal deaths to the mines. Some individuals would like information about being compensated for the illnesses they believe they have contracted from the LMMD NPL site.

Livestock and Grazing

Most locals use the land for raising livestock (such as cattle, sheep, goats, or horses) or farming crops (such as corn and squash). Drinking water wells are closed near residences at the base of the LMMD NPL site. Several concerns were raised about contamination moving from the LMMD NPL site and ruining these resources.

Many families move their livestock to the mountain for the summer range. Some people who live off of livestock find grazing difficult in the valleys off the mountain because it is a desert landscape. The effects of global warming causing droughts and affecting vegetation growth in these regions are the main reasons for moving livestock to the summer camps in the Lukachukai mountains. The mountains supply richer vegetation and an abundance of water. AUMs restrict access to rangeland out of the mountain, affecting self-sufficiency.



Photograph provided by Danie Lea Photography.

Cultural Significance

There are ceremonies conducted on the mountain, vegetation or herbs that are collected for medicinal or cultural purposes, and long-lasting family traditions and teachings from grandparents that they still practice today. They conduct prayer and make offerings at cultural sites located near the AUM sites. They want USEPA to recognize the importance of this cultural affair and tradition and to protect these resources during cleanup. A few requested USEPA hire a medicine man to bless the cleanup before and after construction. Locals noted the cultural sites and affiliated practices on the mountain embody traditional healing and reflect people are in harmony with mother earth. An important teaching in Navajo culture is needing harmony in environment and seeing the mountain as sacred. Community members want USEPA to recognize the importance of the mountain to their culture and history.

While some see the region not having any significant importance, others have historical knowledge of the area they deem important to the Navajo people. There is a deep history and trauma connected to the mountains. For example, one stated from the time when U.S. Cavalry rounded up Navajos for the Long Walk, Navajos used the mountains to take refuge or as a last resort for self-defense. Today the mountains are the location of ancestors, dwellings, burials, and graves.

Most interviewees stated they want the land restored back to its natural state, the way it was before it was mined. They prefer to use the land traditionally like they used to without having to worry about raising their livestock. Some families still move their livestock to the mountain for the summer. Since disturbance from mining, there has been fear of raising livestock or growing crops in the area because it creates a continuous fear of radiation exposure from ingestion haunting their daily lives. Many feel their traditional lifeways have been harmed. Some wish to safely allow livestock to freely graze into the reclaimed area once restoration is complete. They want peace of mind that their livestock will not bioaccumulate contaminants during post cleanup phases.

Cleanup Process

Despite past interim cleanup actions, many interviewees do not believe effective controls are currently in place to prevent the spread of contamination from the LMMD NPL site. Interviewees are concerned that humans and the environment will continue to be exposed to contamination.

The community voiced their desire that USEPA clean the LMMD NPL site as soon as possible. Many community members supported removal of the waste from their community altogether, rather than permanently closing it in an onsite repository. Many residents expressed an urgency to quickly clean the LMMD NPL site and for USEPA to ensure their safety.

Many interviewees are concerned that construction work will cause the spread of contamination. Although USEPA presents cleanup alternatives and their progress at local community meetings, the local community members still feel uncertain about how USEPA is ensuring their safety. Community members noted that numerous exposure pathways are currently affecting human health, the environment, and ecosystems. Some interviewees noted that contaminants that cannot be seen by the naked eye are difficult to measure. During construction, contaminant transport caused by construction activities may accidentally spread contamination to a wider area. This increases the level of fear for everyone who lives nearby.

Community members requested reassurance from USEPA that contamination will not spread during and after the cleanup process. To help alleviate their concerns, they want to know what measures USEPA will take to ensure no contaminants will be transported away from the intended project area. One interviewee described a constant level of fear that plagues this area from the uncertainty of being exposed to radiation.

One of the biggest concerns about LMMD NPL site cleanup involves concerns for future generations living on or near the site. Interviewees stated it is more favorable if the contaminants from the LMMD NPL site are completely gone to protect current and future generations. They noted that USEPA can assure them there are no concerns for the safety of future generations by providing evidence-based data after cleanups are complete.

Improving Community Outreach

Community members requested public meetings provide less technical language and get more stakeholders to attend. A respondent said their source of information is through the tribal department. They are able to provide current information on USEPA-related issues. Interviewees also stated chapter officials should be sources of credible information, but it is not always possible.

Some attendees requested USEPA provide a contact information distribution. They asked to be added to the distribution list to receive immediate notifications. When construction activities take place, community members asked that USEPA staff, contractors, and subcontractors identify themselves proactively. They wish to be recognized as a community member who may be lost or looking for staff to talk to for questions or information. Additionally, respondents want USEPA staff, or their affiliated contractors/subcontractors to walk up to them and ask if they need any assistance. This also means explaining what organization they are with. Community members sometimes do not feel noticed which makes them feel uninformed and avoided.

USEPA has conducted numerous studies around the LMMD NPL site and presented their findings on maps. Numerous mine site features have been documented; however, some have pointed out newly discovered mine features that have not been addressed by USEPA. Participants want assurance there will be no further contamination of nearby homesites. They were in favor of immediate cleanup actions either because they do not want the contaminants affecting other community members or are just exhausted from the presence of contamination. They want to see individuals pursue the opportunities this cleanup is bringing to Navajo Nation such as jobs and economic development.

Other important responses include preferences on the type of language chosen for community events. They prefer USEPA to communicate both in the Navajo and English language. Some community members are not fluent in English and lack education, so help is needed to interpret technical data. They also feel not all community members are being reached or heard. Interviewees believe veterans, schools, and chapter officials are not having their concerns heard. The Navajo medicine men and women are not aware of the LMMD NPL site, and their concerns were not addressed. One respondent suggested using outlets such as radio stations to announce USEPA is looking for stakeholders or the disabled in the community who do not feel heard to reach out to the agency. It was also suggested that coordinating with caregivers would be a good means of reaching disabled community members. Caregivers aid the disabled who are likely homebound and would be able to distribute LMMD NPL site information to their clients.

Most also want responsible stakeholders and agencies to become more involved and be present at community meetings. Several stated that past representatives did not make themselves consistently present at community events. Many would like USEPA to post job announcements related to future cleanup activities.

2.4 Response to Community Concerns

In response to community concerns, USEPA's community involvement coordinators (CIC) and remedial project managers (RPM) will address community concerns in an effective and efficient manner.

