Review and Response to Wate Mining Company's Proposal

Update to Hualapai Tribal Council and Members

July 3, 2013

Prepared by:

Hualapai Planning and Economic Development Dept.

Outline

- Application to Arizona State Land Department
  - Overview and Extension of Time
  - Project Location
  - Highlights of Mineral Development Report
- Site Visit by Hualapai on March 5th
- Strategy Session on March 13th
- Other Stakeholders involved
- Meetings
  - Havasupai Tribal Council on March 22nd
  - State Land Department on April 26th
  - Governors Office on May 17th
  - Site Visit with Navajo on June 5th
- Next Steps

Overview of Wate Mining Company Application

- Application for Uranium Mine (No. 11-116806)
  - Mailed to Hualapai on February 15; received February 18.
  - Comments originally due to State Land Office by March 15.
  - Extension of Time for comments granted until May 10, 2013.
  - Application and Mineral Development Report on file at State Land Dept., 1616 West Adams, Phoenix, (602) 542-4631

- Mineral Development Report
  - Required by Arizona State Land Department prior to approval of land lease
  - Includes Sections as follows:
    - Geology
    - Economic Feasibility
    - Environmental Assessment
    - Mine Operating Plan
    - Reclamation and Closure Plan

Regional Map

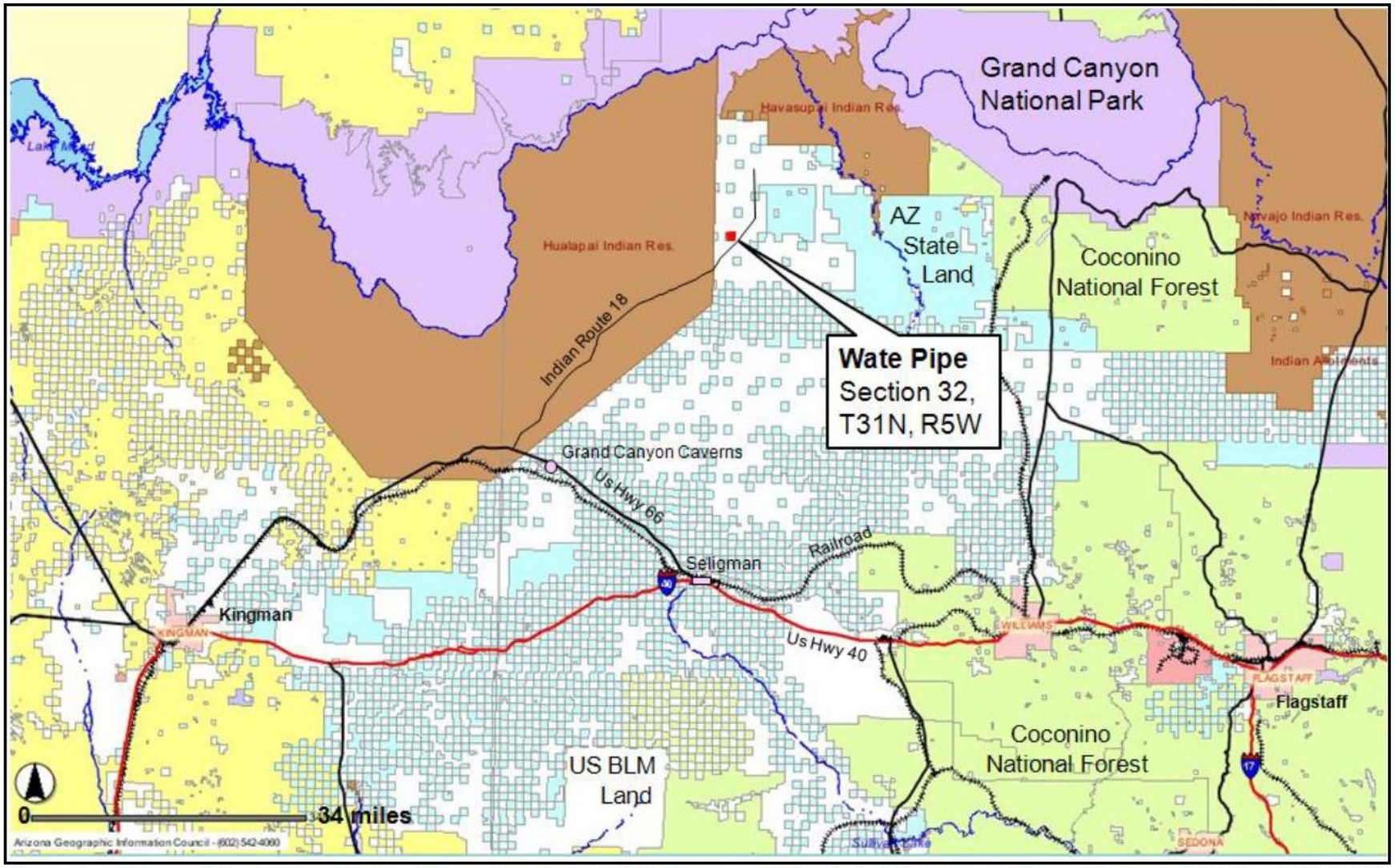


Figure 1. Source: Arizona Geographic Information Council (http://sco.az.gov/website/arizonamap/viewer.htm); modified by SRK, 2011

