AZ/Utah Local Economic Coalition

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Members:

Garfield County, UT
Kane County, UT
Mohave County, AZ
San Juan County, UT
Washington County, UT
Town of Fredonia, AZ

May 16, 2023

The Honorable President Joseph Biden
United States of America
1600 Pennsylvania Avenue, N.W.
Washington, DC 20500

President Biden:

As the elected County Leaders of Mohave County, Arizona and Kane, Garfield, San Juan and Washington County, Utah, we respectfully request that you do not designate yet another National Monument in our region of the desert southwest. Under traditional Multiple Use management of public lands, each area of land has a different emphasis of management. Some lands, like the spectacular Grand Canyon National Park, deserve protection and focus on recreation; those lands were carefully set aside decades ago by Congress for that very purpose. Other public lands are better suited for other uses, including livestock grazing, recreation and mining the materials, that will protect the environment, such as uranium, for national defense and clean energy production. Neighboring Native American lands also deserve deference to tribal priorities. Congress has weighed in on this with clear direction given to federal land managers.

In 1984, The Congressional delegations from Arizona and Utah (Senator Barry Goldwater, Dennis DeConcini, Jake Garn and Orrin Hatch. Representatives Morris Udall, John McCain, Bob Stump and Jim Hansen) worked closely together with environmentalists and industry to add further protections in the form of additional wilderness designations on National Forests around the Grand Canyon National Park and carefully delineated BLM lands outside the National Park that were better suited for uranium and rare earth mineral exploration and extraction. For example, Congress specifically set aside the lands you are being asked to lock up for mining. No new threat to the Grand Canyon National Park region has emerged since 1984 or 2010 that justifies Presidential action under the Antiquities Act. (Please see Exhibit A - National Park and Conservation Area (NPCA) Russ Butcher 2010 Testimony.) Mining is not a threat.

As Mr. Butcher's testimony before the House Natural Resources Committee clearly points out, there is no scientific reason to deny the nation the use of the abundant uranium resources which are located there, especially given your Administration's initiatives to deal with climate change.

As elected stewards of the lands that surround the Park, we believe we have a responsibility to the larger environment to protect access to minerals that will provide the Defense Department with high grade uranium and with nuclear fuel for clean electric power generation. According to the U.S. Geological Survey (USGS), the lands being recommended to you contain up to 375,000,000 lbs. of uranium, or almost one third of the nation's uranium endowment. The geologic formations containing this mineral and other rare earths are called breccia pipes which fortunately are among the easiest formations to mine safely in a very environmentally sound way. (See Exhibit B - photos of before/after reclaimed lands.)

In 2010 and 2011 when then Interior Secretary Ken Salazar asked the National Park Service to evaluate the nearly 1,000,000 acres of lands, now being proposed as the new Baaj Nwaavjo I'tah Kukveni monument, internal National Park Service emails from Park Service employees showed that they could not Identify a threat to the lands or watershed leading into or surrounding the Grand Canyon, and that breccia pipes inside the Park, which no one intends to mine, are in fact, naturally occurring. (Exhibit C - NPS emails used to justify 2012 Withdrawal)

The Navajo, Hopi, Ute and other indigenous communities in our region are in desperate need of stable high wage employment. With the recent closure of coal fired electricity generation facilities at Four Corners, your Administration's call for clean carbon free fuels makes this area north of the Grand Canyon National Park boundary an ideal area, not for a National Monument, but for environmentally sound mining.

Moreover, we are aware that as of today, over 60% of the uranium used in domestic nuclear plants is unnecessarily shipped through the Port of St. Petersburg. At a time when the United States has abundant supplies of uranium in our backyard, this reliance on Russia, Kazakhstan, Uzbekistan and China defies common sense. It is wrong for American electricity rate payers to be financing Russia's war against Ukraine through uranium purchases. As President, you have provided strong support for Ukraine, why then would you even consider placing off-limits our nation's largest sources of high-grade uranium by designating another National Monument. It is, in fact, Mr. President, a national security choice.

Thank you for giving thoughtful consideration to our plea.

