



December 11, 2023

Scott Pottorff
Highbury Resources,
28151 DD Road
P.O. Box 700
Nucla, CO

Re: Slick Rock, File No. P-2023-018, Objection Forwarded to Applicant

The Division has received timely objections regarding the Slick Rock Project, application File No. P-2023-018. The objection was received within the public comment period which ended December 8, 2023. The timely objections received are listed below, and enclosed with this letter.

Timely Comments Received

1. Ryan Sedgeley, Received 12/1/2023,
2. Diane Wren, Received 12/5/2023,
3. Bettyann Kolner, Received 12/5/2023,
4. Nivale Lightfoot, Received 12/5/2023,
5. Jennifer Singer, Great Old Broads for Wilderness, Received 12/7/2023,
6. Delia Malone, Colorado Chapter of the Sierra Club, Received 12/8/2023,
7. Jennifer Thurston, INFORM, Received 12/8/2023,
8. Emily Matyas, Received 12/8/2023,
9. Cheryl Foster, Received, 12/8/2023,
10. Colorado Chapter of the Sierra Club, Received 12/8/2023.

The jurisdictional concerns contained within the objection will be addressed through the Division's Deficiency Review Process. If the applicant chooses to further address any of the enclosed letter of objection please respond to the Division as a separate correspondence. If you have any questions, comments or concerns, please feel free to contact me at the Division's Grand Junction Field Office, by phone at 303-866-3567 Extension 8187 or by email at lucas.west@state.co.us.

Sincerely,

Lucas J. West
Environmental Protection Specialist



Encl: Ryan Sedgeley Objection
Diane Wren Objection
Bettyann Kolner Objection
Nivale Lightfoot Objection
Jennifer Singer, GOBW Objection
Delia Malone, Colorado Sierra Club Objection
Jennifer Thurston, INFORM Objection
Emily Matyas Objection
Cheryl Foster Objection
Colorado Sierra Club Objection

Cc: Travis Marshall, Senior Environmental Protection Specialist

Ec: Scott Pottorff, Highbury Resources, Inc.
Mallory Pottorff, Highbury Resources, Inc.
Bridget Wade, BLM

Permitting Action Comment OR Objection



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

CONTACT INFORMATION

You are providing a comment or objection to the public record of a permitting action currently under review by the Division of Reclamation, Mining and Safety. This form is not intended for reporting of possible violations or illegal activity.

Date of Comment or Objection

12/01/2023

***** *Indicates a Required Field*

**This form is for comments or objections on permitting actions.
This form is not intended for requests to investigate compliance
issues with DRMS rules.**

Comment or Objection *

- ☒ Objection
- ☐ Support
- ☐ General Comment
- ☐ Agency Comment

Contact Type *

- ☒ Individual
- ☐ Group
- ☐ Agency
- ☐ Attorney

Please select the appropriate option above to identify who you represent.

Your First Name *

Ryan

Your Last Name *

Sedgeley

Your Address *

947 S 12th Street

Your Address 2

Your City *

Montrose

Your State

CO

Your Zip Code *

Maximum of 10 digits. (Example) 80202

81401

Email Address *

Enter a valid email address in this field to receive a confirmation e-mail.

Ryan.sedgeley@protonmail.com

Your Phone Number *

Used only to follow up.

3072206084

Extension**Alternate Phone Number**

Used only to follow up.

Alternate Phone Extension**Connection to Operation ***

Select all that apply

- ☐ Land Owner of affected land
- ☐ Mineral Owner
- ☐ Adjacent Land Owner
- ☐ Government Agency

- ☐ Structure Owner within 200' of affected land
- ☒ Nearby Resident
- ☒ Concerned Citizen
- ☐ Other

DESCRIPTION OF COMMENT OR OBJECTION

You are providing a comment or objection to the public record of a permitting action currently under review by the Division of Reclamation, Mining and Safety. This form is not intended for reporting of possible violations or illegal activity. Please be as specific as possible.

Comment/Objection Narrative *

I live nearby to this proposed uranium mine and I am concerned with how close it is to the National Conservation Area proposed by Sen. Bennet and Rep. Boebert and the Dolores Canyon WSA. The project permit boundaries also extend inside the NCA as well as two Colorado NHCP areas. This intrusion into special areas highly valued for their scenic, historic, cultural, and ecological values is disturbing and unacceptable.

In addition to the intrusion on these areas, uranium mining has a long solid history of poisoning our communities with mine tailings, water pollution, and air pollution. These mines have created wastelands across the western United States and have been killing people for decades. The bonding and clean up requirements if this project is allowed to move forward (which I think it should not) need to be extremely high and made in cash deposits to prevent the standard industry practice of extraction and then claiming bankruptcy and leaving taxpayers the clean up bill.

Finally, Uranium mining should be considered an extremely low value mineral given the brutal impacts to people living nearby the mine and the life cycle impacts of this mineral. Uranium is used to produce fuel for nuclear reactors which are quickly shutting down and the industry is dying. Let it die and do not allow this project to go forward. Every time uranium is removed from the ground we create a problem that will last for so long into the future that we cannot fully appreciate the time scale and impacts. As a reminder we still do not have a permanent repository for spent nuclear fuel.

Permit Number *

Enter valid letter and then numbers, for example M1977999, M1999777UG or C1981201.

P2023018

Permitting Action Type

Select revision type or leave blank if comment pertains to a new permit application or NOI

Permit Type

County *

San Miguel

Enter one county only

Site Name

Slick Rock

Permittee/Operator Name

ADDITIONAL INFORMATION

Are there supporting photos, maps, or documents you wish to upload? *

☐ Yes ☒ No

By submitting this form electronically you agree to receive any/all follow up correspondence from the Division of Reclamation, Mining, and Safety at the email address you have provided.

Permitting Action Comment OR Objection



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

CONTACT INFORMATION

You are providing a comment or objection to the public record of a permitting action currently under review by the Division of Reclamation, Mining and Safety. This form is not intended for reporting of possible violations or illegal activity.

Date of Comment or Objection

12/05/2023

***** *Indicates a Required Field*

**This form is for comments or objections on permitting actions.
This form is not intended for requests to investigate compliance
issues with DRMS rules.**

Comment or Objection *

- ☒ Objection
- ☐ Support
- ☐ General Comment
- ☐ Agency Comment

Contact Type *

- ☒ Individual
- ☐ Group
- ☐ Agency
- ☐ Attorney

Please select the appropriate option above to identify who you represent.

Your First Name *

Diane

Your Last Name *

Wren

Your Address *

16802 Rd 27

Your Address 2

Your City *

Dolores

Your State

CO

Your Zip Code *

Maximum of 10 digits. (Example) 80202

81323

Email Address *

Enter a valid email address in this field to receive a confirmation e-mail.

dianewren1929@gmail.com

Your Phone Number *

Used only to follow up.

4152903419

Extension**Alternate Phone Number**

Used only to follow up.

Alternate Phone Extension**Connection to Operation ***

Select all that apply

- ☐ Land Owner of affected land
- ☐ Mineral Owner
- ☐ Adjacent Land Owner
- ☐ Government Agency

- ☐ Structure Owner within 200' of affected land
- ☒ Nearby Resident
- ☒ Concerned Citizen
- ☐ Other

DESCRIPTION OF COMMENT OR OBJECTION

You are providing a comment or objection to the public record of a permitting action currently under review by the Division of Reclamation, Mining and Safety. This form is not intended for reporting of possible violations or illegal activity. Please be as specific as possible.

Comment/Objection Narrative *

I object to the the uranium mine that Anfield Co would like to implement in the Slick Rock area. This area which includes both sides of the Dolores River is also in the proposed Dolores River Canyon Conservation area which is one of the last pristine riparian areas left in Colorado. From the standpoint that uranium is extremely toxic to all living things, I cannot express enough disdain for this type of operation which threatens the flora, fauna and health and well being of all members of that community.

Permit Number *

Enter valid letter and then numbers, for example M1977999, M1999777UG or C1981201.

M1977285

Permitting Action Type

Select revision type or leave blank if comment pertains to a new permit application or NOI

Permit Type

Uranium mining operation

County *

San Miguel

Enter one county only

Site Name

Slick Rock Project

Permittee/Operator Name**ADDITIONAL INFORMATION**

Are there supporting photos, maps, or documents you wish to upload? *

☐ Yes ☒ No

By submitting this form electronically you agree to receive any/all follow up correspondence from the Division of Reclamation, Mining, and Safety at the email address you have provided.

