

PROTEST

PROTEST FEE PAID

\$15.00 23-05097

Fee Rec'd BY: ONLINE

October 25, 2023

Protestant: Living Rivers, Great Basin Water Network, et al
c/o John Weisheit and Kyle Roerink
PO Box 466
Moab, UT 84532

RECEIVED
OCT 25 2023
WATER RIGHTS
ONLINE

RE: Protest of Water Right Application 01-1233

A hearing is requested.

Please use this version of the previously submitted protest. There were a few typos. We will pay the fee again. Just post the clean version that is now attached.

John Weisheit and Kyle Roerink

Enclosure

SCANNED

OFFICE OF THE STATE ENGINEER
DIVISION OF WATER RIGHTS
STATE OF UTAH

In the Matter of Water Right: 01-1233
(A83900)

| PROTEST AND REQUEST FOR
| HEARING

|
October 25, 2023

INTRODUCTION

Living Rivers & Colorado Riverkeeper, Great Basin Water Network, Utah Rivers Council, Southern Utah Wilderness Alliance, the Center for Biological Diversity, and Gayna Salinas hereby submit a timely PROTEST and request for a HEARING, pursuant to Utah Code Ann. §73-3-7, regarding application to appropriate water, as stated above.

APPLICANT

The applicant is A1 Lithium, Inc., located at 1635 Village Center Driver, Ste. 150, Las Vegas, NV 89134. A1 Lithium is a subsidiary of Anson Resources, an Australian Corporation. The administrative record for this application is located at: https://www.water-rights.utah.gov/asp_apps/wrprint/wrprint.asp?wrnum=01-1233

The purpose of the application is to extract lithium from the underlying Paradox Formation. The location of the site is in Grand County and adjacent to the Colorado River, Dead Horse Point State Park, and Canyonlands National Park. This property of ten acres is managed by the Utah State Institutional Trust Lands Administration (SITLA) and there are 4 wells on two pads (Sec 16 T 26S R 20E SLB&M). The applicant wants 19 cubic feet per second.

PUBLIC NOTICE

Utah Division of Water Rights (DWRi) must receive this protest and a processing fee of \$15 for each water right application on or before October 25, 2023. The address is: Division of Water Rights, PO Box 146300, Salt Lake City, Utah 84114-6300.

STANDING OF PROTESTANTS

Living Rivers—Colorado Riverkeeper is a public interest, non-profit organization dedicated to the restoration of Colorado River Basin ecosystems that are presently damaged by excessive diversions, dams and pollution. Fifty percent of the base flows for the Colorado River main stem are provided by groundwater flows. Our cumulative stakeholder position includes repre-

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senting water rights owners, owning whitewater boats and other regulatory equipment, patrolling our designated river corridors, initiating citizen science and education programs on the river, applying for whitewater rafting permits, and safely executing multi-day river rafting expeditions. Many of our members are employed by licensed outfitters as professional river guides and possess current certifications. The office of our organization is in the Upper Basin state of Utah and in Grand County. Our members reside in all seven states of the Colorado River Basin. Members and staff are “persons interested” for the purposes of §73-3-7.

Great Basin Water Network is a 501(c)(3) organization representing staff, board members, water users, residents and others in Utah who are intrinsically connected to the resources in the vicinity of the proposed points of diversion. We are “persons interested” per §73-3-7. GBWN also represents downstream users of the Colorado River who believe the application could harm existing rights and impact the public welfare in violation of §73-3-8.

The Utah Rivers Council is a non-profit 501(c)(3) grassroots community-based organization that advocates for sound water policy and protection and conservation of Utah’s rivers, streams, and clean water sources for today’s citizens, future generations, and wildlife. The URC has a long history working to protect the Colorado Rivers and its tributaries and we believe the proposal affects numerous stakeholders, including the thousands of members of our organization and many URC members throughout Utah. These members are taxpayers, ratepayers, conservationists, fishermen, outfitters, guides, other recreationists, and business leaders who have a vested interest in sustainable water management, fiscally conservative water spending, and the continued existence of aquatic ecosystems. We are “persons interested” per §73-3-7.

