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Working to protect and restore Western Watersheds and Wildlife

VIA EMAIL

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Heather Beeler
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**Subject: Scoping Comments, Hycroft Mine Eagle Conservation Plan
Environmental Impact Statement**

Dear Ms. Beeler:

Western Watersheds Project (WWP), Basin and Range Watch, Center for Biological Diversity, and Great Basin Resource Watch are pleased to provide these comments in response to the U.S. Fish and Wildlife Services (USFWS's) request for scoping comments on the Hycroft Mine Eagle Conservation Plan Environmental Impact Statement (Hycroft ECP EIS or EIS) and Incidental Take Permit.

Western Watersheds Project is a non-profit organization with more than 5,000 members and supporters. Our mission is to protect and restore western watersheds and wildlife through education, public policy initiatives and legal advocacy. Western Watersheds Project and its staff and members use and enjoy the public lands and their wildlife, cultural and natural resources for health, recreational, scientific, spiritual, educational, aesthetic, and other purposes. Western Watersheds Project also has a direct interest in mineral development that occurs in areas with sensitive wildlife populations and important wildlife habitat.

Basin and Range Watch is a 501(c)(3) non-profit working to conserve the deserts of Nevada and California and to educate the public about the diversity of life, culture, and history of the ecosystems and wild lands of the desert.

The Center for Biological Diversity is a non-profit environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center's Nevada program works to protect vulnerable wildlife, defend public lands, and safeguard groundwater resources. The Center has over 1.5 million members and on-line activists, including those living in Nevada.

Great Basin Resource Watch is a regional environmental justice organization dedicated to protecting the health and well being of the land, air, water, wildlife, and human communities of the Great Basin from the adverse effects of resource extraction and use. We inform communities about mining impacts through reports and educational materials. We review mine proposals, permits and expansions in Nevada and California, and we recommend policy solutions to reduce toxic emissions, protect our water resources and preserve human and wildlife habitat.

The Federal Register Notice of Intent (NOI) states that the Bureau of Land Management (BLM) will be the lead agency for this Environmental Impact Statement, even though the agency decision to be made is whether to grant an Incidental Take Permit under the Bald and Golden Eagle Protection Act (BGEPA). NOI at 44436. This is puzzling. Why is the BLM the lead agency when the decision to be made is a U.S. Fish and Wildlife Service (USFWS) decision? After all, deciding whether to authorize the take of eagle nests and loss of eagle territories is a wildlife management decision, not a land management decision, and USFWS is the expert federal wildlife agency that promulgated the incidental take permit regulations which must be followed.

Regardless of the land management decisions that BLM has already made and may make in the future in regard to the Hycroft Mine, USFWS still has a completely independent decision to make in regard to an eagle take permit, and it must meet the permit standard. USFWS's decision cannot be a foregone conclusion and still comply with NEPA and BGEPA.

Issues That Should Be Covered in the Environmental Impact Statement

Nest Status: The NOI states that inactive golden eagle nests will be removed. NOI at 44436. Millsap et al (2015)¹ provides a number of helpful definitions that should inform this EIS.

We define a nest as a structure built or used by eagles for the purpose of breeding regardless of whether eggs are laid in the nest in a given year or in any year. We use the term nesting site to describe the specific location of the nest on the landscape. We define a nesting territory as a defended area containing one or more nests within the range of a mated pair of eagles. Regardless of whether such nests were built by the current resident pair, they typically are situated more closely together than they are from nests of conspecific breeding pairs (Postupalsky, 1974). A used nest (equivalent to occupied nest in Postupalsky, 1974) is a nest in which, in a given year, either: (1) young were raised; (2) eggs were laid; (3) one adult was observed in incubation position; (4) two adults were observed on or near the nest and no other used nests were present within the nesting territory that year; (5) one adult and one eagle in subadult plumage were observed in or near the nest

¹ The Millsap et al 2015 study is especially relevant for this EIS because the lead author is USFWS's National Raptor Coordinator. The additional authors are experts at U.S Forest Service, USFWS, and the State of Washington's Department of Fish and Wildlife.

