

US EPA ARCHIVE DOCUMENT

**NAVAJO ABANDONED MINE LANDS
RECLAMATION (AML) / URANIUM MILL
TAILINGS REMEDIAL ACTION (UMTRA)
DEPARTMENT**

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DIVISION OF NATURAL RESOURCES

DEPARTMENT T Information

Program Plan of Operations,
as approved through Navajo
Nation standing resolutions
are:

GSCMY-32-94 & RCMA-70-94

for both the Navajo AML /
Navajo UMTRA Programs

The Navajo Abandoned Mine Lands (AML) Reclamation / Uranium Mill Tailings Remedial Action (UMTRA) Department is part of the Navajo Nation Division of Natural Resources

➤ **Navajo AML provides:**

- Reclamation of abandoned mine lands (AML) to protect the public health, safety and the environment
- Public Facility Projects (PFP) funding through partnership initiatives and chapter priorities
- Technical and Environmental services to the Navajo Nation including public relations efforts.

➤ **Navajo UMTRA Provides:**

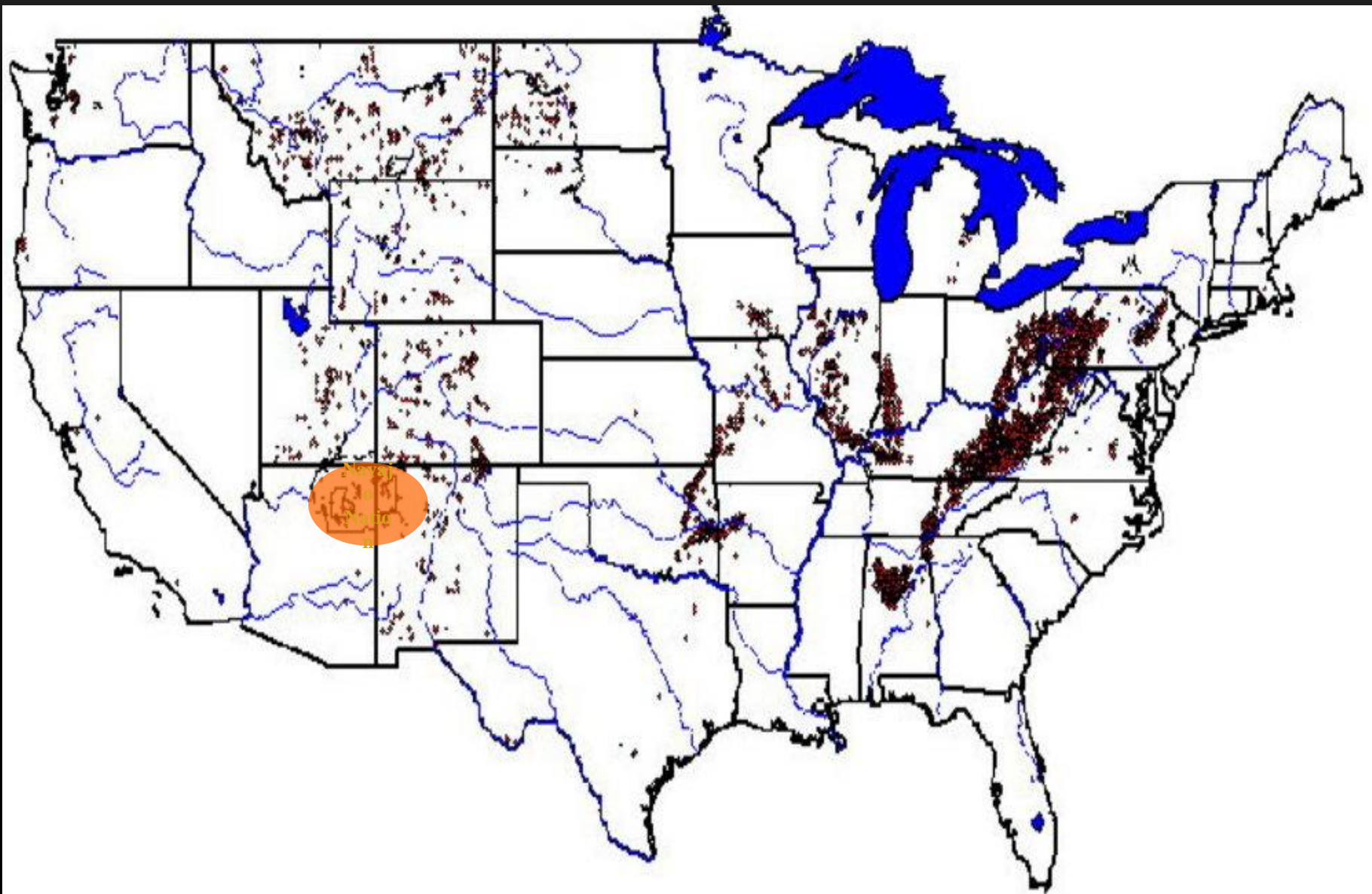
- Assistance to the U.S. Department of Energy (DOE) with surface environmental and ground water remediation projects at UMTRA sites