SOUTHERN UTAH WILDERNESS ALLIANCE (“SUWA”) is a non-profit environmental membership organization dedicated to the preservation of outstanding wilderness found throughout Utah, and the management of wilderness-quality lands in their natural state for the benefit of all Americans. SUWA has offices in Salt Lake City and Moab, Utah, and Washington D.C. SUWA has approximately 13,000 members across the nation, including members in Utah. SUWA’s members use and enjoy federal public lands in and around the public lands at issue in this lawsuit for a variety of purposes, including solitude, wildlife and plant viewing, rafting and canoeing, cultural appreciation, hiking and backcountry recreation, and aesthetic appreciation. SUWA promotes national recognition of these regions’ unique character through research and public education and supports administrative and legislative initiatives to permanently protect the federal public lands in Utah’s wildest places. SUWA brings this action on its own behalf and on behalf of its members. We are “persons interested” per §73-3-7.

The Center for Biological Diversity is a national, non-profit conservation organization dedicated to protecting and recovering endangered species and the habitats upon which they depend for their survival. The Center has 1.7 million members and supporters, including members who use and enjoy the Colorado River and its tributaries for recreation, natural history, spiritual renewal, photography, art, wildlife observation and scientific study. The Center has been involved in the preservation of threatened and endangered Colorado River species for decades. Those species include but are not limited to humpback chub, Colorado pikeminnow, bonytail, razorback sucker, southwestern willow flycatcher, and western yellow-billed cuckoo. The Center has for decades also tracked, administratively engaged and challenged proposed actions to

manage dams and develop land, water, and mineral resources in the Colorado River Basin, as may impact the Colorado River, its tributaries, and threatened and endangered species therein.

Gayna Salinas is a property owner and water rights user in the Colorado River Plateau. Her water rights and general welfare are jeopardized and threatened by proposed projects throughout the region put forth by Anson Resources.

APPLICATION A83900 DOES NOT COMPLY WITH §73-3-8(1)(a)(i) AND §73-3-8(1)(b) BECAUSE THERE IS NO WATER AVAILABLE

The proposed points of diversion (PODs) are in Water Rights Area 01. The Utah State Engineer has longstanding policy on proposed groundwater appropriations in the region where the application proposes to divert 19 cfs from four wells. The State Engineer has a specific policy regarding Water Rights Area 01 for applications that are not temporary in nature:

The water resources of this area are considered to be limited. New appropriations are limited to small amounts of beneficial use sufficient to serve the domestic requirements of one family, the irrigation of one acre, and ten head of livestock (or equivalent livestock units). New diversions and consumptive uses that require more water than this must be accomplished by filing a change application on valid existing water rights owned or acquired by the applicant.¹

Furthermore, this new application did not outline any temporary considerations associated with A83900. The applicant made no effort to demonstrate that water was available at the four proposed points of diversions — not even listing the depth of the wells on the applications. The state engineer, according to the Division of Water Rights existing information on Water Rights Area 01 and the plethora of data relating to declines in the Colorado River², shall deny the application pursuant to §73-3-8(1)(b).

The proposed PODs are near the northern boundaries of Canyonlands National Park's Island in the Sky District and Dead Horse Point State Park. The northern region of Canyonlands near the proposed PODs has long been known as a region with limited potable water and questionable supplies of brine water.³ While the State Engineer and existing analysis demonstrates that the region's limited ground and surface waters are connected, nothing in the application demonstrates that water is available.

¹ Utah Division of Water Rights. Water Rights Area 01 Web Page (Last Updated 2019). <https://www.water-rights.utah.gov/wrinfo/policy/wrareas/area01.asp>

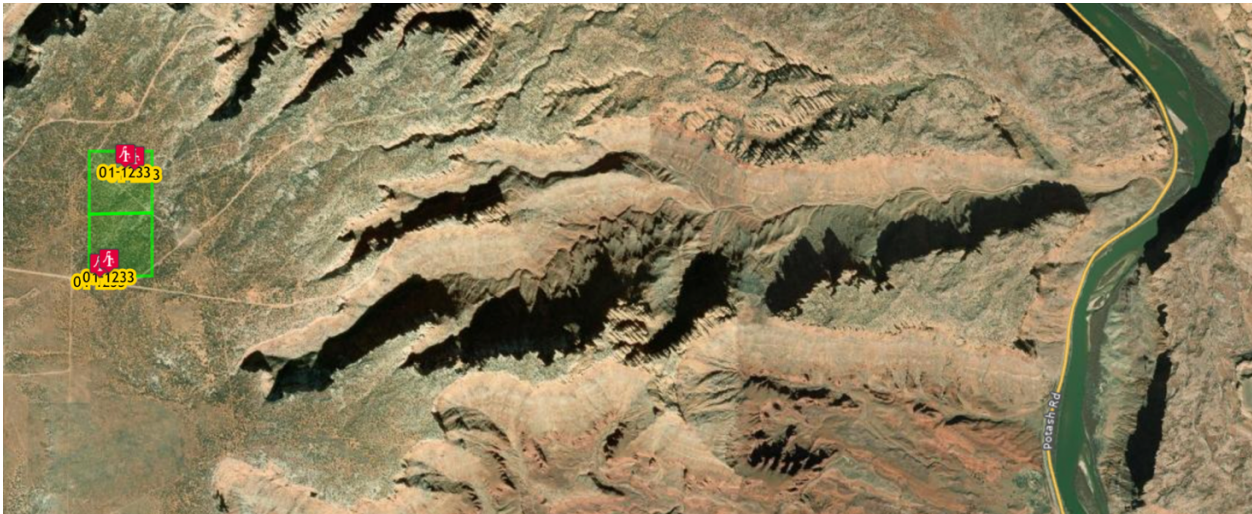
² Schmidt, J. C., Yackulic, C. B., & Kuhn, E. (2023). The Colorado River water crisis: Its origin and the future. WIREs Water, e1672. <https://doi.org/10.1002/wat2.1672>