Permitting Action Comment OR Objection



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

CONTACT INFORMATION

You are providing a comment or objection to the public record of a permitting action currently under review by the Division of Reclamation, Mining and Safety. This form is not intended for reporting of possible violations or illegal activity.

Date of Comment or Objection

12/05/2023

***** *Indicates a Required Field*

**This form is for comments or objections on permitting actions.
This form is not intended for requests to investigate compliance
issues with DRMS rules.**

Comment or Objection *

- ☒ Objection
- ☐ Support
- ☐ General Comment
- ☐ Agency Comment

Contact Type *

- ☒ Individual
- ☐ Group
- ☐ Agency
- ☐ Attorney

Please select the appropriate option above to identify who you represent.

Your First Name *

Bettyann

Your Last Name *

Kolner

Your Address *

24453 Rd. S.6

Your Address 2

24453 Rd S.6

Your City *

dolores

Your State

CO

Your Zip Code *

Maximum of 10 digits. (Example) 80202

81323

Email Address *

Enter a valid email address in this field to receive a confirmation e-mail.

bettyannkolner@gmail.com

Your Phone Number *

Used only to follow up.

9706761217

Extension**Alternate Phone Number**

Used only to follow up.

Alternate Phone Extension**Connection to Operation ***

Select all that apply

- ☐ Land Owner of affected land
- ☐ Mineral Owner
- ☐ Adjacent Land Owner
- ☐ Government Agency

- ☐ Structure Owner within 200' of affected land
- ☐ Nearby Resident
- ☒ Concerned Citizen
- ☐ Other

DESCRIPTION OF COMMENT OR OBJECTION

You are providing a comment or objection to the public record of a permitting action currently under review by the Division of Reclamation, Mining and Safety. This form is not intended for reporting of possible violations or illegal activity. Please be as specific as possible.

Comment/Objection Narrative *

The request for exploratory drilling in the lower Dolores River should be denied because: Uranium mining is an unsafe activity due its toxicity to all living beings, its half life that creates dead areas, toxic water, soil and air and because our region is already under "fire" from all the uranium mining in the past, present and the toxic Uranium Mill on White Mesa, directly west of our County. The White Mesa Utes have been protesting the Mill as they've lost much of their clean water and experienced, like our County, an overload of cancers and other auto immune diseases. Their air and soil has been adversely affected as well. White Mesa Mill owners have a very bad track record of following regulations in any timely manner. Please deny this assault our most importance resources: water, soil and air, not to mention all living beings in this region.

Permit Number *

Enter valid letter and then numbers, for example M1977999, M1999777UG or C1981201.

P2023018

Permitting Action Type

Select revision type or leave blank if comment pertains to a new permit application or NOI

Permit Type**County ***

san miguel

Enter one county only

Site Name**Permittee/Operator Name**

ADDITIONAL INFORMATION

Are there supporting photos, maps, or documents you wish to upload? *

☐ Yes ☒ No

By submitting this form electronically you agree to receive any/all follow up correspondence from the Division of Reclamation, Mining, and Safety at the email address you have provided.

Permitting Action Comment OR Objection



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

CONTACT INFORMATION

You are providing a comment or objection to the public record of a permitting action currently under review by the Division of Reclamation, Mining and Safety. This form is not intended for reporting of possible violations or illegal activity.

Date of Comment or Objection

12/06/2023

***** *Indicates a Required Field*

**This form is for comments or objections on permitting actions.
This form is not intended for requests to investigate compliance
issues with DRMS rules.**

Comment or Objection *

- ☒ Objection
- ☐ Support
- ☐ General Comment
- ☐ Agency Comment

Contact Type *

- ☒ Individual
- ☐ Group
- ☐ Agency
- ☐ Attorney

Please select the appropriate option above to identify who you represent.

Your First Name *

Nivale

Your Last Name *

Lightfoot

Your Address *

537 s pearl st

Your Address 2

Your City *

Denver

Your State

CO

Your Zip Code *

Maximum of 10 digits. (Example) 80202

80209

Email Address *

Enter a valid email address in this field to receive a confirmation e-mail.

nivale.lightfoot@gmail.com

Your Phone Number *

Used only to follow up.

8458533787

Extension**Alternate Phone Number**

Used only to follow up.

Alternate Phone Extension**Connection to Operation ***

Select all that apply

- ☐ Land Owner of affected land
- ☐ Mineral Owner
- ☐ Adjacent Land Owner
- ☐ Government Agency

- ☐ Structure Owner within 200' of affected land
- ☐ Nearby Resident
- ☒ Concerned Citizen
- ☐ Other

DESCRIPTION OF COMMENT OR OBJECTION

You are providing a comment or objection to the public record of a permitting action currently under review by the Division of Reclamation, Mining and Safety. This form is not intended for reporting of possible violations or illegal activity. Please be as specific as possible.

Comment/Objection Narrative *

We oppose exploratory drilling permits for Slick Rock Canyon and believe that uranium drilling and mining are incompatible with protecting the Dolores River Watershed.

Uranium is widespread in the earth's crust, and whenever aquifer and bedrock interface, there might be some uranium in the water. Any drilling or mining increases exposure of water to potential contamination. Uranium binds to soil and can be taken up by garden produce and forage crops. The health and safety of everyone will be affected by spread of radioactivity from the tailings or tailings ponds. Whatever short benefit the mining will produce can never make up for the cost of contamination to the citizens and the ecosystems connected to Slickrock Canyon, and by extension our government and tax payer dollars.

Cortez (where I was born and raised) and surrounding areas are still considered a cancer cluster because of uranium mining from over 40 years ago. One third of miners were killed in CO from mine accidents or cancers. Uravan became a Superfund site because of hazardous waste and over 800 people had to move, according to the EPA.

Permit Number *

Enter valid letter and then numbers, for example M1977999, M1999777UG or C1981201.

P2023018

Permitting Action Type

Select revision type or leave blank if comment pertains to a new permit application or NOI

Permit Type**County ***

San Miguel

Enter one county only

Site Name

Permittee/Operator Name

ADDITIONAL INFORMATION

Are there supporting photos, maps, or documents you wish to upload? *

☐ Yes ☒ No

By submitting this form electronically you agree to receive any/all follow up correspondence from the Division of Reclamation, Mining, and Safety at the email address you have provided.



Fwd: Slick Rock Canyon Permitting Objection

Info - DNR , DRMS_ <drms_info@state.co.us>

Thu, Dec 7, 2023 at 6:50 PM

To: Lucas West - DNR <lucas.west@state.co.us>, Travis Marshall - DNR <travis.marshall@state.co.us>

Hello everyone:

I'm forwarding the following communication from Jennifer Singer.

Jennifer's contact information is email at: jennifer4cornersbroadband@gmail.com

Thank you

Eléni



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

P 303.866.3567 | F 303.832.8106
[1313 Sherman Street, Room 215, Denver, CO 80203](https://www.colorado.gov/dnrm)
drms_info@state.co.us | <https://drms.colorado.gov>

----- Forwarded message -----

From: **Jennifer Singer** <jennifer4cornersbroadband@gmail.com>

Date: Thu, Dec 7, 2023 at 4:54 PM

Subject: Slick Rock Canyon Permitting Objection

To: <drms_info@state.co.us>



4Corners Broadband

December 7, 2023

Email address: drms_info@state.co.us

To whom it may concern:

Great Old Broads for Wilderness is a women-led national grassroots organization that engages and inspires activism to preserve and protect wilderness and wild lands. The 4Corners Broadband is a local group working to protect our regional environment. We oppose exploratory drilling permits for Slick Rock Canyon and believe that uranium drilling and mining are incompatible with protecting the Dolores River Watershed. The nearby White Mesa Utes have been protesting White Mesa Uranium Mill for many years. If uranium mining begins at Slick Rock Canyon, the materials would be transported to White Mesa Mill, and the White Mesa Utes are more likely to suffer health effects.

Uranium is widespread in the earth's crust, and whenever aquifer and bedrock interface, there might be some uranium in the water. Exploratory drilling or mining increases exposure of water to potential contamination. Uranium binds to soil and can be taken up by garden produce and forage crops. Few studies exist on the long term effects of uranium ingestion in humans. The health and safety of everyone will be affected by spread of radioactivity from the tailings or tailings ponds.

