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LR in the News 01/11/13

### **Tar Sands Mine Inches Closer to Reality**

[Click here](#) to read this story by Amy Joi O'Donoghue

[Click here](#) to read this story in the Salt Lake Tribune by Judy Fahys

[Click here](#) to read about the protests at the Energy Summit in Salt Lake City by Eric Peterson of the Salt Lake Weekly

[Click here](#) to watch a video as protesters grab the stage and announce Governor Herbert as recipient of "Polluter of the Year" award.

[Click here](#) to read this story by Steve Kadel in the (Moab) Times-Independent

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LR Press Release 01/23/13

### **Controlled Flood in Grand Canyon a Dud**

For immediate release:

Contact: John Weisheit @ 435-260-2590 (cell)

Controlled Flood in Grand Canyon a Dud

Federal Scientists Say Sand and Beaches Continue to Erode Away

PHOENIX, Arizona - January 23, 2013 - Just two months after Secretary of Interior Ken Salazar opened the jet tubes at Glen Canyon Dam, launching a five-day (24-hour peak) controlled flood into Grand Canyon, the results are in and they are not positive.

During today's Annual Reporting Review for the Grand Canyon Adaptive Management Program's Technical Working Group, representatives from the Glen Canyon Monitoring and Research Center reported:

Just 55% of the target beaches showed improvements, while 36% remained the same and 9% were worse off. 25% of the sediment scientists had hoped to mobilize and distribute with the flood never moved. No evidence of improved nursery habitat for native fish. Nothing is stopping the long-term erosion of sediment from Grand Canyon's river corridor.

"Ken Salazar claimed that this was going to be 'A milestone in the history of the Colorado River', but like the three previous experiments in 1996, 2004 and 2008, it too has shown that at best some beaches are temporarily improved, but the long-term prognosis for the Grand Canyon is a system without sediment," says Living Rivers Conservation Director John Weisheit

Since 1963, 95% of sediment inflows to Grand Canyon National Park's river corridor have been trapped behind Glen Canyon Dam. This has completely transformed habitat conditions for Grand Canyon native fish, leading to the extinction of the Colorado pikeminnow, razorback sucker, bonytail chub and roundtail chub, and the endangerment of the humpback chub.

The November 19th 2012 flood is the first to occur in a ten-year time window that scientist have been granted to experiment with Glen Canyon Dam operations. Additional controlled floods can be attempted if certain conditions are met, mainly the existence of large amounts of sediment entering the Colorado River from two tributary rivers that feed into the upper part of Grand Canyon, the Paria and Little Colorado.

"Far too much public time and money is wasted on preparing for, publicizing, executing and monitoring these useless floods that do nothing but perpetuate a science welfare program masquerading as an endangered species recovery effort," adds Weisheit. "Scientists know, but won't publicly state, that the only real solution to addressing Grand Canyon's sediment deficit is to transport it around Glen Canyon Dam or decommission the dam altogether."

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For more information: Grand Canyon Monitoring and Research Center [www.gcmrc.gov](http://www.gcmrc.gov)  
928-556-7380

Commentary @ [www.charliechub.com](http://www.charliechub.com)

Scientists studying last fall's experimental flood of the Grand Canyon say it did what it was supposed to do: build sandbars.

Or, at least it built more sandbars than it eroded and generated new Colorado River campsites and fish habitats.

But the question is for how long.

"We'll just have to see," Grand Canyon Monitoring and Research Center Chief Jack Schmidt told participants in an annual canyon work-group session Wednesday. The real results will come over the next year or so, when researchers will know what remains of the newly built sandbars.

Over a 24-hour period in November, the U.S. Bureau of Reclamation cranked Glen Canyon Dam's release from 8,000 cubic feet per second to 42,300 to churn up sand and allow the U.S. Geological Survey and others to track the impact.

Some of the new sandbars and beaches are dramatically larger, nearly doubling, providing rafters a flat overnight perch and young endangered humpback chubs a warm backwater shelter from the pulsing river. The sand washed up by the flood also is meant to provide a wind-borne source of cover for uphill archaeological sites and a purchase for vegetation.

But it's unclear whether the benefits to these and other Grand Canyon National Park resources can withstand longer-term dam releases that fluctuate to meet hydropower or downstream water needs, and a shrinking sand source. After the previous three experiments that started in 1996, the buildup in many parts of the canyon has been on a downward trend as the river swept residual sand to Lake Mead.

Glen Canyon Dam blocks most of the sediment carried downstream by the Colorado River. Among the few remaining sources of sand is the Paria River, which flows into the Colorado about 15 miles below the dam and dumps, on average, about a tenth of the sand that the undammed river used to wash into the Canyon. The flood experiments are meant to find out how to make the best use of it.

Schmidt's staff has reviewed snapshots from remote digital cameras that showed more than half of the monitored sandbars and beaches — 18 — grew substantially after the November flood receded. Twelve sites showed no change and three eroded substantially.

"Every time we do a flood, it builds sandbars," said Paul Grams, a U.S. Geological Survey research hydrologist. "We know the floods build the bars, and they tend to erode in the six months to a year following the floods."

The Canyon's chub numbers have grown threefold, to 12,000 over the past two decades, biologists at this week's meetings estimated, perhaps aided more by warmer water spilling from a low reservoir.

Some river advocates have argued that only frequent artificial floods can approach pre-dam conditions — a possibility that the U.S. Interior Department set up by stripping environmental red tape from experimental releases for the next decade.

But others want more drastic action.

"It's not working," said John Weisheit, conservation director for Living Rivers, a non-profit organization dedicated to Colorado River conservation. The dam blocks too much sand, and the government should either breach the dam, transport sand around it or give up, he said.

"I would hope that this country could solve the health of Grand Canyon National Park," he said.

The Bureau of Reclamation has estimated it would cost more than \$100 million to build a pipeline around the dam to deliver about the same amount of sand that the Paria dumps in the Canyon. Schmidt and his staff advised river managers this week that there's a chance that sand depletion could at some point wipe out gains from these floods — but not yet.

Most of the targeted sandbars in Marble Canyon — the highest stretch of the park affected by the flood — grew in the November flood. But the results downstream were mixed, and USGS scientists said it was because prolonged high flows last year to move water from Lake Powell to Lake Mead washed away sand.

The Colorado River Energy Distributors Association estimates that its cooperative members from Arizona to Wyoming lost about \$1.4 million in power generation as water bypassed turbines during the release. It's unclear whether the canyon got "the bang for the buck," association Executive Director Leslie James said. Each flood introduces new results and variables.

"The more you experiment," she said, "the less you know."

Next fall is the soonest the government could plan another flood, if monsoon rains wash sufficient sediment down the Paria.

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LR in the News 02/09/13

### **Lake Powell Pipeline Foes Rejoice In Delay**

[Click here](#) to read this story by Amy Joi O'Donoghue in the Deseret News

For more information visit [On The Colorado](#)

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LR in the News 03/02/13

### **Utah Senate Spikes Hot-Button Nuclear Power Bill**

[Click here](#) to read this story by Judy Fahys in the Salt Lake Tribune

Moab based non-profits Uranium Watch, Living Rivers and Before It Starts have campaigns and litigation to stop this nuclear power plant project.

