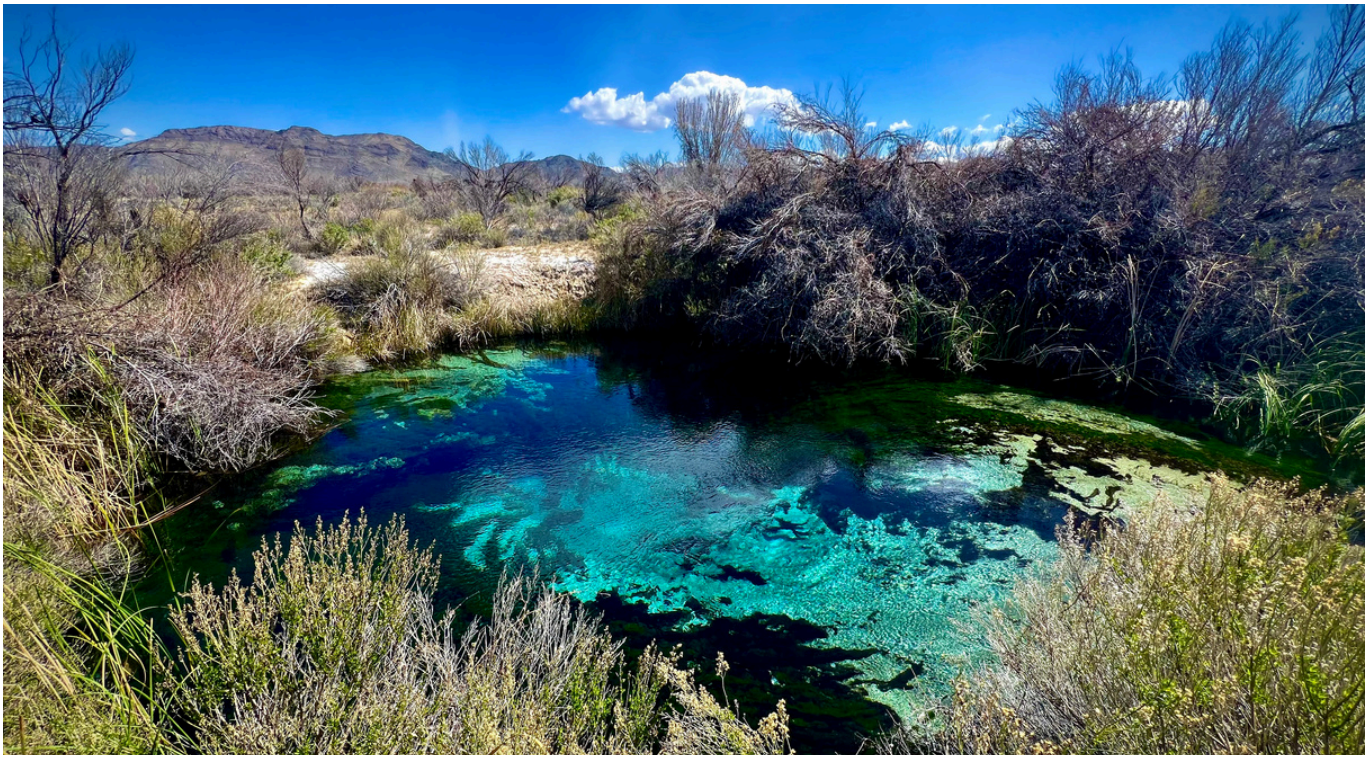
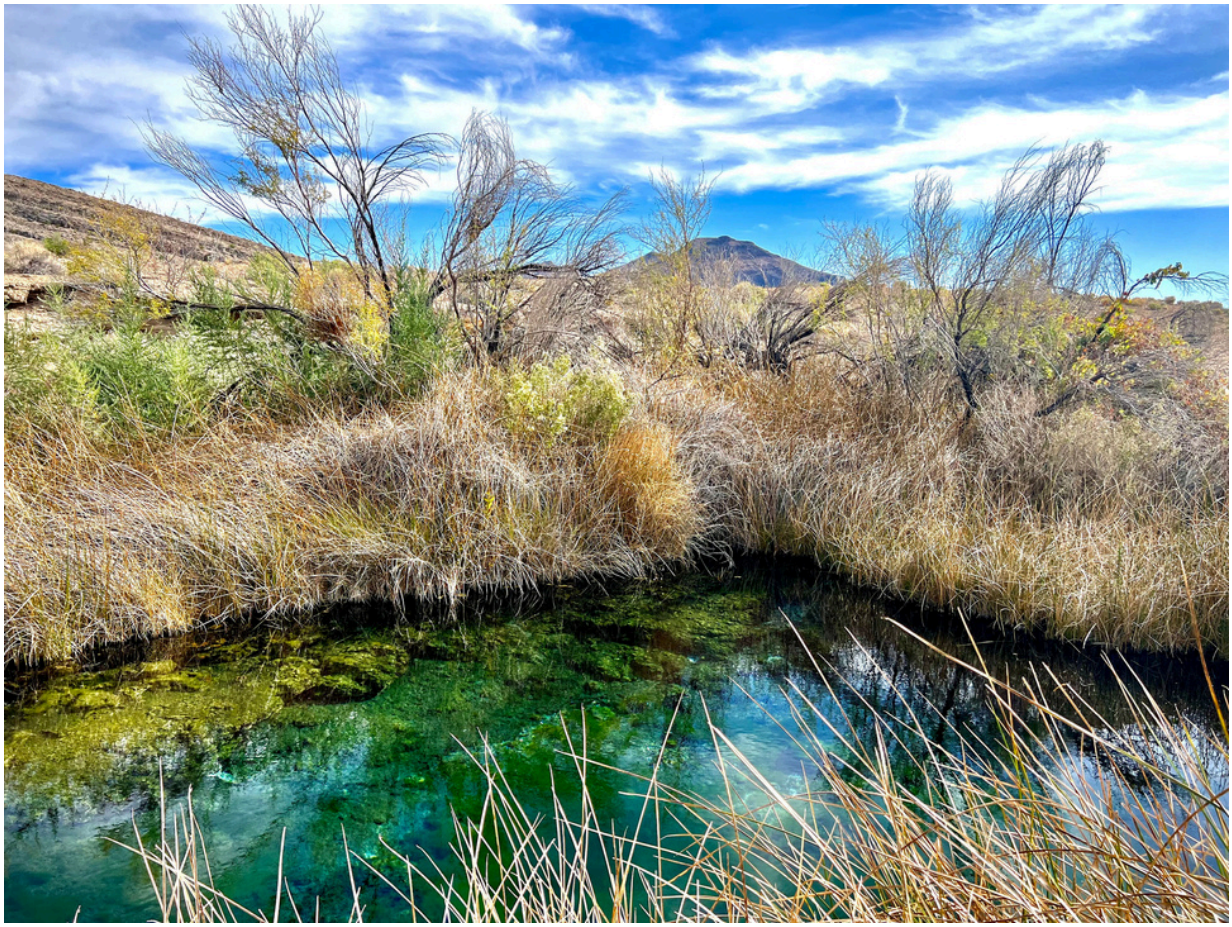
AMARGOSA CONSERVANCY