People live in Disappointment Valley, graze cattle, and grow produce. They would be hurt by allowing uranium drilling or mining. We can't allow this testing to even begin. The detrimental effects to the local community are too dire to make this same mistake again. Contamination from uranium mining activity will persist for generations. The dust that blows away from the sites and the copious amounts of water used for dust control and uranium extraction all contain long lived radioisotopes would be disseminated into the environment. In the tailings, thorium 230 decays to produce radon gas. With a half life of 76,000 years, it will produce radon for millennia. In the atmosphere, radon decays into the radioactive solids polonium, bismuth, and lead, which enter water, crops, trees, soil, and animals, including humans. Their ranches could become worthless.

No wonder Cortez and surrounding areas are still considered a cancer cluster because of uranium mining from over 40 years ago. One third of miners were killed in CO from mine accidents or cancers. Uravan became a Superfund site because of hazardous waste and over 800 people had to move, according to the EPA. We don't have enough information on the community effects, but since radioactive isotopes spread throughout the environment, the requested exploratory drilling is an unsafe proposition. Please deny the exploratory drilling permits for Slick Rock Canyon.

4Corners Broadband

Jennifer Singer 4Corners Broadband leader/Great Old Broads for Wilderness

Shelby Robinson

Lisa Henry

Valerie DeLaune

Jan Tankersley

and

Jan Moraczewski, Fort Collins, CO

Sources:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3653646/>

<https://www.cpr.org/2023/12/04/what-happened-to-the-town-of-uravan-colorado/>



Colorado Chapter

1536 Wynkoop Street, 4B-1, Denver, CO 80202 | 303.454.3362 | www.rmcsierraclub.org

Colorado Division of Reclamation, Mining & Safety

https://dnrlaserfiche.state.co.us/Forms/DRMS_Comment

drms_info@state.co.us

Re: Permit # P2023018

Dear Division of Reclamation, Mining and Safety,

Sierra Club's mission is "to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments." Sierra Club has more than 2.1 million members and supporters nationwide, including more than 80,000 Coloradans. Although we are comprised of a diverse population, the tie that binds us is our commitment to conserving those places, processes and organisms that will sustain our natural heritage with all of its biological diversity.

Accordingly, the Colorado Chapter of the Sierra Club is opposed to the issuance of an exploratory drilling permit for the Slick Rock Canyon Uranium project. This proposed uranium exploratory drilling and mining development project has a high possibility of harming human health, violating environmental justice and equity, and degrading the region's wildlife and natural resources.

1. Uranium extraction processes separate uranium from its decay products which are also radioactive and contain most (80-90%) of the radioactivity in the rock (ore). The solid radioactive wastes that are left over from the milling processes, tailings and the liquid wastes raffinates, remain radioactive and contain hazardous chemicals from the recovery process (EPA 2023).

The process that will be used to recover uranium from the proposed Slick Rock Canyon mine is milling, which would be conducted at the nearby White Mesa Uranium Mill. Milling uses alkali and acid washes to isolate the uranium. Besides chemicals used in washes, the toxic tailings contain sulfide ores, molybdenum, selenium, arsenic, and mercury, and approximately 85% of the radioactivity of the original ore (NIH 2023). Regardless of how uranium is removed from rock, the extraction process creates both mining waste and mill tailings, radioactive wastes that can contaminate soil, air and water (EPA 2023). These contaminants can then move into and poison plants and animals including humans.

Exploratory drilling, mining and milling processes will both deplete Dolores River water and threaten to pollute rivers and the life that they support. Although uranium is widespread in the earth's crust, and whenever aquifer and bedrock interface, there might be some uranium in the water, **exploratory drilling or mining increases exposure of water to potential contamination** (NIH 2023).

2. The Ute Mountain Ute Tribe has long protested the White Mesa Uranium Mill Because of the potential dangers of radioactive uranium and the on-site waste containment cells from the milling process. The White Mesa Mill's sprawling waste pits, which spread across about 275 acres and contain

more than 700 million pounds of radioactive materials from contaminated sites across the country and the world, sit just a few miles from the White Mesa community (GCT 1, 2022).

White Mesa community members, tribal leaders, and the tribe's environmental department are concerned that radioactive contamination from the mill could put public health, water, and air quality at risk. The community's drinking water aquifer is located deep beneath the mill's waste pits. At a [spiritual walk](#) (GCT 2, 2022) opposing the mill on October 22, 2022, Ute Mountain [Ute Tribal Council Member Conrad Jacket](#) told the crowd assembled outside the community center. "Red, white, blue...I don't give a care what color you are, if water gets contaminated, then that's the end..." (GCT 2, 2022).

3. Uranium possesses both chemical toxicity and radioactivity. The effects of low-level radioactivity include cancer, shortening of life, and subtle changes in fertility or viability of offspring, as determined from both animal studies and data on Hiroshima and Chernobyl survivors. These effects can be delayed for decades or for generations and are not detected in short-term toxicologic studies (NIH 2023).

The Sierra Club's opposition to the issuance of an exploratory drilling permit are due to both health and environmental concerns about uranium mining including: 1) health and safety of miners and mine sites; 2) health and safety of people in the vicinity who might be affected by spread of radioactivity from the tailings or tailings ponds; and 3) environmental effects of increasing background radiation and water contamination.

Contamination from uranium mining activity will persist for generations. The dust that blows away from the sites and the copious amounts of water used for dust control and uranium extraction all contain long-lived radioisotopes that are being disseminated into the environment. In the tailings, thorium 230 decays to produce radon gas. With a half-life of 76 000 years, it will produce radon for millennia. In the atmosphere, radon decays into the radioactive solids polonium, bismuth, and lead, which enter water, crops, trees, soil, and animals, including humans (NIH 2023).

4. A recent analysis of biodiversity values across the unprotected public lands in Colorado found 71 areas on unprotected federal public lands in Colorado containing high biodiversity values; of those 71 areas, the public lands within the Dolores River Canyon Country represent [the largest and most biologically diverse unprotected publicly-owned landscape in Colorado](#) (Figure 1) (CSP 2023).

All phases of uranium development — exploration, mining and milling — can pose unique threats to species, ecosystems, and human communities. From habitat destruction and disruption of wildlife to bio-accumulation and irreversible pollution of waters, uranium exploration and mining threatens to build upon uranium's legacy of environmental and social harm. Disturbance of the land surface by mining, the temporary storage of ores and mining and processing wastes on-site, dewatering of mine workings/pits, and a variety of reclamation activities all have the potential to significantly affect the concentrations and loads of dissolved and suspended materials in surface water off-site (NIH 2011). Pollutants from the mining of uranium can contaminate aquatic ecosystems for hundreds of years, threatening downstream communities and fish and wildlife. Even small amounts of some pollutants can poison fish, accumulate in the food chain, and cause deformities and reproductive problems for aquatic species.

