

STATE OF NEVADA COMMENTS¹
ON THE
BUREAU OF LAND MANAGEMENT'S DECEMBER 29, 2003
FEDERAL REGISTER NOTICE OF PROPOSED WITHDRAWAL AND
OPPORTUNITY FOR PUBLIC MEETING; NEVADA
[NV-930-1430-ET; NVN-77880; 4-08807]

March 29, 2004

Background

In response to a request from the U.S. Department of Energy, BLM issued a Federal Register Notice on December 29th 2003 announcing a proposal to withdraw a one mile wide swath of public land from the vicinity of Caliente, Nevada to the proposed Yucca Mountain nuclear waste repository site. The withdrawal encompasses approximately 308, 600 acres and removes this land from "surface entry and mining for a period of 20 years while DOE evaluates the route for the potential construction, operation, and maintenance of a branch rail line" to Yucca Mountain. BLM's action would effectively place all of the land out of the public domain for 20 years or until a permanent withdrawal is accomplished, potentially disrupting grazing rights, mining claims, recreational activities, etc. BLM also announced in the Notice that it had, effective December 29, 2003, preemptively put the land off limits to surface entry and mining for a period of 2 years while a final decision on the 20 year land withdrawal is pending.

The proposed withdrawal is not, and must not be treated as, simply another land withdrawal request. The purpose for which DOE is seeking to segregate this land is unique and has the potential to negatively and substantially impact people and the environment in an unprecedented way (see Attachment I for a more detailed description of the use to which the land proposed for withdrawal would be put). If DOE ultimately selects the designated corridor as the rail access route to Yucca Mountain, a rail spur over 300 miles long would be built to carry deadly spent nuclear fuel and high-level radioactive waste from nuclear power reactors and other facilities around the country. In excess of 70,000 metric tons of this dangerous material would be transported along this corridor, requiring thousands of shipments over a period spanning 40 years or more. An accident involving release of this material could result in massive and long-lasting environmental damage. Even without an accident, repeated exposures to routine radiation being emitted by the shipping containers over long periods of time can result in negative health consequences. The mere fact that the land will be used as a nuclear waste transportation corridor also has the potential to stigmatize both the withdrawn land and surrounding areas, having potential effects on property values and other economic impacts for users of adjacent or nearby lands.

¹ These comments were prepared by the Nevada Agency for Nuclear Projects, Office of the Governor, 1761 E. College Parkway, Suite 118, Carson City, Nevada 89706 with input from other affected State agencies.

The proposed Yucca Mountain project has created major and sustained conflict between the State of Nevada and the federal government over the years and is likely to continue to be a major source of controversy in the future. It is critically important for BLM to recognize that any action involving a land withdrawal for the construction of and use as a rail access route to Yucca Mountain cannot be handled in a “business-as-usual” fashion.

General Comments

DOE’s Request is Inappropriate and Premature

DOE is proposing to move ahead with decisions about SNF and HLW transportation, such as which rail corridor to select in Nevada, without having conducted adequate analyses of proposed decisions and their alternatives. Such decisions can only be made – and the activities required to *implement* them (*including the withdrawal of land for a rail spur*) can only be undertaken - within the context of a comprehensive and legally sufficient NEPA process. DOE has not done the analyses required to make such decisions and it is in violation of the requirements of NEPA in the way it is going about identifying rail access routes (and making other transportation related decisions, for that matter).

The DOE request for withdrawal of land is both premature and inappropriate, and it is reflective of the inverted nature of DOE’s entire approach to transportation planning. Before making any decision regarding rail corridors and land withdrawal requirements in Nevada, DOE must undertake a national transportation analysis that evaluates differential impacts of various modes and modal mixes. From that analysis, a decision must be made as to what the preferred mode of shipments will be.

Once the mode decisions are made and adequately supported, then DOE must undertake a national routing analysis to look at the differential impacts of various route alternatives, taking into consideration differing impacts caused by differences in routing schemes based on which rail and access routes are available in Nevada.

Only after such a national transportation analysis is completed can DOE assess which rail access route (if any) in Nevada is preferred and justify any request for the segregation of land. To do otherwise is unacceptable and, Nevada officials believe, a violation of the requirements of the National Environmental Policy Act (NEPA). Likewise, the fact that BLM acted unquestioningly in acceding to DOE’s request for an immediate 2 year segregation of the Caliente corridor and issued a Notice setting the process in motion for the 20 year land withdrawal makes BLM complicit in DOE’s attempt to circumvent its responsibilities under NEPA.