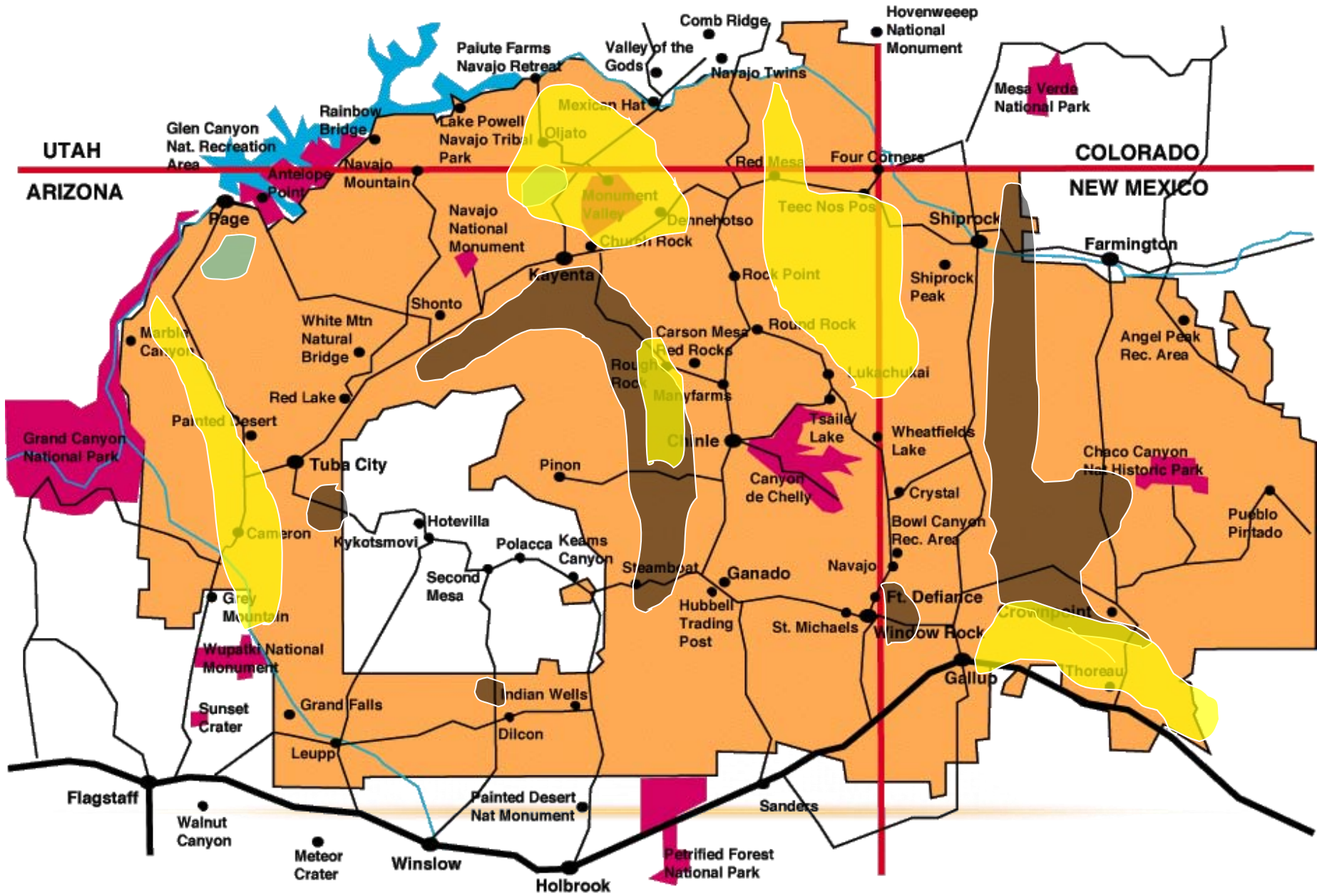
Navajo AML History



- Navajo AML/UMTRA Department established per-the Surface Mining Control and Reclamation Act (SMCRA) of 1977 and subsequent Amendments, Title IV.
- Navajo AML Program abides by the Navajo AML Code / Plan approved by the U.S. Office of Surface Mining (OSM) on May 16, 1988 and the Navajo Nation Council.
- Navajo AML completed reclamation on all high priority and dangerous coal hazards, and applied for certification. The U.S. Secretary of Interior concurred with the certification in 1994.
- After certifying in 1994, Navajo AML was authorized to utilize the AML funds for the reclamation of eligible abandoned non-coal (uranium and copper) mines.
- Navajo AML implemented Public Facility Projects to give mining impacted communities opportunities to improve infrastructure in 2000.

National Association of Abandoned Mine Lands Reclamation Programs (NAAMLRP)