and mating behavior also was observed, and no other used nests were present within the nesting territory that year; or (6) the nest was repaired and fresh sticks and golden eagle feathers molted that year were present, and no other used nests were present within the nesting territory that year. Criteria (4)–(6) do not constitute proof a nest was used, but are suggestive of such. An occupied nesting territory is a nesting territory with a used nest, or with a pair of presumably mated eagles in residence. A potentially occupied nesting territory is a nesting territory where occupancy is unconfirmed but where there is limited evidence suggesting occupancy (e.g., observation of a lone adult). A vacant nesting territory is either (1) a territory documented as occupied or potentially occupied in at least one other year but not meeting the criteria of an occupied territory in the current year; or (2) what likely is a territory owing to presence of an alternative nest or group of alternative nests observed in the current breeding season, but not meeting the criteria of an occupied territory. The phrase breeding activity refers to times or places where a nest within a nesting territory is used. An alternative nest is one of potentially several nests within a nesting territory that is not a used nest in the current year (or at the current time, allowing for the rare instance of re-nesting, when eggs might be laid in two nests in a year). In a year when a nesting territory is occupied by a pair but eggs are not laid (i.e., there is no used nest), all nests in that territory are considered alternative nests. Postupalsky (1974) distinguished between an inactive nest, which has a known history of being a used nest, and an alternative nest, for which there is no known history of breeding activity. In practice it is usually impossible to distinguish between these two types of nests, so we combine both categories under the term alternative nests. A successful nest is a nest used during a breeding attempt in which at least one young fledged in a given year. An unsuccessful nest is a nest used during a breeding attempt in which no young fledged in a given year because either (1) no eggs were laid, (2) eggs failed to hatch, or (3) eggs hatched but young died before fledging.

Millsap et al (2015) at 236 (Appendix A).

Millsap et al (2015) also states:

Our review shows that: (1) alternative nests or their associated habitat are most often in core areas of golden eagle nesting territories; (2) alternative nests likely will become used in the future; (3) probability of an alternative nest becoming used is greatest where prey availability is high and alternative nest sites are limited; (4) likelihood of annual occupancy or reoccupancy of golden eagle nesting territories is high; and (5) prey availability is the most important determinant of nesting territory occupancy and breeding activity. We recommend alternative nests be treated with the same deference as used nests in land use planning.

Millsap et al (2015) at 234.

The EIS should carefully analyze the golden eagle nests proposed for removal, discussing their known breeding history in light of this study. For example, the NOI mentions the potential loss of up to two breeding territories. NOI at 44436. What is known about those territories? For example, are these currently unused nests in occupied breeding territories or are they unused nests in breeding territories that are currently vacant with no used nests? If the breeding history of those nests is not known, that should be disclosed and the implications analyzed. Compiling this history has most likely already occurred, in preparation for the golden eagle surveys that have been done to date.

In addition, the EIS must explicitly state how many golden eagle nests could be removed under this take permit. Is it three or is it six? The exact number is unclear in a poster that USFWS presented at the public scoping meetings as well as in the NOI. See Appendix B at 3 and NOI at 44436, 44437. The EIS must also explain why only up to two golden eagle territories would be lost if six golden eagle nests were removed. How many golden eagle pairs actually use the project area?

Other Nests and Territories: In addition, the EIS should disclose² and analyze the other golden eagle nests and territories in the surrounding areas. At this time, we are uncertain of the study area size to recommend, but whatever is chosen should have a logical basis in the current scientific literature on golden eagle home range size and natal dispersion in the western United States.

Nesting Territory Loss and Eagle Take Limits: If two golden eagle nesting territories are taken by this mine expansion, what impact will that have on the total amount of golden eagle take allowed under the BGEPA incidental take regulations in the western United States? How much golden eagle take has USFWS currently authorized? How much golden eagle take is USFWS considering authorizing (i.e., what other golden eagle take permits have been applied for and are pending)?

Golden Eagle Population: Nielson et al's 2016 golden eagle modeling study states:

Populations of the golden eagle (*Aquila chrysaetos*) appear stable in western regions of the USA [1,2]. This status may be short-lived, however, because the eagle's reproductive potential is low, i.e., it is a K-strategist species [3,4], and additive mortality posed by increasing anthropogenic threats could trigger declines. Examples of direct threats include mortality due to electrocution on power lines, collisions with vehicles and human-created structures such as wind turbines, and poisoning [5,6]. Moreover, quantity and quality of the eagle's habitat in the western USA likely is declining, with concurrent decreases in prey availability.

² We recognize that the location of golden eagle nests can be sensitive and that nest location information disclosed to the public might need to be generalized in order to protect eagles.