<u>Communication Channels:</u> USEPA will continue to maintain communication through these outlets:

- Public meetings Regular chapter meetings, scheduled chapter meetings, open houses, one-on-one meetings at resident's home and during group discussions, and more frequent visits
- Postal mailings
- Local public radio stations KNDN, KGAK, KTNN, and KGLP
- Local newspapers Navajo Times and Farmington Tri-City Record
- Posting to local bulletin boards post office, churches, laundromat, NHA Housing Management Office, Cove Chapter House, Lukachukai Chapter House, and Round Rock Chapter House
- USEPA website
- Flyers posted to bulletin boards, dropped off in-person and door-to-door, and mailed
- Social media pages USEPA Region 9 Facebook Page
- Animations and videos
- Local chapter house officials notified those on the distribution list either by visiting their homes in-person or by phone

<u>Communication Method:</u> USEPA asked the community the best way they can communicate with the community about the LMMD NPL site cleanup. Most agreed to the following:

- Easy-to-read fact sheets with graphics
- Easy-to-understand information about remediation technologies and related topics
- In-person sessions where members of the LMMD NPL site team are available to talk and answer questions
- In-person workshops or training sessions on technical topics
- Videos in Navajo

• Internet and website links

It was suggested USEPA assist or train on site about internet usage and using the website as needed.

<u>Communication Timing</u>: Planning meetings efficiently can be accomplished by working with the community's schedule.

The following are common requests from the community about scheduling meetings:

- Time:
 - Weekdays or workdays, Monday through Friday. Some prefer only Mondays or Fridays.
 - 9 a.m. to 12 p.m.
- Date Not on the first day of the month
- Location Cove, Round Rock, and Lukachukai Chapter Houses
- Notification Inform the public in advance of the meeting

To ensure the community remains informed, USEPA will provide information about the LMMD NPL site on a monthly, quarterly, and annual basis, as needed. USEPA will also provide information when something significant happens.

2.5 Summary of Communication Needs

Based on the interviews, the community has indicated a preference for USEPA outreach efforts to include various methods to meet their needs. Some overlap with the previous section; however, it is important to list the actual requests from the interviews. USEPA is committed to improving communications.

Forms of communication preferred by the community include:

- Meetings Held in-person, preferably at the chapter house.
- Mailing Some prefer communications materials such as fact sheets and flyers received in the mail. USEPA will use format mailings to draw attention, including marking in large, red, bold letters on the envelopes "important message, do not throw away."
- Radio USEPA will make radio announcements in English and Navajo with clear and simple to understand scripts, and with broadcasters encouraged to speak slowly.
- Distribution list USEPA will keep this updated so that individuals continue to receive quick updates through email or by phone contact.
- Point of contact list USEPA will keep this updated and distributed to the community so that individuals can call NNEPA, chapter house, or USEPA representatives directly to answer questions.
- Interviews USEPA will offer interviews more often because the community enjoys sharing information in this dialogue format.
- Door-to-door USEPA will drop off outreach materials and meet with families one- on- one.

• Flyers – USEPA will post on local bulletin boards and distributed door-to-door.

An increase in meeting attendance is important to interviewees. Reaching out to as many community members as possible to improve the attendance at meetings is one of the requests. It was noted that attendance will promote awareness of the LMMD NPL site's progress and knowledge of LMMD NPL site conditions and resources available.

Regular contact from USEPA in the form of quick and thorough updates was requested. This includes keeping them updated on the Superfund process, including the project lifecycle during the construction phase and after reclamation. Assurances that residents are safe and protected, with data to demonstrate this, are also requested.

One-on-one and small group session meetings were requested. Interviewees requested opportunities to have dialogue and direct communication, such as open houses, door-to-door updates, and chapter house meetings with USEPA. It was requested that USEPA be present at all monthly chapter house meetings and be available to answer questions. Some community members prefer receiving outreach materials, such as fact sheets and flyers, via direct mail.

Maintaining the website is vital as some individuals still use this resource. For those who can access the website, they find it too complex to navigate and difficult to find what they are searching for. If the community has no alternative to immediate information but the website, most want USEPA to provide in-person training sessions to show them how to use it and interpret the technical details found on the website.

The repositories for a USEPA Superfund cleanup action are required by CERCLA and contain all information that was considered or relied upon to select the cleanup remedy. USEPA set up seven repository locations throughout the Navajo Nation where individuals can go to access information. Although USEPA has provided these resources, most community members were still unaware of their existence. Therefore, awareness of these repositories needs to be improved. However, training sessions on how to use these repositories are vital if they are to be of use.

USEPA will also continue to ensure certain parties are involved and present at local events, such as community liaisons, USEPA contractors, USEPA project managers, and community involvement coordinators. In addition, USEPA will continue to invite and encourage attendance of NNEPA, affected local community members and their families, their children, staff employed by USEPA or contractors who are of Navajo descent with technical knowledge, chapter officials, the Navajo Nation president, and former miners that worked the mine.

USEPA recognizes the importance of cultural ceremonies and traditions of the communities across the LMMD. Cultural resources are highly confidential and under the protection of the Navajo Nation Heritage and Historic Preservation Department (NNHHPD). USEPA will continue to work directly with the NNHHPD through agency-to-agency consultation to ensure the protection of cultural resources and practices throughout the CERLCA process.



Photograph provided by USEPA.

Figure 8. A Field of Grass and Lukachukai Mountains on the Horizon

Section 3.0 USEPA's Community Involvement Action Plan

USEPA's overall goal of the community involvement program is to promote two-way communication between citizens and USEPA and to provide opportunities for meaningful and active involvement by the community in the cleanup process. USEPA will implement the community involvement activities described below. The following plan is based on the results of the community interviews described earlier; it addresses each issue identified as being important to the community.

3.1 The Plan

3.1.1 Issue 1: Maintaining the Most Current Site Information for the Public

Activity 1A: Attend regular chapter meetings.

- **Objective:** Be present in the community at regular meetings monthly to hear questions and concerns, and to answer questions
- Method: Attend monthly chapter meetings
- **Timing:** Monthly

Activity 1B: Provide consistent and defensible responses to common questions and update them as needed to ensure a consistent response from USEPA.

- **Objective:** Have community understanding of the technical and regulatory issues match USEPA's
- Method: Prepare written responses to common and anticipated community and stakeholder questions and update them as needed to ensure a consistent response from USEPA
- Timing: As necessary

Activity 1C: Use radio, newspaper and online advertising and marketing to promote community outreach events.

- **Objective:** Reach the entire community and its members regardless of the media they prefer
- **Method:** Use radio, newspaper, online advertising, and door-to-door outreach and marketing to promote community outreach events
- **Timing:** Coinciding with community events and project milestones like starting construction and initiating revegetation

3.1.2 Issue 2: Community Access to Relevant Reports and Information for Cleanup of Mines

Activity 2A: Provide copies of documents to chapter houses and put them into the Administrative Record.

- Objective: Keep community up to date on documents related to cleanup
- **Method:** Provide services through USEPA contractors and USEPA Navajo Nation Administrative Record Information Repositories
- **Timing:** Ongoing and accessible during business hours

Activity 2B: Coordinate with NNEPA, interested parties, and local and state regulatory agencies to promote and facilitate access to the Administrative Record.

