

# TOO PRECIOUS TO MINE

Film Screening Kit





# TOO PRECIOUS TO MINE

Thank you for screening "Too Precious To Mine". This packet includes all the information you need to host your own successful screening of the film. If you have any questions or additional needs, please contact us.

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GRAND CANYON  
TRUST



## Film Synopsis

The Havasupai Tribe depends on the blue-green waters that emerge in the Grand Canyon for drinking water. But now, uranium mining on the canyon's rims threatens the tribe's existence and its way of life. A 20-year ban on new uranium mining claims around the Grand Canyon is at risk of being overturned by the Trump administration.

## Sponsors

### GRAND CANYON TRUST

#### FILM SPONSOR

The Trust was established in 1985 by Arizona Governor Bruce Babbitt and other leading conservationists to work on natural resource issues affecting the Grand Canyon. Soon after, Executive Director Ed Norton and Trustee Stewart Udall made an impassioned plea that issues do not stop at the boundaries of the park, and that the Trust should be an advocate for both the Grand Canyon and the surrounding Colorado Plateau. The suggestion was adopted and the Grand Canyon Trust emerged as a leading regional conservation organization, with offices across the plateau and extensive connections among policymakers, land managers, scientists, and community leaders.

### JUSTIN CLIFTON

#### FILM DIRECTOR

Justin Clifton is a native of the American Southwest who has dedicated the past decade of his career to advocacy film, first as director of Telluride Mountain Film on Tour and now as a filmmaker whose work is centered around environmental and conservation issues.

## Take Action: What can you do?

- ▶ **HOST A FILM SCREENING:** Too Precious to Mine (9:36)  
Download the film at:

Vimeo: <https://vimeo.com/241576331>

Youtube: <https://youtu.be/QYK9TFigz3Q>

- ▶ **ENCOURAGE PEOPLE TO POST THE SHORTER VERSION ON SOCIAL MEDIA:**

**Keep the Canyon Grand (2:29)**

Vimeo: <https://vimeo.com/240905038>

Youtube: <https://youtu.be/-ACyoCwL7Mc>

- ▶ **SAMPLE SOCIAL MEDIA POSTS:**

1. Some places are too precious to mine, the Grand Canyon is one of them. It's our responsibility, as a nation, to show we are worthy of this natural wonder. Keep the mining ban and sign the petition (include link to petition and video)
2. Some places are #tooprecioustopmine, please sign the petition to #keepthecanyongrand

- ▶ **HASHTAGS:**

#tooprecioustopmine

#keepthecanyongrand

#banuraniumining

#waterislife



- ▶ **SIGN OUR PETITION:** [grandcanyontrust.org/take-action](http://grandcanyontrust.org/take-action)

- ▶ **SPREAD THE WORD:** Share our petition and our short film with your networks and encourage them to take action!



▶ **WRITE AND CALL YOUR SENATORS**

Send a letter to decision-makers, especially Secretary of the Interior Ryan Zinke, Secretary of Agriculture Sonny Perdue and your congressional representatives.

Let them know that you oppose the lifting of the uranium mining ban.

*See PAGE 9 for a sample letter.*

**CALL YOUR REPRESENTATIVES AND MAKE YOUR VOICE HEARD.**

**HOW TO CALL**

**1. Identify yourself:** Hi, my name is \_\_\_\_\_. I live in \_\_\_\_\_ and my zipcode is \_\_\_\_\_.

**2. Identify who you wish to speak with:** I'd like to speak with the staffer who works on uranium mining.

*Remember that calls are answered by staff members and not members of Congress.*

**3. Explain why you are calling:** I'm calling to ask (Senator or Representative X) to uphold Public Land Order 7787 that temporarily bans uranium around the Grand Canyon because (state the reasons why you support upholding the ban).

▶ **SIGN UP FOR OUR UPDATES ON THIS ISSUE AT**

<http://grandcanyontrust.nonprofitsoapbox.com/email-signup>

▶ **DONATE** to organizations that are deeply involved in this work including the Grand Canyon Trust.





## Frequently Asked Questions



### WHAT IS URANIUM?

Uranium is the heaviest naturally occurring element and is more fragile than any other atom in nature. Hoodoos, spires, cliffs, and canyons define the Colorado Plateau, but the landscape's beauty obscures the mining resources that lie below the surface. Uranium deposits sit deep within the inner folds of sandstone, siltstone, and mudstone layers that characterize the Southwest. Breccia pipes are another deposit type and are the most common near the Grand Canyon. Breccia deposits typically range from 100 to 400 feet in diameter and can be up to 3,000 feet deep. Uranium deposits vary in grade (ratio of uranium oxide contained in the ore) and while deposits in Australia and Canada are better, some ranging as high as 18.8 percent, the grade of U.S. uranium is much lower. Canyon Mine on the South Rim, for instance, has a uranium grade of 0.88 percent, making it less economical to mine than deposits elsewhere in the world.



