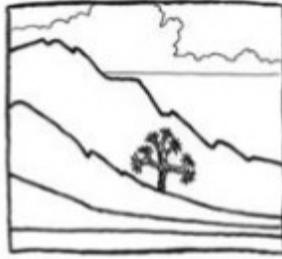




Working with Communities to Protect  
Their Land, Air, and Water



**Basin and Range Watch**



February 27, 2020

Ken Loda  
Bureau of Land Management  
Winnemucca District  
5100 E. Winnemucca Blvd.  
Winnemucca, Nevada 89445

Re: Scoping Comments: *Thacker Pass Plan of Operations and Reclamation Plan (BLM Casefile NVN-098586)* and the *Thacker North-South Exploration Plan of Operations and Reclamation Plan (NVN-098582)*

Dear Mr. Loda

Great Basin Resource Watch (GBRW), and the Progressive Leadership Alliance of Nevada (PLAN) has been in communication with Lithium Nevada on this project and we express our appreciation for their advanced disclosures of information.

The greatest concern that GBRW/PLAN/BRW (BRW-Basin and Range Watch) has and which was communicated at the public meeting on February 13, 2020 in Orovada, Nevada is the potential for lithium mining expansion north of Thacker Pass into the Montana Range.

### **Public Engagement Process**

A more thorough and transparent public engagement process is needed. The eplanning webpage for Thacker Pass was off and on dysfunctional during the time period given for public scoping comments, interfering with and limiting curtail opportunity for meaningful public input. These issues should have been taken into account and granted basis for additional public comment time. The basis for additional public comment time is even more apparent when considering the reaction and needs of community members at the scoping meeting on February 6, 2020 in Orovada. GBRW and PLAN attended the scoping meeting and witnessed the overwhelming mistrust of the process and information provided by Lithium Nevada, and lack of clarity about the project as expressed by a majority of the community members present. Many from the community felt that they were not given the tools or information needed

In this way, a great number of community members were not given ample opportunity for input because their needs for understanding the project were not met. This in combination with the impinged timeframe for making comments has led to an insufficient public engagement process with the project thus far. Lithium Nevada's plan for an expedited permitting for Thacker Pass needs to be critically evaluated in light of this inadequacy in public process.

***Great Basin Resource Watch is a tax-exempt (501(c)3) organization***

## **Water Issues**

### **1. Mining water requirements**

It is our understanding that the project as proposed will be dewatering the open pit in the second stage of the mine plan, but to a small extent of about 90 GPM (gallon per minute), and that the pit will be backfilled so no anticipate mining pit lake. There does need to be a hydrogeochemical evaluation of the potent for groundwater flowing through backfill to degrade groundwater.

There will be considerable water extraction with a consumptive use of 2,600 AF per year during Phase 1, and 5,200 AF per year during Phase 2. BLM needs to consider that the source of water for the mine, Quinn River Valley Oravada hydrographic basin, is already over allocated. The state of Nevada Division of Water Resources 2017 Crop Inventory report<sup>i</sup> shows that in the Quinn River Valley - Orovada Subarea hydrographic basin pumping was estimated at 52,678 AFA. This basin according to the Nevada Division of Water Resources has an estimated perennial yield of 60,000 AFA. Thus, water extraction is hovering near the maximum sustainable volume in the basin. BLM needs to evaluate the increased consumptive water use with respect to a basin at or near its perennial yield. Keeping in mind that perennial yields are also and estimate it would be prudent to avoid water use right up to the perennial yield.

According to the Plan of Operations (PoO)<sup>ii</sup> Lithium Nevada acquired water rights totaling 995.5 acre-feet annual (AFA). Of this only 15.5 are for mining and milling. The PoO also mentions an option to acquire an additional 2,717 AFA. Thus, Lithium Nevada is anticipating that there will be sufficient water rights to develop Phase 1 assuming that the unsecured rights are not protested. Phase 2 of the PoO requires an additional 2,600 AFA, for which no option to acquire is mentioned. BLM needs to evaluate the possibility that the additional water rights are not available for Phase 2 and any environmental or socioeconomic consequences that may occur if Lithium Nevada has to suspend operations or close operations? BLM, should determine the needed bond in the case that Phase 2 is not implemented and the company abandons the site at that point.

The point of diversion for pumping the water for the proposed mine raised some concerns at the public meeting on February 6. There needs to be a through analysis of rate of diversion expected and the effect on the Quinn River and nearby existing wells.

### **2. Draft Environmental Impact Statement (DEIS) Must Fully Review Impacts to Federal Reserved Water Rights and Withdrawn Lands, and Prevent Adverse Impacts to Those Resources.**

The company's Plan of Operations acknowledges that the dewatering of the aquifer and substantial lowering of the water table may cause loss and/or elimination of springs and streams, which would violate BLM's duties to protect these resources under FLPMA and Presidential Order. Water flows in springs and waterholes on public land in the West are reserved for public use by Public Water Reserve # 107 ("PWR 107"), which was created by Executive Order by President Calvin Coolidge in 1926. The reservation of federal water rights also included a withdrawal from entry of public lands ¼ mile around each spring/waterhole. PWR 107 provides:

[I]t is hereby ordered that every smallest legal subdivision of public land surveys which is vacant, unappropriated, unreserved public land and contains a spring or water hole, and all land within one quarter of a mile of every spring or water hole located on unsurveyed public land, be, and the same is hereby, withdrawn from settlement, location, sale, or entry, and reserved for public use in accordance with the provisions of Section 10 of the Act of December 29, 1916.

Executive Order of Apr. 17, 1926, previously codified at 43 C.F.R. § 292.1 (1938). See also GENERAL LAND OFFICE, DEPARTMENT OF INTERIOR, CIRCULAR 1066, 51 I.D. 457-

58 (1926) (“[t]he above order [PWR #107] was designed to preserve for general public use and benefit unreserved public lands containing water holes or other bodies of water needed or used by the public for watering purposes.”). 1926 I.D. LEXIS 45.

The 1926 Executive Order and withdrawal were promulgated under the authority of Section 10 of the Stock-Raising Homestead Act of Dec. 29, 1916, 39 Stat. 862, 865, 43 U.S.C. § 300 (SRHA), which provided that withdrawn “lands containing water holes or other bodies of water needed or used by the public for watering purposes ... shall, while so reserved, be kept and held open to the public use for such purposes....” Although the Stock-Raising Homestead Act and the underlying authority of the President to withdraw such lands pursuant to the Pickett Act of 1910, 36 Stat. 847, was repealed by FLPMA in 1976, withdrawals (such as the 1926 Executive Order) made pursuant to those authorities remain in force today. 43 U.S.C. § 1701 note (FLPMA).

The Project’s ground water pumping/dewatering cannot cause springs/waterholes established under PWR 107 in 1926 to be eliminated or have substantially reduced flows. Under the PWR 107 Executive Order and related laws, BLM cannot authorize activities that will impair the public use of any reserved waters and/or lands. BLM’s approval of pumping/dewatering, and other activities associated with the Project, which could dry up or materially reduce springs and waterholes protected by PWR 107, would not be in compliance with these requirements.

BLM cannot cause the loss of federal property such as PWR 107 reserved water rights and lands without congressional or Presidential authorization.

Destruction or loss of the reserved waters and withdrawn lands under PWR 107, including the location of Project facilities within the withdrawn lands, and/or the preclusion of public access via fencing, is prohibited under PWR 107, FLPMA, and the SRHA.

Failure to review and fully protect the reserved water rights, waters, springs and water holes, related withdrawn lands, and public uses of these lands and waters, violates PWR 107, the SHRA, and BLM’s duty under FLPMA to “by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the [public] lands.” 43 U.S.C. § 1732(b).

BLM must also review and fully protect these resources pursuant to FLPMA’s mandate that: “the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values.” 43 U.S.C. § 1701(a)(8).

In addition, BLM must ensure that the Project will not disturb public lands withdrawn by the 1926 Executive Order in contravention of the purposes for which the land was withdrawn. Any mining claims filed or located on lands withdrawn by PWR 107 are null and void unless they meet the requirements under the Mining Law for the discovery of a valuable mineral deposit. “Mining claims located on lands not open to appropriation are null and void ab initio.” *Mount Royal Joint Venture v. Kempthorne*, 477 F.3d 745, 756 (D.C. Cir. 2007), citing *Shiny Rock Mining Corp. v. United States*, 825 F.2d 216, 219 (9th Cir. 1987) (same).

