

February 17, 2019

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U. S. Army Corps of Engineers, Sacramento District
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RE: Comments on U.S. Army Corps of Engineers Permit Lake Powell Pipeline SPK-2008-00354

Dear Mr. Wilson,

The Lake Powell Pipeline Coalition (Coalition) appreciates the opportunity to comment on the Utah Division of Water Resources' (UDWRe) permit for the Lake Powell Pipeline Project (LPP). The Coalition consists of: Conserve Southwest Utah, Glen Canyon Institute, Grand Canyon Wildlands Council, Grand Canyon Chapter Sierra Club, Utah Chapter Sierra Club, The Wilderness Society, the Wildlands Network, Grand Staircase Escalante Partners, Great Basin Water Network, Utah Rivers Council, and Living Rivers Colorado Riverkeeper. Some of the Coalition members have been studying and commenting on the LPP for over eleven years.¹

These groups have substantial interests in the outcome of the U.S. Army Corps of Engineers (Corps) 404 permit, and we oppose this permit because there are viable alternatives. Conserve Southwest Utah's board members went on a tour of the Lake Powell Pipeline route from Lake Powell to St George. The board members realized this project will have significant adverse impacts on pristine undisturbed wild lands and that it is not in the public's interest.

The Coalition is concerned that the LPP will further diminish an already over-allocated Colorado River, where existing deficits have not yet been addressed. It would increase the diversion from the Colorado River at a time when existing water supply diversions (as well as

¹ Conserve Southwest Utah (formerly Citizens for Dixie Future) *et al.*, Intervention eLibrary no. 20080102-5057 (1-2-08) "Comments of the Lake Powell Pipeline Coalition on Scoping Document 1 and Pre-Application Document, and Additional Study Requests," eLibrary no. 20080707-5206 (Jul. 7, 2008); Citizens for Dixie's Future *et al.*, "Lake Powell Pipeline Coalition's Comments on Study Plans and Draft Study Reports," eLibrary no. 20110506-5125 (May 6, 2011); Citizens for Dixie's Future *et al.*, "Lake Powell Pipeline Coalition's Comments on Modified Draft Study Reports," eLibrary no. 20120323-5005 (Mar. 23, 2012); Lake Powell Pipeline Coalition's Comments PLP and revised draft study reports eLibrary no. 20160229-5176 (February 29, 2016); Lake Powell Pipeline Coalition's NREA Comments eLibrary no. 20181120-5012 (November 20, 2018)

ecological needs) already result in a functional deficit due to warming temperatures and shorter winters leaving less snow melting at the river's source. We are concerned that the project would worsen water deficits for other beneficial uses of the Colorado River and Lake Powell, and it would otherwise cause significant, inmitigable impacts on such uses.

It has been well-documented by the Bureau of Reclamation (BOR) that there is more water allocated in the Colorado River than the river produces annually, even without considering a warming climate. The releases from Lake Powell continue to exceed inflows. This over-allocation is draining the reservoirs faster than anyone predicted. The Colorado River has reached its limit, yet plans are underway to take more water for the LPP.

Many of the groups' members and supporters live near and recreate in areas across the Colorado River Plateau and Great Basin that would be occupied or otherwise affected by the LPP, if licensed. These areas are particularly valuable due to their character as undisturbed and uninhabited wildlands. They include: Little Creek Mesa and the Little Creek Area of Critical Environmental Concern (ACEC), Kanab Creek ACEC, the Arizona Strip, the Cockscomb, and the Grand Staircase-Escalante National Monument. These areas provide unique opportunities for hiking, camping, trail running, geocaching, mountain biking, appreciation of archaeological resources and natural quiet, journaling, birdwatching, ecosystem research, photography, and more. As stated in the Presidential Proclamation establishing the Grand Staircase Escalante National Monument, this is a "vast and austere landscape [that] embraces a spectacular array of scientific and historic resources... This unspoiled natural area remains a frontier, a quality that greatly enhances the Monument's value for scientific study."²

We are concerned that the proposed LPP would degrade the region's character as wildlands and may contribute to urban sprawl, resulting in traffic congestion, decreased air quality, and increased property taxes and cost of living. Further, many of our members and supporters own or are employed by businesses that depend on the continued protection of these wildlands. These businesses include: outdoor guiding, recreation hard goods, tourism hospitality, health and wellness spas, and retirement services (financial planning and health maintenance).

The Corps must comply with the National Environmental Policy Act (NEPA) prior to issuing a permit under CWA section 404. Under regulations implementing NEPA, *see* 40 C.F.R. §1502.1, and Environmental Impact Statement must be "concise, clear, and to the point" and supported by "evidence that the agency has made the necessary environmental analysis." We do not believe UDWRe's application provides sufficient information to support its claims regarding the impacts of the LPP. More specific information is needed. Our comments in the following sections re-emphasize the need for additional or revised environmental studies. Our specific concerns about UDWRe's information in the Corps application for a permit include: the location, purpose and need, alternatives, climate change, water quality, compensatory mitigation, connected actions, incomplete studies and cumulative impacts.

² Presidential Proclamation 6920 September 18, 1996, "Establishment of the Grand Staircase-Escalante National Monument," available at <http://www.ut.blm.gov/monument/planning-proclamation.php>.

LOCATION

The current project description does not describe or analyze the complete project. The project location is from Flaming Gorge reservoir to Lake Powell then to St George. Currently it is described only from Lake Powell. Therefore, the impacts on Colorado River Upper Basin's natural resources are left out. UDWR claims the water for the LPP will come from Flaming Gorge reservoir and travel 400 miles to Lake Powell and benefit the endangered Green River fishes. However, it is not explained in any analysis that UDWR also needs a service contract from the BOR to get water from Flaming Gorge reservoir, and this service contract has not been approved. It also, does not include the impact of withdrawing water for development of the Green River Block (detailed below) on the Upper Colorado River Basin Recovery Implementation Program. UDWR's explained that an analysis of BOR's service contract would be included in the draft EIS, but thus far after ten years of studies there is no analysis. This analysis should be completed before the draft EIS begins.

With the Corps focus on protecting aquatic resources, it should require an analysis from UDWR regarding how and where the project will provide water for the endangered Green River fishes. Also, the analysis should provide the impact on the endangered fishes from withdrawing the 157,890 AFY Ultimate Phase CUP for development from the Green River basin. We provide more information on our concerns with UDWR's water use exchange contracts with BOR below.

PURPOSE AND NEED

On November 16, 2018, UBWR filed with FERC refinements to its Purpose and Need for Action statements.

Purpose for Action include:

- *“UBWR proposes building LPP in order to bring a needed second source of water to Washington and Kane Counties in order to meet future water demands, to diversity the regional water supply portfolio and enhance its reliability, and to develop a clean, renewable energy source to meet area power demands.”*

Need for Action include:

- *“The development of additional water supplies legally available from the Colorado River system to meet the water demands of the existing and projected future population of Kane and Washington counties through 2060, with a necessary margin of safety, while simultaneously maximizing the use of existing available and identified water supplies.*
- *Diversification of the primary Municipal and Industrial (M&I) water sources for the counties, adding necessary resiliency and reliability to the water delivery system given the risks of variability associated with both water supplies and water supply delivery systems.*

- *The development of clean, renewable energy sources wherever possible.”*

In the need for action statement it only mentions it needs the water through 2060 and is ambiguous as to the date. In the FERC’s Study Report #19, Water Needs Assessment 2016, the need for water was 2020. As far as producing electric power for sale it will not produce much power for many years because only a small amount of water is needed per year. The LPP basically needs a lot of power to pump water and thus there may not be much power left to sell to make a profit on.