*The Need to Evaluate Rail Corridors Does Not
Necessitate Putting Public Lands Off-limits for Other Uses*

DOE has been considering a number of possible Yucca Mountain rail access routes in Nevada for almost two decades. Until DOE is prepared to formally select a preferred corridor and has met the necessary NEPA and other requirements to support such a decision, there is no justification for BLM granting DOE exclusive use of land encompassing one of the potential rail spur routes. Segregating land from surface entry and other uses simply for the purpose of studying the route prior to a formal decision having been made creates hardships for and imposes economic and social impacts on other legitimate users of these public lands.

Ranchers who have grazing allotments and other legitimate reasons necessitating ongoing access to the lands in question are being and will continue to be substantially affected. It is instructive to note that DOE has never, in more than 20 years, informed affected ranchers along the Caliente corridor (or any of the other potential rail access corridors under consideration) of the exact route(s) being considered or the possible impacts that would accrue to their activities and livelihood in the event the route was selected and the land identified for withdrawal. For most if not all of the ranchers impacted by this action, the first indication they had that such an action was contemplated was the December 29th Federal Register Notice. BLM, as the appointed steward of the public lands in question, has a proactive responsibility to assure that any applicant seeking the withdrawal of such lands from other legitimate uses has fulfilled its obligation to inform affected parties of the contemplated action and its impacts and has sought their input prior to having made the request for withdrawal. In this regard, both BLM and DOE have been derelict in their duties and responsibilities.

Segregating the land in question also has the potential to impact mining claims and minerals exploration in a wide swath of land across central Nevada (see comments on mining and minerals exploration impacts below). This appears to be uncalled for at a time when DOE still cannot say whether the Caliente rail corridor is even feasible, but simply has indicated a preference for the route without having done the studies necessary to determine its suitability.

DOE is, in fact, seeking withdrawal of the land without any assurance that the land will ever be needed. A license application to the Nuclear Regulatory Commission for the Yucca Mountain program is not planned to be submitted until the end of 2004 and will not be acted upon by NRC for at least 3 – 4 years. Transportation of spent fuel and high-level waste to a repository could not begin until 2010, at the earliest, according to DOE's highly optimistic schedule. Most observers believe that, even if Nevada is unsuccessful in its attempts to stop the project, such shipments would not begin until 2015 or later.

DOE's request for an Administrative Land Withdrawal is unnecessary and an unwarranted restriction of other legitimate public uses of these federal lands within Nevada. A temporary right-of-way, interagency agreement, or cooperative agreement

would provide DOE sufficient access for evaluation of the route, without segregation of the land from other permitted public uses for a period of twenty years.

*Legal Challenges to DOE's Yucca Mountain Project
Are Reason for BLM to Reject DOE's Land Withdrawal Request*

Nevada has a number of pending lawsuits, currently in the U.S. Court of Appeals, challenging the Yucca Mountain program on a variety of grounds. Decisions in these cases is expected by mid-2004. If Nevada prevails in any of these challenges, DOE's Yucca Mountain program would be either terminated or at the least set back and delayed significantly. One of the lawsuits challenges DOE's Final EIS for Yucca Mountain, charging, among other deficiencies, that the Final EIS failed to adequately assess impacts of waste transportation to Yucca Mountain. The analysis of potential impacts is also charged to be insufficient to support future transportation decisions, including the selection of a rail corridor in Nevada from among the five potential corridors identified in the EIS. If Nevada prevails in this case, DOE cannot move forward with the identification of a preferred rail access route until deficiencies in the EIS are corrected.

DOE's application is also subject to challenge for being legally and procedurally defective in relation to applicable law and regulations governing federal land withdrawals under Title 43 of the U. S. Code.

In light of this pending litigation, BLM should defer any action on DOE's land withdrawal request pending the outcome of the State's legal challenges. BLM should also rescind its decision to immediately segregate the land from surface entry and mining pending resolution of the legal cases.

Specific Comments

Comment: DOE's application for administrative land withdrawal for the proposed Caliente rail corridor, as contained in the letter of December 19, 2003 from W. John Arthur, III to Robert V. Abbey, is procedurally defective and should have been rejected.

The request for the withdrawal was signed by the Deputy Director of DOE's Office of Civilian Radioactive Waste Management. Under the provisions of the Federal Land Policy and Management Act (FLPMA) only the Secretary or a "department or agency head" may make such a request.² Deputy Director Arthur's request should have been rejected by BLM on procedural grounds.

² Section 204(c)(1) states, "on or after the dates of approval of this Act a withdrawal aggregating five thousand acres or more may be made ... only for a period of not more than twenty years *by the Secretary on his own motion or upon request by a department or agency head*" (emphasis added).

Comment: The Federal Register Notice does not contain sufficient information for the public and affected parties to understand what is being proposed and what the impacts might be.