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LR Letter 03/13/13

### **LR comments on Basin Study assessing supply and demand in the Colorado River basin to year 2060**

[CLICK HERE](#) to read the comments of Living Rivers and the Center for Biological Diversity.

#### **Excerpt from our letter:**

##### **5. Conclusion**

The Basin Study represents a valuable technical achievement by Reclamation staff in applying contemporary modeling tools to generate predictions regarding future Colorado River flows. But these are just numbers, and they are wrought with uncertainty.

Moreover, how these results were presented shielded the public from attaining an understanding of the real challenges that Colorado River water users may be facing far sooner than the study's findings predict. Therefore, Reclamation should task the authors to begin work on a revision that addresses the following:

- 1) Provide extensive qualitative analysis as to the significant real-world uncertainty associated with the future streamflow predictions.
- 2) Discuss in far more detail the range and probabilities in future streamflows beyond the 10% average reduction projected by 2060.
- 3) Specifically address the new critical period (2000-2013) and the likelihood that it will continue. Moreover, if these conditions do persist for several more years, at what point do the study's future streamflow findings lose relevance and Reclamation's modeling needs recalibrating?
- 4) Detail the history and present status of over-allocation in the Basin, and the strategies that might be pursued to address remedies.
- 5) Eliminate discussion of demand projections that are not directly connected to Colorado River withdrawals and/or Colorado River water delivery obligations with Mexico.
- 6) Restrict discussions of new water supply options to water saved through demand-side management and conservation, and only to the extent necessary to help balance the Colorado River's water supply budget.
- 7) Incorporate an analysis of the Colorado River's long-term needs and potential, relating to issues other than water diversion: critical habitat maintenance and restoration, appropriate recreation and cultural preservation, etc. Explore opportunities for changes in how the river is managed and water is stored and delivered, given the changes in the hydrologic regime, the potential for water conservation, increased instream flows, and the decommissioning of unnecessary storage infrastructure.

This revised effort should be led by a team whose vision for the Colorado River extends beyond the dams and diversions put in place since the signing of the Colorado River Compact. There's more to the future of the Colorado River than how much and where its water can be diverted. Additionally, there's a need for full disclosure about the actual challenges water users may be facing in the near term, and creative discussions about solutions that address the real imbalance on the Colorado: excessive human intervention at the expense of the river's natural integrity. So despite the study's significant shortcomings, it can nonetheless serve as a valuable step in a continuing process that seeks real solution for the whole of the Colorado River, should the Interior Department, and Reclamation specifically, summon the leadership do so.

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Additional information:

## Links to ON THE COLORADO articles on this subject

- [The One-Dam Solution](#)
- [The Water Imbalance of the Colorado River Basin](#)
- [Towing Icebergs to San Pedro](#)
- [Pipe Dreams and Schemes](#)
- [Aquifer Recharge and Recovery](#)

## DOCUMENT ARCHIVE: SUPPLY AND DEMAND STUDY Final Report RELEASED 12/12/12

- [All files combined](#)
- [Executive Summary](#)
- [Study Report](#)
- [Study Report Appendices](#)
- [Technical A Report Scenario Development](#)
- [Technical B Report Water Supply Assessment](#)
- [Technical C Report Water Demand](#)
- [Technical D Report System Reliability Metrics](#)
- [Technical E Report Options Evaluation](#)
- [Technical F Report Options Strategies](#)
- [Technical G Report System Reliability](#)

## Public Relations

- [Webinar of January 9, 2013 \(Watch on You Tube\)](#)
- [Webinar of January 25, 2013](#)
- [March 23, 2010 - Agenda](#)
- [March 23, 2010 - Comment Form](#)
- [March 23, 2010 Power Point](#)
- [June 14, 2011 - Power Point](#)
- [September 23, 2010 - Power Point](#)
- [December 6, 2011 - Power Point](#)
- [Colorado River Basin Study Proposal](#)
- [May 2011 - Fact Sheet](#)
- [Leadership Change](#)
- [Long-term Augmentation Report](#)
- [Partners](#)
- [USBR News: Water Supply Demand Study Seeks Input To Resolve Imbalances](#)
- [USBR News: Water Supply Demand Study Interim Report](#)
- [SECURE Water Report](#)
- [SECURE Water Act](#)

## Previous Work

- [1950 - CRSP](#)
- [1971 LCR Study](#)
- [1971 - LCR App V](#)
- [1971 - LCR App X](#)

- [1971 - LCR App XI](#)
- [1971 - UCR Study](#)
- [1971 - UCR App V](#)
- [1971 - UCR App X](#)
- [1971 - UCR App XI](#)
- [1963 - PSWP App](#)
- [1964 - PSWP Report](#)

### **Interim Report No. 1**

- [Executive Summary](#)
- [Status Report](#)
- [Tech Memo](#) (website)
- [Tech Report A](#)
- [Tech Report B](#)
- [Tech Report B app](#)
- [Tech Report B app Revised](#)
- [Tech Report C](#)
- [Tech Report D](#)
- [Tech Report D Revised](#)

### **Public Comments**

- [ITCA](#)
- [KB Engineering](#)
- [Living Rivers](#)
- [NGOs](#)
- [NPCA](#)
- [NRDC](#)
- [NWF](#)
- [Pascua Yaqui](#)
- [PTF](#)
- [TNC](#)
- [Yavapai Apache](#)

### **Public Options**

- [Categorizations Report](#)
- [Descriptions Report](#)
- [Fact Sheet Imbalance Options](#)
- [Options Submittal Report](#)

### **Technical Part B**

- [Technical Report B](#)
- [Tech Report B app Revised](#)
- [Technical Report B appendix](#)

### **Technical Part C**

- [Technical Memo C report](#)
- [Tech C1](#)
- [Tech C2](#)
- [Tech C3](#)
- [Tech C4](#)
- [Tech C5](#)
- [Tech C6](#)
- [Tech C7](#)
- [Tech C8](#)
- [Tech C9](#)
- [Tech C10](#)
- [Tech detail \(website\)](#)

#### **Technical Report D**

- [Technical Report D](#)  
[Tech Report D Revised](#)

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LR in the News 03/13/13

#### **Interior Pick Puts Outdoor Rec In Spotlight**

[Click here](#) to read this story in the Moab Sun News by Kristin Millis

[Click here](#) for another story in Moab Sun News related to oil and gas leasing in Grand County, Utah

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Regional News 03/23/13

#### **Utah Protesters Decry Tar Sands & March At Chevron Refinery**

[Click here](#) to read this story by Christopher Smart of the Salt Lake Tribune

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LR Press Release 03/26/13

#### **Investors Beware: Utah's Tar Sand Deposits are Duds**

For Immediate Release

[Click here](#) to read the Press Release

March 26, 2013

Living Rivers & Colorado Riverkeeper  
Before It Starts [www.beforeitstarts.org](http://www.beforeitstarts.org)

John Weisheit - 435-259-1063; 435-260-2590; [john@livingrivers.org](mailto:john@livingrivers.org)  
Ashley Anderson - 801- 652-2971; [ashley@beforeitstarts.org](mailto:ashley@beforeitstarts.org)

### **Investors Beware: Utah's Tar Sand Deposits are Duds**

MOAB, UT - The Record of Decision issued March 22nd by the Bureau of Land Management concerning the development of TAR SANDS in Utah states the following on page 40:

"[t]his resource is not, at present, a proven commercially viable energy source, and the BLM would like to obtain more information about environmental consequences associated with its development prior to committing to broad-scale commercial development."

