Supplemental Environmental Report for the United Nuclear Corporation Mill Site

Source Material License Amendment Request, McKinley County, New Mexico, USA

Appendix A

Letters from Agencies Regarding Special Status Species

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 OSUNA ROAD NE
ALBUQUERQUE, NM 87113
PHONE: (505)346-2525 FAX: (505)346-2542
URL: www.fws.gov/southwest/es/NewMexico/;
www.fws.gov/southwest/es/ES_Lists_Main2.html

Consultation Code: 02ENNM00-2016-SLI-0747 August 18, 2016
Event Code: 02ENNM00-2016-E-00792
Project Name: NECR Mine Site and Church Rock Final Reclamation Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

Thank you for your recent request for information on federally listed species and important wildlife habitats that may occur in your project area. The U.S. Fish and Wildlife Service (Service) has responsibility for certain species of New Mexico wildlife under the Endangered Species Act (ESA) of 1973 as amended (16 USC 1531 et seq.), the Migratory Bird Treaty Act (MBTA) as amended (16 USC 701-715), and the Bald and Golden Eagle Protection Act (BGEPA) as amended (16 USC 668-668c). We are providing the following guidance to assist you in determining which federally imperiled species may or may not occur within your project area and to recommend some conservation measures that can be included in your project design.

FEDERALLY-LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

Attached is a list of endangered, threatened, and proposed species that may occur in your project area. Your project area may not necessarily include all or any of these species. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service, to make "no effect" determinations. If you determine that your proposed action will have "no effect" on threatened or endangered species or their respective critical habitat, you do not need to seek concurrence with the Service. Nevertheless, it is a violation of Federal law to harm or harass any federally-listed threatened or endangered fish or wildlife species without the appropriate permit.

If you determine that your proposed action may affect federally-listed species, consultation with the Service will be necessary. Through the consultation process, we will analyze information

contained in a biological assessment that you provide. If your proposed action is associated with Federal funding or permitting, consultation will occur with the Federal agency under section 7(a)(2) of the ESA. Otherwise, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA (also known as a habitat conservation plan) is necessary to harm or harass federally listed threatened or endangered fish or wildlife species. In either case, there is no mechanism for authorizing incidental take "after-the-fact." For more information regarding formal consultation and HCPs, please see the Service's Consultation Handbook and Habitat Conservation Plans at www.fws.gov/endangered/esa-library/index.html#consultations.

The scope of federally listed species compliance not only includes direct effects, but also any interrelated or interdependent project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations) and any indirect or cumulative effects that may occur in the action area. The action area includes all areas to be affected, not merely the immediate area involved in the action. Large projects may have effects outside the immediate area to species not listed here that should be addressed. If your action area has suitable habitat for any of the attached species, we recommend that species-specific surveys be conducted during the flowering season for plants and at the appropriate time for wildlife to evaluate any possible project-related impacts.

Candidate Species and Other Sensitive Species

A list of candidate and other sensitive species in your area is also attached. Candidate species and other sensitive species are species that have no legal protection under the ESA, although we recommend that candidate and other sensitive species be included in your surveys and considered for planning purposes. The Service monitors the status of these species. If significant declines occur, these species could potentially be listed. Therefore, actions that may contribute to their decline should be avoided.

Lists of sensitive species including State-listed endangered and threatened species are compiled by New Mexico state agencies. These lists, along with species information, can be found at the following websites:

Biota Information System of New Mexico (BISON-M): www.bison-m.org

New Mexico State Forestry. The New Mexico Endangered Plant Program: www.emnrd.state.nm.us/SFD/ForestMgt/Endangered.html

New Mexico Rare Plant Technical Council, New Mexico Rare Plants: nmrareplants.unm.edu

Natural Heritage New Mexico, online species database: nhnm.unm.edu

WETLANDS AND FLOODPLAINS

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. These habitats should be conserved through avoidance, or mitigated to ensure that there would be no net loss of wetlands function and value.

We encourage you to use the National Wetland Inventory (NWI) maps in conjunction with ground-truthing to identify wetlands occurring in your project area. The Service's NWI program website, www.fws.gov/wetlands/Data/Mapper.html integrates digital map data with other resource information. We also recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands.

MIGRATORY BIRDS

The MBTA prohibits the taking of migratory birds, nests, and eggs, except as permitted by the Service's Migratory Bird Office. To minimize the likelihood of adverse impacts to migratory birds, we recommend construction activities occur outside the general bird nesting season from March through August, or that areas proposed for construction during the nesting season be surveyed, and when occupied, avoided until the young have fledged.

We recommend review of Birds of Conservation Concern at website www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html to fully evaluate the effects to the birds at your site. This list identifies birds that are potentially threatened by disturbance and construction.

BALD AND GOLDEN EAGLES

The bald eagle (*Haliaeetus leucocephalus*) was delisted under the ESA on August 9, 2007. Both the bald eagle and golden eagle (*Aquila chrysaetos*) are still protected under the MBTA and BGEPA. The BGEPA affords both eagles protection in addition to that provided by the MBTA, in particular, by making it unlawful to "disturb" eagles. Under the BGEPA, the Service may issue limited permits to incidentally "take" eagles (e.g., injury, interfering with normal breeding, feeding, or sheltering behavior nest abandonment). For information on bald and golden eagle management guidelines, we recommend you review information provided at www.fws.gov/midwest/eagle/guidelines/bgepa.html.

On our web site www.fws.gov/southwest/es/NewMexico/SBC_intro.cfm, we have included conservation measures that can minimize impacts to federally listed and other sensitive species. These include measures for communication towers, power line safety for raptors, road and highway improvements, spring developments and livestock watering facilities, wastewater facilities, and trenching operations.

We also suggest you contact the New Mexico Department of Game and Fish, and the New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division for information regarding State fish, wildlife, and plants.

Thank you for your concern for endangered and threatened species and New Mexico's wildlife habitats. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area. For further consultation on your proposed activity, please call 505-346-2525 or email nmesfo@fws.gov and reference your Service Consultation Tracking Number.

Attachment

United States Department of Interior
Fish and Wildlife Service

Project name: NECR Mine Site and Church Rock Final Reclamation Project

Official Species List

Provided by:

New Mexico Ecological Services Field Office
2105 OSUNA ROAD NE
ALBUQUERQUE, NM 87113
(505) 346-2525
http://www.fws.gov/southwest/es/NewMexico/
http://www.fws.gov/southwest/es/ES_Lists_Main2.html

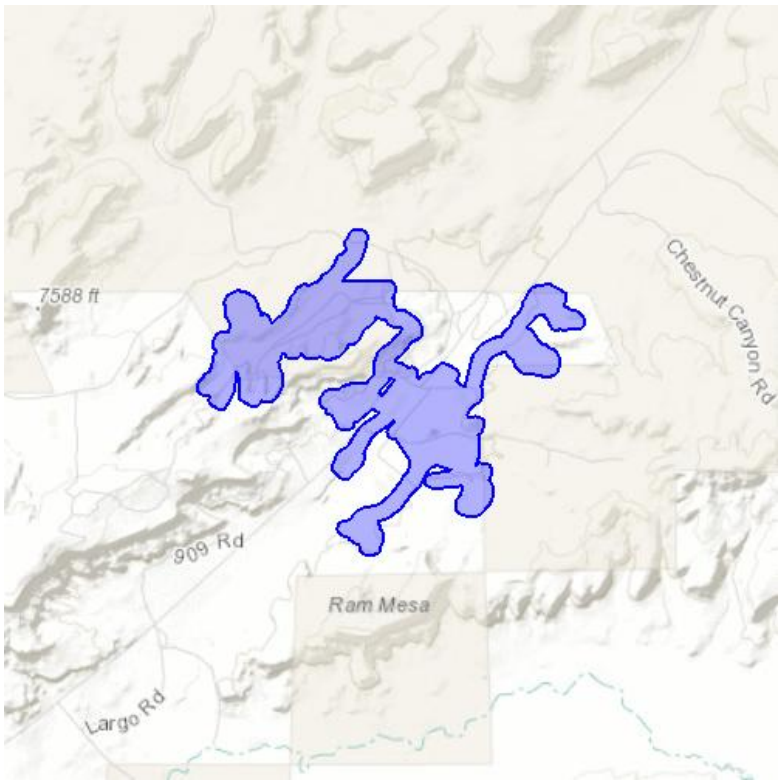
Consultation Code: 02ENNM00-2016-SLI-0747
Event Code: 02ENNM00-2016-E-00792

Project Type: MINING

Project Name: NECR Mine Site and Church Rock Final Reclamation Project
Project Description: This project pertains to final reclamation and closure of the NECR Mine Site and Church Rock Uranium Mill Site. This project has oversight of the EPA and NRC. Surveys are set to begin in September 2016.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: McKinley, NM

Endangered Species Act Species List

There are a total of 5 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	**Status**	**Has Critical Habitat**	**Condition(s)**
Mexican Spotted owl *(Strix occidentalis lucida)* Population: Entire	Threatened	Final designated	
Southwestern Willow flycatcher *(Empidonax traillii extimus)* Population: Entire	Endangered	Final designated	
Yellow-Billed Cuckoo *(Coccyzus americanus)* Population: Western U.S. DPS	Threatened	Proposed	
Fishes			
Zuni Bluehead Sucker *(Catostomus discobolus yarrowi)*	Endangered	Final designated	
Flowering Plants			
Zuni fleabane *(Erigeron rhizomatus)*	Threatened		

Critical habitats that lie within your project area

There are no critical habitats within your project area.

NNHP
Navajo Natural Heritage Program

PO Box 1480
Window Rock, AZ
86515

P 928.871.6472
F 928.871.7603

http://nnhp.nndfw.org

16ccai101

23-August-2016

Jesse Dillon - Reclamation/Soil Specialist
Cedar Creek Associates, Inc.
1430 Clementine Ct
Fort Collins, CO 80526

SUBJECT: NECR Mine Site and Church Rock Mill Closure

Jesse Dillon,

NNHP has performed an analysis of your project in comparison to known biological resources of the Navajo Nation and has included the findings in this letter. The letter is composed of seven parts. The sections as they appear in the letter are:

1. **Known Species** – a list of all species within relative proximity to the project
2. **Potential Species** – a list of potential species based on project proximity to respective suitable habitat
3. **Quadrangles** – an exhaustive list of quads containing the project
4. **Project Summary** – a categorized list of biological resources within relative proximity to the project grouped by individual project site(s) or quads
5. **Conditional Criteria Notes** – additional details concerning various species, habitat, etc.
6. **Personnel Contacts** – a list of employee contacts
7. **Resources** – identifies sources for further information

Known Species lists "species of concern" known to occur within proximity to the project area. Planning for avoidance of these species is expected. If no species are displayed then based upon the records of the Navajo Nation Department of Fish and Wildlife (NNDFW) there are no "species of concern" within proximity to the project. Refer to the Navajo Endangered Species List (NESL) Species Accounts for recommended avoidance measures, biology, and distribution of NESL species on the Navajo Nation (http://nnhp.nndfw.org/sp_account.htm).

Potential Species lists species that are potentially within proximity to the project area and need to be evaluated for presence/absence. If no species are found within the Known or Potential Species lists, the project is not expected to affect any federally listed species, nor significantly impact any tribally listed species or other species of concern. Potential for species has been determined primarily on habitat characteristics and species range information. A thorough habitat analysis, and if necessary, species specific surveys, are required to determine the potential for each species.

Species of concern include protected, candidate, and other rare or otherwise sensitive species, including certain native species and species of economic or cultural significance. For legally protected species, the following tribal and federal statuses are indicated: NESL, federal Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), and Eagle Protection Act (EPA). No legal protection is afforded species with only ESA candidate, NESL group 4 status, and species listed on the Sensitive Species List. Please be aware of

these species during surveys and inform the NNDFW of observations. Reported observations of these species and documenting them in project planning and management is important for conservation and may contribute to ensuring they will not be up listed in the future.

In any and all correspondence with NNDFW or NNHP concerning this project please cite the Data Request Code associated with this document. It can be found in this report on the top right corner of the every page. Additionally please cite this code in any biological evaluation documents returned to our office.

1. Known Species *(NESL=Navajo Endangered Species List, FE=Federally Endangered, FT=Federally Threatened, FC=Federal Candidate)*

Species

AQCH = Aquila chrysaetos / Golden Eagle NESL G3

2. Potential Species

Species

AQCH = Aquila chrysaetos / Golden Eagle NESL G3
ASNA = Astragalus naturitensis / Naturita Milk-vetch NESL G3
CHMO = Charadrius montanus / Mountain Plover NESL G4
ERSI = Erigeron sivinskii / Sivinski's Fleabane NESL G4
FAPE = Falco peregrinus / Peregrine Falcon NESL G4

3. Quadrangles (7.5 Minute)

Quadrangles

Hard Ground Flats (35108-F5) / NM
Oak Spring (35108-F4) / NM

4. Project Summary *(EO1 Mile/EO 3 Miles=elements occuring within 1 & 3 miles., MSO=mexican spotted owl PACs, POTS=potential species, RCP=Biological Areas)*

SITE	EO1MI	EO3MI	QUAD	MSO	POTS	AREAS
Mine Project Area	None	AQCH	Hard Ground Flats (35108-F5) / NM	None	FAPE, CHMO, AQCH, ERSI, ASNA	Area 1, Area 3
Mine Project Area	None	None	Oak Spring (35108-F4) / NM	None	FAPE, CHMO, AQCH, ERSI, ASNA	Area 3

5. Conditional Criteria Notes *(Recent revisions made please read thoroughly. For certain species, and/or circumstances, please read and comply)*

A. **Biological Resource Land Use Clearance Policies and Procedures (RCP)** - The purpose of the RCP is to assist the Navajo Nation government and chapters ensure compliance with federal and Navajo laws which protect, wildlife resources, including plants, and their habitat resulting in an expedited land use clearance process. After years of research and study, the NNDFW has identified and mapped wildlife habitat and sensitive areas that cover the entire Navajo Nation.
The following is a brief summary of six (6) wildlife areas:
1.***Highly Sensitive Area*** – recommended no development with few exceptions.
2.***Moderately Sensitive Area*** – moderate restrictions on development to avoid sensitive species/habitats.
3.***Less Sensitive Area*** – fewest restrictions on development.
4.***Community Development Area*** – areas in and around towns with few or no restrictions on development.
5.***Biological Preserve*** – no development unless compatible with the purpose of this area.
6.***Recreation Area*** – no development unless compatible with the purpose of this area.
None - outside the boundaries of the Navajo Nation
This is not intended to be a full description of the RCP please refer to the our website for additional information at http://www.nndfw.org/clup.htm.

B. **Raptors** – If raptors are known to occur within 1 mile of project location: Contact Chad Smith at 871-7070 regarding your evaluation of potential impacts and mitigation.
o **Golden and Bald Eagles**- If Golden or Bald Eagle are known to occur within 1 mile of the project, decision makers need to ensure that they are not in violation of the Golden and Bald Eagle Nest Protection Regulations found at http://nnhp.nndfw.org/docs_reps/gben.pdf.
o **Ferruginous Hawks** – Refer to "Navajo Nation Department of Fish and Wildlife's Ferruginous Hawk Management Guidelines for Nest Protection" http://nnhp.nndfw.org/docs_reps.htm for relevant information on avoiding impacts to Ferruginous Hawks within 1 mile of project location.
o **Mexican Spotted Owl** - Please refer to the Navajo Nation Mexican Spotted Owl Management Plan http://nnhp.nndfw.org/docs_reps.htm for relevant information on proper project planning near/within spotted owl protected activity centers and habitat.

C. **Surveys** – Biological surveys need to be conducted during the appropriate season to ensure they are complete and accurate please refer to NN Species Accounts http://nnhp.nndfw.org/sp_account.htm. Surveyors on the Navajo Nation must be permitted by the Director, NNDFW. Contact Jeff Cole at (928) 871-7068 for permitting procedures. Questions pertaining to surveys should be directed to the NNDFW Zoologist (Chad Smith) for animals at 871-7070, and Botanist (Andrea Hazelton) for plants at (928)523-3221. Questions regarding biological evaluation should be directed to Jeff Cole at 871-7068.

D. **Oil/Gas Lease Sales** – Any settling or evaporation pits that could hold contaminants should be lined and covered. Covering pits, with a net or other material, will deter waterfowl and other migratory bird use. Lining pits will protect ground water quality.

E. **Power line Projects** – These projects need to ensure that they do not violate the regulations set forth in the Navajo Nation Raptor Electrocution Prevention Regulations found at http://nnhp.nndfw.org/docs_reps/repr.pdf.

F. **Guy Wires** – Does the project design include guy wires for structural support? If so, and if bird species may occur in relatively high concentrations in the project area, then guy wires should be equipped with highly visual markers to reduce the potential mortality due to bird-guy wire collisions. Examples of visual markers include aviation balls and bird flight diverters. Birds can be expected to occur in relatively high concentrations along migration routes (e.g., rivers, ridges or other distinctive linear topographic features) or where important habitat for breeding, feeding, roosting, etc. occurs. The U.S. Fish and Wildlife Service recommends marking guy wires with at least one marker per 100 meters of wire.

G. **San Juan River** – On 21 March 1994 (Federal Register, Vol. 59, No. 54), the U.S. Fish and Wildlife Service designated portions of the San Juan River (SJR) as critical habitat for Ptychocheilus lucius (Colorado pikeminnow) and Xyrauchen texanus (Razorback sucker). Colorado pikeminnow critical habitat includes the SJR and its 100-year floodplain from the State Route 371 Bridge in T29N, R13W, sec. 17 (New Mexico Meridian) to Neskahai Canyon in the San Juan arm of Lake Powell in T41S, R11E, sec. 26 (Salt Lake Meridian) up to the full pool elevation. Razorback sucker critical habitat includes the SJR and its 100-year floodplain from the Hogback Diversion in T29N, R16W, sec. 9 (New Mexico Meridian) to the full pool elevation at the mouth of Neskahai Canyon on the San Juan arm of Lake Powell in T41S, R11E, sec. 26 (Salt Lake Meridian). All actions carried out, funded or authorized by a federal agency which may alter the constituent elements of critical habitat must undergo section 7 consultation under the Endangered Species Act of 1973, as amended. Constituent elements are those physical and biological attributes essential to a species conservation and include, but are not limited to, water, physical habitat, and biological environment as required for each particular life stage of a species.

H. **Little Colorado River** - On 21 March 1994 (Federal Register, Vol. 59, No. 54) the U.S. Fish and Wildlife Service designated Critical Habitat along portions of the Colorado and Little Colorado Rivers (LCR) for Gila cypha (humpback chub). Within or adjacent to the Navajo Nation this critical habitat includes the LCR and its 100-year floodplain from river mile 8 in T32N R6E, sec. 12 (Salt and Gila River Meridian) to its confluence with the Colorado River in T32N R5E sec. 1 (S&GRM) and the Colorado River and 100-year floodplain from Nautuloid Canyon (River Mile 34) T36N R5E sec. 35 (S&GRM) to its confluence with the LCR. All actions carried out, funded or authorized by a federal agency which may alter the constituent elements of Critical Habitat must undergo section 7 consultation under the Endangered Species Act of 1973, as amended. Constituent elements are those physical and biological attributes essential to a species conservation and include, but are not limited to, water, physical habitat, and biological environment as required for each particular life stage of a species.

I. **Wetlands** – In Arizona and New Mexico, potential impacts to wetlands should also be evaluated. The U.S. Fish & Wildlife Service's National Wetlands Inventory (NWI) maps should be examined to determine whether areas classified as wetlands are located close enough to the project site(s) to be impacted. In cases where the maps are inconclusive (e.g., due to their small scale), field surveys must be completed. For field surveys, wetlands identification and delineation methodology contained in the "Corps of Engineers Wetlands Delineation Manual" (Technical Report Y-87-1) should be used. When wetlands are present, potential impacts must be addressed in an environmental assessment and the Army Corps of Engineers, Phoenix office, must be contacted. NWI maps are available for examination at the Navajo Natural Heritage Program (NNHP) office, or may be purchased through the U.S. Geological Survey (order forms are available through the NNHP). The NNHP has complete coverage of the Navajo Nation, excluding Utah, at 1:100,000 scale; and coverage at 1:24,000 scale in the southwestern portion of the Navajo Nation. In Utah, the U.S. Fish & Wildlife Service's National Wetlands Inventory maps are not yet available for the Utah portion of the Navajo Nation, therefore, field surveys should be completed to determine whether wetlands are located close enough to the project site(s) to be impacted. For field surveys, wetlands identification and delineation methodology contained in the "Corps of Engineers Wetlands Delineation Manual" (Technical Report Y-87-1) should be used. When wetlands are present, potential impacts must be addressed in an environmental assessment and the Army Corps of Engineers, Phoenix office, must be contacted. For more information contact the Navajo Environmental Protection Agency’s Water Quality Program.

J. **Life Length of Data Request** – The information in this report was identified by the NNHP and NNDFW's biologists and computerized database, and is based on data available at the time of this response. If project planning takes more than two (02) years from the date of this response, verification of the information provided herein is necessary. It should not be regarded as the final statement on the occurrence of any species, nor should it substitute for on-site surveys. Also, because the NNDFW information is continually updated, any given information response is only wholly appropriate for its respective request.

K. **Ground Water Pumping** - Projects involving the ground water pumping for mining operations, agricultural projects or commercial wells (including municipal wells) will have to provide an analysis on the effects to surface water and address potential impacts on all aquatic and/or wetlands species listed below. NESL Species potentially impacted by ground water pumping: Carex specuicola (Navajo Sedge), Cirsium rydbergii (Rydberg's Thistle), Primula specuicola (Cave Primrose), Platanthera zothecina (Alcove Bog Orchid), Puccinellia parishii (Parish Alkali Grass), Zigadenus vaginatus (Alcove Death Camas), Perityle specuicola (Alcove Rock Daisy), Symphyotrichum welshii (Welsh’s American-aster), Coccyzus americanus (Yellow-billed Cuckoo), Empidonax traillii extimus (Southwestern Willow Flycatcher), Rana pipiens (Northern Leopard Frog), Gila cypha (Humpback Chub), Gila robusta (Roundtail Chub), Ptychocheilus lucius (Colorado Pikeminnow), Xyrauchen texanus (Razorback Sucker), Cinclus mexicanus (American Dipper), Speyeria nokomis (Western Seep Fritillary), Aechmophorus clarkia (Clark's Grebe), Ceryle alcyon (Belted Kingfisher), Dendroica petechia (Yellow Warbler), Porzana carolina (Sora), Catostomus discobolus (Bluehead Sucker), Cottus bairdi (Mottled Sculpin), Oxyloma kanabense (Kanab Ambersnail)

6. Personnel Contacts

Wildlife Manager
Sam Diswood
928.871.7062
sdiswood@nndfw.org

Zoologist
Chad Smith
928.871.7070
csmith@nndfw.org

Botanist
Nora Talkington
ntalkington@nndfw.org

Biological Reviewer
Pamela Kyselka
928.871.7065
pkyselka@nndfw.org

GIS Supervisor
Dexter D Prall
928.645.2898
prall@nndfw.org

Wildlife Tech
Sonja Detsoi
928.871.6472
sdetsoi@nndfw.org

7. Resources

National Environmental Policy Act

Navajo Endangered Species List:
http://nnhp.nndfw.org/endangered.htm

Species Accounts:
http://nnhp.nndfw.org/sp_account.htm

Biological Investigation Permit Application
http://nnhp.nndfw.org/study_permit.htm

Navajo Nation Sensitive Species List
http://nnhp.nndfw.org/study_permit.htm

Various Species Management and/or Document and Reports
http://nnhp.nndfw.org/docs_reps.htm

Consultant List
(Coming Soon)

Dexter D Prall, GIS Supervisor - Natural Heritage Program
Navajo Nation Department of Fish and Wildlife

NNHP
Navajo Natural Heritage Program

PO Box 1480
Window Rock, AZ
86515

P 928.871.6472
F 928.871.7603

http://nnhp.nndfw.org

Invoice for 16ccai101

8/23/2016

Please make payable to NAVAJO NATION

Project Measurements

Total Number of Quads:	2
Number of Additional Quads:	0
Cost ($75 plus $5 each additional Quad):	$75.00

(Please cut along the dashed line and return with payment)

Navajo Natural Heritage Program
PO Box 1480
Window Rock, AZ 86515

8/23/2016

PLEASE PAY THIS AMOUNT

Payment for Data Response 16ccai101 $75.00

Please make payable to NAVAJO NATION

The University of New Mexico

NATURAL HERITAGE
NEW MEXICO
Department of Biology
MSC03 2020
1 University of New Mexico
Albuquerque, NM 87131-0001
http://nhnm.unm.edu

8/22/2016

Dear Jesse,

Per the request you submitted on August 18, I searched our database for special status species with known occurrence near or within the NECR Mine Site and Church Rock Mill. The search did not return any such observations.

