

12/22/17

Preparing For Drier Future Along Colorado River

[Click here](#) to read this story by Ian James of *The Desert Sun*.

This feature is about the procrastination behind Drought Contingency Planning from the seven states of the Colorado River Basin, and that the proposed planning is not robust.

OpEd

2/18/17

Tribune Editorial Board: Bureaucratic kinks may block the Lake Powell Pipeline. Good.

Terry Gilliam's 1985 movie "Brazil" depicts an oppressive society ruled by bureaucrats and red tape. It is so dreary that it doesn't even offer its residents the pleasure of hating a single Big Brother figure, because no one really seems to be in charge.

One scene in particular illustrated how everything just rolls along with seemingly little human agency. That's when poor Archibald Tuttle (Robert De Niro), a man labeled a terrorist because he fixes people's air conditioning systems without authorization, is literally consumed by a storm of paperwork.

In the real world, there was news Tuesday that Utah's proposed Lake Powell Pipeline, a project estimated to cost upwards of \$1 billion, may find itself consumed by federal red tape. But, unlike the tragedy that befell the brave Mr. Tuttle, the sight of this colossal boondoggle disappearing into a blizzard of forms, reports, comment fields and permit applications actually stands to be good news, for Utah and all of the American West.

The Federal Energy Regulatory Commission, aka FERC, Tuesday announced that it had granted the state a permit for one aspect of the plan to pipe water from the rapidly shrinking Lake Powell 140 miles west to the rapidly growing St. George area.

But folks at the Utah Division of Water Resources were somewhat nonplussed to learn that all FERC was permitting was the six hydroelectric generating stations envisioned to be peppered along the pipeline's route — because that's the kind of thing FERC regulates.

All the other stuff — environmental impact concerns for the pipeline and its various water storage facilities — may be sent along to other federal agencies, probably including but not necessarily limited to the National Park Service and the Bureau of Land Management.

Those agencies, and all the public and bureaucratic processes their charters require, may leave the state looking at a cost of much more than the \$30 million it — meaning

state taxpayers — has already laid down on the project. All before a single spade of dirt has been turned.

Whatever delay this turn of events will cause is actually a good thing. Nobody really knows just how much this monstrosity will cost. Whether that cost can reasonably be covered by (possibly staggering) increases in water bills paid by end users or have to be underwritten by the rest of the state. Whether climate change and/or proposed changes in the way the Colorado River is managed will leave enough — or any — water in Lake Powell to be piped.

Ideally, the people who are in charge of managing water in Utah generally and in Washington County in particular would take bureaucratic curve ball as an opportunity to abandon the whole project once and for all and focus all their energies on some extreme conservation measures that are going to be necessary, pipeline or no pipeline.

They can, as Utah politicians are wont to do, blame the feds. We would understand.

OpEd - 12/12/17

Crescendo of crisis on the Colorado

By Richard "Tick" Segerblom

The Nevada Independent

Wow, so this is what it looked like watching Rome burn?

Or in our case, farmers' fields and family taps running dry while Colorado River water managers hole up at Caesars Palace rearranging the deck chairs poolside.

For more than a decade, the crescendo from outside the Palace has been that Southern Nevadans and the other 38 million people reliant on this river should prepare for major shortages. In the past two decades alone, streamflow is nearly 19 percent lower than what we've been taking, and the scientific community warns that we must prepare for shortages of 35 percent or more.

But what will members of the Colorado River Water Users Association be discussing this week under the banner of their "Many Instruments, One Orchestra: The Music of the Basin" conference? A drought contingency plan that at best kicks the can down the road for another year or two, hoping nature decides to dramatically change her tune.

By releasing water from small reservoirs in the uppermost reaches of the basin, combined with some surplus water stored in Lake Mead, they intend to utilize a one-time buffer of some 2.7 million acre feet, which is only equivalent to the current annual supply deficit.

In addition, they propose to add upwards of 1.3 million acre feet in conservation measures in the lower basin. This amount just barely covers the 1.2 million acre feet of

ongoing, annual system losses of seepage and evaporation known as the “structural deficit,” which has never been accounted before, thus adding little in real savings.

We’re still not even treading water here as we watch Lake Powell and Lake Mead recede further. And as these reservoirs drop, what’s going to happen to our water quality as they approach their minimum, “dead pool” levels?

There’s tremendous uncertainty about what will be in that water, and how and if we’ll be able to treat it. And what of the endangered fish, like those in Grand Canyon, that too rely on this diminishing supply. We spend millions each year trying to recover their populations already, and soon they may be exposed to even more precarious conditions.

Most importantly, when are we going to make the indigenous peoples of this basin whole? Sure, some of the tribes who have secured water rights from this system will be presenting to the “orchestra” this week, but there are at least 13 others whose claims amount to a considerable total that are yet to be determined. This includes the Hopi Tribe, which maintains the longest continuous settlement in the entire basin and whose supply is tainted with deadly heavy metals.

Instead of shuffling the deck, these water managers must accept that their house of cards is teetering dangerously. Nonetheless, they want to build more dams and diversions in Colorado and toss a straw into Lake Powell for yet more golf course developments in St. George.

We need to be talking about less, not more. What kind of benefits we might see by operating just one major reservoir on the Colorado as opposed to two. Can storage needs be concentrated in Lake Mead, supplemented by expanded underground, off-stream aquifer recharge such that Lake Powell can be removed from the system? Can we work to recover the high-value ecosystem in Grand Canyon National Park and submerged sacred sites under Lake Powell while we build increased resilience in our own water supply/demand equation?

And Las Vegas, let’s not forget that Glen Canyon Dam nearly failed in 1983, so filling that reservoir remains risky business. Should it fail, our own infrastructure for extracting water will be compromised, and a 70-foot wall of water could be tumbling over Hoover dam for eleven days.

Las Vegas is the community that has its roots at the beginning of the Colorado River’s plumbing system, where bold ideas both settled the West and brought much hardship and suffering to its native peoples. We need bold ideas now that recognize this legacy to correct the problems, not some symphony of soothsayers trying to convince us everything is going to be all right.

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Richard S. “Tick” Segerblom is an attorney and politician. First elected to the Nevada Legislature to represent Assembly District 9 in 2006, he was elected to the Nevada Senate in 2012 to represent District 3. He intends to leave the Nevada Legislature to

run for a Clark County Commission seat in District E to replace term-limited Commissioner Chris Giunchigliani. District E represents part of the Strip and extends to much of the eastern Las Vegas Valley.

12/12/17

Lake Powell Pipeline Approved for Environmental Analysis (EIS)

Feds give initial OK to Utah's application to build Lake Powell pipeline — but with a major, unexpected twist

Salt Lake Tribune
By Emma Penrod

The Federal Energy Regulatory Commission has given its initial approval to Utah's application to build the controversial Lake Powell Pipeline to pipe Colorado River water from Glen Canyon Dam, above, 140 miles to St. George — but many hurdles remain for the project.

Federal regulators have tentatively approved Utah's application to build the Lake Powell Pipeline, but they've also thrown the state an unexpected curveball.

On Tuesday, the Federal Energy Regulatory Commission (FERC) issued a notice that it had accepted Utah's application to construct the 140-mile pipeline, intended to pump Colorado River water from Glenn Canyon Dam to St. George and 12 other southern Utah communities. That, FERC said, clears the way for a full study of the project's environmental impacts.

"This is a major milestone toward meeting Southern Utah's need to diversify its water supply and develop additional resources to meet anticipated demand," Eric Millis, director of the state Division of Water Resources, said in a statement. "Permitting a water project is a lengthy process and this is a significant step."

