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Via Web

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RE: Draft Environmental Impact Statement on Roca Honda Uranium Mine

This letter supplies comment from the Center for Biological Diversity ("Center") regarding the Draft Environmental Impact Statement ("DEIS") on the Roca Honda Mine Project ("project"). On January 14, 2011, the Center provided the Forest Service with detailed scoping comments on this project, which we incorporate by reference into this letter. On May 10, 2013, the *Federal Register* published an "amended notice" of the DEIS "extending comment period from 5/14/2013 to 6/13/2013." 78 Fed. Reg. 27374 (May 10, 2013). Therefore, this comment is timely and may be used to demonstrate standing to administratively appeal a Record of Decision.

Alternatives

Informed consideration of alternatives is the "heart" of the National Environmental Policy Act ("NEPA") because it allows the Forest Service to sharply define relevant issues for environmental analysis and provides a clear basis for choice among competing options by the decision maker and the public. 40 C.F.R. § 1502.14. The agency is required to "[r]igorously explore and objectively evaluate all reasonable alternatives." *Id*. § 1502.14(a); *see also* 42 U.S.C. § 4332(2)(E) (requirement to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources"). "Consideration of alternatives which lead to similar results is not sufficient under NEPA..." *State of California. v. Block*, 690 F. 2d 753 (9th Cir. 1982); *also see Citizens for Environmental Quality v. Lyng*, 731 F.Supp. 970, 989 (D. Colo. 1989) (forest plan alternatives inadequate because all involved high levels of timber cutting). Moreover, "An alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable." Council on Environmental Quality, *Forty Most Asked Questions Concerning CEQ's NEPA Regulations* (46 Fed. Reg. 18026, 18027 (March 23, 1981)).

> Q. If an EIS is prepared in connection with an application for a permit or other federal approvals must the EIS rigorously analyze and discuss alternatives that are outside the capability of the applicant...? []

> A. [] Reasonable alternatives include those that are practical or feasible from a technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.

Id. 18027. In addition, "NEPA requires that federal agencies consider alternatives to recommended actions whenever those actions 'involve[] unresolved conflicts among alternative uses of available resources.'" 42 U.S.C. 4332(2)(E) (1982).

In scoping comments dated January 14, 2011, the Center asked the Forest Service to "Please study and develop reasonable alternatives to the proposed action that would: (1) "Avoid new road construction" and (2) "Avoid discharge of wastewater into tributaries of San Mateo Creek." Regarding the first alternative request, the Center explained, "Significant soil exposure and erosion are unavoidable even when the most cautious road construction methods are used (Gucinski et al. 2001).[1] Road location, design, construction and engineering practices have improved over time, but Forest Service research indicates scientific uncertainty regarding the effectiveness of newer practices – including so-called 'best management practices' – at minimizing soil exposure, erosion rates, and productivity loss (Gucinski et al. 2001)." We elaborated, "[R]oad construction poses an inherent conflict regarding alternative uses of productive soil and clean water. A reasonable alternative would require the [applicant] to access the mine and haul mineral resources exclusively by aerial systems such as helicopter."

In Alternative 2, the applicant proposes "48 acres of haul roads" within the permit area. DEIS at 31. Assuming that one mile of road 30-feet-wide covers approximately 4.8 acres, the proposed action appears to include construction of 10 miles of new road in the permit area.

> Additional surface disturbance associated with mine haul roads is proposed for several sections outside the permit area. In Section 11, an existing forest road would be upgraded to accommodate haul truck traffic and furnish general access to the Section 10 facilities. It would also be rerouted to the extent necessary (approximately 8 acres) to avoid archaeological resources. Likewise, the existing road on private land in Sections 17 and 20 providing access to Section 16 would be rerouted and/or upgraded as necessary (approximately 7,656 feet in length or 10 acres in Sections 17 and 20) to serve as a haul road.

Id. "A series of haul roads, mine access roads, and ventilation shaft access roads are proposed to support the mining operation." *Id*. 42. An unspecified mileage of new road construction would directly impact national forest lands:

> Upon receipt of the necessary permits to allow start of construction, the first activity conducted by RHR would be to blade new access roads within the proposed haul road routes. The new bladed roads would be the access used by all mine related vehicles, while the haul roads are constructed. The existing ranch roads in Sections 17 and 16, and the unauthorized two-track road in Section 11, would not be used for mine related activities. In Sections 9 and 10, new proposed

[1] The full reference is attached to this letter for convenience: Gucinski, H., M.J. Furniss, R.R. Ziemer and M.H. Brookes (eds.). 2001. *Forest Roads: A Synthesis of Scientific Information.* Portland, OR: USDA Forest Service Pacific Northwest Research Station General Technical Report PNW-GTR-509. May. 120 pp.