Please note that the quantity and quality of data collected by the Natural Heritage New Mexico Program (NHNM) are dependent on the research and observations of many individuals and organizations. In many cases, these data are not the result of comprehensive or site-specific field surveys; many natural areas in New Mexico have never been thoroughly surveyed. For these reasons, NHNM cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of New Mexico. NHNM reports summarize the existing information known to NMNHP at the time of the request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements of areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

Mitch

Mitch East
Assistant Data Manager
Natural Heritage New Mexico
UNM Biology Dept.
MSC03 2020
1 University of New Mexico
Albuquerque, NM 87131-0001
rayo@unm.edu, (505) 277-3822 xtn. 224

Supplemental Environmental Report for the United Nuclear Corporation Mill Site

Source Material License Amendment Request, McKinley County, New Mexico, USA

Appendix B

Communication with Agencies Regarding Noise Regulations

INTERA
GEOSCIENCE & ENGINEERING SOLUTIONS

INTERA Incorporated
6000 Uptown Boulevard NE, Suite 220
Albuquerque, New Mexico 87110 USA
505.246.1600

May 01, 2017

Delivered Via Registered US Mail To:

Mr. Anthony Dimas, Jr
County Manager, McKinley County
McKinley County Courthouse
207 West Hill Ave
Gallup, NM 87301

RE: Applicable Noise-Level Regulations or Requirements for the Northeast Church Rock Site Removal Action and the United Nuclear Corporation Site Remedial Action, McKinley County, New Mexico, USA

Dear Mr. Dimas:

On behalf of the United Nuclear Corporation (UNC), a wholly-owned, indirect subsidiary of the General Electric Company (GE), INTERA Incorporated (INTERA) is contacting McKinley County to determine any noise regulations or requirements that would be applicable to noise generated by construction activities for the subject actions.

In partial fulfillment of the work to be performed as stipulated in the Statement of Work for the Northeast Church Rock UNC Administrative Settlement Agreement and Order on Consent (CERCLA Docket No. 09-2015-02, US EPA Region 9), UNC is designing the removal action approved in the 2013 Record of Decision,[1] which consists of removing an estimated 1,000,000 cubic yards of mine waste from the Northeast Church Rock Mine Site (NECR Mine Site) and placing it in the tailings disposal facility at the UNC Mill Site. General information about the project and an update on the design are described in the attached Design Update (Attachment 1).

Construction activities involved with these actions include standard excavation, hauling, and grading equipment. We are contacting your agency to identify regulations or requirements for noise levels that would be applicable to the proposed actions. The construction activities associated with these actions include the construction or improvement of haul and access roads, temporary construction of stormwater controls at the NECR Mine Site, excavation and removal of mine waste material (including debris), transportation of mine waste material to the UNC Mill Site, construction of long-term stormwater control at the UNC Mill Site, construction of a repository at the UNC Mill Site, final grading and seeding of all disturbed areas, and stabilization improvements to Pipeline Arroyo.

[1] Environmental Protection Agency (EPA). 2013. Record of Decision United Nuclear Corporation Site McKinley County, New Mexico, Surface Soil Operable Unit OU02. EPA Region 6. March 29, 2013.

INTERA's staff is available to discuss this inquiry further with you or your staff. You can contact my colleague, Ms. Annelia Tinklenberg, with any questions or comments at atinklenberg@intera.com or at (505) 850-2839. To maintain our progress with the remedy design and environmental data collection, we would be most grateful for your feedback on any applicable regulations or requirements for sound levels **on or before Friday, May 19, 2017**.

Sincerely,

INTERA Incorporated

Peter Castiglia
VP, Southwest Mining & Water Resources

Enclosure:

Attachment 1: EPA Design Update: UNC Mill Site Repository for the NECR Mine Waste

CC (electronic copy):

Ms. Sara Jacobs, Project Manager, US EPA Region 9
Ms. Priscilla Tom, Community Involvement Coordinator, US EPA Region 9
Mr. Roy Blickwedel, Snr. Remedial Project Manager, UNC/GE

Design Update:
UNC Mill Site Repository for the NECR Mine Waste

U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • April 2017

Design Overview

Background

The United Nuclear Corporation (UNC) Mill Site and the Northeast Church Rock (NECR) Mine Site are located at the end of Route 566, about 17 miles northeast of Gallup, N.M. The U.S. Environmental Protection Agency (USEPA) has decided to clean up the NECR Mine Site by placing the mine waste in a repository at the nearby UNC Mill Site. USEPA is currently overseeing a design for this repository and this fact sheet describes the main activities included in the design.

Northeast Church Rock Mine Site

What is a repository?

A repository is a place for holding waste. The UNC Mill Site repository for the NECR mine waste will consist of an engineered cell with a top (cover) and bottom (liner) to keep contamination from further polluting the environment.

What is the repository design process?

The design is developed in two main phases. The first phase is to provide a general overview of how the repository will be constructed. This fact sheet provides a summary of that overview. The second phase is to provide a final design that includes detailed construction and technical specifications. USEPA expects the final design to be finished in 2018.

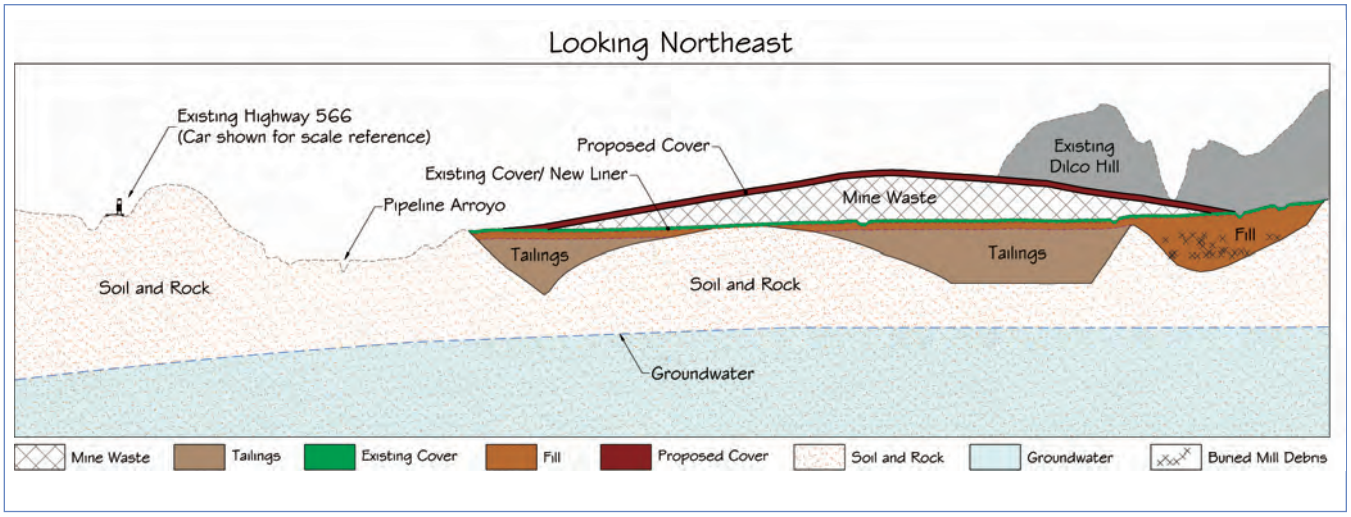


Figure 1: Overview of UNC Mill Site repository

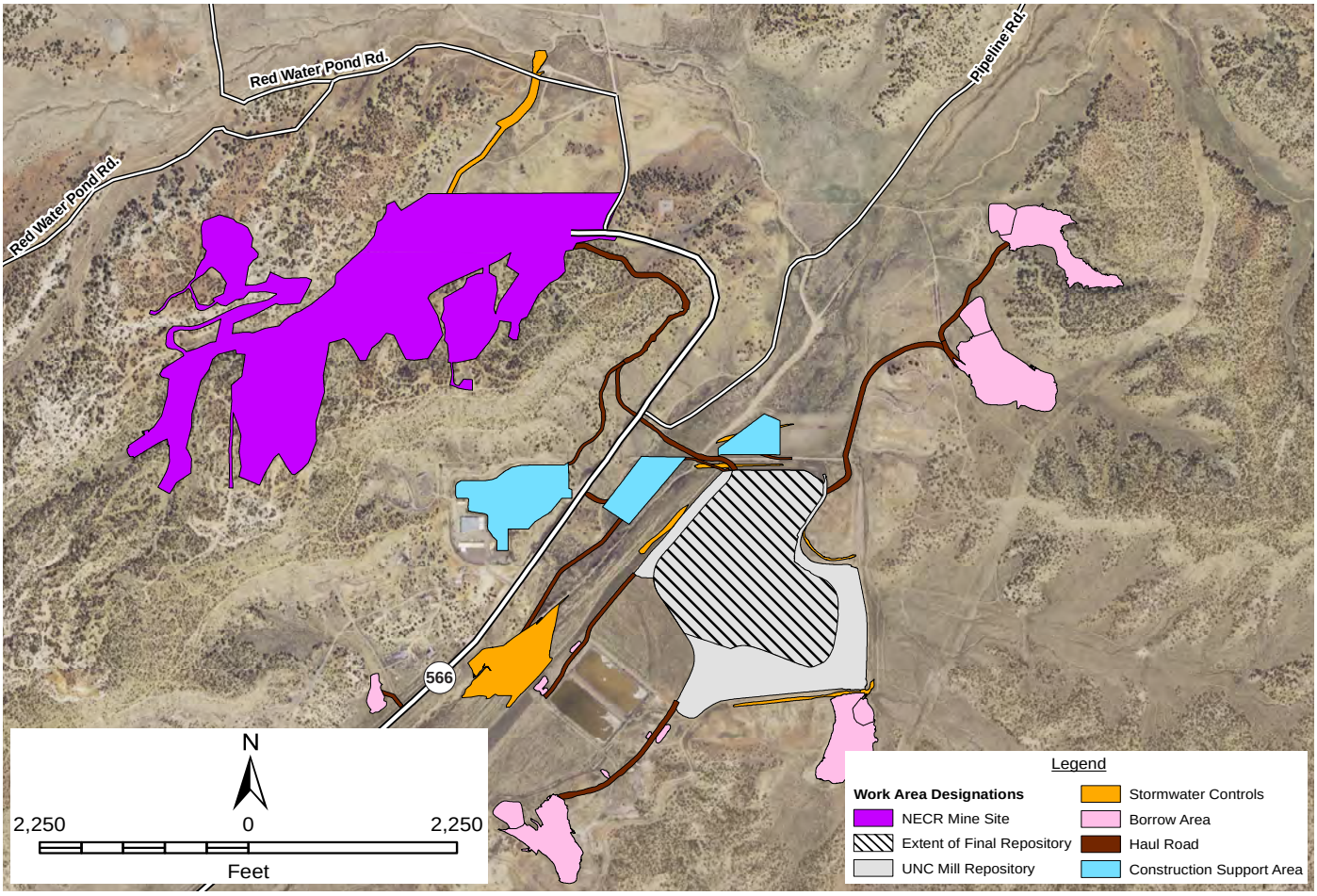


Figure 2: Work Areas at the NECR Mine Site and UNC Mill Site. Please note: conceptual design boundaries are subject to change dependent on survey results and completion of the final design.

Work Summary

Step 1: Digging and Hauling

NECR mine waste will be dug up from the purple work areas shown in Figure 2 (labeled as "NECR Mine Site" in legend). Covered trucks will haul the waste to the UNC Mill Site. The trucks will use new roads to stay off public roads as much as possible. The trucks will cross Route 566 at a stoplight just south of the Pipeline Road turnoff (see Figure 2). Each truck carries 30 cubic yards (about 42 tons) of waste.

The mine waste will be transported in haul trucks similar to the one shown.

Step 2: Placing Mine Waste and Covering

The mine waste will go in the repository, shown with black diagonal lines in Figure 2 (labeled as "Extent of Final Repository" in legend). The clay cover layer for the existing mill tailings cells (labeled as "Existing Cover/New Liner") will stay in place and serve as a liner for the mine waste. After placement of the mine waste on the liner, soil from the borrow areas will be mixed with rock to create an evapotranspiration cover (known as an "ET cover") that contains the mine waste and prevents exposure to people and the environment. The cover also prevents wind and water erosion, and keeps rainwater and snow melt out of the mine waste. Figure 3 shows how an ET cover works. While most water runs off the cover, water that goes into the cover comes back out by evaporation or by plant roots taking up the water from the clean cover (transpiration). The rock in the cover minimizes erosion from wind or water. The cover is designed to last at least 1,000 years.

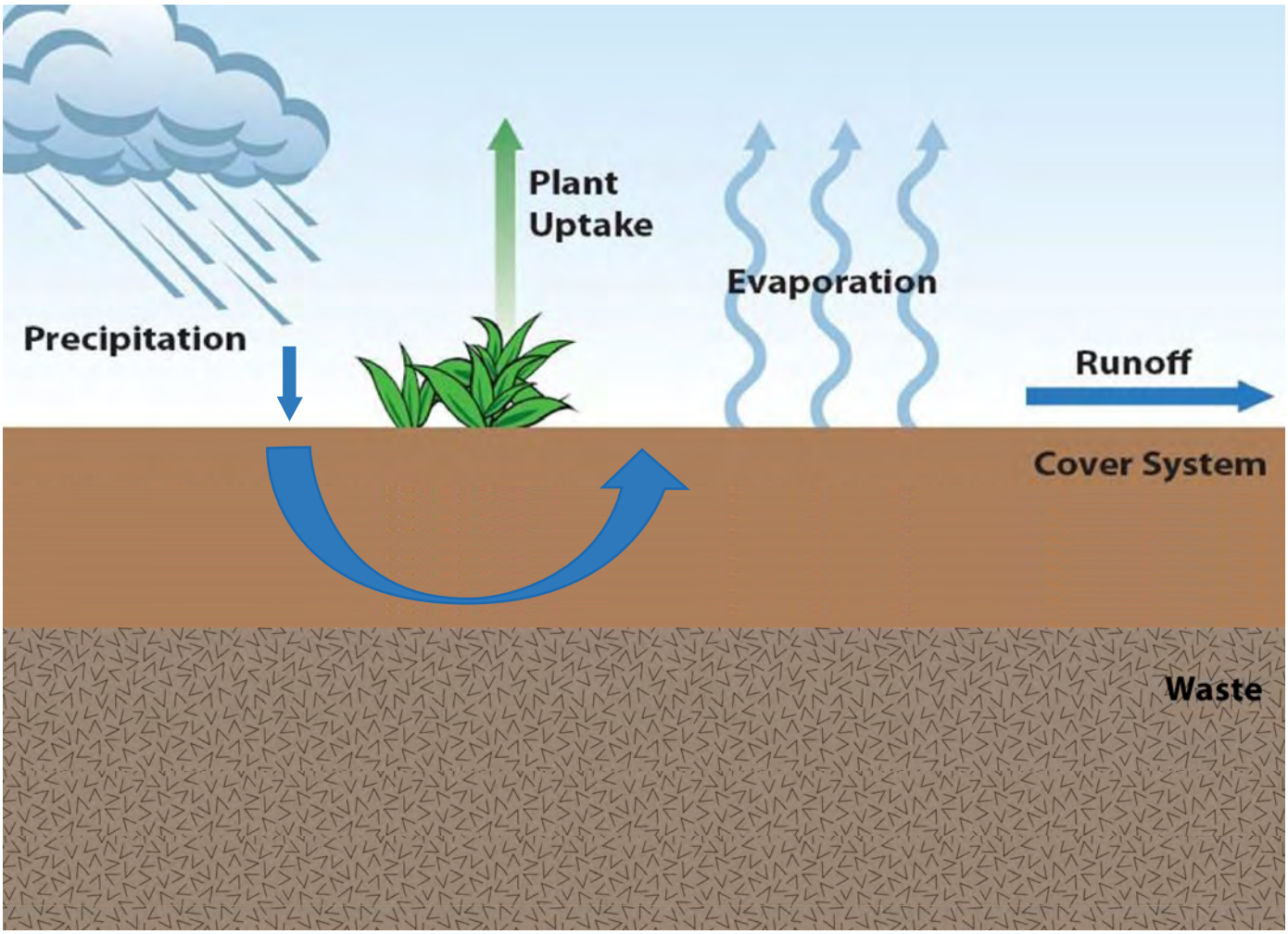


Figure 3: Conceptual Drawing of an ET Cover

Step 3: Installing Stormwater Controls

Stormwater management, or "stormwater controls," is an important part of designing the waste repository. Stormwater controls keep soil from running off the work areas and stops water from eroding the repository or nearby areas. Figure 2 shows stormwater controls at the site in orange (labeled as "Stormwater Controls" in legend). The Pipeline Arroyo, that runs along the West side of the repository, will have major stormwater controls. A large engineered structure, will direct water flow away from the repository, preventing erosion.

Step 4: Restoration at the NECR Mine Site

After removal of contaminated soil from the NECR Mine Site is finished, USEPA will then conduct "verification surveys" to ensure all mine waste has been properly removed and the area is safe. Once the area has been certified as safe, the site will be regraded and revegetated.

Examples of previous revegetation on the NECR mine site at six and eighteen months after reseeding.

Additional Information

Timeline

USEPA expects the final design of the repository to be finished in 2018. The company responsible for the pollution at the mine, UNC, which is owned by General Electric (GE), will then submit a request (a "license amendment") to the U.S. Nuclear Regulatory Commission (NRC) for construction. The NRC must approve the request before construction can begin. The NRC estimates that the license amendment process will take from two to five years. If NRC approves the request, USEPA would then negotiate a legal agreement with UNC/GE to construct the repository. Construction will take about four years.

Involved Parties

UNC will conduct the cleanup under the oversight of USEPA and a design review team.

The design review team includes staff from USEPA, Navajo Nation EPA, the New Mexico Environmental Department, the NRC and the U.S. Department of Energy. A local resident appointed by the Red Water Pond Road Community Association (whose members live close to the mine) is also part of the team. The resident receives technical assistance services through USEPA's Technical Assistance Services for Communities program.

More Resources

This fact sheet provides a general overview of the repository design. Other topics that are part of the design include cultural and biological surveys, traffic safety plans, air quality monitoring plans, principal threat waste plans, groundwater analysis, dust control and revegetation plans. For more information on the NECR repository design and construction plan, visit the technical document section of the NECR website found at: https://www.epa.gov/navajo-nation-uranium-cleanup/eastern-region-abandoned-uranium-mines

Contacts

Sara Jacobs
USEPA Remedial Project Manager
(415) 972 – 3564
jacobs.sara@epa.gov

Priscilla Tom
USEPA Community Involvement Coordinator
(505) 240 – 0093
tom.priscilla@epa.gov

Freida S. White
NNEPA Superfund
(928) 871 – 6859
freidawhite@navajo-nsn.gov

INTERA
GEOSCIENCE & ENGINEERING SOLUTIONS

INTERA Incorporated
6000 Uptown Boulevard NE, Suite 220
Albuquerque, New Mexico 87110 USA
505.246.1600

May 01, 2017

Delivered Via Registered US Mail To:

Ms. Freida White
Environmental Program Supervisor, Superfund Program
Waste Regulatory and Compliance Department
Navajo Nation Environmental Protection Agency
P.O. Box 2946
Window Rock, AZ 86515

RE: Applicable Noise-Level Regulations or Requirements for the Northeast Church Rock Site Removal Action and the United Nuclear Corporation Site Remedial Action, McKinley County, New Mexico, USA

Dear Ms. White:

On behalf of the United Nuclear Corporation (UNC), a wholly-owned, indirect subsidiary of the General Electric Company (GE), INTERA Incorporated (INTERA) is contacting the Navajo Nation Environmental Protection Agency (NNEPA) to determine any noise regulations or requirements that would be applicable to noise generated by construction activities for the subject actions.

In partial fulfillment of the work to be performed as stipulated in the Statement of Work for the Northeast Church Rock UNC Administrative Settlement Agreement and Order on Consent (CERCLA Docket No. 09-2015-02, US EPA Region 9), UNC is designing the removal action approved in the 2013 Record of Decision,[1] which consists of removing an estimated 1,000,000 cubic yards of mine waste from the Northeast Church Rock Mine Site (NECR Mine Site) and placing it in the tailings disposal facility at the UNC Mill Site. General information about the project and an update on the design are described in the attached Design Update (Attachment 1).

Construction activities involved with these actions include standard excavation, hauling, and grading equipment. We are contacting your agency to identify regulations or requirements for noise levels that would be applicable to the proposed actions. The construction activities associated with these actions include the construction or improvement of haul and access roads, temporary construction of stormwater controls at the NECR Mine Site, excavation and removal of mine waste material (including debris), transportation of mine waste material to the UNC Mill Site, construction of long-term stormwater control

[1] Environmental Protection Agency (EPA). 2013. Record of Decision United Nuclear Corporation Site McKinley County, New Mexico, Surface Soil Operable Unit OU02. EPA Region 6. March 29, 2013.

at the UNC Mill Site, construction of a repository at the UNC Mill Site, final grading and seeding of all disturbed areas, and stabilization improvements to Pipeline Arroyo.

INTERA's staff is available to discuss this inquiry further with you or your staff. You can contact my colleague, Ms. Annelia Tinklenberg, with any questions or comments at atinklenberg@intera.com or at (505) 850-2839. To maintain our progress with the remedy design and environmental data collection, we would be most grateful for your feedback on any applicable regulations or requirements for sound levels **on or before Friday, May 19, 2017**.