- 160 acre lease site located on State Trust Land in Coconino County

Vicinity Map w/ Land Ownership

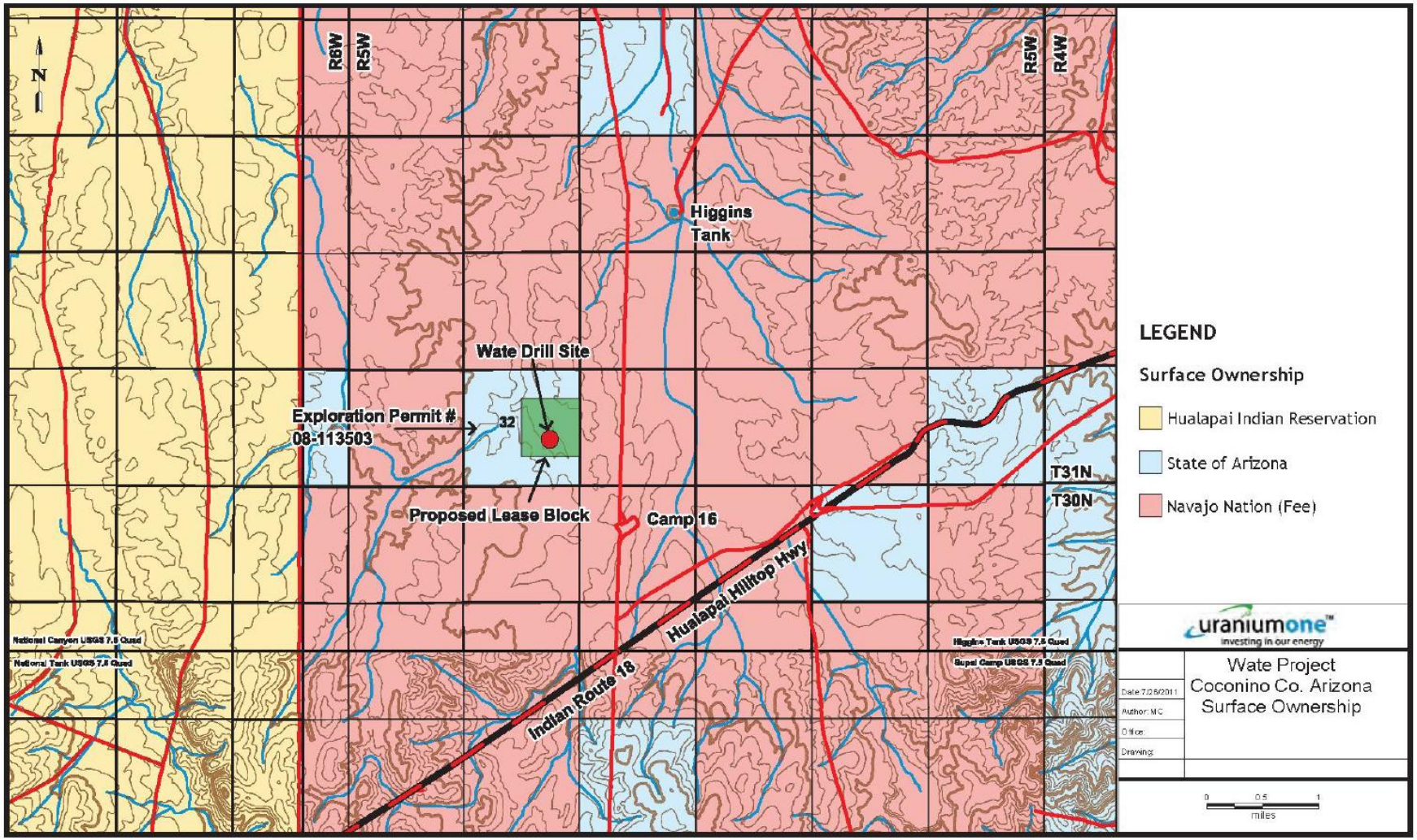


Figure 3.1. Surface Ownership Map

- North of mile post 43 on Indian Route 18 and Camp 16

Application Highlights from Wate Mining Company

- Geology - Uranium Ore located in collapsed breccia pipe, 100' to 200' in diameter and over 3,000 feet deep. Some 70,760 tons of ore is located 1,100' to 1,900' below land surface, with an average grade of eU3O8 (yellowcake) at 0.79%.
- Economics - Will yield approximately 960,000 lbs of eU3O8 worth $39.6 million at today's spot price of $41.25/lb. Long-term estimated spot price is $60.00/lb raising the gross value to approximately $57.6 million. Operations and capital expenditures are estimated at $43.2 million. Will market to world-wide electrical power producers.