³ Sumsion, C.T. and Bolke, E.L. *Water Resources of Part of Canyonlands National Park, Southeastern Utah*. Page 47. 1972. <https://core.ac.uk/download/pdf/32551905.pdf>

APPLICATION DOES NOT COMPLY WITH §73-3-8(1)(a)(v) BECAUSE THE APPLICATION IS SPECULATIVE.

We hope that the State Engineer will take the time to review the Anson Resource’s Annual Report. The company illustrates a water conveyance infrastructure system to its investors that does not correlate with what’s put forth in this application. There are different locations of PODs and places of use. On the DWRi site (Figure 1), the place of use is listed in the immediate vicinity of the wells. But the company’s plans, as detailed to investors, are different and listed as Figure 2 below.

Figure 1: Well site and place of use as listed on DWRi site



The company’s intent as disseminated to its investors is not the same as what is being applied for herein. However, the company is clear about its intent to move resources throughout the region — well beyond the specified place of use as highlighted in green in Figure 1.

The main brine pipeline will be routed from the LCW 2 well site via a Horizontal Directional Drill (HDD) bore under the Dead Horse State Park. Once outside of the State Park boundary, the pipeline will be buried in a trench with three feet of cover and will connect to the Lithium Carbonate Plant alongside an existing unsealed road.⁴

⁴ Anson Resources. 2023 Annual Report. Pg 19. <https://wcsecure.weblink.com.au/pdf/ASN/02718370.pdf>.

Figure 2: Anson Resources Map from 2023 Annual Plan

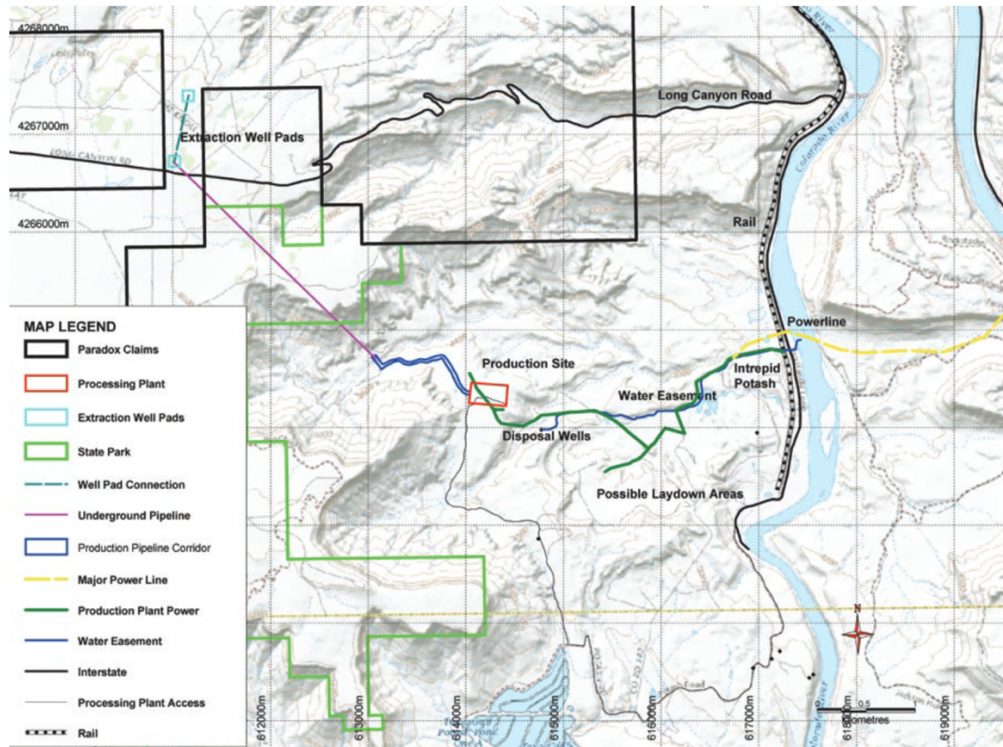


Figure 5: Paradox Lithium Project Infrastructure.