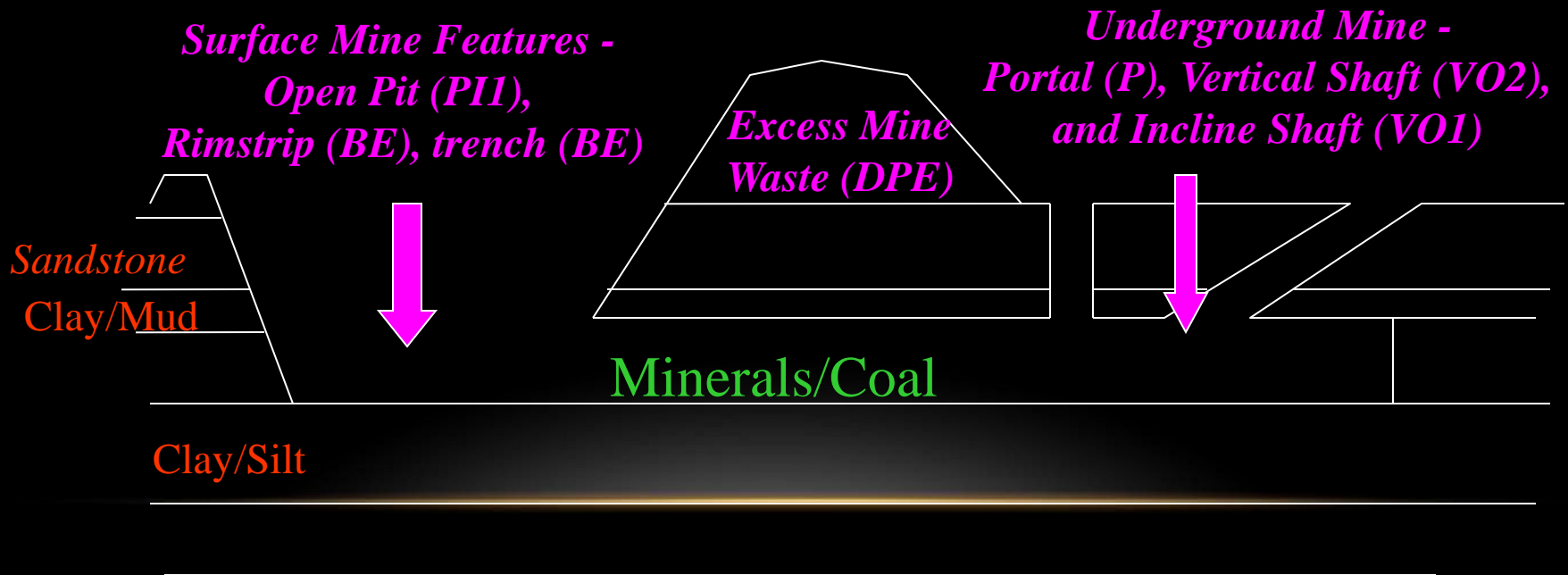




Mining - Surface /Underground?

(Engineering and Geology)

- Mining methods, stability, engineering, accessibility, dangers, properties, reclamation techniques and cost.



Open pit with dangerous
highwalls

High Priority Mining
Problems:

Open pit w/standing
Water. Uranium mines
- used for livestock &
swimming

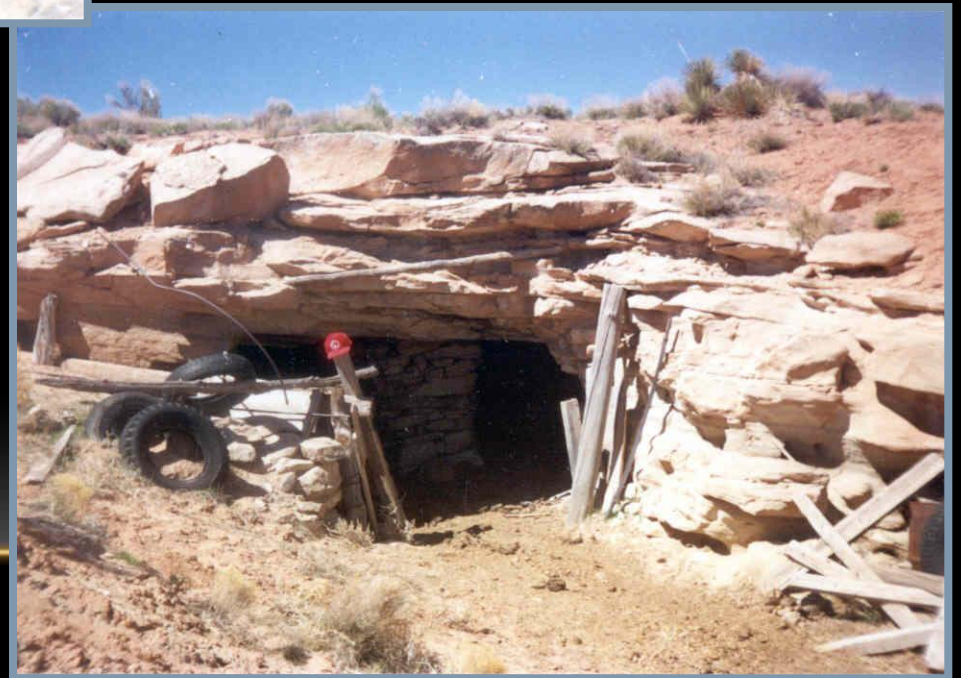
Open pit used for
Illegal trash dumping





Uranium mines used
for livestock containment

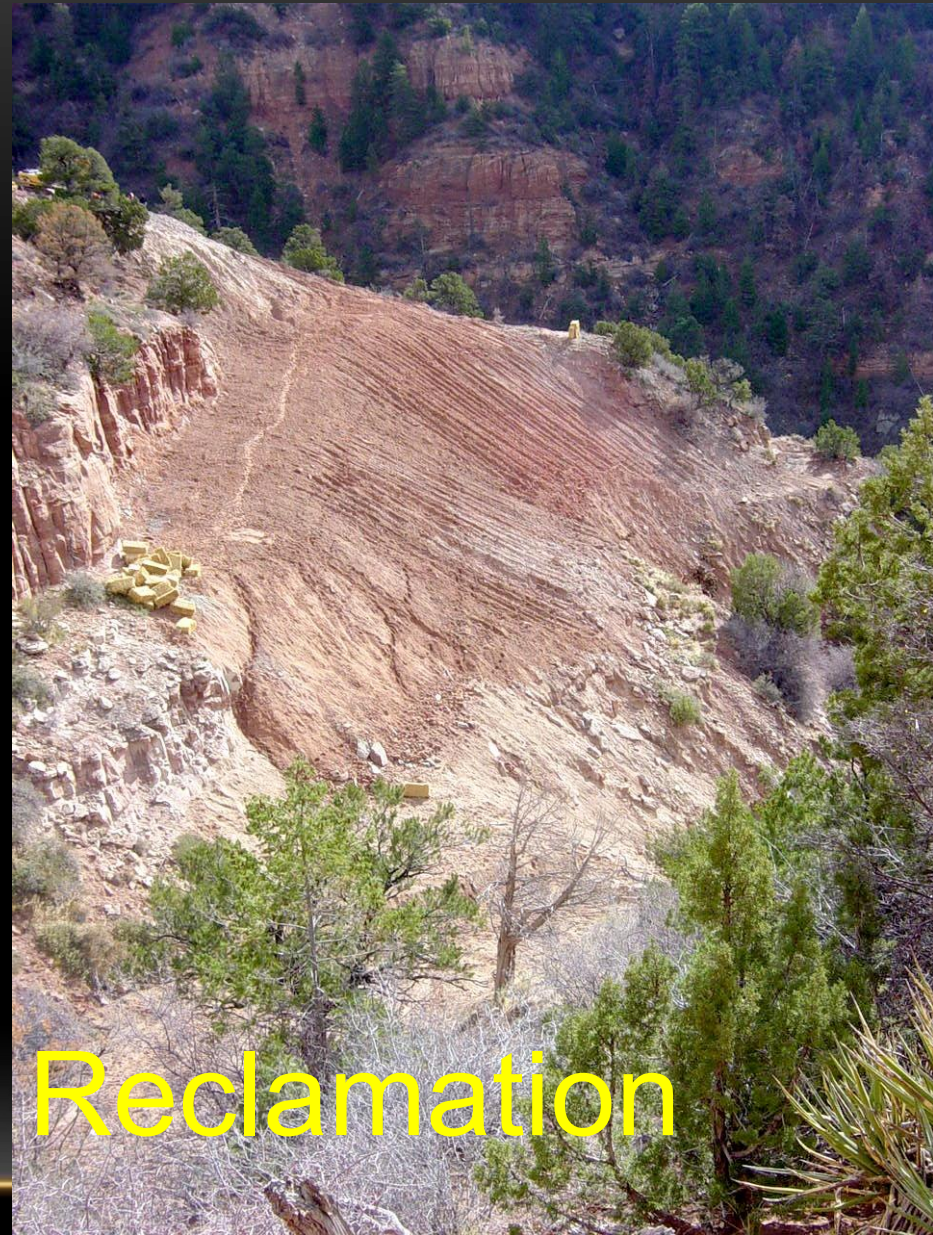
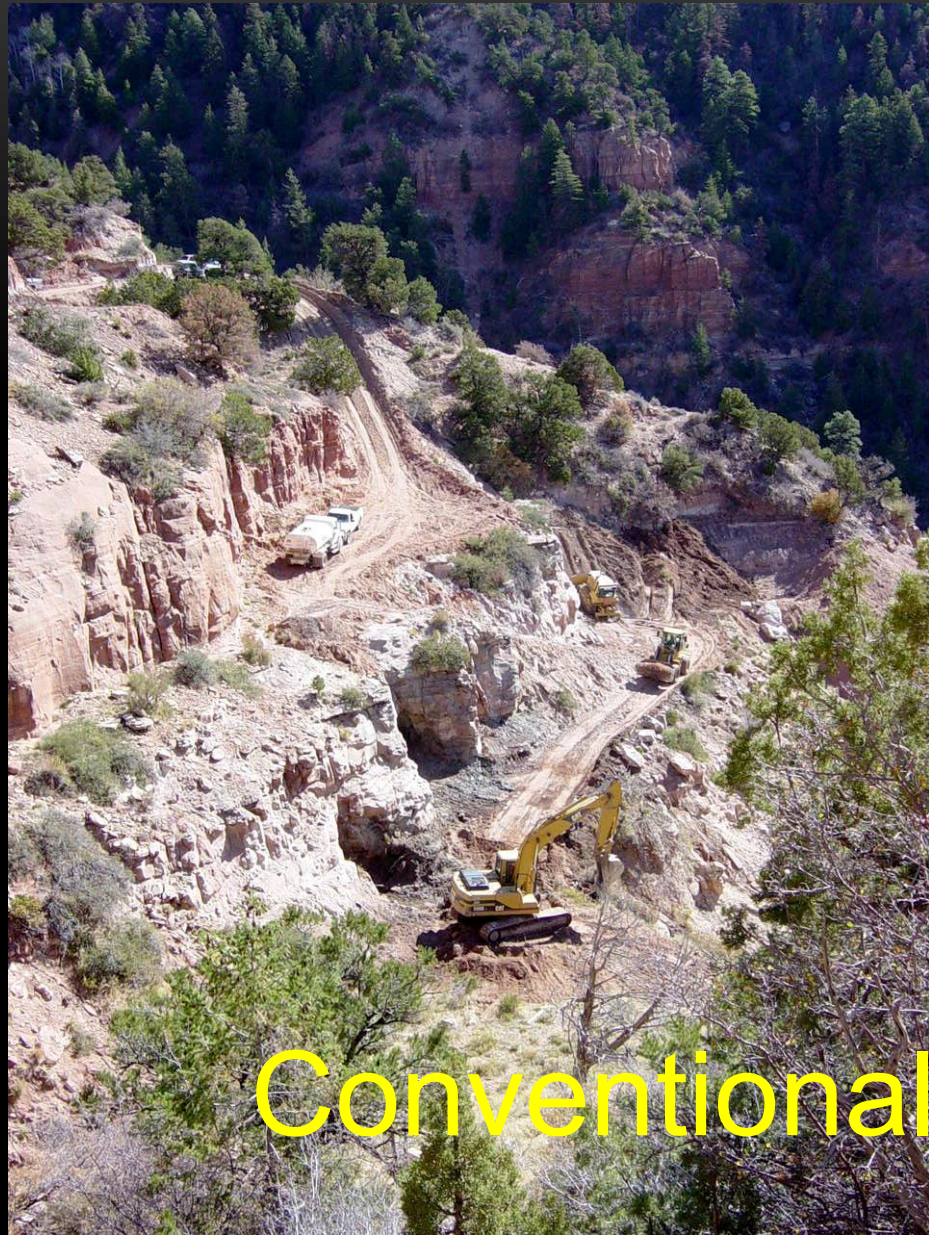
Radiation exposure of
Livestock and associated
with illness of past
Miners.