- **Objective:** Reach stakeholders via their preferred or familiar project partners
- **Method:** Use project meetings to canvas stakeholders regarding the community members they interact with
- Timing: Ongoing

3.1.3 Issue 3: Pre-Field Work Notification/Access

Activity 3A: Discuss planned activities with each affected homeowner/resident and obtain signed access agreements.

- **Objective:** Provide adequate and complete notice to affected homeowner/residents about cleanup activities
- Method: Identify affected homeowners/residents, conduct door-to-door outreach, and obtain signed access agreements
- **Timing:** As necessary and prior to, during, and after fieldwork

Activity 3B: Cover the purpose and details of "access agreements" during community outreach activities.

- **Objective:** Educate homeowners/residents so they are informed partners regarding access near mine sites
- **Method:** Use community outreach meetings to address legal issues and access agreements
- Timing: Ongoing

3.1.4 Issue 4: Visual Information

Activity 4A: Animations

- **Objective:** Educate the public through animations and concise narration in English and Navajo
- Method: Produce visual animations

• Timing: As necessary

3.1.5 Issue 5: Economic Improvement and Employment Opportunities

Activity 5A: Superfund Job Training Initiative

- **Objective:** Provide training to community members to obtain certifications necessary to apply for job opportunities related to the LMMD site cleanup activities.
- Method: SuperJTI
- **Timing:** Completed April 2025

3.2 Time Frame Summary for Community Involvement Activities

ACTIVITY	TIME FRAME
Activity 1A: Attend regular chapter meetings.	Monthly.
Activity 1B: Provide consistent and	As necessary.
defensible responses to common questions	
and update them as needed to ensure a	
consistent response from USEPA.	
Activity 1C: Use radio, newspaper and	Coinciding with community events and
online advertising and marking to promote	project milestones like starting construction
community outreach events.	and initiating revegetation.
Activity 2A: Provide copies of documents to	Ongoing and accessible during business
chapter houses and put them into the	hours.
Administrative Record.	
Activity 2B: Coordinate with NNEPA,	Ongoing.
interested parties, and local and state	
regulatory agencies to promote and facilitate	
access to the Administrative Record.	
Activity 3A: Discuss planned activities with	As necessary and prior to, during and after
each affected homeowner/resident and	fieldwork.
obtain signed access agreements.	
Activity 3B: Cover the purpose and details of	Ongoing.
"access agreements" during community	
outreach activities.	
Activity 4A: Animations.	As necessary.
Activity 5A: Superfund Job Training Initiative	Completed April 2025

Section 4.0 What Is Superfund?

Superfund is an environmental cleanup program enabled by a federal law enacted in 1980, known as CERCLA or the Comprehensive Environmental Response, Compensation, and Liability Act. In 1986, another law, the Superfund Amendments and Reauthorization Act reauthorized CERCLA to continue Superfund cleanup activities. The CERCLA law gives USEPA the authority to require parties responsible for creating hazardous waste sites to clean those sites up or to reimburse the government if USEPA cleans up the site. USEPA requires responsible parties to clean up hazardous waste sites through administrative orders, consent decrees, and other legal settlements. USEPA is authorized to enforce the Superfund laws in all 50 states, tribal reservations and in U.S. territories. Site identification, monitoring, and response activities are coordinated with state, tribal, and territorial environmental protection, or waste management agencies.

The Superfund program encourages active dialogue between communities affected by the sites and all the agencies responsible for carrying out or overseeing cleanup actions. USEPA follows a step-by-step process to determine the best way to clean up a polluted site and protect human health and the environment. USEPA considers community involvement to be an important part of the Superfund program and opportunities for community involvement occur throughout the procedure. Figure 9 outlines the stages of the Superfund process and highlights opportunities for community involvement at each step of the process.



Figure 9. Superfund Process

Visit these USEPA websites for more information on the Superfund process:

- Superfund: https://www.epa.gov/superfund
- Cleanup Process: https://www.epa.gov/superfund/superfund-cleanup-process

• Community Involvement: https://www.epa.gov/superfund/superfund-communityinvolvement

Role of NNEPA

The NNEPA Superfund Program implements the Navajo CERCLA law by providing oversight of AUM work on the Navajo Nation and serves as a co-regulator with USEPA. The NNEPA Superfund Program advocates for site cleanup to benefit communities impacted by AUMs on the Navajo Nation by working hand in hand with USEPA to coordinate community outreach. The NNEPA is committed to protecting Mother Earth and Father Sky and all living beings through environmental laws and regulations by honoring traditional Diné teachings and culture. The NNEPA Superfund Program goals include:

- Provide community members with accurate, timely, and understandable information about USEPA's AUM activities that reflects community members' communication preferences and culture
- Provide information in the Navajo language, when needed, so all community members have an equal opportunity to participate
- Coordinate with community members and tribal leaders to make sure USEPA understands community concerns and considers community goals in its decision-making process
- Work with consideration of Navajo Nation's goal to implement Diné Fundamental Law, acknowledging the Navajo traditional lifeway, traditional ecological knowledge, and the laws of nature, including protection of any significant ceremonial land use areas, past and present



Figure 10. Buffalo Pass Summit Sign on the Lukachukai Mountain

Section 5.0 Site Description

The LMMD NPL site is approximately 40 miles West of Shiprock in Apache County in northeast Arizona. The LMMD NPL site is located within one land jurisdiction, the Tribal Land Trust, and primarily in the Cove, Lukachukai, and Round Rock Chapters of the Navajo Nation.

The LMMD NPL site contains more than 80 inactive uranium and vanadium mines, with over one hundred mine waste piles. Waste from these piles has migrated downstream in washes and may have impacted groundwater and surface water. Past ore hauling activities may have spread contamination along miles of haul roads and in the Cove community.

Many Navajo families reside or have sheep camps on the Lukachukai Mountains. The mountains are used for livestock grazing, recreation, and hunting, and provide plants for traditional medicinal and ceremonial uses. Rich with cultural sites, the mountains ecosystem also supports several threatened species including the federally threatened Mexican spotted owl (MSO). Several houses are less than 1 mile to the northeast of the nearest mine site and about 42 more residences in the Cove Chapter housing area and Cove Day School are about 1.5 miles to the northeast of the nearest mine site. The Lukachukai Chapter community is approximately 2 miles to the southwest of the Lukachukai Mountains.