There are a multitude of other projects proposed by Anson or its subsidiaries, including A1, that are not accounted for in its application. This includes, but is not limited to, the following projects, all of which have been proposed but not approved by the applicable land management agency:

- A-1 Lithium Incorporated Mineral Exploration Project, DOI-BLM-UT-Y010-2021-0068-EA.⁵
- Pan American Energy LLC Cane Creek Federal 11-1 Exploration, DOI-BLM-UT-Y010-2023-0038-EA.⁶
- Anson recently announced that it has confirmed the site for a processing plant for its Green River Lithium Project.⁷
- Anson has plans to drill at least three additional wells at its Green River Lithium Project.⁸

⁵ Additional information available at <https://eplanning.blm.gov/eplanning-ui/project/2014014/510>.

⁶ Additional information available at Available at <https://eplanning.blm.gov/eplanning-ui/project/2024658/510>.

⁷ Available at <https://wcsecure.weblink.com.au/pdf/ASN/02721915.pdf>.

⁸ <https://wcsecure.weblink.com.au/pdf/ASN/02719656.pdf>.

In fact, in the present case, A1's application hides the fact that there is also an active proposal to drill and extract helium on the *same* well pad at issue here—the Long Canyon 1 well pad (referred to also as the LCW1). A1's application states only: "LCW1 and LCW 2 are two individual well pads, 5 acres each. Each site will contain one well, with gathering pipes to bring extracted brine to the processing facility. Lithium is extracted, no other mineral is removed."⁹ But, in contrast, the Bureau of Land Management (BLM) is in the process of analyzing a proposal to extract helium from the Long Canyon 1 well pad.¹⁰ That separate project involves a "proposal to refine helium from the Long Canyon #1 well" including the construction of a "helium extraction plant" on an adjacent well pad.¹¹

Additionally, not mentioned in the application, is the need for rights of way and potential need for change applications due to uses at a proposed processing facility, which is not yet permitted.¹²

Regardless, the applicant proclaims a need for "gathering pipes to bring extracted brine to the processing facility." Again, the applicant does not have approval for a Right of Way to transport water resources necessary for the project proposal (or for any of the above listed projects). The applicant does not have a valid end-use site where the state engineer can reasonably — without pre-decisional treatment — allow the beneficial use of this water. The applicant does not have approval for exploratory drilling with federal land managers. To approve this application would ignore the basic issues of having the place of use and end use accurately outlined in an application. Additionally, issues of availability, conflict and the public welfare were never addressed in any sound way by the applicant, degrading the very provisions put forth on the Water Rights Area 01 page.¹³

The applicant references Water Right 95-434 as a companion water right necessary to process lithium extracted at the project. The State Engineer recently approved an extension of time for this water right for Wayne County. But this water has not yet been put to beneficial use and is not a valid means of demonstrating that this project will be viable.

Lastly, the applicant is, in effect, proposing a Direct Lithium Extraction (DLE) project. DLE involves using chemical, physical, and/or electric processes to selectively extract lithium ions from brine. DLE is seen as environmentally favorable to traditional lithium brine extraction, which is usually done via evaporation, in part because it theoretically will consume less water. However, that has yet to play out in practice. DLE has never been developed at commercial scale, and as such DLE technologies still need to be considered speculative.

A recent paper in the journal *Nature Reviews*¹⁴ found that most DLE technologies analyzed had some freshwater consumption, and a quarter of those analyzed consume more freshwater

⁹ <https://www.waterrights.utah.gov/apps/wrprint/wrprint.asp?wrnum=01-1233> (under "Other Comments").

¹⁰ See generally Bureau of Land Mgmt., Long Canyon Helium, DOI-BLM-UT-Y010-2022-0062-EA, <https://eplanning.blm.gov/eplanning-ui/project/2021170/510> (last updated Aug. 22, 2022).

¹¹ *Id.*

¹² *Supra* at 4

¹³ *Supra* at 1.

