

US EPA ARCHIVE DOCUMENT

The 5th

Uranium Contamination Stakeholder Workshop

APRIL 16 & 17, 2013

Gallup Inn

2915 W. Historic Highway 66

Gallup, NM 87301

Community Report Back

Progress and Work on the Five-Year Plan

Teddy Nez

**Do Our Part
History**

Make Our Mark

What is currently happening

**Protecting Tomorrow's Environment
Future plans**

History - Mining close 1985

February 17, 1959 - Surface Owner's Agreement with Santa Fe Pacific

~~2003-2004~~ Stanford University student, Christine George

2003-2007 Church Rock Uranium Monitoring Project (CRUMP)

2006-2007 Tufts University student, Jamie DeLemos, Geochemist

April 9, 2007 USEPA issues Administrative Order of Consent (AOC)
to UNC/GE

May 18, 2007 –

- Navajo Nation President Joe Shirley Visits Project Site
- Meeting with Natural Resource Committee, with the result of “Long-term Protection” for Grassroots

June 11, 2007 - DiNEH Kidney Health Project.

- MASH Unit at Nez's resident, Phase II.

April 5 to July 15, 2007 – Time-Critical Removal Action

- Residential Cleanup

March 01, 2009 - Strategic Plans with Coyote Canyon Chapter

June 12, 2009 1st - EE/CA Public Comment Period

July 16, 2009 - Proclamation of Commemoration of the **30th Anniversary** of the Church Rock Uranium Tailings Spill signed by Joe Shirley, Jr., President of the Navajo Nation

July 24, 2009 – Interim Removal Action (IRA)

August 11, 2009 - EPA Region 6, Region 9, NMED, NMMD, MASE, SRIC, SNEEJ Uranium Collaboration Meetings in Albuquerque. The Southwest Network for Environmental and Economic Justice
(Southwest Network)

August 30, 2009 - USEPA (under IRA) **Temporary Housing**, three house hold with 6 families in Gallup, New Mexico

September 9, 2009 - Public Health Analysis : Dr. Johnnye Lewis, director of the University of New Mexico's Community Environmental Health Program, the DiNEH Project Kidney Health Study, Red Water Pond Road Residents should not live in the community during both Interim Removal Actions (IRA) and the reclamation phase of the NECR Mine cleanup or any kind of Cleanup

November 4, 2009 - Strategic Planning Listening Session: USEPA, I.H.S, ATSDR, DOE, STATE, NPOs, NNEPA,

September 16, 2010 - Community's, **Conceptual Plan on OFF-SITE Removal of mine waste to a Federally Certified Repository for uranium mine waste**

August , 2010 - Honorable Tom Udall United States Senator to said Henry Waxman five year Plan not working **(Ending 2012)**

April, 2011 - Uranium Legacy Impacts on Health of Residents: **Proximity to AUM Features** Is a Significant Predictor of Hypertension, Diabetes and Kidney Disease.

July 16, 2011 - Proclamation of Commemoration of the **32nd Anniversary** of the Church Rock Uranium Tailings Spill signed by Ben Shelly, President of the Navajo Nation, Honorable U.S.

Doing Our part Living with Mine Waste

■ Environmental Impact

- Soil, Water, Plants, Air

■ Human Health Impact

- affected physically
- Our community members from cancer and other radiation and mining related diseases and the psychological and social impact on us; and
- Tons of radioactive waste in our back yard in our environment, which we regard as our source of food and spiritual nourishment

What is Uranium Contamination?

■ Environmental Contamination

- Soil, Water, Plants, Air
- Scared Site
- Culture Value
- Livestock

■ Human Health Issue

- affected physically
- Our community members from cancer and other radiation and mining related diseases and the psychological and social impact on us
- PTSD, PTSS
- CTSS: Current Traumatic Stress Syndrome and
- CTSD: Current Traumatic Stress Disorder

■ Future Generation

Doing Our Part Congressional Mandates (2007 Waxman Hearing)