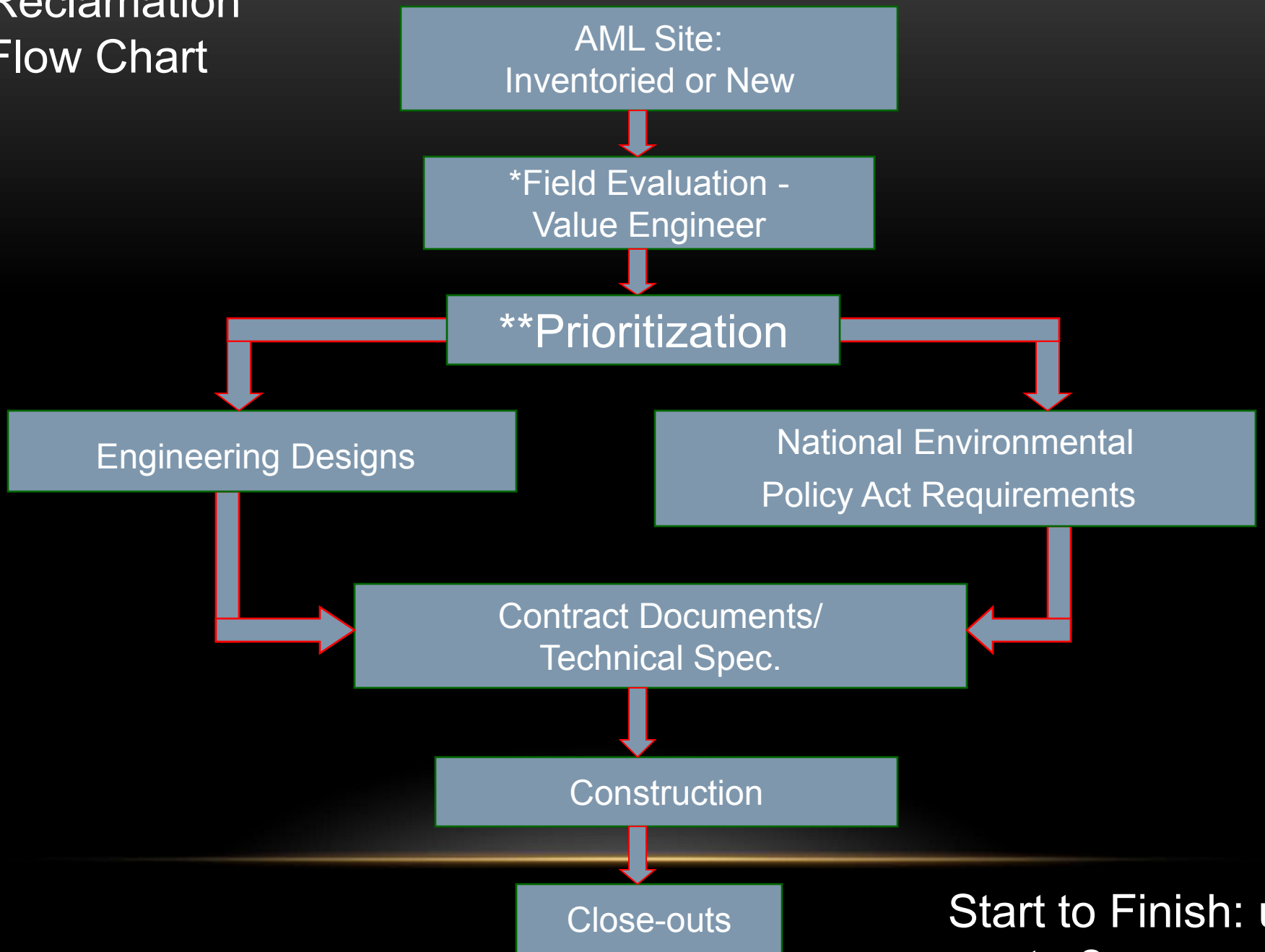
Reclamation Sequence





Conventional Reclamation

Reclamation Flow Chart



Start to Finish: up
to 2 years

HEALTH PHYSICS:

- Employee Protection
 - What are we protecting ourselves from?
 - Personnel and Training?
 - What kind of field equipment is required?
 - Field Applications?
 - Public Relations
-

HEALTH PHYSICS AND RADIOLOGICAL EQUIPMENT



- Health Physics Monitoring and Construction Plan
- Health Physics Training for all field crew
- In-house guidelines for radiometric levels
- Staff knowledgeable through training and background with
- Maps for technical designs

- Construction Monitoring of Equipment and Personnel
- Training to in-house personnel and other entities
- History of Uranium mining - very important aspect of our Program



IN-HOUSE URANIUM RADIOMETRIC CONCEPTS:

Naturally Occurring Uranium

- Class A material - geologic material that is near natural background levels.