The Notice simply indicates that a one mile wide corridor of land “that contains a portion of, or wholly encompassed within,” over 1000 sections. The sections are identified by their alpha-numeric designations, but there is no graphic representation showing the proposed land withdrawal in relation to its geographic context. Without a map or other graphic description, it is extremely difficult for the public and others to determine if the withdrawal will affect them.

The Notice also erroneously indicates that the proposed withdrawal includes lands in Clark County, which it does not.

Comment: The reference to BLM’s intention to hold at least one public meeting in connection to the proposed withdrawal is misleading.

The Notice indicates that "there will be at least one public meeting in connection with the proposed [land] withdrawal to be announced at a later date," with the date and location of such a meeting to be noticed at least 30 days prior to the meeting. The way the Notice is written implies that the public meeting would occur during the 90 day comment period specified in the Notice. However, BLM Nevada staff have indicated that no such meeting is planned to occur before the March 29th comment deadline, and that the commitment is merely to hold a public meeting on the land withdrawal "at some future time."

Clearly, linking the "Notice of Proposed Withdrawal" with an "Opportunity for Public Meeting" and a request for comment, both in the title of the Notice and in the text, suggests that the meeting was to occur during the 90 day comment period. It is very likely that others have also interpreted the commitment to conduct one or more public meetings in this way and had planned to make their comments on the Notice to BLM at the promised meeting(s). The fact that BLM has decided not to hold meetings until after the end of the comment period seems inconsistent with the purpose and intent of the Notice and harmful to the public comment process overall.

Comment: Segregating a one mile wide swath of land over 300 miles long and encompassing 308,600 acres of public land is not justified either for evaluation of the proposed rail corridor or for the construction and operation of a rail line.

DOE’s request to withdraw land for a corridor that is one mile wide is unjustified and unnecessarily large. The actual width required for a rail spur, including the actual track, access/frontage areas, and buffers, is only a few hundred yards at most. Even giving DOE the benefit of the doubt with respect to uncertainties about certain aspects of

the actual rail alignment, a one mile corridor is still wildly excessive.³ Prior to issuing the Notice, BLM should have required DOE to narrow its withdrawal request to a reasonable and defensible corridor width. A corridor a quarter of a mile wide, or even less, would still provide more than enough land for conducting studies and for constructing and operating the proposed rail line.

Comment: In evaluating any request for the withdrawal of land for use in transporting spent nuclear fuel and high-level radioactive waste across Nevada, BLM must undertake an extensive and comprehensive environmental review process under NEPA.

In evaluating the Department of Energy (DOE) land withdrawal request, the Bureau of Land Management (BLM) must consider in detail the impacts of constructing and operating the proposed rail line. In particular, BLM must consider in the implications of the length of, and the topography along, the Caliente corridor.

Caliente is the second-longest (319 miles), and most expensive (\$880 million), of five rail access options identified by DOE in the final Yucca Mountain EIS. Carlin, the longest option, was 323 miles. Either of these routes would be considerably longer than the 113-mile Orin Line constructed by the Burlington Northern to access the Wyoming Powder River Basin coal fields in the 1970s. The Orin Line was the longest new track construction effort in the United States since the 1930s. By way of further comparison, the Caliente route would be longer than the distance from Washington to New York (204 miles); St Louis to Chicago (259 miles); or London to Paris (213 miles).

The first hundred miles of the current DOE Caliente corridor must cross, skirt, or dodge the Delamar Mountains, the Chief Range, the Highland Range, the North Pahroc Range, the Seaman Range, the Golden Gate Range, and the Worthington Mountains. The second hundred miles of the corridor must cross the Quinn Canyon Range, slip between the Groom and Belted Ranges to the South and the Reveille Range to the North, traverse Warm Springs Summit (elevation 6,293 feet) between the Kawich and Hot Creek Ranges, and turn south to avoid Sugarloaf Mountain and the Monitor Hills. In its final 119 miles, the primary corridor must cross into the Nellis Air Force Ranges to avoid mountains and hills near Goldfield, and snake along the Nellis boundary to avoid Stonewall Mountain, Pahute Mesa, Oasis Mountain and Bare Mountain before arriving at the southern extent of Yucca Mountain.