Sincerely,

Mohave County, Arizona

Kane County, Utah

Garfield County, Utah

San Juan, Utah

Washington County, Utah

Town of Fredonia, AZ

Enclosures:

* Exhibit A: National Park and Conservation Area (NPCA) Russ Butcher 2010 Testimony
* Exhibit B: Photos of before/after reclaimed lands
* Exhibit C: NPS emails used to justify 2012 Withdrawal
* Exhibit D: Current National Parks In Az/Utah
* Exhibit E: Northern Arizona Fact Sheet

CC:
The Honorable Senator Krysten Sinema
The Honorable Senator Mark Kelly
The Honorable Congressman Paul Gosar
The Honorable Congressman David Schweikert
The Honorable Congressman Eli Crane
The Honorable Congressman Ruben Gallego
The Honorable Congressman Greg Stanton
The Honorable Congressman Andy Biggs
The Honorable Congressman Juan Ciscomani
The Honorable Congressman Raúl Grijalva
The Honorable Congresswoman Debbie Lesko
The Honorable Senator Mike Lee
The Honorable Senator Mitt Romney
The Honorable Congressman Blake Moore
The Honorable Congressman Chris Stewart
The Honorable Congressman John Curtis
The Honorable Congressman Clarence Burgess Owens

Exhibit A - National Park and Conservation Area (NPCA) Russ Butcher 2010 Testimony

Testimony
submitted to the
House Subcommittee on National Parks, Forests and Public Lands
April 8, 2010

My name is Russell D. Butcher. I reside in San Diego County, California. For more than 45 years, my career, which has focused on parkland and wildlife conservation and on environmental negotiating, has included serving on the staffs of such nonprofit advocacy organizations as the National Parks Conservation Association (NPCA), National Audubon Society, and Save-the-Redwoods League. From 1984-1990, I served as a member of the U.S. Bureau of Land Management's Arizona Strip District Advisory Council. And I have authored a number of books, most recently including guidebooks to the national park system and the national wildlife refuge system.

In the early 1980s, as the Pacific Southwest regional director for NPCA, I became concerned about alleged threats to the integrity of Grand Canyon National Park and the Colorado River from uranium mining activities near the park on the "Arizona Strip" – a New Jersey-size area that extends northward from the canyon to the Utah state line.

Following a first-hand examination of mine sites in the Kanab Creek area being developed by the then active company, Energy Fuels Nuclear (EFN), I was convinced that these particular activities were extremely unlikely to pose any credible risk of environmental harm to either the park or the river. Two reasons stood out:

(1) Contrary to my preconception, development of these sites did not involve open-pit mining operations, as typically occurs in copper mining, for example. Instead, only a small footprint of surface disturbance, encompassing perhaps as much as 20 acres, was associated with accessing a subsurface, narrow, vertically aligned uranium ore-bearing geological structure known as a breccia pipe.

(2) EFN officials expressed an unqualified and emphatic commitment to raising the bar extremely high in terms of conducting their mineral extraction and post-mining reclamation activities in the most environmentally sensitive and exemplary manner possible. Judging by what I saw – both on the ground and from the air, their words of reassurance were borne out by their actions. In short, there was no justification, in my opinion, for becoming alarmed over these relatively small-scale resource extraction activities on public lands administered by the U.S. Bureau of Land Management (BLM).

Late in the 1980s, I revisited the most active EFN site – the Pigeon Mine. What I saw came as a pleasant surprise: Not only was the entrance to the mine

itself completely sealed, but all visual evidence of the limited mine-related surface disturbances and the access road had been superbly well restored. In fact, I felt that if I were to bring someone who knew nothing about the former mining activities to the site, that person would logically assume that this was undisturbed wilderness. More than 20 years have since elapsed. By now I have to assume that the shrubby high-desert vegetation has continued to grow and thrive, making the area appear even more as if it had never been disturbed by man.

Now here we are at the start of the second decade of the 21st century, with alarm again being raised over the renewed commercial interest in extracting high-grade uranium on BLM and U.S. Forest Service lands adjacent to Grand Canyon National Park. This sense of alarm, I believe, is in large part based upon the sheer number of mineral claims - totaling approximately 5,000 -- that have been filed with the federal government.