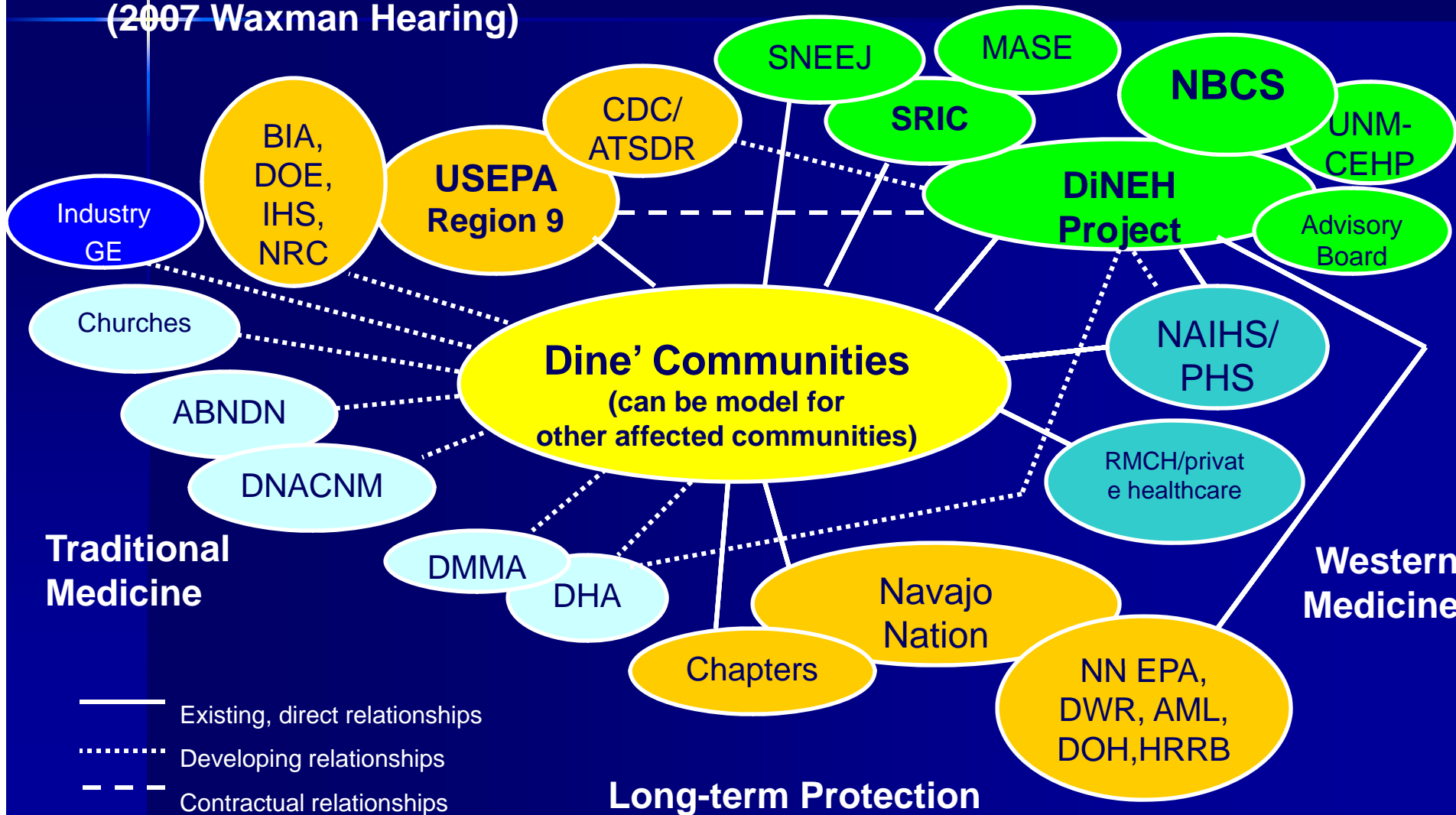


Model of Responses to Community Concerns About Health and Environmental Effects of Uranium Legacy

Diagnosis, Treatment and Medical Monitoring from Western and Traditional Perspectives

Congressional Mandates (2007 Waxman Hearing)