- Environmental – Remote location and surrounding land uses are seen as ideal location. Deposit located several hundred feet above regional water table. Mine requires 15,000 gallons of process water per day from new on-site well. Process water stored in surface ponds. Production blasting should not increase hydraulic conductivity. Overburden (tailings) stored on site and used during mine reclamation. No endangered species found. Cultural Resources Report, Appendix E not attached.

Cross-Section of Proposed Mine

- Proposed mine to be located in breccia pipe formation some 1,100 to 1,900 feet below land surface
- Uranium grade ore is located in vertical, cylinder shaped pods of 80' to 150' in diameter.

View from center of breccias pipe land depression looking at rim

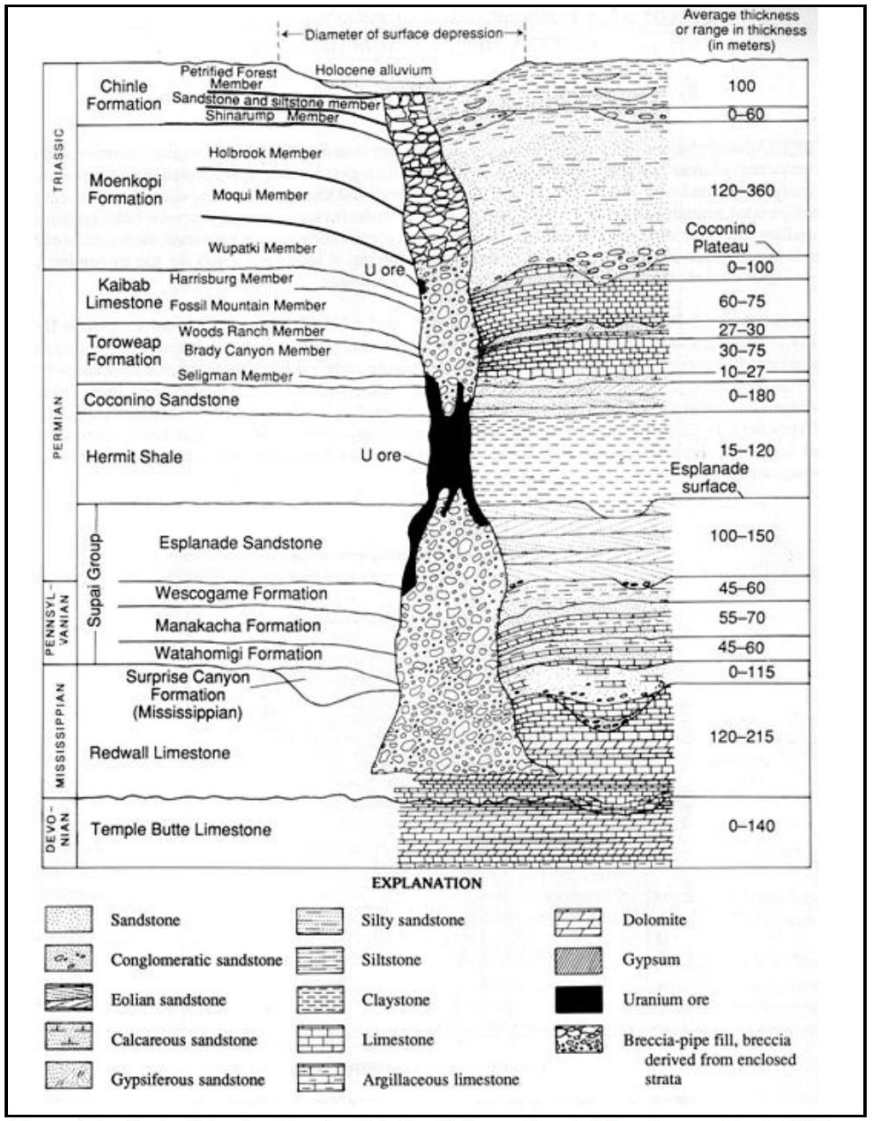


Figure 1.1. Typical Uranium-Bearing Solution Collapse Breccia Pipe. Source: Finch, 1992