ASH MEADOWS NATIONAL WILDLIFE REFUGE



Discover the

"Galapagos of the desert"



Ash Meadows National Wildlife Refuge is a protected refuge managed by the U.S. Fish and Wildlife Service near Amargosa Valley, Nevada. As a complex of glittering springs and flowing streams, Ash Meadows appears as a mirage next to neighboring Death Valley National Park. Surrounded on all sides by the broiling heat and razor sharp aridity of the eastern Mojave Desert and Death Valley ecoregion, Ash Meadows only exists due to the flow of ancient groundwater ferried by the Amargosa River. This flowing groundwater supports over 24,000 acres of springs, sloughs, and wetland areas that in turn support one of the most diverse arrays of unique and sensitive flora and fauna on the planet.

Ash Meadows has the distinction of supporting one of the highest concentrations of endemic species (species which live nowhere else) in North America.

At least 26 species of plants, fish, amphibians, and invertebrates have been documented in the refuge. 12 species are protected as threatened or endangered under the Endangered Species Act. For this reason, Ash Meadows has been designated a RAMSAR Wetland of International Importance by the United Nations.

Ash Meadows is...

- The traditional territory of the Newe (Timbisha Shoshone) and Nuwu (Southern Paiute) peoples
- A complex of 30 perennial springs, seeps, and sloughs in the hottest and driest of North America's deserts
- Home to many species of wildlife found nowhere else on Earth including pupfish, plants, snails, and insects
- Home to the Devils Hole pupfish, managed in a disjunct portion of Death Valley National Park within the refuge, which is considered to be the most endangered species of fish in the world
- A landscape of significant biological and paleontological importance
- A gateway to Death Valley National Park, offering miles of premiere hiking trails that bring visitors to the edges of its dazzling spring pools

Endangered Ash Meadows amargosa pupfish (Cyprinodon nevadensis mionectes)

Protected and Endemic Species of Ash Meadows NWR

Ash Meadows NWR endemic or near-endemic species protected under the ESA:

- Ash Meadows Amargosa pupfish (Cyprinodon nevadensis mionectes), endangered;
- Ash Meadows speckled dace (Rinichtys osculus nevadensis), endangered;
- Warm Springs pupfish (Cyprinodon nevadensis pectoralis), endangered;
- Ash Meadows blazing star (Mentzelia leuciphylla), threatened;
- Amargosa niterwort (Nitrophila Mohavensis), endangered;
- Ash Meadows milkvetch (Astragulus phoenix), threatened;
- Ash Meadows sunray (Enceliopsis nudicaulis corrugata), threatened;
- Ash Meadows gumplant (Grindelia fraxinoperatensis), threatened;
- Ash Meadows ivesia (Ivesia Kingii var. eremica), threatened;
- Spring-loving centaury (Zeltnera namophila), threatened;
- Ash Meadows naucorid bug (Ambysus amargosus), threatened;