> access roads to vent shafts and dewatering wells would be established prior to drilling the shafts and wells.

Id. 44. Alternative 3 reduces the "footprint" of the project, but it would require an unspecified and likely significant extent of new road construction. *See id*. 50-52 (alternative description); 75 (transportation impacts of Alternative 3 "would be broadly similar to alternative 2" (sic)).

The DEIS fails to consider the reasonable alternative proposed by the Center to avoid new road construction. It does not provide any rationale for this omission, nor demonstrate that the alternative is unreasonable. The only alternatives considered but eliminated from detailed study include one to develop renewable energy resources instead of mining uranium, the original proposed action to dispose of contaminated wastewater in the San Mateo Creek watershed, and one alternative to limit uranium mining to a single production shaft. *See id*. 58-61.

Water effluent

In scoping comments dated January 14, 2011, the Center asked the Forest Service to develop an alternative that would require the applicant to dispose of water effluent at a location that would not affect any public waterway. *See* 75 Fed. Reg. 71668 (Nov. 24, 2010) (notice of intent stated: "Up to 4,000 gallons per minute of water would be pumped from the mine and treated prior to discharge in a tributary of San Mateo Creek"). The New Mexico Office of the State Engineer stated in its May 21, 2009 review of the Sampling and Analysis Plan for the Roca Honda Mine, "… 1950s-1980s surface discharges of mine water (and residual salts) likely contributed to the poor water quality recharge through the alluvium and into the Morrison formation." Therefore, the Center expressed concern that water discharge from the new mine would contribute adverse cumulative impacts to water quality in San Mateo Creek, which poses an inherent conflict regarding alternative uses of clean water as well as public health.

In response, the applicant changed its proposed action (DEIS Alternative 2) to pipe effluent water away from the mine site, out of the San Mateo Creek watershed, and dispose of it on private land near the San Lucas Arroyo:

> In brief, the water reuse pipeline was proposed by RHR in response to Agency concerns and comments received upon review of RHR's October 2009 submittal and during public and Agency scoping. Concerns were expressed regarding potential adverse impacts of discharge of water upon the San Mateo Creek drainage. In response, RHR committed to transporting the water to a location outside of the San Mateo Creek drainage for discharge. This pipeline would be placed next to the haul road and the utility corridor in Sections 16, 15, 10, and 11. It would then turn north along the road at the junction with the Section 11 haul road and proceed north through Section 2 (Forest Service lands) and onto private land, as shown on figure 15. An estimated width of 20 feet was assumed to be disturbed during the placement of the pipeline over a distance of 28,919 feet (5.48 linear miles), which totals 13.3 acres, 2.5 acres of which would be on National Forest System lands and 10.8 acres on private land. The pipeline would feed into a new water storage tank to be used for pasture irrigation. As a contingency during overflow periods, water may also be discharged into Laguna Polvadera or San Lucas Arroyo.

DEIS at 34. According to this analysis, "overflow" of wastewater may be discharged in the San Lucas Arroyo. However, such discharge into this public waterway feeding the northern reach of the Rio Puerco watershed may not be limited to such contingencies. *See id*. 147 ("The discharge would occur on private property in the vicinity of Laguna Polvadera. At that location the water would become available for reuse by others or may simply flow down the San Lucas Arroyo as a permitted discharge"); 155 (same).

Disposal of effluent water resulting from mine development and operation may have significant direct, indirect and cumulative effects on the environment that remain unaddressed by the DEIS. Despite the potential for effluent discharge to transform San Lucas Arroyo into a perennial stream, the Forest Service buries its head in the sand and fails to disclose even basic facts about its current condition or effects of the discharge to surface water or groundwater quality. *See id*. 147 ("The estimated flow rate from the water treatment facility is expected to be 2,500 to 4,500 gpm"); *id*. (pipeline construction would disturb 13.3 acres, including 2.5 acres of national forest land, in San Lucas subwatershed); 112 (Forest Service did not describe San Lucas subwatershed and its watercourses "as minimal disturbance is expected to occur in these areas"); 113 (capacity and dimensions of Laguna Polvadero treated water storage "are unknown"); 146 ("When details on the discharge are provided, information on the hydrogeology of the impacted area will be added" to the EIS); 156 ("The potential effects of disposing of treated water by land application include buildup of minerals in the soil and groundwater impacts"). Despite this admitted lack of information about potentially significant environmental impacts, the Forest Service defers to the separate regulatory process of a state agency to manage those impacts:

> Treated water will be discharged on private lands north of the mine. Details of the discharge plan are not now available to the USFS. The full discharge plan will require approval by the NMED, a cooperating agency with the Forest Service. In general, the expectation is that use of the water for private irrigation would result in a rise in water levels in the areas irrigated, and near any unlined storage facility. Proper project design will be necessary for this increase in groundwater storage to not adversely impact soil water logging or increased flood runoff.

