**From:** Shelly Rosenblum
**To:** Clancy Tenley
**Cc:** Brent Maier; Colleen McKaughan; lau.nate@epa.gov; Kara Christenson; Tunde Wang
**Subject:** Re: Fw: Second uranium mine on deck - Arizona Daily Sun
**Date:** 02/23/2012 01:31 PM
**Attachments:** Arizona Map With Receptors.pdf

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Clancy
Our use of the word "permit" is strange when dealing with the radionuclide NESHAP. It's really an "approval to construct" and the only thing we're examining is radon emissions. So we didn't consult with tribes when we issued the approval for the Pinenut mine. You can see on the map attached, that EZ1 / EZ2 are north of the canyon, and north of the AZ and Pinenut mines - and not on the Navajo Nation. So I don't think we have to consult but I'll leave that as a policy call for others to make.

Shelly Rosenblum
Radiation & Indoor Environments Teams
EPA / AIR-6
75 Hawthorne St
San Francisco, CA 94105
415-947-4193 fax: 3583
rosenblum.shelly@epa.gov

The indoor environment is as fascinating and complex as the outdoor environment, but we spend 90% of our day indoors. The indoor environment is the human environment. Learn how to protect it at our website: http://www.epa.gov/iaq.

▼ Clancy Tenley---02/23/2012 01:12:13 PM---Thanks for passing this information on, Shelly. Where is the EZ1/EZ2 mine? I heard from Navajo DOJ

From: Clancy Tenley/R9/USEPA/US
To: Shelly Rosenblum/R9/USEPA/US@EPA
Cc: Colleen McKaughan/R9/USEPA/US@EPA, lau.nate@epa.gov, Brent Maier/R9/USEPA/US@EPA
Date: 02/23/2012 01:12 PM
Subject: Fw: Second uranium mine on deck - Arizona Daily Sun

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Thanks for passing this information on, Shelly. Where is the EZ1/EZ2 mine?
I heard from Navajo DOJ that the tribe just passed a law restricting transportation of radioactive material on roads through the reservation. I would think that this would mean we would need to consult with Navajo Nation prior to approving permits for mines near or likely to result in transportation across the reservation.

Clancy Tenley
Assistant Director, Superfund Division
Partnerships, Land Revitalization, & Cleanup Branch
EPA Region 9
(415)972-3785
fax (415)947-3526

----- Forwarded by Clancy Tenley/R9/USEPA/US on 02/23/2012 01:09 PM -----

From: Brent Maier/R9/USEPA/US
To: Clancy Tenley/R9/USEPA/US@EPA
Cc: Margot PerezSullivan/R9/USEPA/US@EPA
Date: 02/23/2012 09:19 AM
Subject: Fw: Second uranium mine on deck - Arizona Daily Sun

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Passing along a note from Shelly Rosenblum in our Air Division regarding the Canyon Mine that you may find of interest.

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Brent Maier
Congressional Liaison
U.S. Environmental Protection Agency - Region IX
75 Hawthorne St. (OPA-3)
San Francisco, CA 94105

Telephone: 415.947.4256
Fax: 415.947.3519

E-mail: maier.brent@epa.gov

----- Forwarded by Brent Maier/R9/USEPA/US on 02/23/2012 09:17 AM -----

From: Shelly Rosenblum/R9/USEPA/US
To: Colleen McKaughan/R9/USEPA/US@EPA
Cc: Mike Bandrowski/R9/USEPA/US@EPA, Tunde Wang/R9/USEPA/US@EPA, Kara Christenson/R9/USEPA/US@EPA, Brent Maier/R9/USEPA/US@EPA, Kelly Zito/R9/USEPA/US@EPA
Date: 02/23/2012 07:47 AM
Subject: Re: Fw: Second uranium mine on deck - Arizona Daily Sun

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All

Colleen sent the article (at the bottom of this message) about the Canyon Mine. From Denison's update, below, they claim that the Canyon mine will produce less than 100K tons of ore meaning the NESHAP does not apply. It looks like the EZ1/EZ2 mines will be the next action-able facilities late in 2012 or 2013.

Kelly, Brent
FYI: We've "permited" one mine under 40 CFR Subpart B - a radionuclide NESHAP which limits radon emissions from uranium mines. Another mine was also under the 100K tons level. While the Havasupai are concerned about radiological contamination of their lands in the Grand Canyon, there exists many areas in the Canyon where large deposits of uranium ore have been exposed due to the Colorado River slicing through the plateau.