Sincerely,

INTERA Incorporated

Peter Castiglia
VP, Southwest Mining & Water Resources

Enclosure:

Attachment 1: EPA Design Update: UNC Mill Site Repository for the NECR Mine Waste

CC (electronic copy):

Ms. Sara Jacobs, Project Manager, US EPA Region 9
Ms. Priscilla Tom, Community Involvement Coordinator, US EPA Region 9
Mr. Roy Blickwedel, Snr. Remedial Project Manager, UNC/GE

Design Update:
UNC Mill Site Repository for the NECR Mine Waste

U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • April 2017

Design Overview

Background

The United Nuclear Corporation (UNC) Mill Site and the Northeast Church Rock (NECR) Mine Site are located at the end of Route 566, about 17 miles northeast of Gallup, N.M. The U.S. Environmental Protection Agency (USEPA) has decided to clean up the NECR Mine Site by placing the mine waste in a repository at the nearby UNC Mill Site. USEPA is currently overseeing a design for this repository and this fact sheet describes the main activities included in the design.

Northeast Church Rock Mine Site

What is a repository?

A repository is a place for holding waste. The UNC Mill Site repository for the NECR mine waste will consist of an engineered cell with a top (cover) and bottom (liner) to keep contamination from further polluting the environment.

What is the repository design process?

The design is developed in two main phases. The first phase is to provide a general overview of how the repository will be constructed. This fact sheet provides a summary of that overview. The second phase is to provide a final design that includes detailed construction and technical specifications. USEPA expects the final design to be finished in 2018.

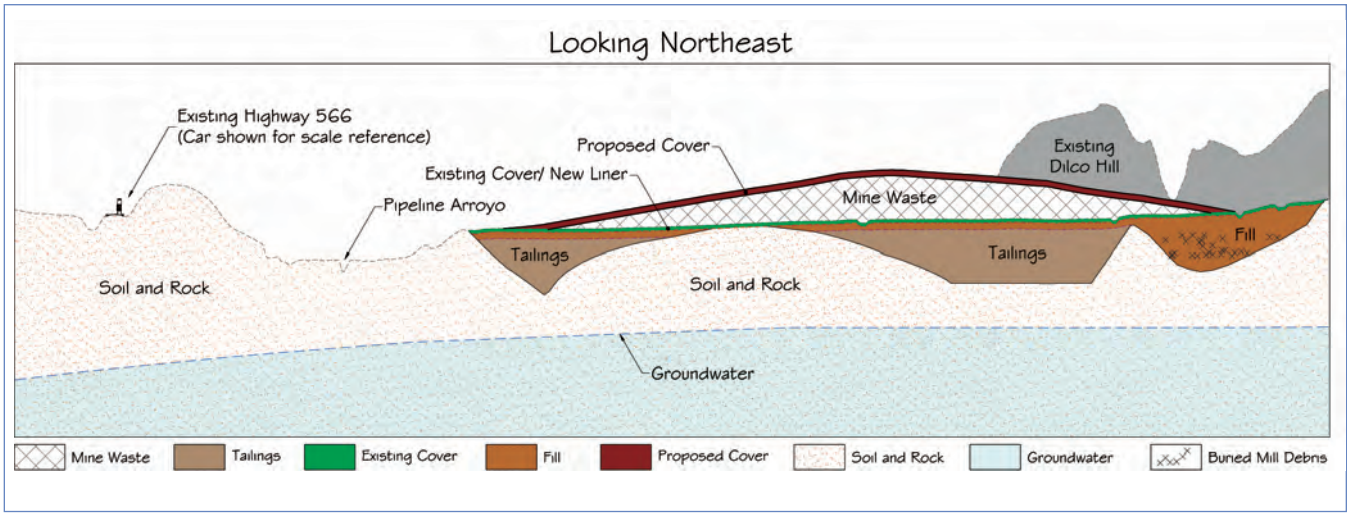


Figure 1: Overview of UNC Mill Site repository

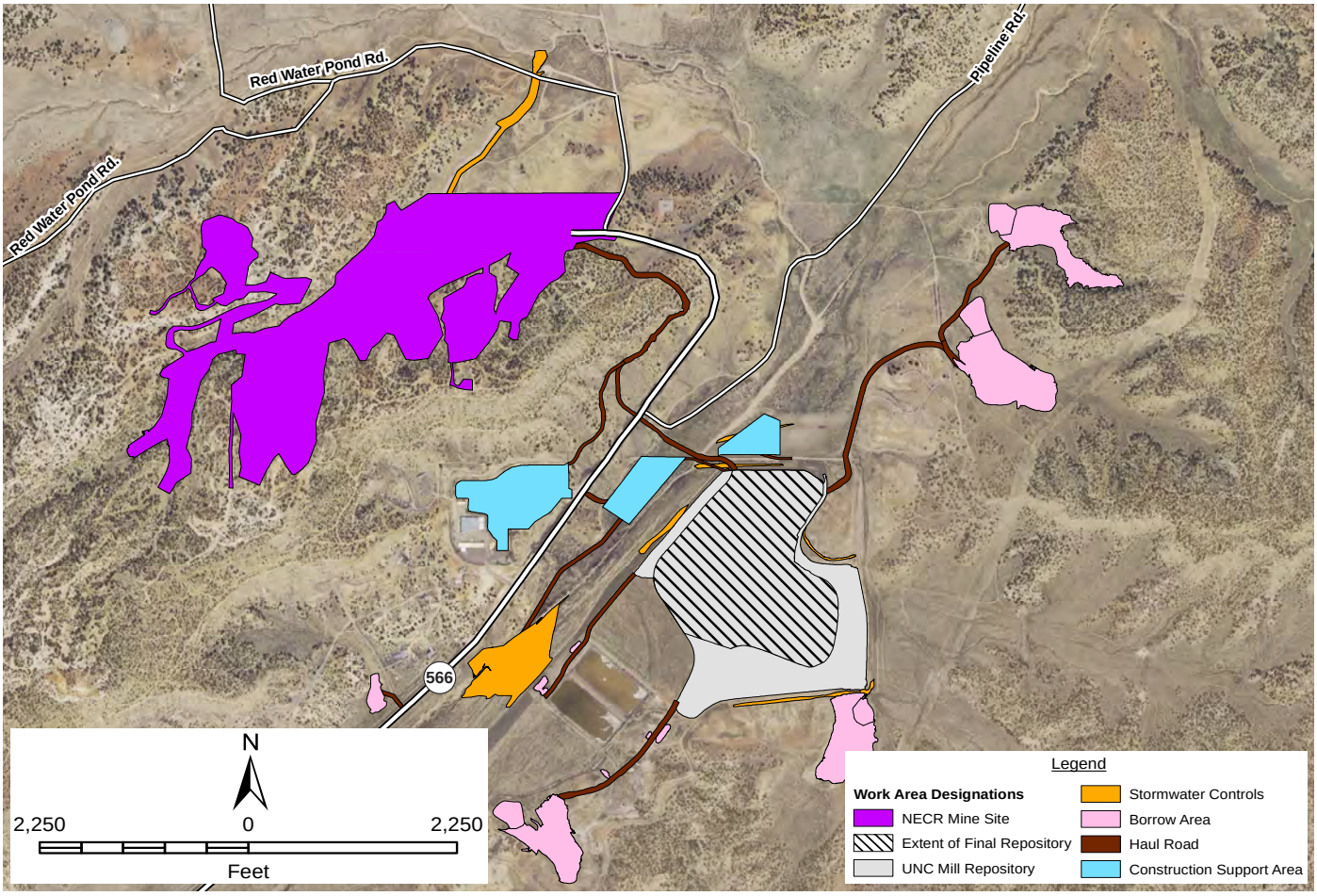


Figure 2: Work Areas at the NECR Mine Site and UNC Mill Site. Please note: conceptual design boundaries are subject to change dependent on survey results and completion of the final design.

Work Summary

Step 1: Digging and Hauling

NECR mine waste will be dug up from the purple work areas shown in Figure 2 (labeled as "NECR Mine Site" in legend). Covered trucks will haul the waste to the UNC Mill Site. The trucks will use new roads to stay off public roads as much as possible. The trucks will cross Route 566 at a stoplight just south of the Pipeline Road turnoff (see Figure 2). Each truck carries 30 cubic yards (about 42 tons) of waste.

The mine waste will be transported in haul trucks similar to the one shown.

Step 2: Placing Mine Waste and Covering

The mine waste will go in the repository, shown with black diagonal lines in Figure 2 (labeled as "Extent of Final Repository" in legend). The clay cover layer for the existing mill tailings cells (labeled as "Existing Cover/New Liner") will stay in place and serve as a liner for the mine waste. After placement of the mine waste on the liner, soil from the borrow areas will be mixed with rock to create an evapotranspiration cover (known as an "ET cover") that contains the mine waste and prevents exposure to people and the environment. The cover also prevents wind and water erosion, and keeps rainwater and snow melt out of the mine waste. Figure 3 shows how an ET cover works. While most water runs off the cover, water that goes into the cover comes back out by evaporation or by plant roots taking up the water from the clean cover (transpiration). The rock in the cover minimizes erosion from wind or water. The cover is designed to last at least 1,000 years.

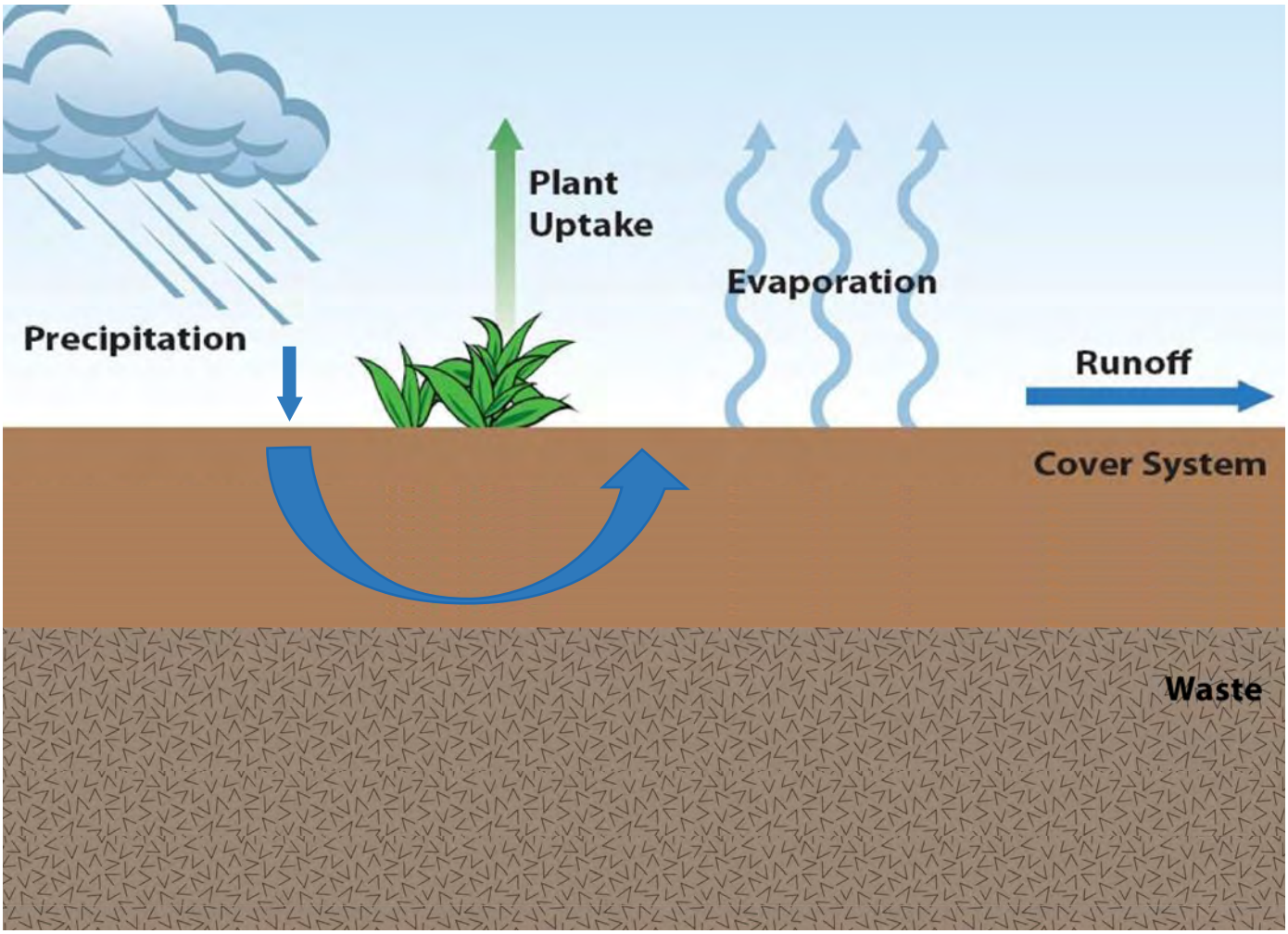


Figure 3: Conceptual Drawing of an ET Cover

Step 3: Installing Stormwater Controls

Stormwater management, or "stormwater controls," is an important part of designing the waste repository. Stormwater controls keep soil from running off the work areas and stops water from eroding the repository or nearby areas. Figure 2 shows stormwater controls at the site in orange (labeled as "Stormwater Controls" in legend). The Pipeline Arroyo, that runs along the West side of the repository, will have major stormwater controls. A large engineered structure, will direct water flow away from the repository, preventing erosion.

Step 4: Restoration at the NECR Mine Site

After removal of contaminated soil from the NECR Mine Site is finished, USEPA will then conduct "verification surveys" to ensure all mine waste has been properly removed and the area is safe. Once the area has been certified as safe, the site will be regraded and revegetated.

Examples of previous revegetation on the NECR mine site at six and eighteen months after reseeding.

Additional Information

Timeline

USEPA expects the final design of the repository to be finished in 2018. The company responsible for the pollution at the mine, UNC, which is owned by General Electric (GE), will then submit a request (a "license amendment") to the U.S. Nuclear Regulatory Commission (NRC) for construction. The NRC must approve the request before construction can begin. The NRC estimates that the license amendment process will take from two to five years. If NRC approves the request, USEPA would then negotiate a legal agreement with UNC/GE to construct the repository. Construction will take about four years.

Involved Parties

UNC will conduct the cleanup under the oversight of USEPA and a design review team.

The design review team includes staff from USEPA, Navajo Nation EPA, the New Mexico Environmental Department, the NRC and the U.S. Department of Energy. A local resident appointed by the Red Water Pond Road Community Association (whose members live close to the mine) is also part of the team. The resident receives technical assistance services through USEPA's Technical Assistance Services for Communities program.

More Resources

This fact sheet provides a general overview of the repository design. Other topics that are part of the design include cultural and biological surveys, traffic safety plans, air quality monitoring plans, principal threat waste plans, groundwater analysis, dust control and revegetation plans. For more information on the NECR repository design and construction plan, visit the technical document section of the NECR website found at: https://www.epa.gov/navajo-nation-uranium-cleanup/eastern-region-abandoned-uranium-mines

Contacts

Sara Jacobs
USEPA Remedial Project Manager
(415) 972 – 3564
jacobs.sara@epa.gov

Priscilla Tom
USEPA Community Involvement Coordinator
(505) 240 – 0093
tom.priscilla@epa.gov

Freida S. White
NNEPA Superfund
(928) 871 – 6859
freidawhite@navajo-nsn.gov

INTERA
GEOSCIENCE & ENGINEERING SOLUTIONS

INTERA Incorporated
6000 Uptown Boulevard NE, Suite 220
Albuquerque, New Mexico 87110 USA
505.246.1600

May 01, 2017

Delivered Via Registered US Mail To:

Mr. Johnnie Henry
President, Navajo Nation Churchrock Chapter
Churchrock Chapter
P.O. Box 549
Churchrock, NM 87311

RE: Applicable Noise-Level Regulations or Requirements for the Northeast Church Rock Site Removal Action and the United Nuclear Corporation Site Remedial Action, McKinley County, New Mexico, USA

Dear Mr. Henry:

On behalf of the United Nuclear Corporation (UNC), a wholly-owned, indirect subsidiary of the General Electric Company (GE), INTERA Incorporated (INTERA) is contacting the Navajo Nation Churchrock Chapter to determine any noise regulations or requirements that would be applicable to noise generated by construction activities for the subject actions.

In partial fulfillment of the work to be performed as stipulated in the Statement of Work for the Northeast Church Rock UNC Administrative Settlement Agreement and Order on Consent (CERCLA Docket No. 09-2015-02, US EPA Region 9), UNC is designing the removal action approved in the 2013 Record of Decision,[1] which consists of removing an estimated 1,000,000 cubic yards of mine waste from the Northeast Church Rock Mine Site (NECR Mine Site) and placing it in the tailings disposal facility at the UNC Mill Site. General information about the project and an update on the design are described in the attached Design Update (Attachment 1).

Construction activities involved with these actions include standard excavation, hauling, and grading equipment. We are contacting your agency to identify regulations or requirements for noise levels that would be applicable to the proposed actions. The construction activities associated with these actions include the construction or improvement of haul and access roads, temporary construction of stormwater controls at the NECR Mine Site, excavation and removal of mine waste material (including debris), transportation of mine waste material to the UNC Mill Site, construction of long-term stormwater control at the UNC Mill Site, construction of a repository at the UNC Mill Site, final grading and seeding of all disturbed areas, and stabilization improvements to Pipeline Arroyo.

[1] Environmental Protection Agency (EPA). 2013. Record of Decision United Nuclear Corporation Site McKinley County, New Mexico, Surface Soil Operable Unit OU02. EPA Region 6. March 29, 2013.

INTERA's staff is available to discuss this inquiry further with you or your staff. You can contact my colleague, Ms. Annelia Tinklenberg, with any questions or comments at atinklenberg@intera.com or at (505) 850-2839. To maintain our progress with the remedy design and environmental data collection, we would be most grateful for your feedback on any applicable regulations or requirements for sound levels **on or before Friday, May 19, 2017**.

Sincerely,

INTERA Incorporated

Peter Castiglia
VP, Southwest Mining & Water Resources

Enclosure:

Attachment 1: EPA Design Update: UNC Mill Site Repository for the NECR Mine Waste

CC (electronic copy):

Ms. Sara Jacobs, Project Manager, US EPA Region 9
Ms. Priscilla Tom, Community Involvement Coordinator, US EPA Region 9
Mr. Roy Blickwedel, Snr. Remedial Project Manager, UNC/GE

Design Update:
UNC Mill Site Repository for the NECR Mine Waste

U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • April 2017

Design Overview

Background

The United Nuclear Corporation (UNC) Mill Site and the Northeast Church Rock (NECR) Mine Site are located at the end of Route 566, about 17 miles northeast of Gallup, N.M. The U.S. Environmental Protection Agency (USEPA) has decided to clean up the NECR Mine Site by placing the mine waste in a repository at the nearby UNC Mill Site. USEPA is currently overseeing a design for this repository and this fact sheet describes the main activities included in the design.

Northeast Church Rock Mine Site

What is a repository?

A repository is a place for holding waste. The UNC Mill Site repository for the NECR mine waste will consist of an engineered cell with a top (cover) and bottom (liner) to keep contamination from further polluting the environment.

What is the repository design process?

The design is developed in two main phases. The first phase is to provide a general overview of how the repository will be constructed. This fact sheet provides a summary of that overview. The second phase is to provide a final design that includes detailed construction and technical specifications. USEPA expects the final design to be finished in 2018.

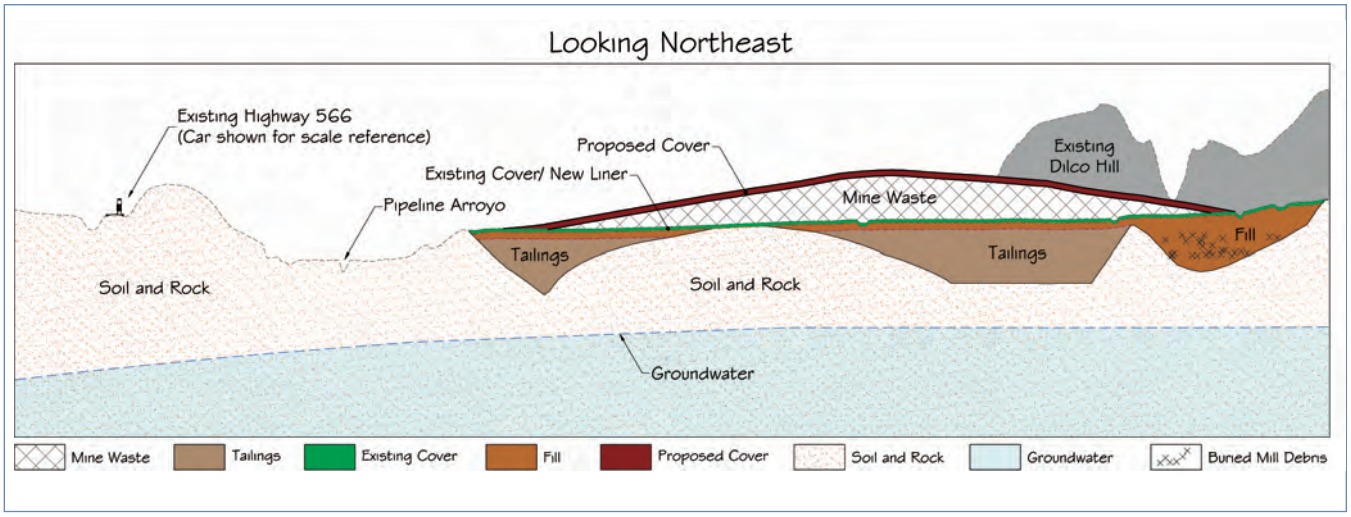


Figure 1: Overview of UNC Mill Site repository

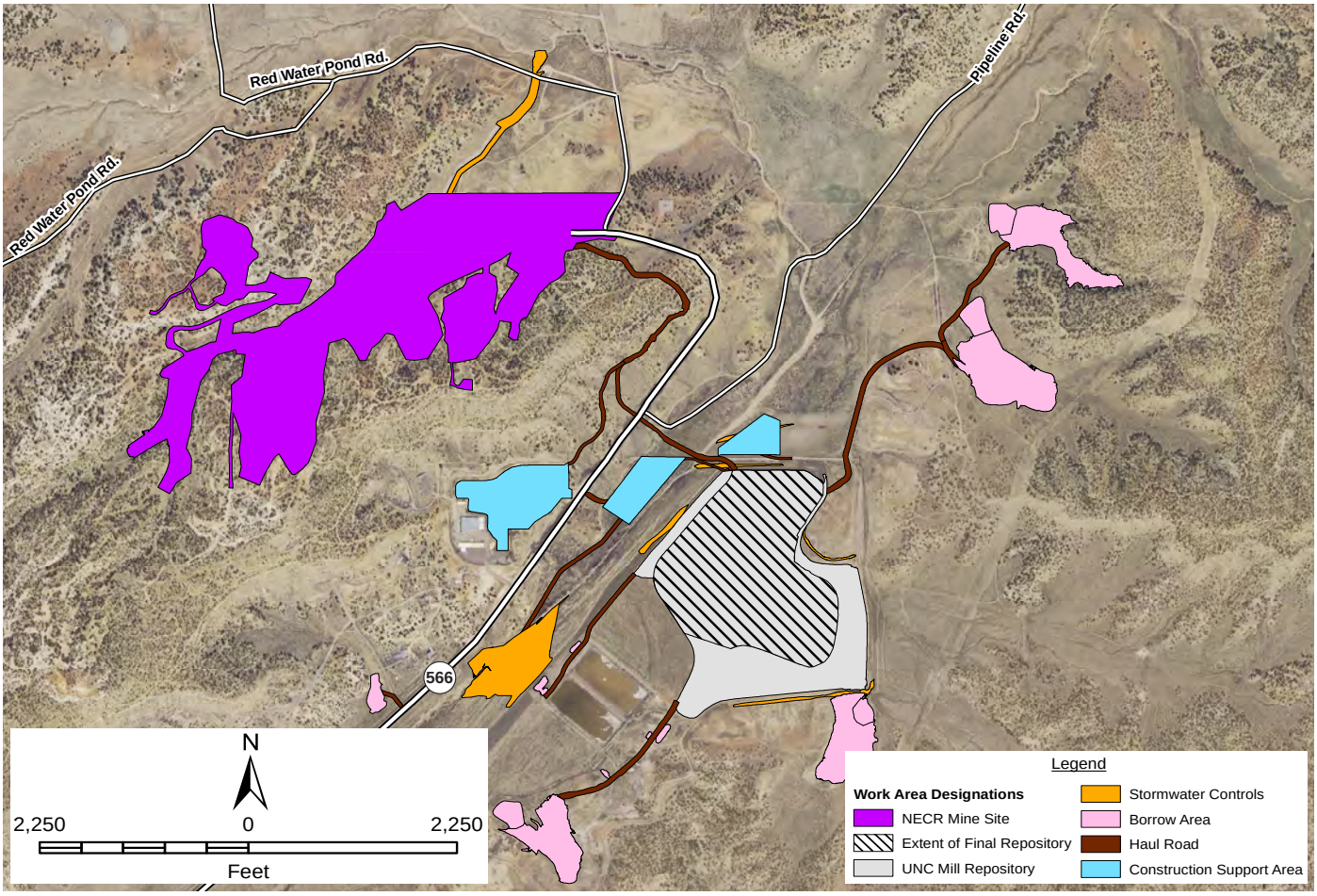


Figure 2: Work Areas at the NECR Mine Site and UNC Mill Site. Please note: conceptual design boundaries are subject to change dependent on survey results and completion of the final design.