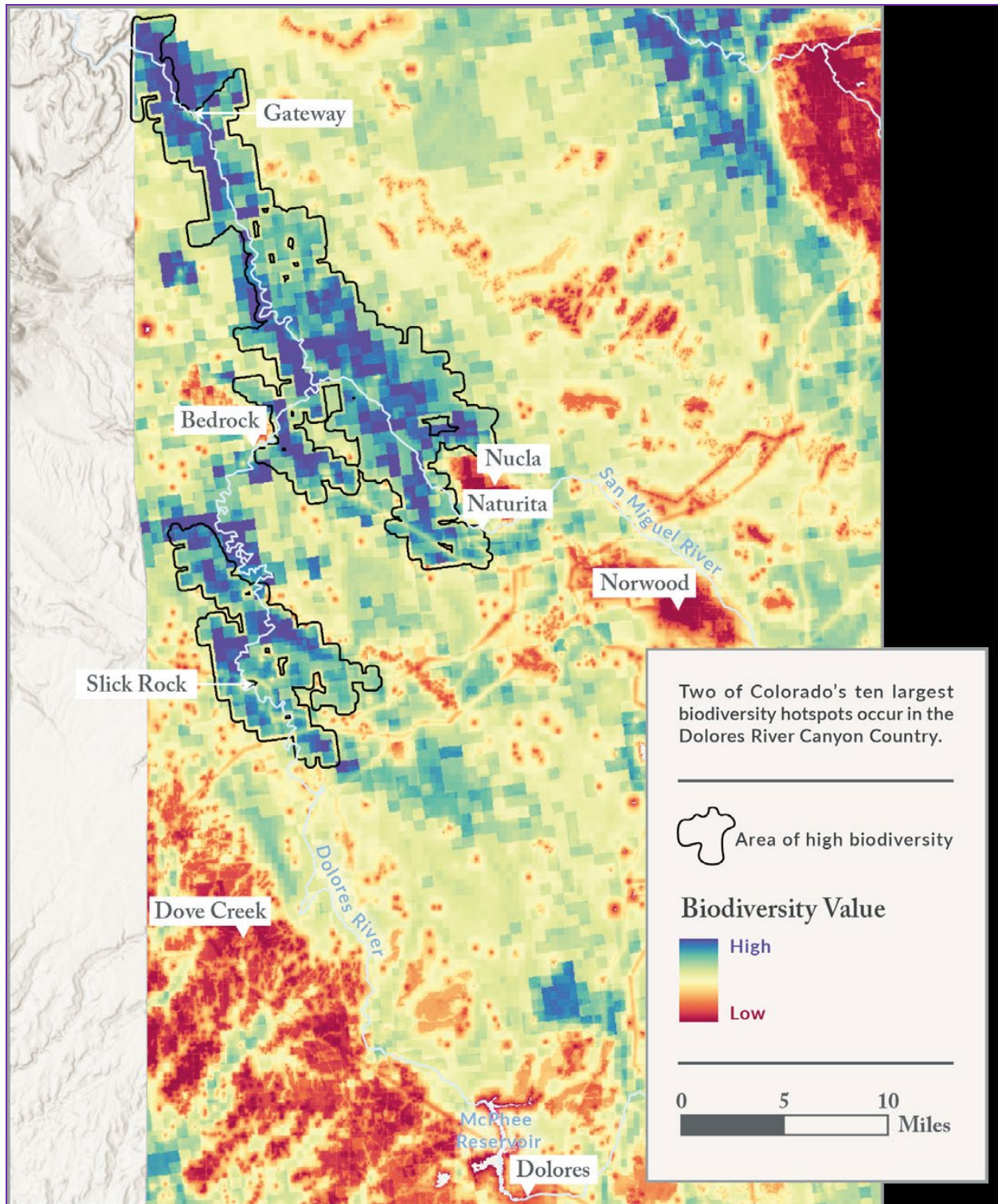


Figure 1. Of the ten largest unprotected biodiversity hotspots in Colorado, two of them are found in the Dolores River Canyon Country. SOURCE: Suraci, J., Farwell, L., Littlefield, C., Freeman, P., Zachmann, L., Landau, V., Anderson, J., Dickson, B. 2023. Achieving conservation targets by jointly addressing climate change and biodiversity loss. *Ecosphere*. <https://doi.org/10.1002/ecs2.4490>

Uranium mining has widespread effects, contaminating the environment with radioactive dust, radon gas, water-borne toxins, and increased levels of background radiation. There are no boundaries for air and water; the addition of long-lived radioisotopes anywhere in the environment eventually affects the health of everyone.

If permitted, this development would threaten both human culture and natural resources in both the Disappointment Valley and the Ute Mountain Ute Tribe's White Mesa community. For decades, the [Ute Mountain Ute Tribe](#) and environmental organizations, including the Grand Canyon Trust, have [raised concerns](#) that the mill poses a threat to human health and the environment (GCT 2021).

In consideration of the threats to human and environmental health from the proposed project we respectfully request that you deny exploratory drilling permits for the Slick Rock Canyon Uranium Project.

Delia G. Malone

A handwritten signature in black ink, appearing to read 'Delia Malone', with a long horizontal flourish extending to the right.

Ecologist and Wildlife Chair

Colorado Chapter of the Sierra Club

LITERATURE CITED

Conservation Science Partners (CSP). 2023. Assessment of the Biodiversity Values Provided by Unprotected Public Lands in Colorado Including the Dolores River Canyon. Final Public Report. Truckee, California, USA. Available online: https://46913af6-4945-45d0-8f6a-1ffc6aa33055.usrfiles.com/ugd/46913a_384513c6b7c943a9a0b4963b205e42c8.pdf

Grand Canyon Trust (GCT) 1. 2022. The Business of Radioactive Waste. Available online: https://www.grandcanyontrust.org/sites/default/files/resources/White_Mesa_Report_March2022_Final.pdf

Grand Canyon Trust (GCT) 2. 2022. White Mesa Ute Lead Spiritual Walk to Protest Uranium Mill. Available online: <https://www.grandcanyontrust.org/blog/white-mesa-ute-lead-spiritual-walk-protest-uranium-mill>

Grand Canyon Trust (GCT). Intertribal Walk Protests Uranium Mill Near Bears Ears. Available online: <https://www.grandcanyontrust.org/blog/intertribal-walk-protests-uranium-mill-near-bears-ears>

National Institute of Health (NIH). 2013. Uranium mining and health. National Library of Medicine. Available online: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3653646/>

National Institutes of Health (NIH). 2011. Uranium Mining in Virginia: Scientific, Technical, Environmental, Human Health and Safety, and Regulatory Aspects of Uranium Mining and Processing in Virginia. Available online: <https://www.ncbi.nlm.nih.gov/books/NBK201049/>

U.S. Environmental Protection Agency. (EPA. Radioactive Waste from Uranium Mining and Milling. Available line: <https://www.epa.gov/radtown/radioactive-waste-uranium-mining-and-milling>

December 8, 2023

Lucas West
Environmental Protection Specialist
Colorado Division of Reclamation, Mining & Safety
1313 Sherman Street
Denver, Colorado 80203
Via email to lucas.west@state.co.us

Re: Comments on Highbury Resources Slick Rock Project Notice of Intent, Permit No. P-2023-018

Dear Mr. West,

Thank you for the opportunity to comment on Notice of Intent P-2023-018 submitted by Highbury Resources. These comments are submitted on behalf of Sheep Mountain Alliance and Information Network for Responsible Mining (INFORM). Sheep Mountain Alliance is a citizens' conservation organization that works to protect the greater Telluride region of southwestern Colorado. INFORM is a statewide conservation organization that addresses the impacts of hardrock mining in Colorado.

Sheep Mountain Alliance and INFORM are opposed to inappropriate mining development in the Dolores River Basin when it conflicts with regional conservation goals. Those values are embedded within the Dolores River National Conservation Area and Special Management Area Act, federal legislation sponsored by Sens. Michael Bennet and John Hickenlooper and Rep. Lauren Boebert. Although detailed maps are not provided with the publicly available NOI files, it appears that at least one of the drilling sites is located within the boundary of the proposed National Conservation Area and that the entire project area occupies the buffer area immediately adjacent. It is the intent of the federal legislation to protect the Dolores River canyon in order to "conserve, protect, and enhance the native fish, whitewater boating, recreational and scenic, cultural, archeological, natural, geological, historical, ecological, watershed, wildlife, educational and scientific resources" of the Dolores River landscape. Our organizations strongly believe that the natural, scenic and recreational values of the Slick Rock area enhance and support the regional recreation economy and far outweigh the limited benefits of uranium mining.

The Notice of Intent does not identify where additional access roads must be constructed or where existing roads must be improved in order to access the drilling locations, even though "off-road access trails" are acknowledged on page 18 of the NOI document as necessary to conduct drilling. However, these roads are not identified in the NOI nor are they "identifiable" without the required accompanying maps, as required by Rule 5.1.2(d)(A) and (B); nor are the lengths of any new road segments identified or described elsewhere in the NOI, as required by Rule 5.3.1(c).

The creation of the access roads is also not considered in the NOI's stated disturbed acreage of 0.46 acres in the Notice of Intent, as required by Rule 5.1.2(d)(iv). New roads must be considered in the acreage in order to determine an adequate financial guarantee as well as to ensure that final reclamation will be completed. It is also incorrect for the operator to limit the disturbed acreage to only the pad areas for 20 drill holes when 27 are proposed. Regardless of whether the operator's intent is to drill only 20 holes, the NOI must consider all 27 in the final calculations because all 27 will be authorized to proceed. Furthermore, the roads to the drill sites must be included in the project's reclamation plans and the operator must commit to reclaiming them. Because the project maps have not been made available for public review before the comment deadline, it is impossible to know whether the stated disturbance of 0.46 acres is accurate

for an exploration program of this size. The only maps made available are those included in the appendix of an enclosed natural resources survey (at page 67 of the NOI document) and those area maps indicate a much larger project spread over dozens of acres, crossing over a state highway and surrounding a number of potential drill sites. All of this permit area is affected land as defined in Rule 1.1(4). The Notice of Intent is deficient because it does not accurately describe all affected lands that the operator will be impacting.