5.1 Site Background

Commercial exploration, development, and mining of uranium at the LMMD NPL site began in the 1950s by the Kerr-McGee Corporation (Kerr-McGee). The mines were shallow to deep underground mines accessed by room and pillar mining, shallow open-pit mining, or rimstrip mining/exploration methods. Ore from the mines was moved to the Cove Transfer Station (CTS) Northeast of the main mining area and then hauled off the site on the paved road to the east to U.S. Route 491. Ore was transported approximately 40 miles from the LMMD NPL site to the Shiprock uranium mill east of Cove, Arizona. From the 1950s to 1970, the mines produced a total of 666,850 tons of ore.

By the late 1960s, all of Kerr-McGee's leases and mining permits were acquired by predecessors of Tronox, Inc. (Tronox) and Cyprus Amax Mineral Company (Cyprus). All mines were reported to be last operated by either Tronox or Cyprus. Though the mines were eventually abandoned, the mining processes resulted in waste piles and soil contaminated with radium-226, uranium and other heavy metals. More than 800,000 cubic yards of mine waste remains in waste piles scattered across the LMMD NPL site. In 2014 the U.S., the Navajo Nation and other parties sued to recover funds from Kerr-McGee for environmental and other liabilities that Tronox could not pay. This resulted in a 2015 Tronox bankruptcy settlement, *In re Tronox Inc.*, No. 09-10156 (ALG) (Bkr. S.D.N.Y.) It is the largest environmental cleanup settlement in U.S. history. The Tronox bankruptcy settlement provides funding for USEPA to investigate and clean up approximately 50 uranium mines operated by Kerr-McGee on or near the Navajo Nation; 34 of those mines are located within the LMMD NPL site.

In 2017, the United States on behalf of USEPA and other federal agencies entered a historic settlement with Cyprus and Western Nuclear, Inc. (Western Nuclear), to clean up 94 mines on

the Navajo Nation, 11 of which are in the LMMD NPL site. The settlement requires Cyprus and Western Nuclear to perform the cleanup work, including reimbursing USEPA and NNEPA for their costs in overseeing the cost of cleanup.

As of March 2024, the remaining 11 mines in the LMMD NPL site will be funded through Superfund as part of the NPL.



Photograph provided by USEPA.

Figure 11. Former Mine Structure at the Hall Mine in the LMMD

5.2 Site Inspections and Cleanup Activities

Several site inspections and cleanup activities were conducted between 1999 through 2024, and related documents can be found on USEPA's website and within the remedial investigation work plan. The main activities throughout the history of the LMMD NPL site are:

1999 United States Army Corps of Engineers (USACE) collected surface and groundwater samples at sources used for human consumption within the Cove Chapter area from March through December 1999. Field investigations identified elevated levels of uranium, arsenic, molybdenum, selenium, and vanadium in the Cove Wash watershed.

- 2001 NNEPA collected water samples at one location (10COVEWASH09) during a single event at a Cove Wash tributary downgradient of the AUM sites. Results of this sampling were consolidated with those from later sampling and discussed in a 2014 report.
- 1991–2004 Navajo Abandoned Mine Lands Reclamation Department (NAMLRD) performed reclamation activities on 201 of 232 mine features and waste areas in Cove.
- 2006–2007 TerraSpectra Geomatics (TSG) compiled a report documenting Navajo AUM project data acquisition and screening results from all known AUM sites on the Navajo Nation. The report has two parts: the Navajo Nation AUM screening assessment report and accompanying Atlas with geospatial data. The AUM screening assessment report presented analytical results from a USEPA model based on Hazard Ranking System (HRS) criteria. Results of this broad-based screening process were organized to assist USEPA in recommending to the Navajo Nation follow-up investigations or cleanup responses that require attention. The Atlas portion of the report described the geospatial datasets used for the screening analysis.
- 2008–2010 USEPA conducted preliminary assessments and site screenings. Site screening reports included aggregated information on historical mining and reclamation, descriptions of site settings and accessibilities, potential exposure factors, site photographs, and (for most sites) gamma measurements by use of field screening devices.
- 2011–2012 NNEPA collected water samples at the Cove Wash tributary in the watershed headwaters (10COVETRIB29) that flow intermittently downgradient of the AUM sites. Results from this sampling event were combined with those from 2001 in the NNEPA's Cove Wash watershed surface water quality assessment report.
- 2012 USEPA performed a removal action at CTS 1 and 2.
- 2014 Weston Solutions, Inc. (Weston) conducted a site reassessment of Mesa I Mine 10 through Mesa I Mine 15. In December, Airborne Spectral Photometric Environmental Collection Technology (ASPECT) aircraft flew over Cove and obtains radiological signature data and aerial photographs.
- 2015 In January, the United States received funds from a historic legal settlement that made almost \$1 billion available to USEPA to investigate and clean up 32 of the Cove uranium mines and the environmental areas they affect that had been operated by Kerr-McGee and its successor, Tronox.
- 2015 USEPA partnered with Diné College to conduct the first of three rounds of the Cove Wash watershed assessment and biological assessment.
- 2015–2017 Weston conducted an investigation with results documented in a final assessment report regarding the Cove Wash watershed assessment (CWWA) site. The assessment included sampling of surface water and sediment samples to delineate sources contributing to contamination in drainages throughout the watershed.

2016	Mine Category Assessment Protocol fieldwork was conducted to prioritize mines for removal site evaluations. A dam and irrigation study, field work activities and sampling and groundwater investigation was initiated. Additional work to stabilize the front yard slope at CTS 1 was conducted. Biological surveys for MSOs and plant species were conducted. Signs were placed on non-regulated water sources.
2016-2017	Weston delineated wetlands within the Cove Wash Watershed for USEPA.
2016–2017	Under USEPA Scientific Engineering Response & Analytical Services (SERAS) contract, Lockheed Martin performed a field and laboratory investigation within the Cove Wash watershed in historically farmed areas. Samples of soil, water, and plants were analyzed for a suite of metals. A limited number of samples were collected for radium-226 and radium-228 analyses.
2017	The United States on behalf of USEPA and other federal agencies entered into a historic settlement with Cyprus and Wester Nuclear for the cleanup of 94 mines.
	USEPA awarded the Navajo Mine Removal, Assessment, and Evaluation Services (RAES) I contract to Tetra Tech, Inc. (Tetra Tech). Tetra Tech completed RSEs at prioritized mine areas and ongoing groundwater investigation. Biological surveys for MSOs and plant species were conducted. A biological survey of the Cove Wash habitat was conducted. Initiated air monitoring efforts. USEPA evaluated technologies that could be used for response actions (for example, removal strategies and repository locations).
2016–2022	USEPA funded a grant for Diné College to conduct a livestock study in the Cove and Red Valley Chapters.
2018	USEPA completed field work for detailed assessments at 31 Tronox funded sites. This work involved radiation measurements and collecting laboratory samples. Removal actions begin at prioritized mine sites. Air monitoring efforts continued. USEPA evaluated permanent solutions and locations for mine waste.
2019	USEPA completed RSE investigations for Cove Tronox sites, and the results were presented to the Cove community. USEPA conducted the Mesa II erosion time- critical removal action (TCRA). USEPA conducted a Mesa V haul shaft closure by NAMLRD. USEPA developed decisions about permanent solutions and locations for mine waste. This was presented to the public with decision documents signed.
2020	USEPA initiated the design process for permanent solutions and remedial actions.
2021	USEPA began an air study in the Cove Community.
2021	Mesa V Mine access road maintenance and Mesa I Mine access road repair and maintenance completed through the RAES I contract. Cove air study completed.
2023	USEPA shared Cove air study results with the community and initiated a TCRA at CTS 1 and 2. USEPA awarded the Navajo Mine RAES II contract to Tetra Tech. LMMD was proposed for placement on the NPL.