Work Summary

Step 1: Digging and Hauling

NECR mine waste will be dug up from the purple work areas shown in Figure 2 (labeled as "NECR Mine Site" in legend). Covered trucks will haul the waste to the UNC Mill Site. The trucks will use new roads to stay off public roads as much as possible. The trucks will cross Route 566 at a stoplight just south of the Pipeline Road turnoff (see Figure 2). Each truck carries 30 cubic yards (about 42 tons) of waste.

The mine waste will be transported in haul trucks similar to the one shown.

Step 2: Placing Mine Waste and Covering

The mine waste will go in the repository, shown with black diagonal lines in Figure 2 (labeled as "Extent of Final Repository" in legend). The clay cover layer for the existing mill tailings cells (labeled as "Existing Cover/New Liner") will stay in place and serve as a liner for the mine waste. After placement of the mine waste on the liner, soil from the borrow areas will be mixed with rock to create an evapotranspiration cover (known as an "ET cover") that contains the mine waste and prevents exposure to people and the environment. The cover also prevents wind and water erosion, and keeps rainwater and snow melt out of the mine waste. Figure 3 shows how an ET cover works. While most water runs off the cover, water that goes into the cover comes back out by evaporation or by plant roots taking up the water from the clean cover (transpiration). The rock in the cover minimizes erosion from wind or water. The cover is designed to last at least 1,000 years.

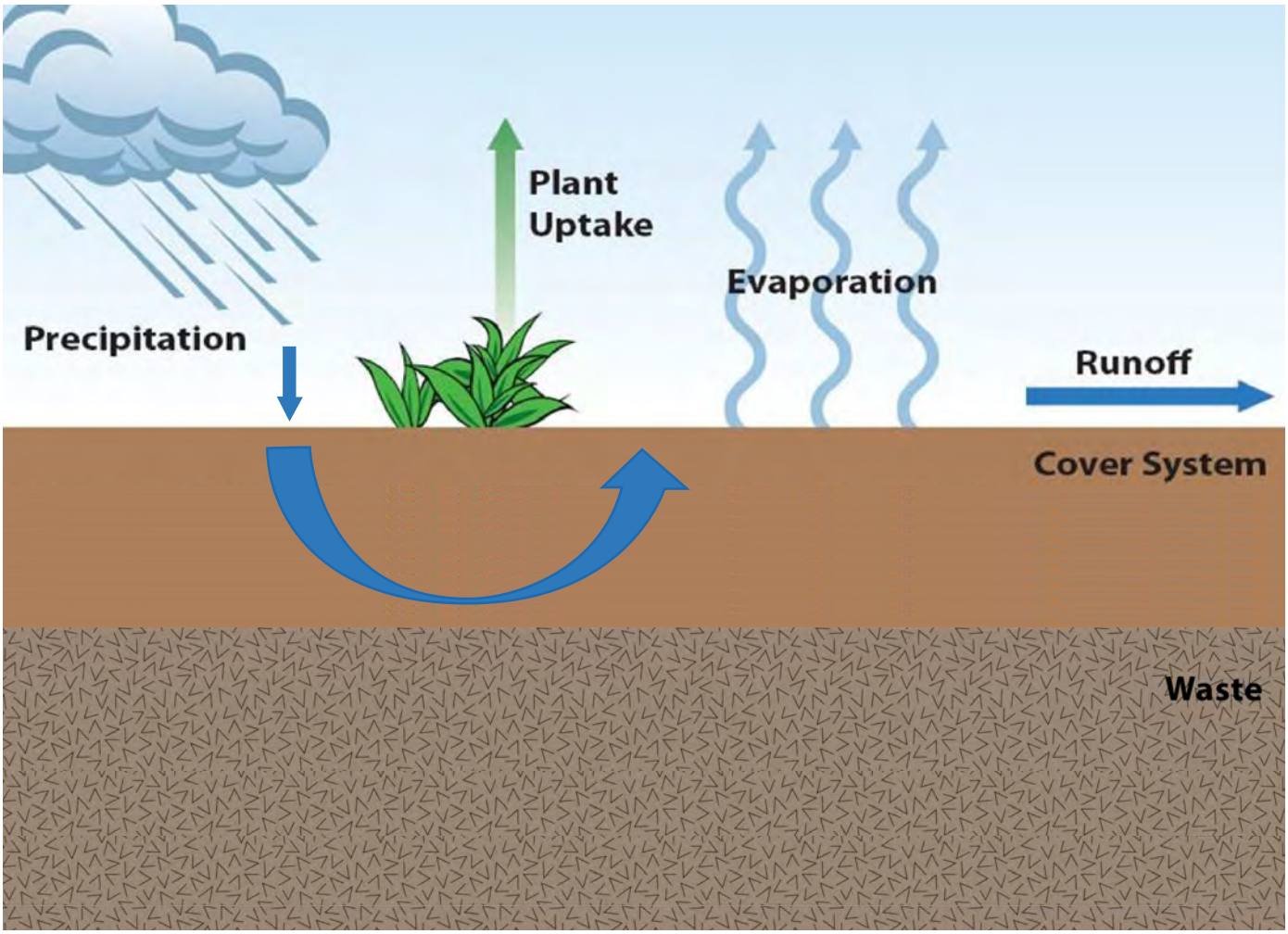


Figure 3: Conceptual Drawing of an ET Cover

Step 3: Installing Stormwater Controls

Stormwater management, or "stormwater controls," is an important part of designing the waste repository. Stormwater controls keep soil from running off the work areas and stops water from eroding the repository or nearby areas. Figure 2 shows stormwater controls at the site in orange (labeled as "Stormwater Controls" in legend). The Pipeline Arroyo, that runs along the West side of the repository, will have major stormwater controls. A large engineered structure, will direct water flow away from the repository, preventing erosion.

Step 4: Restoration at the NECR Mine Site

After removal of contaminated soil from the NECR Mine Site is finished, USEPA will then conduct "verification surveys" to ensure all mine waste has been properly removed and the area is safe. Once the area has been certified as safe, the site will be regraded and revegetated.

Examples of previous revegetation on the NECR mine site at six and eighteen months after reseeding.

Additional Information

Timeline

USEPA expects the final design of the repository to be finished in 2018. The company responsible for the pollution at the mine, UNC, which is owned by General Electric (GE), will then submit a request (a "license amendment") to the U.S. Nuclear Regulatory Commission (NRC) for construction. The NRC must approve the request before construction can begin. The NRC estimates that the license amendment process will take from two to five years. If NRC approves the request, USEPA would then negotiate a legal agreement with UNC/GE to construct the repository. Construction will take about four years.

Involved Parties

UNC will conduct the cleanup under the oversight of USEPA and a design review team.

The design review team includes staff from USEPA, Navajo Nation EPA, the New Mexico Environmental Department, the NRC and the U.S. Department of Energy. A local resident appointed by the Red Water Pond Road Community Association (whose members live close to the mine) is also part of the team. The resident receives technical assistance services through USEPA's Technical Assistance Services for Communities program.

More Resources

This fact sheet provides a general overview of the repository design. Other topics that are part of the design include cultural and biological surveys, traffic safety plans, air quality monitoring plans, principal threat waste plans, groundwater analysis, dust control and revegetation plans. For more information on the NECR repository design and construction plan, visit the technical document section of the NECR website found at: https://www.epa.gov/navajo-nation-uranium-cleanup/eastern-region-abandoned-uranium-mines

Contacts

Sara Jacobs
USEPA Remedial Project Manager
(415) 972 – 3564
jacobs.sara@epa.gov

Priscilla Tom
USEPA Community Involvement Coordinator
(505) 240 – 0093
tom.priscilla@epa.gov

Freida S. White
NNEPA Superfund
(928) 871 – 6859
freidawhite@navajo-nsn.gov

INTERA
GEOSCIENCE & ENGINEERING SOLUTIONS

INTERA Incorporated
6000 Uptown Boulevard NE, Suite 220
Albuquerque, New Mexico 87110 USA
505.246.1600

May 01, 2017

Delivered Via Registered US Mail To:

Mr. Harrison Plummer
President, Navajo Nation Coyote Canyon Chapter
Coyote Canyon Chapter
P.O. Box 257
Brimhall, NM 87310

RE: Applicable Noise-Level Regulations or Requirements for the Northeast Church Rock Site Removal Action and the United Nuclear Corporation Site Remedial Action, McKinley County, New Mexico, USA

Dear Mr. Plummer:

On behalf of the United Nuclear Corporation (UNC), a wholly-owned, indirect subsidiary of the General Electric Company (GE), INTERA Incorporated (INTERA) is contacting the Navajo Nation Coyote Canyon Chapter to determine any noise regulations or requirements that would be applicable to noise generated by construction activities for the subject actions.

In partial fulfillment of the work to be performed as stipulated in the Statement of Work for the Northeast Church Rock UNC Administrative Settlement Agreement and Order on Consent (CERCLA Docket No. 09-2015-02, US EPA Region 9), UNC is designing the removal action approved in the 2013 Record of Decision,[1] which consists of removing an estimated 1,000,000 cubic yards of mine waste from the Northeast Church Rock Mine Site (NECR Mine Site) and placing it in the tailings disposal facility at the UNC Mill Site. General information about the project and an update on the design are described in the attached Design Update (Attachment 1).

Construction activities involved with these actions include standard excavation, hauling, and grading equipment. We are contacting your agency to identify regulations or requirements for noise levels that would be applicable to the proposed actions. The construction activities associated with these actions include the construction or improvement of haul and access roads, temporary construction of stormwater controls at the NECR Mine Site, excavation and removal of mine waste material (including debris), transportation of mine waste material to the UNC Mill Site, construction of long-term stormwater control at the UNC Mill Site, construction of a repository at the UNC Mill Site, final grading and seeding of all disturbed areas, and stabilization improvements to Pipeline Arroyo.

[1] Environmental Protection Agency (EPA). 2013. Record of Decision United Nuclear Corporation Site McKinley County, New Mexico, Surface Soil Operable Unit OU02. EPA Region 6. March 29, 2013.

INTERA's staff is available to discuss this inquiry further with you or your staff. You can contact my colleague, Ms. Annelia Tinklenberg, with any questions or comments at atinklenberg@intera.com or at (505) 850-2839. To maintain our progress with the remedy design and environmental data collection, we would be most grateful for your feedback on any applicable regulations or requirements for sound levels **on or before Friday, May 19, 2017**.

Sincerely,

INTERA Incorporated

Peter Castiglia
VP, Southwest Mining & Water Resources

Enclosure:

Attachment 1: EPA Design Update: UNC Mill Site Repository for the NECR Mine Waste

CC (electronic copy):

Ms. Sara Jacobs, Project Manager, US EPA Region 9
Ms. Priscilla Tom, Community Involvement Coordinator, US EPA Region 9
Mr. Roy Blickwedel, Snr. Remedial Project Manager, UNC/GE

Design Update:
UNC Mill Site Repository for the NECR Mine Waste

U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • April 2017

Design Overview

Background

The United Nuclear Corporation (UNC) Mill Site and the Northeast Church Rock (NECR) Mine Site are located at the end of Route 566, about 17 miles northeast of Gallup, N.M. The U.S. Environmental Protection Agency (USEPA) has decided to clean up the NECR Mine Site by placing the mine waste in a repository at the nearby UNC Mill Site. USEPA is currently overseeing a design for this repository and this fact sheet describes the main activities included in the design.

Northeast Church Rock Mine Site

What is a repository?

A repository is a place for holding waste. The UNC Mill Site repository for the NECR mine waste will consist of an engineered cell with a top (cover) and bottom (liner) to keep contamination from further polluting the environment.

What is the repository design process?

The design is developed in two main phases. The first phase is to provide a general overview of how the repository will be constructed. This fact sheet provides a summary of that overview. The second phase is to provide a final design that includes detailed construction and technical specifications. USEPA expects the final design to be finished in 2018.

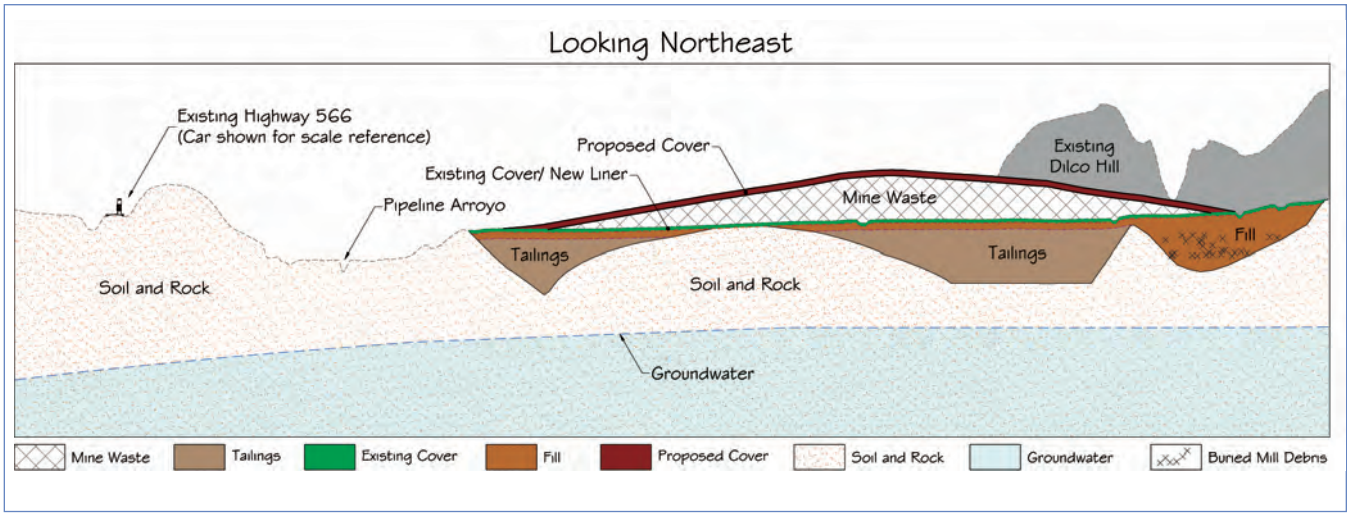


Figure 1: Overview of UNC Mill Site repository

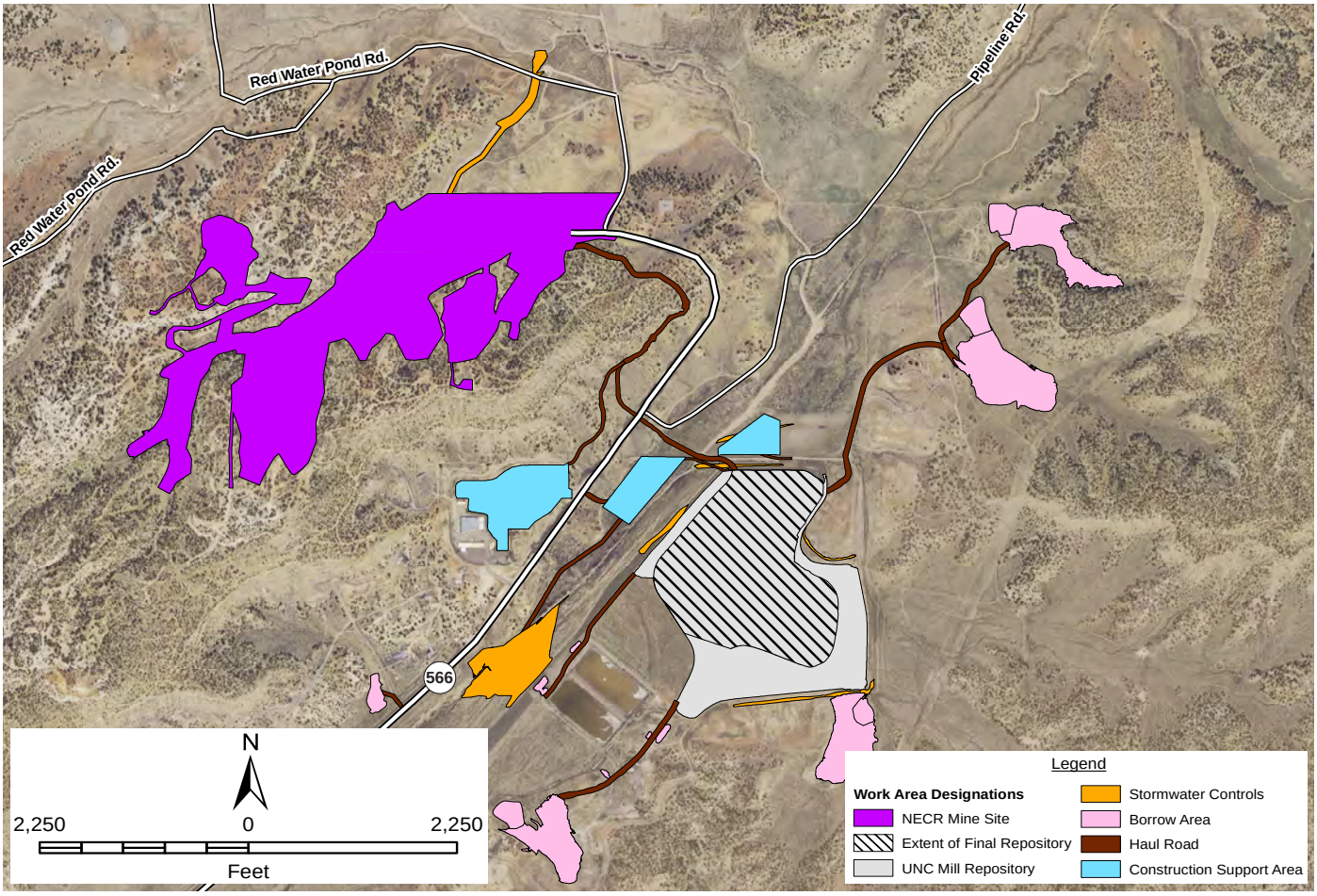


Figure 2: Work Areas at the NECR Mine Site and UNC Mill Site. Please note: conceptual design boundaries are subject to change dependent on survey results and completion of the final design.

Work Summary

Step 1: Digging and Hauling

NECR mine waste will be dug up from the purple work areas shown in Figure 2 (labeled as "NECR Mine Site" in legend). Covered trucks will haul the waste to the UNC Mill Site. The trucks will use new roads to stay off public roads as much as possible. The trucks will cross Route 566 at a stoplight just south of the Pipeline Road turnoff (see Figure 2). Each truck carries 30 cubic yards (about 42 tons) of waste.

The mine waste will be transported in haul trucks similar to the one shown.

Step 2: Placing Mine Waste and Covering

The mine waste will go in the repository, shown with black diagonal lines in Figure 2 (labeled as "Extent of Final Repository" in legend). The clay cover layer for the existing mill tailings cells (labeled as "Existing Cover/New Liner") will stay in place and serve as a liner for the mine waste. After placement of the mine waste on the liner, soil from the borrow areas will be mixed with rock to create an evapotranspiration cover (known as an "ET cover") that contains the mine waste and prevents exposure to people and the environment. The cover also prevents wind and water erosion, and keeps rainwater and snow melt out of the mine waste. Figure 3 shows how an ET cover works. While most water runs off the cover, water that goes into the cover comes back out by evaporation or by plant roots taking up the water from the clean cover (transpiration). The rock in the cover minimizes erosion from wind or water. The cover is designed to last at least 1,000 years.