Highbury Resources is subject to San Miguel County land use requirements and must obtain a county special use permit in order to conduct the exploratory uranium drilling but has not done so. The county permit must be in place before the NOI can be approved, according to Rule 5.3.6. The construction of new roads or the upgrading of existing roads would conflict with longstanding San Miguel County policy to prevent the construction of roads and to limit their maintenance in order to preserve the historic character of the landscape. A number of historic drill roads in the Slick Rock area have been previously reclaimed and should not be considered access routes now. The Bureau of Land Management should also be consulted to determine whether use of the access routes proposed by the operator are in compliance with the Tres Rios Field Office's travel plan.

The operator must prevent any drill cuttings or fluids from entering the watershed as required by Rule 5.3.1(d) but information about how this will be guaranteed is not indicated in the Notice. The operator should be required to use protective lining in the mud pits in order to prevent releases of toxic and radioactive wastes. Drill cutting and any other toxic or waste materials should not remain at the site and be disposed of in a facility off-site in order to protect the surrounding area.

The NOI does not identify a source of water to be used during the project. It also states that three or four of the final drill holes will be converted into monitoring wells, but does not precisely indicate which ones or identify their locations. Rule 5.4.5(1)(a) requires that monitoring well permits be approved by the Colorado Division of Water Resources prior to approval of the Notice of Intent.

Highbury also states in the NOI that drilling is expected to penetrate an unconfined aquifer. Rule 3.1.6(1) requires that impacts to the site's hydrological balance be minimized. The NOI should include information about how drilling into uranium ore bodies while intercepting unconfined aquifers will *not* result in contamination of ground water supplies or the Dolores River. The Division should require Highbury to submit a hydrological study of the site for public review prior to the initiation of any drilling activities.

Rule 5.1.2(d)(vi) requires that legal documentation to enter BLM lands be provided before the Notice of Intent is approved. The NOI includes a detailed legal agreement between four corporate entities as evidence of legal right of entry. However, the Division should require verification from BLM that the legal agreement is not in conflict with their requirements to maintain right of entry and that BLM has approved Highbury's access right before any activities are authorized.

The Slick Rock and Disappointment Valley areas adjacent to the general location of the proposed drilling activity are abundant in natural values and provide important habitat for wildlife, and any impacts to wildlife must be minimized in accordance with Rule 5.3.2. Activities should be restricted to the non-winter months when nesting or brooding species are not present. The Naturita Milkvetch (*Astragalus naturitensis*) and Gypsum Valley Cat Eye (*Oreocarya revealii*) have been located in the vicinity and are notable rare flora species. The Division should require that the specific drill sites be surveyed for these species and measures taken to prevent any specimens that are identified. Before any surface disturbances occur, it would be beneficial to survey the project area for any cultural, historical or paleontological resources, which are abundant in the area, and take

measures to halt operations and protect them if any are inadvertently discovered during drilling operations.

The Slick Rock area is a treasured resource for the residents and visitors of San Miguel County and the operator should be required to be especially vigilant in its care for the landscape should exploration be approved. However, authorizing exploratory drilling in this location cannot be uncoupled from a consideration of the future potential for uranium mining in the same location. That would be an unacceptable outcome and an incompatible use of the land. For these reasons as well as the extensive deficiencies in the Notice of Intent submitted by Highbury Resources, we respectfully request that the application be denied.

Respectfully submitted,

Mason Osgood
Executive Director
Sheep Mountain Alliance
P.O. Box 389
Telluride, CO 81435
(970) 728-3729
mason@sheepmountainalliance.org

Jennifer Thurston
Executive Director
Information Network for Responsible Mining
2205 W. 136th Ave. Ste. 106-311
Broomfield, CO 80023
(303) 586-1437 jennifer@informcolorado.org

Permitting Action Comment OR Objection



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

CONTACT INFORMATION

You are providing a comment or objection to the public record of a permitting action currently under review by the Division of Reclamation, Mining and Safety. This form is not intended for reporting of possible violations or illegal activity.

Date of Comment or Objection

12/08/2023

***** *Indicates a Required Field*

**This form is for comments or objections on permitting actions.
This form is not intended for requests to investigate compliance
issues with DRMS rules.**

Comment or Objection *

- ☒ Objection
- ☐ Support
- ☐ General Comment
- ☐ Agency Comment

Contact Type *

- ☒ Individual
- ☐ Group
- ☐ Agency
- ☐ Attorney

Please select the appropriate option above to identify who you represent.

Your First Name *

Emily

Your Last Name *

Matyas

Your Address *

11780 Road 44.5

Your Address 2

Your City *

Dolores

Your State

CO

Your Zip Code *

Maximum of 10 digits. (Example) 80202

81323

Email Address *

Enter a valid email address in this field to receive a confirmation e-mail.

em.matyas@zohomail.com

Your Phone Number *

Used only to follow up.

4802052796

Extension**Alternate Phone Number**

Used only to follow up.

Alternate Phone Extension**Connection to Operation ***

Select all that apply

- ☐ Land Owner of affected land
- ☐ Mineral Owner
- ☐ Adjacent Land Owner
- ☐ Government Agency

- ☐ Structure Owner within 200' of affected land
- ☒ Nearby Resident
- ☒ Concerned Citizen
- ☐ Other

DESCRIPTION OF COMMENT OR OBJECTION

You are providing a comment or objection to the public record of a permitting action currently under review by the Division of Reclamation, Mining and Safety. This form is not intended for reporting of possible violations or illegal activity. Please be as specific as possible.

Comment/Objection Narrative *

Drilling in a National Conservation area or on public land goes against the common sense use of the area. It spoils the recreation options and beauty for people, and endangers wildlife and plants. We all use and love these areas, for a variety of reasons, hunting, fishing, rafting, hiking, and more. Certain areas are meant to be left alone, for the betterment of all of us.

Permit Number *

Enter valid letter and then numbers, for example M1977999, M1999777UG or C1981201.

P2023018

Permitting Action Type

Select revision type or leave blank if comment pertains to a new permit application or NOI

Permit Type**County ***

Dolores

Enter one county only

Site Name**Permittee/Operator Name****ADDITIONAL INFORMATION**

Are there supporting photos, maps, or documents you wish to upload? *

☐ Yes ☒ No

By submitting this form electronically you agree to receive any/all follow up correspondence from the Division of Reclamation, Mining, and Safety at the email address you have provided.

Permitting Action Comment OR Objection



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

CONTACT INFORMATION

You are providing a comment or objection to the public record of a permitting action currently under review by the Division of Reclamation, Mining and Safety. This form is not intended for reporting of possible violations or illegal activity.

Date of Comment or Objection

12/08/2023

***** *Indicates a Required Field*

**This form is for comments or objections on permitting actions.
This form is not intended for requests to investigate compliance
issues with DRMS rules.**

Comment or Objection *

- ☒ Objection
- ☐ Support
- ☐ General Comment
- ☐ Agency Comment

Contact Type *

- ☒ Individual
- ☐ Group
- ☐ Agency
- ☐ Attorney

Please select the appropriate option above to identify who you represent.

Your First Name *

Cheryl

Your Last Name *

Foster

Your Address *

456 s sun ct

Your Address 2

Your City *

Grand Junction

Your State

CO

Your Zip Code *

Maximum of 10 digits. (Example) 80202

81504

Email Address *

Enter a valid email address in this field to receive a confirmation e-mail.

Cherriefoster@hotmail.com

Your Phone Number *

Used only to follow up.

970-210-17

Extension

50

Alternate Phone Number

Used only to follow up.

Alternate Phone Extension**Connection to Operation ***

Select all that apply

- ☐ Land Owner of affected land
- ☐ Mineral Owner
- ☐ Adjacent Land Owner
- ☐ Government Agency

- ☐ Structure Owner within 200' of affected land
- ☒ Nearby Resident
- ☒ Concerned Citizen
- ☒ Other

DESCRIPTION OF COMMENT OR OBJECTION

You are providing a comment or objection to the public record of a permitting action currently under review by the Division of Reclamation, Mining and Safety. This form is not intended for reporting of possible violations or illegal activity. Please be as specific as possible.