2024 LMMD is officially added to the NPL. USEPA continued the CTS TCRA and performed road repair and investigations at LMMD mines and drainages.

In 2021, USEPA and NNEPA evaluated cleanup alternatives for 31 Cove Tronox mines, which resulted in draft EE/CA reports for 20 mesa complexes (corresponding to the 31 mines). The various cleanup alternatives were presented to the community in 2023 and 2024. A sitewide EE/CA for the LMMD plus appendices identifying cleanup remedies for three mesa complexes (Mesa I Complex – East Side, Frank Jr. Complex, and Mesa VI Complex) are expected to be presented to the Cove community by Spring 2025. The Site Plug-in EE/CA appendices for these three mesa complexes are expected to undergo a formal public comment period in Spring 2025.

USEPA and NNEPA will host a workshop and community outreach events to discuss the overall EE/CA cleanup alternatives and the mesa complex-specific cleanup remedies before the formal public meeting and comment period. Following the formal public meeting and public comment period, USEPA will prepare a responsiveness summary and respond to public comments on the cleanup remedies. Action memoranda documenting the cleanup decisions for each mine complex will then be prepared. Depending on the alternative selected, the next step will be implementing a design, which will be followed by construction.

For the 11 Fund Lead mines, a remedial investigation is being conducted from 2025 to 2027. Following the remedial investigation, a feasibility study will evaluate cleanup alternatives.



Figure 12. East Mesa Mines Looking Towards Royal Arch

Appendix A Regional Location



Appendix B Lukachukai Mountains Mining District


Appendix C Mines within Cove Chapter



Appendix D Mines within Round Rock Chapter



Appendix E Mines within Lukachukai Chapter



Appendix F Resource List



Topic	Agency, Program & Location	Telephone Number
Mines and structures		
Cleanup of chemical and radiological hazards at abandoned uranium mines (AUM)	U.S. Environmental Protection Agency (EPA), Region 9 Superfund Program, San Francisco, CA	(800) 231-3075 (505) 240-0093 Eastern AUM region Southern AUM region Western AUM region
		(480) 250-0990 North Central AUM region Northern AUM region Central AUM region
	Navajo Nation EPA (NNEPA), Navajo Superfund	
	Program, Window Rock, Arizona	(928) 871-7325
Contaminated structures	NNEPA, Navajo Superfund Program, Window Rock, Arizona – Contaminated Structures Program	(928) 871-7325
Address physical hazards to	Navajo Abandoned Mine Lands (AML)	(928) 871-6982 Window Rock, AZ
abandoned mine lands, i.e., copper,	Reclamation/Uranium Mill Tailings Remedial Action	(505) 368-1228 Shiprock, NM
sand and gravel pits	(UMTRA) Department	(928) 283-3188 Tuba City, AZ
Radon in your home, radon test kits	NNEPA, Radon Program,	(928) 871-7863
	Air & Toxics Department, Window Rock, Arizona	(928) 871-7703

Uranium mill sites			
Disposal sites – long-term	U.S. Department of Energy (DOE) Office of Legacy	(970) 248-6621 Mexican Hat	
surveillance and maintenance	Management (LM), Grand Junction, Colorado	(505) 587-2149 Shiprock	
(LTS&M)		(928) 810-2100 Tuba City	
Former processing site – LTS&M	U.S. DOE LM, Grand Junction, Colorado	(505) 587-2149 Monument Valley	
Disposal site – general licensing and	U.S. Nuclear Regulatory Commission (NRC),	1-800-368-5642	
oversight	Washington, DC	1-000-0042	
Former processing site – oversight	NRC, Washington, DC	1-800-368-5642	

Health		
Preventive health information	Navajo Department of Health (NDOH), Community Health Representative/Outreach Program, Window Rock, Arizona	(928) 871-6875
Exposure prevention education	Agency for Toxic Substances and Disease Registry (ATSDR) Region 9	(415) 290-0680
Uranium medical screening and monitoring program (for community members)	Community Uranium Exposure – Journey to Healing Program, Northern Navajo Medical Center, Shiprock, New Mexico	(505) 368-7054 or (505) 368-7032
Radiation Exposure Screening and Education Program (RESEP) –	North County Healthcare RESEP, Flagstaff, Arizona	(928) 522-9427
Medical screening (for uranium workers)	Northern Navajo RESEP, Shiprock, New Mexico	(505) 368-7054 or (505) 368-7032
	Tuba City Regional Health Care Corporation RESEP	(928) 283-1802
Navajo Birth Cohort Study	University of New Mexico, Albuquerque, NM	(877) 545-6775
Local oncology specialty services	Tuba City Regional Health Care Corporation, Specialty Care Center, Tuba City, Arizona	(928) 283-2402