Shelly Rosenblum
Radiation & Indoor Environments Teams
EPA / AIR-6
75 Hawthorne St

San Francisco, CA 94105
415-947-4193 fax: 3583
rosenblum.shelly@epa.gov

Shelly,

The following is a summary of currently planned activities in Region 9:

1. The Kanab North mine, located northeast of the Arizona 1 mine, is going into reclamation. However, ventilation of that mine will not be required during reclamation. Therefore, we do not plan to make any applications under 40 CFR 61.07 relating to those activities.
2. The EZ1/EZ2 mine is in the permitting process, which will include an Environmental Impact Statement. An application under 40 CFR 61.07 will be required for that mine. However, final approval of the Plan of Operations and commencement of ventilation activities are not expected until 2013 at the earliest. An application under 40 CFR 61.07 will be submitted at a later date, well before commencement of ventilation.
3. Development of the Canyon mine, located south of the Grand Canyon, is anticipated to move forward late in the first quarter of 2012, with the start of shaft sinking planned to begin late 2012. Ventilation of the mine shaft would not be required until late 2012 at the earliest. The estimated resource for the Canyon mine is 70,500 tons of ore, based on the Technical Report on the Arizona Strip Uranium Project, Arizona U.S.A dated February 26, 2007 prepared by Scott Wilson Roscoe Postle Associates Inc. under NI 43-101.
4. Denison has a few other mining properties in Region 9 that it is considering advancing into the permitting process, but permit issuance and commencement of operations at any of those mines would be several years away.

Please let me know if you have any further questions.

Dave

Colleen McKaughan---02/22/2012 12:09:50 PM---FYI Colleen W. McKaughan

From: Colleen McKaughan/R9/USEPA/US
To: Mike Bandrowski/R9/USEPA/US@EPA, Shelly Rosenblum/R9/USEPA/US@EPA
Date: 02/22/2012 12:09 PM
Subject: Fw: Second uranium mine on deck - Arizona Daily Sun

FYI

Colleen W. McKaughan
Associate Director, Air Division
USEPA, Region 9
(520) 498-0118

----- Forwarded by Colleen McKaughan/R9/USEPA/US on 02/22/2012 01:18 PM -----

From: Timothy Grant/R9/USEPA/US
To: Angela Baranco/R9/USEPA/US@EPA, Colleen McKaughan/R9/USEPA/US@EPA, Danielle Angeles/R9/USEPA/US@EPA, Danita Yocom/R9/USEPA/US@EPA, Debbie Schechter/R9/USEPA/US@EPA, Enrique Manzanilla/R9/USEPA/US@EPA, Eugenia McNaughton/R9/USEPA/US@EPA, GwenL Brown/R9/USEPA/US, Kristin Gullatt/R9/USEPA/US@EPA, Linda Reeves/R9/USEPA/US@EPA, Nancy Sockabasin/R9/USEPA/US@EPA, Pam Cooper/R9/USEPA/US@EPA, Sara Bartholomew/R9/USEPA/US@EPA, Stephanie Valentine/R9/USEPA/US@EPA, Svetlana Zenkin/R9/USEPA/US@EPA, Angie Proboszcz/R9/USEPA/US@EPA, Bessie Lee/R9/USEPA/US@EPA, Clancy Tenley/R9/USEPA/US@EPA, Corine Li/R9/USEPA/US@EPA, David Taylor/R9/USEPA/US@EPA, David Tomsovic/R9/USEPA/US@EPA, Francisco Arcaute/R9/USEPA/US@EPA, Janis Gomes/R9/USEPA/US@EPA, Jim Grove/R9/USEPA/US@EPA, Joel Jones/R9/USEPA/US@EPA, Kristin Gullatt/R9/USEPA/US@EPA, Lawrence Torres/R9/USEPA/US@EPA, Lilia Dignan/R9/USEPA/US@EPA, Maeve Foley/R9/USEPA/US@EPA, Marcy Katzin/R9/USEPA/US@EPA, Pam Cooper/R9/USEPA/US@EPA, Periann Wood/R9/USEPA/US@EPA, Tiffany Eastman/R9/USEPA/US@EPA, Vali Frank/R9/USEPA/US@EPA, Wendell Smith/R9/USEPA/US@EPA
Date: 02/22/2012 01:06 PM
Subject: Fw: Second uranium mine on deck - Arizona Daily Sun

# Second uranium mine on deck

**Cyndy Cole, Arizona Daily Sun - February 21, 2012**

Several months from now, miners could set to work pulling uranium from underground at a mine about an hour from Flagstaff, over the ardent objections of some.

The ore would likely be trucked over local highways through Flagstaff, and up to a refining mill in Blanding, Utah.

The mine, 6 miles south of Tusayan, would be the second or third to open in northern Arizona, and it likely would be the only one south of the Grand

Canyon.

The supervisor of the Kaibab National Forest expects the company involved can mine in an area now off-limits to new uranium mining because the mine predates those restrictions.

But local tribes and environmental groups are likely to wage a legal battle against the mine for the same reasons some opposed snowmaking at Arizona Snowbowl -- that the mine intrudes upon an area held sacred by thousands.

Legal attempts to stop mining are likely in this case, but similar appeals at a mine owned by the same company north of the Grand Canyon have failed to date.

And state environmental regulators appear to be toothless. They have been unable to prevent that mine from operating even before it has been issued a new state permit.

This wouldn't be the first battle over the Canyon Mine, which is located in the shadow of a lava-capped butte that area tribes consider sacred.

Miners last set their sights on the Canyon Mine in the 1980s, prompting litigation by the Havasupai Tribe in federal courts before uranium prices crashed.