[http://ostseis.anl.gov/documents/docs/2012\\_OSTS\\_ROD.pdf](http://ostseis.anl.gov/documents/docs/2012_OSTS_ROD.pdf)

Activists opposing the development, processing, and refining of Utah's TAR SANDS emphatically concur with this statement. It is well documented in the [geologic literature](#) that the majority of the deposits in Utah will require steam injection to liberate the bitumen ("tar"), in order for this viscous oil to be pumped to the surface for further refining (in-situ). Vast amounts of water will be required for this proposed industry and in the second driest state in the USA (preceded by Nevada).

"Aquifers will be depleted before there is any investment return and depletions of surface water from the Colorado River and its tributaries will be fiercely litigated because current demand outstrips the supply," says John Weisheit, conservation director of Living Rivers and Colorado Riverkeeper.

The Energy Return on Investment (EROI) for in-situ extraction is, under the best of circumstances, 2 to 1, according to respected [energy analysts](#) from the USA. Additionally, [analysts from Canada](#) place the EROI of steam injection at 1 to 1. For comparison, the EROI for the USA oil and gas industry is 10 to 1.



However, there are tar sand deposits near the surface in some localities such as the PR Spring deposit in the Tavaputs Plateau of east-central Utah. It has been speculated that these deposits could be strip-mined and processed on site with just hot water and solvents to liberate the bitumen. Lack of water, none-the-less, is still the #1 heartache of industry speculators such as US Oil Sands, Inc., which is based in Calgary, Alberta. US Oil Sands has leased 30,000 acres from the state of Utah that it considers worthy of strip mining.

Investors must understand that this ore deposit near the surface is by no means a bonanza. The near surface deposits are lens-shaped deposits that have an average thickness of 27 feet and the deposits are interrupted and isolated by a series of incised canyons. The average depth of the overburden and intraburden (rocks with no economic value) is 124 feet. The general standard for economic return is a ratio of waste rock to ore is 2 to 1. In this case the ratio is an exorbitant 5 to 1.

"The strip-mining proposed by US Oil Sands will become the grave of their business. When they declare bankruptcy, the citizens of Utah will have the responsibility to reclaim their damage to the last remaining wild place of the contiguous USA," says Ashley Anderson, co-founder of Before It Starts.

Potential investors should do at least these three things:

1) Ask USOS what it would cost the company to be shut down unexpectedly for a full day of operation, and write that amount down.

2) Take a moment and visit some search engines, such as Keystone XL pipeline protests and mass arrests, which were organized in part by Utah activists. An ever-growing number of people are now blockading construction of the pipeline in multiple states. The CEO of Endinbridge said "We are facing a very strong, almost revolutionary movement."

3) Write down how many days you think USOS can be stopped by a continental movement and multiply those two numbers together.

Now ask yourself, is it worth it?"

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### **Supplemental information:**

#### **Table One**

Analyses of drill records available to the public within a two mile radius of US Oil Sands proposed strip mining project.

Depth below surface for this analysis is 150 feet (as per submitted application).

Standard: uneconomical if ratio of ore to waste is over 1 to 2

Reference: Horn, George H., 1967. Open File Report on PR Spring-Roan Cliffs, Grand County and Southern Uintah Counties. USGS.

<http://www.riversimulator.org/Pubs/OSTS/Ref/Horn1967.pdf>



#### **Table Two**

Analyses of drill records available to the public on an 8-mile transect along the Divide Ridge Road.



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Regional News 04/03/13

### **Herbert Rejects Snake Valley Water Pact With Nevada.pdf**

[Click here](#) to read this story by Brian Maffly and Judy Fahys in the Salt Lake Tribune

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Regional News< 04/05/13

**ENEFIT: Testing Utah Oil Shale Samples in German Labs Hold Little Promise for Estonia's State-Owned Energy Company**

[ALL NEWS FEATURES COMBINED](#)

October 28, 2012 - [Dodging Man Camps](#)

October 30, 2012 - [American, Estonian Oil Shale Testing in Progress](#)

November 8, 2012 - [Enefit in America: Hot Topics](#)

January 7, 2013 - [Investing Abroad: Meet Uintah County](#)

January 24, 2013 - [PM Backs Minister as Skepticism Emerges Over Utah Oil Shale Venture](#)

January 25, 2013 - (Salt Lake Tribune) [Utah oil shale becomes political punching bag in Estonia](#)

January 25, 2013 - [Eesti Energia CEO Defends Utah Project](#)

February 17, 2013 - [Eesti Energia Assisting in Utah Air Quality Study](#)

March 4, 2013 - [Eesti Energia Doubles Lobbying Expenses](#)

###

[Click here](#) to read this interview with CEO Sandor Liive of Eesti Energia by Scott Diel for Estonia Public Broadcasting.

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Reference 04/13/13

**Dr. John C. Dohrenwend passes in Moab, Utah**

[Click here](#) to read the obituary of Dr. John C Dohrenwend in the Moab Times-Independent.

Visit this website to look at some of the contributions John made to the residents of Grand County, Utah.

- [Paleoflood studies in the upper Colorado River basin.](#)
- [A Look at Johnsons Up On Top](#)

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Regional News 05/08/13

**Protesters at university conference denounce 'dying industry'**

Utah's Oil Shale & Tar Sands in for a Bumpy Ride

[Click here](#) to read this story by Brian Maffly of the Salt Lake Tribune

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Regional News 05/22/13

**Activists Send Photo To Tar Sands Investors**

[Click here](#) to read this story from the Moab Sun News

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LR in the News 05/23/13

**NGOs file 60-Day Notice on Oil Shale & Tar Sands Development**

[Click here](#) to read the 60-day notice

[Click here](#) to read the press release

"On March 22 the BLM amended 10 resource management plans in Utah, Colorado and Wyoming, making 687,600 acres available for oil shale leasing and 132,100 acres available for tar-sands leasing. The BLM refused to conduct formal consultation with the U.S. Fish and Wildlife Service to protect endangered species despite acknowledging likely impacts to Colorado pikeminnow, humpback chub, razorback sucker, Mexican spotted owl and many other threatened and endangered species."

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Regional News 05/24/13

**As Lake Mead Shrinks Imperial Irrigation District Uses More Water**

[Click here](#) to read this article by Henry Brean of the Las Vegas Review Journal

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LR Letter 05/29/13

**Update: Paleoflood Data for the Colorado River above Moab**

Letter from Living Rivers and Uranium Watch to the Site Futures Committee regarding proposals to develop the land that is currently occupied by the Atlas Tailings Pile (uranium mill waste) near Moab, Utah, once the site is remediated by the Department of Energy.

The reason why this uranium waste pile is being moved off the Colorado River floodplain is because of its vulnerability to 100-, 500- and 1000-year floods.

The best use of this land is to let it serve the community as a free ecological service to reduce the impacts of catastrophic flooding events, and not to develop it for human habitation or for industrial uses.