Nielson et al (2016) at 1-2 (Appendix C).³

Given this concern about the stability of the overall population of golden eagles in the western United States, what is known about golden eagle populations and their trends in Nevada and Oregon? The Hycroft Mine is in NW Nevada, so Oregon is also relevant, especially as the Nielson et al (2016) distribution model predicts that northern Nevada and southeastern Oregon are areas of high late-summer densities of golden eagle use. See Nielsen et al (2016) at 14-15. What will be the impact on these populations of authorizing more golden eagle take if the proposed mitigation measures are unsuccessful? Some of the potential mitigation measures listed in the Federal Register do not result in replacement eagles (i.e., monitoring) or are highly experimental (i.e., creating new territories and new nests, rehabilitating nests).⁴

Territory Creation: The NOI states that USFWS is considering the creation of new golden eagle territories as a mitigation strategy. NOI at 44436. That strategy seems to require one of two choices, either “create” new territories in areas that currently have no breeding eagle pair or introduce additional eagles into territories that are currently occupied by a breeding eagle pair. Either choice raises a number of questions that would need to be answered as part of an EIS analysis. How would USFWS determine where these new territories will be created? What does the scientific literature or existing practice say about past attempts to create new golden eagle territories? If areas currently unoccupied by a breeding pair of eagles are considered, why are those areas currently unoccupied? Is there sufficient prey base to support a new eagle territory?

Nest Rehabilitation: Issues similar to those for territory creation also apply to golden eagle nest rehabilitation and should also be analyzed in the EIS.

Artificial Nests: One of the proposed mitigation measures is the creation of new nests. Abandoned mine high walls are mentioned as a potential location. NOI at 44437. Would this be done before or after the abandoned mines were reclaimed? If before, how would the abandoned mine reclamation process potentially impact breeding success, given the sensitivity of golden eagles to disturbance and human presence?

Protective Buffers Around Other Active/in-use Eagle Nests: This potential mitigation measure is listed on a public meeting poster for this scoping process (Appendix B). However, alternative nests are nearly universal in golden eagle territories, eagles may use different nests from year to year, and a golden eagle pair may also re-nest in a different nest in a given year. Millsap et al (2015) at 235, 238. Therefore, placing

³ The full list of authors comprises staff from Western EcoSystems Technology, Inc. (WEST) and USFWS: Ryan M. Nielson (WEST), Robert K. Murphy (USFWS), Brian A. Millsap (USFWS), William Howe (USFWS), and Grant Gardner (WEST).

⁴ “Currently, the only offsetting mitigation measure the [U.S. Fish and Wildlife] Service has enough information to confidently apply in this manner is retrofitting of power lines to reduce eagle electrocutions (although the Service does consider other offsetting mitigation options on an experimental basis).” See U.S. Fish and Wildlife Service (2016) at vi-vii. Appendix D.

protective buffers around only “active/in-use” nests appears inconsistent with golden eagle life patterns. It would seem more likely to produce success if protective buffers around golden eagle nests were provided for all eagle nests in an area, regardless of their use status in any given year. Moreover, such buffers would need to be permanent conservation measures rather than temporary. Can the agencies guarantee this longevity?

Golden Eagle Surveys: Golden eagles are a public trust resource, so the project’s golden eagle surveys should be published with the draft EIS in order that the public can assess them. Likewise, future studies (monitoring) required as a permit condition should also be published where the public can access them (i.e., not behind a scientific journal’s paywall).

Prey Base Surveys: If prey base studies of the proposed new territories have not already been conducted, that needs to be remedied before the permit decision is made so that USFWS will have adequate information to assess whether the proposed new territories can support a breeding pair or additional breeding pairs of eagles. Millsap et al (2015) state “prey availability is probably the most important determinant of nesting territory occupancy and especially the probability that a nesting territory will be used in a given year.” Millsap et al (2015) at 240. Furthermore, golden eagle expert Daniel Driscoll has written:

A key element of eagle habitat is the prey base. Eagles may nest in closer proximity to another pair, or on marginal substrate, or tolerate higher levels of human activity, in areas of abundant and available prey. In short, higher densities of prey animals can result in higher densities of eagle pairs (Watson and Langslow 1989, Watson et al. 1992). However, when pairs breed at high densities (or rates of survival and reproduction are high, and all serviceable breeding areas are occupied by pairs) territorial altercations with neighboring pairs or nonbreeding adults (“floaters”) may decrease productivity (Haller 1996). The home range of an eagle pair also varies with habitat quality and prey abundance. Where prey is abundant, the home range of eagle pairs will likely be smaller than where prey animals are less dense. During the breeding season, golden eagle home ranges in the western United States average 20-33km² (Kochert et al. 2002).