Additional endemic or near-endemic non-protected species found at Ash Meadows:

- Warm Springs naucorid bug (Ambrysus relictus)
- Devils Hole warm spring rifle beetle (Stenelmis calida calida)
- Ash Meadows pebblesnail (Pyrgulopsis erythropoma)
- Crystal Spring springsnail (Pyrgulopsis crystalis)
- Distal-gland springsnail (Pyrgulopsis nanus)
- Elongate gland springsnail (Pyrgulopsis isolatus)
- Median-gland Nevada springsnail (Pyrgulopsis pisteri)
- Fairbanks Spring springsnail (Pyrgulopsis fairbankensis)
- Minute tryonia (Tryonia ericae)
- Point of Rocks tryonia (Tryonia elata)
- Sportinggoods tryonia (Tryonia angulata)
- Amargosa tryonia (Tryonia variegata)
- Pyrgulopsis licina
- Pyrgulopsis sanchezi
- Death Valley blue eyed grass (Sisyrinchium funereum)
- Ash Meadows ladies-tresses (Spiranthes infernalis)
- Ash Meadows Alkali Skipper (Pseudocopaeodes eunus ssp. ash.)
- Stygobitic hyalellid amphipod (Hyalella cretae)

MEMORANDUM

Date: April 18, 2024

To: Jaina Moan – The Nature Conservancy

From: Andy Zdon, P.G., CEG, C.Hg and Dylan Bailey, Staff Geologist II

Subject: **Preliminary Review - Ash Meadows NWR, Nye County, Nevada**

Roux Associates, Inc. (Roux) is pleased to provide The Nature Conservancy (TNC) with this Technical Memorandum summarizing our hydrogeologic review related to the proposed mineral withdrawal in the Ash Meadows National Wildlife Refuge (NWR) area of Nye County, Nevada. The proposed minerals withdrawal is part of an effort to provide hydrogeologic protections to the springs at Ash Meadows NWR, and similarly Devil's Hole (Death Valley National Park) and protecting the general groundwater resources of the Amargosa Desert (Nevada Hydrographic Basin 14-230). This region is hydrologically upgradient of the Shoshone-Tecopa area, and hence protection of those resources will also be protective of the Amargosa Wild & Scenic River. This memorandum accompanies a PowerPoint presentation provided under separate cover.

The hydrogeologic analysis described in this memorandum is the first part of a larger scope of work including reviewing and evaluating documents related to (1) the proposed Rover Critical Minerals Corporation project, (2) the other mineral resource claims in the area, and (3) the geology and hydrology specific to the area. Additionally, a field trip with the modeler was conducted to provide a stronger foundation for the modeling using the U.S. Geological Survey's Death Valley Flow System Model (DV3). The modeling analysis was conducted to provide insight into the extent of an area for a potential future minerals withdrawal providing protection for the groundwater regime feeding the NWR and its springs.

BACKGROUND

The volume of groundwater in storage is an important aspect of the groundwater system. Changes in storage are identified in the field by changes in groundwater levels. A fundamental groundwater equation and the basis for evaluations of groundwater budgets (inflow vs. outflow estimates) is:

Inflow – Outflow = Change in Storage

When outflow exceeds inflow, there is a negative change of groundwater in storage and groundwater levels can be expected to decline. When inflow exceeds outflow, the reverse is true. When the system is in equilibrium, water levels will generally remain relatively constant despite short-term fluctuations. For the purposes of this evaluation, in the NWR, we evaluated changes to the system based on existing conditions. The NWR has seven major springs that discharge at more than 500 gallons per minute (gpm) and 25 other minor springs that discharge at less than 500 gpm. In total the combined springs discharge an average of 23.5 cubic feet per second (cfs) or around 10,500 gpm (Mayer, 1997).

It follows then, that when a groundwater system such as at the NWR is in equilibrium where inflow equals outflow, groundwater levels will be stable. Groundwater pumping such as that proposed for the Rover Critical Minerals project (our test case used for this analysis), mine dewatering or other groundwater

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California ■ Illinois ■ Massachusetts ■ New Jersey ■ New York ■ Texas ■ Virginia

extraction would cause a disruption in this equilibrium, and recharge amounts and other biological/hydrologic conditions would change.

Regardless of the amount of groundwater pumped, there will always be groundwater drawdown (and the removal of water from storage) in the vicinity of pumping wells. This condition is a necessity to induce the flow of groundwater to said wells, or in the case of the proposed Rover project, and open pit that behaves like a large-diameter well. For most groundwater systems, the change in storage in response to pumping is a transient phenomenon that occurs as the system readjusts to the pumping stress. The relative contributions of changes in storage, increases in recharge, and decreases in natural discharges, evolve over time. If the system can come to a new equilibrium (i.e., a combination of increased recharge and/or decreased discharge), the storage decreases will stop, and inflow will again equal outflow with the changes to the inflow/outflow components described above.