[Letter from Living Rivers concerning new information on the history of floods on the Colorado River at Moab, UT](#)

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Regional News 06/15/13

### **Tar Sands Mining Beginning in Utah: Why the USA is Becoming Ground Zero for the Dirtiest Energy**

[Click here](#) to read this story by Tara Lohan from AlterNet

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Regional News 06/23/13

### **The Shrinking Colorado River: How low will the flow go?**

[Click here](#) to read this press release from the University of Arizona

[Click here](#) to read the author's paper

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Regional News 06/29/13

### **Utah Tar Sands: Will The U.S. Join Canada In Tapping The 'Bottom Of The Barrel'?**

[Click here](#) to read this story by Lynne Peeples of the Huffington Post

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Regional News 07/22/13

### **Green River Refinery Would Pollute Air, Enable Dangerous Oil Shale, Tar Sands Mining in Colorado River Basin**

For Immediate Release, July 22, 2013

Contact: Taylor McKinnon, Grand Canyon Trust, (801) 300-2414

John Weisheit, Living Rivers, (435) 259-1063

David Garbett, Southern Utah Wilderness Alliance, (801) 486-3161

Bill Snape, Center for Biological Diversity, (202) 536-9351

### **Utah Tar Sands, Oil Shale Refinery Challenged**

## **Green River Refinery Would Pollute Air, Enable Dangerous Oil Shale, Tar Sands Mining in Colorado River Basin**

SALT LAKE CITY— A coalition of conservation groups today filed a “request for agency action” challenging the Utah Department of Air Quality’s June 21 approval of a new oil refinery in Green River, Utah that would affect local and regional air quality and facilitate oil shale and tar sands mining in the Colorado River Basin’s Green River Formation.

The U.S. Geological Survey estimates that between 353 billion and 1.146 trillion barrels of oil in the Green River Formation “have a high potential for development,” which is 2 to 7 times as much as Alberta’s 170 billion barrels targeted by the Keystone XL pipeline.

“The public needs to understand that the Colorado River Basin’s carbon bomb dwarfs Alberta’s,” said Taylor McKinnon, director of energy with Grand Canyon Trust. “In addition to polluting Utah’s already-dirty air, this refinery is another step toward massive strip mining, greenhouse gas emissions and Colorado River drying.”

The groups are challenging the department’s June 21 issuance of a permit approving the plant over several alleged violations of the Utah Air Conservation Act. The challenge was submitted to the Utah Department of Environmental Quality and will be heard by an administrative law judge, and potentially later the Utah Supreme Court.

“To experience clean and crisp air in the Green River Desert today, you have to wait for an infrequent thunderstorm to sweep the haze, dust and smoke away,” said John Weisheit, conservation director with Living Rivers. “Only then can you actually see the features of the Book Cliffs, the San Rafael Swell, and the Henry and La Sal mountains.”

The refinery would emit volatile organic compounds, other hazardous pollutants and greenhouse gases while creating now-absent local capacity for processing up to 7 million barrels of heavy crude annually in the heart of Utah’s oil shale and tar sands country.

“People travel from all over the world to enjoy the stunning vistas at Arches and Canyonlands national parks as well as Dead Horse Point,” said David Garbett, a staff attorney with the Southern Utah Wilderness Alliance. “It makes no sense to risk compromising the remarkable views this region offers with visibility-reducing pollution from this refinery.”

Oil shale and tar sands development entails strip mining and dangerous energy and chemical inputs to melt and extract fuel. Greenhouse gas emissions stemming from oil shale and tar sands development far exceed that of conventional oil development. In March the Bureau of Land Management allocated more than 800,000 acres of federal public land in the Colorado River Basin to oil shale and tar sands development.

“Given all of Utah’s current pollution problems under the Clean Air Act, it makes no sense to further harm public health and exacerbate climate change,” said Bill Snape, senior counsel at the Center for Biological Diversity.

Groups filing today's request for agency action are Grand Canyon Trust, Living Rivers, Southern Utah Wilderness Alliance and the Center for Biological Diversity.

To download a copy of today's "request for agency action," [click here](#).

To download maps of the refinery and state and federal leasable oil shale and tar sands land, [click here](#) (high resolution for media applications).

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LR Press Release 07/26/13

## **Lawsuit Challenges 800,000-acre Oil Shale, Tar Sands Plan Across Public Lands in Utah, Colorado and Wyoming**

For Immediate Release, July 26, 2013

Contact: Taylor McKinnon, Grand Canyon Trust, (801) 300-2414

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David Garbett, Southern Utah Wilderness Alliance, (801) 486-3161

Bill Snape, Center for Biological Diversity, (202) 536-9351

Matt Sandler, Rocky Mountain Wild, (303) 546-0214

Virginia Cramer, Sierra Club, (804) 225-9113 x 102

Lawsuit Challenges 800,000-acre Oil Shale, Tar Sands Plan Across Public Lands in Utah, Colorado and Wyoming

DENVER— A coalition of seven conservation groups sued the Bureau of Land Management on Thursday afternoon in federal district court in Colorado for allocating more than 800,000 acres of federal public land to climate-warming oil shale and tar sands development without undertaking formal consultation to protect endangered species.

The lands due to be mined are in Utah, Colorado and Wyoming within the Green River Formation, which the U.S. Geological Survey states contains between 353 billion and 1.146 trillion barrels of oil with "high potential for development," — in fact, so high it holds 2 to 7 times as much as Alberta's 170 billion barrels targeted by the Keystone XL pipeline.

"Vast mining, carbon emissions and water use will only worsen climate disruption and Colorado River drying," said Taylor McKinnon, director of energy with the Grand Canyon Trust. "This plan opens the door to that kind of development, and it does so while ignoring the plight of the creatures most vulnerable to its many impacts."

"This citizen intervention is necessary because the Department of Interior is sending mixed messages to the public. On one day, the administration issues a statement that the Colorado River's critical water supply will be protected for people and habitat, and then on another day they announce the most carbon intensive mining practice on the planet can move forward," said John Weisheit, conservation director with Living Rivers.

“The two programs are not mutually beneficial. Interior has to protect the Colorado River, there is no other choice.”

In March the BLM amended 10 resource-management plans, making 687,600 acres available for oil shale leasing and 132,100 acres available for tar sands leasing. The agency refused to conduct formal consultation with the U.S. Fish and Wildlife Service to protect endangered species, as required by the Endangered Species Act, despite acknowledging likely impacts to those species.

“The Endangered Species Act requires agencies to consult with the experts at the Fish and Wildlife Service when they know listed species will be impacted,” said Matt Sandler, a staff attorney at Rocky Mountain Wild. “BLM has skipped this step, which will push these species closer to extinction.” Mining for oil shale and tar sands would industrialize backcountry and destroy habitat, pollute and deplete water, and emit greenhouse gases. The allocated lands encompass habitat for several threatened and endangered species, including Colorado pikeminnow, humpback chub, razorback sucker, Mexican spotted owl and many other threatened and endangered species.

“Our public lands should be managed to protect our air, water and wildlife, not auctioned off for dirty and destructive fossil fuel development that will push us ever closer to climate disaster,” said Bill Snape, senior counsel with the Center for Biological Diversity.

Thursday’s lawsuit comes as atmospheric CO<sub>2</sub> concentrations approach 400 parts per million, a milestone in human history. Making fuel from oil shale and tar sands is an energy-intensive process of mining, heating, chemical treatment and refining. Its greenhouse gas emissions would far exceed that of conventional oil. For example, emissions from Alberta’s tar sands development exceed that of conventional oil by several times.