Furthermore, UDWRe’s real purpose is to draw its Ultimate Phase Central Utah Project (CUP) water right of 158,890 AFY from Flaming Gorge reservoir using the proposed water use exchange service contracts with the BOR. For this reason, both service contracts should be considered in this draft EIS. An accurate purpose and need statement is important to an accurate and adequate environmental document under NEPA.

The fundamental legal guidance on Purpose and Need Statements comes from the NEPA CEQ regulation, Section 1502.13, which states that the Purpose and Need Statement “*shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.*” Also from:

40 CFR 1500.1 Purpose (b) NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail.

The Coalition is concerned that the information UDWRe has provided thus far for the Purpose and Need for action in the Corps application is not of high quality. It does not provide adequate scientific analysis or concentrate of the issues brought up by the public in 2008 scoping comments.³ The Coalition suggests UDWRe’s new refinements are imprecise.

ALTERNATIVES

One of the Coalition’s primary objections to this request for the Corps’ permit is that UDWRe has not seriously considered alternatives to LPP as a means of providing water for the growing populations in Washington and Kane counties. For instance:

The Corps’ own regulations state in (CFR 40 Part 230 Section 404(b)(1)) that:

- “[N]o discharge of dredged or fill material shall be permitted [in waters of the United

³ FERC comments, page 17, see scoping at: <https://conserveswu.org/wp-content/uploads/FERC-comments-2018-FILED-.pdf>

States] if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.”

- “An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.”

We contend that there are local sources of water and management options that obviate the need for an expensive and environmentally damaging 140-mile-long pipeline. We therefore request that the Corps’ permit be denied because UDWRe has not demonstrated that there are no practicable alternatives.

For whatever reason, however, the local Washington County Water Conservancy District (WCWCD) and the UDWRe have become fixated on the LPP as an essential part of the solution to a demand for water that seems far greater than the norm for other southwest communities, many of which are growing at similar rates. WCWCD and UDWRe have worked, often behind the scenes, to pressure elected officials to focus on the LPP, ignoring proposals for a suite of alternatives that we and other groups have articulated in the past which would assure more than adequate water supplies at a cheaper cost for the same population projections. The Corps, however, must consider these alternatives, and must deny the permit if it finds there are practicable alternatives that would be less environmentally damaging.

We describe key components of alternatives below.

Reducing Demand

Utah already uses more water than conservation-minded communities in the Southwest, and Utah’s conservation targets are arguably minimal. To its credit, UDWRe includes both potable and secondary water (untreated, typically landscape irrigation) in its calculations of water use, and in 2015 it responded to the need for more accurate reporting by revising its estimates of water demand in Utah communities.⁴ In 2015 Washington County demand totaled 302 gallons per capita per day (gpcd). However, there is strong evidence that Utah has a propensity to underestimate its ability and its citizens’ willingness to conserve water. In the early 2000s, Utah adopted a 25% state-wide conservation goal for 2025 based on usage in 2000, but by 2010 or so had already reached 18%. Rather than adopt an objective and independent conservation goal, UDWRe blithely uses WCWCD’s conservation target for 2060 based on a simple percentage reduction, another 15% from 2015, targeting 240 gpcd.⁵ This is to justify the need for the LPP.

Elsewhere, conservation-minded Southwest communities typically target 150 gpcd, and that number does not require extraordinary conservation. Indeed, Albuquerque has already

⁴ Utah Division of Water Resources (UDWRe). 2018. 2015 Municipal and Industrial Water Use Data. June. see at: <https://water.utah.gov/2015WaterData.pdf>

⁵ UDWRe, 2018. Lake Powell Pipeline 1 Demand/Supply Update FERC Project No. P-12966-004, November 16, 2018.

reached this level. UDWRe argues that water use in other communities cannot be compared with Utah values because of differences in measured amounts and assumptions. However, UDWRe has made no effort to reconcile those estimates to see how Utah compares to other places.

In UDWRe’s projections of demand, there is a double counting of safety buffers that are used to justify the LPP. Again, UDWRe uses WCWCD values, but bases projected demand on the “high” projections of the service population (490,827) rather than baseline projections (458,960). This projection ignores the fact that birth rates are declining, and UDWRe **ALSO** includes a 15-Year Planning Reserve intended to protect against “unanticipated variations in supply and demand related to climatic conditions,” “system infrastructure failure or catastrophic events,” “delays associated with complex permitting processes,” and “**unanticipated population growth**” (emphasis added). It doesn’t seem reasonable to double count uncertainty of population growth.

Increased yield from currently identified sources

Conserve Southwest Utah (CSU) gave a presentation to the Governor’s Executive Task Force in September 2018. This presentation detailed other water supplies that are not being counted as supply by the UDWRe.⁶ The existing local water supplies outlined in the CSU presentation reveal in detail the various incorrect assumptions and assertions made to justify the need for LPP water. These include:

- **Appropriate accounting of yield from local sources.** Estimates of yield from existing local water supplies should be reviewed by an independent body to assure that they are not being artificially limited or underestimated in an effort to justify the LPP. For example, WCWCD claims that Sand Hollow and Quail Lake reservoirs and Sand Hollow aquifer, fed from the Virgin River, can only provide about 30,000 AFY as annual supply to 2060. Elsewhere, UDWRe projects 113,000 AFY Virgin River depletion to 2050—more than triple the claim of 30,000 AFY. This higher amount of water is not identified in future supplies. This is spring high water flows that can be stored in reservoirs.⁷
- **Inclusion of water rights from private landowners that convert from agriculture to municipal and residential development.** We do not advocate the development of agricultural land, but we do recognize that wherever agricultural land is converted to other uses, water could be converted to culinary or secondary use. More analysis is required to account for agricultural water, estimate its conversion rate, and determine its treatment costs.
- **Increased reuse and treatment of abundant brackish water.** There are several substantial sources of water considered to be too saline for M&I use. Given the current project cost of the LPP, it would seem wise to review these analyses.
- **Increased use of secondary water for yards and municipal irrigation.** Especially given

⁶ CSU presentation on water supplies Sept 17, 2018 Finance Board see at: <http://conserveswu.org/wp-content/uploads/Finance-Board-2018-Sept-17-FINAL-pp.pdf> and audio (start at 43:38 into the audio) see at: <https://www.utah.gov/pmn/files/429905.MP3>.

⁷ Utah Perspectives Colorado River, page 8, see at: <https://water.utah.gov/InterstateStreams/PDF/TheColoradoRiverart.pdf>

the conversion of agricultural water, and particularly with the high rates of new development, it makes sense to require greater use of secondary water for landscape use. WCWCD claims it has no control over local ordinances, but it can and does have great influence on local policies with respect to water. It makes sense to consider updating local landscape regulations to require better planning for water use in new development.

- **Innovations in water management.** Other alternatives, including undeveloped city water rights, rainwater capture, more careful analysis of increased yield from the Virgin River and local reservoirs and underlying aquifers, used to seem inconsequential in terms of supply. However, these are significant water sources that are being ignored in UDWR’s Water Needs Assessment for the LPP.
- **Water Use Pricing to signal conservation.** Water budget rates have been shown to reduce water use by 50%⁸ and pay for themselves over time.
- **Better water conservation planning to lower demand.** It should use industry-standard planning and management processes to develop plans that are executable and accountable in terms of objectives, tasks, schedules, responsibilities and budget. Existing documents following current UDWR guidance do not continue these basic elements and therefore are neither executable nor accountable. They will not result in significant water conservation, but rather contain background information on infrastructure, current usage and measures that could be taken. Conservation goals should be tied to estimates of future water supplies and what has been achieved elsewhere. Methods to reduce usage should be studied and ranked, and then incrementally implemented in projects that are planned to move us toward the goal in measurable steps.

