Final Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada – Nevada Rail Transportation Corridor

DOE/EIS-0250F-S2

and

Final Environmental Impact Statement for a Rail Alignment for the Construction and Operation of a Railroad in Nevada to a Geologic Repository at Yucca Mountain, Nye County, Nevada

DOE/EIS-0369

Volume V

Appendices A through N

U.S. Department of Energy
Office of Civilian Radioactive Waste Management

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APPENDIX A

FEDERAL REGISTER NOTICES

This appendix contains copies of *Federal Register (FR)* notices applicable to *Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada – Nevada Rail Transportation Corridor* (DOE/EIS-0250F-S2) and *Environmental Impact Statement for a Rail Alignment for the Construction and Operation of a Railroad in Nevada to a Geologic Repository at Yucca Mountain, Nye County, Nevada* (DOE/EIS-0369).

A.1 68 *FR* 74951, December 29, 2003

Federal Register / Vol. 68, No. 248 / Monday, December 29, 2003 / Notices **74951**

DEPARTMENT OF ENERGY

Notice of Preferred Nevada Rail Corridor

AGENCY: Office of Civilian Radioactive Waste Management, U.S. Department of Energy.

ACTION: Notice of the Preferred Nevada Rail Corridor.

SUMMARY: On July 23, 2002, the President signed into law (Pub. L. 107–200) a joint resolution of the U.S. House of Representatives and the U.S. Senate designating the Yucca Mountain site in Nye County, Nevada, for development as a geologic repository for the disposal of spent nuclear fuel and high-level radioactive waste. The Department of Energy (DOE or Department) is now responsible for planning and implementing a transportation program for the shipment of spent nuclear fuel and high-level radioactive waste, in the event the Nuclear Regulatory Commission authorizes receipt and possession of spent nuclear fuel and high-level radioactive waste at Yucca Mountain.

In the Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada (DOE/EIS–0250F) (Final EIS), the Department evaluated various modes of transportation including mostly rail, mostly legal-weight truck and mostly heavy-haul truck. The Department identified the mostly rail alternative as its preferred mode of transportation in the Final EIS.

In the event that DOE selects the mostly rail alternative, a rail line would need to be constructed to connect the repository site at Yucca Mountain to an existing rail line in the State of Nevada. Accordingly, the Final EIS evaluated five rail corridors [1] Caliente, Carlin, Caliente-Chalk Mountain, Jean, and Valley Modified. The Department, however, did not identify a preferred rail corridor in the Final EIS, but indicated it would do so at least 30 days before making any decisions on the selection of a corridor.

The Department is now announcing the Caliente rail corridor as its preferred corridor in which to construct a rail line in Nevada, and Carlin as a secondary preference. If the Department adopts the mostly rail mode in Nevada, DOE will issue a Record of Decision selecting a rail corridor no sooner than 30 days after publication of this preference announcement. If the Department selects a rail corridor, DOE will issue a Notice of Intent in the **Federal Register** to initiate the preparation of a rail alignment EIS under the National Environmental Policy Act (NEPA) to consider alternative alignments within the selected corridor for construction of a rail line. Under this scenario, the Department would anticipate holding public scoping meetings in early-to-mid February, 2004. The exact date, time and locations of the meetings would be announced in the Notice of Intent.

FOR FURTHER INFORMATION CONTACT:

To obtain a copy of the Final EIS or for further information contact: Ms. Robin Sweeney, Office of National Transportation, Office of Civilian Radioactive Waste Management, U.S. Department of Energy, 1551 Hillshire Drive, M/S 011, Las Vegas, NV 89134, Telephone 1–800–967–3477. The Final EIS is available on the Internet at *ocrwm.doe.gov*.

For further information regarding the DOE NEPA process contact: Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Compliance (EH–42), U.S. Department of Energy, 1000 Independence Ave., SW., Washington, DC 20585, Telephone (202) 586–4600, or leave a message at 1–800–472–2756.

SUPPLEMENTARY INFORMATION:

Background

In the Final EIS, DOE analyzed a Proposed Action to construct, operate and monitor, and eventually close a geologic repository at Yucca Mountain. As part of the Proposed Action, DOE analyzed the potential impacts of transporting spent nuclear fuel and high-level radioactive waste from 72 commercial and 5 DOE sites to the Yucca Mountain site.[2] Transportation

[1] A corridor is a strip of land, approximately 400 meters (0.25 mile) wide, that encompasses one of several possible routes through which DOE could build a branch rail line. An alignment is the specific location of a rail line in a corridor.