But FERC also said it was reviewing just how much jurisdiction it actually has over the project — a move that could slow down ultimate approval for the billion-dollar-plus underground pipeline, which is already running behind schedule.

State officials filed the permit application with FERC in 2016 because the Lake Powell Pipeline — at least as currently proposed— is expected to include hydroelectric generating stations along its route through Arizona and Utah. Officials with the Division of Water Resources had long expected that FERC would also be the lead federal agency on the entire project, giving it a key role in obtaining additional permits.

But in its Tuesday notice, FERC said it may only have jurisdiction over the six hydroelectric sites along the route, not the whole pipeline and network of pumping stations and water storage facilities.

If that proves true, it could put Utah more directly in charge of navigating a lengthy review from a host of other federal agencies, forcing additional work on to the Division of Water Resources, which has already spent more than \$30 million in taxpayer funds to obtain permits for the pipeline so far.

As proposed, the pipeline would pump water from Lake Powell about 50 miles northwest to a high point within the area of the former Grand Staircase-Escalante National Monument, according to the FERC notice. The water would then flow just under 90 miles downhill through a series of six hydroelectric turbines before arriving at Sand Hollow Reservoir, east of St. George.

Officials with the Division of Water Resources have said they expect the pipeline to cost between \$1.1-\$1.8 billion.

FERC spokeswoman Celeste Miller said Tuesday the agency had assumed it would not take jurisdiction over the entire water project — just the hydroelectric turbines. She said the commission still planned to produce documentation required by other agencies, such as the National Park Service and the Bureau of Land Management, that have a say in the pipeline's fate.

A spokesman for the Division of Water Resources said late Tuesday it was unclear exactly what the FERC announcement means, given that state officials had written their application assuming FERC would lead the permitting process.

While a shift in jurisdiction would not necessarily boost the number of permits Utah officials have to obtain before breaking ground, those permits could be subject to new and different kinds of review if FERC does not play the role state leaders thought, raising the potential for further delays.

Zach Frankel, executive director of the Utah Rivers Council and a long-time opponent of the pipeline, noted that if other agencies play a bigger role in the permitting process, that could subject the pipeline to more in-depth review of whether the project is necessary.

Establishing the purpose and need for a pipeline, said Frankel, will be an important part of the environmental assessment study, which FERC said will be conducted according to the National Environmental Policy Act.

"If it isn't properly satisfied," Frankel said, "the courts can rule against an agency" in the event a permitting decision is challenged.

But FERC's move could also allow the agency to evaluate the pipeline solely with

respect to demand for hydroelectricity, and not water — opening the possibility that state officials would not have to prove, as has been asserted, that the pipeline is necessary to prevent southwestern Utah from running out of water.

“By not considering the rest of the project features, it could be easier to approve,” Frankel said in an email. “It’s not a slam dunk for anyone.”

FERC has also asked for public comments regarding the pipeline proposal. Comments are due in early February and may be submitted online at ferc.gov/docs-filing/ecomment.asp

Comments should reference the proposal’s docket number, P-12966-004.

[Click here](#) to read this story by David DeMille of *The St. George Daily Spectrum*

[Click here](#) to read the document from FERC that initiates the analysis

[Click here](#) to read this OpEd from Robert Gehrke of *The Salt Lake Tribune*

[Click here](#) to learn more about the Lake Powell Pipeline (LLP) and to review the archive of documents

[Click here](#) to learn more about the LLP water stored in Flaming Gorge; the Ultimate Phase water right.

12/03/17

A county in Utah wants to suck 77 million gallons a day out of Lake Powell, threatening the Colorado River

[Click here](#) to read this story by Kevin Schneider of The Los Angeles Times

12/01/17

Bureau of Reclamation to negotiate water exchange with State of Utah Plan would divert river water to Lake Powell pipeline

The Times-Independent. Moab, Utah

The U.S. Bureau of Reclamation (USBOR) and State of Utah are initiating negotiations for a water exchange contract, which proposes exchanging the state’s assigned Green River water right for the use of Colorado River Storage Project water released from Flaming Gorge Dam. The negotiation meeting is scheduled for Monday, Dec. 4 at 1 p.m.

at the Dixie Convention Center, located at 1835 South Convention Center Drive in St. George.

According to a press release from USBOR, the exchange will provide Utah with a reliable and certain water supply, while assisting the bureau in meeting its legal obligations. It will enable part of the state's Colorado River apportionment to flow from Flaming Gorge Dam to Lake Powell for diversion into Utah's proposed Lake Powell Pipeline.

The negotiation meeting is open to the public. The public will have the opportunity to ask questions and offer comments pertaining to the exchange during an open house period immediately prior to formal negotiations and during a comment period following the negotiation session.

The proposed exchange contract and other pertinent documents will be available at the negotiation meeting or can be obtained on the bureau's website at:

<https://www.usbr.gov/uc/provo/index.html>, under "News and Highlights."

[Draft Contract](#)

Additional Information:

[Click here](#) to read about the negotiations for the Green River Blocks

[Click here](#) to learn more about the Lake Powell Pipeline (LLP) and to review the archive of documents

[Click here](#) to learn more about the LLP water stored in Flaming Gorge; the Ultimate Phase water right.

11/28/17

Supporters Seeking Rights for Colorado River Meet in Denver, Amend Complaint

[Click here](#) to read this story by Lindsay Fendt of Aspen Journalism

11/27/17

Supreme Court won't hear California water agencies' appeal in tribe's groundwater case

[Click here](#) to read this story by Ian James of The Desert Sun

10/19/17

USBR starts Green River water exchange negotiations with Utah

Clean Technology Business Review

The US Bureau of Reclamation and State of Utah are initiating negotiations for a water exchange contract, which proposes exchanging the state's assigned Green River water right for use of Colorado River Storage Project water from Flaming Gorge Dam.

The first negotiation meeting is scheduled for Monday, October 30, 2017, at 1:00 p.m. at the Uintah Conference Center, 313 East 200 South, Vernal, UT 84078.

The exchange will provide Utah with a more reliable and certain water supply, while assisting Reclamation in meeting its legal obligations.

All negotiation meetings are open to the public as observers, and the public will have the opportunity to ask questions and offer comments pertaining to the exchange during an open house period immediately prior to formal negotiations and a brief comment period following the negotiation session.

"The proposed exchange agreement contract and other pertinent documents will be available at the negotiation meeting, or can be obtained on Reclamation's website at: <https://www.usbr.gov/uc/provo/index.html>, under "Current Focus."

Draft contract archived [HERE](#)

Additional Information:

[Click here](#) to view the contract for Lake Powell Pipeline

[Click here](#) to learn more about the Lake Powell Pipeline (LLP) and to review the archive of documents

[Click here](#) to learn more about the LLP water stored in Flaming Gorge; the Ultimate Phase water right.

10/17/17

Contingency Planning: Latest Document

[Click here](#) to view the latest presentation of drought contingency planning in the Upper Basin of the Colorado River

10/15/17

One In 30 Wells in the West Failed in Recent Years

[Click here](#) to read this story by Emily Benson in High Country News

[Click here](#) to read the research paper

10/06/17

Why a Colorado River Reunion with the Sea isn't a Guarantee

[Click here](#) to read this story by Emily Benson of High Country News

10/03/17

Federal oil and gas leases mired in protests over pollution worries for Utah's Uinta Basin

By Brian Maffly of the Salt Lake Tribune

[Click here](#) to visit the SL Trib web site

Environmental, public health and wilderness advocates warn that Dec. 11 auction of leases on 94,000 acres in eastern Utah threatens to worsen region's ozone crisis.