In addition, another alternative is Western Resource Advocate’s *Local Waters Alternative*,⁹ which offers a path requiring only moderate conservation efforts and assures adequate water for a healthy and growing population relying only on local sources and actions.

The *Local Waters Alternative* includes a list of actions, and would not cost \$2 billion. It would not lay waste to a 140-mile strip of habitat. In the words of the Corps, it “is a practicable alternative to the LPP, which would have less adverse impact on the aquatic ecosystem” and it “does not have other significant adverse environmental consequences.” Critically, “it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.”

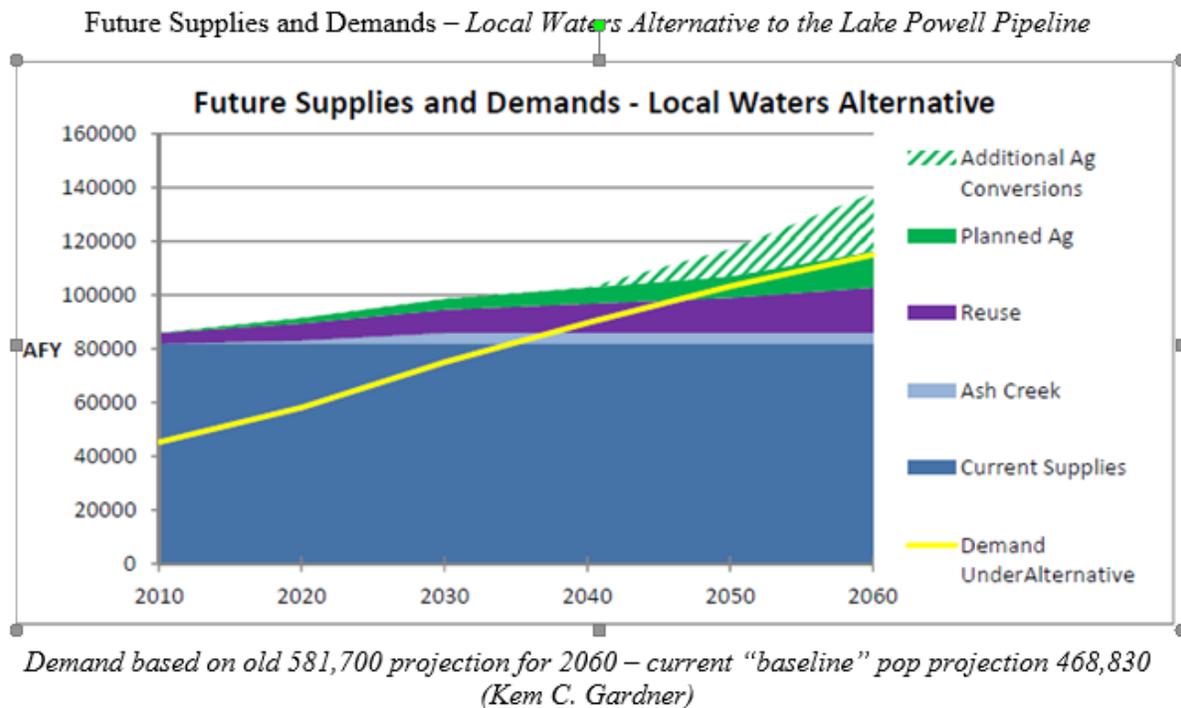
The following chart from the 2012 *Local Waters Alternative* illustrates the feasibility of this alternative. It shows that the demand (yellow line) fits easily within the supply. It is based on a demand of 176 gpcd for a population of 581,700 in 2060 and with a water supply of between 116,000 acre-feet a year (AFY) to 138,000 AFY. The *Local Waters Alternative* illustrates it could meet the demand by 2060, even without all the other local supplies we have pointed out in these comments. Moreover, current estimates of population growth have dropped

⁸ Water Budgets see at: <https://conserve.wu.org/programs/water-conservation/>

⁹ See at:

<https://conserve.wu.org/wp-content/uploads/2011/11/WRA-Local-Waters-Alternative-LPP-fact-sheet.pdf>
<https://conserve.wu.org/wp-content/uploads/LPP-Update-FINAL.pdf>

by 111,170 to 468,830 in 2019. Further, some cities are not tying water demand to population growth as they find they are still growing rapidly while using less water.



UDWRe claims that a water conservation alternative would cost \$1.5 billion without providing any factual basis for the claim. The cost of WRA’s *Local Waters Alternative* is estimated by WRA to be about \$410.3 million plus infrastructure costs. The logic of building the LPP now, spending billions and taking on huge interest payments, does not make economic sense. With the *Local Waters Alternative*, you can pay for the cost as needed as the population grows. It will support, not undermine, long-term economic growth.

UDWRe’s application to the Corps does not show a robust consideration of alternatives. Utah did not explain how the alternatives were determined or whether they were feasible. Under NEPA, an EIS must consider a reasonable range of alternatives to the proposed action. 42 U.S.C. § 4332(2)(C). Typically, the lead agency and any Cooperating Agencies are responsible for determining which alternatives are reasonable. They must explain the rationale for that determination. As mentioned above, the Corps has a mandate to consider alternatives as well.

Moreover, UDWRe’s arguments in favor of the preferred alternative does not directly address whether Utah has the water rights necessary to implement the Proposed Action for the next 50 years. As discussed above, UDWRe may not have any remaining water rights to develop due to increased use; reduced snow pack and stream flows from rising temperatures; over-allocation; junior priority of LPP’s water right; and unsettled Federal Reserve Water Rights

claims of the Indian Tribes. As such, there is insufficient information in the record to show that the Proposed Action is appropriate or feasible. We again request that UDWR provide information that demonstrates that UDWR has the water rights necessary to implement the Proposed Action.

The Corps, in cooperation with other federal agencies, should undertake a thorough evaluation of conservation alternatives.

CLIMATE CHANGE

UDWR claims that they considered climate change when assessing water availability for the LPP. However, it is not clear how they did this because the hydrological models they used do not consider climate change. The Coalition questions UDWR's exclusive use of BOR's CRSS, DNF model, and the Index Sequential Method (ISM), because these methods do not account for the impact of a warming climate, nor does the 2007 Interim Guidelines EIS. The models only use the 100-year average of 15 MAFY at Lees Ferry. The Colorado River Compact allocated 7.5 MAFY to the Upper Basin States and 7.5 MAFY to the Lower Basin States. As mentioned above, stream flows have continued to decline due to increasing temperatures. The Corps could use BOR's available climate models that reflect declining future flows, such as the Downscaled GCM model results in the Colorado River Basin Study, which uses a mean annual flow of approximately 13.6 MAFY at Lees Ferry.¹⁰ If 13.6 MAFY at Lees Ferry is used in modeling UDWR would not have remaining water rights to use for the LPP.