Торіс	Agency, Program, & Location	Telephone Number
Uranium compensation claims assist	tance	
Radiation Exposure Compensation Act	Northern Navajo RESEP, Shiprock, New Mexico	(505) 368-7054 or (505) 368-7032
(RECA): Claims assistance for pre-1971 uranium workers and downwinders	North County Healthcare RESEP, Flagstaff, Arizona	(928) 522-9427
	Office of Navajo Uranium Workers, Shiprock, NM	(505) 368-1260 or (505) 368-1261
	Tuba City Regional Health Care Corp RESEP, Tuba City, Arizona	(928) 283-1802
EEOPICA Claims assistance for post-		
1971 uranium workers	Northern Navajo RESEP, Shiprock, New Mexico	(505) 368-7054 or (505) 368-7032
Uranium policy advisory		
Studies the impact of uranium	Dinè Uranium Remediation Advisory Commission	
mining/milling on Navajo lands and	(DURAC), Window Rock, Arizona	(928) 871-7186
provides recommendations to Navajo		(526) 671-7160
Nation President & counsel for		
policies, law, and regulations.		
Educational Programs		-
Environmental & Ecological risk	Dinè Environmental Institute (DEI) Research and	
assessment, Traditional ecological	Outreach, Dinè College, Shiprock, New Mexico	(505) 368-3516
knowledge		
Water		
Water hauling practices for safe	NNEPA, Public Water Systems Supervision	(928) 871-7755
drinking water sources	Program, Window Rock, Arizona	(320) 071 7755
Locations of regulated watering points	Navajo Tribal Utility Authority (NTUA), Fort Defiance, Arizona	(800) 528-5011
Water quality of NTUA piped water for	NTUA, Fort Defiance, Arizona	(928) 729-6207 Ask for "Consumer
home or public water system		Confidence Report"
Surface and ground water quality	NNEPA, Water Quality Program, Window Rock,	(928) 871-7185 Fort Defiance, Chinle
	Arizona	(505) 368-1037 Northern, Eastern (928) 890-7599 Western
Operation and maintenance of	Navajo Department of Water Resources (NDWR),	Contact district office
livestock water sources	Technical, Construction, and Operations Branch	contact district once
		(928) 674-2210 Chinle
		(505) 786-2396 Crownpoint
Locations of unregulated sources,		(928) 657-8094 Dilkon
livestock wells, windmills, earthen		(928) 729-4003 Fort Defiance
dams		(928) 755-5971 Ganado
		(928) 686-3289 Leupp
		(505) 655-5402 Pueblo Pintada
		(505) 368-1062 Shiprock
		(928) 656-3674 Teec Nos Pos
		(505) 908-2740 To'hajiilee
		(928) 283-3170 Tuba City (505) 778-5337 Vanderwagon
		(505) / 6-5557 valuel wagoil

Торіс	Agency, Program, and Location	Telephone Number
Tuba City Disposal Site		
Project lead	BIA, Western Regional Office, Phoenix, Arizona	(602) 379-3723
BIA coordination	BIA Division of Environmental & Cultural Resources, Washington, DC	(703) 390-6482
BIA community outreach	BIA, Navajo Regional Office, Gallup, New Mexico	(505) 863-8285
Hopi Tribal water	Hopi Tribe, Water Resources Program, Kykotsmovi, Arizona	(928) 734-3712
Remedial investigation & feasibility study oversight	EPA, Region 9 Superfund Program, San Francisco, CA	(800) 231-3075
Navajo Nation Solid Waste Act	NNEPA, Resource Conservation & Recovery Program, Window Rock, Arizona	(928) 871-7816

Abbrevia	tions		
AML	Abandoned Mine Lands	NAIHS	Navajo Area Indian Health Service
ATSDR	Agency for Toxic Substances and Disease Registry	NDOH	Navajo Department of Health
AUM	Abandoned uranium mine	NDWR	Navajo Department of Water Resources
BIA	Bureau of Indian Affairs	NNEPA	Navajo Nation Environmental Protection Agency
EPA	U. S. Environmental Protection Agency	NRC	U.S. Nuclear Regulatory Commission
DEL	Dinè Environmental Institute Research and Outreach	NTUA	Navajo Tribal Utility Authority
EEOIPCA	Energy Employees Occupational Illness Compensation	RESEP	Radiation Exposure Screening and Education
	Program Act		Program
LM	U.S. Department of Energy Office of Legacy Management	UMTRA	Uranium Mill Tailing Remedial Action Program
LTS&M	Long-term surveillance and maintenance		

Navajo Nation Outreach Office Shine Salt, CON Liaison (928) 810-2100 Highway 264 and Indian Route 12, Suite 10 Window Rock, Arizona 86515

Appendix G USEPA Regional Contacts

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Elsa Johnson

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Lee Anna Martinez-Silversmith

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Dawn Begay

Remedial Project Manager Navajo Nation EPA Superfund PO Box 2946 Window Rock, AZ 86515 (928) 551-0673 dawnkbegay@navajo-nsn.gov

Appendix H Local Officials

Cove Chapter House The Navajo Nation Chapter Government 9 Miles West of HYW N13 on N33 off Jct. 63 P.O. Box 378 Red Valley, AZ 86544 (928) 653-5806

Cove Chapter House Officials

James Benally Chapter President

Lorraine Johnson-Roy Vice President Tia Randall Secretary/Treasurer Sonya Panigeo Chapter Manager Marita John Administrative Assistant Lavina Martin-Wilson Office Assistant Jonas Benally Chapter Maintenance

Benjamin Hosteen District Grazing Member Raymond Benally Land Board Member Amber Kanazabah Crotty Council Delegate Latisha Begay Community Health Representative

Lukachukai Chapter House The Navajo Nation Chapter Government 1/2 Mile South of N12 Mile Post 1 P.O. Box 248 Lukachukai, AZ 86507 (928) 787-2500

Lukachukai Chapter House Officials

Paul Begay Chapter President

Connette Blair Vice President

MaryAnn Leonard Secretary/Treasurer

Tenderia Jones Administrative Assistant

Johnnita Malone Office Assistant **Carl Slater** Council Delegate

Marla Sandoval Redhouse Chapter Manager

Lyle Begay Community Health Representative

Larsen Nez District Grazing Member Round Rock Chapter House The Navajo Nation Chapter Government 1/2 Mile East of Junction 191 P.O. Box 10 Round Rock, AZ 86547 (928) 787-2511

Round Rock Chapter House Officials

Tashina Nelson Chapter President

Crystal Littleben Vice President

Savaleah Tsosie Secretary/Treasurer

Valencia Harvey Community Land Use Board Member

Dianne Yazzie Chapter Manager **Robert Wagner** District Grazing Member

Carl Slater Council Delegate

Bianca McKinely Office Assistant

Terique Descheny Chapter Maintenance

Keshaun Jones Administrative Assistant

Appendix I Federal and State Elected Officials

Federal Elected Officials

U.S. Senate

Senator Ruben Gallago 302 Hart Senate Office Building Washington, D.C. 20510 (202) 224-4521

Senator Mark Kelly 516 Hart Senate Office Building

Washington, D.C. 20510 (202) 224-2235

U.S. House of Representatives

1st District: **David Schweikert** 460 Cannon House Office Building Washington, D.C. 20515 (202) 225-2190

2nd District: Gabriel Elijah Crane

1229 Longworth House Office Building Washington, D.C. 20515 (202) 225-3361

3rd District: **Yassamin Anasari** 1114 Longworth House Office Building Washington, D.C. 20515 (202) 225-4065

4th District: **Greg Stanton** 207 Cannon House Office Building Washington, D.C. 20515 (202) 225-9888

5th District: **Andy Biggs** 252 Cannon House Office Building Washington, D.C. 20515 (202) 225-2635

6th District: **Juan Ciscomani** 1429 Longworth House Office Building Washington, D.C. 20515 (202) 225-2542

7th District: **Raul Grijalva** 1203 Longworth House Office Building Washington, D.C. 20515 (202) 225-2435

8th District: **Abraham Hamadeh** 1214 Longworth House Office Building Washington, D.C. 20515 (202) 225-4576