Site Plan

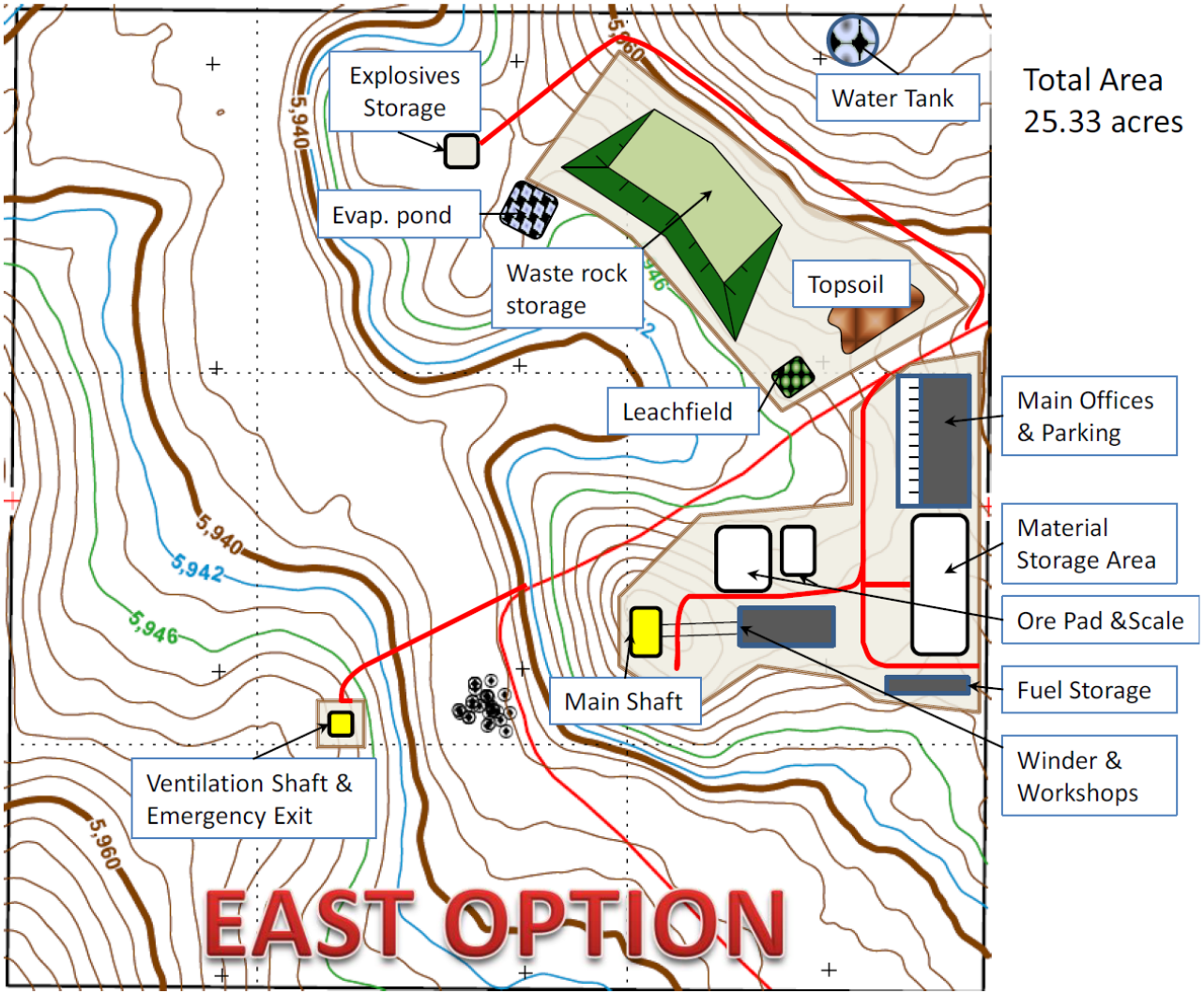


Figure 4.1: Proposed Site Layout - **Blue Contour Denotes 500-year Flood Event**, **Green Contour Denotes Maximum Flood Event**

Application Highlights from Wate Mining Company

- Operations – Two Phases over seven years as follows:
  - Phase One: All work needed to obtain mining permit, including drilling 1,620' deep production shaft and other drill stations for ore body evaluation.
  - Phase Two: Production shaft improvements (sump, ventilation, ramp, draw points), staffing, installing equipment and extracting ore body. Assume production of 250 tons per day (240 work days per year), shipped on 25-ton ore trucks. Ore will be processed in Utah or Colorado.
- Reclamation and Closure – Mine site will be returned to its original appearance as much as practicable and be physically and chemically safe. A bond and indemnity insurance is required. $518,000 to be set aside for this purpose.