The Bureau of Land Management's next auction of oil and gas leases in Utah is under fire from a multitude of environmental, public health and wilderness groups. Topping the list of concerns is the likelihood that the Dec. 11 lease sale would worsen Uinta Basin's persistent winter-time ozone levels.

The U.S. Environmental Protection Agency is poised to declare Duchesne and Uintah counties out of compliance for emissions of ozone, a pollutant whose high concentrations are attributed to oil and gas development. That determination, expected as soon as Oct. 15, would trigger emission-reducing measures under the Clean Air Act that are expected to put on a damper on future drilling and require industry to stem the clouds of fumes rising from the oil patch.

Industry representatives say such rules will safeguard air quality, while allowing new oil and gas leases to be issued.

"One of the worst ways to address ozone is to stop economic development in the Basin. That would put the area in a double whammy," said Kathleen Sgamma, president of the oil and gas industry trade group Western Energy Alliance.

But environmental activists argue all federal leasing should be holstered here until the worsening ozone situation is reversed. The upcoming on-line auction will offer 75 leases covering 94,000 acres in the Basin and Emery County.

“The region is suffering a smog crisis and the Bureau of Land Management is turning a blind eye to the problem,” said Jeremy Nichols, climate and energy program manager for the environmental group WildEarth Guardians. “Legally they are not allowed to issue more drilling permits until they can show their actions are solving the problem. This is a public threat. This is what matters more than anything else in northeastern Utah.”

WildEarth is among many groups filing formal protests of the auction in recent days.

Ozone is a corrosive three-atom oxygen molecule formed not far off the ground when volatile organic compounds, also known as VOCs, interact with sunlight. Usually a summer phenomenon, high ozone occurs in winter over the Uinta Basin when snow covers the ground and inversions prevent atmospheric mixing.

Joined by the Center for Biological Diversity, Living Rivers and other environmental groups, Utah Physicians for a Healthy Environment has also highlighted the ozone question its protest.

“A pollution crisis will inevitably lead to a public health crisis, and there is preliminary evidence that one may already be occurring with high rates of perinatal deaths in the Uinta Basin,” said Dr. Brian Moench, president of the physicians group. “The health risks go well beyond ozone and particulate pollution. Although VOCs are not addressed by EPA national standards, they likely represent the greatest toxicity to the population, especially for infants and pregnant mothers.”

In its environmental review released last month, however, the BLM noted that leasing won't in itself release pollutants that lead to ozone formation and other emissions. Those comes from what happens later—drilling and fracking wells and transporting oil and gas.

“At the leasing stage it is not known how much or even whether development will occur on those leases,” Sgamma said. “Once an implementation plans is in place, there is a process to ensure ozone levels will get down to the health standard. Any new development will have to be permitted accordingly.”

Shaping up to be Utah's most intensely protested sale in a decade, the leases to be sold Dec. 11 have been controversial since they were first unveiled months ago because they include public lands along the western boundary of Dinosaur National Monument and areas in Emery County rich in rock art and natural beauty in and around San Rafael Swell.

Those concerns are the focus of protests filed by Southern Utah Wilderness Alliance and National Parks Conservation Association.

Inviting drilling in place like Molen Reef along the Swell's western margins is “dumbfounding,” said SUWA staff attorney Landon Newell, whose protest was joined by The Wilderness Society, Sierra Club's Utah chapter and the Natural Resources Defense Council.

“The Trump administration’s energy policy is trying to find a home in Utah’s redrock country but we’re not having any of it,” he said

Activists have been concerned with the Trump administration’s willingness to lease in areas previously proposed under President Obama for “master leasing plans.” They fear that in Trump’s push for “American energy dominance,” the Interior Department is walking away from a planning process designed to ensure more careful leasing near national parks and monuments.

But the BLM has deferred leasing decisions on 40 other parcels nominated by the oil and gas industry for this year’s lease auction out of its east-central Utah district, served by the Vernal and Price field offices. Twenty of those parcels were set aside because they fell inside the San Rafael Desert Master Lease Area, and another 20 land tracts were held because they overlap with sage grouse habitat, cultural resources or tar sands leases.

09/27/17

Moab Watershed Study Completed

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

09/27/17

USA & Mexico to Share Colorado River Water, Shore Up Lake Mead

[Click here](#) to read this story by Henry Breaan in *The Las Vegas Review Journal*

09/26/17

Why Does the Colorado River Need to Sue for Rights?

[Click here](#) to read this OpEd by Will Falk in the San Diego Free Press

09/24/17

Water Bailout? Colorado River Tribes Pose Statewide Leasing Idea

[Click here](#) to read this story by Tony Davis of the Arizona Daily Star

09/22/17

Utah Supreme Court upholds DEQ decision to issue Uintah Basin tar sands mining permits

SALT LAKE CITY – The Utah Supreme Court has ruled against an environmental group challenging permits given to US Oil Sands Inc. in the Uintah Basin for tar sands mining. The project has been the subject of protests and Living Rivers sued the State Department of Environmental Quality, challenging the permits given to US Oil Sands.

In a ruling handed down Thursday night, the state's top court upheld the DEQ's decision to issue permits.

[Click here](#) to read the court

09/20/17

Receiver Takes Over Tar Sands Company

[Click here](#) to read this article by Dennis Webb of The Grand Junction Sentinel

09/05/17

Tribes are willing to go into battle if Trump makes Utah's Bears Ears Monument smaller

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

08/22/17

Feds Ask State to Prove It Can Pay for Proposed Lake Powell Pipeline

The Salt Lake Tribune

By Emma Penrod

Feds ask state to prove it can pay for proposed Lake Powell Pipeline Federal Energy Regulatory Commission gives state officials 60 days to produce a financial study, along with more data on water use and cultural riches along proposed pipeline route.

Feds ask state to prove it can pay for proposed Lake Powell Pipeline Officials from the Federal Energy Regulatory Commission (FERC) have given the state of Utah 60 days to provide a financial feasibility study on how the state would pay for the billion-dollar-plus Lake Powell pipeline.

State officials and other proponents of the Lake Powell pipeline may have just two months to convince federal regulators that their project is backed by a robust plan to pay off more than \$1 billion in costs.

The Federal Energy Regulatory Commission has indicated it cannot review the state's yet-to-be-completed application for permission to build the pipeline in southern Utah because it lacks an adequate financial analysis.

In an Aug. 11 letter to the state's Board of Water Resources, federal regulators have given Utah 60 days to submit the financial feasibility study, including estimated costs to new and existing water users in Washington and Kane counties. FERC has also asked for additional water use data and for more details about cultural resources along the proposed route of the pipeline, which would carry Colorado River water from Glen Canyon Dam 140 miles to St. George.

A spokeswoman for the federal agency, Celeste Miller, said Tuesday that state officials had indicated the requested information would be part of Utah's final application. But the study still has not been submitted.

Josh Palmer, a spokesman for the Utah Division of Water Resources, said the division's staff is reviewing FERC's request and plans to submit at least some additional information within 60 days.

Whether or not Utahns can actually afford to build the pipeline — last estimated to cost in the range of \$1.4 billion— has been a central issue in a long-running debate over the proposed project. Zach Frankel, executive director of the Utah Rivers Council and an outspoken opponent of the pipeline, said he was pleasantly surprised to see FERC wading into the issue.