The major flaw in using these models is they only use a 100-year average of 15 MAFY at Lees Ferry, and they do not account for the fact that this flow has been reduced over the years.¹¹ Nor does 15 MAFY account for water for Mexico that is another 1.5 MAFY. Moreover, the snowpack, the main source of water for community water systems, is estimated to be reduced greatly in the future by increasing temperatures. Dr. Robert Gillies from the Utah Climate Center found that the temperatures of all Utah's cities are going up. Utah has had 9% less snow since 1950 with less winter storms generally. Other studies predict that the Colorado River flows could be reduced by 10-30% over the next 50 years. For example, hydrological modeling using the impact of inflow reductions of 5% would be 14.28 AFY, a 10% reduction would be 13.53 AFY and a 15% reduction would be 12.78 MAFY or less water at Lees Ferry. With these lower volumes of water the adverse impact to aquatic resources could be severe.

Furthermore, the current studies inappropriately exclude an analysis of climate change based on UDWR's unsupported assertion that climate change is not a concern. UDWR claims it will be able to draw water in dire conditions from Lake Powell, but there is no credible evidence on the record that supports this conclusion. UDWR does provide the various climate

¹⁰ Technical Report B, Table B-3, page B-82. see at:

<https://www.usbr.gov/lc/region/programs/crbstudy/finalreport/index.html>

¹¹ Mu. Xiao, Udall, Lettenmaier, On the causes of declining Colorado Stream Flows, the Colorado River is the primary surface water resource in the rapidly growing U.S. Southwest. Over the period 1916–2014, the Upper Colorado River Basin naturalized streamflow declined by 16.5%, despite the fact that annual precipitation in the UCRB over that period increased slightly (+1.4%). 2018 see at: see at:

<https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2018WR023153>.

studies in FERC's Study Report, but fails to relate these studies to water availability for the project as required in FERC's Study Plan¹². The statements of UDWR must be supported by reliable scientific evidence in the record, and this evidence has not been provided. Consequently, more accurate information from the updated climate models need to be included in the studies before the draft EIS process begins.

Moreover, state and federal studies, which have been cited thus far in support of the LPP, have not included study results that have already been undertaken on the variability of future river flows. The projected impacts of climate change on the declining snowpack and Colorado River flows are widely accepted within the scientific community, and they should be included directly in planning for future water supplies for the LPP. Climate variability increases the risk of an already over-allocated Colorado River. Most importantly, climate scientists are warning this may not be a drought-which implies a return to normal precipitation in the future-but actually the start of a permanent aridification due to climate change.

WATER QUALITY

The Coalition is concerned that to deter quagga mussels, chemicals will have to be applied to water at the pipeline's intake tunnels and at the pump stations. There will be four booster pump stations with a chemical room that would also have a buried forebay tank, buried surge tanks, (pig retrieval, used to clean the pipe), and a surface overflow detention basin. The LPP pipe size is oversized and will leave space for quagga mussels to attach to the walls of the pipe. There are also questions about whether moving water will even work given that so little water is projected to be needed per year. The cost of maintenance to prevent mussels and protect water quality have not been included in the studies.

Since UDWR claims it can draw water near dead pool in Lake Powell, the Corps should require an analysis of water quality at these low elevations. Also, the fish in Lake Powell have mercury in their flesh. Therefore, tests for mercury should be performed at Lake Powell.

At the LPP Paria River crossing at Highway 89, there is a proposed drain valve. We are concerned that quagga mussels removed from the LPP may get into Paria River or in other drainages where the many drain valves will be located. The studies claim the Paria River is mostly dry, but this is not accurate. It always has some water in it. We are also concerned about a drain valve planned at the Kanab Creek crossing.

¹² FERC Climate Change Study Plan #19, Section 19.5, p.3-1. The Study Plan Water Availability. The Study plan describes the nexus of water availability to the Project as follows:

“[t]he availability of water for the pipeline would affect the ability of the Project to supply water to communities in Utah and to generate power. Therefore, the availability of water supply is directly related to the Project's purpose.”

The studies do not include an analysis of the consequences of putting LPP water that has chemicals in it into an artificial aquifer recharge project below Sand Hollow reservoir.

COMPENSATORY MITIGATION

The mitigation package is not well-described. Thus, UDWRe has not shown that the package is adequate to replace the amount of damage to the land and the aquatic environment from building the LPP. For instance, the LPP would cross 259 waters of the United States, and it would include 2432 acres of a permanent right-of-way for roads and washes in which biological soil crusts would be removed and disturbed, leading to invasive species all along the 140-mile LPP route. Any temporary area of running or standing water is incredibly important. This water sustains a wide diversity of native wildlife and plant species, both seasonally and throughout the year. In addition, these surface waters support rare and precious wetland and riparian habitats, and recharge aquifers that may support springs and seeps. Changes to normal run off patterns in these drainage washes can affect erosion rates, sediment transport, and channel characteristics. In turn, these changes can alter the quality and quantity of downstream wetland and riparian habitats as well as affect the availability of surface water for wildlife. Given the long extent of the LPP, and the series of 259 proposed drainage crossings, it is crucial that a larger landscape scale be used to assess potential indirect and cumulative impacts.

Also, UDWRe's Corps permit claims results in impacts to be approximately 10.54 acres / 51,636 linear feet of waters of the United States, including wetlands, in or adjacent to Lake Powell.¹³ However, much larger parcels of land will be permanently disturbed. For example: the structure at Lake Powell to withdraw water will put chemicals in the water, that may harm the aquatic environment; it could impact water quality of our drinking water and at Sand Hollow reservoir as well as its aquifer recharge project, the forebay reservoir, and two dams would cover about 500 acres of land. The Hurricane Cliffs hydroelectric stations and tailrace channel would cover about 50 acres of land. The afterbay reservoir and dam would cover about 200 acres of land.

Thus, we suggest since the Corps is particularly interested in mitigating impacts on the affected aquatic environment (as well as the secondary and cumulative effects of this sprawling project), it should evaluate the need for additional lands to provide compensatory mitigation.

CONNECTED ACTIONS

The connected actions would include the two BOR service contracts UDWRe is requesting.¹⁴ They have to go through the NEPA process, but, thus far the geographic scope of

¹³ See Public notice at: <https://www.spk.usace.army.mil/Media/Regulatory-Public-Notices/Article/1734573/spk-2008-00354-lake-powell-pipeline-project-az-and-ut/>

¹⁴ 43 CFR § 1508.25 Scope. Scope consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement. The scope of an individual statement may depend on its relationships to other statements (§§ 1502.20 and 1508.28). To determine the scope of environmental impact statements, agencies shall consider 3 types of actions, 3 types of alternatives, and 3 types of impacts. They include:
(a) Actions (other than unconnected single actions) which may be:

these contracts has been left out of the Corp's permit and FERC studies. The scope of the project is from Flaming Gorge reservoir (FGR) not only from Lake Powell reservoir.

Utah is proposing two service contracts to utilize their water rights of the Ultimate Phase Central Utah Project 158,800 AFY and draw the water from FGR. These water rights have to show proof of beneficial use by 2020 and were undeveloped seasonal unreliable high water rights. However, UDWRe is asking BOR to give them permanent reliable water rights out of FGR all year long instead.

The two service contracts for the of Ultimate Phase of CUP include:

- A BOR 50-year service contract for Utah to draw out 72,641 AFY from FGR to use for development along the Green River, known as the Green River Block (GRB). (a portion of application Water Right No. 41-3479).
- A BOR 50-year service contract to develop the LPP that would draw 86,249 AFY from FGR, let the water flow downstream about 400 miles to Lake Powell, and then draw water for LPP from Lake Powell reservoir (the remaining portion of application Water Right No. 41-3479). This service contract will be evaluated in the LPP's draft EIS. However, thus far there is no analysis of this Contract in the studies.