Time line

Table 1.1	WATE MINING COMPANY PRODUCTION SCHEDULE						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Permitting							
Surface Exploration							
Project Development							
Site Preparation							
Ore Body Access							
Development							
Stoping							
Reclamation							

1.7.4 Production Rates

The Wate resource consists of 70,000 short tons (t) of ore. Table 1.1 illustrates a seven-year mine life during which ore production occurs during years 6 and 7. Production for year six is projected at 55,000t and, for year seven, production of the remaining 15,000t would be completed in four months. The daily production rate is 250t during about 18 days per month for a monthly production of about 4500t.

Access to Site

- From Flagstaff, some 70 miles west on I-40 to Seligman, then 29 miles northwest on Hwy 66 to Route 18, then approximately 46 miles north east on Route 18 to existing turn-off, and 3.5 miles north to the site.
- A request has been made to the Navajo Nation for approval of the proposed 3.5 mile access road.
- The haul road requires improvement to the existing dirt road and approximately one mile for new dirt road construction (cyan color on map). Environmental assessment is pending and will be completed once route has been approved.

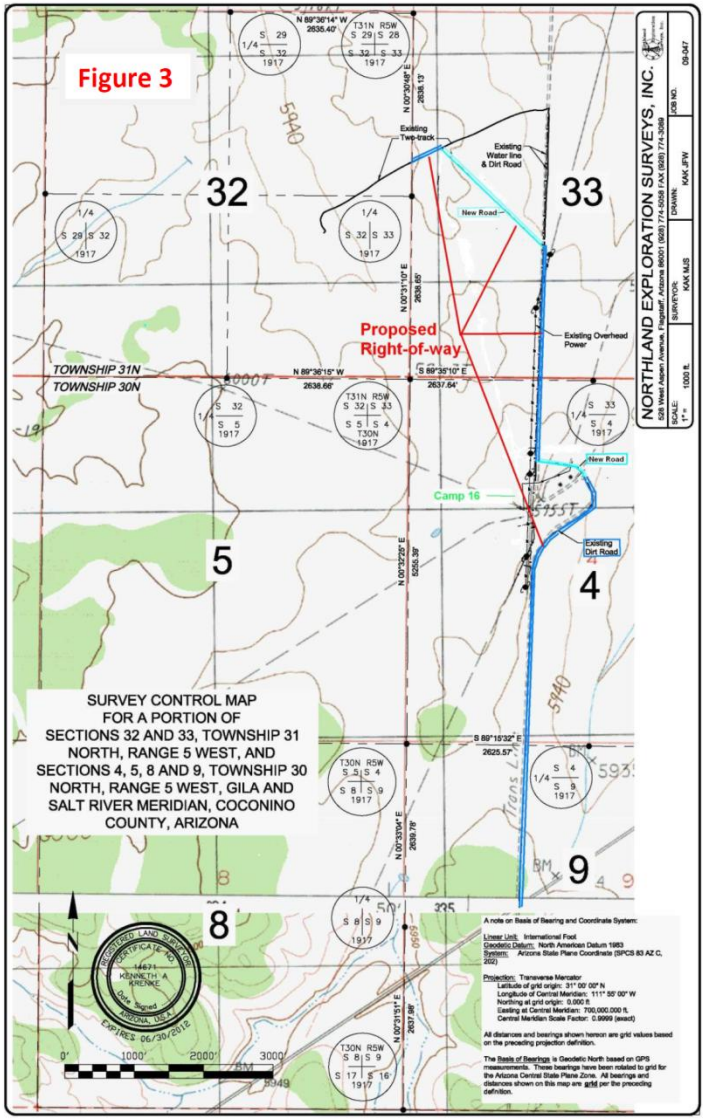
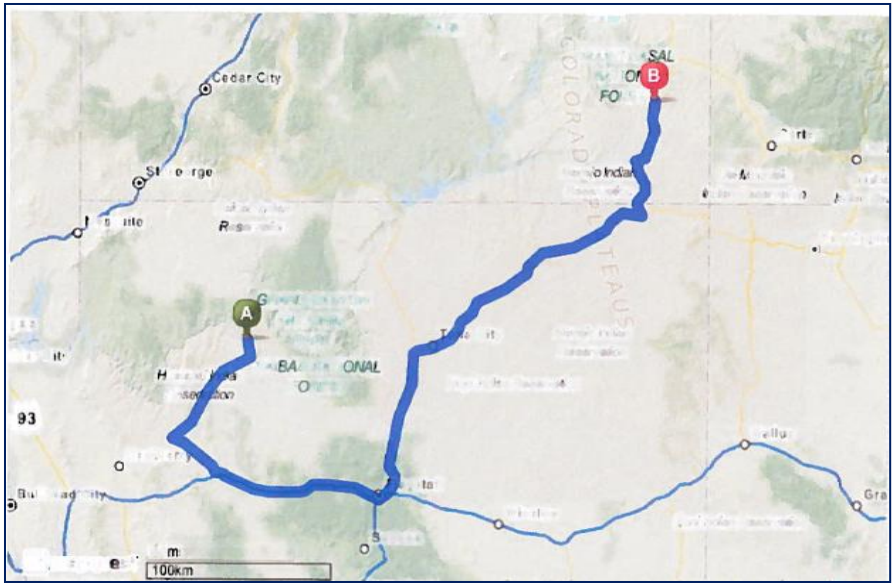