"We're pleased to see they're at least asking the right questions," he said.

According to current state law, the state Division of Water Resources would pay for the construction of the Lake Powell pipeline, with taxpayer money. But the recipients of the water — currently Kane and Washington county water conservancy districts — would be required to repay the state through the purchase of pipeline water over the course of 50 years. How much that water will cost remains a matter of dispute.

Frankel pointed to an analysis by economists at the University of Utah, which concluded that water rates in Washington County would have to rise by more than 500 percent to pay for the water the Washington district would be obligated to buy.

The water district, on the other hand, has contended it has a plan that would enable it to pay for the pipeline by increasing customers' water bills just a few dollars each month. But, when pressed for documentation of its plan, the water district released a series of slides and spreadsheets it said were used in interactive focus groups in 2013 and 2014.

The documents did not represent an actual repayment plan, according to the water district.

The state's Lake Powell pipeline license application, which was initially submitted in March 2016, did not detail the cost of water to end users. The application remains incomplete in other ways as well; shortly after filing it, regulators at the Division of Water Resources indicated that the 6,000-page document contained numerous errors and would require revision.

The state has intermittently filed supplementary material correcting and expanding its application since it was first submitted. Frankel said he believes the state is stalling in order to avoid having to admit it does not know how to pay for the pipeline.

"I think Utah taxpayers are going to pay \$6 of every \$7, or \$8 of every \$10, for the Lake Powell Pipeline and the proponents of the project know it," Frankel said. "They're stalling and they're hiding, and they're pretending like they have a viable repayment plan, but they know it can't be done."

Utah's congressional delegation, as well as Gov. Gary Herbert, have asked FERC to complete its review of the as-yet-unfinished application by 2018.

08/03/17

EPA Rescinds Offer to Give Utah and Other States More Time to Deal with Ozone

[Click here](#) to read this story by Emma Penrod of *The Sal Lake Tribune*

08/02/17

San Diego Water Authority to take legal dispute to Supreme Court

By Dana Lohr

SAN DIEGO (KUSI) — The San Diego County Water Authority announced Monday that it will take a long-running legal dispute over rates to the state Supreme Court.

The decision comes just over a month after an appellate court issued what amounted to a split decision in the Water Authority's case against the Metropolitan Water District of Southern California.

The SDCWA has sued the MWD multiple times over rates, with the largest issue being how much the MWD was allowed to charge for transporting Colorado River water to San Diego. The MWD is the primary water wholesaler in the southern half of the state and owns the facilities that convey water around the region.

A San Francisco Superior Court judge has consistently ruled in favor of the San Diego water agency, which has been awarded a total of roughly \$232 million. The MWD appealed, and among other things, the appellate justices ordered the damages to be recalculated.

The San Diego water agency contended it was not only billed for moving the water from one place to another, but also for the MWD's costs of maintaining the California Aqueduct -- a system not used for bringing the Colorado River water to San Diego.

"While components of this case appear complex, it essentially boils down to whether MWD can force San Diego County to pay for a State Water Project supply it didn't want to buy and hasn't received," said Mark Muir, chairman of the Water Authority's Board of Directors.

"We are hopeful that the state's highest court will recognize that the Water Authority's Board of Directors did the right thing when it chose to invest billions of dollars to conserve water in Imperial County, rather than continue its heavy reliance on imported water supplies purchased from MWD, a substantial portion of which MWD obtains from the Bay-Delta," Muir said. "We also hope the Supreme Court will grant review in order to preserve bedrock limits on the power of government to impose fees and charges on ordinary Californians."

Lawyer Neal Katyal said the impact of the appellate court ruling will be felt statewide if not reversed by the high court.

MWD officials contend the Water Authority is trying to shift its cost onto ratepayers elsewhere in the state.

The Supreme Court justices have about two months to decide whether to accept the case. If they do, it could take 18 months to two years before a final decision is issued.

###

An Indian groundwater rights case is also headed for the U.S. Supreme Court

[Click here](#) to read this story in The Desert Sun by Ian James

07/31/17

Nuclear Revival is Set to Falter

[Click here](#) to read this story by Paul Brown of Climate News Network

See also:

USA Nuclear Comeback Stalls as Two Reactors are Abandoned

[Click here](#) to read this story by Brad Plumer of the New York Times about nuclear power development in South Carolina

Additional References

[Click here](#) to read stories about Utah's plans for a nuclear power plant by Blue Castle Holdings at Green River and using the same design as the South Carolina facility

[Click here](#) to read this story about the apparent insolvency of Utah's Blue Castle Holdings

07/25/17

Institute for Journalism & Natural Resources visits Moab,Utah

The website of Institute for Journalism & Natural Resources is [here](#).
Upper Colorado River Institute ([event webpage](#))
Colorado, Utah & New Mexico
July 22-29, 2017

Day three of the IJNR field trip (July 25) was in Moab, Utah; an early morning, half-day paddle boat trip down the Colorado River from Moab Boat Ramp to Potash Boat Ramp and arranged by local non-profits, Canyonlands Field Institute and Living Rivers/ Colorado Riverkeeper.

The journalists attending the float trip are listed [here](#)

Their stories are listed [here](#)

An Ecosystem Degraded: Human Impacts on Riparian and Riverine Systems

Mighty though the Colorado may be, it certainly isn't exempt from modern-day ecological issues. Human activities have offered a toe-hold for invasive species such as tamarisk, a fast-growing shrub that thrives along the river's banks, forces out native flora, contributes to salinity issues, and has been the focus of region-wide eradication programs for decades. In the river itself, ecologists are on the lookout for invasive Quagga and Zebra mussels, aquatic invaders that have taken other parts of the country by storm. Meanwhile, changes in flow and temperature mean that warmwater fishes - including some on the endangered species list - are struggling. We floated the river with fish biologists and riparian ecologists to hear what's being done to restore habitat and populations.

Lake Powell: Backup Bathtub or Evaporation Station?

Lake Powell, the nation's second-largest reservoir, was built in 1963 as a backup to Lake Mead, to store enough water to provide a consistent water supply to Lower Basin states in times of drought. The Colorado River Compact stipulates that Upper Basin states must provide 7.5 million acre feet of water annually to the Lower Basin states, and Powell is intended to help make that possible. The reservoir is also host to a 2-million-visitor-per-year recreation industry. Now, however, the cumulative impacts of dry winters, evaporation, and seepage mean that both Mead and Powell are far below

capacity. That has led some to argue for opening up the Glen Canyon Dam and draining Lake Powell -- a prospect that would have wide-ranging implications.

07/09/17

Is the Seven County Coalition Squandering Money Earmarked for Rural Utah?

[Click here](#) to read this story by Brian Maffly of the Salt Lake Tribune
Related news of Utah's seven county coalition:

<http://www.livingrivers2.org/archives/article.cfm?NewsID=1261>

<http://www.livingrivers2.org/archives/article.cfm?NewsID=1256>

07/08/17

Feds' approval of expanded Gross Reservoir panned in Boulder County Environmental advocates may pursue legal action to stop project

[Click here](#) to read this story in the Daily Camera by Alexis Jaramillo

07/06/17

Law professor comments on national monuments review

Leading natural resource and environmental law professors comment on Trump review of national monuments

Eric Biber July 6, 2017

As we've been covering here on Legal Planet, the Trump Administration is conducting a review of national monuments created over the past 20 years, and has indicated it may seek to eliminate or shrink some of those monuments. Part of that process is a public comment period.