¹⁴ Vera, M.L., Torres, W.R., Galli, C.I. et al. Environmental impact of direct lithium extraction from brines. *Nat Rev Earth Environ* 4, 149–165 (2023). <https://doi.org/10.1038/s43017-022-00387-5>

per ton of lithium carbonate than even evaporation methods (Vera et al., 2023)². The paper also found that, for the technological processes surveyed, the lithium concentration in the processed brine still is not enough to directly crystallize lithium salts, and will require supplemental evaporation, resulting in more water consumption.

In a recent analysis prepared by the BLM, the agency concluded that a different but similar two-well lithium brine extraction project—also proposed by A1—in this same region of Utah would consume at least 24,190 gallons for the drilling process alone.¹⁵

There are no existing DLE projects in the United States. In fact, the only comparable example we have is another water rights application. In 2021, 3PL Operating Inc. applied for 101,400 acre-feet per year of water from Railroad Valley in Nevada (Basin 173B)³ for a DLE project and stated that their project would consume 18% of the appropriation, or some 18,500 acre feet per year.

Based on this information, we believe assertions that A1 Lithium will employ a zero-consumption DLE process to be highly speculative and unsupported by the evidence.

APPLICATION DOES NOT COMPLY WITH §73-3-8(1)(a)(ii) and §73-3-8(1)(b) BECAUSE IT WILL HARM EXISTING RIGHTS

In the hydrographic area encompassing the proposed PODs, nearly all ground water discharges directly into the rivers where they intersect aquifers.¹⁶ No matter the chemical makeup of the water, the appropriation will ultimately alter the hydrostatic balance of the water table. In a Water Rights Area with such an austere groundwater policy already in effect within DWRI, we do not see any evidence in the application that the proposal won't conflict with existing downstream rights.

For decades, the local vicinity of the hydrographic area, and the location where the company is telling its investors it will drill, has been known to be sensitive to pumping of all kinds.

When Taylor Canyon well 1 was drilled, in 1966, Park Service personnel reported a decrease of artesian pressure of about 28 pounds per square inch, or a head loss of about 64 feet, during a 72-hour observation period while the well was flowing about 45 gpm.¹⁷

We do not believe that the State Engineer has the information to demonstrate pumping and reinjection as outlined in the application will not harm water rights within Canyonlands National Park, Dead Horse State Park and for other users in the vicinity.

¹⁵ Bureau of Land Mgmt., A1 Lithium Incorporated Mineral Exploration Project, DOI-BLM-UT-Y010-2021-0068-EA, at 20 tbl. 6 (Sept. 2023), available at https://eplanning.blm.gov/public_projects/2014014/200525822/20083379/250089561/21-0068-EA_A1%20Lithium_Mineral%20Exploration%20Project_Updated20230726_highlighted.pdf.

¹⁶ Supra at 3, page 38.

¹⁷ Supra at 3, page 42.

APPLICATION DOES NOT COMPLY WITH §73-3-8(1)(a)(iii) and §73-3-8(1)(b) BECAUSE IT HARMS THE PUBLIC WELFARE AND IS NOT DEMONSTRABLY FEASIBLE.

The State Engineer has a duty to ensure the protection of the public welfare. Approving an application without water availability is not in the public welfare. Approving an application that could lead to conflicts with existing rights is not in the public welfare. Approving an application that jeopardizes public resources, recreation, wildlife and scenic values is not in the public welfare. Without consideration to the conjunctive nature of the region's water resources, the applicant failed to demonstrate how its proposed appropriation would not avoid harms to downstream water rights — nor did A1 demonstrate how pumping at the proposed PODs would not affect the southward trending groundwater flows in the region. In its investor report, A1's parent company casually implies that they've modeled groundwater flow but did not include that information for the public to consider in this application. At a minimum, the company must provide that modeling data and information to the state engineer who in turn must make it available to the public for review and comment as part of this application process.

Furthermore, the applicant's mix of proposals across a variety of management and permitting paradigms, while not detailed in the documents submitted to DWRi, would require significant capital. The public and State Engineer have yet to review any information that would demonstrate economic feasibility as required by statute.

CONCLUSION

We appreciate your careful review of this proposal and understand the pressures facing DWRi as it relates to approving or rejecting an application for a project like this. However, an applicant must meet the standards of §73-3-8. Nothing within A83900 demonstrates that this would be a sound appropriation in compliance with the law in relation to availability, conflict and the public welfare. We would like all future correspondence to be sent to our email addresses and mailed to our physical addresses.

Thank you.

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