APPROACH

In order to evaluate the effect that our Rover example would have on the NWR as a test case for the minerals withdrawal analysis, Roux used the DV3 model developed by Halford and Jackson (2020). The model currently provides the most robust tool for evaluating groundwater changes in the Amargosa Desert area. Given the construction of the DV3 model, the use of the model provides results (e.g., drawdown) that are relative to existing conditions and water fluxes are not absolute values but changes from “predevelopment” conditions.

The DV3 has a unique construction, constrained by "capture-limited discharge." There is a steady-state, pre-development baseline model and a "predictive" model that simulates deviations from the steady-state head distribution by superposition. The initial head in the predictive model is equal to zero everywhere, since it does not matter in this context; only the changes in head are evaluated. Roux’s approach was to replace the hydraulic properties in the model in the 3-D space filled by the "Rover open pit" with high conductivity/high storage earth material. The first active layer in the model near the West and East Claims is about 300 feet in thickness. The model grid is refined within the Rover claim area and Ash Meadows NWR springs to providing greater resolution to the analysis (Halford and Jackson, 2020).

The anticipated scenarios considered are the effects of dewatering a potential open pit of approximately 300 feet in the proposed mine area footprint based on Rover’s original exploratory drilling application. This was used as a test scenario for the purposes of evaluating responses to dewatering in relation to Ash Meadows. This was not intended to be an impact analysis for any future proposed Rover project and should not be used for that purpose. Within the west claim block, an artesian monitoring well was installed by the U.S. Geological Survey with screened openings approximately 350 feet below ground surface forming (along with Rover project information) the basis for our proposed analysis.

Roux conducted the following simulations:

- Scenario 1 - A base simulation of dewatering in the West Claim block east of Gravity Fault. The simulation was run using six wells located at the eastern edge of the West Claim each pumping at 1,500 gallons per minute (gpm) for 10 years, 50 years, and 100 years (Note: A Theis solution check exercise assumes local mean properties for model layers 3 and 4 as a separate quality control and quality “order-of-magnitude” check);
- Scenario 2 - Dewatering in the West Claim block west of the Gravity Fault with a total discharge of 2,000 gpm for 10 years; around the perimeter of the West Claim block west of Gravity Fault to

evaluate the effectiveness of Gravity Fault as a barrier to drawdown propagation to the springs at the NWR that may occur from pumping to the west;
- Scenario 3 - Dewatering in the East Claim block with a total discharge of 1,000 gpm for 10 years; and,
- Scenario 4 - Reduced dewatering in the West Claim block east of Gravity Fault to achieve only 10 feet of dewatering (2,700 gpm for 10 years) followed by 10 years of recovery.

Roux also evaluated the reduction of drain features in the DV3 Model in the Ash Meadows to evaluate the relative reduction in spring flow and evapotranspiration that would result from the base scenario of 9,000 gpm of dewatering for 10 years from the portion of the West Claim block east of the Gravity Fault.

The substantial volumes of water pumped in the scenarios were model generated to achieve differing levels of drawdown. The initial dewatering goal was lowering the water table 300 feet. However, this was only achieved in the scenario of dewatering in the West Claim block west of the Gravity Fault and for the East Claim block. The expansive regional drawdown generally follows a zone of remarkably high transmissivity that extends from the Ash Meadows area, eastward toward Mercury, Nevada. These high transmissivity are assumed to correspond with lower carbonate aquifer (see Figure 72 in Halford and Jackson, 2020).

DRAWDOWN AND RECOVERY

Based on Scenario 1, simulating six wells east of gravity fault, and at the eastern edge of the West Claim (pumping around a total of 9,000 gpm from layer 3 of the model (the most transmissive layer) for 10 years), the DV3 model estimates a 20% reduction of spring discharge and evapotranspiration at Ash Meadows NWR. Regarding drawdown, the DV3 Model predicts approximately 50 feet of drawdown in the vicinity of the dewatering wells with a drawdown of 2 to 30 feet within the NWR and extending toward Mercury, Nevada (beyond the Amargosa Desert Hydrographic Area). Drawdown in Layer 3 of the DV3 Model (pumping layer) at key feature locations include:

- Devil's Hole – 10 feet of drawdown;
- Five Springs – 10 feet of drawdown;
- Rogers Spring – 3 feet of drawdown; and,
- 1 to 3 feet of drawdown in Longstreet, Point of Rocks, Jackrabbit and Big Springs. Based on the simulation of 16 wells with a distribution of 2,000 gpm around the perimeter of the West Claim block west of Gravity Fault, the DV3 model predicts approximately 300 foot of drawdown within the mining pit indicating that the dewatering in that location could be accomplished. Of note is that the cone of depression continues to extend substantially to the east.
- The 50-year and 100-year simulations show continued growth of the cone of depression. For example drawdown at Devil's Hole were 23 feet and 30 feet for the 50-year and 100-year simulations, respectively.

With respect to Fairbanks Spring, which is the closest spring to the West Claim block, 1 to 2 feet of drawdown were identified in the 50 and 100-year scenarios, respectively. This anomalous result (due to proximity of dewatering) is driven by the aquifer transmissivity in the DV3 model at that precise location and may not accurately represent what spring affects could occur at that location.