Id. 175. Moreover, the DEIS contains only cursory mention of mitigation measures that may be used to reduce or contain potentially significant soil erosion and stream sedimentation that otherwise will result from the proposed effluent discharge in San Lucas Arroyo.[2] It lacks detailed information regarding mitigation effectiveness.

NEPA procedures must insure that environmental information is available to decision makers and citizens before decisions are made and actions taken. *See* 40 C.F.R. § 1500.1(b). When reviewing the analysis, courts will "make pragmatic judgment as to whether the environmental impact statement's form, content and preparation foster both informed decision making and informed public participation." *Oregon Environmental Council v. Kunzman*, 817 F.2d 484, 485 (9th Cir. 1987). Information about significant impacts of effluent discharge should be made available for public review and comment. NEPA is not designed to postpone analysis of an environmental consequence to the last possible moment. Rather, it is designed to require such analysis as soon as it can reasonably be done. *See Save Our Ecosystems v. Clark*,

[2] Comments developed by New Mexico state agencies attached to this letter explain the importance of detail regarding mitigation measures for this point source of water effluent.

747 F.2d 1240, 1246 n.9 (9th Cir.1984) ("Reasonable forecasting and speculation is ... implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as 'crystal ball inquiry,'" quoting *Scientists' Inst. for Pub. Info., Inc. v. Atomic Energy Comm'n*, 481 F.2d 1079, 1092 (D.C. Cir.1973)); *also see Kern v. U.S. Bur. Land Manag.*, 284 F.3d 1062, 1072 (9th Cir. 2002). NEPA also requires detailed analysis of mitigation measures and their effectiveness. *See South Fork Band Council v. Dept. of Interior*, 588 F.3d 718 (9th Cir. 2009) (EIS failed to conduct adequate review of mitigation measures and their effectiveness in a proposed mining action).

Fish and wildlife

As stated above, the proposed action may transform San Lucas Arroyo into a perennial stream. Sensitive fishes, including Rio Grande chub and Rio Grande sucker, may be present in the northern reach of the Rio Puerco watershed. The DEIS gives no attention to potentially significant indirect or cumulative effects of water effluent discharge to sensitive fishes. It states:

> Surveys were conducted to determine which frogs and amphibians, small mammals, birds, furbearers and big game, and threatened, endangered, and sensitive species exists in the permit area. Except for a few small pockets of wetlands within the three main sections (9, 10, 16), there is no perennial surface water or aquatic habitat found within the mine permit area (RHR, 2009d). As such, there are no fish species currently living within the permit boundaries and fish are not discussed further.

DEIS at 212. The Forest Service's choice to limit consideration of impacts to aquatic species within the proposed permit area is curious given its admission that this action may have "long-lasting" effects to water quality and availability in the Rio Puerco and San Juan basins. *Id*. 65.

Grey vireo is state-listed as a "threatened" species in New Mexico, and the Forest Service considers it a "sensitive species" whose viability is of concern. *Id*. 216-18. Grey vireo is known to exist in the project area. *Id*. 216. The proposed action has a very high likelihood of causing direct mortality and or indirect habitat destruction to grey vireo, resulting in violations of the Migratory Bird Treaty Act ("MBTA") that no measure in the DEIS appears to effectively mitigate. *See id*. 231 ("If high priority migratory bird mortality resulted from mining, RHR would be in violation of the [MBTA], causing major impacts"); 225 (naming grey vireo as a "priority bird species"); 232 ("Major impacts would occur if the RHR mine violated the MBTA. These impacts could be avoided by implementing timing restrictions on habitat removal from April 1 to July 31, but during initial construction this may not be feasible"). The DEIS contains no species-specific information about grey vireo viability or project effects.[3] *See id*. 237-46.

Spotted bat also is state-listed as a "threatened" species in New Mexico, and the Forest Service likewise considers it "sensitive." *Id*. 216-18. Spotted bat has not been located in the permit area, but it is known to occur in the vicinity of Mount Taylor. *Id*. 216. The proposed action will destroy suitable habitat and potentially displace bats for a long period of time. *Id*.