DOE has not published a conceptual plan for a specific rail alignment within the current Caliente corridor. A conceptual plan and vertical profile are required for evaluation of feasibility and construction cost. State of Nevada contractors have prepared a preliminary analysis of the first 100 miles, based on previous DOE and Nevada studies. The State analysis indicates that DOE railroad construction and operation will be challenged by the rugged topography. The first four mountain crossing segments,

³ DOE identified a potential Caliente rail corridor one-quarter mile (400 meters) wide in the Final Yucca Mountain EIS. The EIS assumes DOE would need a railroad right-of-way 60 meters (200 feet) wide in flat areas. In areas of extensive cut and fill, a width of 350 feet could be needed. A cross-section 60 feet wide is needed for construction of the rail line and access road. The rail road-bed width would vary depending upon ballast and subgrade side slopes [anywhere from 12-25 feet wide, for a standard gage line (inside distance between tops of rails is 4 feet, 8 ½ inches) built on typical ties (8 feet, 6 inches long)].

ranging in length from 7 miles to more than 20 miles, would involve ascending and descending from valley elevations of 4,600 to 5,200 feet, to summit elevations of 5,400 to 6,100 feet. While a specific alignment has not yet been selected, almost any alignment within the proposed corridor will require grades of 1.3 percent to 2.4 percent for 75 of the first 100 miles, even after extensive cut-and-fill activity to limit maximum grades to 2.5 percent. Similar conditions would be encountered at other locations along the remaining 219 miles.

DOE's NEPA process for the Yucca Mountain program and the Final Yucca Mountain EIS are woefully inadequate. In particular, the analysis of impacts associated with the transportation of deadly nuclear waste, including the construction and operation of a rail access spur across Nevada, is both legally and substantively deficient. Prior to acting on DOE's withdrawal request, BLM must undertake its own environmental analysis and prepare a fully compliant EIS supporting whatever decision is made. That environmental analysis must include the full range of potential impacts. The process must involve adequate opportunities for public participation, including scoping meetings throughout the impacted areas and in Las Vegas and Reno, a draft EIS with public hearings and a lengthy public comment period, a final EIS and a fully supported record of decision.

Comment: BLM must identify and thoroughly evaluate impacts to threatened and endangered species as well as environmentally sensitive lands within or affected by the corridor of land being proposed for withdrawal.

The Nevada Department of Conservation and Natural Resources, Nevada Natural Heritage Program (Program) has provided the attached table (Attachment II) showing known occurrences or rare and sensitive species that may be affected if and when rail construction occurs.

Please be aware that these data represent only records reported to the Program which meet criteria for scientific credibility and accuracy. They do not represent, and cannot replace, complete surveys on the ground to assess the presence or absence of sensitive biological resources. There may be additional undocumented occurrences of these and other species of conservation concern within the proposed rail corridor.

The Program is constantly incorporating new data into its databases, and that new or revised records affecting this corridor will likely be added subsequent to the attached report, which is based on data input as of 28 January 2004. BLM should work closely with the Nevada Natural Heritage Program and the Department of Conservation and Natural Resources in conducting an independent assessment of potentially impacted species and environmentally sensitive lands.

Impacts on delicate desert soils also need to be addressed. Desert soils are fragile and can be easily damaged by human activities, and recovery often takes hundreds of years. BLM needs to evaluate the impact of the land withdrawal decision and subsequent

construction and operation of a rail spur on ecologically sensitive soils and environmentally sensitive lands.

Comment: BLM must thoroughly assess impacts to mining claims and minerals exploration/extraction activities that would result from the proposed land withdrawal.

The Nevada Division of Minerals advises that the proposed withdrawal has the potential to cause impacts in two areas of concern. One is the status of existing mining claims that may be located within the one mile corridor of the proposed rail line. The other is the status of potentially hazardous abandoned mine openings that may exist in the corridor.

Owners of existing mining claims in the corridor should, at a minimum, be guaranteed access to their claims and be allowed to develop them. Mineral exploration and mining are vital to the state's economy. The proposed withdrawal of 308,600 acres of public land represents a significant loss of area currently available for mineral exploration.

It is possible that potentially hazardous abandoned mine openings may exist within the corridor. The Nevada Legislature has charged the Division of Minerals with the task of discovering and causing to be secured hazardous abandoned mine openings within the state. In the event the rail line is constructed and hazardous mine openings are discovered within the corridor, such mines should be secured by those constructing the rail line. At a minimum, the Division of Minerals must be given access to the corridor for the purpose of securing such mines.

Comment: BLM must thoroughly and comprehensively evaluate the impacts of the proposed land withdrawal on ranching and other activities.

In evaluating DOE's land withdrawal request, the BLM must consider in detail the impacts on ranching of constructing and operating the proposed rail line. The DOE proposal for rail development in the Caliente corridor would adversely affect ranching operations in Lincoln and Nye Counties. The Caliente corridor would directly impact ranching operations in Meadow Valley, Reveille Valley, Oasis Valley, and other areas.