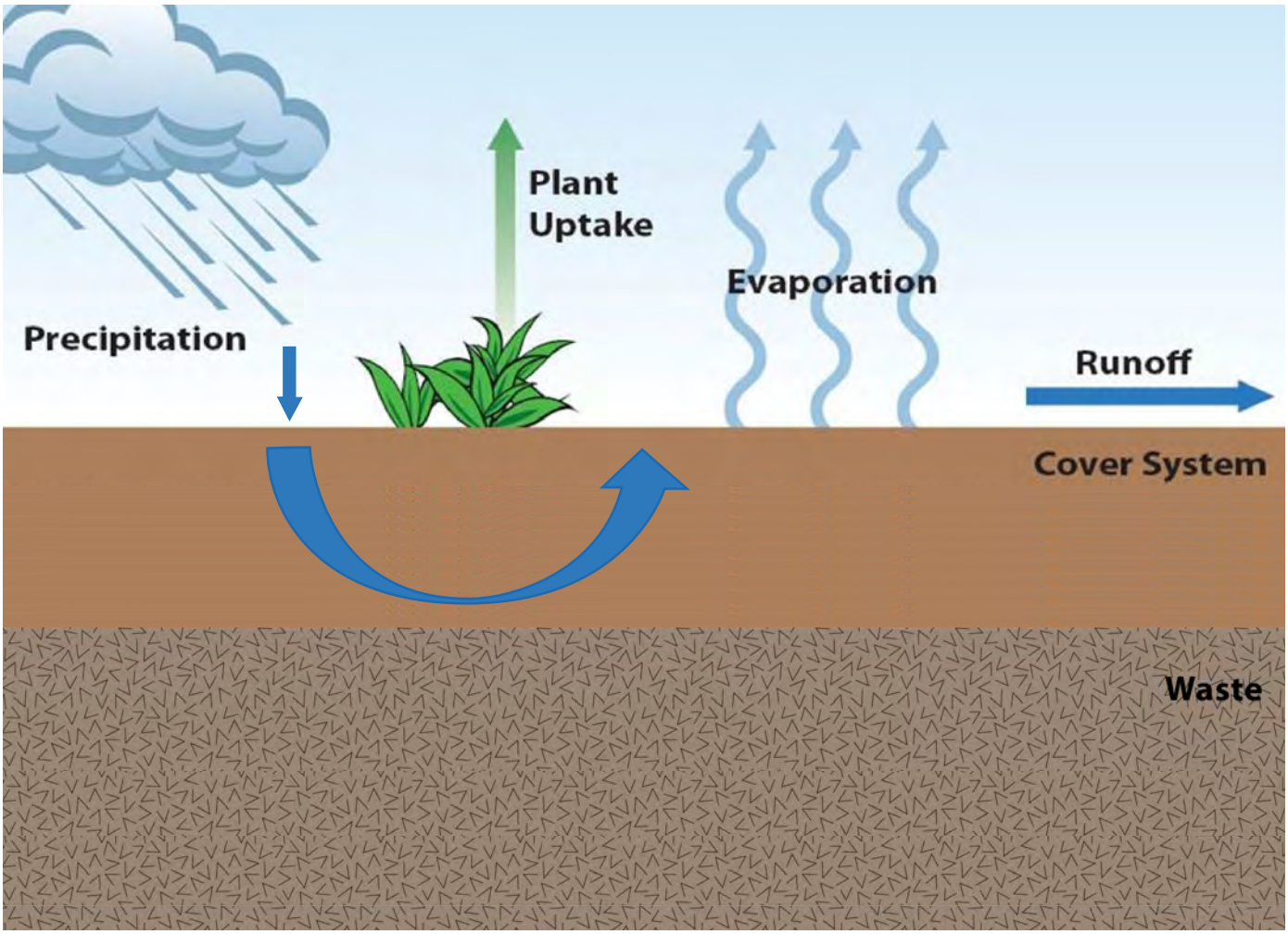


Figure 3: Conceptual Drawing of an ET Cover

Step 3: Installing Stormwater Controls

Stormwater management, or "stormwater controls," is an important part of designing the waste repository. Stormwater controls keep soil from running off the work areas and stops water from eroding the repository or nearby areas. Figure 2 shows stormwater controls at the site in orange (labeled as "Stormwater Controls" in legend). The Pipeline Arroyo, that runs along the West side of the repository, will have major stormwater controls. A large engineered structure, will direct water flow away from the repository, preventing erosion.

Step 4: Restoration at the NECR Mine Site

After removal of contaminated soil from the NECR Mine Site is finished, USEPA will then conduct "verification surveys" to ensure all mine waste has been properly removed and the area is safe. Once the area has been certified as safe, the site will be regraded and revegetated.

Examples of previous revegetation on the NECR mine site at six and eighteen months after reseeding.

Additional Information

Timeline

USEPA expects the final design of the repository to be finished in 2018. The company responsible for the pollution at the mine, UNC, which is owned by General Electric (GE), will then submit a request (a "license amendment") to the U.S. Nuclear Regulatory Commission (NRC) for construction. The NRC must approve the request before construction can begin. The NRC estimates that the license amendment process will take from two to five years. If NRC approves the request, USEPA would then negotiate a legal agreement with UNC/GE to construct the repository. Construction will take about four years.

Involved Parties

UNC will conduct the cleanup under the oversight of USEPA and a design review team.

The design review team includes staff from USEPA, Navajo Nation EPA, the New Mexico Environmental Department, the NRC and the U.S. Department of Energy. A local resident appointed by the Red Water Pond Road Community Association (whose members live close to the mine) is also part of the team. The resident receives technical assistance services through USEPA's Technical Assistance Services for Communities program.

More Resources

This fact sheet provides a general overview of the repository design. Other topics that are part of the design include cultural and biological surveys, traffic safety plans, air quality monitoring plans, principal threat waste plans, groundwater analysis, dust control and revegetation plans. For more information on the NECR repository design and construction plan, visit the technical document section of the NECR website found at: https://www.epa.gov/navajo-nation-uranium-cleanup/eastern-region-abandoned-uranium-mines

Contacts

Sara Jacobs
USEPA Remedial Project Manager
(415) 972 – 3564
jacobs.sara@epa.gov

Priscilla Tom
USEPA Community Involvement Coordinator
(505) 240 – 0093
tom.priscilla@epa.gov

Freida S. White
NNEPA Superfund
(928) 871 – 6859
freidawhite@navajo-nsn.gov

INTERA
GEOSCIENCE & ENGINEERING SOLUTIONS

INTERA Incorporated
6000 Uptown Boulevard NE, Suite 220
Albuquerque, New Mexico 87110 USA
505.246.1600

May 01, 2017

Delivered Via Registered US Mail To:

Mr. Willie Norton
President, Navajo Nation Pinedale Chapter
Pinedale Chapter
P.O. Box 03
Churchrock, NM 87311

RE: Applicable Noise-Level Regulations or Requirements for the Northeast Church Rock Site Removal Action and the United Nuclear Corporation Site Remedial Action, McKinley County, New Mexico, USA

Dear Mr. Norton:

On behalf of the United Nuclear Corporation (UNC), a wholly-owned, indirect subsidiary of the General Electric Company (GE), INTERA Incorporated (INTERA) is contacting the Navajo Nation Pinedale Chapter to determine any noise regulations or requirements that would be applicable to noise generated by construction activities for the subject actions.

In partial fulfillment of the work to be performed as stipulated in the Statement of Work for the Northeast Church Rock UNC Administrative Settlement Agreement and Order on Consent (CERCLA Docket No. 09-2015-02, US EPA Region 9), UNC is designing the removal action approved in the 2013 Record of Decision,[1] which consists of removing an estimated 1,000,000 cubic yards of mine waste from the Northeast Church Rock Mine Site (NECR Mine Site) and placing it in the tailings disposal facility at the UNC Mill Site. General information about the project and an update on the design are described in the attached Design Update (Attachment 1).

Construction activities involved with these actions include standard excavation, hauling, and grading equipment. We are contacting your agency to identify regulations or requirements for noise levels that would be applicable to the proposed actions. The construction activities associated with these actions include the construction or improvement of haul and access roads, temporary construction of stormwater controls at the NECR Mine Site, excavation and removal of mine waste material (including debris), transportation of mine waste material to the UNC Mill Site, construction of long-term stormwater control at the UNC Mill Site, construction of a repository at the UNC Mill Site, final grading and seeding of all disturbed areas, and stabilization improvements to Pipeline Arroyo.

[1] Environmental Protection Agency (EPA). 2013. Record of Decision United Nuclear Corporation Site McKinley County, New Mexico, Surface Soil Operable Unit OU02. EPA Region 6. March 29, 2013.

INTERA's staff is available to discuss this inquiry further with you or your staff. You can contact my colleague, Ms. Annelia Tinklenberg, with any questions or comments at atinklenberg@intera.com or at (505) 850-2839. To maintain our progress with the remedy design and environmental data collection, we would be most grateful for your feedback on any applicable regulations or requirements for sound levels **on or before Friday, May 19, 2017**.

Sincerely,

INTERA Incorporated

Peter Castiglia
VP, Southwest Mining & Water Resources

Enclosure:

Attachment 1: EPA Design Update: UNC Mill Site Repository for the NECR Mine Waste

CC (electronic copy):

Ms. Sara Jacobs, Project Manager, US EPA Region 9
Ms. Priscilla Tom, Community Involvement Coordinator, US EPA Region 9
Mr. Roy Blickwedel, Snr. Remedial Project Manager, UNC/GE

Design Update:
UNC Mill Site Repository for the NECR Mine Waste

U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • April 2017

Design Overview

Background

The United Nuclear Corporation (UNC) Mill Site and the Northeast Church Rock (NECR) Mine Site are located at the end of Route 566, about 17 miles northeast of Gallup, N.M. The U.S. Environmental Protection Agency (USEPA) has decided to clean up the NECR Mine Site by placing the mine waste in a repository at the nearby UNC Mill Site. USEPA is currently overseeing a design for this repository and this fact sheet describes the main activities included in the design.

Northeast Church Rock Mine Site

What is a repository?

A repository is a place for holding waste. The UNC Mill Site repository for the NECR mine waste will consist of an engineered cell with a top (cover) and bottom (liner) to keep contamination from further polluting the environment.

What is the repository design process?

The design is developed in two main phases. The first phase is to provide a general overview of how the repository will be constructed. This fact sheet provides a summary of that overview. The second phase is to provide a final design that includes detailed construction and technical specifications. USEPA expects the final design to be finished in 2018.

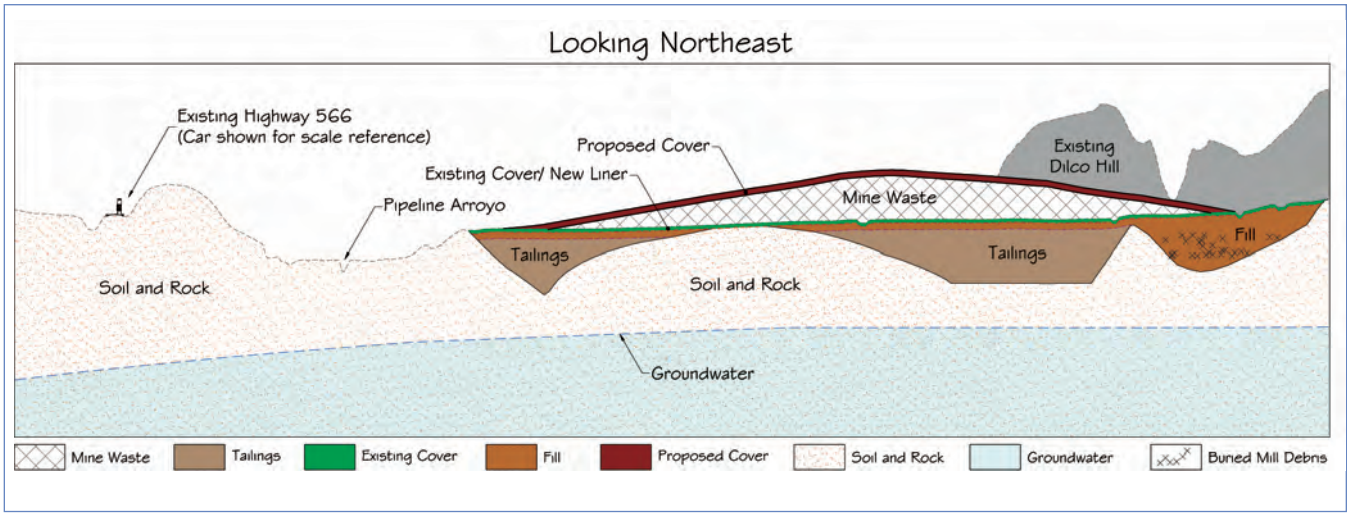


Figure 1: Overview of UNC Mill Site repository

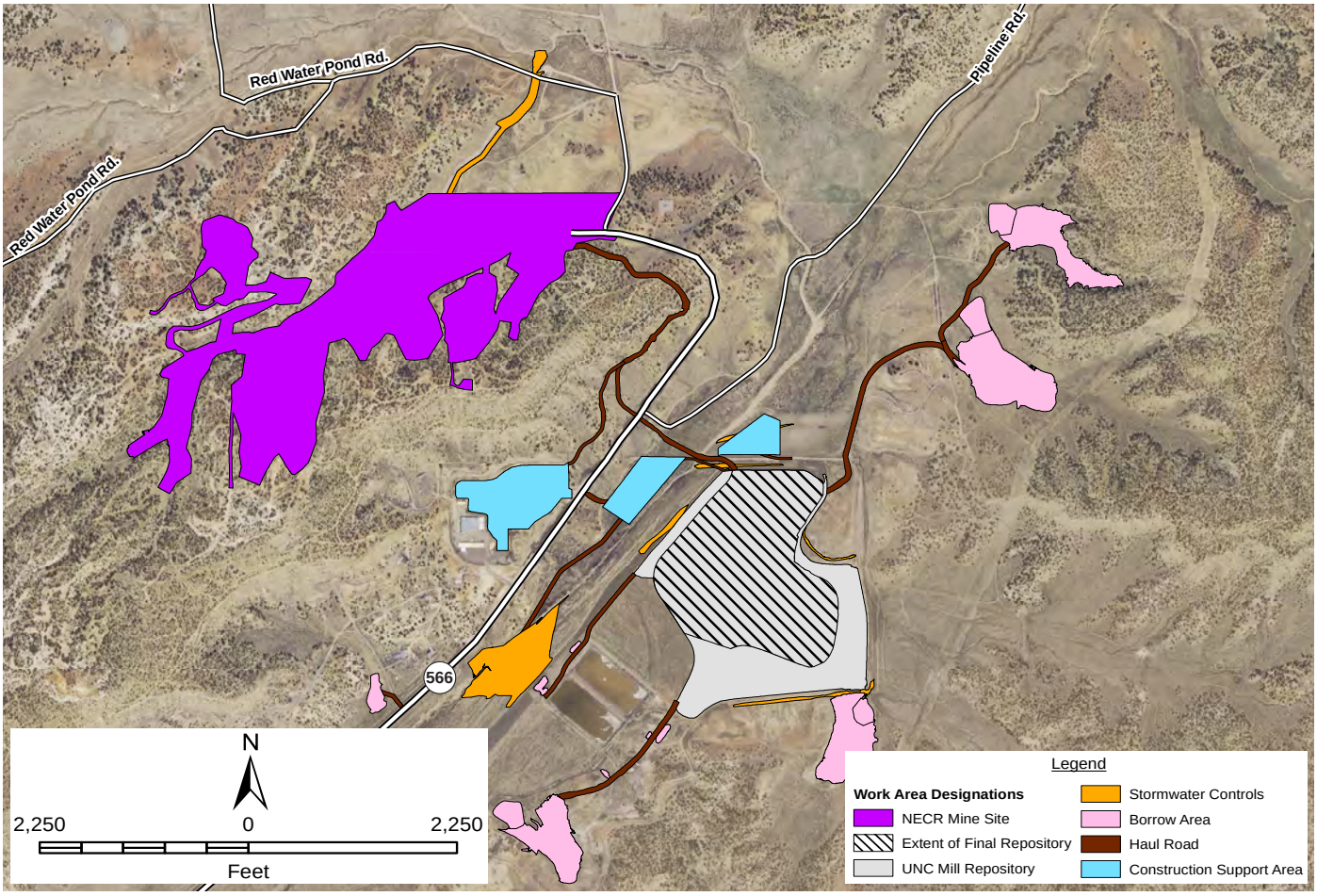


Figure 2: Work Areas at the NECR Mine Site and UNC Mill Site. Please note: conceptual design boundaries are subject to change dependent on survey results and completion of the final design.

Work Summary

Step 1: Digging and Hauling

NECR mine waste will be dug up from the purple work areas shown in Figure 2 (labeled as "NECR Mine Site" in legend). Covered trucks will haul the waste to the UNC Mill Site. The trucks will use new roads to stay off public roads as much as possible. The trucks will cross Route 566 at a stoplight just south of the Pipeline Road turnoff (see Figure 2). Each truck carries 30 cubic yards (about 42 tons) of waste.

The mine waste will be transported in haul trucks similar to the one shown.

Step 2: Placing Mine Waste and Covering

The mine waste will go in the repository, shown with black diagonal lines in Figure 2 (labeled as "Extent of Final Repository" in legend). The clay cover layer for the existing mill tailings cells (labeled as "Existing Cover/New Liner") will stay in place and serve as a liner for the mine waste. After placement of the mine waste on the liner, soil from the borrow areas will be mixed with rock to create an evapotranspiration cover (known as an "ET cover") that contains the mine waste and prevents exposure to people and the environment. The cover also prevents wind and water erosion, and keeps rainwater and snow melt out of the mine waste. Figure 3 shows how an ET cover works. While most water runs off the cover, water that goes into the cover comes back out by evaporation or by plant roots taking up the water from the clean cover (transpiration). The rock in the cover minimizes erosion from wind or water. The cover is designed to last at least 1,000 years.

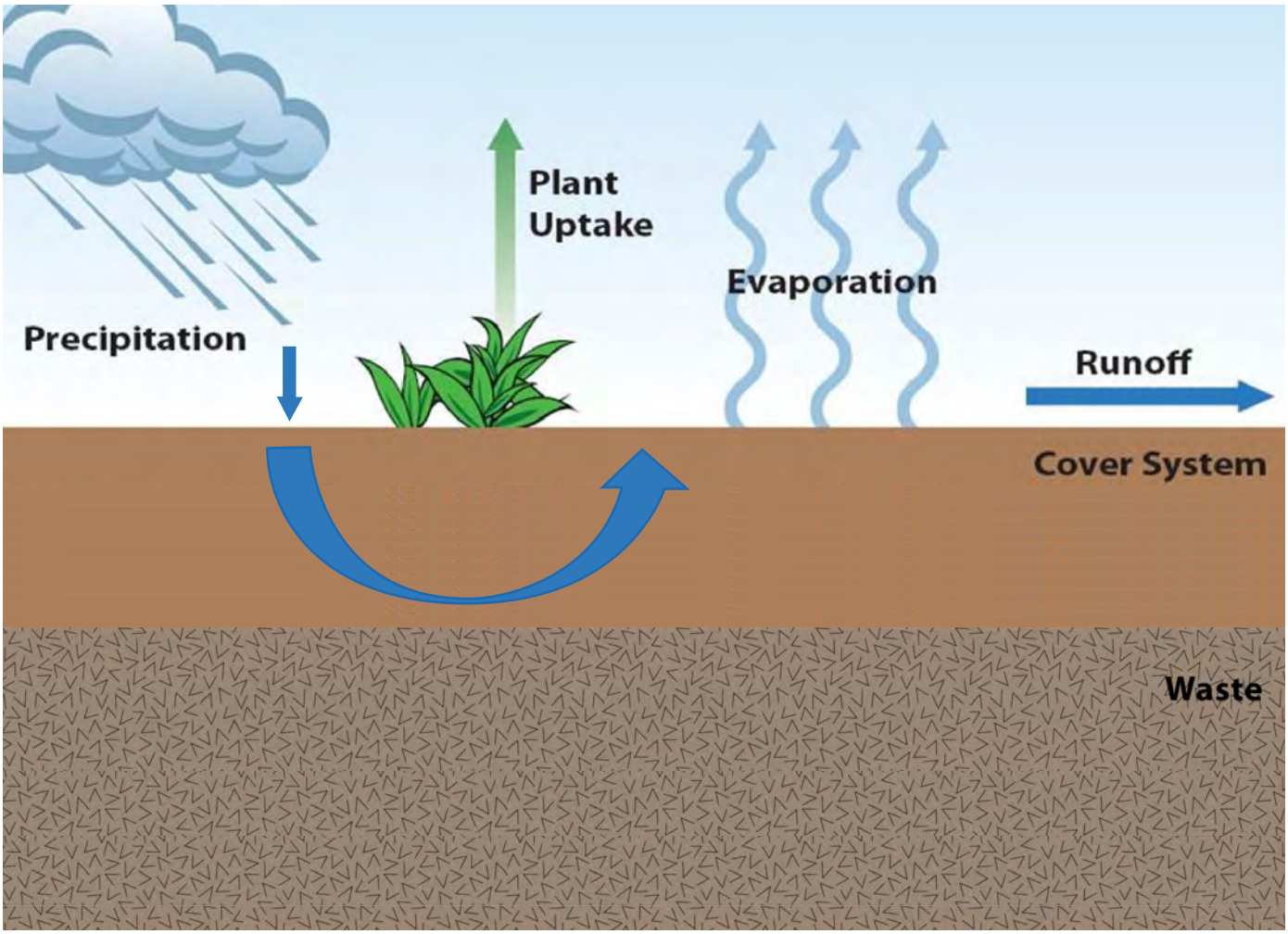


Figure 3: Conceptual Drawing of an ET Cover

Step 3: Installing Stormwater Controls

Stormwater management, or "stormwater controls," is an important part of designing the waste repository. Stormwater controls keep soil from running off the work areas and stops water from eroding the repository or nearby areas. Figure 2 shows stormwater controls at the site in orange (labeled as "Stormwater Controls" in legend). The Pipeline Arroyo, that runs along the West side of the repository, will have major stormwater controls. A large engineered structure, will direct water flow away from the repository, preventing erosion.

Step 4: Restoration at the NECR Mine Site

After removal of contaminated soil from the NECR Mine Site is finished, USEPA will then conduct "verification surveys" to ensure all mine waste has been properly removed and the area is safe. Once the area has been certified as safe, the site will be regraded and revegetated.

Examples of previous revegetation on the NECR mine site at six and eighteen months after reseeding.

Additional Information

Timeline

USEPA expects the final design of the repository to be finished in 2018. The company responsible for the pollution at the mine, UNC, which is owned by General Electric (GE), will then submit a request (a "license amendment") to the U.S. Nuclear Regulatory Commission (NRC) for construction. The NRC must approve the request before construction can begin. The NRC estimates that the license amendment process will take from two to five years. If NRC approves the request, USEPA would then negotiate a legal agreement with UNC/GE to construct the repository. Construction will take about four years.

Involved Parties

UNC will conduct the cleanup under the oversight of USEPA and a design review team.

The design review team includes staff from USEPA, Navajo Nation EPA, the New Mexico Environmental Department, the NRC and the U.S. Department of Energy. A local resident appointed by the Red Water Pond Road Community Association (whose members live close to the mine) is also part of the team. The resident receives technical assistance services through USEPA's Technical Assistance Services for Communities program.

More Resources

This fact sheet provides a general overview of the repository design. Other topics that are part of the design include cultural and biological surveys, traffic safety plans, air quality monitoring plans, principal threat waste plans, groundwater analysis, dust control and revegetation plans. For more information on the NECR repository design and construction plan, visit the technical document section of the NECR website found at: https://www.epa.gov/navajo-nation-uranium-cleanup/eastern-region-abandoned-uranium-mines

Contacts

Sara Jacobs
USEPA Remedial Project Manager
(415) 972 – 3564
jacobs.sara@epa.gov

Priscilla Tom
USEPA Community Involvement Coordinator
(505) 240 – 0093
tom.priscilla@epa.gov

Freida S. White
NNEPA Superfund
(928) 871 – 6859
freidawhite@navajo-nsn.gov

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Mr. Willie Norton

Project #: NECR

Client Name: UNC/GE

Date: May 15, 2017

Telephone #: 505-786-2208

Time: 10:53 am (MT)

RE: Applicable Noise-Level Regulations or Requirements

Annelia Tinklenberg called and left a message with Sarah Jackson for Mr. Willie Norton, regarding the noise letter sent last week. Left my name, organization, phone number, and a brief description of my reason for calling. The reason for the call was to follow up with Mr. Willie Norton regarding the letter that was sent to the Chapter last week.