Dewatering on the West Claim Block west of the Gravity Fault (Scenario 2) also produced drawdown to the east of the fault, although to a lesser extent than in Scenario 1 with one foot of drawdown identified at

Devil's Hole 10 years after dewatering started. Scenario 3, dewatering of the East Claim block to 300 feet, was accomplished at 1,000 gpm due to the low transmissivities present in the DV3 model. Due to those low transmissivities, drawdown was limited to the area of the claim block, with drawdown at Devil's Hole and Ash Meadows Springs predicted to be 0.1 feet or less. The reduced dewatering scenario (Scenario 4) to achieve 10 feet of dewatering the West Claim block east of the Gravity Fault, produced 3 feet of drawdown at Devil's Hole after 10 years and 1 to 2 feet of drawdown at Rogers, Point of Rocks, and Five Springs. Of note is that after 10 years of recovery while the pumping area recovered, the outer extent of the cone of depression continued to expand.

With respect to the scenario times, Roux ran 10-year, 50-year and 100-year scenarios. Due to the high transmissivity and lower storage terms, drawdown at key features such as Devil's Hole or springs at Ash Meadows NWR could see drawdown substantially sooner than a 10-year period.

DISCUSSION

As presented above, the dewatering needed for the proposed mineral extraction would place a substantial stress on an already over-allocated groundwater system. The impacts of the mine-dewatering test case considered in this analysis would affect NWR springs. This is because the principal groundwater capture zone for the test mine dewatering, is the same high transmissivity zone from which the Ash Meadows springs are simulated in DV3 to discharge groundwater as described above. Further, given the issues with representing pumping in the West and East Claim as described earlier in this memorandum, and the complex nature of the geology represented in that portion of the DV3 model, the results presented should be framed as estimates with significant uncertainty resulting in a degree of risk in water management decision-making related to the applications and their incremental impacts on an already stressed groundwater system.

Based on the results of Scenario 2 assuming pumping solely west of the Gravity Fault, it appears that the Gravity Fault does not provide a fully-effective barrier limiting impacts to Ash Meadows from pumping west of the fault, as drawdown east of the fault was only partially mitigated. Uncertainties associated with spacial variation of high transmissivity zones laterally and vertically add uncertainty and additional risk.

With respect to timing of impacts due to test case pumping, the model indicates that the response to groundwater stresses such as those associated with the modeling scenarios would be rapid with affects at Devil's Hole and Ash Meadows NWR spring being substantially less than the 10 years simulated. This is a result of the combined confined conditions of the aquifer system, and the remarkably high transmissivity associated with geologic units feeding the Ash Meadows springs as simulated in DV3.

LIMITATIONS

The DV3 is a regional groundwater flow model designed to answer regional groundwater questions. As such, uncertainties are present when using models such as these for site-specific applications. Nonetheless, the model provides a sound basis for evaluating the magnitude of changes that could occur from site-specific scenarios, particularly where those scenarios put a substantial stress on the groundwater system. As anticipated, the DV3 model parameterization and calibration are impacted by a paucity of data, including limited spatial and temporal resolution in groundwater elevation and spring discharge observations. These limitations are discussed in detail in the Model Limitations section of

Groundwater Characterization and Effects of Pumping in the Death Valley Regional Groundwater Flow System, Nevada, and California, with Special Reference to Devils Hole (Halford and Jackson, 2020).

REFERENCES

Halford, K.J., and Jackson, T.R., 2020, Groundwater characterization and effects of pumping in the Death Valley regional groundwater flow system, Nevada, and California, with special reference to Devils Hole: U.S. Geological Survey Professional Paper 1863, 178 p., https://doi.org/10.3133/pp1863

Mayer, T. 1997. Spring Discharge and Water Level Monitoring at Ash Meadows NWR. Water Resources Branch Division of Engineering, Fish and Wildlife Service, Portland, Oregon. Presented at Devil's Hole Workshop, Longstreet, Nevada. March 26.

April 4, 2024

Catherine Cortez Masto
United States Senator
333 Las Vegas BLVD South, Suite 8016
Las Vegas, NV 89101

Jacky Rosen
United States Senator
333 Las Vegas BLVD South, Suite 8023
Las Vegas, NV 89101

Steven Horsford
United States Representative
2250 N Las Vegas BLVD, Suite 500
North Las Vegas, NV 89030

Susie Lee
United States Representative
7785 W Sahara Ave, Suite 203
Las Vegas, NV 89117

Subject: A Sacred Plea for the Protection of Ash Meadows – Our Timeless Home

Dear Senator Cortez Masto, Senator Rosen, Representative Horsford, and Representative Lee:

In the spirit of profound respect and unwavering resolve, we, the Timbisha Shoshone Tribe, reach out to you with a message that echoes from the depths of time. For us, Ash Meadows is not merely a location on a map; it is a vital haven, a meeting place, the very soil that tells the story of our ancestors.