The DOE corridor preference criteria, particularly avoidance of privately-owned land, ignore the realities of ranching in Nevada. Land ownership does not accurately reflect land-use. Most ranching operations are based upon a combination of privately owned fee land and grazing leases on publicly owned lands. Splitting an existing operation with a rail line that will limit access to the leased land can have significant adverse effects on the operation of the ranch. If the rail line is fenced, the splitting of ranching operations will be perhaps the most significant impact. The rail line will bisect many local roads, and grade-separated crossings will be limited to major roads.

Ranching operations would be the most affected by the barrier to movements created by the proposed rail line. Box culverts and bridges are commonly used to provide

underpasses under railroad tracks for the movement of livestock and equipment. Underpasses will be limited to locations where underpasses can be constructed based on the topography and the profile of the proposed rail line. The degree of impact is a combination of the proposed at-road crossings (either at-grade or grade-separated) and proposed drainage structures. A preliminary State analysis for the Caliente corridor found the average distance between potential crossing locations is 19.2 miles. The longest distance is 39 miles.

In addition, railroad yards, borrow areas, areas for disposal of surplus fill, staging areas, construction camps, lay down areas, access roads to construction initiation points, and other construction and maintenance activities will result in impacts on ranching well outside of the identified corridor.

Construction of a rail spur within the withdrawal area will also likely adversely impact both paved and unpaved roads traversed by the railway.

Comment: BLM must thoroughly evaluate the impact of the proposed land withdrawal on Native American interests.

The DOE proposal for rail development in the Caliente corridor would adversely affect Native American interests. The proposed repository location at Yucca Mountain is a very old border between the Western Shoshone and the Southern Paiute. In the immediate area are several federally recognized tribes and their reservation communities, as well as other urban and rural Native American residents, and organizations such as the Western Shoshone National Council. Most Native Americans in Nevada do not want the disturbance of cultural resources that they see as the inevitable outcome of the Yucca Mountain project and the proposed rail line.

The entire Caliente corridor lies within lands claimed by the Western Shoshone Nation under the Ruby Valley Treaty. DOE has acknowledged that the corridor may cross traditional holy lands important to the Southern Paiute, Western Shoshone, and Owens Valley Paiute and Shoshone peoples. The Bonnie Claire alternate portion of the Caliente corridor near Scotty's Junction would traverse lands held in trust for the Timbisha Shoshone Tribe. According to DOE, "archaeological surveys have been conducted in less than 1 percent" of the total area for the Caliente corridor. [FEIS, 3-151]⁴

Rail shipments to Caliente from California on the existing Union Pacific mainline would traverse almost the entire length of the Moapa River Indian Reservation. All of the truck shipments required under the DOE mostly rail scenario would cross the Moapa River Indian Reservation on I-15 and the Las Vegas Paiute Reservation on U.S. 95.

Tribes potentially affected by the proposed DOE rail line to Yucca Mountain have identified the following concerns: DOE & Bureau of Indian Affairs (BIA) failure to

⁴ The designation "FEIS" refers to DOE's Final Environmental Impact Statement for Yucca Mountain; the numbers which follow are section/page references in the FEIS.

formally recognize affected tribe status and provide financial and technical assistance; protection of religious and cultural sites, and plants and animals, both on and off reservations; implications of rail spur right-of-way acquisition for Western Shoshone land claims (Ruby Valley Treaty); cultural implications of possible radiological contamination and cleanup activities on tribal lands; stigma impacts on tribal businesses; tribal authority to regulate shipments across reservation lands, including pre-notification and monitoring; and tribal roles in emergency response planning and training.

BLM must also thoroughly assess impacts of the proposed withdrawal and subsequent rail construction and operations on cultural resources, archeological sites, artifacts, and other historic and pre-historic occurrences within the withdrawal area in full compliance with 43 USC.

Comment: BLM must assess the impacts of the proposed withdrawal and the construction and operation of a rail spur for transporting spent nuclear fuel and high-level radioactive waste on unique cultural and artistic resources on private lands adjacent to the withdrawal area.

This comment refers primarily to the impacts of the proposed land withdrawal and subsequent rail line construction and operations on the massive “City” sculpture being installed by world renowned land artist and sculptor Michael Heizer. This project represents more than three decades of work and a major investment of time and resources. The complex, which is still a work in progress, is one of the most massive sculptures ever built. Land proposed for withdrawal surrounds the project and, if a rail line is eventually constructed, would do irreparable damage to the project, which was located where it is because of the very remote and isolated nature of the area. There may also be other visual and aesthetic impacts on other areas along the corridor proposed for withdrawal.

As is the case with affected ranchers and others, DOE did not inform Heizer or his sponsors of plans for a rail spur that would affect the project. In fact, it appears that DOE was unaware of the existence of this massive, one-of-a-kind sculpture until after the application for land withdrawal had been submitted and the Federal Register Notice had been issued.