BLM must also keep the withdrawn lands “held open to the public use” as required by the SRHA, PWR 107, and FLPMA.

BLM must consider, and can only approve, an alternative of locating/constructing Project facilities away from the lands withdrawn around the PWR 107 springs, and consider an alternative of not allowing the flows in these Springs to be diminished, in order to comply with PWR 107. The

consideration of alternatives is “the heart of the environmental impact statement.” 40 CFR § 1502.14. DOI/BLM has a duty to take a “hard look” at all reasonable alternatives to, and the environmental impacts from, Project operations. The agency must also adequately analyze mitigation measures to protect ground and surface water, and to adequately analyze the direct, indirect, and cumulative impacts to these resources.

## 2. Hydrology.

A complete characterization of the surface waters and springs and an understanding of groundwater movement is needed. To achieve this end, at least one year of monthly samples followed by quarterly samples, as a baseline. There should have been recorded water level data in every exploration bore-hole collected. An adequate number of those boreholes should become monitoring wells and there should be a minimum 2 years of hydrologic baseline collected.

Complete assay analysis is also needed to include Safe Drinking Water and Nevada Dept. of Environmental Protection standards.

Changes in water dynamics need to be examined as to how local flora and fauna will be affected; potential loss of springs or changes in the water table, for example. Analysis must address whether the springs are on wildlife migratory routes, and, if so, how migrations will be affected. Of particular concern is how Thacker Creek and downstream reservoirs will be affected including all seeps and springs including an analysis of the potential loss of riparian areas.

## 3. Geochemical analysis.

The geochemical analysis of waste rock, heap leach and tailings materials must be updated using data gathered since the last analysis for potential acid production, including crystallographic analysis to determine the extent of fracturing expected upon blasting. In this regard the full range of static and kinetic tests need to be performed: determine the NAPP and NAG values, for example. The DEIS should contain a plan to handle acid generation, or a contingency plan accounting for markedly varying acid generation capacity as the mining proceeds that is not expected from preliminary testing. In our experience, predictions are often far off the mark, so detailed plans are needed for public review to assure that the various operations will be able to mitigate in the event of acid generation.

## 4. Reclamation.

There must be a reclamation plan that includes how the mine will deal with the occurrence of leaks in the waste water containment system; mill tailings pond, heap/leach, and waste rock. The proposed mine will implore an acid leach process, so a detailed analysis of fate of drainage from tailings is warranted. MWMP tests of feed ore and gangue materials indicate the potential for very toxic drainage of the tails. According to the PoO the tailings will be lined with a HDPE geomembrane liner, which is needed for acid leached ore. The DEIS should estimate the lifetime of the liner and drainage capture system, and an analysis of the consequences of liner failure, which will occur eventually.

The mine plan calls for considerable processing facilities and an acid plant. BLM must analyze potential effects from years of operation at an industrial site where numerous spills are likely to occur. The DEIS should base the analysis on other similar processing facilities to determine the extent of chemicals released on site and the reclamation needed to detoxify the area. BLM should require a detailed plan for arresting spills and cleanup procedures.

## **Air Issues**

### **1. Mercury emissions.**

The ore and waste rock needs to be analyzed for mercury content. There needs to be a mercury capture plan with anticipated mercury emissions. Analysis of environmental impacts from expected mercury emissions is also needed.

In addition to considering mercury emissions from thermal processes the DEIS should discuss impacts from fugitive emission off of heap leach, tailings, and waste rock facilities. Work publicly presented in November 2009, measured these mercury emissions determining that they are not insignificant. Two mines were used in the study, Twin Creeks (Newmont) and Cortez-Pipeline (Barrick), where it was estimated that the fugitive emissions accounted for 19% (12 to 21%) and 17% (15 to 31%) of total at Twin Creeks and Cortez-Pipeline respectively. Thus, according to this analysis the increase in emissions due to fugitive emissions was calculated at 23% (13 to 27%) and 20% (17 to 46%) for the mines respectively.

GBRW/PLAN/BRW does not accept any argument that these fugitive mercury emissions cannot be estimated and therefore are unknowable. The toxicity of mercury alone demands that every attempt be made to determine the extent of all possible sources and pathways into the environment. In fact the Final Supplementary EIS for the Cortez Hills Expansion Project did provide an estimate of fugitive mercury emissions.<sup>iii</sup>

### **2. Hazardous Air Emissions**

Analysis and mitigation of other gaseous emissions (such as sulfur oxides, nitrogen oxides, etc.) from all mine facilities and vehicles is needed. Particularly, since there will be considerable industrialization and the sulfuric acid factory air emissions and odor affects must be analyzed in depth.

### **3. Particulates.**

The expected amount of airborne particles as dust or diesel vehicular emissions from all aspects of the project needs to be determined with concentrations for varying wind factors. Impacts of the “dust” should be evaluated for inhalation health impacts, visibility impairment, and resettling on surface water and vegetation. In the case of resettling on surface water there should be a chemical analysis of the dust to determine whether the dust could have an adverse effects on the chemistry of the water. In general, there needs to be a plan for dust control.

## **Wildlife Issues**

### **1. Flora and Fauna in General**

A full inventory of the loss of plant and animal species, examining both estimated numbers and specie variation needs to be done as a result of land disturbance, waste rock, heap leach pads, and tailings coverage. The Montana range is also very important and sensitive habitat for sage grouse, big horn sheep, raptors, and other Great Basin species. The DEIS needs to include the entire area of the Montana range in the cumulative impacts region. The affects of noise, air and water quality and habitat destruction need to be thoroughly analyzed.

### **2. The EIS Should Include Wildlife and Habitat Protection Alternatives**

*Montana Mountains Wildlife Mitigation Alternative*

Immediately to the north of the proposed Project lie the Montana Mountains. They include important habitat for wildlife, including greater sage-grouse and Lahontan cutthroat trout, as well as highly suitable bighorn habitat that was occupied until the Montana Mountain bighorn herd was euthanized in 2016 due to a disease outbreak. To mitigate for the proposed Project's destruction of wildlife habitat and noise impacts to wildlife, the Montana Mountains should be protected as an Area of Critical Environmental Concern managed to protect wildlife and cultural resources. It is our understanding that the Project Applicant has stated publicly that it will not mine in the Montana Mountains, so creating an ACEC would not thwart potential expansion plans.

Creating a new ACEC is an option that is open to BLM because BLM is not only preparing an EIS for the proposed Thacker Pass lithium mine, but is also preparing a Resource Management Plan amendment related to the mine. The RMP amendment process is the administrative moment in which new ACECs are considered. 43 CFR § 1610.7-2 states, "Areas having potential for Areas of Critical Environmental Concern (ACEC) designation and protection management shall be identified and considered throughout the resource management planning process."

A Montana Mountains ACEC would meet 43 CFR § 1610.7-2's criteria for ACEC designation (relevance and importance). The relevance criterion is met because there are there are significant fish and wildlife resources currently present in the Montana Mountains (Lahontan cutthroat trout<sup>1</sup> and greater sage-grouse leks and habitat). The importance criterion is met because the Montana Mountains have state and regional importance as wildlife habitat (Lahontan cutthroat trout, greater sage-grouse) that go well beyond the Montana Mountains' local importance to wildlife.

Because this is a viable mitigation alternative that meets the ACEC designation criteria and because BLM already plans to revise the RMP, BLM is obligated to fully analyze this alternative in the EIS.

#### *Double H Mountains Wildlife Mitigation Alternative*

Immediately to the south of the Project lie the Double H Mountains. They include important habitat for wildlife, including the Double H bighorn herd. To mitigate for the proposed Project's wildlife mortality, destruction of wildlife habitat, and noise impacts to wildlife, the Double H Mountains should be protected as an Area of Critical Environmental Concern managed to protect wildlife and cultural resources.

Creating a new ACEC is an option that is open to BLM because BLM is not only preparing an EIS for the proposed Thacker Pass lithium mine, but is also preparing a Resource Management Plan amendment related to the mine. The RMP amendment process is the administrative moment in which new ACECs are considered. 43 CFR § 1610.7-2 states, "Areas having potential for Areas of Critical Environmental Concern (ACEC) designation and protection management shall be identified and considered throughout the resource management planning process."