It is important, however, to factor in the answer to what I believe is a relevant question: What percentage of those mineralized claims would ever likely prove to contain an economically viable deposit of uranium ore? The answer: Only a very small percentage -- roughly one out of every 35 claims for a total of perhaps 125 sites containing uranium of sufficient quality and quantity to merit a company's financial investment to extract the uranium ore. Add to this small percentage the fact that the footprint of surface disturbance is both on a small scale and capable of being easily reclaimed after the mining activity has ceased.

Regarding a risk of dissolved uranium contamination of underground waters caused by mining activity, it is worth noting a statement in a February 18, 2010, news release issued by the U.S. Geological Survey: "Analysis of historical water-quality data for more than 1,000 water samples from 428 sites in northern Arizona shows that dissolved uranium concentrations in areas without mining were generally similar to those with active or reclaimed mines."

To sum up my personal opinion regarding breccia pipe uranium mining on public lands surrounding Grand Canyon National Park, while such activities must be carried out with extreme care and due diligence, as was demonstrated by EFN in the late 20th century, I continue to view such activities as posing no credible threat of environmental harm to either Grand Canyon National Park or the Colorado River that flows through it. In the unlikely event that a particular mine proposal appears to pose a specific risk of degrading the quality of visitor

experience or impairing the quality of waters or other natural resources within the park, every effort should then be made by the land-management agency, in close consultation and cooperation with the National Park Service, to avoid any such potentially harmful impacts.

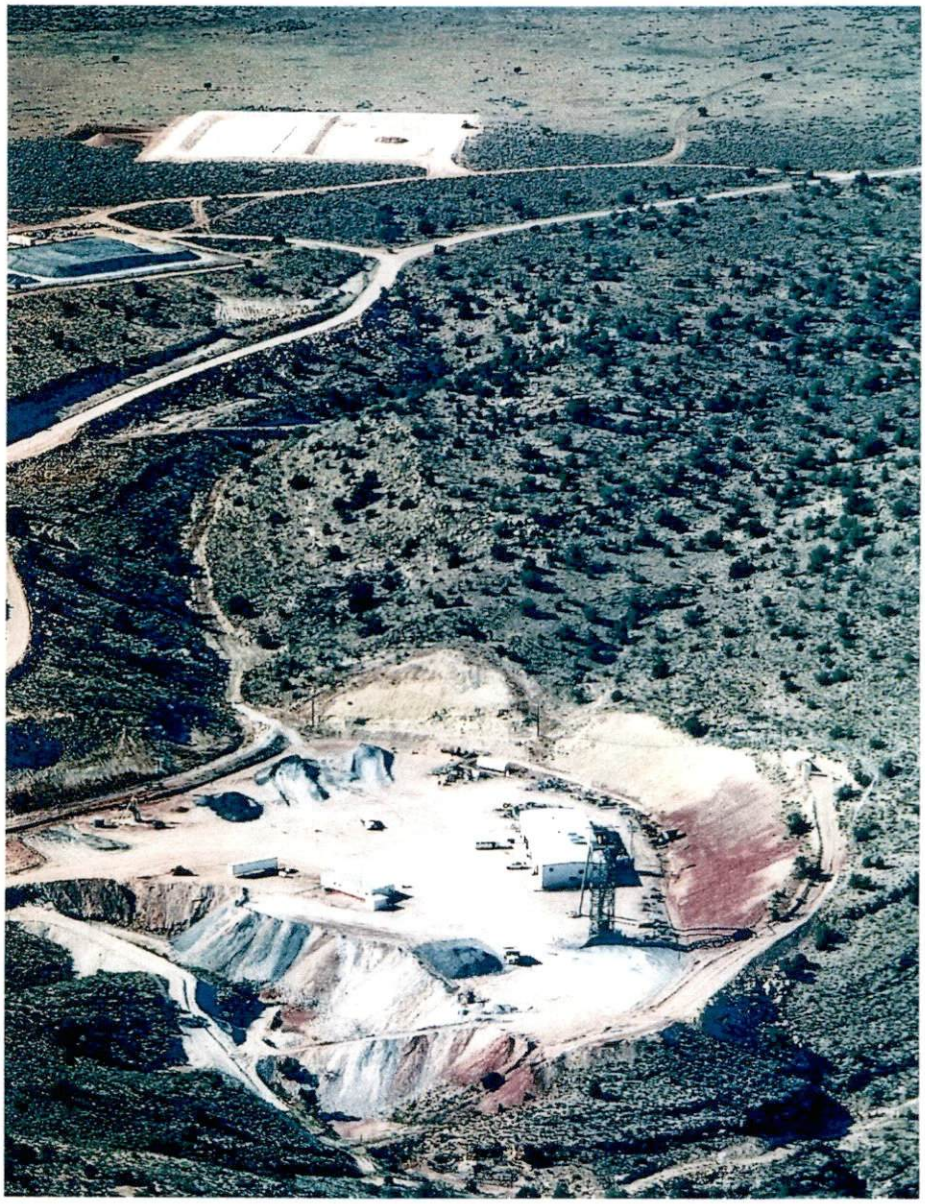
Consequently, on the merits I can see no credible justification for a 1.1 million-acre withdrawal from mineral entry of lands to the north and south of the park. Furthermore, such a withdrawal from mineral entry directly contradicts the good-faith intentions and understandings of all the stakeholders who in 1983-84 met and successfully negotiated the designation of BLM and Forest Service wilderness areas on the Arizona Strip that were ultimately approved by Congress and signed into law. The wilderness study areas not placed in the National Wilderness Preservation System were released back into multiple use status, including the mining of uranium. As one of the persons who actively participated in that collaborative process, I can state unequivocally that we achieved the negotiated compromise on the basis of allowing such activities as mineral extraction to go forward under appropriate federal oversight on the released lands.