UDWRe makes the claim that it has water rights left to use for the LPP and can exchange use of those rights with BOR. However, our preliminary research indicates that the Utah Division of Water Rights has over-allocated the Green River tributaries, and there may not be this extra water to exchange. We did a Government Records Access and Management Act (GRAMA) request from the UDWRe six months ago and asked for the specific rights they are exchanging. Their response thus far is that the records from the UDWRe and the Division of Water rights do not agree with each other. We also did a GRAMA request to UDWRe six months ago and asked for the specific water rights that it claims it is using of its 1.369 MAFY compact allocation. We are still waiting for the responses.

UDWRe is proposing in these two BOR 50-year service contracts that UDWRe will not develop unperfected seasonal high-water Green River tributary flows and instead will leave them in the Green River for the endangered fishes if UDWRe can withdraw this same amount of water out of FGR reservoir for development. However, the seasonal spring high-water Green River tributary flows may not be available to exchange because there are undeveloped senior water rights holders and others who may want to use them in the future or are already using them, such as the Central Utah Project (CUP).

(1) Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they: (i) automatically trigger other actions which may require environmental impact statements. (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously. (iii) Are interdependent parts of a larger action and depend on the larger action for their justification. (2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement. (3) Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography.

The CUP also depends on these same seasonal high water rights of the Green river tributaries because all the senior surface water rights were already fully appropriated before the CUP was built in 1964, Water Right No. 43-3822. Therefore, the CUP is also a junior water right holder. UDWRe's 1958 Water Right No.41-3479 for the LPP is also junior to the Central Utah Project. Most importantly, the most senior water right holder of the water in the Green River tributaries is the Northern Ute Tribe of the Uintah and Ouray Indian Reservation, with water rights on many Green River streams that have the highest priority dates of 1882 and 1861. These are significant water rights: about 530,665 AFY of diversion on many Green River tributaries.¹⁵ Utah has been trying for many years to negotiate a settlement of the tribe's water rights whereby the tribe would forfeit some of their Green River tributary water rights to the state,¹⁶ but thus far, the tribe has not agreed.

Moreover, UDWRe has not disclosed where their undeveloped high-water Green River tributary flows are located. More information is needed to verify what amount of water supply is available for UDWRe to exchange for these long-term 50-year service contracts. The CUP Water Right of 1964, No. 43-3822 for 500,000 AFY was identified as a high water seasonal water right. In 1996 since the Ultimate Phase was only partially built the BOR assigned 447,800 AFY diversion with 158,800 AFY of depletion to UDWRe. It is unclear how the BOR determined there was that much water left over from CUP to give such a large amount of water back to Utah. This leaves only 52,200 AFY for the initial CUP to utilize. Also, this would mean there has to be 500,000 AFY of high water seasonal flows in Green River tributaries. We question this assumption and this should be analyzed in the LPP's draft EIS.

Furthermore, the BOR has stated in its service contract the LPP water right priority will be 1958. Utah has not provided any proof that a junior 1958 LPP water right can be left in the river from FGR and travel about 400 miles to Lake Powell for 50 years to benefit the endangered fishes without being diverted by the senior water rights holders. Thus far, there is nothing in FERC's study reports that addresses the problem that UDWRe may not have the necessary water rights for the LPP for the proposed action. In other words, Utah's water rights are not in the Lake Powell reservoir where they can be withdrawn for the LPP.

In the BOR's Green River Block exchange contract, UDWRe claims that there will be no adverse effects due to this exchange because of the Flaming Gorge Record of Decision (ROD). They describe the exchange this way:

"The proposed project will not change the releases of Flaming Gorge stored water to the Green River, which will continue to occur as specified in the 2006 ROD. Therefore, effects of Flaming Gorge releases to the Green River will remain the same as those previously analyzed in existing Reclamation models and covered by the 2005 Flaming Gorge EIS."

¹⁵See at: <https://www.waterrights.utah.gov/wrinfo/policy/compacts.asp>.

¹⁶ See at: https://le.utah.gov/xcode/Title73/Chapter21/C73-21_1800010118000101.pdf.

However, the Coalition is concerned that there may not be enough water in Flaming Gorge reservoir for the Ultimate Phase CUP water right. This is due to over-allocation, less winter storms, reduced snowpack and stream flows, and the use of a hydrological model from the Flaming Gorge ROD that does not consider a changing climate. The Flaming Gorge ROD was completed in 2005, but according to a 2007 letter ¹⁷from the BOR, it is uncertain how much water is available in FGR. The letter reads, in part:

A certain degree of uncertainty always surrounds yield studies. This analysis used an unusually long and accurate historic record. The modeling was also at a relatively high level of detail. The water supply may be further reduced or impacted by the outcomes of the future National Environmental Policy Act and Endangered Species Act processes associated with this project, and all water supply numbers should be considered preliminary until that process is completed. As one would expect, there is a degree of uncertainty beyond the original 40-year term of the water service contract. The potential contract for this water would reflect this uncertainty and the need for reevaluation at the time of contract renewal.

Our total estimated amount of water available from Flaming Gorge for the next 40 years is relatively small at 165,000 acre-feet per year. Please find enclosed our draft analysis for your review and comment. Mr. Dave Trueman, Manager of the Resources Management Division, is available at 801-524-3759, if you have questions or would prefer a briefing.

The Coalition is concerned that this hydrological modeling used to determine how much water is left in the Flaming Gorge reservoir's water availability analysis is flawed because it used the 100-year historical average of 15 MAFY at Lees Ferry. However, more recent studies have shown that there has been 16.5% less water in the last 100 years.¹⁸ Therefore, a current analysis should be completed before the Corps and other agencies begin preparation of the draft EIS.

CUMULATIVE IMPACTS

Tourists come from around the world to see the pristine landscapes of southern Utah. The project location will disrupt the scenic vistas and could have cumulative adverse impacts on the scenic views of Little Creek Mountain ACEC, The Divide, Smithsonian Butte, Lost Spring Mountain East, Colorado City, Maroney Well, Pipe Valley, Pipe Springs National Historic Monument, Clear Water Spring, Shinarump Point, Muggins Flat, Johnson Lakes, Petrified Hollow, Pine Hollow Canyon, Eightmile Pass, Fivemile Valley, West Clark Bench, Bridger Point, Glen Canyon City, Lone Rock, Ferry Swale, Page, Historic Highway US-89A, Dominguez and Escalante Trail, the Old Spanish National Historic Trail (Mt Trumbull Road), Canaan Mountain Wilderness Area, Cottonwood Point Wilderness Area, Paria Canyon Vermillion Cliffs

¹⁷ Letter from BOR to Upper Colorado river Commission, see at:

<http://www.riversimulator.org/Resources/UCRC/UCRCflamingGorgeWaterAvailabilityReclamation2007.pdf>:

¹⁸ Mu. Xiao, Udall, Lettenmaier, On the causes of declining Colorado Stream Flows, the Colorado River is the primary surface water resource in the rapidly growing U.S. Southwest. Over the period 1916–2014, the Upper Colorado River Basin naturalized streamflow declined by 16.5%, despite the fact that annual precipitation in the UCRB over that period increased slightly (+1.4%). 2018 see at:

<https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2018WR023153>.