Although there's some equipment on the site, miners never made it more than about 50 feet underground, according to data from the U.S. Geological Survey.

A Canadian company called Denison Mines owns the mine now, and it's been waiting on a federal go-ahead to get started in earnest.

Although federal laws typically open national forest land to mining, in January Interior Secretary Ken Salazar put about 1 million acres of this region's federal lands off-limits to new mining for 20 years.

So now mining companies have to prove that they have a valid claim that pre-dated those rules.

And that seems pretty likely here, said Mike Williams, supervisor of the Kaibab National Forest.

"Our expectation is, based on their past work, that they will have that valid existing right," Williams said recently.

That is good news for Ron Hochstein, president and chief executive officer at Denison Mines. "We would start work immediately upon that decision," he said.

The ore would be refined in Utah and several times over before making its way

to power plants.

Denison provides fuel for nuclear power plants in North America and South Korea.

Denison's permission to mine hinges on an environmental analysis completed in 1986, which officials with the Kaibab consider effective for guiding mining today. "That original approval stands," Williams said.

These older documents have been a point of litigation at the only mine operating today: Arizona 1 north of the Grand Canyon.

But mining is proceeding at Arizona 1 today nonetheless, and opponents have been unsuccessful in obtaining an injunction to stop it.

Among other things, the 1986 environmental planning document for the Canyon Mine projects long odds of contamination of nearby groundwater locally or to the Grand Canyon or Havasupai Tribe downstream.

"The possibility of significant groundwater contamination from the mine is remote. Groundwater flows, if they exist, are likely to be at least 1,000 feet below the lower extremities of the mine. This, plus the low potential for encountering groundwater in the mine, effectively eliminates the possibility of contaminating the Redwall-Muav aquifer," the analysis reads.

And it requires miners to drill a nearby well to test for water contamination in the aquifer close to the mine.

"In the event that groundwater becomes contaminated during the mining operations, continuous pumping will be maintained until critical constituents are reduced to drinking water standards or to within 10 percent of ambient concentrations, or to some comparable standard approved by the Forest Service," it reads.

The 1986 document approving mining south of Tusayan also offers the Orphan Mine on the South Rim of the Grand Canyon as an example of mining done safely -- an example that might now be invalid.

"It was active during the period from 1956 to 1969, under regulatory guidelines much less restrictive than those which exist today. Radionuclide contamination of air, soil or water from the Orphan Mine has not been identified," it found.

Actually, the National Park Service warns backcountry hikers not to drink from the water source fed by the Orphan Mine due to radioactive contamination, and it said last year in public documents that environmental investigations found "elevated radiation levels and other hazardous substance contamination associated with historic mining activities at the site."

The Native Americans who call themselves "people of the blue-green water," the Havasupai, live in a side canyon of the Grand Canyon, 35 miles

downstream of the Canyon Mine.
The tribe fought the mine in the early 1990s up to the 9th U.S. Circuit Court of Appeals

The group raised several different objections, but primarily it said that the mine would interfere with an area that is the tribe's birthplace and infringe on religious beliefs. Those were parallel to legal and spiritual arguments tribes made against snowmaking at Snowbowl.

The Havasupai lost at the Canyon Mine in those earlier cases and the tribes have lost at Snowbowl, with the courts ruling that the tribes are not prevented from practicing their religion.

Vice Chairman Matthew Putesoy Sr. explains the area's significance this way: There was a very big flood a long time ago, and a chief of the Havasupai then placed his daughter inside a sealed log, with food.

When the water receded, the log and the daughter inside it came to rest at Red Butte, where she later conceived two boys with the sun and the springs, and this was the origination of modern-day Havasupai people.

This area near Red Butte is somewhat like the umbilical cord of the Earth in Havasupai tradition, and it's a place tribal members visit for renewal and purification every year.
"We've been opposed to the mining for a long time. It's not just because we don't want the mining companies to come in and do any kind of mining, but it's due to the area being a very sacred ground, not just to the Havasupai, but to the Navajos, the Hopis, the Zunis ... we have our sacred salt, our sacred paints, our sacred shrines in the area. We don't want to have these areas polluted," Putesoy said.

But the tribes faced a dilemma in the 1980s, because spelling out every site and telling every detail of these stories to outsiders was and still is a sacrilegious act.

"It pressures the tribes into having to reveal some of these areas," said Leigh Kuwanwisiwma, director of the Hopi Cultural Preservation Office.

The tribes ultimately declined to map out sacred sites for the Forest Service.

And planners working on behalf of the Kaibab National Forest wrote in 1986 that development at the mining site "will have no appreciable effect on Indian religious sites and practices and will not burden traditional Tribal religious beliefs" because no known sacred sites would be disturbed.

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Brent Maier
Congressional Liaison
U.S. Environmental Protection Agency - Region IX
75 Hawthorne St. (OPA-3)

San Francisco, CA 94105

Telephone: 415.947.4256
Fax: 415.947.3519

E-mail: maier.brent@epa.gov