



February 2, 2024

Joint Interim Standing Committee on Natural Resources  
Sen. Julie Pazina, Chairperson  
401 S. Carson St.  
Carson City, NV 89701  
[NRInterim@lcb.state.nv.us](mailto:NRInterim@lcb.state.nv.us)

Dear Chair Pazina,

I'm writing to request that the Joint Interim Standing Committee on Natural Resources examine an issue of critical importance to the future of Nevada's wildlife and public lands. There are over 80 lithium projects proposed on Nevada's public lands, an enormous rush on natural resources which could have lasting consequences on the environment of this state. We are requesting that the Interim Committee examine this issue and consider putting forward a bill draft request to:

- A.) fund a study by the Desert Research Institute or other appropriate entity and applicable state agencies to evaluate lithium resources in the state and determine which can be extracted with the least impact on communities and the environment;
- B.) and to instruct the Department of Conservation and Natural Resources to promulgate a rule-making to have the state prioritize permitting for mine proposals in areas of least conflict; while de-prioritizing permitting for mine proposals in areas of greatest conflict.

### *Background*

The response to climate change relies heavily on electrifying existing fossil fuel assets, including vehicles and energy production. Electric vehicles require large batteries that use lithium to store energy. Renewable energy facilities like utility-scale solar projects often employ large battery storage elements, to allow the facility to continue to produce energy once the sun goes down. These too require substantial amounts of lithium. Consumer electronics already consume significant amounts of lithium. In short, projected lithium demand is booming.

The Center for Biological Diversity supports electric vehicles and battery storage as a part of our renewable energy transition, and thus by extension we support responsible, sustainable lithium extraction. We support domestic lithium extraction as well, if it is done in the right places and with the right techniques. We oppose business-as-usual mining, dewatering of

open pits, pit lakes, excessive water consumption, extinction of species or severe degradation of habitat, and regulatory short cuts to permit bad mines faster.

Due to the unique geology of Nevada, and the friendly regulatory environment, the state is poised at the epicenter of the lithium production boom. There are over 83 lithium projects proposed in Nevada right now. While about half of these projects are in Esmeralda and Nye Counties surrounding Tonopah, there are projects all across the state, in Clark, Washoe, White Pine, Lander, Eureka, Churchill, Humboldt, and Elko Counties.

There are two ways to produce lithium in Nevada. About half of the proposed projects are targeting lithium-rich clays, which would involve traditional hard-rock mining techniques like strip mining or open-pit mining. The other half or so of the proposed projects are lithium brine projects. The only existing lithium mine in the country, Silver Peak in Clayton Valley, is a brine project where evaporation is used to produce lithium. More modern proposals are for direct lithium extraction (DLE) from brine, which would not need evaporation.

Hard-rock mining is known to entail significant impacts to the environment, including habitat destruction and fragmentation, groundwater drawdown from dewatering, dust and noise, and impacts to cultural resources and communities. Both hard-rock lithium mines currently under development propose to use a sulfuric acid leaching process to extract lithium from ore, involving enormous amounts of sulfuric acid, causing air and water quality issues.

DLE brine projects are theoretically more benign inasmuch as they don't require an open pit mine. But the exact impacts of DLE are not fully known at this time, as there are no commercial DLE projects operating at scale globally yet, though there is a project pipeline of several dozen projects around the world. While DLE obviates the need to evaporate off brine, thus considerably reducing the overall water footprint of the projects compared to traditional brine evaporation extraction, many of the proposed DLE projects will consume significant freshwater in their processes.

### *The Situation in Nevada*

There are over 80 proposed lithium mines in Nevada – roughly half are for brine extraction projects while half are for hard-rock mines.

There are very sensitive landscapes targeted for lithium production around the state. Ash Meadows, Fish Lake Valley and Railroad Valley feature groundwater dependent ecosystems, springs and wetlands, which support numerous endemic species of plants and animals and provide habitat for resident and migratory birds, as well as vital water for desert megafauna like bighorn sheep. Monitor Valley, Grass Valley (Lander) and the area of northeastern Elko County are some of the best greater sage-grouse habitat in the state.

There are also sensitive cultural landscapes targeted for lithium production around the state. Indigenous people have spoken loudly about their concerns regarding lithium production at certain sites. In general, there has not been any effort to survey the state looking at potential lithium production and identifying places where there could be conflict.

The rollout of the lithium boom in Nevada thus far has been marred with conflict due to potential impacts to cultural landscapes or biodiversity, with numerous projects facing litigation and public outcry due to their being sited in areas of highest conflict with biological and cultural resources.

We need incentives for domestic lithium production in places and using techniques that avoid significant impacts to the environment and communities, and by extension avoid conflict and litigation.

The State of Nevada has an opportunity to help shape the future of the lithium boom. Currently, there is no planning or landscape-level analysis going on for where lithium production should be permitted. Assuming that Nevadans do not want to sacrifice everywhere in the state to mine lithium, proactive planning for lowest conflict lithium production makes sense.

### *Request*

The Interim Committee should consider investigating this issue and putting forward a BDR to fund a study conducted by the Desert Research Institute or other appropriate agency, in conjunction with the Nevada Division of Minerals, Nevada Division of Environmental Protection, Nevada Division of Natural Heritage, and Nevada Department of Wildlife, in partnership with Nevada's Tribes, to examine lithium mining proposals, known lithium deposits, and determine areas of lowest cultural and biological conflicts. The study should include extensive public outreach and data-rich biological and cultural resource analysis.

The legislature could also instruct the agencies to then use the results of this report to promulgate a rule-making to establish how the state can prioritize permitting lithium projects in areas of lowest cultural and biological conflicts, while denying or deprioritizing permits for lithium projects in areas of highest cultural and biological conflicts.

Thank you for considering this proposal.



Patrick Donnelly

*Great Basin Director*

**Center for Biological Diversity**

PO Box 6205, Reno, NV 89513

775.990.9332 | [pdonnelly@biologicaldiversity.org](mailto:pdonnelly@biologicaldiversity.org)