A Double H Mountains ACEC would meet 43 CFR § 1610.7-2's criteria for ACEC designation (relevance and importance). The relevance criterion is met because there are there are significant fish and wildlife resources currently present in the Double H Mountains (Double H bighorn herd). The importance criterion is met because the Double H Mountains have state and regional importance as wildlife habitat. The Double H bighorn herd is a source stock for translocation

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<sup>1</sup> Lahontan Cutthroat Trout are listed as a threatened species under the Endangered Species Act. Attachment 4 details Lahontan Cutthroat Trout monitoring in five creeks in the Montana Mountains and reports their presence in two. Nevada Department of Wildlife. 2016. Federal Aid Job Progress Report: F-20-52 2016. Lahontan Cutthroat Trout Study.

efforts elsewhere,<sup>2</sup> so protecting its habitat is important for protecting the health of bighorn herds beyond the local area.

Because this is a viable mitigation alternative that meets the ACEC designation criteria and because BLM already plans to revise the RMP, BLM is obligated to fully analyze this alternative in the EIS.

#### *Thacker Creek Protection Alternative*

Perennial surface water is precious in the desert and needs to be protected everywhere it occurs. Thacker Creek is an especially important surface water resource for area wildlife. The EIS should include an alternative with protection measures that ensure that Thacker Creek's water quality and quantity does not decrease. These include, but are not limited to, moving mine features considerably further away from Thacker Creek than currently shown on Project maps.

### 3. Bighorn Sheep

The Project would be located at the northern end of the mapped range of the Double H bighorn herd, where the former Montana Mountains herd's mapped habitat met the Double H's. Activity at the mine and its exploration areas will likely limit natural dispersal/pioneering of members of the Double H bighorn herd northward. This in turn would limit the potential for natural herd reestablishment in the Montana Mountains and limit genetic exchange between the Double H and Trout Creek herds. The mine would also affect any potential future plans to artificially reestablish a Montana Mountains herd. The EIS should assess all of these factors, and discuss the location of the area's traditional bighorn sheep migration route/corridor and the Project's potential impacts to that it. The EIS should also analyze the full impacts of the Project to bighorn, including, but not limited to, noise, roads, possibility of drowning, loss of surface water and vegetation used by the sheep, groundwater loss, and mine leakage.

This is especially important because the Double H bighorn herd is healthy<sup>7</sup> and has been used as source stock for translocations.<sup>8</sup> The EIS must explain how the mine will affect the Double H herd, including whether there is an increased likelihood of dispersal in other directions toward domestic sheep (i.e., into the valleys) because the suitable corridor will be modified or have too much activity for bighorn sheep to tolerate. It is our understanding that the disease transmission that resulted in the 2016 euthanization of the Montana Mountains bighorn herd occurred after nose-to-nose contact of one bighorn with domestic sheep in the Kings River Valley. The Double H herd must be protected from a similar fate. In addition, the EIS should disclose where lambing occurs for the Double H herd, and analyze the Project's impacts on lambing. Finally, because the Double H herd is a source stock for translocations, negative impacts to the Double H herd have potential to harm future bighorn translocation efforts throughout the state and even the region. The EIS should analyze these potential impacts.

We also note that it is the policy of the Nevada Department of Resources (NDOW) that "[t]he Division will increase bighorn populations of all subspecies statewide to a level where all habitats are occupied and each herd is self-sustaining."<sup>3</sup> The impacts of this Project have potential to decrease NDOW's ability to achieve this, which should be discussed in the EIS, including as a

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<sup>2</sup> 2018-2019 Nevada Department of Wildlife Big Game Status Report. Available at [http://www.ndow.org/uploadedFiles/ndoworg/Content/Wildlife\\_Education/Publications/FINAL%202019%20v%20III\(2\).pdf](http://www.ndow.org/uploadedFiles/ndoworg/Content/Wildlife_Education/Publications/FINAL%202019%20v%20III(2).pdf).

<sup>3</sup> Nevada Department of Wildlife. 2001. Bighorn Management Plan. Available at [http://www.ndow.org/uploadedFiles/ndoworg/Content/public\\_documents/Wildlife\\_Education/Publications/bighorn\\_management\\_plan.pdf](http://www.ndow.org/uploadedFiles/ndoworg/Content/public_documents/Wildlife_Education/Publications/bighorn_management_plan.pdf).

potential conflict with a State wildlife plan. Furthermore, bighorn sheep are a BLM Nevada Sensitive Species, and are subject to direction included in Manual 6840, BLM's Special Status Species Management manual.<sup>10</sup> Manual 6840 includes the objective of: "initiat[ing] proactive conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of and need for listing of these species under the ESA" (Objective 0.2 B). The manual further states that "[o]n BLM-administered lands, the BLM shall manage Bureau sensitive species and their habitats to minimize or eliminate threats affecting the status of the species or to improve the condition of the species habitat, by:

1. Determining, to the extent practicable, the distribution, abundance, population condition, current threats, and habitat needs for sensitive species, and evaluating the significance of BLM-administered lands and actions undertaken by the BLM in conserving those species.
2. Ensuring that BLM activities affecting Bureau sensitive species are carried out in a way that is consistent with its objectives for managing those species and their habitats at the appropriate spatial scale.

Manual 6840 at .2A1. In regard to bighorn, this Project clearly conflicts with Manual 6840. The EIS should disclose this conflict and discuss the measures BLM will take to mitigate that conflict.

#### 4. Sage Grouse

Special attention to sensitive species like Sage Grouse need to be thoroughly considered. Thacker Pass borders on Priority sage grouse habitat, and many at the public meeting on February 6 stated the presence of sage grouse in and are the are where the mine is proposed. The sage grouse population above Thacker Pass and into the Montana range are connected to the larger population that extends into Idaho. This is considered a critical population and was part of the proposed minerals withdrawal noticed on September 24, 2015 by the Bureau of Land Management for Sagebrush Focal Areas; Idaho, Montana, Nevada, Oregon, Utah, and Wyoming.

In recent years, Nevada greater-sage grouse habitat has been devastated by wildfire, worsened by livestock grazing, ill-considered vegetation removal projects, mining projects and other development. The result is that greater sage-grouse are at ever increasing risk. The DEIS should provide well-developed baseline data about the local greater sage-grouse population, including long-term population trends, lek trends, genetic connectivity with other sage-grouse populations, accurate site baseline noise levels, and whether the grouse in the local Population Management Area include migratory grouse. The DEIS should also map designated and seasonal sage-grouse habitat. In addition, the DEIS should discuss how the Project will impact greater sage-grouse and its habitat, including but not limited to habitat modification and destruction, noise, roads, power lines, water quality and quantity changes, and potential for predation increases. BLM's 2015 Nevada/Northeastern California Sage-Grouse Approved Resource Management Plan Amendments (2015 Sage-Grouse ARMPA) is currently in effect. The DEIS should detail how this Project would conform to the 2015 Sage-Grouse ARMPA, including its net conservation benefit standard, as well as all of the other requirements of the ARMPA. The Project Applicant's proposed off-site mitigation should also be analyzed in detail, including its durability. We are particularly concerned about the Project's potential for noise impacts, especially in light of baseline noise readings that were collected for the area's prior exploration/clay mine Environmental Assessment. They appear too high for a rural area and should not be relied upon for this Project.

#### 5. Golden Eagles

Golden eagles are important to Nevada, and numbers may be declining in parts of their range. They are a native species. They nest here, raise their young here and live here year-round. Eagles are an inspiration to those who view them on the wing or on perch.

Golden eagles are fully protected under the Bald and Golden Eagle Protection Act, including protection from incidental take and disturbance. Electrocution of golden eagles by powerlines with faulty design is a major problem around the West. Such electrocutions have occurred along the powerline running beside State Hwy 140 a few miles west of Thacker Pass. Compensatory mitigation by the mining company for eagle disturbances around the mining operation should be used to modify faulty powerline design to eliminate golden eagle electrocution in Nevada and elsewhere in the West. The DEIS should thoroughly analyze the Project's potential impacts to golden eagles, such as habitat loss and mortality due to proposed and existing powerlines, and also provide baseline information about golden eagle use of the area. Because golden eagles use large home areas for foraging, the Project's habitat destruction has potential to reduce food sources for the eagles and in turn reduce breeding productivity and chick survival. Therefore, golden eagle nest surveys should be conducted in both the Montana and Double H Mountains, and observational surveys should be conducted at the Project site. The DEIS should also analyze the area's golden eagle population trends, prey population and prey population trends, and whether golden eagle incidental take/disturbance permits will be required. In addition, BLM should require golden eagle monitoring beginning with the Project construction phase and continuing into operations. The EIS should also include an Eagle Conservation Plan, developed with U.S. Fish and Wildlife Services, that contains substantial eagle mitigation measures.