Wilderness area, Grand Staircase Escalante National Monument, Glen Canyon National Recreation Area. The beautiful Cockscomb area will have a pump station at the highest point of the LPP. The Cockscomb was named after the ridge's resemblance to the colorful "comb" on a rooster's head. The Cockscomb has a long geologic history that can be simplified into three phases. The oldest layers exposed at the base of this unique geologic feature were deposited between about 270 and 185 million years ago in the Permian to Early Jurassic periods.

The Arizona Strip Resource Management Plan Amendment

The BLM has determined that an amendment to the Arizona Strip Field Office (ASFO) Record of Decision and Approved RMP (2008) in Coconino and Mohave Counties, Arizona (Project) would be required to correct conflicts identified between the management prescriptions for the Kanab Creek Area of Critical Environmental Concern (ACEC) and the designated Regional Utility Corridor No. 113-116, as well as to accommodate a portion of the proposed Lake Powell Pipeline project (LPP project) that crosses the ACEC. Important natural values of the Kanab Creek ACEC include:

Relevance and Importance

According to the 2008 Arizona Strip RMP, the 13,148-acre Kanab Creek ACEC's "Relevance and Importance" values consist of "significant, regionally important cultural resources vulnerable to vandalism and impacts":

*The riparian area is a natural system that includes rare, endemic plant communities and suitable unoccupied habitat for endangered SW willow flycatcher. It has regional significance. The riparian area is fragile, irreplaceable, and unique and is vulnerable to adverse change. Cause for concern is dewatering, loss of habitat due to development, flooding, and alteration of the stream channel... **Significant lands of regional importance containing wilderness characteristics with a high degree of naturalness, outstanding opportunities for solitude, and opportunities for primitive and unconfined recreation** (BLM 2008:Appendix H, Table H.1, page H-2; emphasis added).*

Wilderness Characteristics

Protecting wilderness characteristics on the Arizona Strip remains a major concern with conservationists. In years past, we have proposed a total of 1,106,910 acres in 43 units of Arizona Strip BLM-administered land for eventual designation as wilderness (AWC 2002, 2003, 2006; AWC et al. 2006). The BLM presented substantially less "Lands with Wilderness Characteristics" acreage in several iterations of land management planning ranging from 554,187 acres in the Draft RMP/EIS (BLM 2005:Table 2.10) to 287,853 acres in the recent final resource management plans. The Arizona Strip Field Office (ASFO) lands fell from 46,135 to 34,942 acres. Upper Kanab Creek (the current ACEC) was supported for wilderness in the 2005 Draft RMP, but not in the 2008 Final (BLM 2008: Table 2.09). Consequently, any additional reduction or impairment of wilderness characteristics and related values within the Arizona Strip FO is disconcerting to say the least.

Cultural Values

The Kanab Creek Watershed encompasses Kanab Creek, which flows south from the Pink Cliffs of the Paunsagunt Plateau to its confluence in Grand Canyon, and is the Paiute's traditional "entrance" into that vast canyon. Kanab Creek falls within the traditional territory of the Kaibab Band of the Paiute, who farmed along the creek and utilized the various available plant and animal resources. It was also an important north-south trade route and served as a refuge for Paiutes during European-American encroachment. The intermittent drainage is composed of public lands administered by BLM's Kanab and Arizona Strip Field Offices, the Dixie and Kaibab National Forests, as well as Grand Canyon National Park.

Wildlife Connectivity

Our concerns lie with, not only the impact of the Lake Powell pipeline on an existing ACEC, but also the adverse effects the pipeline imposes on wildlife habitat and connectivity. The AZFO comprises a crucial component of a significant wildlife linkage between Grand Canyon National Park and the adjacent Kaibab National Forest leading through Utah's Grand Staircase-Escalante National Monument (GSENM) up to the Paunsagunt Plateau—the Bryce Canyon National Park region. The corridor's connectivity function is well documented by Arizona and Utah state wildlife agencies (Carrel et al. 1999). This area serves as a critical wildlife migratory movement area between the Arizona's Kaibab and Utah's Paunsagunt Plateaus (Carrel et al. 1999).

By 1924, the federal government recognized the importance of lower elevation lands (including the Kanab Plateau) as winter range for mule deer (Morehouse 1996:57). Significant winter range exists on public lands managed by the Arizona Strip Field Office (Carrel et al. 1999: Figure 13, page 23). Summer mule deer habitat lies within Arizona's North Kaibab Ranger District (Carrel et al. 1999: Figure 13, page 23) and Utah's Dixie National Forest (Carrel et al. 1999: Figure 12, page 21).

Several studies indicate Kaibab mule deer actually migrate east, west, and north from summer range and return to winter range on the eastern or western sides of the Kaibab Plateau (Haywood et al 1987). Some researchers believe most of the winter range for the Kaibab herd lies in the west (Carrel et al. 1999). The Buckskin Mountains, eliminated from GSENM by Trump, also provide "important" mule deer winter range on the northern edge of the Kaibab Plateau (Carrel et al. 1999:3).

In August, 2004, conservation groups submitted proposals to the AZFO for a "Kaibab-Paunsagunt Wildlife Corridor ACEC" including "crucial" deer habitat depicted in the 1990 RMP and adjacent to the North Kaibab National Forest (GCWC and AWC. 2004:9-15). The purpose of the proposed ACEC were to protect wildlife connectivity from the Kaibab Plateau (Grand Canyon National Wildlife Preserve) to GSENM and Paunsagunt Plateau (Dixie National Forest), and to protect important wildlife and rare plant habitat.

Federal Wildlife Connectivity Requirements

Federal lands comprise more than one quarter of land in the U.S. (Vincent et al. 2017) and it is the federal agencies' responsibility is to manage these lands in a manner consistent with law and policy. Management direction is provided by landmark federal legislation including the National Environmental Policy Act (NEPA), Federal Land Policy and Management Act (FLPMA), National Forest Management Act (NFMA), the Endangered Species Act (ESA), and other national legislation and relevant regulation, policy and guidelines available on-line. Presidential proclamations and executive orders provide additional national guidance and agency priorities.

For example, the first goal of the President's *National Fish, Wildlife, and Plants Climate Adaptation Strategy* is to *build or maintain ecologically connected network of terrestrial, coastal, and marine conservation areas* that are likely to be resilient to climate change and support a broad range of fish, wildlife, and plants under changing conditions (Council 2014:19-20). Major reviews of climate change conservation management options generally identify increased habitat conservation and establishing or restoring habitat connectivity as the top, if not the top, options to pursue (Mawdsley et al. 2009, Heller and Zavaleta 2009). Identifying such priority areas also benefits wildfire management, mitigation investments, restoration efforts, and water and air quality.

Comprehensive Strategy

Federal agencies have the opportunity, in many cases the responsibility, to cooperate and coordinate interagency wildlife connectivity management. Any comprehensive strategy for conserving biological diversity requires maintaining habitat across a variety of federal and state-managed lands, as well as cooperating private landowners. To put connectivity into a broader context, ecological networks result from the interaction of species and ecosystems at a large-landscape scale. Functional ecological networks that conserve biodiversity and provide for sustainable use of natural resources should be the goal of conservation and land management efforts. The ecological network concept embodies several key elements: (1) conservation core areas [e.g. Grand Canyon-Parashant, Grand Staircase-Escalante and Vermilion Cliffs National Monuments, and Grand Canyon, Bryce Canyon, Capitol Reef, and Zion National Parks]; (2) corridors and linkages; (3) buffer zones and sustainable use of non-conservation lands; and (4) the inclusion of human cultural and socioeconomic factors along with the consideration of wildlife needs, such as rural communities that coexist with wildlife. An ecological network is a coherent system of natural or semi-natural landscape elements configured and managed with the objective of maintaining or restoring ecological function as a means of conserving biodiversity while also providing appropriate opportunities for the sustainable use of natural resources (Bennett 2004).