Comment: The impact of the proposed land withdrawal on current and future water resources, water users, and water quality must be thoroughly evaluated before any decision on granting DOE’s request can be made.

Removing almost 309,000 acres of lands from public and other uses could have significant impacts on water resources within the withdrawal area and for stakeholders outside the actual corridor who currently use or who might in the future have use for such water resources. Likewise, activities engaged in by DOE in the course of implementing its plans for the withdrawal area, such as construction activities, gravel mining and land disturbance, rail line operations, waste disposal, etc. could have deleterious impacts on water quality. In addition, the proposed withdrawal corridor includes numerous spring

areas, which, if degraded in any way, could adversely impact wetland habitat and wildlife and livestock. All of these impacts must be thoroughly assessed before BLM renders any decision on DOE withdrawal request.

In this regard, BLM should also evaluate the impact of the proposed withdrawal on applications for water rights filed by the Southern Nevada Water Authority with the State of Nevada Water Engineer. In addition, rights-of-way the Authority has for future pipeline corridors might be transected by the proposed rail corridor.

Portions of the proposed withdrawal include areas which could be needed for the development of future wells to monitor groundwater flows that pass through the Pahute Mesa nuclear blast cavities. Impacts of the withdrawal on the future ability to monitor impacts of past nuclear testing on groundwater must also be assessed.

Comment: Re-suspension of radioactive particles from past fallout event.

The proposed rail corridor lies in the path of many of the fallout clouds that left the NTS during atmospheric weapons and cratering nuclear explosion tests. These particles, which remain hazardous for hundreds of years, lie in the soil and will pose a hazard during any period of land disruption (i.e. Rail constriction). The railroad work will involve the movement of massive quantities of desert soils which will likely result in the radioactive particles being lofted into the atmosphere, creating hazard for railroad workers, and the public. BLM must assess the risks and impacts associated with soils disruptions and re-suspension of any residual fallout particles.

Comment: Regions of influence.

BLM must examine the regions of influence for specific impact areas associated with the Caliente rail corridor that were identified in DOE's Yucca Mountain EIS. These regions of influence are areas that would be impacted by the proposed withdrawal and the activities planned for the withdrawn land that are outside the physical boundaries of the eventual right-of-way. For impacts such as noise and aesthetics, these regions can extend 400 meters or more. The largest region identified by DOE is for public health and safety, 800 meters (one-half mile) on each side of the track for routine (incident-free) operations, and 80 kilometers (49.7 miles) "radius for potential impacts from accident scenarios." [FEIS, p.3-124]

Comment: BLM must evaluate the impact of the proposed withdrawal on areas under consideration for designation as "wilderness."

There are a number of areas located within or adjacent to the lands proposed for withdrawal that are currently under consideration for being designated as federal "wilderness" areas. The Sierra Club and others commented on this issues at the House of Representatives Railroad Subcommittee hearing in Las Vegas on March 5, 2003. BLM must assess the impact DOE's withdrawal application will have on these wilderness study areas.

Conclusions and Recommendations

(1) BLM should reject DOE request for the land withdrawal.

DOE's request for the withdrawal of 308,600 acres of public land, representing a swath of land 300 miles long across central Nevada, is both procedurally and substantively deficient and should be rejected. The application is premature; it needlessly seeks to segregate land from legitimate multiple uses when exclusive use has not been shown to be justified or even required; it is overly broad, encompassing far more land than is legitimately needed; and the application itself is procedurally defective. BLM's decision to grant DOE's request to immediately segregate the land in question from surface entry and mining is likewise unsupportable and should be immediately rescinded.

The State of Nevada recommends that BLM return DOE's application with instructions requiring DOE to re-evaluate the amount of land that is required for rail corridor evaluation, construction and operation and to examine the use of alternative approaches such as a temporary right-of-way, interagency agreement, or cooperative agreement that would provide DOE sufficient access for evaluation of the route, without segregation of the land from other permitted public uses for a period of twenty years.

(2) Request for public meetings/hearings.

If BLM decides to proceed with the DOE application despite these objections, the State of Nevada formally requests that at least four public meetings/hearings be held to provide affected stakeholders and the public with ample opportunities to comment on the proposed land withdrawal and its impacts on the State, local communities, individuals, and the environment. Meetings should, at a minimum, be held in Caliente, Tonopah, Las Vegas, and Reno.