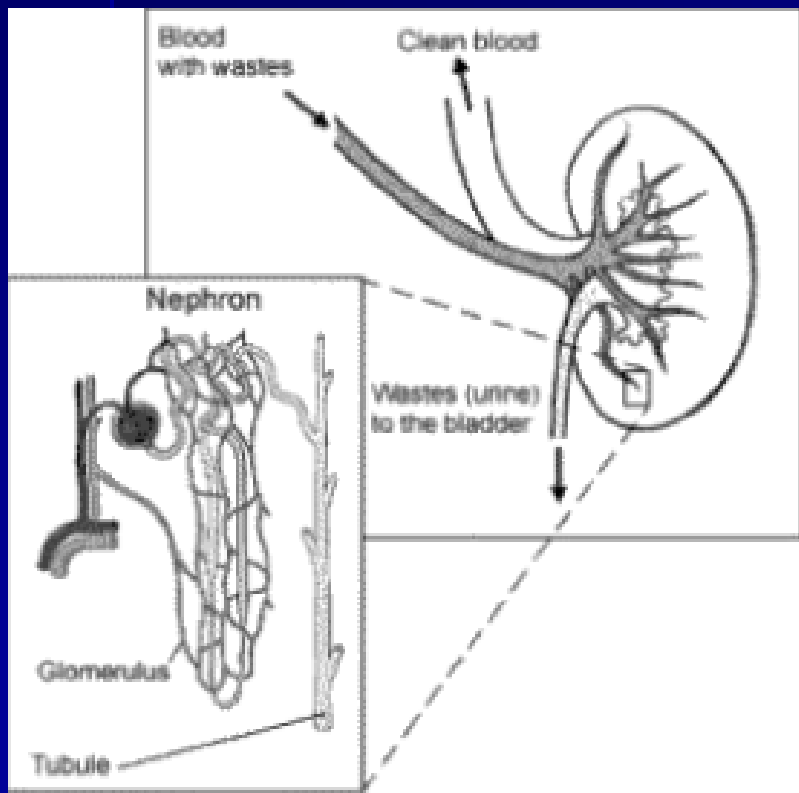
Research, Technical Assistance



Environmental Exposures to Uranium and Other Metals May Lead to Disease

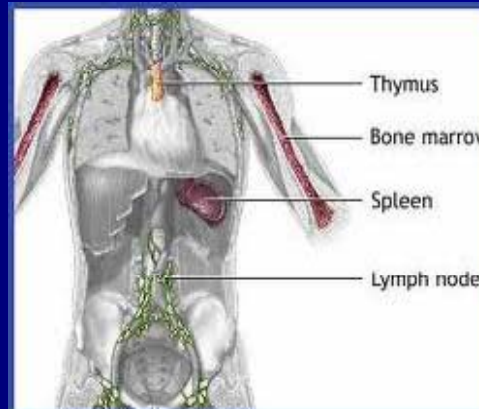
Kidney:

Uranium, lead, other metals in drinking water may affect kidney function



Cardiovascular system:

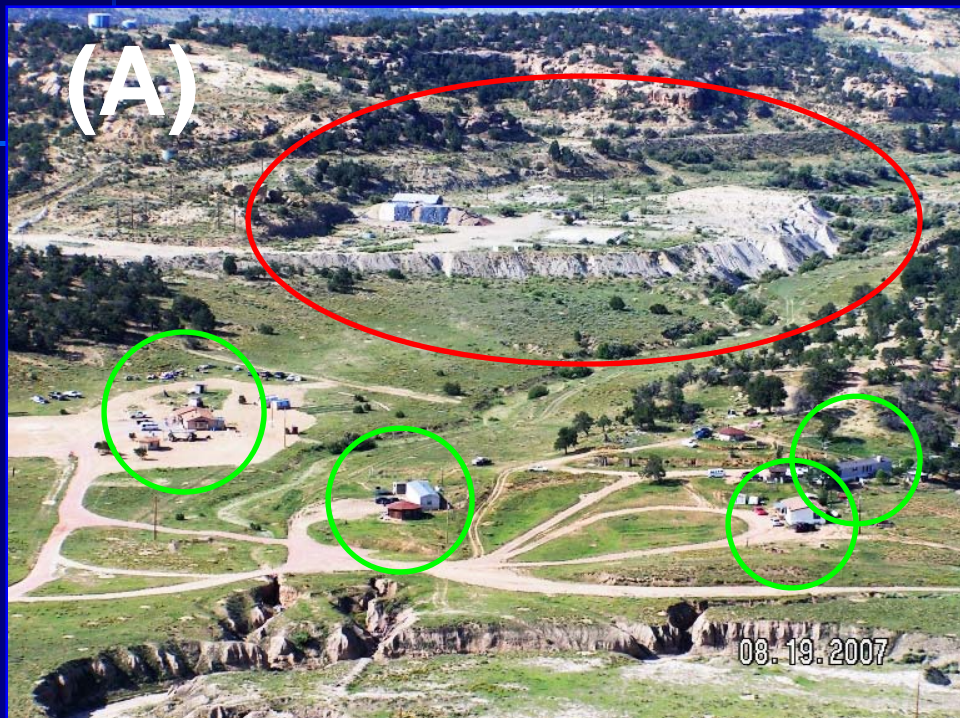
Heavy metals may cause high blood pressure, heart disease and stroke



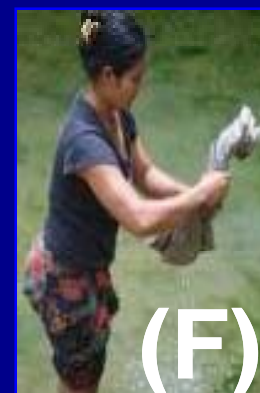
Immune system:

Heavy metals and radiation may suppress the body's natural self-defense mechanisms

Reasons to conduct uranium exposure screenings: Multiple Exposure Routes in Navajo Communities