Figure 3 – Proposed Access from Route 18

Journey from Site to Blanding, Utah

Wate Mine Co Option

- Route 18, Hwy 66, I-40, US 89, US 160 and US 190 for 395 miles.



MapQuest Option

- Route 18, Redlands Ranch Road, Anita Road, NF 347, AZ 64, US 89, US 160 and US 190 for 295 miles.

Site Visit

- Hualapai met with Wate Mining Co. representative Matt Germanson on-site, March 5th and discussed concerns related to use of Route 18, groundwater contamination, flood issues from storm-water flows north to Coyote Canyon, air quality degradation arising from dust from operations and tailings, and need for cultural survey.

Upper photo: view from mining area up to operations office.
Lower photo: Mr. Germanson fields questions from Councilman Clark.

Hualapai Strategy Session, March 13th

- Mining Transportation Plan and the potential impacts to the Tribe:
  - Existing undercutting of the road bed, slope stability issues and the need to evaluate the carrying capacity of the culverts. Can the culverts take additional loads typical of an ore truck (80,000 lb gross vehicle weight)? Would roadway improvements, such as a new bridge to accommodate a heavier than normal vehicle, trigger a NEPA review?
  - The first 20 miles of Indian Route 18, beginning at State Route 66, required $2.4 million dollars to repair. Improving the next 20 miles is estimated to cost $2.5 million dollars. The concern is that if the Tribe expends these monies on road maintenance will the ore trucks damage the roadway that was just repaired?
  - The Tribe does not have an Emergency Action Plan for uranium spills.
  - The use of a Bentonite clay liner in the evaporation pond may be insufficient to protect the groundwater.
  - Council Resolution No. 67-2009 which opposes uranium mining and exploratory drilling without tribal approval on all ancestral lands, including lands under the sovereign authority of the Hualapai Tribe and the various federal managing agencies, may be amended to prohibit the transport of uranium ore through the Hualapai Reservation.

Hualapai Strategy Session, March 13th

- Hazards posed by location of mine some two miles east of the Reservation boundary:
  - Are perched aquifers in the area located above the ore body?
  - Frazier Wells and the Youth Camp are served by a public water system and should added to the Mineral Development Report.
  - Even though the well and mining operations are above the 100-year and 500-year flood events, climate change, including the increased presence of tornados on the Colorado Plateau, make this site more risky to develop than may be generally thought.
  - Drainages have acted as historic pathways for native people to access the Grand Canyon, such as the road to Long Mesa. Since this project is located on State Trust land, the State Historic Preservation Office must be involved.
  - Transport of the ore would go through Hualapai cultural sites.
  - If the site is identified as a cultural property, then it would be eligible to be a TCP (Traditional Cultural Property) and protected by state law.
  - Navajo will consider the re-routing of the roadway to the mine.