BLM Wildlife Connectivity Responsibilities

The BLM has broad authority to administratively designate wildlife corridors (similar to the Centennial Mountains ACEC, BLM 2006; Trappers Point [Path of Pronghorn] BLM 2008;

Sonoran Desert designations; BLM 2012) for mitigation of existing and potential wildlife habitat fragmentation. Under the Federal Land Policy and Management Act (FLPMA), the BLM is charged with identifying, inventorying, and protecting important natural resources, such as wildlife corridors, on the public lands. FLPMA requires that the BLM identify and inventory the public lands for resources and important values, giving priority to designation of areas of critical environmental concern, and manage the lands pursuant to resource management plans (RMPs) that are based on this inventory. 43 U.S.C. §§ 1711(a), 1712. FLPMA directs the BLM to manage the public lands in a manner “that will **protect** the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values.” 43 U.S.C. § 1701(a)(8). (emphasis added). Furthermore, the BLM is expected to preserve “certain lands in their natural condition; that will provide food and habitat for fish and wildlife.” *Id.*

Best Available Science

The Department of Interior (DOI) is clearly required to implement a policy of using the best available scientific information (BASI) for planning documentation, a principle foundation for establishing wildlife corridors. The DOI Policy for the Integrity of Scientific and Scholarly Activities posits as its central tenet at §3.4 Policy “The Department... will not tolerate loss of integrity in the performance of scientific and scholarly activities or in the application of science and scholarship indecision making...” This policy further requires that scientific findings and conclusions be made subject to public vetting: § 3.4.C “*Document the scientific and scholarly findings considered in decision making and ensure public access to that information and supporting data through established Departmental and Bureau procedures....*”

In another DOI example of applying the BASI—the National Landscape and Conservation System (NLCS) was legislatively established by the Omnibus Public Land Management Act of 2009 (Public Law 111-11) *in order to conserve, protect, and restore nationally significant landscapes that have outstanding cultural, ecological, and scientific values for the benefit of current and future generations.* The BLM policy manual describes how “*the BLM will use the best available science in managing the NLCS*” and how “*science and the scientific process will inform and guide management decisions concerning NLCS units*” (BLM Manual §6100(1.6)(A)(9) and (1.6)(F)(1)). Providing a scientific foundation for decision-making is also a goal identified in the NLCS 15-Year Strategy (Goal 1C).

Secretarial Order 3362: Improving Habitat Quality in Western Big-Game Winter Range and Migration Corridors (DOI 2018).

Early this year, the Secretary of Interior Zinke issue an order to BLM, the Fish and Wildlife Service, and the National Park Service to “to enhance and improve the quality of big-game winter range and migration corridor habitat on Federal lands under the management jurisdiction of [the DOI]” within western states including Utah. The order further directed management benefiting wildlife “such as Rocky Mountain Elk (elk), Mule Deer (deer), Pronghorn Antelope (pronghorn), and host of species...[t]hrough scientific endeavors and land management actions.”

Designation of the Wildlife Corridor Linking the Kaibab and Paunsagunt Plateaus.

In our comments to the GSENM planning staff regarding the notice of intent to prepare a resource management plan for the Monument (BLM 2018d)), we outlined the agency's wildlife connectivity responsibilities as presented above (Wildlands Network and Grand Canyon Wildlands Council 2018). We also suggested goals and objectives specific to wildlife connectivity:

- Designate wildlife corridors so they contain sufficient ecologically effective habitat to facilitate wildlife movement for daily, seasonal or long-term needs in a relatively safe manner (modified from BLM 2012:2-55).
- Maintain functioning wildlife habitats and migration and dispersal corridors that allow free movement and use of habitats (BLM 2008:2-45,47).
- Manage area to conserve crucial habitats and protect migration and movement routes for mule deer, other big game, and other wildlife, such as carnivores (modified from BLM 2015d:881; Section 4-49.2).

These recommendations are consistent with the management emphasis presented in the 2008 Arizona Strip Field Office Resource Management Plan for priority species and habitats in conflict resolution (BLM 2008, MA-WF-01, page 2-28):

- All game mammals including: mule deer, pronghorn antelope, desert bighorn sheep, mountain lion, Kaibab squirrel, and desert cottontail rabbit; and carnivores including kit fox, gray fox, and long-tailed weasels" (BLM 2008, MA-WF-01, page 2-29).
- Priority carnivore species will include mountain lion (BLM 2008, MA-WF-41, page 2-36).
- Activities that adversely affect breeding, feeding, or sheltering activities of priority wildlife species may be modified, mitigated, or otherwise restricted to minimize disturbance to the species (BLM 2008, MA-WF-03, page 2-29).

Our recommendations are also consistent with the plan's Desired Future Conditions:

- Habitat connectivity and wildlife movement between ecological zones will be maintained (BLM 2008, DFC-WF-06, page 2-28).
- The natural biological diversity of fish, wildlife, and plant species will be maintained or, where necessary and feasible, restored throughout the Arizona Strip FO. Habitats will be managed on an ecosystem basis, ensuring that all parts of the ecosystem and natural processes are functional (BLM 2008, DFC-WF-11, page 2-28).
- Predators will be recognized as an important component of plant and animal communities (BLM 2008, DFC-WF-08, page 2-28).
- Mule deer habitat will provide the necessary forage, water, and shelter components for healthy, self-sustaining populations within the range of natural variability (BLM 2008, DFC-WF-12, page 2-31).
- Pronghorn habitat will provide the necessary forage, water, and shelter components for healthy, self-sustaining populations within the range of natural variability (BLM 2008,

DFC-WF-120, page 2-32).

In any event, our management and special designation recommendations presented above are consistent with, and in fact reinforce, federal wildlife responsibilities, including the direction specified by Secretarial Order 3362. We urge BLM (Arizona Strip and Kanab Field Offices, and GSENM) explicitly identify, both spatially on maps and described in written form through the planning process (including Resource Plan amendments for Kanab Creek ACEC),

These fragile natural resources listed above may be adversely impacted from the building of the LPP and should be included in the draft EIS.

Archeological Resources

The LPP will cross the Indian Tribes' aboriginal territory the length of the proposed pipeline. Many sacred sites may be destroyed. A 250 foot wide corridor was surveyed for archeological sites. They found 332 sites recorded, 246 sites eligible for the National Register of Historic Places, 86 sites were found not eligible.

Upper Colorado River Basin Recovery Implementation Program

DRWRe claims they will provide a certain amount of water for Green River endangered fishes, if they can have the same amount of water out of FGR. The Coalition is concerned that the Upper Colorado River Basin Recovery Implementation Program has not evaluated this claim. Furthermore, the Coalition is concerned that there has not been an analysis of the CUP's water right 500,000 AFY and the remaining Ultimate Phase water right because they both are depending on the unreliable seasonal high water flows of the Green River tributaries. Moreover, they are both junior water right holders to senior water rights holders. This means as water supplies decline they are at risk of being shut off. Therefore, it is not reasonable or likely that DRWRe will be able to provide any assurance that water would be left for the Green River fishes.

