GREAT BASIN RESOURCE WATCH

Working with Communities to Protect Their Land Air and Water

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December 2, 2014

TO: Nevada Mining Oversight and Accountability Commission

WHAT: Great Basin Resource Watch comments re pit lake regulations and Bald Mountain Mine

FROM: John Hadder, Director

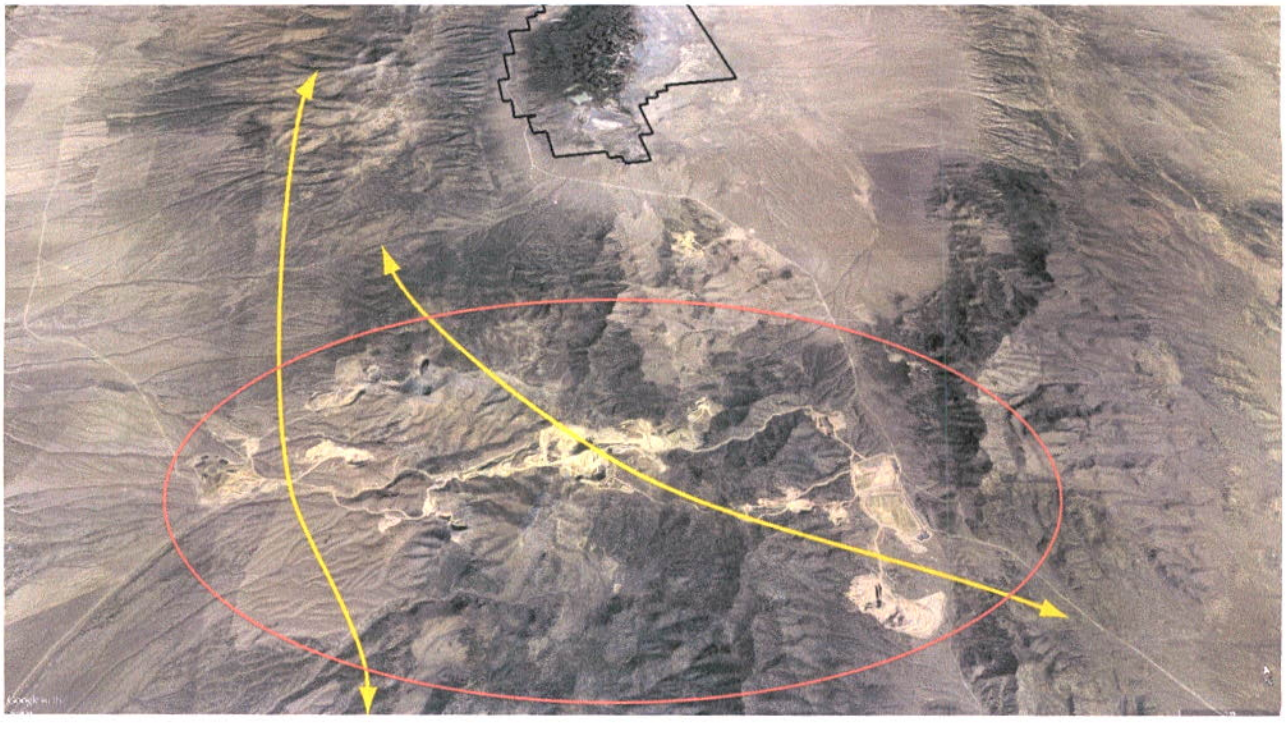
Pit Lakes

Great Basin Resource Watch (GBRW) had cc'd the Commission on the matter of pit lake regulations and we are currently waiting for the response from the Nevada Department of Environmental Protection. Depending upon the response from the Division this may be a matter for discussion and action at the next Commission meeting. GBRW will keep in touch with you and your staff on this issue.

GBRW appreciates and looks forward to the presentation by BLM on reclamation status of pit lakes in Nevada. Thank you for putting this on the agenda for today.

Bald Mountain Mine

The Bald Mountain mine sprawls over the range just south of the Ruby Mountains (see image below, arrows are general mule deer migration routes and the mining operations are circled).