Respectfully submitted,

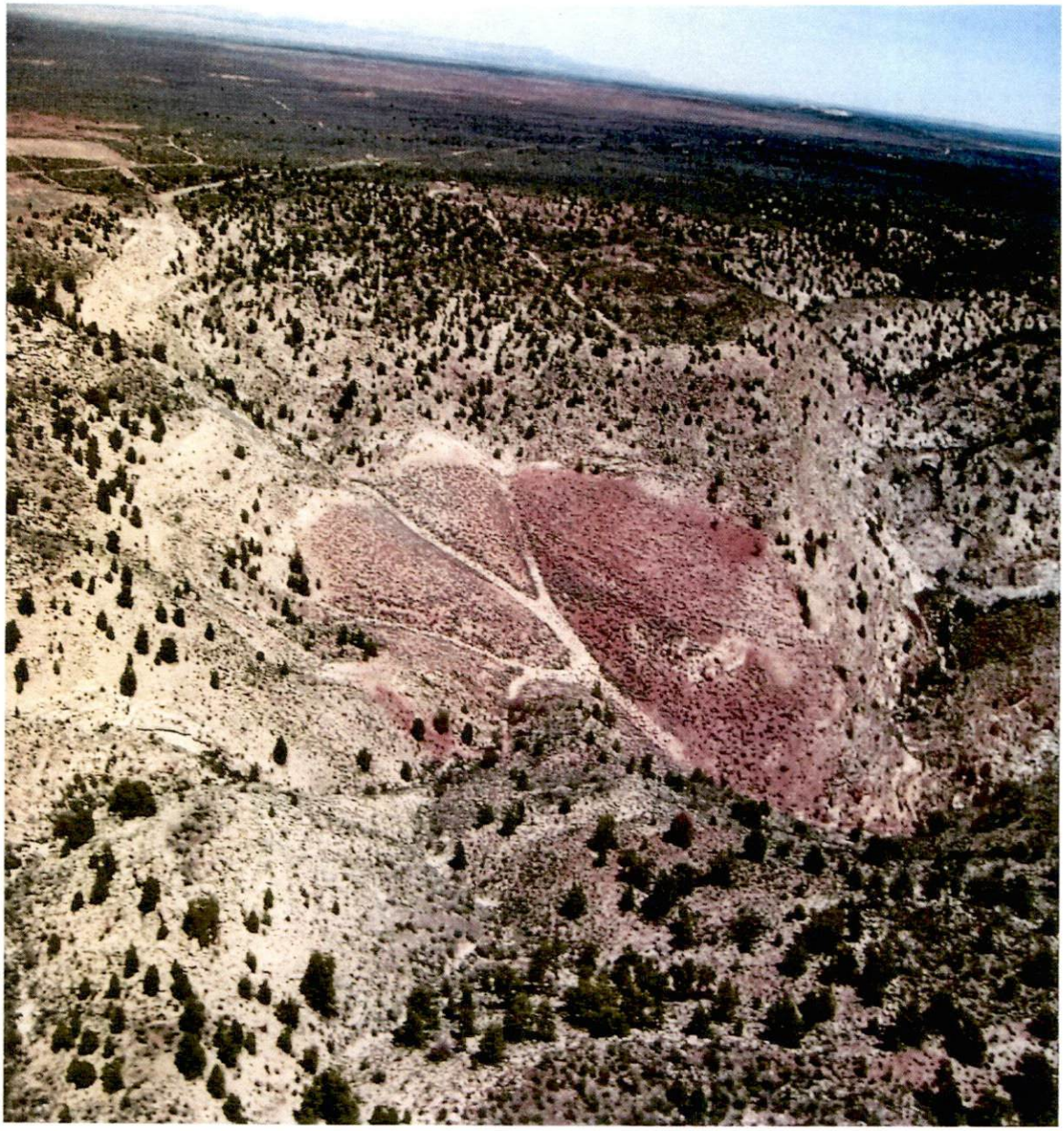
Russell D. Butcher

Exhibit B - Photos of before/after reclaimed lands

Pigeon Mine (AZ) Before



Pigeon Mine (AZ) After



Hermit Mine (AZ) Before

Hermit Mine (AZ) After

Exhibit C - NPS emails used to justify 2012 Withdrawal

Larry Martin/FTCOLLINS/NPS
03/07/2011 02:20 PM

To Gary Rosenlieb/FTCOLLINS/NPS@NPS
cc Bill Jackson/FTCOLLINS/NPS@NPS
bcc
Subject Grand Canyon Uranium withdrawal DEIS

I won't be submitting comments regarding the DEIS for the proposed withdrawal of lands in Northern Arizona from uranium mining and exploration. My personal and professional opinion is that the potential impacts stated in the DEIS as grossly overestimated and even then they are very minor to negligible.

The DEIS goes to great lengths in an attempt to establish impacts to water resources from uranium mining. It fails to do so, but instead creates enough confusion and obfuscation of hydrogeologic principles to create the illusion that there could be adverse impacts if uranium mining occurred.

As an example, the ore bodies occur in association with the Hermit Formation and are about 1000 feet above the regional water table. Geologic formations between the ore body and the water table are primarily siltstone and mudstone of the Hermit Formation and Supai Group. These formations have very low permeability. There is no explanation for how potential contaminants might travel from the mine areas to the regional water table, but it is assumed that somehow that occurs and then contaminants flow many miles through the regional aquifer with no dilution, no degradation, and no concentration reduction. Even under those conditions, there is only a minuscule change in concentration of the most likely contaminants (arsenic and uranium) at the springs that discharge from the regional aquifer; and these changes are further diluted by mixing with surface waters downstream from the discharge areas.

Following are some of the important tidbits buried in the voluminous DEIS.

Page 3-57; The reason that ore deposits form in the breccia pipes is that the surrounding rock has very low permeability, which does not allow movement of groundwater through the mineral deposits. This condition inhibits dissolution of mineral deposits and prevents the minerals from being carried away by groundwater flow. Since the host and surrounding rock has low permeability, there is little to no potential for contaminants to migrate from mine sites.

Page 3-57; In general, the ore deposits are about 1000 feet above the R-aquifer and are underlain by low permeability breccias, siltstones/mudstones of the Hermit Formation and Supai Group. Therefore, conditions are not favorable for downward migration of leached minerals from the ore deposits to the R-aquifer.