- Class B material - geologic material that exhibits radiometric levels above natural background, but below 25 pCi/gm of surface contamination or 50 uR/hr of true exposure at 1-meter.
- Class C material - geologic material that has radiometric levels above 25 pCi/gm of surface contamination and 50 uR/hr of true exposure levels, emphasis placed on backfilling this material first.



RADIOLOGICAL DATA/MAP AND CAPABILITIES







Placement



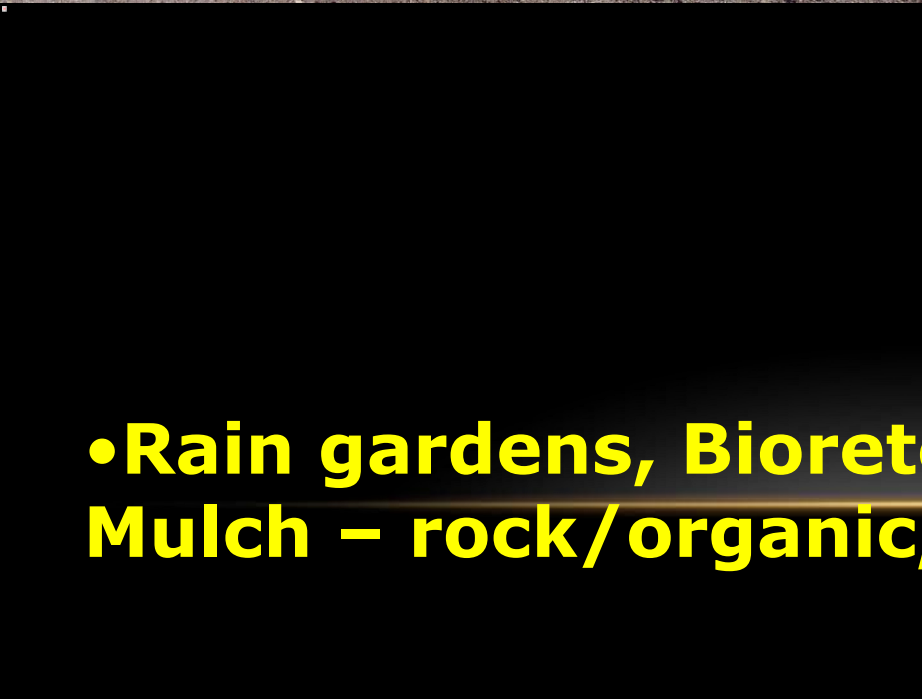
Class A Cover

Contoured





- **Geomorphic Contouring**
- **Low-Impact Development (LID)**



- **Rain gardens, Bioretention, French drains, Mulch – rock/organic, traditional . . .**