“The BLM should be managing these wild areas for the rich wildlife diversity and recreational opportunities they provide,” said Dan Chu, director of the Sierra Club’s Our Wild America campaign, “not for dirty fuels development on a giant scale.”

The groups filing today’s lawsuit are Grand Canyon Trust, Living Rivers, Southern Utah Wilderness Alliance, Rocky Mountain Wild, Biodiversity Conservation Alliance, the Center for Biological Diversity and Sierra Club. Many of the same groups on [Monday](#) challenged a new oil refinery in Green River, Utah, that could process fuels derived from oil shale and tar sands mined in lands subject to this lawsuit.

To download a copy of Thursday’s lawsuit, [click here](#).

To download maps of the refinery and state and federal leasable oil shale and tar sands land, [click here](#) (high resolution, 6.7 MB) or [click here](#) (low resolution, 1.7 MB) (for media use).

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Regional News 08/07/13

### **Las Vegas Water Chief Seeks Disaster Aid For Colorado River Drought**

[Click here](#) to read this story by Henry Brean from the Las Vegas Journal Review

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Regional News 08/09/13

### **Tar Sands Opponents Utilize the Concept of Civil Disobedience**

[Click here](#) to read this story by Jon Kovash for Utah Public Radio

[Click here](#) to read this story by Jeff Richards in Moab's Times-Independent

[Click here](#) to read this story in the Moab Sun News

[Click here](#) to read this story by Geoff Liesik of KSL News

[Click here](#) to read this story by Christopher Smart of the Salt Lake Tribune

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Regional News 08/29/13

### **Why Aren't Experimental Floods Helping Native Fish Below Glen Canyon Dam**

[Click here](#) to read this article from High Country News by Sarah Jane Keller

[Click here](#) to read this story by the Cary Institute of Ecosystem Studies

[Click here](#) to read the scientific paper by Cross et al.

Living Rivers would like to emphasize to the public that the lack of sediment is not the reason why the endangered fish are suffering. It is the lack on entrained carbon in the sediment that is causing the collapse of the Grand Canyon's ecosystem.

Before Glen Canyon Dam, driftwood and leaf litter provided nutrients and substrate for algae and bacteria to in turn provide food for insects, to in turn provide food for fish.

The only way to get carbon back into the system, is to remove Glen Canyon Dam. Until then, restoring the ecosystem of Grand Canyon National Park is an impossibility.

[Click here](#) to read about the ecosystem above Glen Canyon Dam

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Regional News 09/06/13

### **Paradox Valley Uranium Mill On Hold**

[Click here](#) to read this story by Joe Hanel of the Durango Herald

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LR in the News 09/12/13

### **Forget Keystone: Tar Sands Drilling is On in Utah**

[Read this story by Leslie MacMillan in Esquire](#)

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LR in the News 09/19/13

### **The First Sacrifice: The Colorado River**

[Click here](#) to read this feature by the Colorado Riverkeeper in the official Waterkeeper Alliance magazine

[Click here](#) to read this OpEd by Colorado Riverkeeper, John Weisheit

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Regional News 09/19/13

### **Colorado River Hydropower Faces A Dry Future**

[Click here](#) to read this story by Katherine Tweed of IEEE Spectrum

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LR in the News 09/20/13

### **Company secures financing commitment for first U.S. oil sands mine, drawing the ire of local environmental groups**

**UPDATE:** [Click here](#) to read this story by Steve Horn of DeSmog Blog and how this venture capital move is related to a business partner of former president Bill Clinton Nathanael Massey, E&E reporter

Published: Friday, September 20, 2013

### **The fight over oil sands just got domestic.**

Calgary, Alberta-based U.S. Oil Sands Inc. secured financing this week to begin operations in the Uinta Basin of eastern Utah, in an area it claims contains up to 180 million barrels of discovered bitumen. If realized, the project would be the first oil sands venture on American soil.

Local environmental groups, meanwhile, called the financing announcement "an illusion to investors" and claimed the company has not been upfront about its environmental and economic costs.

While no money has yet changed hands, U.S. Oil Sands Inc. signed a letter of intent this week to sell \$80 million worth of shares to three private investment groups by mid-October. The company plans to use the funds to launch the first phase of commercial development in its PR Springs Project.

The company has a 100 percent interest in 32,000 acres in the PR Springs area. It plans to begin extraction next year at 2,000 barrels per day, and eventually scale up to 20,000 barrels per day.

"Unlike most bitumens, this resource is high in oil and low in sulfur, producing a sweet crude," said Cameron Todd, CEO of U.S. Oil Sands. As such, it benefits from a lower greenhouse gas profile, he said.

Compared to the industrial juggernauts of northern Alberta, U.S. Oil Sands' proposed mine would be a pint-sized operation. The Canadian oil sands industry churns out more than 1.6 million barrels of oil a day; the Utah project's operators hope, someday, to achieve 1.25 percent of that. Where project costs can tally in the billions of dollars for major extractors like Suncor Energy and Syncrude Canada, operator U.S. Oil Sands Inc. hopes to get its project off the ground for a modest \$30 million.

An 'ugly dream'

But those numbers are cold comfort to local environmental groups, which see the project as a threat to regional water supplies and a new front in the oil industry's push toward unconventional fossil fuels.

"U.S. Oil Sands is selling a foolish hope and ugly dream that would deplete and endanger the water resources of the West," said Denise Davis, a member of the group Utah Tar Sands Resistance. "Investors aren't hearing the dangers about water and climate change, and they aren't being honestly briefed on the financial risks."

Environmental groups have opposed the project since it first acquired regulatory approval in 2009. Recently, a coalition of parties has staged sit-ins and protests, even blocking a road used to transport equipment bound for the PR Springs site, according to a report in The Huffington Post. Prescient of the potential for environmental backlash, U.S. Oil Sands has pursued a method of extraction that it claims will mitigate most environmental concerns.

"This oil sands project stands to be the most environmentally responsible ever built," Todd said. "This will be the first commercial development anywhere without tailing ponds," the toxic pools of wastewater that result from conventional extraction processes.

"Our methods cut the surface profile [of the project] by 95 percent so that we can reclaim as we go. They leave clean sand and no sludge tailings," he added

The company has staked those claims, and its fortunes, on a citrus-based biosolvent called d-limonene, an extract pulled from orange peels found commonly in household cleaning products. U.S. Oil Sands claims this miracle fruit can strip oil from sand without leaving a toxic wastewater footprint.

In development since 2003, d-limonene has been tested in pilot projects that ranged from 24 to 500 barrels a day in size. If proven in the field, Todd said the process could be exported to other similarly sized operations.

Water is a major issue for the Uinta Basin region, which receives 8 inches of precipitation annually. Conventional oil sands operations consume vast quantities of water, but U.S. Oil Sands claims it will be able to recycle up to 95 percent of all the water it uses.

Most of the water, the company maintains, will be pumped up from deep underground, well below the level tapped for human consumption.