9th District: **Paul Gosar** 2057 Rayburn House Office Building Washington, D.C. 20515 (202) 225-2315

State Elected Officials

Arizona State Senate

6th District: **Theresa Hatahlie** Arizona State Capitol Complex 1700 W. Washington St. Phoenix, AZ 85007 (602) 926-5160

Arizona State House

6th District: Mae Peshlakai

Arizona State Capitol Complex 1700 W. Washington St. Phoenix, AZ 85007 (602) 926-3708

6th District: Myron Tsosie

Arizona State Capitol Complex 1700 W. Washington St. Phoenix, AZ 85007 (602) 926-3157

Appendix J Affiliated Agency Contacts

Arizona Department of Environmental Quality

1110 W. Washington St., Suite #160 Phoenix, AZ 85007 (602) 771-2300

Arizona Department of Health Services

150 North 18th Avenue Phoenix, AZ 85007 (602) 542-1025

Appendix K Citizens Groups and Community Organizations

Seeds of Harmony

Melinda O'Daniel Executive Director 1 Chapter House Rd., Unit #1175 Round Rock, Arizona 86547 (928) 313-1840 melinda@seedsofharmonyinc.org www.nativeseedsofharmony.org

Appendix L Media Contacts

Newspapers

Navajo Times

Hwy 264 and Route 12 Window Rock, AZ 86515 legals@ntpc.biz (928) 871-1148

Tri-City Record

108 W. Main Ave. Farmington, NM 87401 contact@tricityrecordnm.com (505) 592-0182

Radio Stations

KNDN - 960 AM

1515 W. Main St. Farming, NM 87401 (505) 325-1996

KGLP – 91.7 FM (and KGLP.org)

Gallup Public Radio, Inc. UNM Gallup Campus 705 Gurley Ave. Gallup, NM 87301-6979 manager@kglp.org (505) 863-7626

KGAK - 1330 AM

401 E Coal Ave. Gallup, NM 87301 jarvisonp@yahoo.com (505) 863-4444

KTNN - 660 AM / 101.5 FM

178 W. Hwy 264 St. Michaels, AZ 86511 info@ktnnonline.com (928) 871-3553

Appendix M Meeting Locations

Meeting locations are subject to availability and approval. To date, all meetings have been held at the following locations:

Cove Chapter House

9 Miles West of HYW N13 on N33 off Jct. 63 P.O. Box 378 Red Valley, AZ 86544 (928) 653-5806

Round Rock Chapter House

1/2 Mile East of Junction 191 P.O. Box 10 Round Rock, AZ 86547 (928) 787-2511

Lukachukai Chapter House

1/2 Mile South of N12 Mile Post 1 P.O. Box 248 Lukachukai, AZ 86507 (928) 787-2500

Appendix N Information Repository Location and Administrative Record File

USEPA has established an information repository for the site at the following locations:

Tuba City Public Library

78 Main Street Tuba City, AZ 86045 (928) 283-5856

Cove Chapter

9 Miles West of HYW N13 on N33 off Jct. 63 P.O. Box 378 Red Valley, AZ 86544 (928) 653-5806

Senator John Pinto Library Diné College Shiprock South Campus 1228 Yucca Street

Shiprock, NM 87420 (505) 368-3646

Octavia Fellin Public Library

115 West Hill Ave. Gallup, NM 87301 (505) 863-1254

Kinyaa'áanii Charlie Benally Library Diné College Main Campus

One Circle Drive, Rte. 12 Tsaile, AZ 86556 (928) 724-6757

Administrative Record File

The Administrative Record file with copies available at is housed at the USEPA Region 9 offices in San Francisco, California:

USEPA Region 9 Pacific Southwest San Francisco Office

75 Hawthorne Street San Francisco, CA 94105

Hours of Operation: Monday through Friday, 8:00 a.m. to 3:45 p.m. (open to the general public) and Monday through Friday, 8:00 a.m. to 4:00 p.m. (open to USEPA staff). Library is closed on all federal holidays.

For more information, contact:

Kenyon Larsen USEPA Remedial Project Manager U.S. EPA Region 9 (415) 914-4213 larsen.kenyon@epa.gov

Elsa Johnson USEPA Community Involvement Coordinator U.S. EPA Region 9 (415) 947-3552 johnson.elsa@epa.gov

Appendix O Seven Cardinal Rules for Risk Communication

The "Seven Cardinal Rules of Risk Communication" were developed by Vince Covello and Frederick W. Allen and published in a USEPA pamphlet in 1988 (U.S. Environmental Protection Agency, OPA-87-020, April 1988). The rules, which are appropriate for all Superfund site communications are:

- Accept and involve the public as a legitimate partner
- Plan carefully and evaluate your efforts
- Listen to the public's specific concerns
- Be honest, frank, and open
- Coordinate and collaborate with other credible sources
- Meet the needs of the media
- Speak clearly and with compassion

Appendix P Abbreviations and Acronyms

Many of the common abbreviations and acronyms commonly used by USEPA in documents related to the Superfund program are listed below, though some may not be included used in this community involvement plan.

ASPECT	Airborne Spectral Photometric Environmental Collection Technology
AUM	Abandoned uranium mine
BIE	Bureau of Indian Education
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CIC	Community Involvement Coordinator
CIP	Community Involvement Plan
CTS	Cove Transfer Station
CWWA	Cove Wash Watershed Assessment
Cyprus	Cyprus Amax Mineral Company
DOE	U.S. Department of Energy
EE/CA	Engineering evaluation/cost analysis
HRS	Hazard Ranking System
LMMD	Lukachukai Mountains Mining District
MSO	Mexican Spotted Owl
NAMLRD	Navajo Abandoned Mine Lands Reclamation Department
NHA	Navajo Housing Authority
NNEPA	Navajo Nation Environmental Protection Agency
NNHHPD	Navajo Nation Heritage and Historic Preservation Department
NNSP	Navajo Nation Superfund Program
NPL	National Priorities List
NTUA	Navajo Tribal Utility Authority
RECA	Radiation Exposure and Compensation Act
RPM	Remedial Project Manager
RSE	Removal site evaluation
SARA	Superfund Amendments and Reauthorization Act
SERAS	Scientific Engineering & Analytical Services
TCRA	Time-critical removal action
Tetra Tech	Tetra Tech, Inc.
Tronox	Tronox, Inc.
TSG	TerraSpectra Geomatics
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
Western Nuclear	Western Nuclear, Inc.
Weston	Weston Solutions, Inc.

Appendix Q Glossary

Administrative Record File

A file maintained for the public that contains information used to make a decision about a site under CERCLA. The file is available for public review and a copy is usually placed in the same location as the site information repository. A duplicate file is held at a central location, such as USEPA's regional office.