Drought Contingency Planning

From the vantage point of late November, 2018 it is clear that an evaluation of drought contingency planning needs to be included in the LPP Environmental Analysis. In 2012 when the initial draft study reports were completed for UDWRe both the Upper and Lower Basin States were operating under an agreement on potential Colorado River shortages known as the 2007 Interim Guidelines that do not consider climate change. By 2015, when all of the draft study reports were revised and submitted to the UDWRe, the Lower Basin States had just begun a planning process to develop the Drought Contingency Plan (DCP).¹⁹ The DCP was undertaken to provide a consensus-based policy, in part, to move away from federal intervention that is built into the 2007 Interim Guidelines.²⁰ We mention this brief history because the original analyses

¹⁹ see at: <http://www.cap-az.com/documents/meetings/2017-01-05/1604-10.%20DCP%20and%20DCP%20Plus%20Presentation%20for%20January%20Board%20meeting.pdf>

²⁰see at: https://www.usbr.gov/dcp/docs/DCP_Agreements_Final_Review_Draft.pdf

were built on the best available data at the time, however, with the passage of seven years it is important to include the most up to date science in order to address newly relevant policy concerns.

On October 5, 2018 the Bureau of Reclamation published the Upper and Lower Basin DCPs in final draft. In section A of the DCP document, which discusses the background of the planning process, it states: Based on the actual operating experience gained after the adoption of the 2007 Interim Guidelines and emerging scientific information regarding the increasing variability and anticipated decline in Colorado River flow volumes, the Parties recognize and acknowledge that those relying on water from the Colorado River System face increased individual and collective risk of temporary or prolonged interruptions in water supplies, with associated adverse impacts on the society, environment, and economy of the Colorado River Basin. Therefore, the Parties have agreed that it is necessary and beneficial to pursue additional actions beyond those contemplated in the 2007 Interim Guidelines to reduce the likelihood of reaching critical elevation levels in Lake Powell and Lake Mead through the Interim Period.

It is not clear how the LPP taking water out of Lake Powell will conflict with the goal of the DCP that requests measures to leave water in Lake Powell.

INCOMPLETE STUDIES

The Coalition is concerned that there are gaps in the record that will interfere with preparation of the draft EIS. The Corps should direct UDWR to provide the information, or it should obtain the information on its own. The Cooperating Agencies should require UDWR and the other Cooperating Agencies to provide additional information and/or update the information provided in the record prior to beginning preparation of the draft EIS. In some cases, critical data is completely left out. Without this information in the record, decisions based on the draft EIS will be fundamentally flawed.

The information in the record for the LPP project's 2016 study reports is outdated. The LPP project's analyses, projections, and estimates have changed over time and continue to evolve even now. The need for water has changed, and the LPP project water may not be needed by 2030—certainly not by 2020, as previously asserted by Utah in the study reports. There is very little clarity, much less certainty, in previous claims about the project cost, water availability, water supply, and desirability of conservation measures. It is of utmost concern that current data in UDWR's studies be updated and made available to those who want a detailed and thorough understanding of this project, so that informed decisions can be made before the draft EIS begins.

The NEPA process is supposed to divulge the environmental effects before the action is undertaken, and this has not happened because of the incomplete and outdated studies.

We request that the Corps obtain the following information prior to preparing the draft EIS:

1. Full and complete description of the proposed exchange of the Green River Block water right use because there is, in fact, a connected federal action. This would include the two BOR service contracts for the Ultimate Phase CUP water rights of 158,800 AFY.
2. Documentation of Utah's high-water rights in the Green River tributaries of 158,800 AFY depletion and 320,000 AFY of diversion to exchange with the BOR for the same amount of water out of Flaming Gorge reservoir for the Ultimate Phase CUP water right, which includes water for the LPP to complete the proposed action.
3. Description of the geographic scope for study in the EIS to be from the Flaming Gorge reservoir to Lake Powell to include the Green and Colorado Rivers.
4. Description of the year that water will be needed to meet existing or forecasted demand, since they changed their purpose and need statement in their recent filing that no longer includes a date. In the FERC's Study Report #19 Water Needs Assessment 2016, that year was 2020.
5. Analysis of how the proposal to divert water from Lake Powell is in accordance with the Law of the River to effectively operate the Project over the term of license. According to the Colorado River Compact, Utah's Upper Basin water rights cannot be used in the Lower Basin, where the Project is located. Also, the goal of the Colorado River Storage Project is the Upper Basin reservoirs were to assure water for the Lower Basin.
6. Analysis of how climate change will impact the Colorado River in ways that affect physical water availability for aquatic ecosystems and the LPP. What are the implications for the project to operate at full capacity in the future if the flows in the Colorado River continue to decline? The Corps should direct UDWR to undertake new climate modeling as outlined in our comments above.
7. Analysis of Utah Water Laws and what laws would have to be changed in order to leave water in the Green and Colorado rivers for 400 miles for an instream flow for the benefit of the endangered fishes from Flaming Gorge reservoir to Lake Powell reservoir.
8. Update the cost/benefit analysis in Study report #10 that does not include the future Hurricane Cliffs Pumped Storage Project that increases LPP revenues.
9. Update alternative analysis that includes a reasonable alternative, such as the *Local Waters Alternative*, that addresses a wider range of water sources.
10. Complete a comprehensive study for the draft EIS, such as a Hydrological Determination, that uses less than the historical 100 year average of 15 MAFY at Lees Ferry. This could determine if Utah has a sufficient water supply for the Lake Powell Pipeline. See information on a Hydrological Determination for the Jicarilla Navajo reservoir service contract.²¹ Also, see the Colorado River Basin Water Supply and Demand Study states that the Basin faces a wide range of plausible future long-term imbalances between supply and demand.²²

²¹ see at:

<http://www.ose.state.nm.us/Legal/settlements/NNWRS/Initial%20Disclosures/Settlement%20Documents/Summary%20of%20the%202007%20Hydrologic%20Determination%20re%20Navajo%20Settlement%20110507.pdf>

²² see at: https://www.usbr.gov/lc/region/programs/crbstudy/FactSheet_June2013.pdf

CONCLUSION

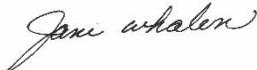
Many changes have occurred since the LPP Project was conceived. The idea for the LPP was first proposed in the late 1990s. At this time, Washington County's 2060 population was projected to be 860,000, the LPP's costs were estimated to be \$287 M, the benefits and costs of conservation were relatively unknown, and the risk of declining stream flows in the Colorado River were relatively unknown. In 2006, when the Lake Powell Pipeline Act was passed by the Utah legislature, the cost was estimated to be \$500 million.

Since then things have substantially changed: over-allocation of the state's water is becoming known, the 2060 population is projected to be about half, the LPP project costs are projected to be significantly higher (counting, operations, maintenance, and debt service), the benefits and costs of conservation are much better known, the risk of declining water supplies from the Colorado River is much clearer, and the over allocation of Colorado River is being recognized. We believe the prudent course of action is to implement less costly, less risky, incremental alternative of improved local water management first. This would position the counties and the state much better economically and environmentally.

The Corps, as a Cooperating Agency, has an obligation under NEPA to objectively evaluate the need for the Project, potential project impacts, and the availability of practicable alternatives to meet projected demand, including conservation. We recommend denial of the permit because of its adverse impact on aquatic resources and there are viable alternatives as well as for the many other reasons detailed in our comments.

We thank you for allowing the opportunity to comment by extending the deadline and appreciate your consideration of our comments.

Respectfully,



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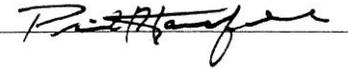
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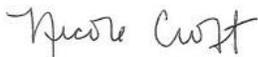


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