Comment/Objection Narrative *

My father Ed Foster worked in the uranium mines located in slick Rock Colorado for 3 years 1953 through 1956. We lived in the mining camp at slick Rock. My father was killed by a cave-in in the uranium mine he was working in. My mother had four children under the age of six. Three of those four children have had different types of cancer. My stepfather worked in the uranium mine near e g n a r Colorado. He was a hoist man. He also died of lung cancer. The Dolores River Canyon is the last open River within the state of Colorado. As a resident of that area of Colorado I oppose any further exploration or development of uranium in that area. Please deny the permit number P20 23-018. Thank you Cheryl Foster

Permit Number *

Enter valid letter and then numbers, for example M1977999, M1999777UG or C1981201.

P2023018

Permitting Action Type

Select revision type or leave blank if comment pertains to a new permit application or NOI

Permit Type

EXP I 800- 529-3476 o r a t o r y

County *

San Miguel

Enter one county only

Site Name**Permittee/Operator Name****ADDITIONAL INFORMATION**

Are there supporting photos, maps, or documents you wish to upload? *

☐ Yes ☒ No

By submitting this form electronically you agree to receive any/all follow up correspondence from the Division of Reclamation, Mining, and Safety at the email address you have provided.

Permitting Action Comment OR Objection



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

CONTACT INFORMATION

You are providing a comment or objection to the public record of a permitting action currently under review by the Division of Reclamation, Mining and Safety. This form is not intended for reporting of possible violations or illegal activity.

Date of Comment or Objection

12/08/2023

***** *Indicates a Required Field*

**This form is for comments or objections on permitting actions.
This form is not intended for requests to investigate compliance
issues with DRMS rules.**

Comment or Objection *

- ☒ Objection
- ☐ Support
- ☐ General Comment
- ☐ Agency Comment

Contact Type *

- ☐ Individual
- ☒ Group
- ☐ Agency
- ☐ Attorney

Please select the appropriate option above to identify who you represent.

Group Name *

Colorado Sierra Club

Please specify how you would like to provide the list of names of the individuals you are representing.

I prefer *

- ☒ to type in the names.
- ☐ upload a PDF of the names.

List of persons represented

Colorado Chapter of the Sierra Club

Your First Name *

Delia

Your Last Name *

Malone

Your Address *

0111 Mountain Lion Way

Your Address 2

Your City *

Redstone

Your State

CO

Your Zip Code *

Maximum of 10 digits. (Example) 80202

81623

Email Address *

Enter a valid email address in this field to receive a confirmation e-mail.

deliamalone@earthlink.net

Your Phone Number *

Used only to follow up.

9703199498

Extension**Alternate Phone Number**

Used only to follow up.

Alternate Phone Extension**Connection to Operation ***

Select all that apply

- ☐ Land Owner of affected land
- ☐ Mineral Owner
- ☐ Adjacent Land Owner
- ☐ Government Agency

- ☐ Structure Owner within 200' of affected land
- ☐ Nearby Resident
- ☒ Concerned Citizen
- ☐ Other

DESCRIPTION OF COMMENT OR OBJECTION

You are providing a comment or objection to the public record of a permitting action currently under review by the Division of Reclamation, Mining and Safety. This form is not intended for reporting of possible violations or illegal activity. Please be as specific as possible.

Comment/Objection Narrative *

Colorado Division of Reclamation, Mining & Safety https://dnrlaserfiche.state.co.us/Forms/DRMS_Comment
drms_info@state.co.us
Re: Permit # P2023018

Dear Division of Reclamation, Mining and Safety,

Sierra Club's mission is "to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments." Sierra Club has more than 2.1 million members and supporters nationwide, including more than 80,000 Coloradans. Although we are comprised of a diverse population, the tie that binds us is our commitment to conserving those places, processes and organisms that will sustain our natural heritage with all of its biological diversity.

Accordingly, the Colorado Chapter of the Sierra Club is opposed to the issuance of an exploratory drilling permit for the Slick Rock Canyon Uranium project. This proposed uranium exploratory drilling and mining development project has a high possibility of harming human health, violating environmental justice and equity, and degrading the region's wildlife and natural resources.

1. Uranium extraction processes separate uranium from its decay products which are also radioactive and contain most (80-90%) of the radioactivity in the rock (ore). The solid radioactive wastes that are left over from the milling processes, tailings and the liquid wastes raffinates, remain radioactive and contain hazardous chemicals from the recovery process (EPA 2023).

The process that will be used to recover uranium from the proposed Slick Rock Canyon mine is milling, which would be conducted at the nearby White Mesa Uranium Mill. Milling uses alkali and acid washes to isolate the uranium. Besides chemicals used in washes, the toxic tailings contain sulfide ores, molybdenum, selenium, arsenic, and mercury, and approximately 85% of the radioactivity of the original ore (NIH 2023). Regardless of how uranium is removed from rock, the extraction process creates both mining waste and mill tailings, radioactive wastes that can contaminate soil, air and water (EPA 2023). These contaminants can then move into and poison plants and animals including humans.

Exploratory drilling, mining and milling processes will both deplete Dolores River water and threaten to pollute rivers and the life that they support. Although uranium is widespread in the earth's crust, and whenever aquifer and bedrock interface, there might be some uranium in the water, exploratory drilling or mining increases exposure of water to potential contamination (NIH 2023).

2. The Ute Mountain Ute Tribe has long protested the White Mesa Uranium Mill Because of the potential dangers of radioactive uranium and the on-site waste containment cells from the milling process. The White Mesa Mill's sprawling waste pits, which spread across about 275 acres and contain more than 700 million pounds of radioactive materials from contaminated sites across the country and the world, sit just a few miles from the White Mesa community (GCT 1, 2022).

White Mesa community members, tribal leaders, and the tribe's environmental department are concerned that radioactive contamination from the mill could put public health, water, and air quality at risk. The community's drinking water aquifer is located deep beneath the mill's waste pits. At a spiritual walk (GCT 2, 2022) opposing the mill on October 22, 2022, Ute Mountain Ute Tribal Council Member Conrad Jacket told the crowd assembled outside the community center. "Red, white, blue...I don't give a care what color you are, if water gets contaminated, then that's the end..." (GCT 2, 2022).

3. Uranium possesses both chemical toxicity and radioactivity. The effects of low-level radioactivity include cancer, shortening of life, and subtle changes in fertility or viability of offspring, as determined from both animal studies and data on Hiroshima and Chernobyl survivors. These effects can be delayed for decades or for generations and are not detected in short-term toxicologic studies (NIH 2023).

The Sierra Club's opposition to the issuance of an exploratory drilling permit are due to both health and environmental concerns about uranium mining including: 1) health and safety of miners and mine sites; 2) health and safety of people in the vicinity who might be affected by spread of radioactivity from the tailings or tailings ponds; and 3) environmental effects of increasing background radiation and water contamination. Contamination from uranium mining activity will persist for generations. The dust that blows away from the sites and the copious amounts of water used for dust control and uranium extraction all contain long-lived radioisotopes that are being disseminated into the environment. In the tailings, thorium 230 decays to produce radon gas. With a half-life of 76 000 years, it will produce radon for millennia. In the atmosphere, radon decays into the radioactive solids polonium, bismuth, and lead, which enter water, crops, trees, soil, and animals, including humans (NIH 2023).

4. A recent analysis of biodiversity values across the unprotected public lands in Colorado found 71 areas on unprotected federal public lands in Colorado containing high biodiversity values; of those 71 areas, the public lands within the Dolores River Canyon Country represent the largest and most biologically diverse unprotected publicly-owned landscape in Colorado (Figure 1) (CSP 2023).

All phases of uranium development — exploration, mining and milling — can pose unique threats to species, ecosystems, and human communities. From habitat destruction and disruption of wildlife to bio-accumulation and irreversible pollution of waters, uranium exploration and mining threatens to build upon uranium's legacy of environmental and social harm. Disturbance of the land surface by mining, the temporary storage of ores and mining and processing wastes on-site, dewatering of mine workings/pits, and a variety of reclamation activities all have the potential to significantly affect the concentrations and loads of dissolved and suspended materials in surface water off-site (NIH 2011). Pollutants from the mining of uranium can contaminate aquatic ecosystems for hundreds of years, threatening downstream communities and fish and wildlife. Even small amounts of some pollutants can poison fish, accumulate in the food chain, and cause deformities and reproductive problems for aquatic species.