Strict compliance with the requirements of the Bald and Golden Eagle Protection Act should be required if this proposed project is to move forward. Since it is unlikely that the proposed mining development will be unable to certify a no-impact statement regarding golden eagles, it is likely to seek an Eagle Take permit from USFWS based on disturbance (noise, etc). If so, compensatory mitigation must be part of the conditions for granting the permit.

#### 6. Lahontan Cutthroat Trout

The impacts of the Project on Lahontan Cutthroat Trout should be thoroughly analyzed in the DEIS, including, but not limited to, the Project's potential to cause hydrological changes and groundwater loss outside of the immediate Project area. The DEIS should also thoroughly explain the Endangered Species Act Section 7 consultation process and describe the discussions with U.S. Fish and Wildlife Service that have taken place to date.

#### 7. Local Climate.

Analysis should be done to determine whether the land disturbances could change the local microclimate.

#### 3. Migratory species.

An understanding of migratory routes needs to be resolved, and the impacts of the loss of these migratory routes from the various land disturbances should be addressed. BLM needs to produce a solid evaluation of the proposed mitigation strategy for this (and any other) migratory route including data of how similar mitigation methods have been effective elsewhere.

## **Land Issues**

1. All Visual Resource Impacts Must Be Fully Analyzed in the EIS and BLM Must Comply with Visual Management Plan Requirements

The Bureau of Land Management should maintain the Visual Resource Management Class Objectives that have been designated in the 2015 Record of Decision (ROD) and Approved Winnemucca BLM District Resource Management Plan.

According to the RMP Final Environmental Impact Statement: *“Visual Resources In general, all alternatives would involve actions that maintain or improve the quality of visual resources. In addition to relying on the visual resource contrast rating system to preserve the overall scenic quality of BLM-administered land, specific actions also maintain or improve visual resources involving air, water, flora, fauna, wildland fire, cultural resources, minerals, and recreation.”*

The RMP’s Record of Decision designated Visual Resource Management Classes for the entire BLM District. The BLM will manage visual resources on BLM lands under the following VRM class designations: • Class I – 418,201 acres; • Class II – 2,793,312 acres; • Class III - 3,073,906 acres; and • Class IV - 961,504 acres.

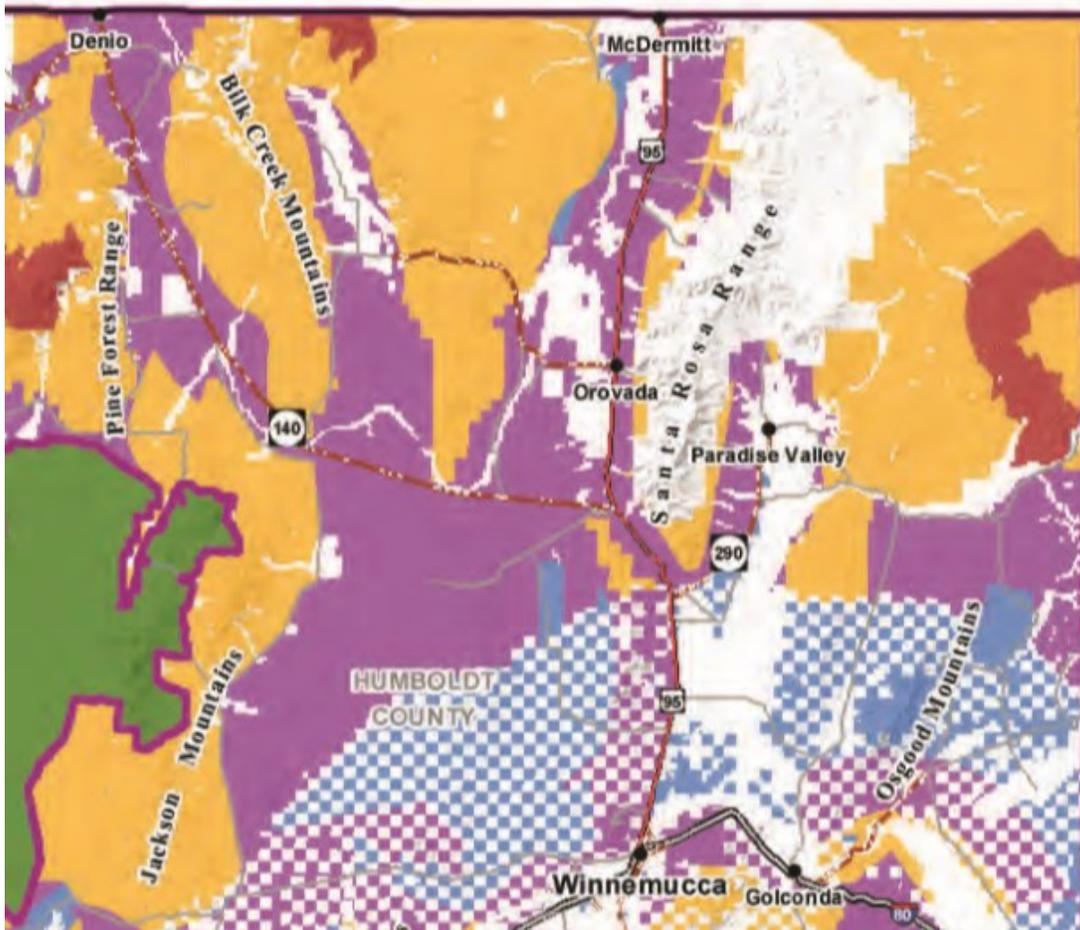
Most of the Thacker Pass area is designated VRM Class II and some is VRM Class III. The two most impacted VRM Classes in the area are defined:

**Class II Objective:** *The existing character of the landscape is retained. The level of change to the characteristic landscape should be low. Changes can be seen but should not attract the attention of the casual viewer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.*

**Class III Objective:** *The existing character of the landscape is partially retained. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.*

Roughly 100,000 acres of VRM Class II lands would potentially be impacted by the Thacker Pass Project. In addition, tens of thousands of acres of VRM Class III lands could be impacted by the project.





Thacker Pass and Montana Mountains region (Source: Winnemucca BLM District RMP). The orange regions are designated VRM Class II and surround the proposed mine.

The Federal Lands Policy Management Act (FLPMA) provides for the management and protection of public lands, including their scenic quality. ROW grants on federal lands must contain terms and conditions that would minimize damage to scenic quality and aesthetic values (Section 505a). The BLM manages land under its jurisdiction according to the goals and policies outlined in their RMPs; the 2015 Winnemucca District RMP is the applicable plan for the Thacker Pass Project. The 2015 RMP identifies the components of the VRM system that apply to lands within the Winnemucca district. The VRM system provides a means to identify visual values, establish objectives through the RMP process for managing these values, and provide timely inputs into proposed surface-disturbing projects to ensure that these objectives are met. The Project area is within VRM Class II because of the natural features and settings within the area.

The Visual Resource Inventory (VRI) is a process for determining visual (scenic) values in a management area at a specific point in time and follows the guidelines in BLM Manual Handbook H-8410-1, Visual Resource Inventory (BLM 1986b). Three primary components comprise a visual resource inventory: (1) scenic quality evaluation, (2) sensitivity level analysis, and (3) delineation of distance zones. Landscapes are then given a VRI class based on the inventory. BLM-administered lands are placed into one of four VRI classes, which represent the relative value of the visual resources. Classes I and II are the most valued; Class III represents a moderate value; and Class IV represents the least value (BLM 1986b). The Project is located primarily in VRI Class III (moderate value), while a portion of the proposed mine is in VRI Class IV (least value) (Otak, Inc.

2011). VRI classes do not direct management but provide information to the BLM when making management decisions. The VRI contains the baseline data for assessing impacts on the existing landscape character.

Visual resources must be protected under the Federal Land Policy and Management Act of 1976, 43 U.S.C. 1701 et. seq.;

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1. Section 102 (a)(8). States that “...the public lands be managed in a manner that will protect the quality of the...scenic...values...”