Environmentalists disagree. "They found water on their fourth drilling attempt, and the pump test was around 93 gallons a minute," said John Weisheit, conservation director with the group Living Rivers. "Phase one of their operations requires 116 gallons per minute." That phase would produce 2,000 barrels of oil per day, or one-tenth of the final proposed production value.

"If they don't get [water] from the ground, where's it going to come from? They're going to have to truck it in," he said.

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Regional News 09/24/13

### **Shell & Chevron Temporarily Back Out Of Oil Shale Plays In Colorado**

[Click here](#) to read a series of news articles about this issue of liberating kerogen from hard rock shale

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LR in the News 09/26/13

### **Green River to Host Intermountain West's First Refinery Since 1976**

[Click here](#) to read this story by Amy Joi O'Donoghue of the Deseret News

[Click here](#) to read the the response from the attorneys of Emery Refinery to our request for agency action.

[Click here](#) for the request for agency action

[Press release](#)

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Regional News 10/08/13

**Report: Powell Pipeline Tab Too Steep for Kane County**

[Click here](#) to read this story by Brian Maffly of the Salt Lake Tribune

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LR in the News 10/13/13

**What Will The Future Hold For Glen Canyon Dam Glen Canyon Dam full of use & conflict after 50-years**

[Click here](#) to read Part One of this story by Brandon Loomis of the Arizona Republic  
[Archived here](#)

**Glen Canyon Dam full of use & conflict after 50-years**

[Click here](#) to read Part Two of this story by Brandon Loomis of the Arizona Republic  
[Archived here](#)

[Click here](#) to watch the video with Ken Sleight

This story was also posted on [USA Today](#)

[Click here](#) to read Loomis' article on preserving Dinosaur National Monument from dam building

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Take Action 10/16/13

**Moab citizens protest Chamber of Commerce luncheon sponsored by US Oil Sands, Inc.**

[Click here](#) to see this feature from the Moab Sun News

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LR in the News 10/30/13

**State Turns Attention To Selenium Levels In River**

[Click here](#) to read this story by Rudy Herndon of the Moab Times Independent.

[Click here](#) to read the comments of Living Rivers

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Regional News 11/05/13

## **Colorado River Hydrology at end of Water Year / September 30, 2013**

For the first time in history, the Bureau of Reclamation is withholding water from Lake Mead due to 14 years of successive drought.

[CLICK HERE](#) to read this story in the Summit County Citizens Voice, which is followed by the monthly report from the Bureau of Reclamation.

### **DATA SUMMARY** As of December 11, 2013

The end of November elevation and storage of Lake Powell were 3587.9 feet (112.1 feet from full pool) and 10.63 million acre-feet (maf) (44% of full capacity), respectively.

The water year 2013 unregulated inflow volume was 5.12 maf (47% of average), placing 2013 as the fourth driest on record since the closure of Glen Canyon Dam in 1963.

Water years 2002, 1977, and 2012 were drier, receiving 2.64 maf, 3.53 maf, and 4.91 maf, respectively.

In terms of reservoir elevation and storage, Lake Powell reached its peak for water year 2013 on June 18th at 3,601.2 ft (98.8 feet from full pool) which is 35.7 feet lower than last year's peak elevation of 3636.9 ft.

The end of water year 2013 elevation and storage of Lake Powell were 3591.3 feet (108.7 feet from full pool) and 10.93 maf (45% of capacity), respectively.

This is 3.0 maf less than 2012 end of water year storage which was 13.93 maf (57% of capacity).

The period 2000-2014 is the lowest 14-year period since the closure of Glen Canyon Dam in 1963, with an average unregulated inflow of 8.25 maf, or 76% of the 30-year average (1981-2010).

For comparison, the 1981-2010 average is 10.83maf.

The unregulated inflow during the 2000-2013 period has ranged from a low of 2.64 maf (24% of average) in water year 2002 to a high of 15.97 maf (147% of average) in water year 2011.

At the beginning of water year 2014, total system storage in the Colorado River Basin was 29.9 maf (50% of 59.6 maf total system capacity).

This is about 4 maf less than the total storage at the beginning of water year 2013 which began at 34.0 maf (57% of capacity).

Based on current forecasts, the current projected end of water year 2014 total Colorado Basin reservoir storage is approximately 29.6 maf (50% of capacity).

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LR in the News 11/06/13

## **Hydroelectric Developer Misses Federal Report Filing Deadline and surrenders their application**

**NEW INFORMATION:** As of 12/9/13, Utah Independent Power has surrender their preliminary permit application.

[Click here](#) to read the letter of surrender.

[Click here](#) to read this story by Rudy Herndon of the Moab Times Independent

[Click here](#) to read the entire administrative record from FERC

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LR in the News 11/29/13

## **Utah Judge Clears Way for Nuclear Power Plant in Central Utah**

[Click here](#) to read this story by Curtis Haring of Utah Political Capitol

[Click here](#) to read this story by Kristen Moulton of the Salt Lake Tribune

[Click here to read the Decision of the Judge](#)

The decision confirms that water, finances and endangered fish will continue to be problematic for the promoters of this project and their intentions to sell their package to a power utility in the future. It affirms that the Blue Castle Project is more about securing water rights, than it is about securing Utah's energy future.

- 1) The water right of the Central Utah Project will NOT be junior to the water right of Kane County, which is year 1965.
  - 2) The year 2000 priority for San Juan County's water is junior to Kane County's water right. Thus the combined water for the proposed project is tiered, and subject to vulnerabilities much like the Central Arizona Project would be in times of declared water shortages.
  - 3) Nuclear power is risky in places where water is abundant, but Judge Harmonds decision makes it clear that nuclear power in the state of Utah is even riskier, simply because the Colorado River basin is over-appropriated and suffering from the impacts of increasing aridity and increased water consumption.
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LR in the News 12/03/13

### **Earth Island Journal: Rough Waters Ahead**

[Click here](#) to read this story in the Earth Island Journal by Jeremy Miller.

Photos are by Jonathan Byers.

[PDF archive](#)



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OpEd 12/08/13

### **What If There's A Bad Snow Year?**

[Click here](#) to read this opinion piece in the Denver Post by Allen Best of the Aspen Journalism Project.

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Regional News 12/11/13

### **The well has run dry once again for the Southern Nevada Water Authority's controversial pipeline project.**

by HENRY BREAN LAS VEGAS REVIEW-JOURNAL

<http://www.reviewjournal.com/news/eastern-nevada-pipeline-opponents-win-court-ruling>

For the second time since 2009, a judge has stripped the authority of permission to siphon billions of gallons of groundwater a year from across eastern Nevada.

In a highly anticipated decision issued Tuesday, Senior District Judge Robert Estes ruled that the state's chief water regulator has more work to do before allowing the authority sink its wells in four lonesome valleys in Lincoln and White Pine counties.

Specifically, Estes ordered the state engineer to recalculate how much the authority can safely be allowed to pump from Spring, Cave, Dry Lake and Delamar valleys to avoid draining the basins and causing conflicts with other water rights holders there and elsewhere.

He also directed the state engineer to develop specific triggers for mitigation measures, should damage from large-scale groundwater pumping occur, and he ordered any mitigation plans to include Millard and Juab counties at the western edge of Utah.

Simeon Herskovits, the lawyer for many of those who officially protested the authority's pipeline, called the decision "a big victory for us."