Figure 1. Of the ten largest unprotected biodiversity hotspots in Colorado, two of them are found in the Dolores River Canyon Country. SOURCE: Suraci, J., Farwell, L., Littlefield, C., Freeman, P., Zachmann, L., Landau, V., Anderson, J., Dickson, B. 2023. Achieving conservation targets by jointly addressing climate change and biodiversity loss. Ecosphere. <https://doi.org/10.1002/ecs2.4490>

Uranium mining has widespread effects, contaminating the environment with radioactive dust, radon gas, water-borne toxins, and increased levels of background radiation. There are no boundaries for air and water; the addition of long-lived radioisotopes anywhere in the environment eventually affects the health of everyone. If permitted, this development would threaten both human culture and natural resources in both the Disappointment Valley and the Ute Mountain Ute Tribe's White Mesa community. For decades, the Ute

Disappointment valley and the Ute Mountain Ute Tribe's White Mesa community. For decades, the Ute Mountain Ute Tribe and environmental organizations, including the Grand Canyon Trust, have raised concerns that the mill poses a threat to human health and the environment (GCT 2021).

In consideration of the threats to human and environmental health from the proposed project we respectfully request that you deny exploratory drilling permits for the Slick Rock Canyon Uranium Project.

Delia G. Malone

Ecologist and Wildlife Chair
Colorado Chapter of the Sierra Club

LITERATURE CITED

Conservation Science Partners (CSP). 2023. Assessment of the Biodiversity Values Provided by Unprotected Public Lands in Colorado Including the Dolores River Canyon. Final Public Report. Truckee, California, USA. Available online: https://46913af6-4945-45d0-8f6a-1ffc6aa33055.usrfiles.com/ugd/46913a_384513c6b7c943a9a0b4963b205e42c8.pdf

Grand Canyon Trust (GCT) 1. 2022. The Business of Radioactive Waste. Available online:

https://www.grandcanyontrust.org/sites/default/files/resources/White_Mesa_Report_March2022_Final.pdf

Grand Canyon Trust (GCT) 2. 2022. White Mesa Ute Lead Spiritual Walk to Protest Uranium Mill. Available online: <https://www.grandcanyontrust.org/blog/white-mesa-ute-lead-spiritual-walk-protest-uranium-mill>

Grand Canyon Trust (GCT). Intertribal Walk Protests Uranium Mill Near Bears Ears. Available online: <https://www.grandcanyontrust.org/blog/intertribal-walk-protests-uranium-mill-near-bears-ears>

National Institute of Health (NIH). 2013. Uranium mining and health. National Library of Medicine. Available online: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3653646/>

National Institutes of Health (NIH). 2011. Uranium Mining in Virginia: Scientific, Technical, Environmental, Human Health and Safety, and Regulatory Aspects of Uranium Mining and Processing in Virginia. Available online: <https://www.ncbi.nlm.nih.gov/books/NBK201049/>

U.S. Environmental Protection Agency. (EPA. Radioactive Waste from Uranium Mining and Milling. Available line: <https://www.epa.gov/radtown/radioactive-waste-uranium-mining-and-milling>

Permit Number *

Enter valid letter and then numbers, for example M1977999, M1999777UG or C1981201.

P2023018

Permitting Action Type

Select revision type or leave blank if comment pertains to a new permit application or NOI

Permit Type

County *

San Miguel

Enter one county only

Site Name

Slick Rock Canyon

Permittee/Operator Name

ADDITIONAL INFORMATION

Are there supporting photos, maps, or documents you wish to upload? *

☒ Yes ☐ No

Upload Supporting Documents

Maximum of 5 files can be uploaded and each file size must be 10mb and under. PDF, JPG, and PNG formats only.

Slick Rock uranium mine_objection comments.pdf

440.08KB

By submitting this form electronically you agree to receive any/all follow up correspondence from the Division of Reclamation, Mining, and Safety at the email address you have provided.



Colorado Chapter

1536 Wynkoop Street, 4B-1, Denver, CO 80202 | 303.454.3362 | www.rmcsierraclub.org

Colorado Division of Reclamation, Mining & Safety

[https://dnrlaserfiche.state.co.us/Forms/DRMS Comment](https://dnrlaserfiche.state.co.us/Forms/DRMS%20Comment)

drms_info@state.co.us

Re: Permit # P2023018

Dear Division of Reclamation, Mining and Safety,

Sierra Club's mission is "to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments." Sierra Club has more than 2.1 million members and supporters nationwide, including more than 80,000 Coloradans. Although we are comprised of a diverse population, the tie that binds us is our commitment to conserving those places, processes and organisms that will sustain our natural heritage with all of its biological diversity.

Accordingly, the Colorado Chapter of the Sierra Club is opposed to the issuance of an exploratory drilling permit for the Slick Rock Canyon Uranium project. This proposed uranium exploratory drilling and mining development project has a high possibility of harming human health, violating environmental justice and equity, and degrading the region's wildlife and natural resources.

1. Uranium extraction processes separate uranium from its decay products which are also radioactive and contain most (80-90%) of the radioactivity in the rock (ore). The solid radioactive wastes that are left over from the milling processes, tailings and the liquid wastes raffinates, remain radioactive and contain hazardous chemicals from the recovery process (EPA 2023).

The process that will be used to recover uranium from the proposed Slick Rock Canyon mine is milling, which would be conducted at the nearby White Mesa Uranium Mill. Milling uses alkali and acid washes to isolate the uranium. Besides chemicals used in washes, the toxic tailings contain sulfide ores, molybdenum, selenium, arsenic, and mercury, and approximately 85% of the radioactivity of the original ore (NIH 2023). Regardless of how uranium is removed from rock, the extraction process creates both mining waste and mill tailings, radioactive wastes that can contaminate soil, air and water (EPA 2023). These contaminants can then move into and poison plants and animals including humans.

Exploratory drilling, mining and milling processes will both deplete Dolores River water and threaten to pollute rivers and the life that they support. Although uranium is widespread in the earth's crust, and whenever aquifer and bedrock interface, there might be some uranium in the water, **exploratory drilling or mining increases exposure of water to potential contamination** (NIH 2023).

2. The Ute Mountain Ute Tribe has long protested the White Mesa Uranium Mill Because of the potential dangers of radioactive uranium and the on-site waste containment cells from the milling process. The White Mesa Mill's sprawling waste pits, which spread across about 275 acres and contain

more than 700 million pounds of radioactive materials from contaminated sites across the country and the world, sit just a few miles from the White Mesa community (GCT 1, 2022).

White Mesa community members, tribal leaders, and the tribe's environmental department are concerned that radioactive contamination from the mill could put public health, water, and air quality at risk. The community's drinking water aquifer is located deep beneath the mill's waste pits. At a [spiritual walk](#) (GCT 2, 2022) opposing the mill on October 22, 2022, Ute Mountain [Ute Tribal Council Member Conrad Jacket](#) told the crowd assembled outside the community center. "Red, white, blue...I don't give a care what color you are, if water gets contaminated, then that's the end..." (GCT 2, 2022).

3. Uranium possesses both chemical toxicity and radioactivity. The effects of low-level radioactivity include cancer, shortening of life, and subtle changes in fertility or viability of offspring, as determined from both animal studies and data on Hiroshima and Chernobyl survivors. These effects can be delayed for decades or for generations and are not detected in short-term toxicologic studies (NIH 2023).

The Sierra Club's opposition to the issuance of an exploratory drilling permit are due to both health and environmental concerns about uranium mining including: 1) health and safety of miners and mine sites; 2) health and safety of people in the vicinity who might be affected by spread of radioactivity from the tailings or tailings ponds; and 3) environmental effects of increasing background radiation and water contamination.

Contamination from uranium mining activity will persist for generations. The dust that blows away from the sites and the copious amounts of water used for dust control and uranium extraction all contain long-lived radioisotopes that are being disseminated into the environment. In the tailings, thorium 230 decays to produce radon gas. With a half-life of 76 000 years, it will produce radon for millennia. In the atmosphere, radon decays into the radioactive solids polonium, bismuth, and lead, which enter water, crops, trees, soil, and animals, including humans (NIH 2023).