Signature: Annelia Tinklenberg

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Mr. Willie Norton

Project #: NECR

Client Name: UNC/GE

Date: May 15, 2017

Telephone #: 505-786-2208

Time: 1:54 pm (MT)

RE: Applicable Noise-Level Regulations or Requirements

Mr.Willie Norton returned my call at 12:54 pm. He received the letter and is trying to gather the Pinedale Chapter members to discuss the letter. He did not have any questions for me at this time but will call or email me if he does. I told him that I would give him a follow up call later this week to see if he or the chapter members determined that they have a noise regulation that would apply to the construction activities.

Signature: Amelia Tiedeberg

Annelia Tinklenberg

From: Pinedale Chapter <pinedale@navajochapters.org>
Sent: Friday, May 19, 2017 7:27 AM
To: Annelia Tinklenberg
Subject: Responding to May 1, 2017 (Peter Castiglia) letter

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning Ms. Tinklenberg,

We received a letter from Mr. Willie Norton, a community member and former Chapter President of Pinedale Chapter. The letter is dated May 1, 2017 from Peter Castilia, regarding NECR.

Our current Chapter officials are: Raphael Martin, Chapter President, Clara J. Daye, Chapter Vice-President and Dorothy Harjo, Chapter Secretary-Treasurer. The officials had notified me to inform your organization would like to sit down and review this current project. The officials also would like to invite local activist from Churchrock Larry King to the meeting.

Can you please give me a date/time/location, I can relay your information to my officials and confirm. If you have any questions, please call me at (505) 786-2208 or email me. Thank you and have a wonderful day.

Titus J. Nez, Community Services Coordinator
Pinedale Chapter
Post Office Box 3
Churchrock, New Mexico 87311
Tele: (505) 786-2208/2209
Fax: (505) 786-2211
pinedale@navajochapters.org

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Mr. Titus Nez, Community Services Coor

Project #: NECR

Client Name: UNC/GE

Date: May 19, 2017

Telephone #: 505-786-2208

Time: 11:27 am (MT)

RE: Applicable Noise-Level Regulations or Requirements

Confirmed that the new officials received the letter. They have reviewed the letter and would like to set up a meeting to answer their questions. Mr. Nez's understanding is that the environmental regulations come from the NNEPA and that the chapter does not have any regulations that apply to noise levels. The chapter officials would like set up a meeting to address questions, as was requested in an email from Mr. Nez on May 19, 2017. Mr. Nez will send a follow-up email to the chapter officials and me to see if I can address any of the questions directly. We may still want to set up a meeting later if needed.

Signature: Amelia Tidlenberg

Annelia Tinklenberg

From: Annelia Tinklenberg
Sent: Wednesday, May 24, 2017 1:27 PM
To: 'Pinedale Chapter'
Subject: RE: Responding to May 1, 2017 (Peter Castiglia) letter
Attachments: Noise_Letter_Final_PinedaleChapter.pdf

Good afternoon Mr. Nez,

Thank you for taking my call last week. I wanted to follow up and see if you would be willing to send my email address and phone number to the Chapter officials to see if I can address any questions they may have regarding noise regulations that may be applicable to the planned construction activities at the NECR mine site. I have attached the letter to this email if you would like to forward it on to the Chapter officials. As a reminder, the deadline for response was Friday, May 19 and I would like to resolve any questions as efficiently as possible. I apologize again for addressing the letter to the former Chapter President.

As we discussed, the Pinedale Chapter does not appear to have any applicable noise regulations and the Chapter follows the regulations set by the Navajo Nation EPA. I am working with Ms. Freida White at the NNEPA to determine if there are any applicable NNEPA noise regulations.

Please let me know if I can provide any additional assistance.

Annelia Tinklenberg
Hydrogeologist
INTERA Incorporated
(505) 850-2839
atinklenberg@intera.com
www.intera.com

From: Pinedale Chapter [mailto:pinedale@navajochapters.org]
Sent: Friday, May 19, 2017 7:27 AM
To: Annelia Tinklenberg <atinklenberg@intera.com>
Subject: Responding to May 1, 2017 (Peter Castiglia) letter

Good morning Ms. Tinklenberg,

We received a letter from Mr. Willie Norton, a community member and former Chapter President of Pinedale Chapter. The letter is dated May 1, 2017 from Peter Castilia, regarding NECR.

Our current Chapter officials are: Raphael Martin, Chapter President, Clara J. Daye, Chapter Vice-President and Dorothy Harjo, Chapter Secretary-Treasurer. The officials had notified me

to inform your organization would like to sit down and review this current project. The officials also would like to invite local activist from Churchrock Larry King to the meeting.

Can you please give me a date/time/location, I can relay your information to my officials and confirm. If you have any questions, please call me at (505) 786-2208 or email me. Thank you and have a wonderful day.

Titus J. Nez, Community Services Coordinator
Pinedale Chapter
Post Office Box 3
Churchrock, New Mexico 87311
Tele: (505) 786-2208/2209
Fax: (505) 786-2211
pinedale@navajochapters.org

Annelia Tinklenberg

From: Dorothy Harjo <djharjo@q.com>
Sent: Thursday, May 25, 2017 9:05 AM
To: 'Pinedale Chapter'; 'Raphael Martin'; 'Clara Daye'; Annelia Tinklenberg
Subject: RE: Responding to May 1, 2017 (Peter Castiglia) letter

Ok Titus, whatever's good for the community if fine. I doubt if we have noise pollution policy, but just make sure there won't be any adverse affect.
People get antsy at the mention of Churchrock Mine.
Thanx Titus,
DHarjo

From: Pinedale Chapter [mailto:pinedale@navajochapters.org]
Sent: Wednesday, May 24, 2017 2:55 PM
To: Raphael Martin; Clara Daye; Dorothy Harjo; Annelia Tinklenberg
Subject: Fwd: Responding to May 1, 2017 (Peter Castiglia) letter

Good afternoon Shi Nant'aahii,

I had a extensive conversation with Annelia in regards to the Churchrock Mine Clean-up. Please address any questions to her via e-mail. Her email is: atinklenberg@intera.com. We had discuss that it would be a lot of resource in terms of establishing a meeting, when in reality they are only requesting any Noise pollution regulation. Since Navajo Nation EPA has regulations, I had relayed them to work with the policies. However, if you have any questions, please send her a e-mail. Thank you.

Titus J. Nez, Community Services Coordinator
Pinedale Chapter
Post Office Box 3
Churchrock, New Mexico 87311
Tele: (505) 786-2208/2209
Fax: (505) 786-2211
pinedale@navajochapters.org

---------- Forwarded message ----------
From: **Annelia Tinklenberg** <atinklenberg@intera.com>
Date: Wed, May 24, 2017 at 2:27 PM
Subject: RE: Responding to May 1, 2017 (Peter Castiglia) letter
To: Pinedale Chapter <pinedale@navajochapters.org>

Good afternoon Mr. Nez,

Thank you for taking my call last week. I wanted to follow up and see if you would be willing to send my email address and phone number to the Chapter officials to see if I can address any questions they may have regarding noise regulations that may be applicable to the planned construction activities at the NECR mine site. I have attached the letter to this email if you would like to forward it on to the Chapter officials. As a reminder, the deadline for response was Friday, May 19 and I would like to resolve any questions as efficiently as possible. I apologize again for addressing the letter to the former Chapter President.

As we discussed, the Pinedale Chapter does not appear to have any applicable noise regulations and the Chapter follows the regulations set by the Navajo Nation EPA. I am working with Ms. Freida White at the NNEPA to determine if there are any applicable NNEPA noise regulations.

Please let me know if I can provide any additional assistance.

Annelia Tinklenberg

Hydrogeologist

INTERA Incorporated

(505) 850-2839

atinklenberg@intera.com

www.intera.com

From: Pinedale Chapter [mailto:pinedale@navajochapters.org]
Sent: Friday, May 19, 2017 7:27 AM
To: Annelia Tinklenberg <atinklenberg@intera.com>
Subject: Responding to May 1, 2017 (Peter Castiglia) letter

Good morning Ms. Tinklenberg,

We received a letter from Mr. Willie Norton, a community member and former Chapter President of Pinedale Chapter. The letter is dated May 1, 2017 from Peter Castilia, regarding NECR.

Our current Chapter officials are: Raphael Martin, Chapter President, Clara J. Daye, Chapter Vice-President and Dorothy Harjo, Chapter Secretary-Treasurer. The officials had notified me to inform your organization would like to sit down and review this current project. The officials also would like to invite local activist from Churchrock Larry King to the meeting.

Can you please give me a date/time/location, I can relay your information to my officials and confirm. If you have any questions, please call me at (505) 786-2208 or email me. Thank you and have a wonderful day.

Titus J. Nez, Community Services Coordinator

Pinedale Chapter

Post Office Box 3

Churchrock, New Mexico 87311

Tele: (505) 786-2208/2209

Fax: (505) 786-2211

pinedale@navajochapters.org

6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110

Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Ms. Dorothy Harjo, Secretary/Treasurer

Project #: NECR

Client Name: UNC/GE

Date: June 05, 2017

Telephone #: 505-879-2878

Time: 11:40 am (MT)

RE: Applicable Noise-Level Regulations or Requirements

Left a message, returning Ms Harjo's phone call from Friday, June 02.

Signature: Amelia Tidlenberg

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Ms. Dorothy Harjo, Secretary/Treasurer

Project #: NECR

Client Name: UNC/GE

Date: June 07, 2017

Telephone #: 505-879-2878

Time: 11:25 am (MT)

RE: Applicable Noise-Level Regulations or Requirements

Ms. Dorothy Harjo had questions about where the project was and I explained the location. Ms. Harjo said that the Pinedale Chapter did not have any noise restrictions. She did have a question about the project and what road the trucks would be traveling on and concerns about the windblown sediments. I informed Ms. Harjo that the trucks would be crossing Hwy 566 but not driving along the Hwy. I also mentioned that the project would be mitigating air borne materials as much as possible using engineering controls, such as water and truck covers, for dust suppression. I directed Ms. Harjo to the attachment that was included in the noise letter for some additional information.

Signature: Amelia Tiedeberg

MCKINLEY COUNTY

May 10, 2017

Peter Castiglia
VP, Southwest Mining & Water Resources
6000 Uptown Boulevard NE, Suite 220

Dear Mr. Castiglia,

Thank you for your letter regarding noise-level regulations for the Northeast Church Rock Site Removal action and the United Nuclear Corporation Site Remedial Action. McKinley County does not have a noise ordinance.

Should you have any further questions concerning this matter, please don't hesitate to contact me at (505) 863-1400 or email adimas@co.mckinley.nm.us.

Respectfully,

Anthony Dimas Jr.
County Manager

BOARD OF COMMISSIONERS/ MANAGER'S OFFICE
207 W. HILL AVE. GALLUP NM 87301 P.O. BOX 70 GALLUP NM 87305
T: 505.722.3868 EXT.1053 F: 505.863.6362

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Ms. Freida White (NNEPA)

Project #: NECR

Client Name: UNC/GE

Date: May 15, 2017

Telephone #: 928-871-7325

Time: 11:07 am (MT)

RE: Applicable Noise-Level Regulations or Requirements

Annelia Tinklenberg called and left a message with the secretary for Ms. Freida White, regarding the noise letter sent last week. Left my name, organization, phone number, and a brief description of my reason for calling. The reason for the call was to follow up with Ms. Freida White concerning the letter sent last week about the NECR site.

Ms. White is out of the office until May 22, 2017.

Signature: Annelia Tinklenberg

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Ms. Freida White (NNEPA)

Project #: NECR

Client Name: UNC/GE

Date: May 22, 2017

Telephone #: 928-871-7325

Time: 11:37 am (MT)

RE: Applicable Noise-Level Regulations or Requirements

Left a message on voicemail for Ms. White to call me.

Signature: Amelia Tiedenberg

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Ms. Freida White (NNEPA)

Project #: NECR

Client Name: UNC/GE

Date: May 22, 2017

Telephone #: 928-871-6859

Time: 2:00 pm (MT)

RE: Applicable Noise-Level Regulations or Requirements

Left message with secretary. Ms. White will be back in the office on Wednesday, May 24.

Signature: Amelia Tidlenberg

6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110

Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Ms. Freida White (NNEPA)

Project #: NECR

Client Name: UNC/GE

Date: May 24, 2017

Telephone #: 928-871-6859

Time: 2:05 pm (MT)

RE: Applicable Noise-Level Regulations or Requirements

Ms White has not had a chance to review the letter yet since she was out of the office. I let her know that the letter was sent to confirm that the NNEPA did not have any noise regulations that would apply to the NECR mine construction activities. Ms White said she will review the letter and confirm if there are any applicable noise regulations and get back to me by May 31st.

Signature: Amelia Tidlenberg

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Ms. Freida White (NNEPA)

Project #: NECR

Client Name: UNC/GE

Date: June 05, 2017

Telephone #: 928-871-6859

Time: 11:35 pm (MT)

RE: Applicable Noise-Level Regulations or Requirements

Follow up call to see if Ms. Freida White has had a chance to determine if there are any noise regulations that would apply to the NECR construction. Ms. White had said she would get back to me by May 31st. Left a message with the NNEPA Superfund secretary.

Signature: Amelia Tidwell

Annelia Tinklenberg

From: Annelia Tinklenberg
Sent: Tuesday, June 6, 2017 9:49 AM
To: freidawhite@navajo-nsn.gov
Subject: NECR Noise Letter

Good Morning Ms. White,

I would like to follow up with you about the letter that I sent you dated May 01, 2017 concerning applicable noise regulations that may apply to construction activities planned at the Northeast Church Rock (NECR) Mine Site. I was unable to find applicable noise regulations that the Navajo Nation EPA might have that would apply to the NECR construction. Can you please confirm that the Navajo Nation EPA does not have any applicable noise regulations?

Please feel free to call or email with any questions.

Thank you,

Annelia Tinklenberg
Hydrogeologist
INTERA Incorporated
(505) 850-2839
atinklenberg@intera.com
www.intera.com

INTERA
GEOSCIENCE & ENGINEERING SOLUTIONS

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Ms. Freida White (NNEPA)

Project #: NECR

Client Name: UNC/GE

Date: June 07, 2017

Telephone #: 928-871-6859

Time: 11:35 am (MT)

RE: Applicable Noise-Level Regulations or Requirements

No answer. Left message.

Signature: Amelia Tidwell

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Ms. Freida White (NNEPA)

Project #: NECR

Client Name: UNC/GE

Date: June 09, 2017

Telephone #: 928-871-6859

Time: 09:25 am (MT)

RE: Applicable Noise-Level Regulations or Requirements

Ms. Freida White returned my calls and email. She confirmed that the NNEPA does not have a specific noise regulation that would apply to the noise impact on the surrounding areas. Ms. White did confirm that the Navajo OSHA does have a noise regulation of 80-90 decibels which would apply to the onsite construction activities.

Signature: Amelia Tidwell

Annelia Tinklenberg

From: Freida White <freidawhite@navajo-nsn.gov>
Sent: Friday, June 9, 2017 9:58 AM
To: Annelia Tinklenberg
Cc: llantana@nnosha.org
Subject: RE: NECR Noise Letter
Follow Up Flag: Follow up
Flag Status: Flagged

Per our phone conversation regarding Applicable Noise-Level Regulations for the NECR Site Removal Action and UNC Site Remedial Action in McKinley County, New Mexico, the Navajo OSHA Office follows the federal OSHA requirements for work on the Navajo Nation, as indicated by Leander Lantana, Sr. Safety Technician of Navajo OSHA. Should you need to call them, please call 928-871-6742. Navajo OSHA provided this fact today. Provided below is the OSHA citation.

Occupational Safety and Health Administration **OSHA**

Regulations (Standards - 29 CFR) - Table of Contents

- Part Number: 1910
- Part Title: Occupational Safety and Health Standards
- Subpart: G
- Subpart Title: Occupational Health and Environmental Control
- Standard Number: 1910.95
- Title: Occupational noise exposure.
- Appendix: A , B , C , D , E , F , G , H , I
- GPO Source: e-CFR

Thank you for your efforts to comply with local Navajo requirements/regulations.

Freida S. White
Environmental Program Supervisor
NNEPA Superfund Program
PO Box 2946
Window Rock, AZ 86515
Phone: (928) 871-6859
Fax: (928) 871-7333

From: Annelia Tinklenberg <atinklenberg@intera.com>
Sent: Tuesday, June 6, 2017 10:48 AM
To: Freida White
Subject: NECR Noise Letter

Good Morning Ms. White,

I would like to follow up with you about the letter that I sent you dated May 01, 2017 concerning applicable noise regulations that may apply to construction activities planned at the Northeast Church Rock (NECR) Mine Site. I was unable to find applicable noise regulations that the Navajo Nation EPA might have that would apply to the NECR construction. Can you please confirm that the Navajo Nation EPA does not have any applicable noise regulations?

Please feel free to call or email with any questions.

Thank you,

Annelia Tinklenberg
Hydrogeologist
INTERA Incorporated
(505) 850-2839
atinklenberg@intera.com
www.intera.com

INTERA
GEOSCIENCE & ENGINEERING SOLUTIONS

Annelia Tinklenberg

From: Annelia Tinklenberg
Sent: Friday, May 12, 2017 9:59 AM
To: 'Johnnie Henry'
Subject: RE: UNC Mill Site Repository

Mr. Henry,

I am glad you received our letter regarding the NECR mine site and the UNC mill site. It sounds like you do not have any noise regulations that we will need to take into consideration during the planning phase of the construction activities. Is that correct?

A construction contractor has not been selected for this project yet. On the last page of Attachment 1, provided with the letter, is a timeline for the project that may provide you with additional information.

I will give you a follow-up call early next week and we can discuss this and any other questions you may have.

Best Regards,

Annelia Tinklenberg
Hydrogeologist
INTERA Incorporated
(505) 850-2839
atinklenberg@intera.com
www.intera.com

From: Johnnie Henry [mailto:hozhojii@gmail.com]
Sent: Wednesday, May 10, 2017 12:52 PM
To: Annelia Tinklenberg <atinklenberg@intera.com>
Subject: UNC Mill Site Repository

Good afternoon Annelia, I got your packet regarding the upcoming project at NECR mine site. As far as the impacts from the contruction noise, that would not be a problem, any construction projects comes with noises.
Who is the contractor for this project. Thnx, for more information you can email me or leave message at 505-879-9702.

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Mr. Johnnie Henry

Project #: NECR

Client Name: UNC/GE

Date: May 15, 2017

Telephone #: 505-488-2166

Time: 10:40 am (MT)

RE: Applicable Noise-Level Regulations or Requirements

Annelia Tinklenberg called and left a message with the secretary for Mr. Johnnie Henry, regarding the noise letter sent last week. Left my name, organization, phone number, and a brief description of my reason for calling. The reason for the call was to follow up with Mr. Johnnie Henry and determine if there are and noise regulations that the Chapter may have that would apply to the planned construction activities at the NECR site.

Signature: Annelia Tinklenberg

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Mr. Johnnie Henry

Project #: NECR

Client Name: UNC/GE

Date: May 19, 2017

Telephone #: 505-879-9702

Time: 11:50 am (MT)

RE: Applicable Noise-Level Regulations or Requirements

Follow-up call to Mr. Johnnie Henry. Left a message to confirm that Mr. Henry did not have any more questions or concerns about the NECR construction.

Signature: Amelia Tidwell

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Coyote Canyon Chapter

Project #: NECR

Client Name: UNC/GE

Date: May 11, 2017

Telephone #: 505-735-2623

Time: 4:22 pm (MT)

RE: Applicable Noise-Level Regulations or Requirements

Called to confirm the Chapter address because the certified mail receipt was confirming the noise letter still had not been delivered. Address was confirmed to be correct. The secretary gave me Mr. Plummer's email address (coyotecanyonpresident@gmail.com) so that I could email the letter to him.

On Friday, May 12, 2017 at 10:16 am (PT) I emailed the letter to Mr. Plummer (coyotecanyonpresident@gmail.com) and to Ms. Clara Sam, the Community Services Coordinator (clara.sam@navajochapters.org). I received email confirmation that the email was opened on May 12.

Signature: Amelia Tiedeberg

Annelia Tinklenberg

From: Annelia Tinklenberg
Sent: Friday, May 12, 2017 10:16 AM
To: 'coyotecanyonpresident@gmail.com'; 'clara.sam@navajochapters.org'
Subject: Northeast Church Rock Site
Attachments: Noise_Letter_Final_CoyoteCanyonChaper.pdf

Mr. Harrison Plummer,

I sent you a letter last week on behalf of United Nuclear Corporation (UNC), a wholly-owned, indirect subsidiary of the General Electric Company (GE). The letter was sent to determine if there are any noise regulations or requirements that the Coyote Canyon Chapter may have that would be applicable to the noise generated by construction activities.

I have confirmed that the letter has not been delivered to you and so I have attached it to this email. The attached letter describes our request and describes the construction activities planned for the NECR mine site and the UNC mill site.

I will follow up with a phone call early next week so we can discuss any questions you may have and to confirm if the Coyote Canyon Chapter has any noise regulations. Please feel free to call or email me if that is more convenient for you.

Best Regards,

Annelia Tinklenberg
Hydrogeologist
INTERA Incorporated
(505) 850-2839
atinklenberg@intera.com
www.intera.com

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Mr. Harrison Plummer

Project #: NECR

Client Name: UNC/GE

Date: May 15, 2017

Telephone #: 505-735-2623

Time: 10:58 am (MT)

RE: Applicable Noise-Level Regulations or Requirements

No answer.

Signature: Amelia Tidwell

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Mr. Harrison Plummer

Project #: NECR

Client Name: UNC/GE

Date: May 16, 2017

Telephone #: 505-735-2623

Time: 2:00 pm (MT)

RE: Applicable Noise-Level Regulations or Requirements

Left a message with Wanda (secretary). I gave her my name, organization, phone number, and a brief description of why I was calling. I called to follow-up on the letter and email that was sent to Mr. Plummer concerning the NECR mine site.

Signature: Amelia Tidwell

INTERA
6000 Uptown Boulevard, NE
Suite 220
Albuquerque, NM 87110
Telephone: (505) 246-1600
Fax: (505 246-2600

Record of Conversation

Person Called/Calling: Mr. Harrison Plummer

Project #: NECR

Client Name: UNC/GE

Date: May 19, 2017

Telephone #: 505-735-2623

Time: 12:00 pm (MT)

RE: Applicable Noise-Level Regulations or Requirements

No answer.