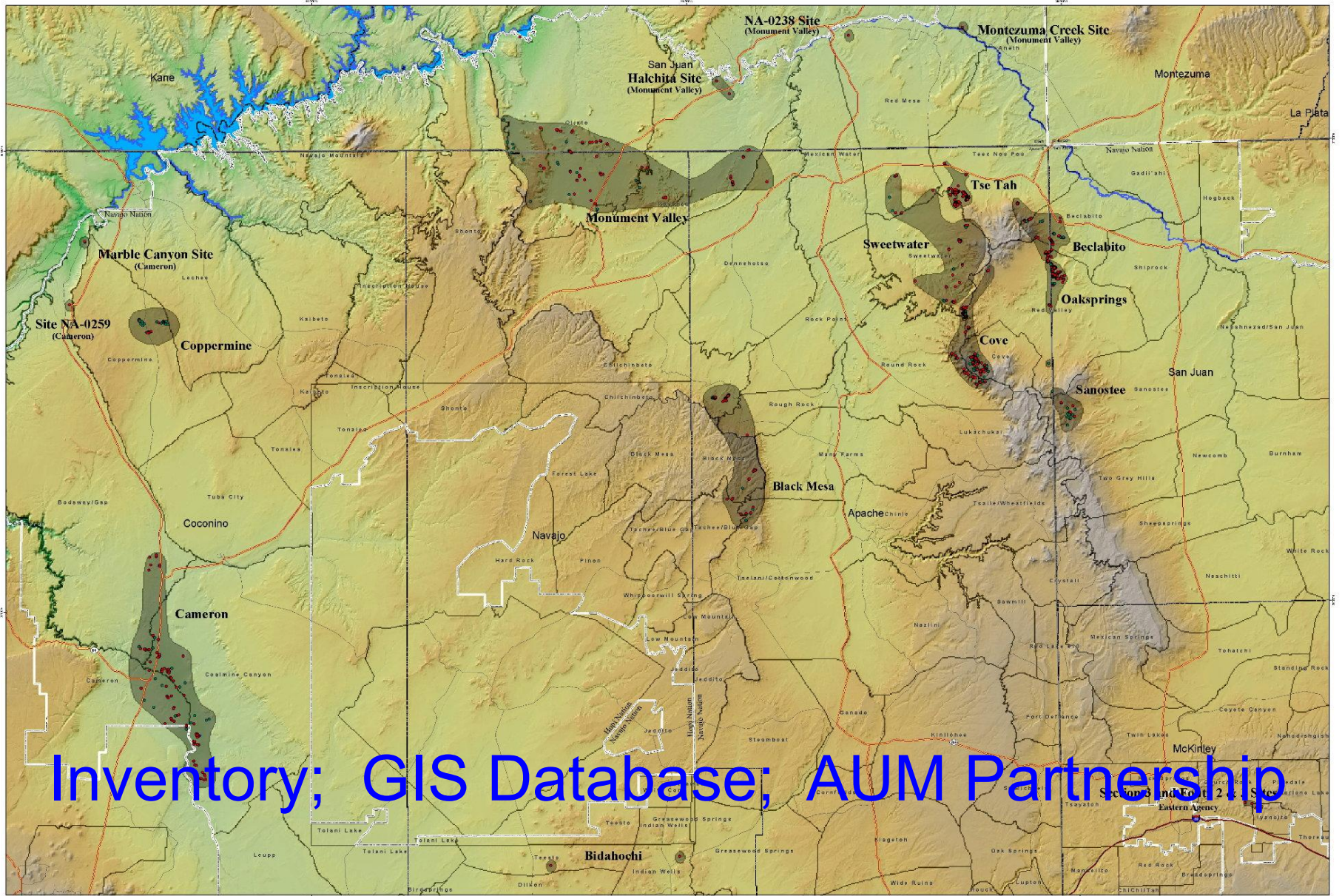


Inaccessible mine waste and containment



Lesson's Learned:

**Research, Partnerships, Capacity Building,
Funding, Communication – message.**

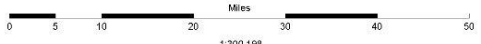


Inventory; GIS Database; AUM Partnership

DISCLAIMER
 Mine site locations and problem areas compiled from Navajo Abandoned Mine Lands Inventory (AMLI) reports, Volume 1 (1993) and Chapter 10 (2004) and Volume 2 (2004) and Chapter 10 (2004) and Volume 3 (2004) and Chapter 10 (2004). AUMLI reports are the result of a cooperative effort between the Navajo Nation and the U.S. Environmental Protection Agency. The AUMLI reports are the property of the U.S. Environmental Protection Agency.



PROBLEM AREAS AND MINE SITES NAVAJO ABANDONED MINE LANDS RECLAMATION PROGRAM



Legend

- AML Reclaimed Mine Sites
- AML Non-reclaimed Mine Sites
- AML Problem Areas

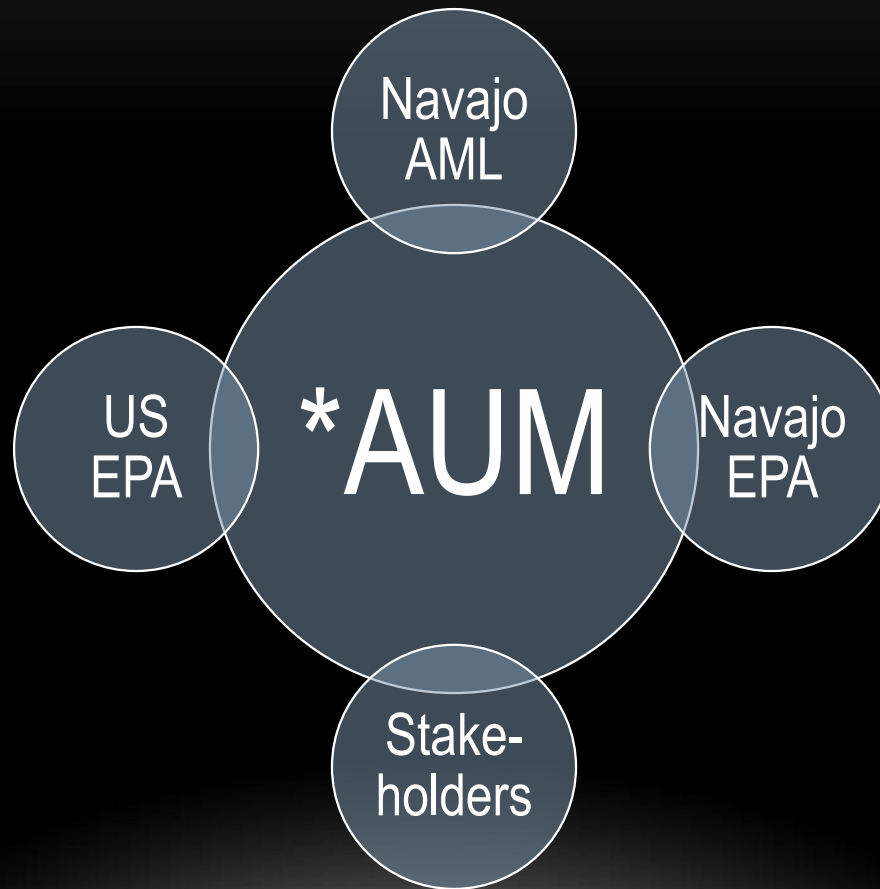
Boundaries

- Navajo Nation
- Chapter
- State

Road Classification

- Limited Access Highway
- Highway
- Local Roads

ABANDONED URANIUM MINE (AUM) ISSUE/PARTNERSHIP



- SMCRA
- CERCLA
- RAMS
- Navajo Nation
- AUM
- DOE
- Partners

Policies

- Surface Mining Control and Reclamation Act of 1977 (SMCRA) and subsequent Amendments.
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA)
- Water Resources Development Act (WRDA); Remediation of Abandoned Mine Sites (RAMS)
- Others



SMCRA

- SMCRA –created 2 programs when signed into law on August 3, 1977: one for regulating active coal mines and the second for reclaiming abandoned mine lands. Agency responsible for administration is the Office of Surface Mining (OSM).
- Abandoned Mine Land (AML) fund was established to pay for cleanup of abandoned mine lands (AML).
- AML's are lands and waters adversely impacted by inadequately reclaimed mining operations and where there are no responsible parties.
- Navajo Nation, these lands must be located within Tribal Trust status.
- Under SMCRA and subsequent Amendments, Navajo AML is authorized to work on Coal and Non-coal mines. As of 2000, Navajo AML implemented the Public Facilities Projects (PFP) Program.