Ash Meadows National Wildlife Refuge stands as a testament to a bond that transcends time – a bond between our Tribe and the land. This land, a vibrant and sacred oasis within Nevada's Amargosa Valley, now faces a grave threat, one that could sever the deep-rooted connection we have nurtured over countless generations. **The proposed Let's Go Lithium Project by Rover Metals casts a dark shadow over Ash Meadows, threatening to desecrate the land that is the essence of our cultural and spiritual identity.**

This region, with its intricate tapestry of life, is a living library of our history. It is home to the resilient Devils Hole pupfish, which has thrived in isolation, symbolizing the delicate yet formidable spirit of this land. The refuge is home to at least 26 species of plants, fish, amphibians, and other wildlife that have managed to live in harmony with the rhythms of these remarkable oasis and wetlands. 12 of these species are protected by the Endangered Species Act, illustrating the fragile nature of life in this region. These rare forms of life, alongside the countless birds, bighorn sheep, insects, butterflies that depend on the refuge and its waters for their survival, are as kin to us. This refuge and its shimmering spring pools nourish our people.

The impending danger posed by the expansive mining project risks more than ecological imbalance; it threatens to erase a sacred chapter of our heritage. The thought of

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industrial machinery piercing the land that holds the whispers of our ancestors is not just unsettling; it is a call to defend the sanctity of our past and future.

Mining and drilling projects in the Amargosa Desert threaten the most precious and essential element to all life in this region: flowing groundwater. Not only do these activities risk driving some of the rarest forms of life remaining on our planet who have their home in Ash Meadows, but they also have the potential to affect the flow of water sustaining our tribal community in Furnace Creek, CA. Our ability to have a home in the hottest and driest place in North America is only possible due to the vast groundwater aquifer that gives rise to the Amargosa River. Our way of life and our very existence has always and will always be connected to the movement of water in these lands. To risk permanently altering an ancient flow of groundwater by allowing mining and drilling to occur in this region is to put at risk the very essence of our people.

We urge you to recognize that the protection of Ash Meadows and the communities of Death Valley and the Amargosa watershed goes beyond environmental stewardship; it is a crucial act of preserving the very soul of the Timbisha Shoshone. The disruption of this sacred land by mining activities is not just a violation of nature; it is a denial of our right to honor and maintain the legacy of our ancestors.

We call upon you to join us in safeguarding this irreplaceable sanctuary. We advocate for immediate mineral withdrawal. This action is vital in ensuring that the serene beauty and profound cultural significance of Ash Meadows are preserved, and that our people have a home into the deep future.

As we pen this letter, our hearts are heavy yet hopeful. What lies at stake is the essence of our Tribe – the continuity of a story that began long before written history, a story interwoven with the survival of a unique ecosystem, the perpetuation of Indigenous wisdom, and the protection of a sacred way of life.

We stand ready to collaborate, to share our knowledge and heritage, in any endeavors that lead us towards a future where Ash Meadows continues to be a symbol of unspoiled natural beauty, a repository of cultural wealth, and a legacy of ecological harmony. The time to act is now – to ensure that this sacred gem of the Mojave Desert is preserved for the children of today and the generations of tomorrow.

With reverence and hope,

Margaret Cortez

The Timbisha Shoshone Tribe
Margaret Cortez, Tribal Chairwomen

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Nye County, Nevada

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January 3, 2024

Mr. Jon Raby
Nevada State Director
Bureau of Land Management
BLM Nevada State Office
1340 Financial Blvd.
Reno, Nevada 89502

Subject: **Mining operations along the boundary of Ash Meadows National Wildlife Refuge (Refuge) and the Ash Meadows Area of Critical Environmental Concern (ACEC)**

Dear Director Raby,

The Nye County Board of County Commissioners (Board) wishes to express their opposition to exploratory drilling and mining operations near the Ash Meadows National Wildlife Refuge and the Ash Meadows ACEC. This area is a refuge consisting of a network of natural springs fed by the Amargosa River. These springs are an oasis in one of the hottest, driest places on earth. This habitat area is home to more than 25 rare plants and animal species that exist nowhere else on the planet, some of which are protected under the Endangered Species Act as threatened or endangered.

Multiple mining claims are located right on the boundary of the Ash Meadows Wildlife Refuge and the Ash Meadows ACEC. This is a known ecologically sensitive area and a critical habitat for the endangered Ash Meadows Amargosa pupfish and Ash Meadows Speckled Dace. Allowing exploratory drilling and mining operations may alter crucial ground water flows with the risk of dewatering, causing irretrievable damage to the aquifer.

The Board believes it is unwise to allow mining projects to move forward so close to a critical habitat. Fairbanks Spring is located near many of the mining claims and is home to the above-mentioned Ash Meadows Amargosa pupfish and Speckled Dace. Should these projects continue, it is the first step towards mining development.

An Administrative or Congressional Mineral Withdrawal will provide long-term protection and certainty of the Refuge's status and demonstrate our Federal Leadership's commitment to the environment by hearing and acting on their constituents' concerns. It will also provide potential developers with a clear message and direction about future project location sites; saving time and money and resulting in a lower cost to the end users of their products.

Our board voted unanimously to approve this letter on the 3rd day of January 2024.