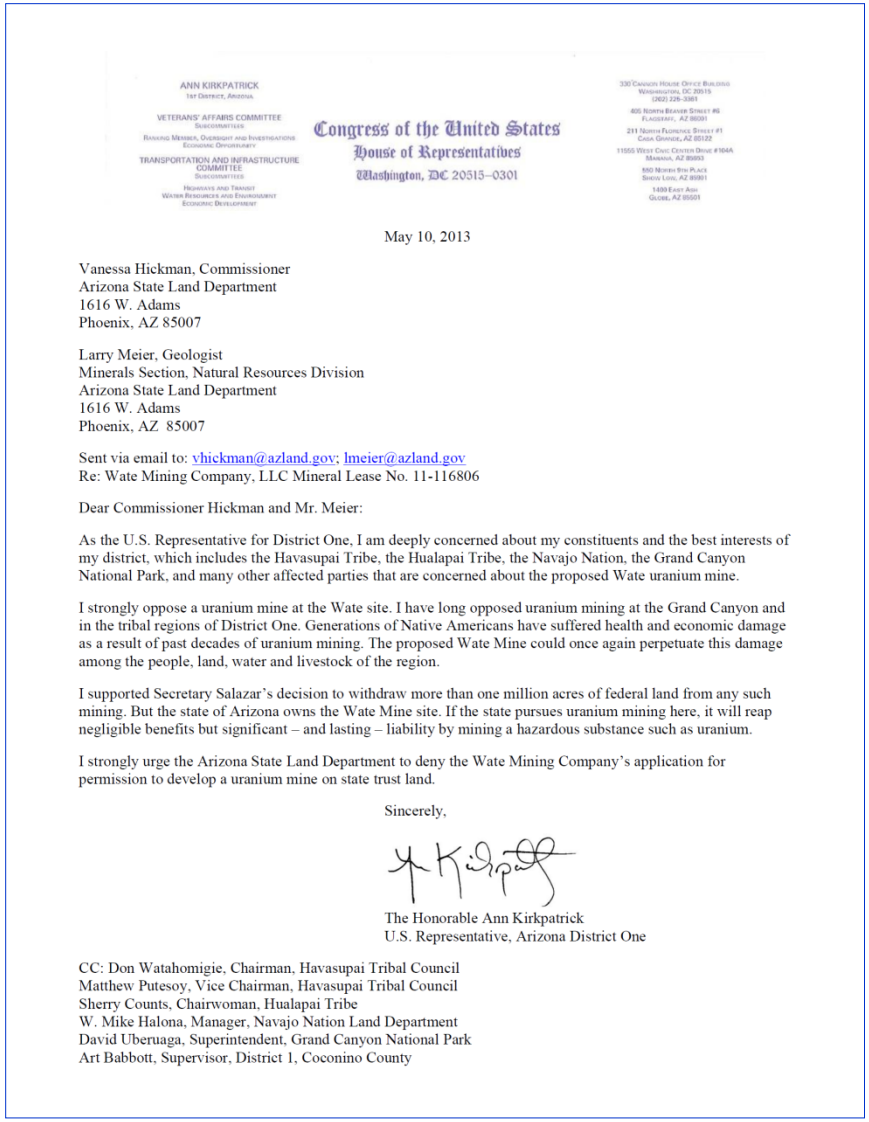
Hualapai Strategy Session, March 13th

- Financial impacts to the Tribe arising both from the location of the mine and the transportation of raw ore on the Reservation:
  - Negative impact on tourism on the Reservation include travel to and from the Hualapai Hilltop and Supai Village, big game hunts (commercial), and other outdoor recreation occurring along Route 18.
  - Other financial or economic burdens on the Reservation posed by this plan include Indian hunts (traditional) and ranching activities if cattle are struck in the roadway or ranchers otherwise impeded by ore truck traffic.
  - Traditional harvesting and gathering of pinion nuts and other native foods may also be curtailed if other Tribes in Arizona feel the area is unsafe to visit.
- Other areas of concern and Investigation:
  - If some of the uranium will be sold to the federal government, is there a federal law that prohibits the government from buying uranium that is obtained from Native American ancestral lands without a Tribe's consent. A similar law in Arizona prevented a local quarry from selling gravel to ADOT for road work.

Stakeholders reviewing the Wate Mine Application

- Known List:
  - Havasupai Tribe
  - Hualapai Tribe
  - Navajo Nation
  - Coconino County
  - Town of Tusayan
  - Forest Service
  - Grand Canyon Trust
  - Center for Biological Diversity

- House of Representatives:
  - Ann Kirkpatrick, District 1



ANN KIRKPATRICK
1st District, Arizona

VETERANS' AFFAIRS COMMITTEE
Subcommittees
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Flagstaff, AZ 86001

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Casa Grande, AZ 85122

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880 North 9th Place
Show Low, AZ 85901

1489 East Ash
Globe, AZ 85501

May 10, 2013

Vanessa Hickman, Commissioner
Arizona State Land Department
1616 W. Adams
Phoenix, AZ 85007

Larry Meier, Geologist
Minerals Section, Natural Resources Division
Arizona State Land Department
1616 W. Adams
Phoenix, AZ 85007

Sent via email to: vhickman@azland.gov; lmeier@azland.gov
Re: Wate Mining Company, LLC Mineral Lease No. 11-116806

Dear Commissioner Hickman and Mr. Meier:

As the U.S. Representative for District One, I am deeply concerned about my constituents and the best interests of my district, which includes the Havasupai Tribe, the Hualapai Tribe, the Navajo Nation, the Grand Canyon National Park, and many other affected parties that are concerned about the proposed Wate uranium mine.