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Modern operations of this mine date back to the 1970's and there have been numerous expansions over the years.

GBRW remains concerned about the long-term impacts to wildlife from this mine. There are critical mule deer migration routes that the Bald Mountain mine cuts across, and pigmy rabbit and sage-grouse habitat that is being affected as well. The mere construction of the roads is a major disturbance to any ecosystem, and chops up potentially important road-less areas.

In the case of sage grouse, this disturbance alone can prevent the birds from breeding in the area for a very long time, since they are so sensitive to place. Resource extraction in both exploration and development, whether fluid, locatable and salable minerals constitute discrete impacts to sage-grouse according to the National Technical Team (NTT) report.[1] Sage-grouse are extremely sensitive to these discrete disturbance,[2] and thus resource extraction is completely incompatible with sage-grouse habitat, "There is strong evidence from the literature to support that surface-disturbing energy or mineral development within sage-grouse habitats is not consistent with a goal to maintain or increase populations or distributions."[3] The nature and kind of development completely obliterates the habitat, and it is unclear how effective reclamation will be in restoring populations displaced by resource extraction.

It is well known that sage grouse have very strong site fidelity,[4] so once the sage-grouse are displaced by resource extraction it is potentially a permanent loss to sage-grouse populations even with reclamation. The first two sage grouse conservation options stated in the COT report:[5]

1. *Avoid new mining activities and/or any associated facilities within occupied habitats, including seasonal habitats;*
2. *Avoid leasing in sage-grouse habitats until other suitable habitats can be restored to habitats used by sage-grouse;*

Numerous studies show that sage grouse populations are effected as far as 4 miles or greater from the actual disturbance. The noise, dust, and constant activity of resource extraction (most operations are 24/7) deter sage grouse habitation far from the actual operations. As noted in the NTT report, "Impacts as measured by the number of males attending leks are most severe near the lek, remain discernable out to >4 miles, and often result in lek expirations."[6] The NTT report goes on to conclude that, " Even if this approach were to be continued [establishing a No Surface Occupancy, NSO, buffer around leks], it should be noted that protecting even 75 to >80% of nesting hens would require a 4-mile radius buffer (Table 1). Even a 4-miles NSO buffer would not be large enough to offset all the impacts reviewed above."[7]

The Mule Deer herd which inhabits the Ruby Mountains has historically been the largest in Nevada and may number 12,000 or more animals,[8] and migrate 45 to 125 miles between seasonal ranges and cross lands administered by the federal government and private lands. The Nevada Department of Wildlife (NDOW) considers this deer herd to be the most important deer resource in the state in terms of population size and recreational opportunity. The Bald Mountain mine bisects this migration route. GBRW also agrees that this herd is of great importance and more effort needs to made to protect this migration route.

NDOW has recently released a mule deer migration data and analysis report relative to the Bald Mountain Mine.[9] The report does reveal the current extent of migration around and through the Bald Mountain mine (see figure at the end of the letter). The analysis was conducted over the past few years using 37 functioning GPS collars on deer. This represents quite a small sample, so there maybe some validity concerns, but it does give some real data on deer movements along this critical migration route. The data shows that deer will tend to move through the mine site at a much greater rate that in the surrounding area by a factor of 3-4.[10] A clear inference is that the deer are stressed by the mining operations, spending as little time as possible there. During a migration deer often occupy a specific site to forage and rest, these are called stopover sites, and are important to the health of the herd as stated in the report: "fitness is so strongly influenced by fat accumulation during the growing season (Cook et al. 2004, Parker et al. 2009, Tollefson et al. 2010, Hurley et al. 2014), lost foraging opportunities during migration certainly have the potential to incur energetic and

demographic costs."[11] And the report goes on to say, "So, although deer may continue to migrate through moderate levels of development and maintain connectivity to their distant seasonal ranges, behavioral changes like increased rates of movement may reduce the functionality (e.g., stopover use) of routes (Sawyer et al. 2013) and potentially reduce the nutritional benefits of migration (e.g., Albon and Langvatn 1992, Hebblewhite et al. 2008)."[11]

Despite the clearly agreed importance of the herd, the data, and subsequent analysis the drafters of the report insists that "attempting to protect this entire route may not be feasible where federal lands are administered for multiple-use."[4] However, the mine site is arguably not a multiple use area, and the Bald Mountain site has taken the land from multiple use since the 1970's and has been absorbing more land ever since. The mule deer have to pass through the site as they have done so for potentially thousands of years. The report is also stated as a "baseline," but this is not possible now after the mine has been in operation for many decades. Thus, it is not clear that the full extent of impacts to the mule deer populations has been recognized.