A group of 121 environmental, natural resource, and administrative law professors just submitted a comment to the Secretary of Interior arguing that the President does not have power to eliminate or shrink national monuments, and raising some important questions about the review process. (I am one of the signatories.) You can find the comment letter here: [national monuments comment letter from law professors_as filed](#)

The letter draws on a recent on-line law review article that lays out the relevant law about Presidential power to eliminate or shrink national monuments.

A link for that article is provided [HERE](#)

[Presidents Lack Of Authority To Abolish Or Diminish National Monuments](#)

[National Monuments Comment Letter From Law Professors](#)

07/06/17

To U.S. Supreme Court: Do Tribes Have Groundwater Rights

[Click here](#) to read this story by Ian James of The Desert Sun

06/15/17

White Mesa Uranium Mill: Public Meeting Announcement

MAKE YOUR VOICE HEARD!

WHAT: Offer your comments to the Utah Department of Environmental Quality about the renewal of the White Mesa uranium mill's radioactive materials license, the groundwater discharge permit, and final reclamation plan.

WHEN: June 15, 2017; 5 to 7 PM

WHERE: Blanding Arts and Events Center; 715 West 200; South Blanding, Utah

EMAIL: Comments can be sent via email to dwmrcpublic@utah.gov

For more information visit [Uranium Watch webpage](#)

06/13/17

To avoid insolvency, US Oil Sands Seeks to Leave Stock Market

[Click here](#) to read this story by Sharon Sullivan of Moab Sun News

[Click here](#) to read this story by Dennis Webb of Grand Junction Sentinel

[Click here](#) to read the announcement by US Oil Sands

06/09/17

Infrastructure investments must prioritize the Colorado River, one of the hardest-working rivers in the world

by Mike Connor and Lynn Scarlett

Mike Connor is an Environment Program Fellow with the Walton Family Foundation and a former Deputy Secretary of the Interior and Commissioner of the Bureau of Reclamation in the Barack Obama Administration.

Lynn Scarlett is the Global Managing Director for Public Policy at The Nature Conservancy and a former Deputy Secretary of the Interior in the George W. Bush Administration.

[CLICK HERE](#) to read the report called "Colorado River Critical Infrastructure Needs" by the Walton Family Foundation

With the significant prospect of declared shortages in the lower basin of the Colorado River in the next five years and a growing long-term supply-demand imbalance, the situation requires strategic investments that will help maintain both water supply reliability and watershed health. It also requires action, collaboration, and creativity. With the significant prospect of declared shortages in the lower basin of the Colorado River in the next five years and a growing long-term supply-demand imbalance, the situation requires strategic investments that will help maintain both water supply reliability and watershed health. It also requires action, collaboration, and creativity.

With the Trump administration focused on infrastructure this week, the Walton Family Foundation released a white paper to help guide a plan for one of the nation's most critical infrastructure needs. The paper, "Colorado River Critical Infrastructure Needs," highlights 15 projects across the basin that are essential for securing one of the most important – and overtapped – waterways in the country.

In Cadillac Desert, Mark Reisner's 1986 seminal work on water in the West, he noted that "[t]he Colorado River's modern notoriety, stems not from the fact that it is the most legislated, most debated, and most litigated river in the entire world. It also has more people, more industry, and a more significant economy dependent on it than any other comparable river in the world."

Much has changed over the past 31 years, but our dependency on the Colorado River has not. Fortunately, one change has been how states, water users, environmental interests, Indian tribes, and federal agencies collaborate with each other to address pressing challenges and avoid protracted courtroom battles. Indeed, this paper is the result of input from key players in the Basin, including states, water users, Indian tribes, and conservation groups. Stakeholders in the Colorado River basin have led efforts to forge innovative water management agreements between each other and across the international border with Mexico.

Of course, much of this collaboration is driven by necessity. As the paper highlights, the recent 16-year drought, while somewhat alleviated this year, took a toll on the river with a documented 19 percent reduction in average flows compared with the previous 95 years. Looking forward, scientific studies project an additional 20 percent reduction in flows by 2050, which would exacerbate the overallocation of this limited resource.

With the significant prospect of declared shortages in the lower basin in the next five years and a growing long-term supply-demand imbalance, the situation requires strategic investments that will help maintain both water supply reliability and watershed health. It also requires action, collaboration, and creativity.

Building on the spirit of cooperation within the Basin, the Walton Family Foundation and The Nature Conservancy are working with a broad array of constituencies to address the region's water resource challenges. In the Colorado River Basin, we have been working with states, tribes, agricultural interests, municipalities, and other nongovernmental organizations to identify a portfolio of projects to address specific challenges in the basin across a multi-state region.

The white paper, while not an all-inclusive list of needed actions, identifies over a dozen specific projects as well as some basin-wide initiatives that have significant water user support and represent a range of strategies to address water resource challenges, including traditional water supply improvements, habitat and stream restoration actions, and improved data-gathering networks.

Collectively, the projects would, as the white paper notes, "increase water reliability, improve the balance between supply and demand, and enhance the overall environment, while creating jobs and contributing to economic productivity." Furthermore, each project is poised to garner significant cost-share contributions to leverage federal investments.

Perhaps most importantly, the collaboration among multiple partners means that a lot of the hard work necessary to build support for infrastructure development has already been done with most of the projects. As Congress considers how to address infrastructure needs in this country, it's incredibly important to bridge the significant gap between essential water resource investments and identified sources of capital. It's equally important that these investments focus on watersheds where the potential for conflict is high because the stakes are high but where local collaboration is providing opportunities to resolve those conflicts.

The foundation's white paper presents many opportunities worthy of federal support, given the widespread benefits to sustainable management of the Colorado River. These opportunities are exactly the type we would have looked to support during our tenures at the Interior Department in the past two administrations. They are creative and collaborative and represent good progress in sustainable resource management.

05/25/17

US Oil Sands Has Investor Difficulties and Deficit is Now \$11 Million

[Click here](#) to read their latest update

05/22/17

Drought Erased 25 Cubic Miles of Central Valley's Groundwater

[Click here](#) to read this story by Matthew Renda of Courthouse News Service

[Click here](#) to read the supporting AGU paper called "How Much Groundwater Did California's Central Valley Lose During the 2012 - 2016 Drought?"

05/13/17

Rally and March to protect the White Mesa Ute Community from the White Mesa Uranium Mill

Saturday, May 13

Rally begins at 11 am

White Mesa Ute Community

Slightly off Highway 191

West side of the highway behind the Mobil gas station

Large red building

Sign says "White Mesa Community Center"

The rally is followed by the spiritual and protest walk to Energy Fuels White Mesa Uranium Mill (4.5 miles)

Wear comfortable shoes and bring plenty of water!

Photos of the march [HERE](#).

Sponsored White Mesa Concerned Community

Co-sponsored by: Canyon Country Rising Tide, Grand Canyon Trust, Greenaction for Health and Environmental Justice, Haul No, Living Rivers and Uranium Watch

For more information call White Mesa Concerned Community 435-485-0265

[Click here](#) to view the poster of this event

05/11/17

Moab Film Screening on Thursday May 11: To The Ends of the Earth

Star Hall

159 East Center Street

6:30 - doors open

7:00 - film begins

Followed by Q & A with panelists

Partially shot in the Uinta Basin near Moab. This feature documentary examines the failing economic paradigm of fossil fuels and its alternatives.

Sponsored by Living Rivers, Canyon Country Rising Tide and Southern Utah Wilderness Alliance

[Click here](#) to view the poster of this event

04/27/17

Moab March for Science draws large crowd

by Rose Egelhoff

The Times-Independent

Local residents and others march through downtown Moab during the April 22 March on Science. Marches were held in over 600 cities and town across the country and internationally, including Salt Lake City and Moab.