2. Section 103 (c). Identifies “scenic values” as one of the resources for which public land should be managed.

3. Section 201 (a). States that “The Secretary shall prepare and maintain on a continuing basis an inventory of all public lands and their resources and other values (including...scenic values)...”

4. Section 505 (a). Requires that “Each right-of-way shall contain terms and conditions which will... minimize damage to the scenic and esthetic values....”

B. National Environmental Policy Act of 1969, 43 U.S.C. 4321 et. seq.;

1. Section 101 (b). Requires measures be taken to “...assure for all American...esthetically pleasing surroundings....”

2. Section 102. Requires agencies to “Utilize a systematic, interdisciplinary approach which will ensure the integrated use of...Environmental Design Arts in the planning and decision making....”

Both NEPA and FLPMA recommend that Visual Resource Management be decided on the RMP level. On a cumulative level, the Thacker Pass lithium mine would have distant visual impacts that must be thoroughly analyzed in the EIS.

**Full 90-Day Comment Period Required for RMP Amendments.** To amend the RMP to accommodate the Thacker Pass lithium mine, BLM must follow NEPA implementing regulations.

<sup>4</sup> These include, but are not limited to, providing a full 90-day public comment for the RMP amendment, per 43 CFR §1610.2(e): “Ninety days shall be provided for review of the draft plan and draft environmental impact statement.”

**Review of VRM Classes.** The following contrast rating factors should be considered for the review of the Thacker Pass Project, as specified in BLM Manual 8431:

*Distance Zones* - The contrast created by a project usually is less as viewing distance increases.

*Angle of Observation* - The apparent size of a project is directly related to the angle between the viewer’s line-of-sight and the slope upon which the project is to take place. As this angle nears 90 degrees (vertical and horizontal), the maximum area is viewable.

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<sup>4</sup> See 43 CFR §1610.5-5 : “An amendment shall be made through an environmental assessment of the proposed change, or an environmental impact statement, if necessary, public involvement as prescribed in §1610.2 of this title, interagency coordination and consistency determination as prescribed in §1610.3 of this title and any other data or analysis that may be appropriate. In all cases, the effect of the amendment on the plan shall be evaluated. If the amendment is being considered in response to a specific proposal, the analysis required for the proposal and for the amendment may occur simultaneously.”

*Length of Viewing Time* - If the viewer has only a brief glimpse of the project, the contrast may not be of great concern. If, however, the project is subject to view for a long period, as from an overlook, the contrast may be very significant.

*Relative Size or Scale* - The contrast created by the project is directly related to its size and scale as compared to the surroundings in which it is placed.

*Season of Use* - Contrast ratings should consider the physical conditions that exist during the heaviest or most critical visitor use season, such as snow cover and tree defoliation during the winter, leaf color in the fall, and lush vegetation and flowering in the spring.

*Light Conditions and Atmospheric Conditions* - The amount of contrast can be substantially affected by the light conditions and atmospheric conditions. The direction and angle of lighting can affect color intensity, reflection, shadow, form, texture, and many other visual aspects of the landscape. Light conditions must be a consideration in contrast ratings. Atmospheric conditions can affect contrast.

*Recovery Time* - The amount of time required for successful revegetation should be considered. Those conducting contrast rating should verify the probability and timing of vegetative recovery.

*Spatial Relationships* - The relationship of the proposed project with surrounding features.

*Motion* – traffic associated with the mine.

**Distance Zone Delineation.** Within the Visual Resource Inventory process, distance zones are assigned based on the distance of lands from places where people are known to be present on a regular basis, such as highways, waterways, trails, or other key locations. They include the following:

*Foreground-middle ground* – This zone includes visible areas from 0 to 5 mi.

*Background* – This zone includes visible areas from 5 to 15 mi.

*Seldom seen* – This zone includes lands visible beyond 15 mi or lands hidden from view from key locations.

The effects of distance are highly dependent on the size and other characteristics of the facility and the landscape, and must be incorporated into the contrast and impact analyses and mitigation efforts on a case-by-case basis.

Nearly all distance zones within the Thacker Pass area would be impacted by the proposed Project and should be analyzed in the Draft EIS.

**Key Observation Point (KOP) Simulations:** The DEIS should include a full range of Key Observation Point simulations. These KOP simulations should include close-up views from access roads, distant views from peaks and prominent ridges in the Montana and Double H Mountains and should also include night lighting simulations:

- KOP Simulations should show the entire disturbance on 5,500 acres
- KOP Simulations should show large open pits and contrasts from different times of day
- KOP Simulations should show new roads associated with continued exploration.
- KOP Simulations should show illuminated facilities at night- time from close and distant locations
- 

**Downgrading the VRM Class.** Will the BLM downgrade the visual classes in the RMP amendment? The Proposed Action and each alternative include amending the Visual Resource

Management (VRM) Class II and Class III objectives in the 2015 Winnemucca RMP district to a Visual Resource Management Class IV objective, which will allow for management activities that require major modifications of the existing landscape character.

In 2014, the Bureau of Land Management, Las Vegas Field Office downgraded the VRM Class in their district to approve the Silver State South Solar Project which they concluded would have major impacts to VRM Classes II and III.

## 2. Open Pits

A complete restoration plan for all aspects of the mine needs to be detailed. A plan for restoring the landscape to as close as possible to the pre-mining appearance should be developed. The current mine does call for backfilling of the pit, which GBRW supports.

## 3. BLM Must Apply the Proper Regulatory Authorities Over the Project

BLM appears to be basing its review of the Project on the assumption that Nevada Lithium has statutory rights to conduct all of their proposed operations, based on the mere staking of claims under the 1872 Mining Law, 30 U.S.C. §§21-43. This includes the permanent waste rock and tailings dumps, which cover thousands of acres. BLM's position is wrong.

Rights to mine and possess lands containing valuable minerals “under the mining laws of the United States” do not extend to lands that do not contain such valuable minerals: “A claimant may not use the deposit present in one location to lend validity to an adjacent location. *See Waskey v. Hammer*, 223 U.S. 85, 91 (1912) (‘A discovery without the limits of the claim, no matter what its proximity, does not suffice.’); *Lombardo Turquoise Milling & Mining Co. v. Hemanes*, 430 F.Supp. 429, 443 (D. Nev. 1977).” *Center for Biological Diversity v. U.S. Fish and Wildlife Service*, --- F.Supp.3d---, 2019 WL3503330, \*11 (D. Ariz. 2019).

“The statute [1872 Mining Law] grants two rights, (1) the right to explore and purchase all valuable mineral deposits in lands belonging to the United States; and (2) the right to occupation and purchase of the lands in which valuable mineral deposits are found. ... [I]t is clear under both the mining law and the regulations that a discovery of valuable mineral is the sine qua non of an entry to initiate vested rights against the United States.” *Davis v. Nelson*, 329 F.2d 840, 844-45 (9<sup>th</sup> Cir. 1964). Thus, without the discovery of a valuable mineral deposit, the claimant does not have a statutory right to occupation of those lands.

Such statutory rights can only accrue to the company if these claims satisfy the requirements of the 1872 Mining Law for possessory rights. “A mining claimant has the right to possession of a claim only if he has made a mineral discovery on the claim.” *Lara v. Secretary of the Interior*, 820 F.2d 1535, 1537 (9<sup>th</sup> Cir. 1987). *See also Davis v. Nelson*, 329 F.2d at 845 (9<sup>th</sup> Cir. 1964) (“right to occupation and purchase of the lands” is limited to only those lands “in which valuable mineral deposits are found.”).

The Mining Law limits the permanent use and development of mining claims on public lands to only those lands that contain a “valuable mineral deposit.” “All valuable mineral deposits in lands belonging to the United States ... shall be free and open to exploration and purchase, and the lands in which they are found to occupation and purchase.” 30 U.S.C. § 22. Only upon the discovery of a “valuable mineral deposit,” within the boundaries of each mining claim does the claimant have rights to permanently use and occupy those public lands.

“Thus, although a claimant may explore for mineral deposits before perfecting a mining claim, without a discovery, the claimant has no right to the property against the United States or an intervenor. 30 U.S.C. § 23 (mining claim perfected when there is a ‘discovery of the vein or lode’); *see also Cole v. Ralph*, 252 U.S. 286, 295–96 (1920).” *Freeman v. Dept. of Interior*, 37 F.Supp.3d 313, 319 (D.D.C. 2014). “If there is no valuable mineral deposit beneath the purported unpatented mining claims, the unpatented mining claims are completely *invalid* under the 1872 Mining Law, and no property rights attach to those invalid unpatented mining claims.” *Center for Biological Diversity v. U.S. Fish and Wildlife Service*, ---F.Supp.3d ---, 2019 WL3503330, \*5 (D. Ariz. 2019)(emphasis in original).