ATTACHMENT I
DOE'S PROPOSED USE OF THE LAND
REQUESTED TO BE WITHDRAWN

In evaluating the impacts of the Department of Energy (DOE) land withdrawal request, the Bureau of Land Management (BLM) must consider the larger relationship between the present request and the ultimate objective of the request, the construction and operation by DOE of a new rail line for the purpose of transporting nuclear waste to Yucca Mountain. Absent affirmative action by BLM, the DOE would be unable to proceed with planning for the proposed rail line. BLM must therefore consider not only the immediate impacts of withdrawing the requested lands from public use, but also the longer term impacts of constructing and operating the proposed railroad along the corridor identified by the DOE. If constructed, DOE would use the railroad for a minimum of 24 years, and possibly for 38 years. Additionally, DOE could require use of the railroad for 50 years or more, in the event that wastes must be retrieved from the repository and transported elsewhere.

DOE's final Yucca Mountain EIS states that the proposed rail line would "meet Federal Railroad Administration standards for maintenance, operations, and safety. Current plans for the branch rail line anticipate a train with two 3,000-horsepower, diesel-electric locomotives; from one to five railcars containing spent nuclear fuel and high-level radioactive waste; buffer cars; and escort cars." The EIS further states "there would be about four trains per week for shipments of spent nuclear fuel and high-level radioactive waste to the repository. In addition, the rail line would enable the transport of other material to the repository, including empty disposal containers, bulk concrete materials, steel, large equipment, and general building materials. The EIS assumes one train per week for this material for a total of about five trains per week to the repository from about 2010 to 2033." [p. 2-54] Otherwise, the EIS presents little of the information necessary for evaluating the impacts of the proposed railroad development.

One key aspect of rail operations along the Caliente corridor regards train speeds. The EIS states that a one-way trip along the 319-mile route would require about 10 hours, but provides no specific information on train speeds and the implications of train speeds for impact evaluation. However, DOE rail planning references cited in the EIS point out that the long length of the route, coupled with mountainous terrain along 80 miles of the route, will require trains to travel at maximum speeds up to 60 miles per hour in order to comply with the 12-hour crew service limit imposed by the Federal Railroad Administration. In mountainous areas, maximum train speeds would be 15-20 miles per hour upgrade, and 25 miles per hour downgrade. A maximum speed of 60 miles per hour would be needed along other route segments. These higher-speed route segments could include areas of greatest potential conflict with ranching and other non-government land uses, for example in Meadow Valley, Reveille Valley, and the segment between Goldfield and Beatty.

Many important aspects of DOE branch rail operations remain unanswered, including: (1) ownership and operational authority; (2) track, signal, and control system specifications; (3) shared uses of the line; and (4) use of dedicated trains for shipment to Nevada and within Nevada.

As of March 30, 2004, the DOE Draft EIS and Final EIS, and associated references, remain the primary sources of information on the Yucca Mountain transportation options DOE is considering. The Nevada Agency for Nuclear Projects has documented major deficiencies in these DOE NEPA documents. The State of Nevada has legally challenged the DOE FEIS, and argued that DOE must reassess its transportation options through the NEPA process, before proceeding to implement any major transportation decisions. In evaluating the DOE land withdrawal request, BLM must consider both the DOE FEIS and the comments submitted on the DOE FEIS by the State of Nevada and other parties.

Under the Proposed Action, the Department of Energy (DOE) would transport 70,000 metric tons of heavy metal (MTHM) of spent nuclear fuel (SNF) and high-level radioactive waste (HLW) to Yucca Mountain over 24 years (2010-2034). If no second repository is developed, and if Congress authorizes additional capacity, Yucca Mountain could receive the entire projected national inventory of SNF and HLW, about 120,000 MTHM over 38 years (2010-2048). [Pp. S-77 to S-78]

Spent nuclear fuel (SNF) from commercial power reactors would comprise about 90 percent of the wastes shipped to the repository. SNF is an extremely hazardous material. Fission products, especially strontium-90 (half-life 28 years) and cesium-137 (half-life 30 years), would account for most of the radioactivity in SNF during transportation to the repository, and would be the primary sources of exposure during routine transportation operations. Cesium-137 would be the major potential source of irradiation and contamination if a shipping cask were to be breached during a severe transportation accident or successful terrorist attack.

DOE assumes that the average age (cooling time) of SNF shipped to the repository would be about 23 years. [FEIS, p. A-13] DOE calculates that the average rail cask shipped to the repository would contain a total radioactivity of 2.1 million curies, including 816,000 curies of Cesium-137. [FEIS, p. J-33] For accident and sabotage consequence analysis, DOE assumed that the casks would be loaded with SNF aged 14-15 years, [FEIS, p. J-52] which would double the radiological hazard, compared to average SNF. [FEIS, p. 6-46] However, repository shipments could include 5-year cooled SNF in rail casks, resulting in even greater radiological hazards than those evaluated by DOE.