GBRW brings this situation to your attention; so that the Commission can investigate the nature of any NDOW permits at the Bald Mountain mine. To our knowledge there is no general wildlife protection permit for this mine, and in fact it is unclear to GBRW the nature of NDOW's permitting related to mining operations other than the an "industrial pond permit." GBRW requests that the situation regarding wildlife impacts be a topic for the next meeting inviting NDOW to present on any wildlife permits for this mine and how the situation regarding both sage grouse and mule deer is being handled.

In reviewing pertinent sections of the NRS and NAC (NRS 445, 501.181, NAC 504.520) that address wildlife protection at mine sites GBRW is concerned that the language is not specific enough and that some reform is needed. In the investigation of the conditions at Bald Mountain GBRW recommends a review of the current regulations and the potential to improved them. We are aware of the authority of this Commission, which is in oversight of implementation of existing regulations. That being said this body had reviewed with GBRW participation the regulations surrounding pit lakes, so we suggest a similar process using the regular meeting as an opportunity for a forum on the subject.

GBRW is as always available to discussion on this matter further. Thank your consideration of this proposal.

Sincerely,

John Hadder
Director

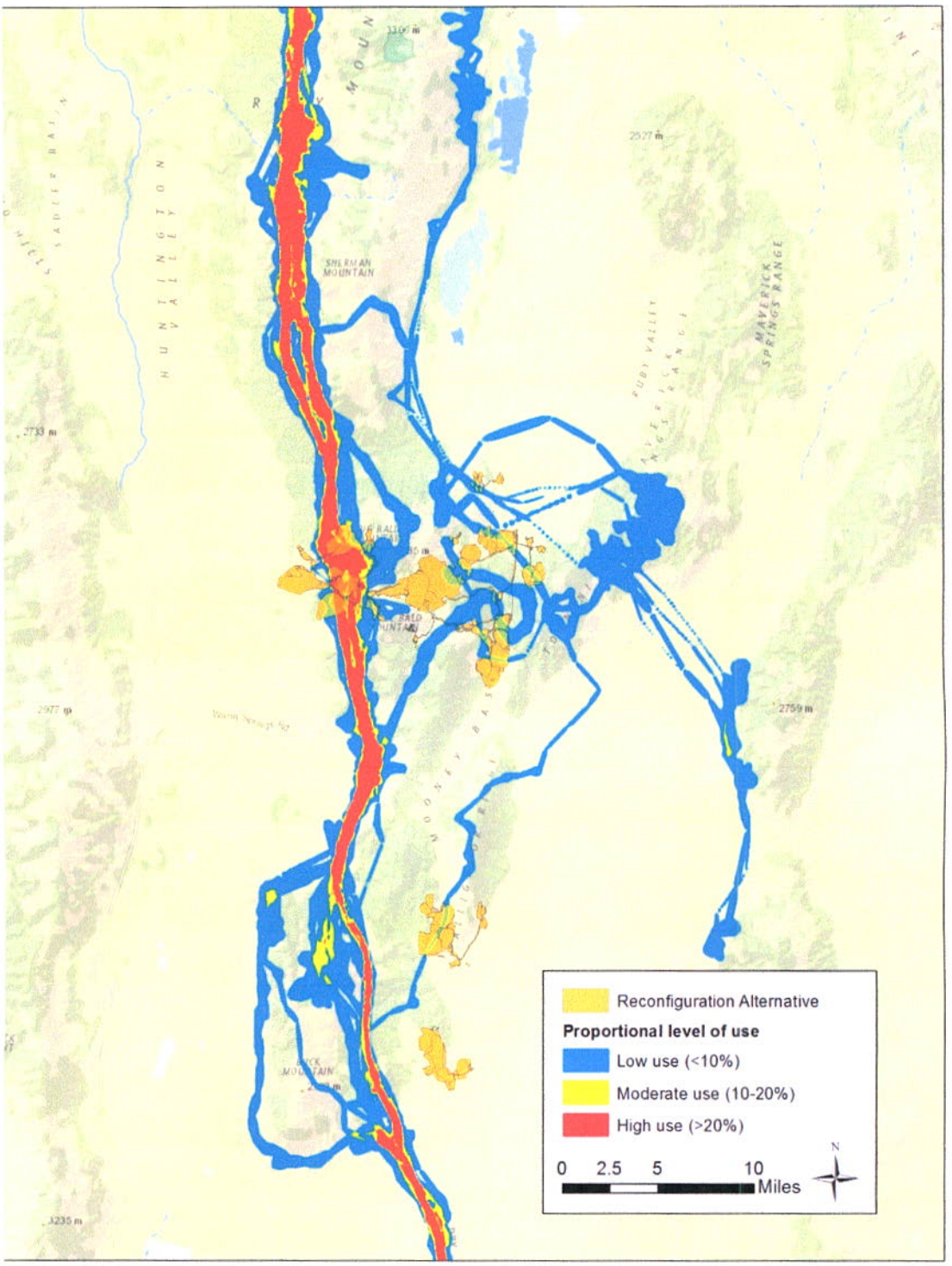

Figure 13. Low, moderate, and high-use segments in the central part of population-level migration route of the Ruby mule deer herd, 2012-2013.

Source: Nevada Department of Wildlife, "Mule deer migration and the Bald Mountain Mine – a summary of baseline data," (Prepared by: Hall Sawyer and Megen Brittell, Western EcoSystems Technology, Inc. 200 South 2nd St., Suite B, Laramie, Wyoming), May 13 2014.