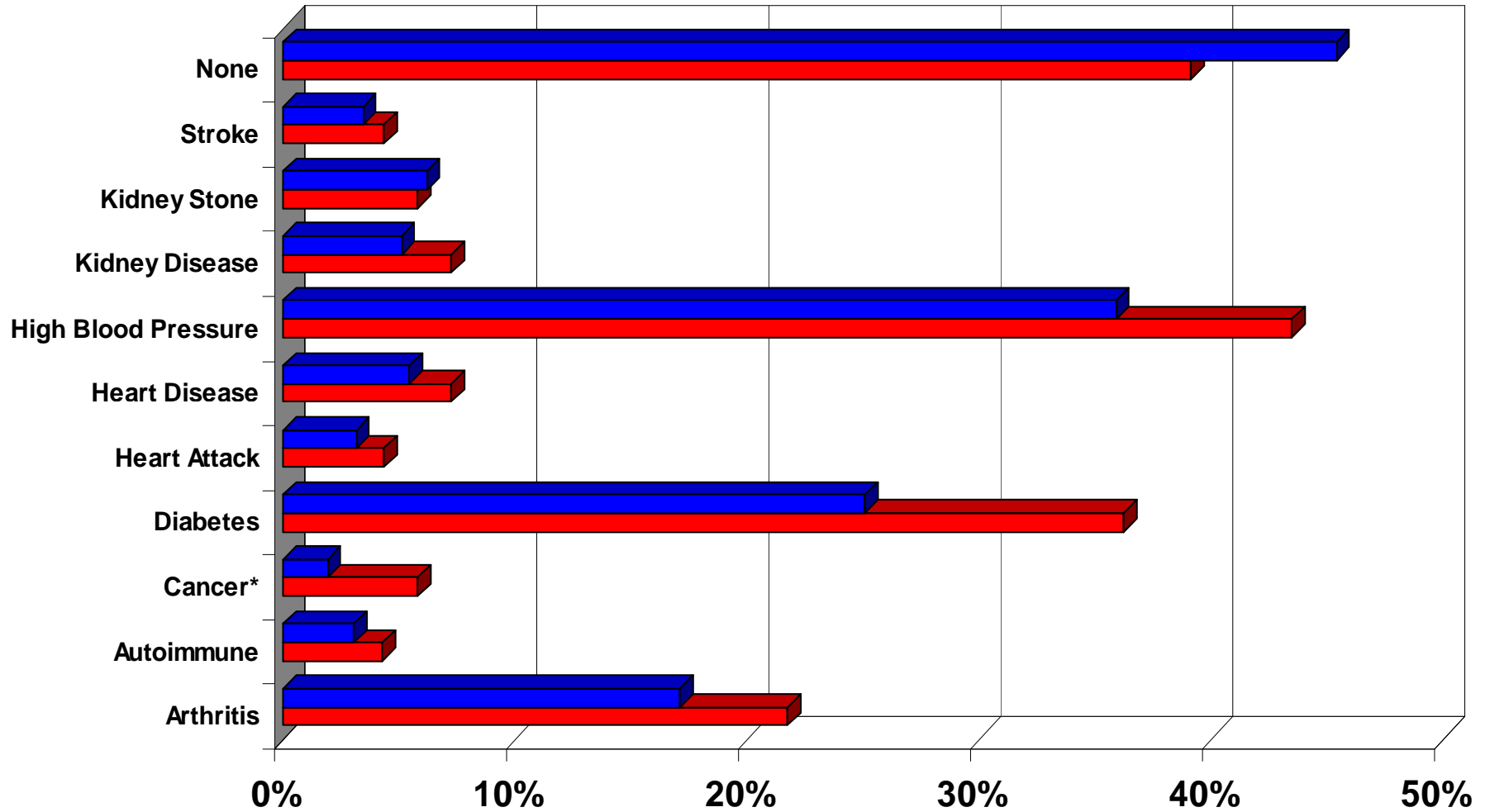


- (A) Lived near abandoned mines
- (B) Played on or near mines, mills
- (C) Used mine materials in home
- (D) Herded livestock in mines
- (E) Drank or contacted mine water
- (F) Washed workers' clothes
- (G) Unregulated water sources



Self-reported Health Problems Church Rock (N=69) v. All Chapters (N=1,304)