I strongly oppose a uranium mine at the Wate site. I have long opposed uranium mining at the Grand Canyon and in the tribal regions of District One. Generations of Native Americans have suffered health and economic damage as a result of past decades of uranium mining. The proposed Wate Mine could once again perpetuate this damage among the people, land, water and livestock of the region.

I supported Secretary Salazar's decision to withdraw more than one million acres of federal land from any such mining. But the state of Arizona owns the Wate Mine site. If the state pursues uranium mining here, it will reap negligible benefits but significant – and lasting – liability by mining a hazardous substance such as uranium.

I strongly urge the Arizona State Land Department to deny the Wate Mining Company's application for permission to develop a uranium mine on state trust land.

Sincerely,

The Honorable Ann Kirkpatrick
U.S. Representative, Arizona District One

CC: Don Watahomigie, Chairman, Havasupai Tribal Council
Matthew Putesoy, Vice Chairman, Havasupai Tribal Council
Sherry Counts, Chairwoman, Hualapai Tribe
W. Mike Halona, Manager, Navajo Nation Land Department
David Uberuaga, Superintendent, Grand Canyon National Park
Art Babbott, Supervisor, District 1, Coconino County

Meeting with Havasupai on March 22nd

- Concerns unique to Havasupai Tribe
  - Route 18 provides only paved access to Havasupai Reservation
- Common concerns between Havasupai & Hualapai Tribes
  - Site contamination and water pollution
  - Cultural landscape
  - Economic development (tourism, ranching, hunting)
- Coordination of efforts to respond to Wate Mining Company's proposal
- Future Meetings with State Land Department and Governor's Office

Meeting with State Land Department on April 26th

- Representatives from Havasupai & Hualapai Tribes, Navajo Nation and County Coconino County met with State Land Commissioner Vanessa Hickman and staff.
- Reviewed concerns on site contamination, water pollution, cultural landscape, economic development, inadequate transportation route, and legal access to site with Navajo owning the surrounding Big Boquillas Ranch.
- Staff at State Land Department listened to all presentations without rebuttal.
- Future meetings with Governor's Office planned for May 17th.

Hualapai Resolution No. 36-2013

- Council Resolution No. 67-2009 which opposes uranium mining and exploratory drilling without tribal approval on all ancestral lands, was updated on May 3, 2013.
- Additional language reads as follows:
  - NOW THEREFORE BE IT FURTHER RESOLVED that the Hualapai Tribe formally opposes the transportation of uranium ore through the Reservation, and.
  - NOW THEREFORE BE IT FURTHER RESOLVED that the Hualapai Tribe calls on the Arizona State Land Department to deny the application of the Wate Mining Company for permission to develop a uranium mine on State Trust land that is closely proximate to the Hualapai Reservation, and
  - NOW THEREFORE BE IT FURTHER RESOLVED that the Hualapai Tribe calls on the Arizona State Land Department to engage in consultation with the Hualapai Tribe on the health, safety, environmental, cultural and economic impacts on the Hualapai Tribe of any proposed uranium mining on State Trust land that is proximate to the Hualapai Reservation, as part of any further consideration of an application for mining on such State Trust lands.

Meeting with Governor's Natural Resources Policy Advisor on May 17th

- Representatives from Havasupai & Hualapai Tribes, Navajo Nation and County Coconino County met with Governor's Office, State Land Commissioner and representatives from Arizona Department of Environmental Quality.
- Reviewed concerns on site contamination, water pollution, cultural landscape, economic development, inadequate transportation route, and legal access to site with Navajo owning the surrounding Big Boquillas Ranch.
- Staff from all offices listened to presentations from the Tribes with limited discussion.
- State Land Department will take eight to ten months to decide on whether or not to issue the mining permit to Wate Mining Co.

Next Steps

- Stakeholder meetings
- Actions
  - Require the State Land Dept and ADEQ to hold public meetings at a local venue (Supai Village, Peach Springs, Flagstaff)
  - Seek extension of ban on uranium mining on all State land accessing Route 18

Thank you for your time

Kevin A. Davidson, Planning and Economic Development Director
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