Page 3-59; There are perched aquifers (usually above the Hermit Formation) in the region. Generally the perched aquifers are small, thin, and discontinuous.

Page 3-60; "It should be noted that environmental issues surrounding the Orphan Lode Mine

(which is outside the proposed withdrawal area) are the result of the lack of mine reclamation, which has allowed surface water and/or perched groundwater to collect within one or more of the mine adits and drain through the mine openings to the R-aquifer."

Page 3-68; "Because of the ductile nature of the shale and mudstone strata, such as the Bright Angel Shale and Hermit Formation, it is likely that these strata will continue to act as barriers to retard groundwater movement, even where tectonic activity has occurred." Or to say it in another way, even where the formations are fractured and faulted, the soft rocks heal the fractures, preventing groundwater flow.

Page 3-68; The long residence times of estimated for groundwater in the R-aquifer (outside the immediate vicinity of large springs along the canyon wall) supports the concept of slow groundwater movement which is conducive to gradual mixing and dilution along the flowpath.

Page 3-74; Large springs discharging from the North Rim (Deer Creek and Thunder River) are east of the Sinyala Fault and are not part of the groundwater system associated with the North Parcel. Exploration and mining activities in the North Parcel can not affect these springs.

Page 3-79: The ambient water quality of perched groundwater near mines is generally poor as a result of mineralization from the ore bodies. Groundwater that is contained within the breccia pipes is also generally of poor quality as a result of mineralization.

Page 4-60; The low permeability associated with ore deposits in the breccia pipes and adjacent rock strata between the base of the mine openings and R-aquifer are thought to retard downward movement of any perched groundwater drainage into the mines and, therefore, are not favorable for downward migration of dissolved minerals from the mine openings. These conditions result in low risk of impacts to the R-aquifer and support the assumption that it is entirely possible for there to be no impact to R-aquifer water quality.

Page 4-67; Water consumption during mining is very small. Projections used in the impact analyses are for each mine to use 5 gpm for 4 years (life of the mine). The DEIS assumes that there would be a maximum of 20 mines operated during the 20-year period of analyses. These mines would likely be widely scattered over the areas north and south of the Grand Canyon. There will be no large-scale, long-lasting, concentrated areas of groundwater pumping.

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Bill
Jackson/FTCOLLINS/NPS
03/25/2011 04:54 PM

To Bert Frost/WASO/NPS@NPS
cc
bcc Larry Martin/FTCOLLINS/NPS
Subject Grand Canyon Uranium withdrawal DEIS

Bert: Gary Rosenlieb (Larry Martin's immediate supervisor) and I met with Larry this morning to discuss his opinion about the potential for contamination of park surface waters from uranium mining. In answer to your question, Larry had read the 66-page chapter on historic water chemistry in the "500 page" USGS report you had referred me to. Both Gary and I subsequently looked that chapter over, too. Here is a link to a 4-page USGS fact sheet sumarizing the full USGS report: http://pubs.usgs.gov/fs/2010/3050/fs2010-3050.pdf The brief summary of "the Water Chemistry of Wells, Perennial and Intermittent Streams and Springs" section of the fact sheet is worth reading.

The March 7 email which follows my note is from Larry Martin to me and Gary Rosenlieb explaining why he did not plan to submit further comments to the Uranium DEIS review process. He reproduces 10 specific statements in the DEIS that seem to support his basic premise that meaningful hydrogeologic connection between mine sites and park waters is highly unlikely. These 10 statements are worth reading. The USGS report and the DEIS both support the premise of impermeable geology between breccia pipes and regional aquifers. The USGS report then focusses on the results of historic water sampling in the region. Any samples with concentrations significantly above background were from perched waters in direct contact with the ore deposits (i.e., naturally high concentrations), or from perched aquifers in close proximity to mines. There was no evidence of high concentrations of arsenic or uranium at any distance from these 2 sources, and concentrations in the regional aquifer and in park waters were at regional background levels. As you would expect, USGS does not draw any conclusions other than that more "tracing" type studies would have to be conducted to determine if any arsenic or uranium in waters removed by distance from mined areas is human-induced.