Driscoll at 2 (Appendix E).

Monitoring: The NOI states that monitoring is being considered as a mitigation measure. NOI at 44437. Although monitoring is important because it indicates whether the mitigation is actually resulting in no net loss to eagles, it cannot itself be considered mitigation because it cannot result in new eagles and new territories. In addition, some of the mitigation measures being considered have the potential to cause ripple effects on eagles in nearby territories (creating new territories and artificial nests). As a result, the monitoring for this permit should include surrounding territories out to a distance that is logical based on the current scientific literature on golden eagle home-range size and natal dispersion in the

western United States. According to the NOI, the proposed plan is to monitor out to only 10 miles, but no rationale for that choice is given. NOI at 44437.

Other Mitigation Measures: Lead remains a major threat to golden eagles. For example, a 2017 study shows that even sublethal amounts of lead impair golden eagle flight and increase mortality risk.⁵ If lead reduction, such as nonlead ammunition and fishing tackle exchanges, is considered as a mitigation option, it should be fully analyzed in the EIS, including its likelihood of success. USFWS could itself help reduce golden eagle mortality from lead considerably by reinstating the ban on lead ammunition and tackle at national wildlife refuges.

If retrofitting electric power lines to be less lethal to eagles is considered as a mitigation measure, how will USFWS determine which power lines should be retrofitted? Are there power lines in the project area that are currently killing eagles and have not been retrofitted? In addition, if there are, will USFWS refer those line owners for Department of Justice prosecution under the Bald and Golden Eagle Protection Act to avoid incentivizing line owners to wait for other entities to do line retrofitting for them? The EIS should discuss all of these questions.

Experimental Mitigation: Some of the potential mitigation measures being considered are highly experimental (e.g., creating new eagle territories). How will USFWS determine whether they are successful and what will be the measures of success? If the proposed mitigation measures are unsuccessful, what does USFWS plan to use in their place?

Native American Cultural Values: Eagles often figure prominently into traditional Native American culture. The agencies should investigate through personal face to face discussions with the regional tribes to determine if the existing nest locations and presence of the eagles has a cultural value. If so, the EIS needs to explore alternatives that do not further erode the traditional cultural value. Furthermore, the Federal Register notice for the revised eagle take permit regulations states, "Where issuance of a permit has the potential to affect Native American tribes, we will notify the potentially affected tribes and provide them with the opportunity to consult." USFWS 2016 at 91534 (Appendix G). Accordingly, what is the status of tribal consultation for this proposed permit?

Tailings Location: The EIS needs to fully address the justification for the proposed location of the Northern Tailings Storage Facility (NTSF). The proposed location will cover what appears to be a seasonal wetland and drainage area. It is likely that eagles have nested in the cliff area adjacent to the drainage due the presentence of prey in and around this drainage. Thus, the tailings may destroy an important wildlife area in the region. As a result, the EIS needs to explore other options for the tailings facility. Relocating the tailings would avoid the need to relocate eagle nests in this area and preserve the habitat that would be eliminated in the currently

⁵ See Appendix F ("Sublethal Lead Exposure Alters Movement Behavior in Free-Ranging Golden Eagles").

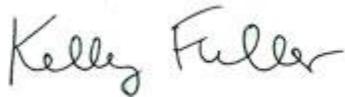
proposed NTSF location. It would also be consistent with the revised eagle take permit regulations' emphasis on avoiding impacts to eagles.

Affected Seeps and Springs: The proposed mine expansion will require significant dewatering, which can affect seeps and springs that wildlife including eagles depend upon. The EIS must factor in this aspect in analyzing the viability of eagle populations in the region.

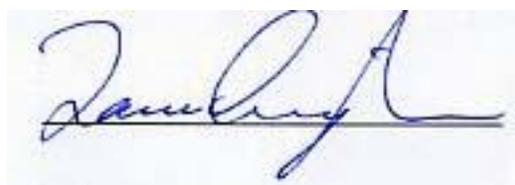
Impacts to Other Bird Species: The EIS should analyze the potential impacts of the proposed actions and their mitigation on other bird species in addition to eagles, especially those protected by the Migratory Bird Treaty Act.

Thank you for this opportunity to provide scoping comments for the Hycroft Mine ECP EIS. Please add our groups to the notification list for this project, at the contact information below.

Sincerely yours,



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