To satisfy the discovery requirement necessary for a valid mining claim, “the discovered deposits must be of such a character that a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine.” *U.S. v. Coleman*, 390 U.S. 599, 602 (1968). This economic test for claim validity necessarily includes the consideration of all costs necessary to develop, process, transport, and market the mineral, including costs to protect public land and the environment. “[I]t must be shown that the mineral can be extracted, removed and marketed at a profit.” *Id.*

There is no evidence in the record that the mining claims covering the public lands proposed for the tailings, waste rock dumps, and other ancillary operations are valid under the Mining Law. BLM must inquire into whether the mining claims at the Project site are valid as a prerequisite for BLM to base its review/approval on any purported “rights” under the Mining Law.

Based on the proposed PoO, there is no evidence that the claims to be used for waste rock dumps, tailings waste facilities, and other non-extraction operations away from the mine pit are valid under the Mining Law. Based on the available record, these lands contain common varieties of rock that are not considered locatable minerals under federal mining law. Under the Surface Resources and Multiple Use Act of 1955, “common varieties” of minerals are not locatable (i.e., cannot be legitimately claimed) under the Mining Law. 30 U.S.C. § 611. BLM must determine whether the lands to be used for the waste rock dumps, the tailings facilities, and other non-extractive operations contain locatable minerals or common variety minerals.

Unless the company provides the necessary credible evidentiary support for the assertion of occupancy rights under the Mining Law on each claim, BLM must apply its special use permitting regulations. 43 C.F.R. Part 2900/2920 (Leases, Permits, Easements). Here, because the waste rock dumps, tailings facilities and other Project activities are not governed under any rights associated with the 1872 Mining Law as noted above, the agency must regulate all of these activities under Part 2900/2920, instead of Part 3809.

FLPMA requires BLM to “by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the [public] lands.” 43 U.S.C. § 1732(b). In addition, FLPMA mandates that: “the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values.” 43 U.S.C. § 1701(a)(8).

FLPMA does, however, contain some limits on DOI/BLM authority over operations authorized by the 1872 Mining Law:

Except as provided in section 314, section 603, and subsection (f) of section 601 of this Act and in the last sentence of this paragraph, no provision of this section or any other section of this Act shall in any way amend the Mining Law of 1872 or **impair the rights**

**of any locators or claims under that Act**, including, but not limited to, rights of ingress and egress. In managing the public lands the Secretary shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands.

43 U.S.C. § 1732(b)(emphasis added).

Under FLPMA, DOI/BLM has full discretion and authority over operations proposed on public lands, including hardrock mining operations such as the Project, to “protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values.” 43 U.S.C. § 1701(a)(8). However, such discretion/authority is limited to only “preventing unnecessary or undue degradation” of public resources if the application of that discretion/authority “impair[s] the rights of any locators or claims under that Act [the 1872 Mining Law].” 43 U.S.C. § 1732(b).

Here, as detailed above, neither the company nor BLM have attempted to show that the company has met the legal prerequisites of the Mining Law to have “rights” to the use and possession of its mining claims (e.g., no evidence that the claims covering all of the waste/tailings facilities contain the requisite valuable deposit of a locatable mineral). As such, there are no “rights” that can be “impaired” by BLM’s full discretionary authority over those aspects of the Project that do not have the necessary factual basis to support such rights.

BLM’s discretionary authority is implemented in part via BLM’s special use FLPMA regulations, which apply whenever activities are not “authorized” by other laws. “Any use not specifically authorized under other laws or regulations and not specifically forbidden by law may be authorized under this part.” 43 CFR § 2920.1-1. Thus, because the waste rock, tailings dump, and other ancillary facilities are not “authorized by the mining laws,” absent verified evidence that these uses satisfy the Mining Law’s prerequisite requirements, they are governed by Part 2900/2920, not Part 3809.

The Part 2920 FLPMA regulations require that:

- (b) Each land use authorization shall contain terms and conditions which shall:
  - (1) Carry out the purposes of applicable law and regulations issued thereunder;
  - (2) Minimize damage to scenic, cultural and aesthetic values, fish and wildlife habitat and otherwise protect the environment;
  - (3) Require compliance with air and water quality standards established pursuant to applicable Federal or State law; and
  - (4) Require compliance with State standards for public health and safety, environmental protection, siting, construction, operation and maintenance of, or for, such use if those standards are more stringent than applicable Federal standards.
- (c) Land use authorizations shall also contain such other terms and conditions as the authorized officer considers necessary to:
  - (1) Protect Federal property and economic interests;
  - (2) Manage efficiently the public lands which are subject to the use or adjacent to or occupied by such use;
  - (3) Protect lives and property;
  - (4) Protect the interests of individuals living in the general area of the use who rely on the fish, wildlife and other biotic resources of the area for subsistence purposes;
  - (5) Require the use to be located in an area which shall cause least damage to the environment, taking into consideration feasibility and other relevant factors; and
  - (6) Otherwise protect the public interest.

43 C.F.R. § 2920.7(b).

These FLPMA requirements – to “protect the public interest,” to “Protect federal property,” and to “minimize damage to scenic, cultural and aesthetic values, fish and wildlife habitat and otherwise protect the environment,” are not found in the basic command to “prevent unnecessary or undue degradation” that applies to “operations authorized by the mining laws.” 43 C.F.R. § 3809.1(a).

Accordingly, BLM must fully consider the alternative of regulating (and/or potentially denying) these facilities under the Part 2920 regulations including any Environmentally Preferred Alternative and the No-Action Alternative.

Similarly, BLM can only approve access and other public land uses such as pipelines, transmission lines, etc, under FLPMA’s Title V Right-of-Way (ROW) provisions. Under FLPMA Title V, Section 504, the agency may grant a Right-of-Way (ROW) only if it “(4) will do no unnecessary damage to the environment.” 43 U.S.C. § 1764(a). Rights of way “shall be granted, issued or renewed ... consistent with ... any other applicable laws.” *Id.* § 1764(c). A right-of-way that “may have significant impact on the environment” requires submission of a plan of construction, operation, and rehabilitation of the right-of-way. *Id.* § 1764(d). A Title V SUP/ROW “shall contain terms and conditions which will ... (ii) minimize damage to scenic and esthetic values and fish and wildlife habitat and otherwise protect the environment.” *Id.* § 1765(a). In addition, the ROW can only be issued if activities resulting from the ROW:

- (i) protect Federal property and economic interests; (ii) manage efficiently the lands which are subject to the right-of-way or adjacent thereto and protect the other lawful users of the lands adjacent to or traversed by such right-of-way; (iii) protect lives and property; (iv) protect the interests of individuals living in the general area traversed by the right-of-way who rely on the fish, wildlife, and other biotic resources of the area for subsistence purposes; (v) require location of the right-of-way along a route that will cause least damage to the environment, taking into consideration feasibility and other relevant factors; and (vi) otherwise protect the public interest in the lands traversed by the right-of-way or adjacent thereto.

FLPMA, § 1765(b).

At least three important potential substantive requirements flow from the FLPMA’s ROW provisions. First, BLM has a mandatory duty under Section 505(a) to impose conditions that “will minimize damage to scenic and esthetic values and fish and wildlife habitat and otherwise protect the environment.” *Id.* §1765(a). The terms of this section do not limit “damage” specifically to the land within the ROW corridor. Rather, the repeated use of the expansive term “the environment” indicates that the overall effects of the ROW on cultural/historical, wildlife, environmental, scenic and aesthetic values must be evaluated and these resources protected. In addition, the obligation to impose terms and conditions that “protect Federal property and economic interests” in Section 505(b) requires that the USFS must impose conditions that protect not only the land crossed by the right-of-way, but **all** federal land affected by the approval of the ROW. This includes the federal waters and water rights that will be eliminated or significantly reduced by the project.

The requirements in Section 505(b) mandate a USFS determination as to what conditions are “necessary” to protect federal property and economic interests, as well as “otherwise

**protect[ing] the public interest in the lands traversed by the right-of-way or *adjacent thereto*.**” (emphasis added). This means that the agency can only approve the ROW if it “protects the public interest in lands” not only upon which the road would traverse, but also lands and resources adjacent to and associated with the ROW. As noted herein, USFS would be unable to make a legitimate finding that industrial use of the lands served by the ROW, given the massive adverse impacts from the Mine, would “protect the public interest.”