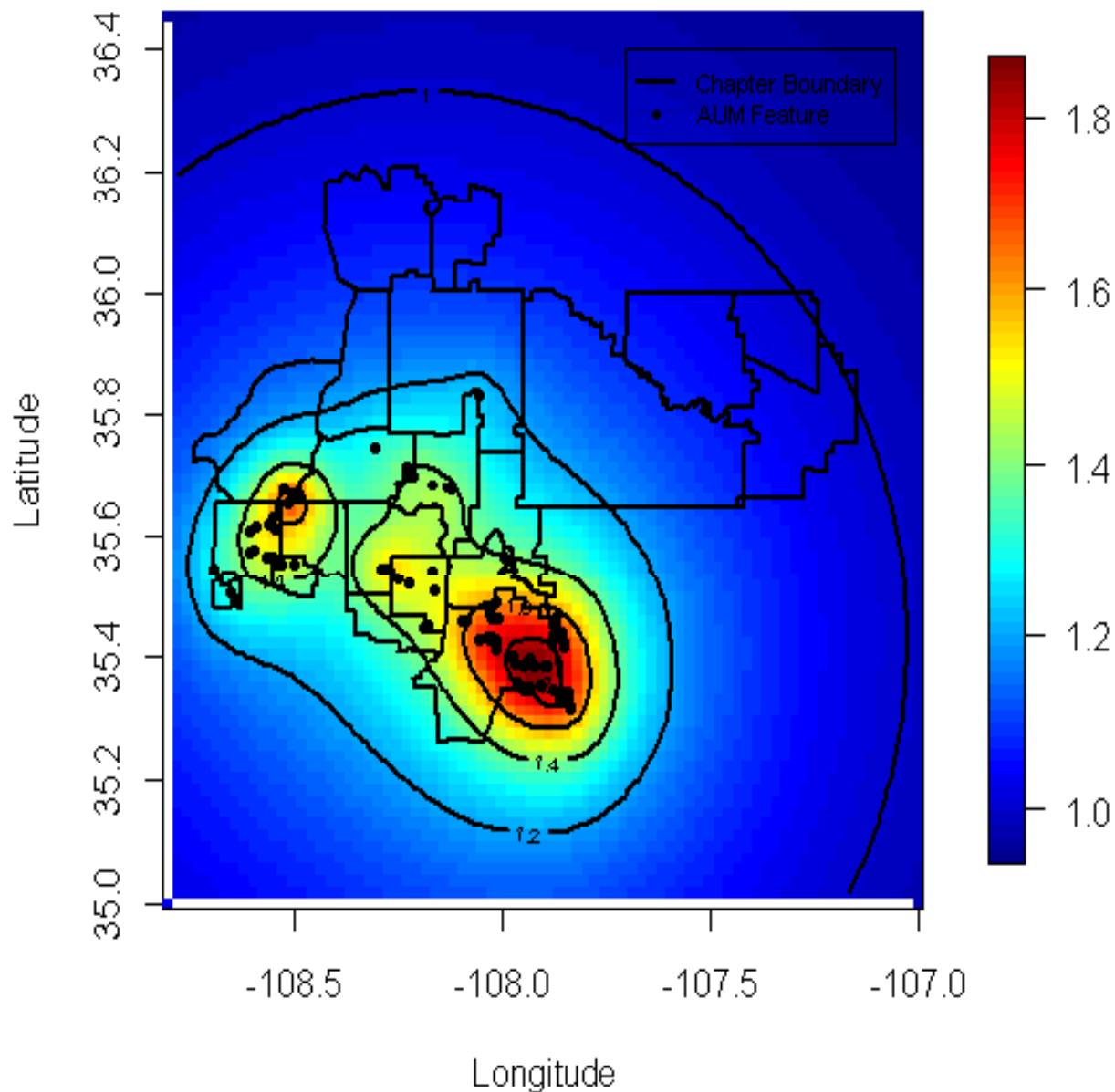
Church Rock All Chapters



Health Risks Doubled in Mining Areas

People living in areas with greatest number of mine features can have twice the risk of high blood pressure when all other significant factors — kidney disease, diabetes, family history of disease, BMI, age and gender — are accounted for.