CERCLA

- CERCLA – also known as Superfund was enacted on December 11, 1980. Agency responsible for administration is the U.S. Environmental Protection Agency (US EPA); Navajo EPA.
- Law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment.
- 2 types of response actions: short-term removals or long-term remedial response actions.
- Seek responsible parties for the problems. Problems must be assessed per the Hazard Ranking System (HRS) and placed on the National Priority List.



UMTRCA

- UMTRCA – two programs were established to protect the public and the environment from uranium mill tailings. The Agency responsible for administration is the Department of Energy (DOE).
- With the drop in uranium prices and eventually the uranium mills, uranium mill tailings were left exposed. These mill tailing could be potential hazards to the public for thousands of years.
- The two Programs: Title I address abandoned mill tailings sites and Title II addresses licensed mill sites under the Nuclear Regulatory Commission (NRC) oversight.
- The Navajo Nation has four (4) Title I sites. Under the UMTRCA authority, DOE is addressing both the surface and sub-surface environmental problems.



WRDA

- WRDA - Water Resource Development Act of 1999. This Act was established to provide for the conservation and development of water and related resources, under the authorization of the US Army Corp of Engineers to construct various projects for improvements to rivers and harbors of the United States, and for other purposes.
- Section 560 of WRDA 99, established the Abandoned and Inactive Noncoal Mine Restoration. The Remediation of Abandoned Mine Sites (RAMS) program is similar to how SMCRA addresses AML sites, emphasis is non-coal mines with water impacts.
- Navajo AML attempted to get matching construction funds through RAMS but was unsuccessful. We were able to obtain funding for our GIS Database, total of \$ 222,000.00.

“TECHNOLOGY DATABASE FOR RECLAMATION OF ABANDONED MINES – The Secretary may provide assistance to non-Federal and nonprofit entities to develop, manage, and maintain a database of conventional and innovative, cost-effective technologies for reclamation of abandoned and inactive noncoal mine sites. Such assistance shall be provided through the Rehabilitation of Abandoned Mine Sites Program managed by the Sacramento District Office of the Corps of Engineers.”



SUMMARY

- The objectives of **SMCRA** in addressing abandoned mine lands (AML) have been fulfilled in respect to protecting the general public, livestock, wildlife and the environment.
- Land has been restored to a more natural setting.
- The dangerous features associated with past mining have been eliminated.
- Land is more beneficial for livestock, wildlife, and recreational purposes
- Work generated from the AML projects have been going back to the Navajo Nation economy, Navajo Contractors and Navajo work-force.



NAVAJO AML FUNDING ELIMINATION

- Per Obama's directives, OSM is eliminating future AML funding to "Certified" States and Tribes. Navajo AML is a certified program.
- Others impacted are Hopi and Crow Tribes.
- The Navajo Nation President, Dr. Joe Shirley and Ben Shelly, have been working with the Navajo AML program to fight this funding issue at the National level.
- Congressional Action is required to Amend SMCRA for elimination of our program.



CHALLENGES

- With the Federal Budget crisis, the **AML funds are an easy target** for the Obama Administration to eliminate. Federal Gov't is not acknowledging the on-the-ground accomplishments and direct environmental and economic benefits that these funds bring to the Navajo Nation. The legacy of mining activities on the Navajo Nation is a direct result of needs by the "Federal Government" and need for uranium during the war efforts.
- The AML funds are collected from **Navajo Nation Coal resources** and should come back directly to our Program. The Navajo Nation has many more projects that will benefit from these funds.
- Our recommendations are to get the Obama Administration to recognize the **government-to-government** relationship with the Navajo Nation during these SMCRA discussions. Navajo AML will need the **assistance** of the Navajo Nation President's Office, Washington Office, Nabik'iyati' Committee, and the Congressional delegations in getting the Federal Government to recognize the importance of SMCRA funding and ensure the continued AML funding to all "Certified States and Tribes."



IMPACTS OF CUTS

- ❑ Large amount of Navajo Nation derived funds will be lost. Economic Impacts to the development of Navajo people, businesses and Gov't.
- ❑ Terminate AML Employees, 20 staff; Closure of Navajo AML/UMTRA Department
- ❑ On-the-ground Projects will stop
 - AML Projects; current, past and future
 - Community infrastructure and facilities projects (PFP)
 - Technical Assistance to the communities
- ❑ Partnerships will be lost (local, chapter, state, federal and outside)
 - AML and AUM Partnership
 - Infrastructure and facilities Partnerships (PFP)
 - Technical, Environmental, New Ideas, PR, etc.



IMPACTS OF CUTS

- ❑ No more Public Relations on AML/PFP/UMTRA
- ❑ No one to oversee on-going funded AML/PFP projects
- ❑ Federal Gov't failure to acknowledge the Federal responsibilities to recognize the unique status of Tribes and enforce Indian Policies, Trust Responsibilities and Gov't to Gov't communications. Trying to cut another Tribal Program.
- ❑ In closing, the Navajo Nation will be losing a Department that is a leader in Natural Resources Stewardships; developing innovative Partnerships and Policies; through Leadership and Management are providing customer services to the public in an effective, cost efficient, proactive, fair & honest method. We also look at being results oriented and seek continuous improvements for our program to better serve the Navajo Nation.



Public Relations

- Chapters
- Schools
- Functions
- Conferences
- Newsletters, Publications
- Meetings
- Sponsorships





THANK YOU