Third, is the requirement that the right-of-way grants “do no unnecessary damage to the environment” and be “consistent with . . . any other applicable laws,” *id.* §§ 1764(a)-(c). This means that a grant of a ROW supporting other activities must satisfy all applicable laws, regulations and policies, including FLPMA, the Endangered Species Act, Organic Act, NFMA, NHPA, Clean Water and Air Acts, all state and local laws, etc. The federal courts have repeatedly held that the federal land agency not only has the authority to consider the adverse impacts on lands and waters outside the immediate ROW corridor, it has an obligation to protect these resources under FLPMA. In County of Okanogan v. National Marine Fisheries Service, 347 F.3d 1081 (9<sup>th</sup> Cir. 2003), the court affirmed the agency’s imposition of mandatory minimum stream flows as a condition of granting a ROW for a water pipeline across public land. This was true even when the condition/requirement restricted or denied vested property rights (in that case, water rights). *Id.* at 1085-86.

Similar to the County of Okanogan and Colorado Trout Unlimited federal court decisions noted above, the Interior Department has held that the fact that a ROW applicant has a property right that may be adversely affected by the denial of the ROW does not override the agency’s duties to protect the “public interest.” In Kenneth Knight, 129 IBLA 182, 185 (1994), the BLM’s denial of the ROW was affirmed due not only to the direct impact of the water pipeline, but on the adverse effects of the removal of the water in the first place:

[T]he granting of the right-of-way and concomitant reduction of that resource, would, in all likelihood, adversely affect public land values, including grazing, wildlife, and riparian vegetation and wildlife habitat. The record is clear that, while construction of the improvements associated with the proposed right-of-way would have minimal immediate physical impact on the public lands, the effect of removal of water from those lands would be environmental degradation. Prevention of that degradation, by itself, justified BLM's rejection of the application.

1994 WL 481924 at \*3.

The Interior Department has ruled that pipelines and associated infrastructure, including those across public land related to a mining operation, are not covered by statutory rights under the Mining Law. “[A] right-of-way must be obtained prior to transportation of water across Federal lands for mining.” Far West Exploration, Inc., 100 IBLA 306, 308 n. 4 (1988) *citing* Desert Survivors, 96 IBLA 193 (1987). *See also* Alanco Environmental Resources Corp., 145 IBLA 289, 297 (1998) (“construction of a road, was subject not only to authorization under 43 C.F.R. Subpart 3809, but also to issuance of a right-of-way under 43 C.F.R. Part 2800.”); Wayne D. Klump, 130 IBLA 98, 100 (1995) (“Regardless of his right of access across the public lands to his mining claims and of his prior water rights, use of the public lands must be in compliance with the requirements of the relevant statutes and regulations [FLPMA Title V and ROW regulations].”).

The Interior Board of Land Appeals has expressly rejected the argument that rights under the mining laws apply to pipelines and roads associated with water delivery:

Clearly, FLPMA repealed or amended previous acts and Title V now requires that BLM approve a right-of-way application prior to the transportation of water across public land for mining purposes. See 43 U.S.C. § 1761 (1982). As was the case prior to passage of Title V of FLPMA, however, approval of such an application remains a discretionary matter and the Secretary has broad discretion regarding the amount of information he may require from an applicant for a right-of-way grant prior to accepting the application for consideration. Bumble Bee Seafoods, Inc., 65 IBLA 391 (1982). A decision approving a right-of-way application must be made upon a reasoned analysis of the factors involved in the right-of-way, with due regard for the public interest. See East Canyon Irrigation Co., 47 IBLA 155 (1980).

BLM apparently contends that a mining claimant does not need a right-of-way to convey water from land outside the claim for use on the claim. It asserts that such use is encompassed in the implied rights of access which a mining claimant possesses under the mining laws. Such an assertion cannot be credited.

The implied right of access to mining claims never embraced the right to convey water from outside the claim for use on the claim. This latter right emanated from an express statutory grant in the 1866 mining act. See 30 U.S.C. § 51 (1970) and 43 U.S.C. § 661 (1970). In enacting FLPMA, Congress repealed the 1866 grant of a right-of-way for the construction of ditches and canals (see § 706(a) of FLPMA, 90 Stat. 2793) and provided, in section 501(a)(1), 43 U.S.C. § 1761(a)(1), for the grant of a right-of-way for the conveyance of water under new procedures. In effect, Congress substituted one statutory procedure for another. **There is simply no authority for the assertion that mining claimants need not obtain a right-of-way under Title V for conveyance of water from lands outside the claim onto the claim.**

Desert Survivors, 96 IBLA 193, 196 (1987)(emphasis added). See also Far West Exploration, 100 IBLA 306, 309, n. 4 (1988)(“a right-of-way must be obtained prior to transportation of water across Federal lands for mining.”). The same analysis applies to water, tailings, and power either delivered to, or conveyed from, the project sites. The leading treatise on federal natural resources law confirms this rule: “Rights-of-way must be explicitly applied for and granted; approvals of mining plans or other operational plans do not implicitly confer a right-of-way.” Coggins and Glicksman, PUBLIC NATURAL RESOURCES LAW, §15.21.

Lastly, BLM must comply with the financial requirements of the FLPMA regarding ROW applications and approvals, as well as for Special Use Permits. At a minimum, BLM must obtain “Fair Market Value” (FMV) for the use of federal land and resources. FLPMA requires that “the United States receive fair market value of the use of the public lands and their resources.” 43 U.S.C. §1701(a)(9). “The holder of a right-of-way shall pay in advance the fair market value thereof, as determined by the Secretary granting, issuing, or renewing such right-of-way.” 43 U.S.C. §1764(g). In addition, Nevada Lithium must fully “reimburse the United States for all reasonable administrative and other costs incurred in processing an application for such right-of-way and in inspection and monitoring of such construction, operation, and termination of the facility pursuant to such right-of-way.” Id.

## Cultural Issues

### 1. Archeological.

The project area must be surveyed for historical and archeological artifacts, and mitigation plans must be developed for any of these sites.

### 2. Native American Cultural.

In the American Indian Religious Freedom Act (AIRFA), Congress stated that “[i]t shall be the policy of the United States to protect and preserve for American Indians their inherent freedom to believe, express, and exercise the traditional religions.” 42 USC § 1996 (1982). The BLM must analyze the cumulative impact to the ability of Native Americans to fully practice the traditional religions within the study area (at least as defined by the mines delineated on page two above). The analysis must include both known sacred and spiritual sites as well as traditional food and medicine gathering, important components of traditional practice.

### 3. Western Shoshone Lands.

In the event that the project is within land outlined in the Treaty of Ruby Valley, between the United States and the Western Shoshone Nation, mineral rights were reserved and therefore continue to belong to the Western Shoshone Nation. The use of “gradual encroachment” is not a legally valid method of title transfer or extinguishment under existing federal law or recognized standards of human rights. From February 20 - March 10, 2006 the United Nations Committee for the Elimination of Racial Discrimination, issued a decision of an “Early Warning and Urgent Action Procedure” handed down to the United States of America. The decision pertains to US lands and therefore BLM or Forest Service public lands on which the project may in part be located. The relevant aspect of this decision is that the U.S. is to “freeze any plan to privatize Western Shoshone ancestral lands for transfer to multinational extractive industries and energy developers, and desist from all activities planned and/or conducted on the ancestral lands of Western Shoshone or in relation to their natural resources, which are being carried out without consultation with and despite protests of the Western Shoshone peoples.” Thus, the project must seek consultation and permission from the Western Shoshone on their lands.

## Cumulative Issues

The EIS should also examine how the various impacts of this mine will add to the collective impacts of other ecosystem disturbing projects in the region. For example, could mercury emissions from the mine when taken together with other mercury sources in the region result in mercury exceedence according to the Clean Air Act. Or, does the mine disturbance further impair the regional ecosystem resulting in seriously threatening fauna and/or flora. The cumulative impact analysis needs to address cultural traditions as well, such as the pine nut harvest.

A cumulative impact is “*the impact on the environment which results from incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.*”<sup>iv</sup> This definition is critical to determining the proper area to be studied in a cumulative impact assessment.