AUM Proximity Risk Gradient Hypertension



Making our Mark



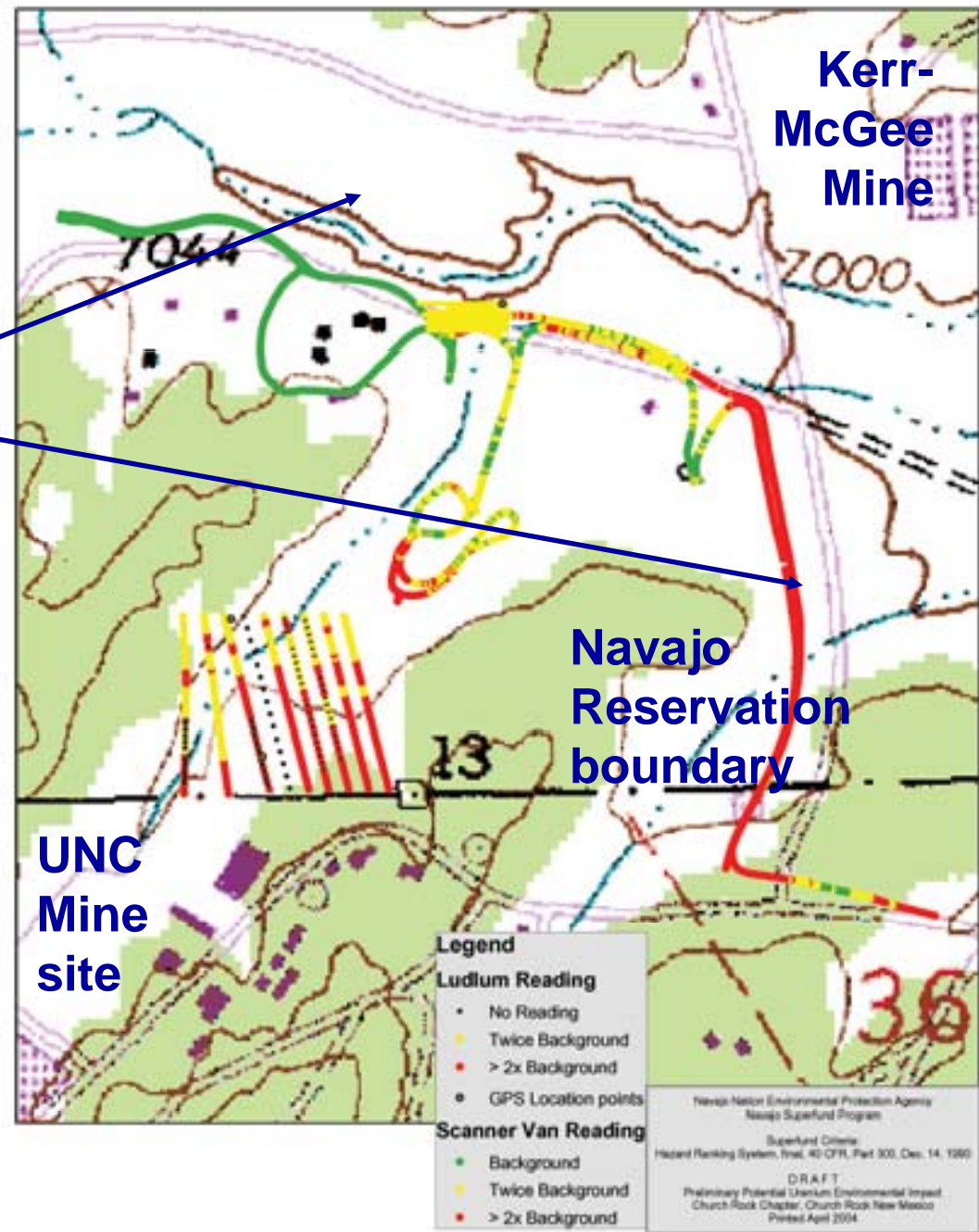




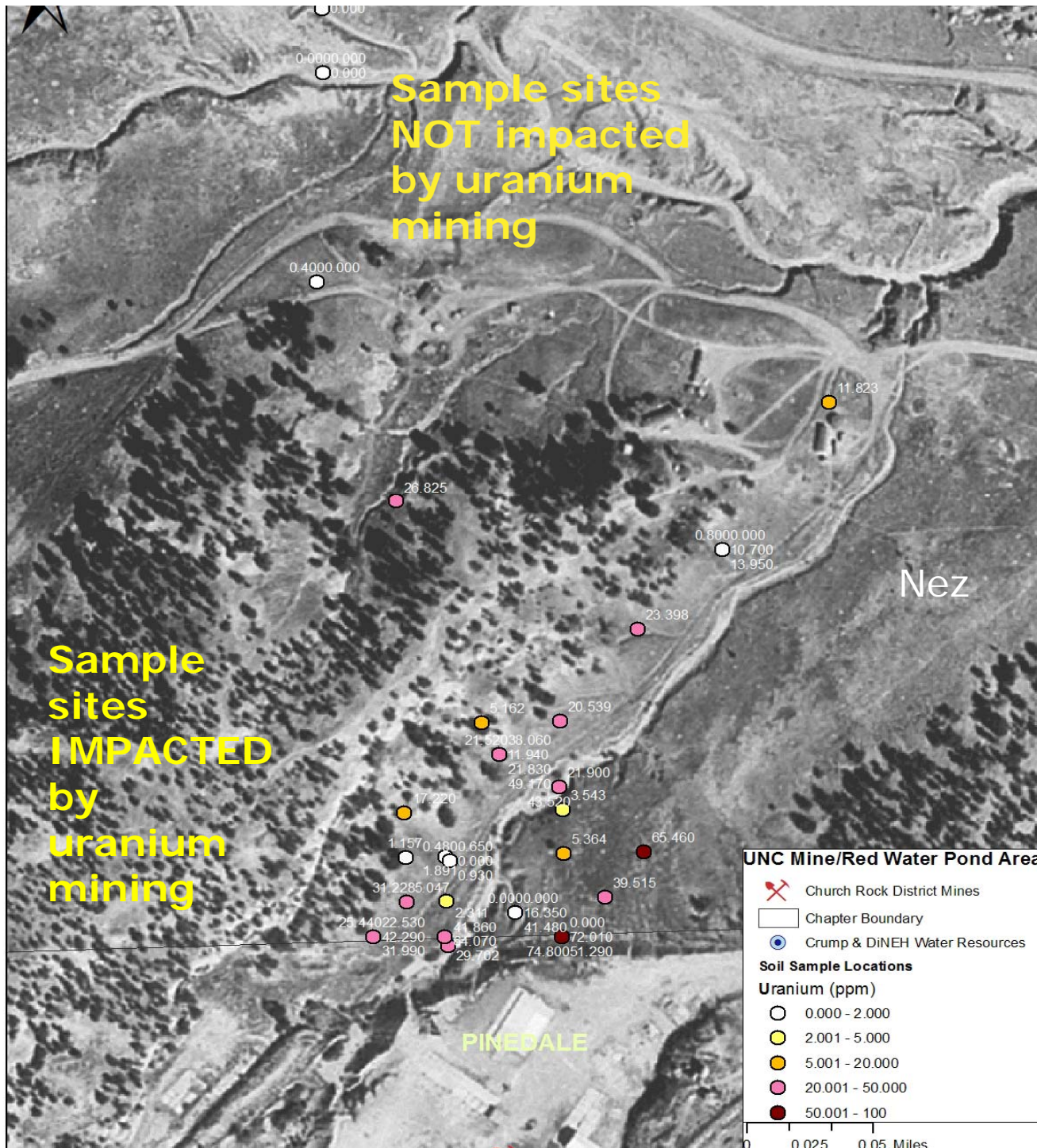
RWPR (1990) Map of Gamma Radiation Levels