Should you have any questions about our position or need additional information, support, or assistance, please contact the Natural Resources and Federal Facilities Director, Megan Labadie, at (775) 751-4355 or via e-mail at mrlabadie@nyecountynv.gov.

Sincerely,

Debra Strickland, Chair
Nye County Board of Commissioners

CC: Debra Haaland, Secretary of the Interior
U.S. Department of the Interior
1849 C Street, NW
Washington, D.C. 20240

Tracy Stone-Manning, Director
Bureau of Land Management
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Martha Williams, Director
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Cynthia Martinez, Chief
National Wildlife Refuge System
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MINERAL WITHDRAWL FOR ASH MEADOWS

Mr. Mason Voehl
Executive Director
Amargosa Conservancy

Mr. Voehl

The Amargosa Valley Town Board passed an agenda item at its monthly meeting on April 25, 2024 supporting the proposed Mineral Withdrawl for the Ash Meadows Preserve. The Town Board voted 4 yes and 0 nay. The Vote supported the conceptual map that was presented. A Copy of the map is included with this letter. The Amargosa Valley Town Board feels that the Ash Meadows Preserve is a valuable resource and should be protected.

Mike Cottingim

Town Clerk
Amargosa Valley Town Board
April 26, 2024

Beatty Town Advisory Board
PO Box 837
Beatty, Nevada 89003
775-553-2050

Senator Cortez-Masto
Sent via email: zach_zargoza@cortezmasto.senate.gov

May 10, 2024

Greetings Senator Cortez-Masto,

In November of 2023 The Beatty Town Advisory Board supported the Amargosa Conservancy's pursual of an Administrative or Congressional Mineral Withdrawal of the Ash Meadows Wildlife Refuge.

We now call upon you, as our representatives, to take action to protect the Ash Meadows Refuge located in the Amargosa Valley in Nevada by adopting the proposed Ash Meadows Mineral withdrawal boundary presented to you by the Amargosa Conservancy as the area of analysis for an Administrative Mineral Withdrawal.

In 1972, The United States Department of the Interior, Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife Division of Realty published a Reconnaissance Appraisal Report of a "Proposed Desert Pupfish Reserve" in Nye County, Nevada and Inyo County, California, which would in 1984 be designated as Ash Meadows National Wildlife Refuge. In this report, it was stated that three unique desert pupfishes had become extinct and more could be lost if their habitats were not saved and protected. In this same report the acquisition of roughly 168,000 acres by purchase, withdrawal or transfer was proposed. The recommended area would include principal habitats and enough of the underground basin to give some assurance the springs would continue.

We believe that the total withdrawal area proposed by Amargosa Conservancy and supported by the Timbisha Shoshone Tribe and numerous nonprofit partners is in keeping with the 1972 recommendation to protect this natural resource and underground basin, and it should be adopted.

Our concerns about water drawdown and recovery are valid. There are preliminary studies including 50-year and 100- year simulations that show continued growth in the cone of depression. The example drawdown at Devil's Hole were 23 feet and 30 feet for the 50-year and 100-year simulations, respectively. We cannot consider allowing any type of activity that could create or cause this situation.

In July of 2023 the BLM rescinded the approval of Rover Metals Let's Go Lithium Project 1.0 and put the requirement for plan a of operations draft in place and stated that NEPA must be conducted. In response, Rover Metals modified the project plan by reducing the number of boreholes along the Ash Meadows Wildlife Refuge. The new modified project is known by us as the Let's Go Lithium Project 2.0.

Beatty Town Advisory Board
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Projects like the Rover Critical Minerals' Let's Go Lithium Project, 2.0 which, according to Rover Metals will have 21 boreholes up to 150ft in depth or until groundwater is encountered cannot be allowed in this area. It is clear for all to see that Ash Meadows is a critical habitat and the groundwater basin cannot be placed at risk by the drilling of boreholes. We cannot rely on common sense and environmental concern to govern companies. As stated by Rover Critical Minerals' CEO Judson Cutler, they have doubled down on their pivot into critical minerals and remain resolute in their focus on advancing the Let's Go Lithium project in the Amargosa Valley of Nevada.

The Secretary of the Interior and or Congress must act to protect Ash Meadows, a recognized RAMSAR Wetland of International Importance, known as the Galapagos of the Desert which is home to at least 26 endemic species: species that live nowhere else in the world. Protecting the Amargosa Basin by adopting the proposed map and enacting a mineral withdrawal will protect a Basin that is home to people in Beatty, Pahrump, Crystal, and Amargosa Valley in Nevada and Furnace Creek, Shoshone, Tecopa, and Charleston View in California.

The adoption of the proposed map as the area of analysis for a mineral withdrawal will help to protect critical habitat for endemic and endangered species and protect a critical resource to health and wellbeing of the residents living within the Amargosa Basin.

Please take action now to protect us, your constituents, our homes, and the Ash Meadows Wildlife Refuge for generations to come.

Thank you for your time and attention.