*Affects on Climate.* As part of the cumulative analysis the DEIS must include climate change analysis. Lithium Nevada has stated that the project is planned to be carbon neutral, but this does not mean that net greenhouse gas emissions will not occur. BLM needs to do a thorough analysis

of greenhouse gas (GHG) emission from all aspects of the project including emissions including any supporting activities. For example, the sulfuric acid factory is to be constructed, and its operations will import large quantities of sulfur resulting in GHG emission in the transport process. Any increase in emissions as a result of this operation must be included.

Lithium Nevada in its literature and PoO states the importance of increasing lithium supplies primarily for battery technologies, which ostensibly are needed to move economies away from carbon-based GHG emitting sources. However, this argument is only discussed qualitatively. If the DEIS uses this argument in assessing climate change, then it must be quantified. The DEIS will have to weigh climate affects of the project against potential offsetting from the lithium products in a quantitative way.

The mine will destroy a portion of the Thacker Pass ecosystem and reduce the ecosystem function in the surrounding environment. This will hamper the environment's natural ability to moderate climate and emissions that will affect climate. The DEIS needs to address this aspect of climate change as well – how this ecosystem destruction will contribute to climate change.

### **Additional NEPA, FLPMA, and Other Requirements**

NEPA requires BLM to fully analyze all mitigation measures, their effectiveness, and any impacts that might result from their implementation. NEPA regulations require that an EIS: (1) “include appropriate mitigation measures not already included in the proposed action or alternatives,” 40 CFR § 1502.14(f); and (2) “include discussions of: . . . Means to mitigate adverse environmental impacts (if not already covered under 1502.14(f)).” 40 CFR § 1502.16(h). NEPA requires that BLM review mitigation measures as part of the NEPA process -- not in some future decision shielded from public review. 40 CFR § 1502.16(h). This includes mitigation for all potentially affected resources such as air and water quality, wildlife, cultural, recreation, visual, etc.

Under NEPA, the DEIS must also fully review all direct, indirect, and cumulative environmental impacts of the Project. 40 C.F.R. §§ 1502.16, 1508.8, 1508.25(c). Direct effects are caused by the action and occur at the same time and place as the proposed project. *Id.* § 1508.8(a). Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. *Id.* § 1508.8(b). Types of impacts include “effects on natural resources and on the components, structures, and functioning of affected ecosystems,” as well as “aesthetic, historic, cultural, economic, social or health [effects].” *Id.* Cumulative effects are defined as:

[T]he impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 C.F.R. § 1508.7.

The DEIS must provide any meaningful analysis of the cumulative impacts of all past, present, and reasonably foreseeable future activities/actions. In its cumulative impact analysis, an agency must take a “hard look” at all actions:

[A]nalysis of cumulative impacts must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment. . . . Without such information, neither

the courts nor the public . . . can be assured that the [agency] provided the hard look that it is required to provide.

*Te-Moak Tribe of Western Shoshone v. U.S. Dep't of Interior*, 608 F.3d 592, 603 (9th Cir. 2010) (rejecting EA for mineral exploration that had failed to include detailed analysis of impacts from nearby proposed mining operations).

The Ninth Circuit has repeatedly faulted the federal land agencies' failures to fully review the cumulative impacts of mining projects. In the most recent case, vacating BLM's approval of a mine, the court stated that "in a cumulative impact analysis, an agency must take a 'hard look' at all actions that may combine with the action under consideration to affect the environment." *Great Basin Resource Watch v. BLM*, 844 F.3d 1095, 1104 (9th Cir. 2016) (emphasis in original) (quoting *Te-Moak Tribe*). BLM violated NEPA because it "did not 'identify and discuss the impacts that will be caused by each successive project, including how the combination of those various impacts is expected to affect the environment.'" *Id.* at 1105, quoting *Great Basin Mine Watch*, 456 F.3d 973-74.

In *Great Basin Mine Watch*, the Ninth Circuit required "mine-specific . . . cumulative data," a "quantified assessment of their [other projects] combined environmental impacts," and "objective quantification of the impacts" from other existing and proposed mining operations in the region. *Id.* at 972-74. The agency cannot "merely list other [projects] in the area without detailing impacts from each one." *Id.* at 972. See also *ONRC v. Goodman*, 505 F.3d 884, 893 (9th Cir. 2007).

In addition to the fundamental cumulative impacts review requirements noted above, NEPA regulations also require that the agency obtain the missing "quantitative assessment" information. 40 C.F.R. § 1502.22. "If there is 'essential' information at the plan- or site-specific development and production stage, [the agency] will be required to perform the analysis under § 1502.22(b)." *Native Village of Point Hope v. Jewell*, 740 F.3d 489, 499 (9th Cir. 2014). Here, the adverse impacts from the Project when added to other past, present, or reasonably foreseeable future actions is clearly essential to BLM's determination (and duty to ensure) that the projects comply with all legal requirements and minimizes all adverse environmental impacts.

Under NEPA, BLM must also fully analyze the baseline conditions of all potentially affected resources. BLM is required to "describe the environment of the areas to be affected or created by the alternatives under consideration." 40 CFR § 1502.15. The establishment of the baseline conditions of the affected environment is a fundamental requirement of the NEPA process. "Without establishing the baseline conditions which exist ... before a project begins, there is simply no way to determine what effect the project will have on the environment, and consequently, no way to comply with NEPA." *Great Basin Resource Watch*, 844 F.3d at 1101, quoting *Half Moon Bay Fisherman's Mktg. Ass'n. v. Carlucci*, 857 F.2d 505, 510 (9th Cir.1988). "[W]ithout [baseline] data, an agency cannot carefully consider information about significant environment impacts. Thus, the agency fails to consider an important aspect of the problem, resulting in an arbitrary and capricious decision." *N. Plains Resource Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1085 (9th Cir.2011). This includes the requirement to fully analyze for public review the quality and quantity of ground and surface waters, wildlife, recreation, cultural, air quality, and all potentially affected resources.

FLPMA and BLM mining regulations require that all activities on public land comply with all environmental protection standards, including air and water quality standards. See, e.g., 43 CFR § 3809.5 (definition of "Unnecessary of Undue Degradation" prohibited under FLPMA includes "fail[ure] to comply with one or more of the following: ... Federal and state laws related to

environmental protection.”); § 3809.420(b)(4) (listing Performance Standards that must be met, including the requirement that “All operators shall comply with applicable Federal and state air quality standards, including the Clean Air Act (42 U.S.C. 1857 et seq).”

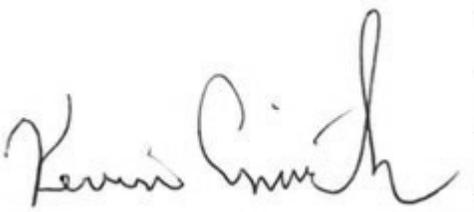
The same is true for operations that are not specifically authorized by the 1872 Mining Law (such as the waste and tailings facilities discussed above) which are properly governed by DOI/BLM’s FLPMA special use regulations : “(b) Each land use authorization shall contain terms and conditions which shall: ... (3) Require compliance with air and water quality standards established pursuant to applicable Federal or State law.” 43 C.F.R. §2920.7(b)(3). NEPA requires that: “Environmental impact statements shall state how alternatives considered in it and decisions based on it will or will not achieve the requirements of sections 101 and 102(1) of the Act [NEPA] and other environmental laws and policies.” 40 C.F.R. § 1502.2(d).

If you have any questions regarding any of our comments feel free to contact us.

Sincerely,



John Hadder  
Director, Great Basin Resource Watch



Kevin Emmerich  
Co-Founder, Basin and Range Watch



Ian Bigley  
Mining Justice Organizer, Progressive Leadership Alliance of Nevada

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<sup>i</sup> State of Nevada, Department of Conservation and Natural Resources Division of Water Resources, “Quinn River Valley - Orovada Subarea Hydrographic Basin 2-033a, Crop Inventory Calendar Year 2017.”

<sup>ii</sup> Lithium Nevada Corp., “Thacker Pass Project Proposed Plan of Operations and Reclamation Plan Permit Application,” July 2019, October 2019 – Revised.

<sup>iii</sup> BLM, *Cortez Hills Expansion Project Final Supplemental Environmental Impact Statement*, January 2011. pp. 3-34 to 3-35.

<sup>iv</sup> 40 CFR § 1508.7