“The judge ruled in our favor on a host of the core deficits in this project that we’ve been talking about for years,” he said.

If the ruling survives an expected appeal to the Nevada Supreme Court, Herskovits said, it could fundamentally change the way regulators review the authority’s controversial pipeline from now on. The state engineer won’t be allowed to essentially “rubber stamp” the project anymore, he said.

Water authority spokesman Bronson Mack said the agency’s attorneys were still reviewing the document early Wednesday afternoon and could not yet comment on it.

Since the late 1980s, Las Vegas water officials have pushed plans to import groundwater from across eastern Nevada to supply future growth and provide a backup supply to the Las Vegas Valley, which gets 90 percent of its drinking water from an overtaxed and drought-stricken Colorado River.

Water authority officials hope to deliver water to the valley from as far north as Great Basin National Park through a network of pumps and pipelines stretching more than 300 miles and costing as much as \$15 billion.

The valley’s wholesale water supplier — and, ultimately, water ratepayers — have already spent tens of millions of dollars on the pipeline project.

Pipeline opponents filed an appeal last year asking the court to review and overturn State Engineer Jason King’s March 22, 2012, order granting the authority permission to pump up to 84,000 acre-feet of groundwater a year from the four valleys.

King’s decision came roughly two years after the state Supreme Court struck down two previous rulings that gave the authority almost 79,000 acre-feet a year from the same valleys.

One acre-foot of water can supply two average valley homes for one year.

In October 2009, a different district court judge struck down a previous state engineer’s ruling granting the authority water rights in the three Lincoln County watersheds.

The Supreme Court eventually ordered the state engineer to conduct all new hearings on the four valleys, which King did in 2011.

Herskovits, who has been arguing against the pipeline project for years now, acknowledged that opponents still have a long way to go before their fight is done.

Authority officials have said they expect to be defending their project in court for years to come. This particular case was almost guaranteed to wind up in the Supreme Court no matter how Estes ruled on it, Herskovits said. “I have always assumed that.”

When the lawyer got the good news Wednesday morning, he was hard at work on something else: a federal lawsuit against the U.S. Bureau of Land Management for granting a right of way for the authority to build its pipeline.

This is a developing story. Check back for updates.

Contact reporter Henry Brean at [hbrean@reviewjournal.com](mailto:hbrean@reviewjournal.com) or 702-383-0350.

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Regional News 12/12/13

### **Low Water Threatens Glen Canyon Hydro Production**

[Click here](#) to read this story in the Denver iJournal by Allen Best

[Click here](#) to read this AP story called "Downstream States Eye Flaming Gorge Water."

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Regional News 12/13/13

### **Satellites Show Colorado River Basins Biggest Water Losses Are Groundwater**

[Click here](#) to read this story by Brett Walton of [Circle of Blue](#)

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LR in the News 12/20/13

### **Utah OKs Nation's First Commercial Oil Shale Mine**

[Click here](#) to read this story by Brian Maffly of the Salt Lake Tribune

[Click here](#) to read the story by Gary Harmon of the Grand Junction Sentinel called Red Leaf Gets Nod For Shale Testing

### **PRESS RELEASE: Red Leaf Resources**

FOR IMMEDIATE RELEASE DECEMBER 20, 2013

Red Leaf Resources Clears Major Permitting Hurdle On the Path to Commercial-Scale Oil Shale Production

SALT LAKE CITY – Utah oil shale development company Red Leaf Resources has cleared a major regulatory hurdle and will soon launch the first commercial-scale oil shale production in North America in decades.

The Utah Division of Water Quality today issued a Groundwater Discharge Permit to Red Leaf Resources, which the company sought despite not producing any discharge water. In 2012, Red Leaf received a Large Mining Operation permit from the Utah Division of Oil, Gas & Mining, contingent upon issuance of the discharge permit.

“We are pleased to finally have the major permits required to move forward with construction of our commercial demonstration project, which will produce more than

300,000 barrels of oil and prove our clean oil shale technology works on a large scale,” said Red Leaf CEO Adolph Lechtenberger. In 2009, Red Leaf successfully completed a pilot project on its lease holdings in Eastern Utah, from which it successfully produced more than 300 barrels of oil.

Red Leaf estimates it has up to 600 million barrels of recoverable oil under leases on school trust lands in Utah, which will be developed under a joint venture with the French energy conglomerate TOTAL SA. Red Leaf has another estimated 750 million barrels on land leased in Wyoming, which will be developed under a joint venture with the Canadian firm Questerre Energy.

“Red Leaf has more than 20 U.S. patents for our EcoShale™ technology, which extracts oil with lower energy consumption, lower emissions, lower water use and less environmental impact than any oil shale technology deployed in the world today.” Lechtenberger continued, “The EcoShale™ process was specifically designed to address traditional environmental challenges of oil shale production.”

“Not only do we have less environmental impact, our oil is of much higher quality than traditional oil shale production, equal to or better than the industry benchmark of light sweet West Texas Intermediate crude,” said Lechtenberger.

**OIL SHALE VS. SHALE OIL** Oil shale is often confused in the media with shale oil and shale gas production. When traditional oil and gas is extracted from shale rock formations like those in North Dakota, Pennsylvania and Texas, it is correctly called shale oil and shale gas, not oil shale. This extraction process involves drilling for the resource.

By contrast, oil shale development is the process by which a solid organic material rich in hydrocarbons called “kerogen” is converted to crude oil, condensate and natural gas through the application of heat. All traditional oil and gas was once kerogen. Over tens of millions of years, heat from the earth’s core caused deposits of kerogen to transform into oil and natural gas. Modern oil shale production simply speeds up the natural process of turning kerogen into oil and gas, either by mining the ore and heating it at the surface or heating it underground (in-situ). EcoShale™ is a surface mining and processing technology.

Contact: Jeff Hartley [jhartley@redleafinc.com](mailto:jhartley@redleafinc.com) 801-557-3772 [www.redleafinc.com](http://www.redleafinc.com)

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**OIL SHALE: 'Critical last step' taken to open commercial-scale facility in Utah**

Margaret Kriz Hobson, E&E reporter  
Published: Tuesday, January 7, 2014

This spring, as the snow melts and ground thaws in eastern Utah, Red Leaf Resources Inc. plans to begin building the first commercial-scale oil shale production facility to operate in the United States in 30 years.

The Utah Division of Water Quality last month granted Red Leaf a long-awaited water discharge permit, clearing the deck for the company's large oil shale demonstration project in the Uinta Basin. The project had been delayed by concerns that it might pollute local water supplies.

"It's hard to overstate how significant it would be to commercialize oil shale in the United States," said company spokesman Jeff Hartley. "This is the last critical step we need to move forward."

The Salt Lake City-based company is proposing to use its EcoShale technology to develop Utah's plentiful supply of oil shale. The procedure entails mining and crushing the kerogen-rich oil shale and dumping it into a massive clay-lined pit. A single rock capsule will be almost a half-mile long and 300 yards wide.

Once sealed, the encased rock will be heated to 700 degrees Fahrenheit over a period of weeks to convert the solid kerogen into oil, natural gas and condensate.