[3] Under NFMA, the Forest Service is required to "Manage sensitive species habitat to maintain population viability within the National Forest." Cibola Forest Plan at 69 (Amendment 7).

238. The agency concludes that the action will not "reduce the overall population" of spotted bat on the Cibola National Forest nor contribute to federal listing of the species. *Id*. 238-39. Yet it fails to consider or disclose cumulative impacts of ongoing and foreseeable activities to the species, rendering its conclusion uninformed and arbitrary. More, the analysis allows for the possibility that white-nosed syndrome or other "catastrophic disturbance" may devastate spotted bat populations, but doesn't consider cumulative risk (e.g., human encroachment on habitat).[4]

Cumulative effects

According to the Forest Service, the relevant scope of cumulative effects to groundwater quality includes "the San Juan Basin," and properly extends "100 years after mining ends." DEIS at 179. However, the DEIS only considers cumulative effects of activities related to uranium mining on groundwater quality. The project area is partially located within the Mancos Shale formation. *See id*. 98 (Figure 25). A "giant" boom of oil and gas drilling, and associated impacts to San Juan Basin groundwater quality already has started and is reasonably foreseeable.[5] Fossil fuel extraction activities also have cumulatively significant effects to air quality which the DEIS entirely fails to consider. *See id*. 84-89 (ongoing and foreseeable actions considered).

Other cumulative effects of the proposed action that should be considered in the EIS relate to the overall life cycle of the uranium ore to be extracted (Figure 1). The analysis overlooks impacts related to transport and milling, health risks from converting milled uranium into "yellowcake," health and environmental impacts of toxic wastes generated from conversion of uranium oxide to uranium hexafluoride, or health, environmental and national security risks presented by enrichment for conversion to fuel for nuclear reactors or weapons.

Cumulative impacts must be reviewed "regardless of what agency (Federal or non-Federal) or person undertakes such other actions." 40 C.F.R. § 1508.7. For example, in a case that considered federal approval of mineral leasing and mining, a court required the agency to take a hard look at environmental impacts from the mill that would process the ore to be extracted from the mines/leases, despite the fact that the mill was on private land and not directly associated with the mines/leases under review. *See Colorado Environmental Coalition v. Office of Legacy Management*, 819 F.Supp.2d 1193 (D. Colo. 2011).

Connected actions

Federal agencies have "considerable discretion" in defining the scope of NEPA analysis, but they are required to consider environmental impacts resulting more than one action in a single EIS if they are part of a single proposal or are "connected actions," "cumulative actions," or "similar actions." *Native Ecosystem Council v. Dombeck*, 304 F.3d 886, 893-94 (9th Cir. 2002); also see 40 C.F.R. § 1508.25(a)(1) (actions are "connected" if they "(ii) Cannot or will

[4] Materials attached to this letter demonstrate that ongoing spread of white-nose syndrome presents a significant risk to spotted bat populations in New Mexico.

[5] Materials attached to this letter demonstrate that significant expansion of oil and gas extraction activity is ongoing and foreseeable within the spatial and temporal scope of cumulative effects analysis established by the DEIS.