BLM must consider the radiological impacts of routine operations along the proposed rail corridor. The DOE FEIS acknowledges that cumulative routine radiation from shipping casks could pose a health threat to certain transportation workers. NRC regulations allow shipping casks to emit a small amount of radiation during routine operations (10 mrem/hr 2 meters from the cask surface). The dose rate allowed under NRC regulations results in near-cask exposures of about 2.5 mrem per hour at 5 meters (16 feet), in measurable exposures (less than 0.2 mrem per hour) at 30 meters (98 feet), and calculated exposures

(less than 0.0002 mrem per hour) at 800 meters (one-half mile) from the cask surface. [FEIS, p. J-38]

Cumulative exposures at these rates can result in adverse health affects for some workers and some members of public. In the most extreme example, motor carrier safety inspectors could receive cumulative doses (200 rem over 24 years) large enough to increase their risk of cancer death by 10 percent or more, and their risk of other serious health effects by 40 percent or more. DOE proposes to control these exposures and risks by severely restricting work hours and doses for certain jobs. [FEIS, Pp. J-44 to J-45]

Studies prepared for the State of Nevada have found that routine transportation of SNF and HLW to Yucca Mountain could result in higher radiation exposures and doses, both to workers and to members of the public, and in more significant adverse health effects, than estimated by DOE. Moreover, the very fact that these exposures would occur has been shown to cause adverse socioeconomic impacts, such as loss of property values, even though the dose levels are well below the established thresholds for cancer and other health effects.

Public perception of transportation risks could result in massive economic costs in communities along transportation routes. Even without an accident or incident, property values near routes could decline by 3% or more. In the event of an accident, residential property values along shipping routes could decline between 8% and 34 %, depending upon the severity of the accident.

BLM must consider the radiological impacts of potential severe accidents and terrorist incidents along the proposed rail corridor. The DOE FEIS acknowledges that a very severe rail accident or a successful terrorist could release radioactive materials from a shipping cask, resulting in radiation exposures to members of the public and latent cancer fatalities (LCFs) among the exposed population. Clean-up costs following a worst-case transportation accident could reach \$10 billion. [FEIS, Pp. 6-45 to 6-52, J-72 to J-74] While the DOE did not specifically estimate cleanup costs after such an attack, cleanup requirements would likely be similar to a worst-case transportation accident. Studies prepared for the State conclude that DOE has significantly underestimated the human health impacts of very severe transportation accidents and terrorist attacks, and that cleanup costs could exceed \$10 billion.

BLM must consider the full range of impacts associated with the DOE “mostly rail” shipment scenario. In the FEIS, DOE made no final decisions about transportation options nationally. Decisions about "how spent nuclear fuel and high-level radioactive waste would be shipped to the repository (for example, truck or rail) and how spent nuclear fuel would be packaged (uncanistered or in disposable or dual-purpose canisters) would be part of future transportation planning efforts." [FEIS, p. 2-5] For shipments nationally, "DOE would use both legal-weight truck and rail transportation, and would determine the number of shipments by either mode as part of future transportation planning efforts." [FEIS, p. 2-13]

DOE developed two national transportation scenarios - "mostly legal-weight truck" and "mostly rail" - in order to estimate the number of shipments required under the Proposed Action (24 years) and if all projected high-level nuclear waste is shipped to Yucca Mountain (38 years).

DOE adopted this approach "because, more than 10 years before the projected start of operations at the repository, it cannot accurately predict the actual mix of rail and truck transportation that would occur from the 77 sites to the repository." [FEIS, p. J-10] The following table summarizes the number of shipments estimated by DOE for each scenario.

DOE Estimated Number of Shipments for Transportation Scenario Combinations

Inventory Scenario	(Mostly Truck) Truck Shipments	(Mostly Truck) Rail Shipments	(Mostly Rail) Truck Shipments	(Mostly Rail) Rail Shipments
Proposed Action (2010-2034)	52,786	300	1,079	9,646
Module 1 (2010-2048)	105,685	300	3,122	18,243
Module 2 (2010-2048)	108,544	355	3,122	18,935

Source: DOE/EIS-0250, Table J-11

The DOE "mostly rail" national scenario would result in 9,646 rail cask-shipments to Nevada over 24 years, and 18,935 rail cask-shipments to Nevada over 38 years. The State of Nevada believes the DOE "mostly rail scenario" is unlikely to occur. Even if DOE is able to develop rail access to Yucca Mountain, the objective of shipping 90 percent of the commercial SNF by rail is unrealistic. DOE acknowledges that 25 of the 72 power plant sites cannot ship directly by rail. Nevada studies show that number could be up to 32 sites. However, for purposes of evaluating impacts of the DOE land withdrawal request, BLM must assume that a DOE branch rail line to Yucca Mountain would transport 9,646 rail casks of SNF and HLW over 24 years, and 18,935 rail casks over 38 years.