Red Leaf successfully tested the technology in a 2009 smaller-scale demonstration project. Now company officials hope to prove the process can be scaled up for commercial production (EnergyWire, Jan. 11, 2013). They predict that the upcoming demonstration project will produce more than 300,000 barrels of oil, with an initial output estimated at 10,000 barrels a day. Red Leaf predicts that its Utah state trust land leases could contain up to 600 million barrels of recoverable oil.

The large-scale demonstration project is targeted for completion in July 2015. The company must acquire a second water permit before moving to the next stage of broad-scale oil shale development.

As Red Leaf begins the commercial-sized demonstration project, the company plans to monitor rain and well water at the site, as well as the heat distribution in the rock capsule, Hartley said.

"Because this is our first commercial demonstration project, we will be testing throughout the process," he explained. "So this will be a slower construction time frame than when we get into full commercial production."

The Utah project is being underwritten through a joint venture with the U.S. affiliate of French energy company Total SA.

"They brought \$400 million to the table," Hartley said. "We have the technology and the resource. It's a straight-up JV that will split the profits 50-50 and prove the commerciality of oil shale."

Red Leaf also is leasing oil shale-rich lands in Sweetwater Canyon, Wyo. That property is estimated to contain 750 million barrels and is being developed under a joint venture with the Canadian firm Questerre Energy.

The company is also licensing its EcoShale technology to other companies. Hartley said oil shale development projects are moving forward in Morocco and Jordan. In addition,

Red Leaf has licensed its extraction process to another company with state leases in Utah.

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Regional News 12/22/13

### **Western Slope Mining & Drilling Takes Job Hurting Hits**

[Click here](#) to read this story by Nancy Lofholm of the Denver Post

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Regional News 12/22/13

### **Feds begin Colorado River drought action**

Ken Ritter and Paul Foy The Associated Press

LAS VEGAS — After back-to-back driest years in a century on the Colorado River, federal water managers are giving Arizona and Nevada a 50-50 chance of having water deliveries cut in 2016, reports the Mohave Valley Daily News.

A U.S. Bureau of Reclamation operations plan made public in August will for the first time slow the flow of water from the Lake Powell reservoir upstream of the Grand Canyon to the huge Lake Mead reservoir that provides almost all of Las Vegas' water.

But a bureau official said Lake Mead won't reach a low point next year that would trigger cuts to Sin City's main drinking water supply.

"What we've seen in the last two years are the worst consecutive years of inflow in the last 100 years," bureau Lower Colorado Regional Director Terry Fulp told The Associated Press.

"We're going to slow Powell's decline. That will hasten Mead's decline," he said. "But next year, we can adjust again."

The bureau that controls the levers at the Glen Canyon and Hoover dams said cities, states, farmers and Indian tribes will get their full Colorado River water deliveries next year — and probably in 2015.

Fulp said a two percent chance of the Lake Mead level dropping in 2015 to the trigger point for a shortage declaration increases to 50 percent in 2016.

Bureau officials and environmentalists have been raising alarms in recent months about demand outstripping supply on the river serving about 40 million people in seven states and cities including Los Angeles, Phoenix, Denver and Las Vegas.

"The problem isn't drought, and a big rain storm or a heavy winter snow season won't fix this," said Bob Irvin, president of American Rivers in Washington, D.C. The advocacy group in April labeled the Colorado River the most endangered waterway in the U.S.

“What we need are fundamental changes in how we manage water in the Colorado basin,” Irvin said. “This is the loudest wake-up call so far.”

Fulp pointed to a federal report issued in December that concluded that the river may not meet the needs of a growing regional population by 2060.

“The study showed very clearly that demand and supply curves are crossing and demand is exceeding supply,” he said.

Fulp compares managing the two largest reservoirs on the Colorado River to pouring tea from one cup to another. He said the usual annual delivery of 8.23 million acre-feet of water from Lake Powell to Lake Mead will be cut next year about 9 percent, to 7.48 million acre-feet. Officials say one acre-foot is enough to serve two Nevada families for a year.

Lake Powell, near the Utah-Arizona state line, would decrease from 45 percent this year to 42 percent next year.

Lake Mead, on the Nevada-Arizona state line, is currently at 47 percent capacity and could drop to 39 percent capacity next year.

Lake Mead on Friday was at 1,106 feet. The low level next year would be about 10 feet above a 1,075-foot elevation trigger point agreed upon in 2007 by the seven U.S. states that share river water under a 1928 allocation agreement. Native American tribes and Mexico also get shares of Colorado River water.

A shortage declaration would mean Arizona would get 11.4 percent less than its 2.8 million acre-foot allocation. Nevada would get 4.3 percent less than its 300,000 acre-foot allotment — a loss equivalent of the amount serving 26,000 homes.

Southern Nevada Water Authority chief Pat Mulroy last week floated the idea of a federal disaster declaration due to drought in the Southwest. Meanwhile, local officials stress conservation, and note that iconic dancing fountains on the Las Vegas Strip use recycled water.

Mulroy called Friday’s projections “an unwelcome development that will demand all the resolve and ingenuity we can muster.”

Reaching the shortage declaration trigger point would prompt a vote by southern Nevada elected officials whether to pursue plans for a massively expensive and controversial pipeline to tap groundwater in rural counties along the Nevada-Utah state line to slake the thirst of 2 million Las Vegas residents and 40 million tourists a year.

In Arizona, a projected loss of 320,000 acre feet in 2016 wouldn’t affect cities like Phoenix, Tucson, and Native American tribes, said Chuck Cullom, Colorado River program manager for the Central Arizona Project. But the agency would cut the amount of water it stores underground and limit the amount available for purchase by agricultural customers.

California, Colorado, Utah, New Mexico and Wyoming wouldn't see direct cuts in their share of river water in 2016 depending on the Lake Mead water level. But officials acknowledged there would be ripple effects.

"Denver Water has a direct interest in these issues because half our supply comes from the Colorado River," said Jim Lochhead, chief executive of the water agency serving Denver and its suburbs. "Issues like compact curtailment or political or legal confrontation along the river will affect that supply."

Southern California gets 25 percent of its water from the Colorado River and 30 percent from drought-stricken in-state sources, said Jeff Kightlinger, Metropolitan Water District of Southern California general manager. The agency serves 19 million customers.

Both sources are threatened by drought, which is evident throughout the region.

"It's serious," Kightlinger said Friday. "The important thing is how well the basin states are working together. We all recognize the immediate impact on southern Nevada. We're not running to the courthouse. We're working together to deal with this."

In Coolidge, Ariz., Hohokam Irrigation District manager Sidney Smith said she's been advising farmers to make sure their wells are working in case they lose Colorado River water and have to revert to pumping groundwater. "Basically if farming stops here, it's going to hurt the whole community," Smith said.

Steve Erickson of the Great Basin Water Network in Salt Lake City, raised the specter of a "panic reaction" and free-for-all to dam and divert water before it reaches lakes Powell and Mead.

"That's always been the Western way — use it or lose it," Erickson said. "Everybody building water diversions — that's old thinking."

Utah Division of Water Resources chief Dennis Strong said his state doesn't currently draw its full 1.4-million acre-foot allotment of river water. He said his concern was for states in the Colorado River's lower basin.

"We've spent 14 years in a drought situation — with only three above-average years — and Lake Powell and Lake Mead are below half full," Strong said.

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[Click here](#) to read this AP story called "Downstream States Eye Flaming Gorge Water."

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