Moab residents and visitors joined groups across the country and around the world on Earth Day, April 22, in taking to the streets to march in support of science.

More than a hundred people gathered at Swanny City Park for an introduction by organizer Katie Miller of Moab and speeches by teachers, students, scientists and land managers. A banner reading, "May the Facts Be With You," created by local environmental group Canyon Country Rising Tide, was stretched across the pavilion behind the speakers. At tables throughout the park several sponsoring organizations explained how they use science for their work.

Speakers addressed public understanding of science and spoke in support of using science and facts to guide public land management.

Richard Schwartz, known locally as Professor Purple, drew on his background as a high school physics teacher to explain how pure theory and basic research from the 19th century is important in daily life today.

“When your car tells you to turn left, give a hat tip to Albert Einstein’s theory of general relativity, which is essential to GPS,” Schwartz said. “We couldn’t work as a society without being able to use the theoretical, pure research of a hundred years ago. It’s become absolutely essential to the way we work today.”

Several speakers discussed climate change issues. John Weisheit, conservation director at the nonprofit Living Rivers, said that Colorado River users with junior water rights face their water being cut off. He added that scientists predicted today’s water shortages decades ago.

“[Scientists] told the policy people that the Colorado River is in trouble, and what have the water policy people done for the last 71 years? Absolutely nothing,” Weisheit said. “The shortages are here and it’s about to happen.”

He called for policymakers to listen more to scientists.

Rachel Nelson an adjunct professor in the department of environment and society at Utah State University-Moab, gave a demonstration of the scientific method — the way scientists use experiments to find out facts.

“We can all be citizen scientists and I think if we take that mystery out of science that people are more willing to embrace it and understand that it’s attainable for everybody, it’s understandable for everybody,” Nelson said. “It’s not just these super smart people who are telling us what to do.”

After the speeches, the group marched up 100 North and around downtown, carrying signs with messages such as “Science Saves Lives,” “There Is No Planet B,” and “Science Keeps America 1st and Great.”

According to the Southeastern Utah March for Science Facebook page, The March for Science was organized as “a celebration of our passion for science and a call to support and safeguard the scientific community. Recent policy changes have caused heightened worry among scientists, and the incredible and immediate outpouring of support has made clear that these concerns are also shared by hundreds of thousands of people around the world.”

“Speaking up for science is critically important because it is what drives society forward. From the technology we rely on, the medicine we need, the food we eat, science is the driving force for all of it,” local march organizer Katie Miller told The Times-Independent. “It is important right now because despite there being an abundance of information freely available to virtually everyone, there are still people who deny the viability of science.”

Miller said more than 600 cities around the world participated in the April 22 March for Science, and she hopes the connections made in the process of planning and executing the march will lead to more support for science-based policies and science education.

‘The result we want is a better-educated civilization that understands science and understands what is at stake if we do not act accordingly, most perilously in regards to climate change,’ she said.

Miller, a stay at home mother, said she had helped remotely organize national events, but had never organized a local march like this one.

Nationally, the March for Science was organized after several scientists on the website Reddit discussed their concerns that references to climate change had been deleted from the White House website, according to the Washington Post. Scientist Jonathan Berman from the University of Texas set up a March for Science website and social media pages. Other science advocates, concerned about a perceived disregard for science among national politicians, quickly joined. Thousands attended the march in Washington, D.C., according to NBC News.

‘The March for Science champions robustly funded and publicly communicated science as a pillar of human freedom and prosperity. We unite as a diverse, nonpartisan group to call for science that upholds the common good and for political leaders and policy makers to enact evidence based policies in the public interest,’ according to the national March for Science website.

In Moab, march participants came from the local community, Colorado and around the West.

Sam Foster of Durango, a retired scientist, and Dot Wehrly, also from Durango, came to Moab to participate.

‘[Science] is being ignored in too many policy decisions now and we need to listen to science,’ Wehrly said.

‘It’s not well-funded,’ added Foster. ‘It’s like one of the speakers said, when budgets get tight, they ... stop doing science. The problem is that a lot of science takes years or even decades and if you stopped right in the middle of it, you ruin what you’ve done. It’s got to be a solid investment.’

Another participant from Colorado, David Reed, held a sign that read, ‘In times of universal deceit, telling the truth is a revolutionary act.’

‘I figured if there’s any place I should show up today that needed to support wilderness, it’s in the state of Utah,’ Reed said, adding that it is unfortunate that science has become a political issue.

He said he hopes the march will ‘increase awareness and bring more people to promote the needs of science period that we need to be funding science, that we need to be respecting the findings of science, not just disregarding them.’

The march was followed by a performance by Meander Cat and poetry by Barbara Galler.

04/12/17

Fracking Threatens Colorado River, Endangered Species, Climate, Rocky Mountain National Park and Dinosaur National Monument

DENVER—(ENEWSPPF)—April 11, 2017. Conservation groups have filed an administrative protest challenging a federal decision to offer for leasing in June more than 100,000 acres of federal public land in northern Colorado for oil and gas industry fracking. The leasing decision, being pushed by the Trump administration's Bureau of Land Management over local community opposition, threatens some of Colorado's most treasured and scenic landscapes and wildlife species.

"Fracking these pristine public lands would come at the cost of imperiled wildlife, clean air and clean water, meanwhile worsening climate change," said Michael Saul, senior attorney with the Center for Biological Diversity. "This is classic Trump corporate cronyism that sacrifices public values for oil industry profits."

The decision paves the way for thousands of new fracked oil and gas wells in the Piceance Basin, increasing the strain on the already overdrawn Upper Colorado River with water withdrawals and the threat of new oil spills. It would pave the way for fracking in largely untouched Grand County, the headwaters of the Colorado River and a world-famous destination for fishing, hiking and tourism.

"The water quality of the Colorado River headwaters is at an all-time low and water demand is at an all-time high. Awarding leases that allow fossil fuel extraction in the headwaters will not improve the looming water crisis," said John Weisheit, Colorado Riverkeeper with Living Rivers. "Restraint on all forms of consumptive use is the best and wisest solution for improving a damaged watershed. Public land management decisions must be based on this reality and BLM must take the lead in restraining those uses, not open the door to more."

This massive plan, casually dismissed by the BLM as having "no significant environmental impact," will harm a host of sensitive and listed species including Colorado River and greenback cutthroat trout, greater sage grouse, Canada lynx, black-footed ferrets, white-tailed prairie dogs, rare wildflowers, deer, elk and moose. Resulting greenhouse gas pollution would worsen climate change, whose impacts the region is already feeling with reduced Colorado River flows.

"Protecting the quantity and quality of Colorado River flows, which face overwhelming challenges from increased demand and reduced supply, is inextricably linked to management decisions on public lands that cut back on water use and protect water quality," said Kate Hudson, western U.S. advocacy coordinator with Waterkeeper Alliance. "BLM's pending decision to open over 100,000 acres of public lands in the headwaters of the Colorado River to oil and gas leasing, and the inevitable impacts that

fossil fuel extraction will have on the river, its tributaries and our climate, heads us in exactly the wrong direction. It will only hasten the collapse of this critical and fragile resource.”

The giant sale threatens to industrialize lands and pollute air and water at the doorsteps of Rocky Mountain National Park and Dinosaur National Monument. Groups filing today’s protest include the Center for Biological Diversity, Living Rivers, Waterkeeper Alliance, and Sierra Club.