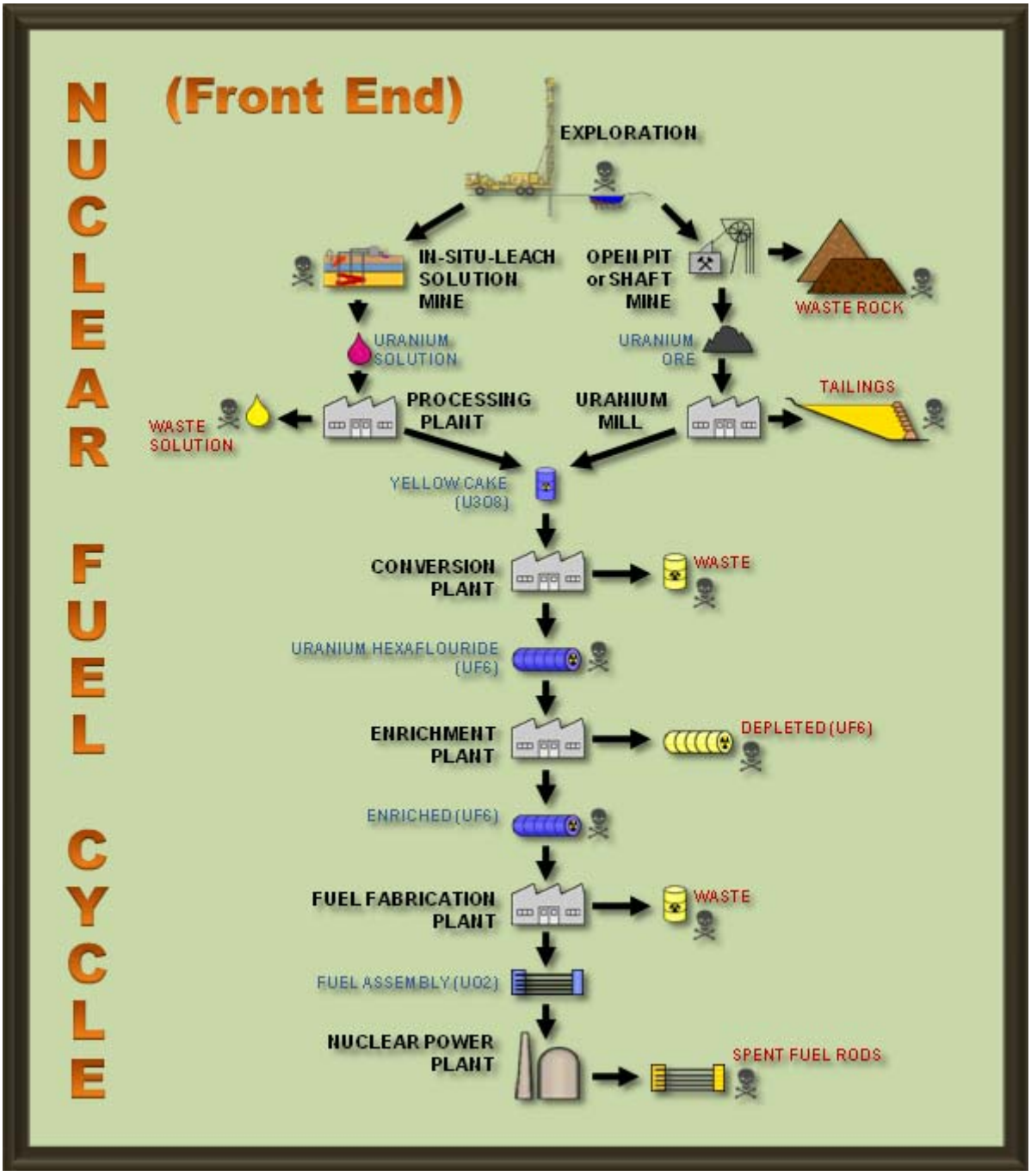

Figure 1. The civilian nuclear fuel cycle produces toxic waste material at every stage of production. Source: http://www.downtheyellowcakeroad.org/html/fuelcycleinteractivegraphic.html

not proceed unless other actions are taken previously or simultaneously," or "(iii) Are interdependent parts of a large action and depend on the larger action for their justification").

The proposed action would occur at the "front end" of an extensive nuclear fuel cycle that includes milling, conversion and enrichment of uranium ore before it can be used for civilian electricity or military weapon production purposes (Figure 1). The DEIS overlooks cumulative contributions of the proposed action to environmental, cultural, safety, security, transportation, human health and other impacts that result from the nuclear fuel cycle, including milling of the ore from the Roca Honda Mine. There is only one uranium mill currently operating in the western United States, at Blanding, Utah. If the mill doesn't operate then the proposed mine has no reason to operate, either. Environmental impacts resulting from transport and milling of the ore, at a minimum, are connected actions that must be analyzed in the EIS.

Bonding

Under 36 C.F.R. § 228, the Forest Service should require a financial assurance to ensure that the reclamation activities described in the DEIS will be completed in the event of abandonment of the Roca Honda permit area. The agency should detail the amount, scope and form of the financial assurance in the NEPA process to make certain that such a critical issue is subjected to public review and comment. The reclamation bond must be independent of the bond covering any other mining operations, and it must be substantive enough to cover the potential impacts to the area's ecosystem as well as the area surrounding the transportation, powerline and pipeline routes. Bonding should also be provided for possible spills of fuels and other hazardous materials along the roadsides. It should reflect the impacts to the culturally-sensitive nature of this site and any listed species inhabiting the area. Bonding costs should be calculated according to Forest Service pricing, including the cost of renting and transporting equipment and wages for all workers and supervisors. These calculations should be included in an environmental review and available for public comment and review.

The Center is an interested party to this action and wishes to remain involved at every opportunity. Please notify me at the addresses below of further opportunities to comment, any responses to these comments, and any implementation decision and appeal opportunity.

Thank you,

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Att.