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[1] NTT(National Technical Team). 2011. A Report on National Greater Sage-Grouse Conservation Measures. Produced by the Sage-Grouse National technical Team. Washington D.C. December 21, 2011.

[2] Johnson, D.H., M.J. Holloran, J.W. Connelly, S.E. Hanser, C.L. Amundson, and S. t. Knick. 2011. Influence of environmental and anthropogenic features on greater sage-grouse populations. pp 407-450 in S.T. Knick and J.W. Connelly, editors. Greater Sage-grouse: ecology and conservation of a landscape species and its habitats. Studies in Avian Biology vol. 38. University of California Press, Berkeley, California, USA.

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[3] NTT, 2011, pg. 19.

[4] Connelly, J.W., S.T. Knick, M.A. Schroeder, and S.J. Stiver. 2004. Conservation assessment of greater sage-grouse and sagebrush habitats. Unpublished Report, Western Association of fish and Wildlife Agencies. Cheyene, WY. 610 pp.

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[5] U.S. Fish and Wildlife Service. 2013. Greater Sage-grouse (Centrocercus urophasianus) Conservation Objectives: Final Report. U.S. Fish and Wildlife Service, Denver, CO. February 2013. pg. 49.

[6] NTT(National Technical Team). 2011. A Report on National Greater Sage-Grouse Conservation Measures. Produced by the Sage-Grouse National technical Team. Washington D.C. December 21, 2011. (pg. 20)

[7] NTT, 2011, pp. 20-21.

[8] U.S. Fish and Wildlife Service, Ruby Lake National Wildlife Refuge, Nevada, http://www.fws.gov/refuge/Ruby_Lake/Mule_deer.html.

[9] Nevada Department of Wildlife, "Mule deer migration and the Bald Mountain Mine – a summary of baseline data," (Prepared by: Hall Sawyer and Megen Brittell, Western EcoSystems Technology, Inc. 200 South 2nd St., Suite B, Laramie, Wyoming), May 13 2014.

[10] Nevada Department of Wildlife, "Mule deer migration and the Bald Mountain Mine – a summary of baseline data," pg.7.

[11] Nevada Department of Wildlife, "Mule deer migration and the Bald Mountain Mine – a summary of baseline data," pg.30.