### WHAT ARE THE MINING METHODS?

**OPEN PIT MINING:** strips away topsoil and rock above the uranium ore.

**UNDERGROUND MINING:** extracts rock through a mineshaft. This method is employed at breccia pipe mines such as the Canyon Mine, the only uranium mine currently operating on the Grand Canyon's south rim.

**CHEMICAL DISSOLUTION** (i.e. In-situ Recovery or ISR): uranium ore deposits are dissolved into a solution underground and the fluid is brought out of the ground for uranium extraction. This method is increasingly common and is the only method used elsewhere in the country. ISR does not require conventional milling methods, which are only offered at the White Mesa Mill in southeastern Utah.



### ARE THERE HEALTH IMPACTS FROM URANIUM?

**WATER:** The Lower Colorado River Basin – more than 30 million people and 4 million acres of farmland – depends on clean, safe water from the Colorado River. More than 500 uranium mines have been abandoned on the Navajo Nation alone and the history of uranium-caused water contamination is already a shameful one.

**SOIL:** Uranium mining and milling contaminate soil, with cascading effects for entire ecosystems. The United States Geological Survey has found evidence of uranium concentrations in soil up to 10 times greater than background levels at existing mine sites near Grand Canyon National Park.

**HUMAN HEALTH:** Uranium is toxic to humans and accumulates in bone, liver, kidney, and reproductive tissues. Exposure to low levels of uranium radiation can cause cancer, reduce





fertility, and shorten lifespans. Radon-222, the leading cause of lung cancer in the United States, is emitted from both uranium mines and the White Mesa Mill. The mill is the last operating conventional uranium mill in the U.S., just a handful of miles upgradient and often up wind of the community of White Mesa, Utah, home to a band of the Ute Mountain Ute Tribe.



## WHAT IS THE 20-YEAR BAN?

In 2012, the Department of the Interior issued Public Land Order 7787, which temporarily withdrew over one million acres of public and national forest lands around Grand Canyon National Park from new mining claims under the 1872 Mining Law. This meant a ban on new mining claims or the development of all but a handful of pre-existing mines for a period of 20 years. The temporary ban is intended to allow scientists more time to conduct research and better understand the geology and groundwater flow of the region, to determine whether uranium mining is or can be done safely there. The necessary research is complex and extensive and requires significant funding—funding that has not yet been provided by Congress. As a result, not enough research has been done. Uranium mining companies have presented this dearth of research as equivalent to a dearth of evidence that their operations could be harmful.

In March 2017, President Trump issued an executive order requiring all heads of federal agencies to review and identify regulations, orders, and other actions that “potentially burden the development or use of domestically produced energy resources, with particular attention to oil, natural gas, coal, and nuclear energy resources.” The Forest Service identified the Grand Canyon mining ban as one of those actions. The Trump administration has yet to take final action on this recommendation.

In December, the 9th Circuit Court of Appeals in San Francisco upheld the mining ban, which had been challenged by the National Mining Association during the Obama administration. While this is promising news, the Trump administration could still dismantle the ban.



BLAKE MCCORD





## WHY SHOULD YOU CARE?

Uranium mine wastes contain complex mixtures of heavy metals and radionuclides. When uranium is dug up and subjected to industrial processes, it makes radionuclides more available to be mobilized in the environment and subsequently inhaled or ingested. Absorption of uranium and radionuclides into the human body can cause a variety of health issues, including kidney damage, lung cancer, bone diseases, and reproductive impacts.

Uranium mill tailings contain radioactive materials, including radium-226 and heavy metals, which can leach into groundwater and contaminate soils. Near tailings piles, water samples have shown levels of contaminants at hundreds of times the government's acceptable level for drinking water.

Uranium mining and milling operations have disproportionately affected indigenous populations. For example, nearly one in five uranium mines is situated within 10 kilometers of a Native American reservation and more than 75 percent are situated within 80 kilometers. Many Native Americans have died of lung cancer linked to having worked in uranium mines, while others suffer the effects of land and water contamination.