Signature: Amelia Tidlenberg

Supplemental Environmental Report for the United Nuclear Corporation Mill Site

Source Material License Amendment Request, McKinley County, New Mexico, USA

Appendix C

Field Photographs, Metadata from Photographs, and Photo Visualizations

Appendix **C**

Field Photographs

Key Viewpoint 1

Key Viewpoint 2

Key Viewpoint 3

Key Viewpoint 4a

Key Viewpoint 4b

Key Viewpoint 5

Key Viewpoint 6a

Key Viewpoint 6b

Key Viewpoint 7

Key Viewpoint 8

Key Viewpoint 9

Key Viewpoint 10

Key Viewpoint 11

Key Viewpoint 12

Key Viewpoint 13

Key Viewpoint 14

Appendix **C**

Field Photographs

Table 1: Field Photo Metadata

(S:\ABQ\GE_UNC_003_ChurchRock\DELIVERABLES\Env_Data_Collection_Report\VisualAndScenic\Tables)

Location	Bearing	Date_Time	Shot	ISO	Device	Comments	X_NAD83SP	Y_NAD83SP	Lat	Long
1	37	Wednesday, May 3, 2017 9:09 AM	1/250 sec. f/8 18mm	100	NIKON D80	sunny, cool	2502688.762	1664286.803	35.57187	-108.574481
2	26	Wednesday, May 3, 2017 9:29 AM	1/250 sec. f/8 18mm	100	NIKON D80	sunny, breezy, cool	2506771.983	1660401.949	35.561281	-108.560655
3	39	Wednesday, May 3, 2017 10:12 AM	1/250 sec. f/8 18mm	100	NIKON D80	sunny, windy, cool	2516589.129	1684491.083	35.627653	-108.528221
4a	35	Wednesday, May 3, 2017 8:59 AM	1/250 sec. f/8 18mm	100	NIKON D80	sunny, cool	2502776.624	1663179.882	35.568831	-108.574158
4b	36	Wednesday, May 3, 2017 9:04 AM	1/250 sec. f/8 18mm	100	NIKON D80	sunny, cool	2502934.37	1663640.071	35.570098	-108.573639
5	135	Tuesday, May 2, 2017 3:47 PM	1/250 sec. f/8 18mm	100	NIKON D80	partly cloudy, windy	2519614.639	1697509.26	35.663474	-108.518346
6a	171	Tuesday, May 2, 2017 3:20 PM	1/250 sec. f/8 18mm	100	NIKON D80	partly cloudy, windy	2524124.643	1697057.406	35.662318	-108.503154
6b	119	Tuesday, May 2, 2017 5:36 PM	1/200 sec. f/7.1 18mm	100	NIKON D80	cloudy, windy	2524371.975	1697042.509	35.662282	-108.502321
7	208	Tuesday, May 2, 2017 4:19 PM	1/250 sec. f/8 18mm	100	NIKON D80	sunny, windy	2528984.924	1699722.087	35.669728	-108.486852
8	62	Tuesday, May 2, 2017 5:24 PM	1/200 sec. f/7.1 18mm	100	NIKON D80	cloudy, windy	2517227.241	1687675.186	35.636412	-108.52615
9	38	Wednesday, May 3, 2017 9:14 AM	1/200 sec. f/7.1 18mm	100	NIKON D80	sunny, breezy, cool	2502358.093	1664587.881	35.57269	-108.5756
10	54	Wednesday, May 3, 2017 9:57 AM	1/250 sec. f/8 18mm	100	NIKON D80	sunny, windy, cool	2514101.31	1677246.144	35.607701	-108.536418
11	162	Tuesday, May 2, 2017 3:37 PM	1/250 sec. f/8 18mm	100	NIKON D80	partly cloudy, windy	2521166.381	1699309.992	35.66845	-108.513164
12	211	Tuesday, May 2, 2017 2:41 PM	1/320 sec. f/9 24mm	100	NIKON D610	partly cloudy, windy	2531212.713	1701851.441	35.675618	-108.479399
13	200	Tuesday, May 2, 2017 4:26 PM	1/250 sec. f/8 18mm	100	NIKON D80	partly cloudy, windy	2527623.395	1697228.081	35.662852	-108.49138
14	157	Tuesday, May 2, 2017 4:34 PM	1/250 sec. f/8 18mm	100	NIKON D80	partly cloudy, windy	2524480.026	1693741.286	35.653215	-108.501881

Appendix **C**

Photo Visualizations

Key Viewpoint: 1

Key Viewpoint: 2

Key Viewpoint: 3

Key Viewpoint: 4a

Key Viewpoint: 4b

BEFORE

AFTER

BEFORE

AFTER

BEFORE

AFTER

BEFORE

AFTER

BEFORE

AFTER

Key Viewpoint: 9

Key Viewpoint: 10

BEFORE

AFTER

BEFORE

AFTER

BEFORE

AFTER

BEFORE

AFTER

Supplemental Environmental Report for the United Nuclear Corporation Mill Site

Source Material License Amendment Request, McKinley County, New Mexico, USA

Appendix D

Cost Comparison Calculations

APPENDIX D:
BASIS OF ESTIMATE – SER ALTERNATIVES

Revisioning					
Rev.	**Date**	**Description**	**By**	**Checked**	**Date**
0	*09/18/18*	*Issued for inclusion with SER*	*K. Farrell*	*J. Cumbers*	*9/14/18*
1					

Location and Format

Electronic copies of these calculations are located on the Stantec internal project teamsite.

The following calculations were generated using the following software:

Microsoft Excel 2013, InEight Hard Dollar V17.0, Beltanalyst V16.1.8.0

Table of Contents

Revisioning 1
Location and Format 1
Table of Contents 1
Objective 1
Background 1
Applicable Codes and Standards 1
Methods 2
Results 2
Attachments 2
References 2

Objective

The objective of the analysis was to determine the cost differential between the three alternatives and the base case presented in the design submitted with the LAR.

Background

The overall cost estimate for the base case design has not been completed and will submitted separately from the LAR. Therefore, the costs described here apply only to the additional cost for each of the alternatives beyond the construction cost associated with one specific component of the base-case design. Although the costs for these alternatives are based on the complete design, this exercise was completed as a study. Therefore, the estimates for the alternatives are considered Class 4 estimates with an accuracy estimate of -20% to +30%.

Applicable Codes and Standards

NUREG/BR- 0058 and NUREG-1530 (NRC, 1995a; 1995b)

Methods

The effort put into each alternative is reflective of the scope provided and falls within the Class 4 estimate range in accordance with standards set forth by the American Association of Cost Engineers (AACE). A first principles estimate was developed for the disposal of PTW but this estimate does not exceed the aforementioned Class 4. No contingency, escalation or discounting was applied to the estimate.

Results

Alternative	**Estimated Additional Construction Costs**
Conveyance – transport of mine waste to the Repository by conveyor, rather than haul trucks	+$1M
Material sourcing – cover soil from the original four borrow areas vs. borrow only from the Jetty excavation	+$3M
Disposal of PTW at an offsite disposal facility – rather than reprocessing at the White Mesa Mill	+$5M

Attachments

Attachment A – Conveyor Alternative Cost Comparison

Attachment B – Borrow Soil Sources Alternative

Attachment C – Cost Comparison Between Trucking for PTW Disposal at Clive, UT and Reprocessing at White Mesa Mill

References

R.S. Means, 2017

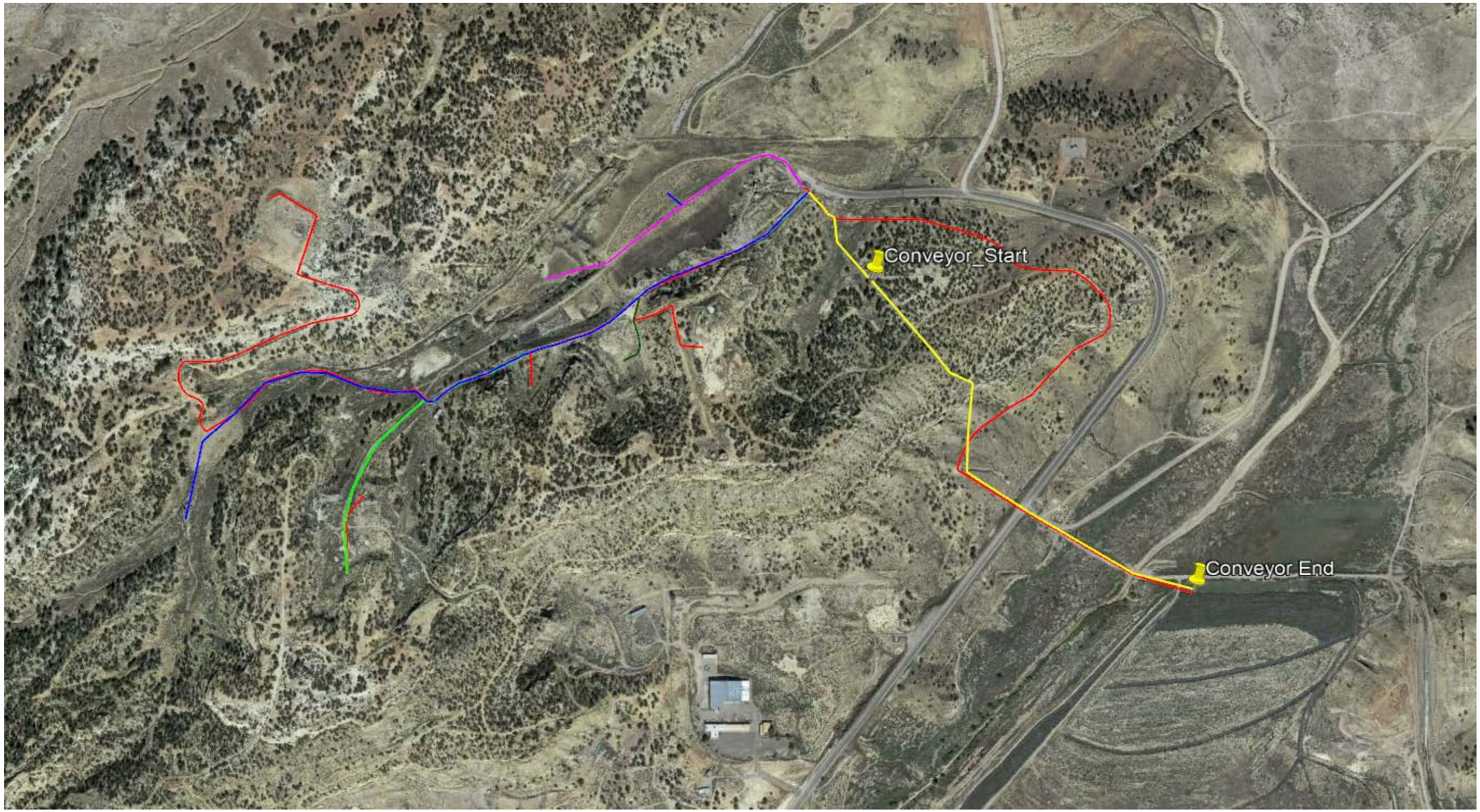
APPENDX D.1

CONVEYOR ALTERNATIVE COST COMPARISON

Case 1	1	$	9,165,130.53	Each
Part 1A -Haul Truck - To Conveyor	1,895,521	$	1.83	Ton
Sandfill No 3 to Haul Road - 3225 feet	97,350	$	3.43	L.C.Y.
NECR-1 to Haul Road - 980 feet	612,586	$	3.43	L.C.Y.
Pond 3 to Haul Road - 1785 feet	49,694	$	3.43	L.C.Y.
Vent Hole 3 to Haul Road - 5820 feet - Half of VH8/VH3 volume	10,703	$	3.84	L.C.Y.
Vent Hole 8 to Vent Hole 3 - 860 feet - Half of VH8/VH3 volume	10,703	$	3.43	L.C.Y.
Boneyard to Haul Road - 4500 feet	53,657	$	3.84	L.C.Y.
Sandfill No 1 To Haul Road - 1927 feet	59,330	$	3.43	L.C.Y.
Pond 1 to Haul Road - 1615 feet	42,488	$	3.43	L.C.Y.
Pond 2 to Haul Road - 2087 feet	11,249	$	3.43	L.C.Y.
Haul Road to Conveyor - 640 feet	947,761	$	0.20	L.C.Y.
Part 1B -Conveyor to Repository	1,895,521	$	0.96	Ton
Conveyor CAPEX From Stomewater Pond S-01 Area to Repository - 2955 feet	1	$	1,747,230.00	Each
Power For Conveyor	1	$	65,511.52	Each
Conveyor OPEX	1	$	15,275.00	Each
Part 2 - Excavator & Haul Truck - To Repository	1,895,521	$	2.04	Ton
Sandfill No 3 to Haul Road - 8,208 feet	97,350	$	4.15	L.C.Y.
NECR-1 to Haul Road - 5963 feet	612,586	$	3.84	L.C.Y.
Pond 3 to Haul Road - 6,768 feet	49,694	$	3.99	L.C.Y.
Vent Hole 3 to Haul Road - 10,803 feet - Half of VH8/VH3 volume	10,703	$	4.57	L.C.Y.
Vent Hole 8 to Vent Hole 3 - 860 feet - Half of VH8/VH3 volume	10,703	$	3.43	L.C.Y.
Boneyard to Haul Road - 9,483 feet	53,657	$	4.31	L.C.Y.
Sandfill No 1 To Haul Road - 6,910 feet	59,330	$	3.99	L.C.Y.
Pond 1 to Haul Road - 6,598 feet	42,488	$	3.99	L.C.Y.
Pond 2 to Haul Road - 7,070 feet	49,694	$	3.99	L.C.Y.
Cost per Ton - Haulage to Conveyor then Conveyor to Repository	$ 2.79	$	4,143,783.29	
Cost per Ton - Haulage to Repository	$ 2.04	$	3,036,415.40	
	net additional	$	1,107,367.90	
	1.485	tons/yard		

CBS Position Code	Description	Forecast (T/O) Quantity	Unit Cost	Unit of Measure	Total Cost (Forecast)
1.3	Areas and Distances	1.00	$0.00	FT	$0.00
2	**Case 1**	1.00	$9,165,130.53	Each	$9,165,130.53
2.1	Part 1A -Haul Truck - To Conveyor	1,895,521.20	$1.83	Ton	$3,461,295.99
2.1.1	Sandfill No 3 to Haul Road - 3225 feet	97,350.10	$3.43	L.C.Y.	$333,590.56
2.1.2	NECR-1 to Haul Road - 980 feet	612,585.85	$3.43	L.C.Y.	$2,099,154.06
2.1.3	Pond 3 to Haul Road - 1785 feet	49,694.40	$3.43	L.C.Y.	$170,288.30
2.1.4	Vent Hole 3 to Haul Road - 5820 feet - Half of VH8/VH3 volume	10,703.00	$3.84	L.C.Y.	$41,082.82
2.1.5	Vent Hole 8 to Vent Hole 3 - 860 feet - Half of VH8/VH3 volume	10,703.00	$3.43	L.C.Y.	$36,676.08
2.1.6	Boneyard to Haul Road - 4500 feet	53,657.25	$3.84	L.C.Y.	$205,960.13
2.1.7	Sandfill No 1 To Haul Road - 1927 feet	59,329.65	$3.43	L.C.Y.	$203,305.50
2.1.8	Pond 1 to Haul Road - 1615 feet	42,488.00	$3.43	L.C.Y.	$145,594.05
2.1.9	Pond 2 to Haul Road - 2087 feet	11,249.00	$3.43	L.C.Y.	$38,547.06
2.1.10	Haul Road to Conveyor - 640 feet	947,760.60	$0.20	L.C.Y.	$187,097.42
2.2	Part 1B -Conveyor to Repository	1,895,521.20	$0.96	Ton	$1,828,016.52
2.2.1	Conveyor CAPEX From Stomewater Pond S-01 Area to Repository - 2955 feet	1.00	$1,747,230.00	Each	$1,747,230.00
2.2.2	Power For Conveyor	1.00	$65,511.52	Each	$65,511.52
2.2.3	Conveyor OPEX	1.00	$15,275.00	Each	$15,275.00
2.3	Part 2 - Excavator & Haul Truck - To Repository	1,895,521.20	$2.04	Ton	$3,875,818.02
2.3.1	Sandfill No 3 to Haul Road - 8,208 feet	97,350.10	$4.15	L.C.Y.	$404,164.20
2.3.2	NECR-1 to Haul Road - 5963 feet	612,585.85	$3.84	L.C.Y.	$2,351,374.03
2.3.3	Pond 3 to Haul Road - 6,768 feet	49,694.40	$3.99	L.C.Y.	$198,378.93
2.3.4	Vent Hole 3 to Haul Road - 10,803 feet - Half of VH8/VH3 volume	10,703.00	$4.57	L.C.Y.	$48,938.50
2.3.5	Vent Hole 8 to Vent Hole 3 - 860 feet - Half of VH8/VH3 volume	10,703.00	$3.43	L.C.Y.	$36,676.08
2.3.6	Boneyard to Haul Road - 9,483 feet	53,657.25	$4.31	L.C.Y.	$231,453.57
2.3.7	Sandfill No 1 To Haul Road - 6,910 feet	59,329.65	$3.99	L.C.Y.	$236,842.63
2.3.8	Pond 1 to Haul Road - 6,598 feet	42,488.00	$3.99	L.C.Y.	$169,611.14
2.3.9	Pond 2 to Haul Road - 7,070 feet	49,694.40	$3.99	L.C.Y.	$198,378.93

A.1 Cost Comparison Calculation Tables



A.2 Conveyor Route Assumption versus Haul Road

APPENDIX D.2

BORROW SOIL SOURCES ALTERNATIVE

Case 2 - Haulage & Revegetation	1.0	$	1,840,518.01	Each
Haulage from Jetty - 3,550 ft	497500	$	3.70	L.C.Y.
North Burrow	1.0		$681,252	Each
Haulage from North Burrow - 4,421 ft	71000.0	$	3.74	L.C.Y.
Revegetation of North Burrow - 384,636 SF	384,636	$	1.08	S.F.
South Burrow	1.0		$1,123,145	Each
Haulage from South Burrow - 2,800 ft	160000.0	$	3.49	L.C.Y.
Revegetation of South Burrow - 522,528 SF	522528.0	$	1.08	S.F.
East Burrow	1.0	$	559,016.43	Each
Haulage from East Burrow - 2,129 ft	55000.0	$	3.30	L.C.Y.
Revegetation of East Burrow - 349,008 SF	349,008	$	1.08	S.F.
West Burrow	1.0	$	675,617.94	Each
Haulage from West Burrow - 3,476 ft	89000.0	$	3.62	L.C.Y.
Revegetation of West Burrow - 326,935 SF	326,935	$	1.08	S.F.

	Volumes	Cost
4 orignal borrow sources plus haulage for jetty excavtion soils	375,000	$4,879,550
Jetty only used as borrrow	497,500	$1,840,518
difference		$3,039,032

TABLE E.2 Cost Comparison Between Jetty Soil as Borrow and North, South, East and West as Borrow for Construction

APPENDIX D.3

COST COMPARISON BETWEEN TRUCKING FOR PTW DISPOSAL AT CLIVE, UT AND REPROCESSING AT WHITE MESA MILL

	Route Description	Miles (One way)	Hours (1 Way)	Maximum Trips one way per d	From	To	Truck Required	Trailer	Notes
Option 1	Shortest Route	640	10.18	1	Church Rock	Clive UT	Freightliner Cascadia 126 - Sleep Cab	Covered Rear Dump	Single Operator - Maximum Trips per day is capped at 1 to account for allowable hours, therefore tons is per 2 days
Option 2	Shortest Route	640	10.18	1	Church Rock	Clive UT	Freightliner Cascadia 126 - Sleep Cab	20 Ft Sea Container	Single Operator - Maximum Trips per day is capped at 1 to account for allowable hours, therefore tons is per 2 days
Option 3	All Major Interstates	952	14.15	0.99	Church Rock	Clive UT	Freightliner Cascadia 126 - Sleep Cab	Covered Rear Dump	Single Operator
Option 4	All Major Interstates	952	14.15	0.99	Church Rock	Clive UT	Freightliner Cascadia 126 - Sleep Cab	20 Ft Sea Container	Single Operator
Option 5	Shortest Route	198	3.5	4.00	Church Rock	White Mesa UT	Freightliner Cascadia 116 - Day Cab	Covered Rear Dump	Single Operator
Option 6	Shortest Route	198	3.5	4.00	Church Rock	White Mesa UT	Freightliner Cascadia 116 - Day Cab	20 Ft Sea Container	Single Operator
Option 7	Shortest Route	640	10.18	1	Church Rock	Clive UT	Freightliner Cascadia 126 - Sleep Cab	20 Ft Sea Container	Team Drivers - Maximum Trips per day is capped at 1 to account for tons/day, the second driver gets the truck back to Church Rock therefore allowing 1 truck load per day

Truck Trade Off

	Tons per one way trip	Max tons per day	Cost per ton
Option 1	12.95	6.48	**$ 167.27**
Option 2	16.04	8.02	**$ 129.02**
Option 3	12.95	6.41	**$ 228.97**
Option 4	16.04	7.93	**$ 121.47**
Option 5	19.95	39.90	**$ 31.04**
Option 6	23.04	46.07	**$ 25.83**
Option 7	12.95	12.95	**$ 83.64**

PTW Volumes by Area

	cubic yards	Tons
Sediment Pad Area 6	6000	7034
NECR-1 Area 8	3000	3517
Pond 1 Area 9	20500	24034
Pond 3 Area 12	2700	3166

Sediment Pad Area 6		Days to Complete (1 truck)	90 Days to Remove Stockpile (Trucks required)	Number of trucks required to complete in 1 year
Option 1	$ 1,176,661.22	1,086	13	4.00
Option 2	$ 907,557.16	877	10	3.00
Option 3	$ 1,610,674.16	1,098	13	4.00
Option 4	$ 854,511.79	887	10	3.00
Option 5	$ 218,383.79	176	2	1.00
Option 6	$ 181,701.13	153	2	1.00
Option 7	$ 588,330.61	543	7	2.00
NECR-1 Area 8				
Option 1	$ 588,330.61	543	7	2.00
Option 2	$ 453,778.58	439	5	2.00
Option 3	$ 805,337.08	549	7	2.00
Option 4	$ 427,255.90	443	5	2.00
Option 5	$ 109,191.89	88	1	1.00
Option 6	$ 90,850.57	76	1	1.00
Option 7	$ 294,165.30	272	4	1.00
Pond 1 Area 9				
Option 1	$ 4,020,259.15	3,712	42	11.00
Option 2	$ 3,100,820.29	2,998	34	9.00
Option 3	$ 5,503,136.71	3,752	42	11.00
Option 4	$ 2,919,581.95	3,030	34	9.00
Option 5	$ 746,144.61	602	7	2.00
Option 6	$ 620,812.21	522	6	2.00
Option 7	$ 2,010,129.58	1,856	21	6.00
Pond 3 Area 12				
Option 1	$ 529,497.55	489	6	2.00
Option 2	$ 408,400.72	395	5	2.00
Option 3	$ 724,803.37	494	6	2.00
Option 4	$ 384,530.31	399	5	2.00
Option 5	$ 98,272.70	79	1	1.00
Option 6	$ 81,765.51	69	1	1.00
Option 7	$ 264,748.77	244	3	1.00
Total				
Option 1	$ 6,314,748.52	5830.38	65	17.00
Option 2	$ 4,870,556.74	4708.67	53	14.00
Option 3	$ 8,643,951.32	5892.85	66	17.00
Option 4	$ 4,585,879.95	4759.12	53	14.00
Option 5	$ 1,171,993.00	946.16	11	3.00
Option 6	$ 975,129.42	819.44	10	3.00
Option 7	$ 3,157,374.26	2915.19	33	9.00
Net	$ 5,142,755.52			