Both Gary and I thought Larry could have better qualified his opinion by recognizing that while there is no evidence to date to contradict his conclusion, it would take additional sampling combined with chemical tracing to determine with even greater certainty whether contaminants stemming from mining have entered either the regional aquifer or springs entering the park. He also should probably have communicated his opinion directly to the park, rather than to the NRSS team involved in the DEIS review process. That being said, both Gary and I think Larry basically has it right, and that the information both in the USGS report and the DEIS support his generalized conclusion. There exists no information we could find that would contradict his conclusion, nor any hypotheses suggested as to how contamination of park waters might physically occur. Larry said that if presented with new information, he would willingly revise his "professional opinion." At our request, Larry called the USGS lead author of the water chemistry chapter to see if he would review and could concur with Larry's summary opinion. He basically said that the report was prepared under contract to BLM and speaks for itself, and he did not want to offer any personal opinions.

This is obviously a touchy case where the hard science doesn't strongly support a policy position. Probably the best way to "finesse" this would be fall back on the "precautionary principle" and take the position that in absence of even more complete certainty that there is no connection between uranium mines and regional ground water, we need to be cautions?? It sounds like the DEIS is basically heading in that direction.

I suggest you, me, Larry and Gary talk next week? This way you can get a better feel for where Larry is coming from and we can discuss what we might do next. If you agree, I'll schedule a time with Stephanie.

Sorry if we've caused a bit of a ruckus here. I think the main mistake may be in how Larry's opinion has been communicated, not in the content of his opinion.

Bill

Exhibit D – Current National Parks In Az/Utah

Existing National Parks in Arizona
Grand Canyon
Petrified Forest
Saguaro
Tumacacori National Historical Park
Existing National Parks in Utah
Zion
Bryce Canyon
Capitol Reef
Canyonlands
Arches
Existing National Monuments & Recreation Areas in Arizona
Grand Canyon-Parashant
Canyon de Chelly
Casa Grande Ruins
Chiricahua
Coronado
Fort Bowie
Glen Canyon
Hubbell Trading Post
Juan Bautista de Anza
Lake Mead
Montezuma Castle
Navajo
Old Spanish
Organ Pipe Cactus
Pipe Spring
Sunset Crater Volcano
Tonto
Tuzigoot
Walnut Canyon
Wapatki
List of National Monuments in Utah
Grand Staircase-Escalante
Glen Canyon
Dinosaur
Cedar Breaks
Golden Spike
Hovenweep
Mormon Pioneer
Natural Bridges
Old Spanish
Pony Express
Rainbow Bridge
Timpanogos Cave

Exhibit E – Northern Arizona Fact Sheet

Northern ARIZONA FACT SHEET **May 1,2023**

THE 2012 WITHDRAWAL OF THESE LANDS, WHAT HAS THE NATION LOST?

- **The estimated mean uranium endowment for the three segregated areas withdrawn in 2012 is about 326 million pounds as U_3O_8.** These land parcels are referred to as the North, East, and South Segregation Areas. The North area is commonly referred to as the **Kanab Plateau** and is estimated to contain 184 million pounds as U_3O_8. **(1)**

- **326 million pounds of uranium has an energy equivalence 8.37 billion barrels of crude oil.** This nearly equals the total recoverable oil in Prudhoe Bay; the largest oil field in North America. "One pound of yellowcake is equivalent to 35.6 barrels of oil (208 x 10^6 BTU's / 5.8 x 10^6 BTU's in one barrel of crude oil)." **(2)**

- **The US consumes 50 million pounds of U3O8 per year but annual domestic production in 2020 is less than two hundred thousand pounds of yellow cake.** 326 million pounds of uranium could provide all of California's 40 million residents with electricity for 19 ½ years.

- **The uranium of the Kanab Plateau district is critical to the security of our nation and the 2012 withdrawal significantly increased our dependence on foreign uranium.** Domestic production decreased from 4.3 M lbs. in 2012 to 0.2 M lbs. in 2020.