In the Grand Canyon region, detrimental impacts to groundwater resources have been seen at a number of previous and ongoing uranium mining sites in northern Arizona. Sampling summarized by the U. S. Geological Survey in 2010 showed that 15 springs and five wells contained dissolved uranium concentrations in excess of U.S. Environmental Protection Agency standards for drinking water. The study states that these locations "are related to mining processes."





## Resources

### ADDRESS BOOK

**Secretary of the Interior RYAN ZINKE**

ATTN: Secretary Zinke  
Department of the Interior  
1849 C Street, N.W.  
Washington DC 20240  
(202) 208-3100

**Secretary of Agriculture SONNY PERDUE**

ATTN: Secretary of Agriculture Perdue  
U.S. Department of Agriculture  
1400 Independence Ave., S.W.  
Washington, DC 20250  
(202) 720-2791

**Arizona Senator JOHN MCCAIN**

218 Russell Senate Office Building  
Washington DC 20510  
(202) 224-2235

**Arizona Senator JEFF FLAKE**

413 Russell Senate Office Building  
Washington DC 20510  
(202) 224-4521

**Arizona Representative ANDY BIGGS**

1626 Longworth House  
Office Building  
Washington, DC 20515  
(202) 225-2635

**Arizona Representative PAUL GOSAR**

2057 Rayburn HOB  
Washington, DC 20515  
(202) 225-2315

**Representative MARTHA MCSALLY**

510 Cannon House Office Building  
Washington, DC 20525  
(202) 225-2542

**Representative DAVID SCHWEIKERT**

2059 Rayburn HOB  
Washington, DC 20515  
(202) 225-2190



## SAMPLE LETTER

Can be found online at: <http://grandcanyontrust.nonprofitsoapbox.com/canyonuraniumban>

Dear Secretary of the Interior Zinke, Secretary of Agriculture Perdue, Senators McCain and Flake, Representatives Biggs, Gosar, McSally, and Schweikert,

We are alarmed that Congress, the National Mining Association, and now the Trump administration may undermine the hard-earned ban on new uranium claims on public lands that drain directly into the Grand Canyon.

**Grand Canyon springs are being permanently polluted by uranium mining.** Contaminated water from an abandoned uranium mine on the canyon's south rim is poisoning a spring-fed creek deep within the canyon. Another mine on the North Rim was reopened in 2009, with more than two million gallons of highly contaminated groundwater discovered in its deep shaft. Water samples taken by the U.S. Geological Survey show that 15 springs and five wells within the Grand Canyon's watershed contained dissolved uranium concentrations "related to mining processes" in excess of standards for safe drinking water. The National Park Service reports that the "regional aquifer groundwater wells at the Canyon, Pinenut, and Hermit uranium mines as well as the sumps at the base of Pigeon and Hermit uranium mines have all exhibited dissolved uranium concentrations in excess of drinking water standards (30 micrograms per liter), with concentrations at Hermit Mine exceeding 36,000 micrograms per liter."

**Grand Canyon-associated tribes and an overwhelming majority of citizens want to protect the Grand Canyon's springs and sacred waters from uranium pollution.**

The current 20-year moratorium on new uranium claims took more than five years and one of the largest and broadest coalitions ever aligned to protect the Grand Canyon. Havasupai villagers, whose sole source of drinking water is at risk, led the way. They were joined by ten other tribal communities, county supervisors, chambers of commerce, ranchers, hunters, scientists, Arizona's governor, game and fish commissioners, and business owners. All united to stop uranium mining from permanently polluting the Grand Canyon and undermining the region's tourism-driven economy.

**The current 20-year ban on new uranium claims must be defended.** The National Mining Association and Nuclear Energy Institute are suing to block the ban in federal court.

Please help us stop thousands of new uranium claims by using your position in Congress or in the Trump administration to protect the Grand Canyon's sacred waters for this and future generations.

We ask you to defend the Grand Canyon against all congressional and administrative attempts to rescind the 20-year moratorium.

We ask you to join us to prevent any more uranium mines from polluting the Grand Canyon's precious waters.

We implore you to stand strong against those who would harm the Grand Canyon state's most treasured place.

**We ask for your public pledge to Keep the Canyon Grand.**

Thank you,



## MAP

A map of the Grand Canyon mining ban area can be found online at:  
[grandcanyontrust.org/grand-canyon-uranium-claims](http://grandcanyontrust.org/grand-canyon-uranium-claims)

More maps are available at [grandcanyontrust.org/resources](http://grandcanyontrust.org/resources)