Airborne Spectral Photometric Environmental Collection Technology (ASPECT)

ASPECT is a small aircraft USEPA uses to detect and gather chemical and radiological data to assist emergency response and other evaluation efforts at various sites. ASPECT uses a variety of sensors and cameras that can quickly collect data and information, and was used to conduct aerial radiological surveys across Navajo Nation.

Cleanup

Actions taken to deal with a release or threatened release of hazardous substances that could affect public health or the environment. Cleanup is often used broadly to describe various response actions or phases of remedial activities, such as remedial investigation/feasibility study. The term "cleanup" is sometimes used interchangeably with the terms "remedial action," "remediation," "removal action," "response action" or "corrective action."

Community

An interacting population of various types of individuals in a common location; a neighborhood or specific area where people live.

Community Involvement

The term used by USEPA to identify its process for engaging in dialogue and collaboration with communities affected by Superfund sites. USEPA community involvement is founded on the belief that people have a right to know what the Agency is doing in their community and to have a say in it. Community involvement provides people in the affected community with the opportunity to become involved in the Agency's activities and to help shape the decisions made at Superfund sites.

Community Involvement Coordinator (CIC)

The USEPA official whose lead responsibility is to involve and inform the public about the Superfund process and response actions in accordance with the interactive community involvement requirements set forth in the National Contingency Plan.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

Commonly known as Superfund, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) was enacted by Congress on December 11, 1980. CERCLA is intended to protect human health and the environment by enabling the investigation and cleanup of abandoned or uncontrolled hazardous waste sites. Under the program, USEPA either can pay for a site cleanup when parties responsible for the contamination cannot be located or are unwilling or unable to perform the work, or take legal action to force parties responsible for site contamination to clean up the site or repay the federal government for the cleanup cost.

Contaminant

Any physical, chemical, biological, or radiological substance or matter that has an adverse effect on air, water or soil.

Contamination

Introduction into water, air and soil of microorganisms, chemicals, toxic substances, wastes or wastewater in a concentration that makes the medium unfit for its next intended use. It also applies to surfaces of objects, buildings and various household use products.

Environment

The sum of all external conditions affecting the life, development and survival of an organism.

U.S. Environmental Protection Agency (USEPA)

The federal agency whose mission is to protect human health and safeguard the environment.

Environmental/Ecological Risk

The potential for adverse effects on living organisms associated with pollution of the environment by effluents, emissions, wastes or accidental chemical releases, by energy use, or by the depletion of natural resources.

Feasibility Study (FS)

The second part of a two-part study called an RI/FS. The feasibility study involves identifying and evaluating the most appropriate technical approaches to addressing contamination problems at a site. Alternatives are evaluated for their effectiveness in protecting human health and the environment.

Groundwater

Water found underground that fills pores between materials such as sand, soil, or gravel. In aquifers, groundwater often occurs in quantities where it can be used for drinking water, irrigation and other purposes.

Hazardous Substance

(1) Any material that poses a threat to human health and/or the environment. Typical hazardous substances are toxic, corrosive, ignitable, explosive or chemically reactive.

(2) Any substance designated by USEPA to be reported if a designated quantity of the substance is spilled in the waters of the United States or is otherwise released into the environment.

Hazardous Waste

Byproducts that can pose a substantial or potential hazard to human health or the environment when improperly managed. Hazardous waste has at least one of four characteristics (ignitability, corrosivity, reactivity or toxicity) or appears on special USEPA lists.

Hazard Ranking System (HRS)

The HRS is the principal mechanism the USEPA uses to place uncontrolled waste sites on the NPL. It is a numerically based scoring system that uses information from initial, limited investigations to assess the relative potential of sites to pose a threat to human health or the environment.

Information Repository

A file containing current information, technical reports and reference documents regarding a Superfund site. The information Repository is usually located in a public building, such as a public school, city hall or library, which is conveniently located for community residents. USEPA may update the file at the Information Repository.

Monitoring

Periodic or continuous surveillance or testing to determine the level of compliance with statutory requirements and/or pollutant levels in various media or in humans, plants and animals.

National Priorities List (NPL)

The National Priorities List (NPL) is USEPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term cleanup under Superfund. The list is based primarily on the score a site receives from the Hazard Ranking System. USEPA is required to update the NPL at least once a year.

Natural Resources

Land, fish, wildlife, air, water, groundwater, drinking water supplies and other such resources belonging to, managed by or controlled by the United States, a state or local government, any foreign government, any Indian tribe or any member of an Indian tribe.

Pollutant

Generally, any substance introduced into the environment that adversely affects the usefulness of a resource or the health of humans, animals or ecosystems.

Proposed Plan

A public participation requirement of CERCLA in which USEPA and/or the potentially responsible party summarize for the public the preferred cleanup strategy, rationale for the preference and alternatives presented in the detailed analysis of the RI/FS. The proposed plan may be prepared as a fact sheet or a separate document. In either case, it must actively solicit public review and comment on all alternatives under consideration.

Public

The community or people in general or a part or section of the community grouped because of a common interest or activity.

Public Availability Session

Informal public sessions that often use poster displays and fact sheets and that include USEPA personnel and contractors who are available to discuss issues and answer questions. Public availability sessions offer the public the opportunity to learn about project-related issues and to interact with USEPA on a one-to-one basis. Public availability sessions do not require court reporters and transcripts, although USEPA may issue meeting summaries through newsletters and progress reports.

Public Comment Period

A formal opportunity for community members to review and contribute written comments on various USEPA documents or actions.

Public Meeting

Formal public sessions characterized by a presentation to the public followed by a question-andanswer session. Formal public meetings may involve the use of a court reporter and the issuance of transcripts. Formal public meetings are required only for the Proposed Plan and Record of Decision amendments a site.

Record of Decision

A public document that explains which cleanup alternatives will be used to clean up a Superfund site.

Remedial Investigation (RI)

A study designed to collect the data necessary to determine the nature and extent of contamination at a site.

Responsiveness Summary

A summary of oral and written comments received by USEPA during a public comment period on key site-related documents, with USEPA's responses to those comments. The responsiveness summary highlights community concerns to be taken into account by the group in making decisions on a site and is a key part of the Record of Decision.

Stakeholder

Any organization, governmental entity or individual that has a stake in or may be affected by the Superfund program.

Superfund

The program operated under the legislative authority of CERCLA that funds and carries out USEPA solid waste emergency and long-term removal and remedial activities. These activities include establishing the NPL, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising cleanup and other remedial actions. Superfund is the common name for CERCLA and is often used as an adjective for hazardous waste sites and the investigation and cleanup process directed by USEPA.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Established standards for cleanup activities and stipulates the conditions for offsite disposal of wastes. The amendments also clarified many public participation questions and made federal facilities accountable under the statute.