Red Water Pond Road

- 14 Household Navajo residences sandwiched between two large abandoned uranium mines
- Gamma radiation levels >2x background shown by red dots and lines



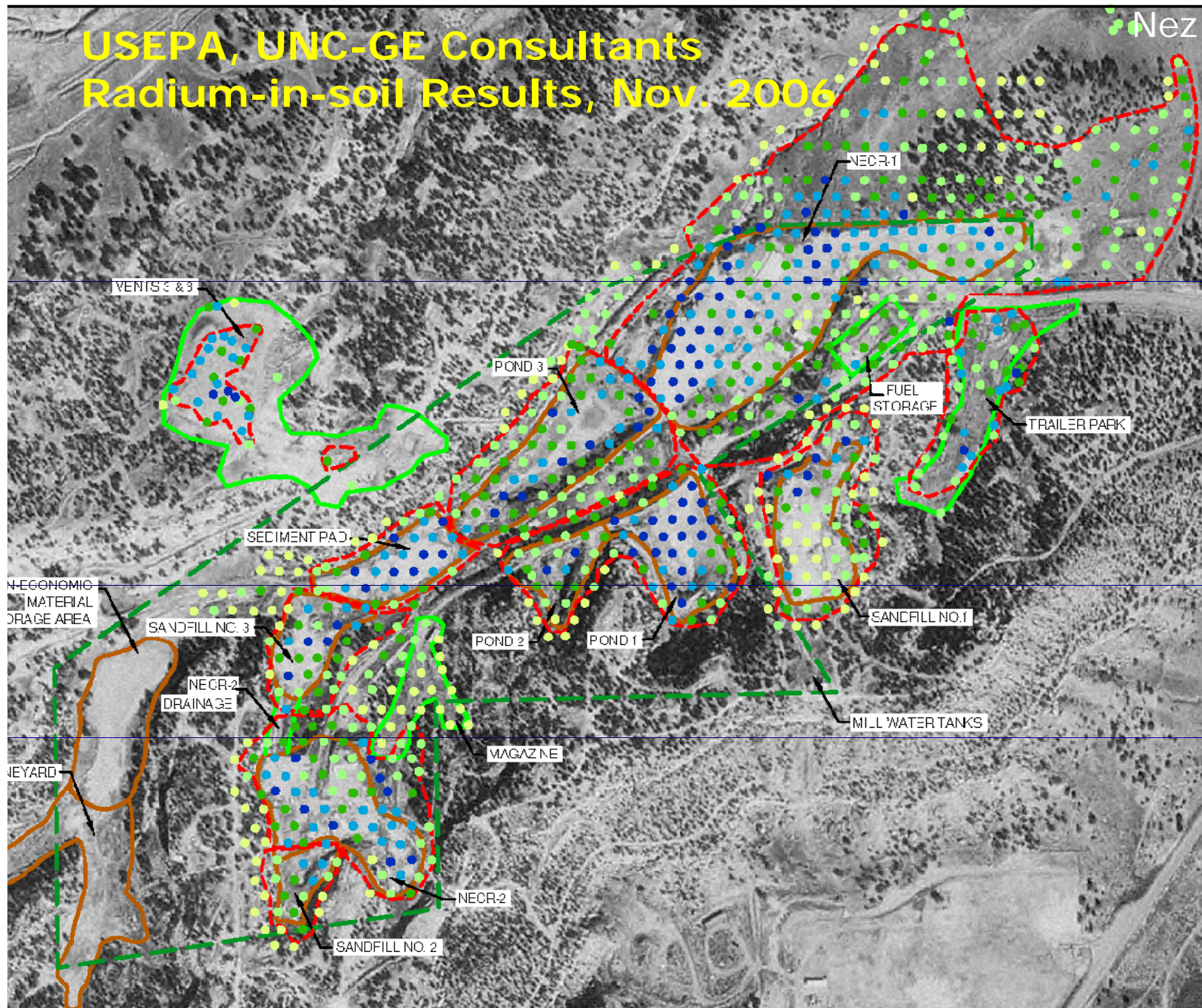
Map by J. Begay, NNEPA/Superfund



Red Water Pond Road

- Sampled in December 2004 and Summer 2005

USEPA, UNC-GE Consultants Radium-in-soil Results, Nov. 2006



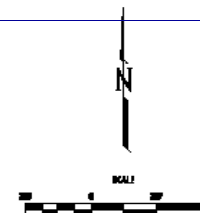
LEGEND

- PERMIT BOUNDARY
- SURVEY AREA B
- MINE FEATURE E
- AREAS ABOVE SCREENING LEVEL

EQUIVALENT Ra-226 (pCi/g) CONCENTRATION

- ≤ 2.24
- 2.4 - 6
- 8.1 - 15
- 15.1 - 50
- > 50

NOTES:
1. EQUIVALENT Ra-226 CONCENTRATION (pCi/g) CORRELATION WITH GAMMA (CPM) FROM STATISTICAL SURVEY



NO.	REVISION	DATE	DESIGNED BY



PROJECT: **REMOVAL SITE EVALUATION**
DRAWING TITLE: **RESULTS OF FIELD GAMMA RADIATION SURVEY**





THE CONTRACTOR HAS OBTAINED PERMITS AND THE APPROVAL OF PROFESSIONAL ENGINEERS AND PROFESSIONAL GEOLOGICAL ENGINEERS FOR THE WORK TO BE PERFORMED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.

TRAINING REQUIREMENTS:
 ALL PERSONNEL SHALL BE TRAINED IN THE USE OF THE EQUIPMENT TO BE USED IN THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY TRAINING AND CERTIFICATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY TRAINING AND CERTIFICATION.

DESIGNED BY	J. THOMPSON	08/22/2008
DRAWN BY	D. POLLOCK	08/22/2008
CHECKED BY	J. THOMPSON	08/22/2008
APPROVED BY	J. THOMPSON	08/22/2008
PROJECT MANAGER	T. LORSON	08/22/2008



PROJECT LOCATION	NORTHEAST
PROJECT	INTERIM REMOVAL
FILE	

Conceptual Plan for Uranium Mine Cleanup and Community Restoration

Healing our individual and community health and restore our environment with traditional and Western values and medicine

Objectives:

- 1 Conduct a rigorous study of possible sites near the Navajo Nation for **permanent disposal** of uranium mine wastes.
- 2 **Remove all** uranium contaminated mine wastes from our community.
- 3 Make major **improvements in roads** serving the community; realign and extend State Rt. 566 north to Navajo Route 9; provide new and improved access from SR 566 to the Red Water Pond Road and Pipeline Road residential areas.
- 4 Build a new **sustainable energy and appropriate technology community** for Red Water Pond Road residents west or north of the abandoned Quivira Church Rock I Mine. This area includes the top of Red Point Mesa and the lower-elevation canyon to the west of Red Point Mesa.