Download the protest [here](#).

###

BLM removes 20 parcels from the June 2017 lease sale

News Release Bureau of Land Management Colorado

FOR IMMEDIATE RELEASE

April 17, 2017

Contact: Courtney Whiteman, Public Affairs Specialist, 303-239-3668 BLM modifies parcel list for June 2017 oil and gas lease sale

DENVER – The Bureau of Land Management Colorado has removed 20 parcels totaling 27,529 acres in Grand County from its June 8, 2017, oil and gas lease sale. The BLM will now offer 86 parcels totaling 73,288 acre in Jackson, Routt, Rio Blanco and Moffat counties.

The BLM removed these 20 parcels due to low energy potential and reduced industry interest in the geographic area, as well as concern from local government and the public. The parcels were nominated before the latest revision to the land use plan for the area was completed. “We understand concerns raised by Grand County and other stakeholders about offering these parcels at this time,” said acting BLM Deputy State Director for Energy Lands and Minerals Kent Walter. “We want to be sure they are still appropriate for leasing.”

To find out more about this and other BLM Colorado lease sales, visit

<https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/leasing/regional-lease-sales/colorado>

In Fiscal Year 2016, oil and gas development on public lands directly contributed \$796 million to Colorado’s economy. BLM Colorado received more than \$98 million in federal revenues, including royalties, rents and bonus bids, from oil and gas development on public lands. The state of Colorado receives 49 percent of these revenues. Statewide, more than 22,900 jobs are tied to mineral and energy development on public lands.

04/08/17

Nevada Resolution Would Call for Comprehensive Study of the Colorado River

[Click here](#) to read this story by Brian Bahouth of the Nevada Green Times

04/06/17

Lion's Back Resort Agreement Facing Legal Challenge

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

[Click here](#) to read this story in the Moab Times-Independent by Lisa Church and Molly Marcello

SITLA Invokes "Hardball Tactics" for Development in Moab and Grand County

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

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

04/06/17

Native Waters Rising and Living Rivers and others Tesify in Nevada Legislature

AJR4 - Summary of Nevada Joint Resolution by Assemblywoman Swank and Senator Segerblom

Requests the National Research Council of the National Academy of Sciences to conduct an independent scientific and economic analysis of the current management practices of the Colorado River, the impact of these practices on water security, flood protection and biodiversity recovery, and alternative management options, including draining Lake Powell and decommissioning and destroying the Glen Canyon Dam. (BDR R-101) [AJR4 Long Version](#)

Read Senator's OpEd in the Las Vegas Review Journal [HERE](#)

[Presentation: Living Rivers](#)

[Testimony: Native Waters Rising](#)

[Testimony: Dr. Daniel Beard](#)

Others to testify include:

Dr. Victor Baker - Professor of Hydrology

Howard Watts - PLAN Nevada

Bob Fulkerson - PLAN Nevada

Eric Balken - Glen Canyon Institute

John Weisheit - Colorado Riverkeeper

SUBMISSIONS TO THE RECORD

1) ["LIGHT ON THE MEXICAN TREATY" \(of 1944\)](#). This is US Senate Document #249 from 1946. The important page # is 20.

It was originally presented to the Colorado River Water Users' Association in Salt Lake City, Utah by Northcutt Ely.

Northcutt Ely was, during the Hoover administration, the Deputy Secretary of Interior. On page 20 is an updated water budget of the Colorado River, which indicates there would be, in the future, a system-wide deficit of -1.8 million acre-feet.

This is the first document that clarifies that the demand for Colorado River water exceeds the supply. Northcutt Ely recommends to the assembled water governance of the seven states the following, "No sound planning can be done for new projects until the water budget is balanced again in some way."

In other words, 71 years ago the water managers understood that water shortages would occur in the future. This officially happened to the Colorado River basin in 2003 and the deficit today is -1.9 million acre-feet. It also means the plans for infrastructure in 1946 were overestimated and also needed to be revised (not to build redundant dams, for example). Unfortunately the seven states never did adjust their water allocations nor their planning documents to reflect the reality of nature.

2) ["Congressional Testimony of Colorado River Board of California on July 3, 1954 \(Northcutt Ely\)](#).

The state of California asks Congress to treat the upper and lower basins equally, which is the main purpose of the 1922 Compact. The CRSP legislation favors dam construction solely for repaying the construction loans with hydropower revenues. For example, total consumptive use for all CRSP irrigation projects is only 400,000 acre-feet, but reservoir evaporation from all the huge reservoirs is 700,000 acre-feet. Thus, overall, the CRSP projects will waste more water than the lower basin projects, even though lower basin evaporation rates are higher than the upper basin.

03/28/17

West's Challenge is Still Water Scarcity, Wet Winter or Not

[Click here](#) to read this combined six-part series by Zack Colman of the Christian Science Monitor; supported by the Bill Lane Center for the American West at Stanford University.

03/23/17

Lake Powell Pipeline Update

[Click here](#) to read the update provided by Conserve Southwest Utah & Taxpayer Association of Kane County

[Click here](#) to read the White Paper provided by Conserve Southwest Utah & Taxpayer Association of Kane County

03/17/17

Utah Records Panel Orders Release of Water Data

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

03/01/17

Have we underestimated the West's super-floods?

Note: please keep in mind that this science is about the Colorado River above the confluence with the Green River. The combined flow of the Green and Colorado River is not discussed in this article.

[Click here](#) to read this article in High Country News by Krista Langlois

[Click here](#) to read more about the paleoflood record on the Colorado and Green rivers above Lake Powell

[On The Colorado River - Resources - Floods](#)

02/20/17

Climate Change Is Already Sapping the Colorado River

[Click here](#) to read this story in University of Arizona News by Mari N. Jensen

[Click here](#) to read this blog post by John Fleck

This post is about the release of a hydrology paper authored by Brad Udall and Jonathan Overpeck.

ABSTRACT: Between 2000 and 2014, annual Colorado River flows averaged 19% below the 1906-1999 average, the worst 15-year drought on record. At least one-sixth to one-half (average at one-third) of this loss is due to unprecedented temperatures (0.9°C above the 1906-99 average), confirming model-based analysis that continued warming will likely further reduce flows. Whereas it is virtually certain that warming will continue

with additional emissions of greenhouse gases to the atmosphere, there has been no observed trend towards greater precipitation in the Colorado Basin, nor are climate models in agreement that there should be a trend.

Moreover, there is a significant risk of decadal and multi-decadal drought in the coming century, indicating that any increase in mean precipitation will likely be offset during periods of prolonged drought. Recently published estimates of Colorado River flow sensitivity to temperature combined with a large number of recent climate model-based temperature projections indicate that continued business-as-usual warming will drive temperature-induced declines in river flow, conservatively -20% by mid-century and -35% by end-century, with support for losses exceeding -30% at mid-century and -55% at end-century.

Precipitation increases may moderate these declines somewhat, but to date no such increases are evident and there is no model agreement on future precipitation changes. These results, combined with the increasing likelihood of prolonged drought in the river basin, suggest that future climate change impacts on the Colorado River flows will be much more serious than currently assumed, especially if substantial reductions in greenhouse gas emissions do not occur.

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###

Colorado River losing essential water flow, new research shows
March 21, 2017 By Ty Betts

An increase in temperatures has the ability to reduce the flow of water in the Colorado River by 20 to 30 percent by mid-century, according to new research done by Colorado State University and the University of Arizona.

