NAVJO NATION
Division of Natural Resources

Navajo AMLR Department

August 23, 2018

2018 Long-Term Stewardship Conference
Navajo Nation and AML Offices

Navajo Nation - 27,000 sq. miles
- Over 3 States

3 Offices
- Window Rock
- Shiprock
- Tuba City

Total of 20 FT Employees
In 1977, Congress passed the **Surface Mining Control and Reclamation Act (SMCRA) of 1977, Public Law 95-87** to help regulate the Coal Industry and set up an Abandoned Mine Lands (AML) reclamation fund.

- **Office of Surface Mining (OSM), Department of the Interior (DOI).**
- **2 programs were created:** Title V - regulating active coal mines and Title IV - reclaiming abandoned mine land (AML) sites.
- **32 States/Tribes** – across the U.S.
- **Navajo Nation** – Tribal Trust lands and abandoned prior to Aug. 3, 1977.
- **Prioritization Scheme**
Navajo Nation Dangers
Navajo Nation Dangers
History
Health Physics Program

Radiological Equipment

- Health Physics Monitoring
- Training
- In-house guidelines
- Staff knowledge
- Maps for technical designs
- Natural Sources – NORM, Bkgrd

External Radiation Protection

- Time
- Distance
- Shielding
Cut and Fill

Engineering Controls!
New Designs, Concepts, Technology

• Geomorphic Contouring
• Low-Impact Development (LID)
• Rain Gardens, Bioretention, French Drains
• Mulching – rock, organic, straw, etc.
• Excavated or Disposal Areas
Mini-Watershed Analysis
NA-0907 Completed February 2009
NAMLRP Pilot Project

Concepts from past research and partnerships

Evapotranspiration and Leachability
Navajo AML GIS Database

NAML Reclamation Projects by Commodity and UMTRA Sites

- Coal
- Copper
- Uranium
- Sand and Gravel
- UMTRA Site

Navajo Nation
Tuba City, AZ Disposal Site

Utah

Colorado

New Mexico
Abandoned Uranium Mine (AUM) Partnerships

* AUM (Legacy)

Stakeholders

Navajo AML

US EPA

Navajo EPA

- SMCRA
- CERCLA
- RAMS
- Navajo Nation
- AUM
- DOE
- Partners
- NN Trustee, PRP’s

- Congressional Hearing
- 5-year plan, 5 Fed Agy
- Network Collaboration Group
- Resource List*
- Gatekeeper

Navajo AML Reclamation Dept
Navajo AML Recap

- Self Education, R&D, Conferences, Partners
- Geomorphic Reclamation and Designs
- Engineered Materials
- Natural Materials
- Stabilization/Maintenance
- Improved Equipment & Safety
- Mother Nature
- GIS Database
- Public Relations, Education, Partnerships
Next Steps

• Communities – participation, post-land use
• Continued Education, Unity, Public Relations
• Navajo Nation EPA: Navajo CERCLA - Regulations
• Navajo Nation Uranium Commission
• Navajo Fundamental Laws –vs- Science/Engineering
• Environment – geology, chemistry, hydro-cycle, vegetation
• Partners and Stakeholders – old & new, don’t reinvent
• Long Term Stewardship, Maintenance of AML/AUM
• Accountability, Transparent
• Funding
• Resources
• Goals: Reclamation, Remediation, Restoration
• Leaders – all levels (tribal, state, and federal)
Cooperating Agencies of the Navajo Nation Five-Year Plan Community Outreach Network

Addressing the Impacts of Uranium Contamination on the Navajo Nation

Need Participation Education Opportunity!
Navajo AMLR Dept.
Science, Technology, Engineering and Math (STEM) Initiatives

**SUPPORT:**
- NN OP/VP
- NN DNR
- DOE – LM
- NTEC
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Questions

www.aml.navajo-nsn.gov