Risk to Option Evaluation, Depreciation is based on 3 years, if contractor has to buy >20 trucks, will want to depreciate in one year, finding work for more than 20 trucks after this job will be difficult

TABLE E.3 Cost Comparison Summary

Assumptions (Consistent for all Options)

Weight Restriction (NM)	80,000	lbs	
Diesel Price	$ 3.00	per Gallon	
Material SG	1.7	SG	
Swell Factor	45%		
Loose Density	1.17		
Contracted	25%	Markup	
Sleeper Truck	Freightliner Cascadia 126 - Sleep Cab		
Day Cab Truck	Freightliner Cascadia 116 - Day Cab		
Engine Life	1,200,000	Hours	
Oil Change ($300/50,000 miles)	$ 0.01	per mile	

Church Rock Site	35.659048, -108.506750
Energy Solutions Clive UT	40.699154, -113.107323
White Mesa UT	37.534117, -109.505275

Driver

	9000	Recruiting & Training
	12	Months per year
	21.6	Days per Month
	14	Maximum Driver hours/day
$ 2.48		Driver Recruiting & Training per hour
$ 25.00		Wages per hour
	35%	burden
$ 8.75		Burden hourly
$ 33.75		Hourly
$ 9.06		Contractor Markup (Wages and Recruiting)
$ 634.03		Daily (14 hours)
	55	Average miles per hour including breaks and Fuel stops
	770	Maximum Miles per day/driver* For Driver Cost/mile calc only
$ 0.82		Cost per Mile per Driver

NHS Limit 80,000 lbs GVW

http://www.trucking.org/ATA%20Docs/What%20We%20Do/Trucking%20Issues/Documents/Highway%20Infrastructure%20and%20Funding/Report%20to%20Congress%20on%20the%20Compilation%20of%20Size%20and%20Weight%20Laws.pdf

Exhibit 10: Summary of Arizona Truck Weight Limits for Vehicles in Regular Operations

Single Axle	20,000 lbs.
Tandem Axle	34,000 lbs.
Tridem Axle	Per State weight table
Gross Weight	Per State weight table 80,000 lbs. (5-axle or more)
Other	n/a

Exhibit 44: Summary of New Mexico Truck Weight Limits for Vehicles in Regular Operations

Single Axle	21,600 lbs.
Tandem Axle	34,200 lbs.
Tridem Axle	Per State weight table
Gross Weight	86,400 lbs.
Other	600 lbs. per inch width of tire 11,000 lbs. per wheel

Exhibit 41: Summary of Nevada Truck Weight Limits for Vehicles in Regular Operations

Single Axle	20,000 lbs.
Tandem Axle	34,000 lbs.
Tridem Axle	Per State weight table
Gross Weight	80,000 lbs. on Interstate highways* Governed by State bridge formula on non-Interstate highways
Other	600 lbs. per inch of tire width on steering axles 500 lbs. per inch of tire width on all other axles

Exhibit 57: Summary of Utah Truck Weight Limits for Vehicles in Regular Operations

Single Axle	20,000 lbs.
Tandem Axle	34,000 lbs.
Tridem Axle	n/a
Gross Weight	80,000 lbs.
Other	10,500 lbs. per wheel

https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/Drivers%20Guide%20to%20HOS%202015_508.pdf

PROPERTY-CARRYING DRIVERS

11-Hour Driving Limit
May drive a maximum of 11 hours after 10 consecutive hours off duty.

14-Hour Limit
May not drive beyond the 14th consecutive hour after coming on duty, following 10 consecutive hours off duty. Off-duty time does not extend the 14-hour period.

Rest Breaks
May drive only if 8 hours or less have passed since end of driver's last off-duty or sleeper berth period of at least 30 minutes. Does not apply to drivers using either of the short-haul exceptions in 395.1(e). [49 CFR 397.5 mandatory "in attendance" time may be included in break if no other duties performed]

60/70-Hour Limit
May not drive after 60/70 hours on duty in 7/8 consecutive days. A driver may restart a 7/8 consecutive day period after taking 34 or more consecutive hours off duty.

ARIZONA

Total length: 65 feet; trailer length: 28.5 feet; motor home length: 45 feet; trailer width: 8 feet (8 feet 6 inches on certain roads); motor home width: 8 feet 6 inches (excluding appurtenances up to width of rear view mirrors); height: 13 feet 6 inches (14 feet on designated roads).

May pull 2 units if the middle unit has a 5th wheel and brakes and has a weight equal to or greater than the rear unit; the rear unit is 3,000 lbs. or more and is equipped with brakes.

NEW MEXICO

Total length: 65 feet (excluding bumpers); trailer length: 40 feet; motor home length: 45 feet; width: 8 feet (excluding safety equipment up to 6 inches; for motor homes, excluding appurtenances up to 6 inches); height: 14 feet.

NEVADA

Total length: 70 feet; trailer and motor home length: not specified; width: 8 feet 6 inches (for trailers excluding lights or devices up to 6 inches, door handles, hinges, cable cinchers and chain bundlers up to 3 inches; for motor homes, excluding mirrors, safety equipment, and lights and awnings or hardware up the width of rear view mirrors); height: 14 feet.

UTAH

Total length: 65 feet; trailer length: 53 feet; motor home length: 65 feet; width: 8.5 feet; height: 14 feet.

Unnamed Road, Utah

Pond Rd, Church Rock, NM 87311

Add destination

Leave now

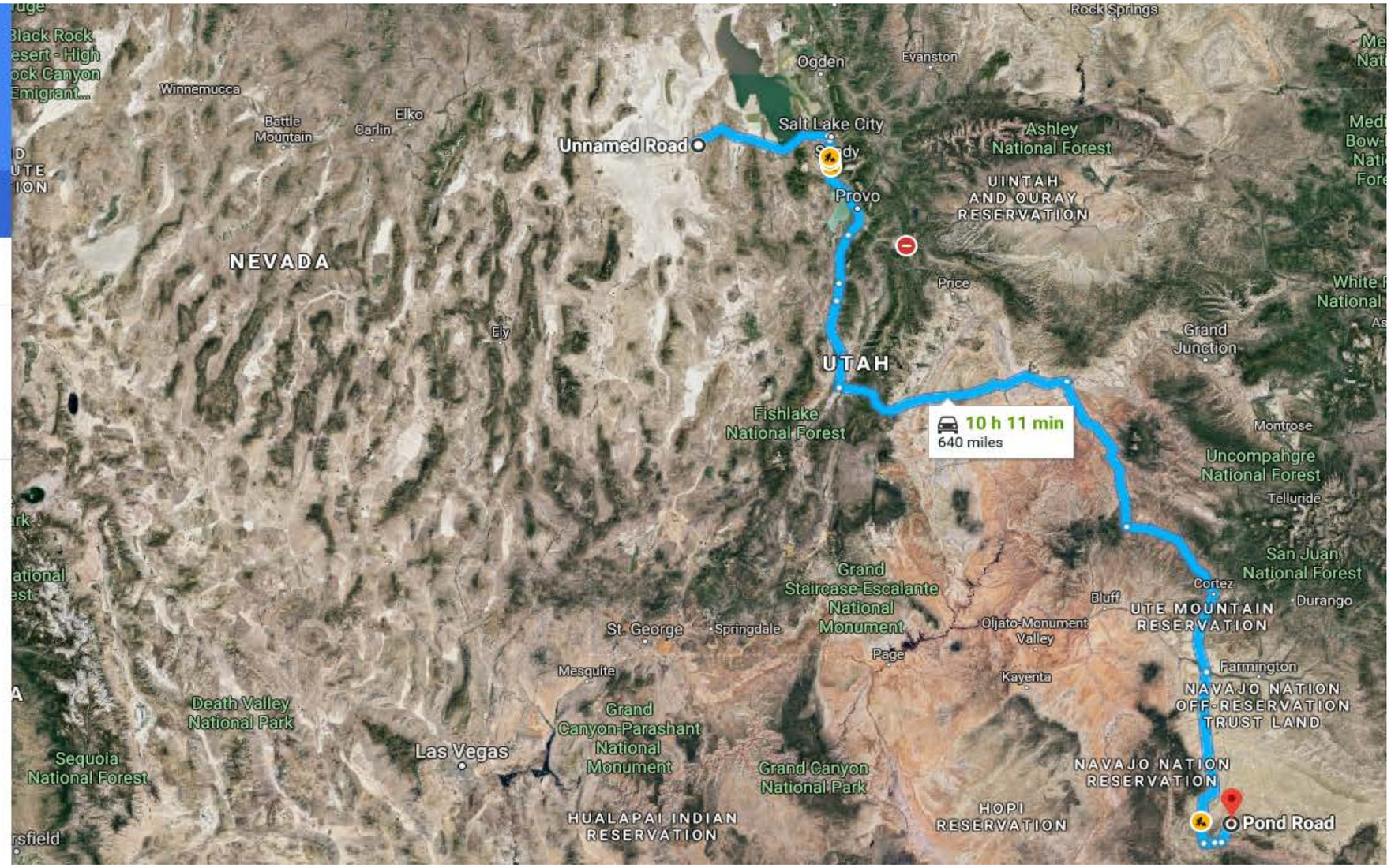
OPTIONS

Send directions to your phone

via US-491 S — 10 h 11 min

Fastest route now, avoids road closures on US-6 E — 640 miles

DETAILS



Unnamed Road, Utah

Salt Lake City, Utah

Las Vegas, Nevada

Pond Rd, Church Rock, NM 87311

Add destination

OPTIONS

Send directions to your phone

via I-80 E — 14 h 9 min

14 h 9 min without traffic — 952 miles

Your destination is in a different time zone.

DETAILS

Pond Rd, Church Rock, NM 87311

Black Mesa Rd, Blanding, UT 84511

Add destination

Leave now

OPTIONS

Send directions to your phone

via Indian Rte 12 and US-191 N — 3 h 30 min

Best route — 203 miles

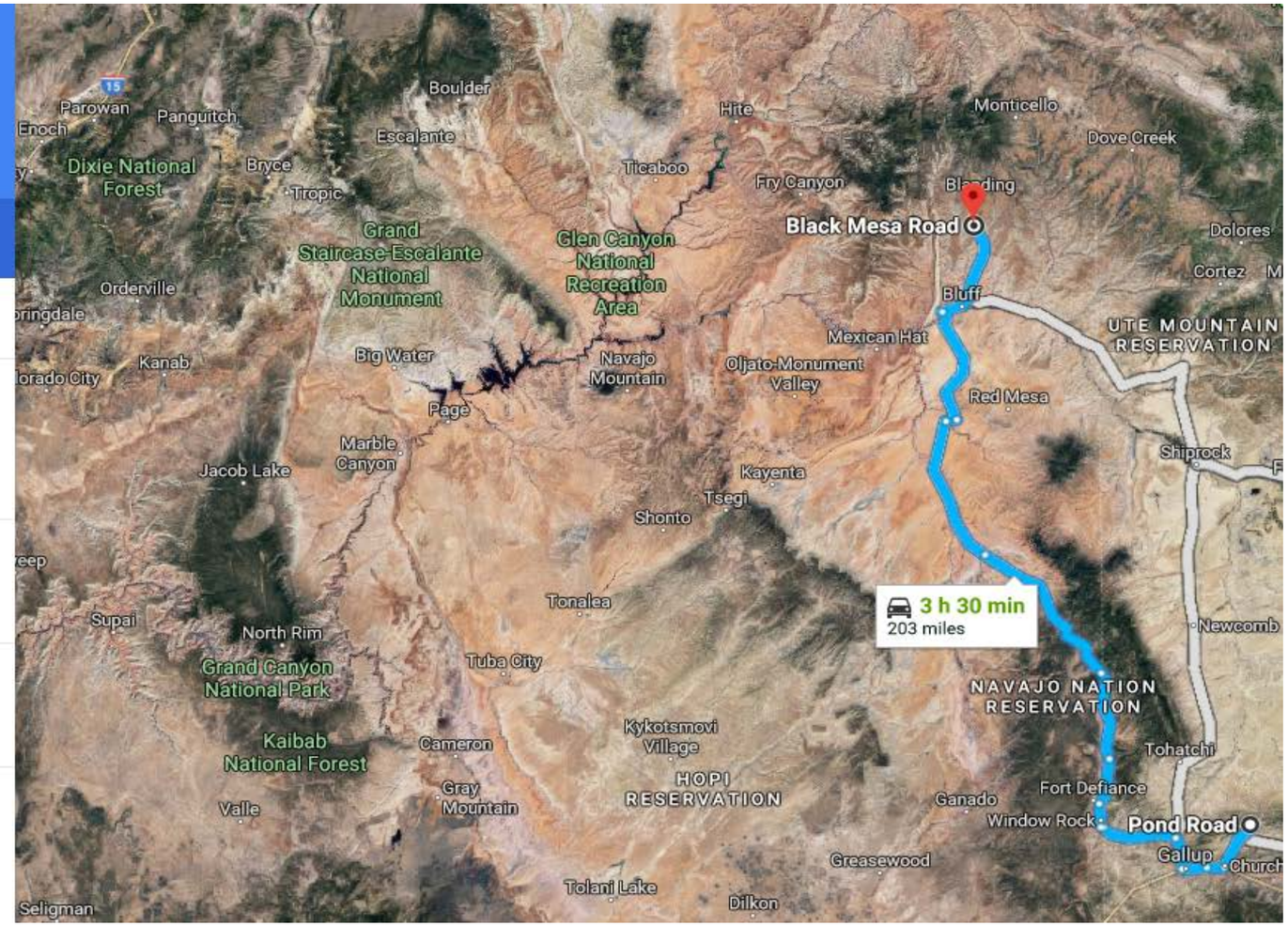
DETAILS

via US-491 N — 3 h 29 min

206 miles

via NM-371 N — 4 h 7 min

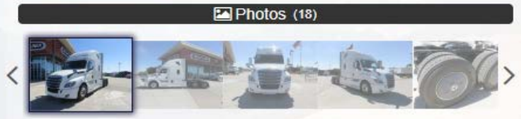
243 miles



1,200,000	Hours/Truck			350	Days per year (Stat Holidays/Unschedul		Diesel Pric	$ 3.00	per Gallon									
10%	Salvage			12	Months/year		Fuel Econc	6.7	miles per gallon									
23,408	Maximum Miles per Month			0.5	Days per month for oil changes			$ 0.45	Cost of Fuel per Mile									
4.27	Life of Owner			28.7	Days per Month													
3	yr Depreciation																	
Cascadia 126 Ownership					Sea Container & Trailer													
									oil changes									
Cost	$ 179,400.00				Cost	$ 23,175.00			miles	50000								
Markup	$ 44,850.00				Markup	$ 5,793.75			days to complete	1								
Total:	$ 224,250.00				Total:	$ 28,968.75			Cost per change	300								
Salvage	$ 22,425.00				Salvage	$ 2,896.88			Total per Mile	$ 0.01								
Cost to Depreciate	$ 201,825.00				Cost to Depr	$ 26,071.88												
Depreciation per Month	$ 5,606.25				Depreciatior	$ 724.22			Tires									
									Each	350								
Cascadia 116 Ownership					Rear Dump Trailer				Truck	10								
									Trailer	8								
Cost	$ 144,900.00				Cost	$ 67,844.25			Total	$ 6,300.00								
Markup	$ 36,225.00				Markup	$ 16,961.06			Milage	100000								
Total:	$ 181,125.00				Total:	$ 84,805.31			Total per Mile	$ 0.06								
Salvage	$ 18,112.50				Salvage	$ 8,480.53												
Cost to Depreciate	$ 163,012.50				Cost to Depr	$ 76,324.78												
Depreciation per Month	$ 4,528.13				Depreciatior	$ 2,120.13												
								Ownership Cost per Mile										
				Miles per day	Maximum M	Truck	Trailer	Truck	Trailer	Fuel	Fixed Cost by Option							
Option 1	640	10.18	1.00	640	18,347	Freightliner Cascadia 126 -	Covered R	$ 0.31	$ 0.12	$ 0.45	$ 0.87							
Option 2	640	10.18	1.00	640	18,347	Freightliner Cascadia 126 -	20 Ft Sea (	$ 0.31	$ 0.04	$ 0.45	$ 0.79							
Option 3	952	14.15	0.99	941.9081272	27,001	Freightliner Cascadia 126 -	Covered R	$ 0.21	$ 0.08	$ 0.45	$ 0.73							
Option 4	952	14.15	0.99	941.9081272	27,001	Freightliner Cascadia 126 -	20 Ft Sea (	$ 0.21	$ 0.03	$ 0.45	$ 0.68							
Option 5	198	3.50	4.00	792	22,704	Freightliner Cascadia 116 -	Covered R	$ 0.20	$ 0.09	$ 0.45	$ 0.74							
Option 6	198	3.50	4.00	792	22,704	Freightliner Cascadia 116 -	20 Ft Sea (	$ 0.20	$ 0.03	$ 0.45	$ 0.68							
Option 7	640	10.18	1.00	640	18,347	Freightliner Cascadia 126 -	20 Ft Sea (	$ 0.25	$ 0.04	$ 0.45	$ 0.73							

2019 FREIGHTLINER CASCADIA 126 For Sale In Tolleson, Arizona

Photos (18)



For Sale Price: $156,000

Make An Offer

Contact Information

FSWAZ
Tolleson, Arizona 85353
Phone: (623) 915-8836
Contact: Sales Dept.

Email FSWAZ

	$ 156,000		
5%	$ 7,800	Development Allowance	
5%	$ 7,800	Freight & Fees	
5%	$ 7,800	Critical Spares	
		Taxes Excluded	
	$ 179,400.00	Total	No Markup
	weight of fuel	1800	lbs
	Weight of Truck	20	tons

2019 FREIGHTLINER CASCADIA 116 For Sale In Tolleson, Arizona

Photos (13)

For Sale Price: $126,000

Make An Offer

Contact Information

FSWAZ
Tolleson, Arizona 85353
Phone: (888) 221-7113
Contact: Sales Dept.

Email FSWAZ

2017

6.7	20	1,016	947,654
AVG MPG	Vehicles	Fuel-ups	Miles Tracked

View All 2017 Freightliner Cascadias

	$ 126,000		
5%	$ 6,300	Development Allowance	
5%	$ 6,300	Freight & Fees	
5%	$ 6,300	Critical Spares	
		Taxes Excluded	
	$ 144,900.00	Total	No Markup
	weight of fuel	750	lbs
	Weight of Truck	13	tons

Container Weight	2.97	tons
Trailer Weight	3.23	tons

20 Ft Sea Container

2019 CHEETAH 23 FOOT SLIDER CHASSIS For Sale In Savannah, Georgia

For Sale Price: USD $14,500

Make An Offer

Add To Watchlist | View My Watchlist

Contact Information

Freightliner of Savannah
Savannah, Georgia 31407
Phone: (912) 584-7107
Contact: Robert Dailey

Email Freightliner of Savannah

	$ 14,500	Trailer	
5%	$ 725	Development Allowance	
5%	$ 725	Freight & Fees	
5%	$ 725	Critical Spares	
		Taxes Excluded	
	$ 16,675.00	Total	No Markup
	$ 5,000	Sea Container	
5%	$ 250	Development Allowance	
5%	$ 250	Freight & Fees	
20%	$ 1,000	Spray Liner	
	$ 6,500.00	Total	No Markup
Package Total	$ 23,175.00	No Markup	

Rear Dump Trailer

☆ 2019 RHODES TRAILER DUMP TRAILER

$58,995

$ Get Financing

Price Alerts

2 watchers

Freightliner of Grand Rapids Website

Grand Rapids, MI

Where is this Trailer?

(866) 584-7310

Truck Specifications

Condition New

Ad Updated Aug-13-2018

MORE DETAILS

	$	58,995	Trailer	
5%	$	2,950	Development Allowance	
5%	$	2,950	Freight & Fees	
5%	$	2,950	Critical Spares	
			Taxes Excluded	
	$	67,844	Total	No Markup
Trailer Weight		6.05	tons	

	Route Description	Miles (One way)	Hours (1 Way)	Maximum Trips one way per day	From	To	Truck Required	Trailer	Notes
Option 1	**Shortest Route**	**640**	**10.18**	**1**	**Church Rock**	**Clive UT**	**Freightliner Cascadia 126 - S**	**Covered Rear Dump**	**Single Operator - Maximum Trips per day is capped at 1 to account for allowable hours, therefore tons is per 2 days**
Cost per ton		$ 167.27							
		Miles (One way)	Hours (1 Way)	Maximum Trips one way per day	From	To	Truck Required	Trailer	
Option 2	**Shortest Route**	**640**	**10.18**	**1**	**Church Rock**	**Clive UT**	**Freightliner Cascadia 126 - S**	**20 Ft Sea Container**	**Single Operator - Maximum Trips per day is capped at 1 to account for allowable hours, therefore tons is per 2 days**
Cost per ton		$ 129.02							
		Miles (One way)	Hours (1 Way)	Maximum Trips one way per day	From	To	Truck Required	Trailer	
Option 3	**All Major Interstates**	**952**	**14.15**	**0.99**	**Church Rock**	**Clive UT**	**Freightliner Cascadia 126 - S**	**Covered Rear Dump**	**Single Operator**
Cost per ton		$ 228.97							
		Miles (One way)	Hours (1 Way)	Maximum Trips one way per day	From	To	Truck Required	Trailer	
Option 4	**All Major Interstates**	**952**	**14.15**	**0.99**	**Church Rock**	**Clive UT**	**Freightliner Cascadia 126 - S**	**20 Ft Sea Container**	**Single Operator**
Cost per ton		$ 121.47							
		Miles (One way)	Hours (1 Way)	Maximum Trips one way per day	From	To	Truck Required	Trailer	
Option 5	**Shortest Route**	**198**	**3.5**	**4**	**Church Rock**	**White Mesa UT**	**Freightliner Cascadia 116 - E**	**Covered Rear Dump**	**Single Operator**
Cost per ton		$ 31.04							
		Miles (One way)	Hours (1 Way)	Maximum Trips one way per day	From	To	Truck Required	Trailer	
Option 6	**Shortest Route**	**198**	**3.5**	**4**	**Church Rock**	**White Mesa UT**	**Freightliner Cascadia 116 - E**	**20 Ft Sea Container**	**Single Operator**
Cost per ton		$ 25.83							
Option 7	**Shortest Route**	**640**	**10.18**	**2**	**Church Rock**	**Clive UT**	**Freightliner Cascadia 126 - S**	**20 Ft Sea Container**	**Team Drivers - Maximum Trips per day is capped at 1 to account for tons/day, the second driver gets the truck back to Church Rock therefore allowing 1 truck load per day**
Cost per ton		$ 83.64							