The research done by Bradley Udall, a senior water and climate scientist for CSU, and UA professor Jonathan Overpeck, found that loss of water is driven by higher temperatures arising from an increase in greenhouse gas emissions.

There are a number of reasons that increased temperatures are leading to less water in rivers, Udall said. The first is that there is now a longer growing season for plants to utilize water. The second is that plants demand more water with increased temperatures. Third, more evaporation is taking place on soil, reservoirs and rivers. Lastly, the atmosphere retains more moisture with higher temperatures.

The water in the Colorado River is relied upon by 40 million people, according to the Bureau of Reclamation. The Colorado River provides water to seven U.S. states and makes up half of the water consumption along Colorado's Front Range, Udall said.

An assessment by the Bureau of Reclamation found that the Colorado River will face little to no change in levels because they anticipate an increase in precipitation to offset higher temperatures. Udall disagrees.

He said that the issue with their model is that they are combining a multitude of factors that are not necessarily certain. The bureau's calculations combine warm and hot projected climates with precipitation decreases and increases as well as varied emission scenarios.

"When you come up with one number and you blend certain and uncertain outcomes, you can get a rosier picture than we think is warranted," Udall said.

Udall and Overpeck's research instead isolated these variables and achieved their estimates with confidence that temperature is increasing.

Udall said with changes in water levels expected, regulations will have to be adapted. The 1922 Colorado River Compact currently regulates the amounts of water that Colorado has rights to. Udall believes that with a 20 percent reduction in flow, it would be difficult for Colorado to meet the output requirements set in place by the act.

The seven states that make up the Colorado River basin – Arizona, California, Colorado, New Mexico, Nevada, Utah and Wyoming have to work together to negotiate new water agreements. Udall said that while negotiations usually take a lot of time, these states are good at coming to agreements.

"I would argue that this basin, perhaps compared to any other basin in the world, has a good track record of settling water disputes," Udall said.

Other considerations Udall mentioned are that less water flow equates to less hydroelectric power. Hydroelectric power does not make up a large portion of total energy generation in the southwest, but is it essential to irrigation. Udall said farmers get inexpensive energy rates while using hydro-power generated from the Colorado River.

"Agriculture often runs on very small margins and increases in energy rates can cripple profits," Udall said.

Udall said he believes new sources of water will not come easily or be feasible. California's desalination work, or the process of extracting minerals from water, is too expensive for agricultural purposes. Furthermore, importing water into the Colorado River from other parts of the country is halted by high costs political push-back.

Udall and Overpeck's research points to one solution to the problem: the reduction of greenhouse gasses.

"The water cycle is driven by heat," Udall said. "When you add extra heat to the Earth as we are now doing because of greenhouse gas emissions, you change the water cycle in fundamental ways."

02/19/17

California Experience a Reason for Southern Nevadans to be Wary of Glen Canyon Dam

[Click here](#) to read this OpEd by Nevada State Senator Tick Segerblom in the Las Vegas Review Journal

[Click here](#) for this story and excellent photos by Paul Rogers that appeared in Mercury News

[Click here](#) to read this story in the Las Vegas Review Journal by Henry Brean called "Nevada and California Incidents Highlight Vulnerability of Nevada's 650 Plus Dams"

ADDITIONAL INFORMATION:

Scientists discover evidence of devastating floods on the Colorado River above Lake Powell

[Click here](#) to read this story by Julia Rosen in the Los Angeles Times (Science Now)

[Click here](#) to read the final report published in Water Resources Research (American Geophysical Union).

The purpose was to provide science to the Department of Energy to ensure that Moab's radioactive waste pile would be removed from the floodplain of the Colorado River, which is indeed happening. So far, 41% of the pile has been removed and taken by railroad to a burial site 30 miles north of town at a place called Crescent Junction adjacent to the I-70 corridor.

Highlights of this report include:

River: Upper Colorado River (above the Green River confluence and below the Dolores River, the last major tributary)

Site location: 10.5 miles above the Moab Bridge

Time frame: The last 2,140 years (+/- 220 years)

Number of floods: 44

Range of floods in cfs: 60,036 to 349,616

34 to 40 floods have exceeded the magnitude of the USGS 100-year flood determination

20 - 25 floods have exceeded the magnitude of the USGS 500-year flood determination

5 floods have exceeded a peak discharge of 282,000 cfs The two largest floods were slightly over 349,000 cfs

The 100-year flood would have a peak discharge ranging from 156,440 to 179,050 cfs

The 500-year flood would have a peak discharge ranging from 224,780 to 265,570 cfs

A 1000-year flood would have a peak discharge ranging from 256,740 to 310,770 cfs

ADDITIONAL INFORMATION

1) [Click here](#) - To read the report of 2006 that fulfilled the requirements of the grant that supported the preliminary research for this paleoflood research project.

2) [Updated Report \(2006b\)](#)

3) [Moab Mill Project Cover Letter](#)

4) [Moab Mill Project Brochure](#)

5) [Moab Mill Project Poster](#)

6) ["Investigation of the Hydrogeologic Connection between the Moab Mill Tailings and the Matheson Wetland Preserve," Philip Gardner and D. Kip Solomon, Department of Geology and Geophysics, University of Utah, December 11, 2003 \(with Addendum\) \[PFD 8.3m\]](#)

7) [Initial-Phase Investigation of Multi-Dimensional Streamflow Simulations in the Colorado River, Moab Valley, Grand County, Utah, 2004, Terry A. Kenney, US Geological Survey](#)

8) [Special newspaper supplement from the TIMES-INDEPENDENT about the Moab Mill Project](#)

9) [Special presentation by Dr. John C. Dohrenwend given at the Moab Information Center in 2006](#)

10) [Photo of Colorado River in flood \(1917 or 1921\) near the Colorado River bridge](#)

11) [Paleoflood study of Colorado River at Grand Canyon by O'Conner et al., 1994](#)

12) [Click here](#) to read Dam Failure Inundation Study by the Bureau of Reclamation (1998).

13) [Click here](#) to learn more about the flood of 1884 and the flood of 1983

01/13/17

Tar sands project "is back in action" after \$7.5M loan at high interest and corporate restructuring

[Click here](#) to read this story by Dennis Webb of the Grand Junction Sentinel

[Click here](#) to read the press release from US Oil Sands

01/11/17

Groups submit supplemental comments to BLM over Daneros Mine Expansion

[Click here](#) to read this story by Brian Maffly of the Salt Lake Tribune from August of 2016

[Click here](#) to read the group's comments for the Environmental Assessment

[Click here](#) to read the group's supplemental comment to the Environmental Assessment

[Click here](#) to read the scoping comments for the Environmental Assessment

[Click here](#) to read the 2011 decision from the group's appeal

01/10/17

BLM Finalizes Contentious Overhaul of Oil Shale Regs

[Click here](#) to read this story by Streater of E & E News

[Click here](#) to read this story by Dennis Webb of the Grand Junction Sentinel

[Click here](#) to read this story by Dennis Webb called "Leaseholder Likes Flexible Oil Shale Rules"

[Click here](#) to read the press release by the Bureau of Land Management

[Click here](#) to read the letter from Colorado Senator Michael Bennet to Secretary Sally Jewell

[Click here](#) to read the final rule (a pre-publication document)

01/04/17

Navajo Generating Station Threatened with Closure

[Click here](#) to read the story by Paul Davenport of the Associated Press

[Click here](#) to read this article by Ryan Randazzo of the Arizona Republic ([archived here](#)).

[Click here](#) to read this story by Nolan Madden of the White Mountain Independent

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