- **In 2021, 50 + % of US Uranium Imports were sourced from foreign state-owned enterprises which have "distorted global prices". (China, Kazakhstan, Russia, Uzbekistan)**

What are the environmental effects of uranium mining near the Grand Canyon?

1. **Water: Statements that the historic operations at the Orphan Mine have been polluting Horn Creek are false.** Data from a comprehensive USGS water report (Monroe and others, 2004) of the Grand Canyon shows no such pollution. Water analyses from 2000-2001 show uranium concentrations at Horn Creek to be between 8.6-29 ppb - within the EPA level of safe drinking water. Water analyses taken between April 29, 1991 and May 15, 1991 in a water supply well completed in the Redwall-Muav aquifer adjacent to the producing Kanab North Mine shows uranium concentrations varying between 0.8-5.9 ppb (µg/l) (Titan Environmental). This is lower than the uranium concentration in much of

this nation's public drinking water and 1-2 orders of magnitude lower than **the EPA safe drinking level of 30 ppb.**

- **All uranium mining and exploration activity in the area of the 2012 withdrawal area is separated by a 1,089-foot thick unsaturated, practically impermeable, layer of Supai Group Sandstone that protects the aquifer.** "Therefore, it is inconceivable that mine seepage of substantially lower hydraulic head (20 ft) will ever seep through the Supai Group, even when geologic time is considered" (Titan Environmental, 1994). Similarly, on the south rim in Kaibab National Forest, the Environmental Impact Statement (1986, US Dept of Agriculture) on the Canyon Uranium Mine concluded that "construction and operation of the Canyon Mine will not impact the Redwall-Muav aquifer, which is well below the shaft depth."

- **Uranium occurs naturally within the Grand Canyon Park.** The USGS Open File Report (OFR-89-550) shows the mapped locations of 1,296 pipes **(3).** More than 400 breccia pipes occur within the Grand Canyon National Park boundaries, and many (probably more than 50) are mineralized and eroding into the Colorado River (without ever being touched by mining operations). One located in the park just 3 miles NE of the Park Services' Phantom Ranch headquarters, has high grade uranium mineralization at the surface. **If the Park Service and the Grand Canyon Trust are truly concerned about uranium in the Park, they should be asking that these occurrences be removed by mining.**

2. **Surface Disturbance: Breccia pipe uranium mines are smaller and have less environmental impact than small gravel pits. Unlike oilfields and coal mines, the disturbance is very short lived and undetectable when reclaimed.** All mining is more than 1,000 feet above any water table. There are no open pits, no tailings ponds at the sites and the ore is trucked to mills 300 miles away. With no more than 20 acres of disturbance per site (the size of a standard Kohl's parking lot - Wal-Mart's is bigger), reclamation is conducted by back filling the shaft with all waste and reseeding the location. The entire operation from construction, through mining and final reclamation seldom requires more than 5 years **(4)**. Due to simple logistics it is highly unlikely that more than 6 mines would be operating at any single time.

3. **Federal and State Regulations: Public statements by opponents exaggerate environmental problems of a single mining operation that ceased more than 49 years ago.** The Orphan mine commenced under regulations that predate NEPA, FLPMA and was encouraged by the US Government to meet an urgent need for uranium during the Cold War of the 1950s. Opposition by Native Americans is based on experiences during this early era of mining and does not reflect 50 years of mining under modern **Federal and State** regulations.

- **Modern mining operations are operated under strict regulations enforced by 10 federal and state agencies (5).** The uranium industry has over 50 years of experience in applying international radiation safety regulations at uranium mines, and there are few ill effects for the miners that have been working in such mines. Energy Fuels Nuclear mined 19 million pounds of uranium from seven mines in the district during the 1980s. The mine reclamation was so well done that it remains undetectable and is a very positive example of

environmentally effective mining under the nation's current mining and environmental laws.

- **The subject area is one of the few public lands in the US where the multiple use status has been clearly established by Law. HR 3562 – the Arizona Strip Wilderness Act of 1983, was passed by Congress in August 1984.** This bill added 400,000 acres of BLM and Forest Service lands to the National Wilderness Preservation System and released 540,000 acres of BLM and Forest Service land for multiple-use purposes including uranium mining.