- 5 Build a **multi-purpose facility** in the community to serve as a Navajo Nation center for health, environmental research and uranium waste management. Establish document repository at this location.
- 6 Conduct a **comprehensive health study** among residents of uranium-mining communities, taking into account existing and planned studies by university, tribal and federal organizations.
- 7 Use the Red Water Pond Road situation to evaluate and demonstrate the potential for new **economic development** and jobs through full reclamation of uranium mines and restoration of mining sites throughout the Navajo Nation.
- 8 Work with the Navajo Nation and New Mexico **Congressional Delegation** to develop and enact policies to achieve full restoration of mine sites and just compensation for local residents and the Navajo Nation.

Health and Environmental Impacts of Uranium Contamination in the Navajo Nation

EPA Aug.2010 Progress Report

EPA Progress in Implementing
5-Year Cleanup Plan

Accomplishments

- Completed 197 **on-site screenings** of AUMS in the Eastern and
- Northern AUM Regions Completed **more detailed assessments** for Billy the Kid, Moonlight, Mariano Lake and Mesa 1 Mines
Completed removal assessments for the Skyline Mine and
- NECR Mine Conducted community **workshops** on plans to clean up the
- **Identify 521 AUMs 1% completed**

Fifty Year Plan Assignment

Protecting Tomorrow's
Environment
Future plans

Health Education and Research

- Diné Network for Environmental Health (DiNEH) Project
- Community Uranium Exposure-Journey To Healing (CUE-JTH) Program
- Navajo Birth Cohort Study (NBCS)
- Comprehensive Human Health Study
- Comprehensive Environmental Health Cleanup
- Comprehensive Funding
- **Sinkhole** cavity in the ground caused by water erosion in the Under Ground Uranium mining

Community Concerns

Health Impact

- Environmental Health Impact
- Human Health Impact
 - Effects of Uranium Waste Legacy
 - Offsite removal of mine waste to a Federally Certified Repository for uranium mine waste
 - Contaminated Water Sources
 - Contaminated Structures

Fifty-Year Plan Report

- Make five year plan into Fifty Year plan:
Comprehensive cleanup on Environmental Health, Human Health
- Better communication intra-agency, between agencies, agencies and communities
- A seat at the Table
- Comprehensive funding for the Fifty Year Plan
- Technical assistance to communities by all involved agencies

Compensation

- Post 71
- Community Members