4. A recent analysis of biodiversity values across the unprotected public lands in Colorado found 71 areas on unprotected federal public lands in Colorado containing high biodiversity values; of those 71 areas, the public lands within the Dolores River Canyon Country represent [the largest and most biologically diverse unprotected publicly-owned landscape in Colorado](#) (Figure 1) (CSP 2023).

All phases of uranium development — exploration, mining and milling — can pose unique threats to species, ecosystems, and human communities. From habitat destruction and disruption of wildlife to bio-accumulation and irreversible pollution of waters, uranium exploration and mining threatens to build upon uranium's legacy of environmental and social harm. Disturbance of the land surface by mining, the temporary storage of ores and mining and processing wastes on-site, dewatering of mine workings/pits, and a variety of reclamation activities all have the potential to significantly affect the concentrations and loads of dissolved and suspended materials in surface water off-site (NIH 2011). Pollutants from the mining of uranium can contaminate aquatic ecosystems for hundreds of years, threatening downstream communities and fish and wildlife. Even small amounts of some pollutants can poison fish, accumulate in the food chain, and cause deformities and reproductive problems for aquatic species.

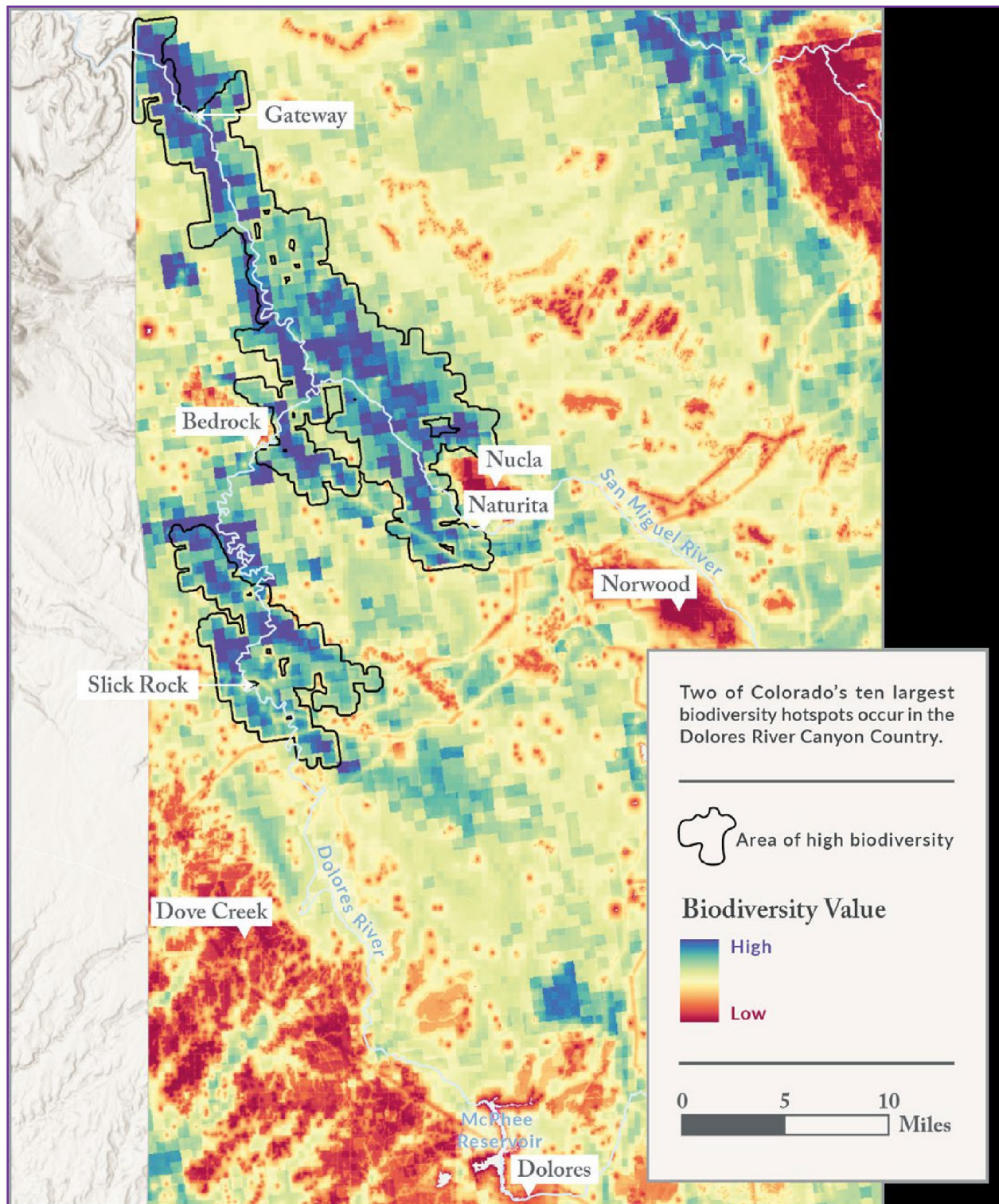


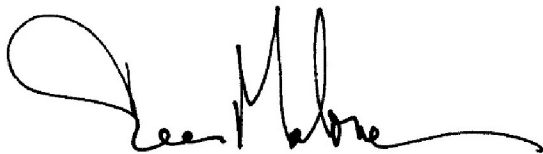
Figure 1. Of the ten largest unprotected biodiversity hotspots in Colorado, two of them are found in the Dolores River Canyon Country. SOURCE: Suraci, J., Farwell, L., Littlefield, C., Freeman, P., Zachmann, L., Landau, V., Anderson, J., Dickson, B. 2023. Achieving conservation targets by jointly addressing climate change and biodiversity loss. *Ecosphere*. <https://doi.org/10.1002/ecs2.4490>

Uranium mining has widespread effects, contaminating the environment with radioactive dust, radon gas, water-borne toxins, and increased levels of background radiation. There are no boundaries for air and water; the addition of long-lived radioisotopes anywhere in the environment eventually affects the health of everyone.

If permitted, this development would threaten both human culture and natural resources in both the Disappointment Valley and the Ute Mountain Ute Tribe's White Mesa community. For decades, the [Ute Mountain Ute Tribe](#) and environmental organizations, including the Grand Canyon Trust, have [raised concerns](#) that the mill poses a threat to human health and the environment (GCT 2021).

In consideration of the threats to human and environmental health from the proposed project we respectfully request that you deny exploratory drilling permits for the Slick Rock Canyon Uranium Project.

Delia G. Malone

A handwritten signature in black ink, appearing to read 'Delia Malone', with a long horizontal flourish extending to the right.

Ecologist and Wildlife Chair

Colorado Chapter of the Sierra Club

LITERATURE CITED

Conservation Science Partners (CSP). 2023. Assessment of the Biodiversity Values Provided by Unprotected Public Lands in Colorado Including the Dolores River Canyon. Final Public Report. Truckee, California, USA. Available online: https://46913af6-4945-45d0-8f6a-1ffc6aa33055.usrfiles.com/ugd/46913a_384513c6b7c943a9a0b4963b205e42c8.pdf

Grand Canyon Trust (GCT) 1. 2022. The Business of Radioactive Waste. Available online: https://www.grandcanyontrust.org/sites/default/files/resources/White_Mesa_Report_March2022_Final.pdf

Grand Canyon Trust (GCT) 2. 2022. White Mesa Ute Lead Spiritual Walk to Protest Uranium Mill. Available online: <https://www.grandcanyontrust.org/blog/white-mesa-ute-lead-spiritual-walk-protest-uranium-mill>

Grand Canyon Trust (GCT). Intertribal Walk Protests Uranium Mill Near Bears Ears. Available online: <https://www.grandcanyontrust.org/blog/intertribal-walk-protests-uranium-mill-near-bears-ears>

National Institute of Health (NIH). 2013. Uranium mining and health. National Library of Medicine. Available online: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3653646/>

National Institutes of Health (NIH). 2011. Uranium Mining in Virginia: Scientific, Technical, Environmental, Human Health and Safety, and Regulatory Aspects of Uranium Mining and Processing in Virginia. Available online: <https://www.ncbi.nlm.nih.gov/books/NBK201049/>

U.S. Environmental Protection Agency. (EPA. Radioactive Waste from Uranium Mining and Milling. Available line: <https://www.epa.gov/radtown/radioactive-waste-uranium-mining-and-milling>