Sincerely,

Erika Gerling

Erika Gerling,
Beatty Town Advisory Board Chair

cc: B. Jabbour; Nye County Board of Commissioners Chair, M. Labadie; Nye County Natural Resources Office Director, T. Sutton; Nye County Manager, T. Bolling; Nye County Public Works Director, G. Hafen; NV Assemblyman, J. Rosen; US Senator, S. Horsford; US Representative, J. Raby; NV BLM State Director, BLM Southern Nevada District Office, N. Pay; BLM PFO Manager, M. Reynolds; Death Valley National Park Superintendent, M. Voehl; Amargosa Conservancy Executive Director

2/13/2024

The Honorable Debra Haaland
Secretary of the Interior
U.S. Department of the Interior
1849 C Street, NW
Washington, D.C. 20240

The Honorable Tracy Stone-Manning
Director
Bureau of Land Management
1849 C Street, NW
Washington, D.C., 20240

The Honorable Martha Williams
Director
U.S Fish and Wildlife Service
1849 C Street, NW
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The Honorable Charles Sams III
Director
National Park Service
1849 C Street, NW
Washington, D.C. 20240

The Amargosa Conservancy works toward a sustainable future for the Amargosa River and Basin through science, stewardship, and advocacy.

Dear Secretary Haaland and Directors Stone-Manning, Williams, and Sams:

Our organizations, representing tens of thousands of Nevada residents, formally request that the Department of the Interior withdraw the public lands around Ash Meadows National Wildlife Refuge (NWR) due to the imminent threats posed by exploratory drilling and other proposed extractive projects on adjacent federally managed public lands.

Ash Meadows NWR, situated in Nevada's Amargosa Valley, is a vital component of the Amargosa River watershed, extending from outside of Las Vegas into Death Valley National Park. This refuge, a significant discharge point for the vast carbonate aquifer, spans nearly 24,000 acres of diverse habitats including spring-fed wetlands and alkaline desert uplands, managed by the U.S. Fish and Wildlife Service. With over 30 perennial seeps and springs, it supports an array of habitats in one of the most extreme environments in North America.

The refuge is unparalleled in biodiversity, sheltering at least 26 unique plant and animal species and 12 species listed as threatened or endangered under the Endangered Species Act. Notably, it surrounds Devils Hole, a disjunct unit of Death Valley National Park and home to the critically endangered Devils Hole pupfish. The existence of these species is fundamentally dependent on the perennial groundwater discharge, underscoring the refuge's global ecological importance, as recognized by its designation as a Ramsar Convention Wetland of International Importance in the United States in 1986.

Ash Meadows holds a deep cultural significance as part of the ancestral homelands of the Timbisha Shoshone, Southern Paiute, and other Tribes of the Newe and Nuwu peoples. The aquifer that sustains springs in Ash Meadows extends into reservation lands around Death Valley Junction and Furnace Creek, CA, and is a crucial water resource for over 40,000 residents in the Amargosa Basin who depend on this groundwater for various uses.

Threats facing Ash Meadows and Devils Hole

The integrity of Ash Meadows is currently threatened by a range of development proposals that pose a substantial risk to the refuge's sustaining groundwater aquifer. The refuge is surrounded virtually on all sides by lode (open-pit mining) and placer (shallow mining and/or brine) claims in the Amargosa Desert.[1] Recent proposals entail the potential for future development of open-pit mining operations within 2,000 feet of springs in Ash Meadows that provide critical habitat for multiple endangered endemic species. Drilling into the aquifer outside Ash Meadows NWR could dewater springs inside the area, causing significant harm to endemic species that rely on this habitat.

Not only may many of these projects be non-viable, in part due to pumping and point of diversion restrictions surrounding the Devils Hole, but they are individually and collectively misaligned with the missions of land management agencies to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.

[1] See Appendix II. map for illustration of existing claims near Ash Meadows

Immediate need for protection

As the largest oasis in the Mojave Desert, the health and safety of Ash Meadows depends on the management of the groundwater that sustains it. Ash Meadows and the significant biodiversity and cultural values supported by the refuge remain highly vulnerable to impacts and disturbances to groundwater flowing beyond its designated borders. In light of this vulnerability and the pending threats associated with it, we strongly urge the Department of the Interior to withdraw the adjacent public lands in the Amargosa Desert with hydrological connections to Ash Meadows and to local communities.

Given the need to act quickly, we ask the managing federal agencies to cooperatively initiate a mineral withdrawal process to be executed through the authority of the Secretary of the Interior. We propose consideration of BLM lands within Nevada hydrographic basin #230 as the conceptual withdrawal study area given the basin's established hydrological connectivity with Ash Meadows and its current status as overdrafted.[2] This withdrawal area will be better defined following robust hydrological analysis and a mineral examination, and through meaningful consultation with Tribal nations, relevant communities, and stakeholder groups.

The future of Ash Meadows and its diverse inhabitants hinges on swift, decisive actions grounded in science. We hope to work together with Department of the Interior representatives, providing essential information and facilitating stakeholder and community outreach where appropriate, toward a shared goal of ensuring Ash Meadows remains safe for generations to come.

Sincerely,

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[2] See appendix 230 for a map of Nevada hydrographic basin #230 and adjacent basins

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