[2] Additional sites (primarily research reactors) will ship spent nuclear fuel to DOE for disposal at the repository. Shipment from these sites to DOE is covered under a separate Environmental Impact Statement, *Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environment Restoration and Waste Management Programs Environmental Impact Statement* (DOE/EIS–0203; April 1995), and associated Record of Decision (June 1, 1995; 60 FR 28680)). Two of these research reactors were recently closed and the spent fuel removed. Adding

Continued

could be accomplished using a variety of modes, including legal-weight truck, rail, heavy-haul truck, and possibly barge.

The Final EIS examined various national transportation scenarios and Nevada transportation implementing alternatives to estimate the range of potential environmental impacts that could occur. Two national transportation scenarios, referred to as the mostly legal-weight truck [3] scenario and the mostly rail [4] scenario, and three Nevada implementing alternatives, referred to as the legal-weight truck alternative, the rail alternative, and the heavy-haul truck [5] alternative are evaluated. In the Final EIS, the Department identified the mostly rail scenario as its preferred mode of transportation, both nationally and in the State of Nevada.

Implementation of the mostly rail scenario would require the construction of a rail line to connect the repository site at Yucca Mountain to an existing rail line in the State of Nevada. Accordingly, the Final EIS evaluated five rail corridors—Caliente, Carlin, Caliente-Chalk Mountain [6], Jean and Valley Modified. The Department, however, did not identify a preferred rail corridor in the Final EIS.

Preferred Nevada Rail Corridor

After consideration of public comments, the analyses of the Final EIS and other information, the Department has identified the Caliente corridor as its preferred rail corridor with the Carlin Corridor as the secondary preference. The Department's preference for Caliente takes into consideration many factors, including its more remote location, the diminished likelihood of land use conflicts, concerns raised by Nevadans, and national security issues raised by the U.S. Air Force on the Caliente-Chalk Mountain corridor. Approximately one-third of the Caliente and Carlin corridors overlap. Since the Carlin corridor has similar attributes overall, DOE has identified the Carlin corridor as the secondary preference in the event the Caliente corridor is not selected.

If the Department adopts the mostly rail mode, DOE will issue a Record of Decision selecting a rail corridor no sooner than 30 days after publication of this preference announcement. If the Department selects a rail corridor, DOE will issue a Notice of Intent in the **Federal Register** to initiate the preparation of a rail alignment EIS under NEPA to consider alternative alignments within the selected corridor for construction of a rail line.

Issued in Washington, DC, December 23, 2003.

Margaret S.Y. Chu,

Director, Office of Civilian Radioactive Waste Management.

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BILLING CODE 6450–01–P

these sites to the 77 sites listed above results in a total of 129 sites with spent nuclear fuel or high-level waste destined for repository disposal.

[3] A truck with a gross vehicle weight (truck and cargo) of less than 80,000 pounds having dimensions, axle spacing, and if applicable, axle loads within Federal and state limits.

[4] Rail is defined to include vehicles, such as locomotives and specialized freight cars, with steel wheels running on steel rails using standard gauge that is compatible with the U.S. freight rail network.

[5] A heavy-haul truck is an overweight, overdimension vehicle that must have permits from state highway authorities to use public highways. An intermodal transfer station is a facility at the junction of rail and road transportation used to transfer shipping casks containing radioactive materials from rail to truck, and empty casks from truck to rail.

[6] As stated in the Final EIS, DOE considers the Caliente-Chalk Mountain rail corridor to be non-preferred, because of adverse effects on the security and operations of the Nevada Test and Training Range.

A.2 68 *FR* 74965, December 29, 2003

Federal Register / Vol. 68, No. 248 / Monday, December 29, 2003 / Notices **74965**

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[NV–930–1430–ET; NVN–77880; 4–08807]

Notice of Proposed Withdrawal and Opportunity for Public Meeting; Nevada

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice.

SUMMARY: The Bureau of Land Management has received a request from the Department of Energy to withdraw 308,600 acres of public land from surface entry and mining for a period of 20 years to evaluate the land for the potential construction, operation, and maintenance of a branch rail line for the transportation of spent nuclear fuel and high-level radioactive waste in the event the Nuclear Regulatory Commission authorizes a geologic repository at Yucca Mountain as provided for under the Nuclear Waste Policy Act of 1982, as amended. This notice segregates the land from surface entry and mining for up to 2 years while various studies and analyses are made to support a final decision on the withdrawal application.

DATES: Comments and requests for a meeting should be received on or before March 29, 2004.

ADDRESSES: Comments and meeting requests should be sent to the Nevada State Director, BLM, 1340 Financial Blvd., PO Box 12000, Reno, Nevada 89520–0006.

FOR FURTHER INFORMATION CONTACT: Dennis J. Samuelson, BLM Nevada State Office, 775–861–6532.

SUPPLEMENTARY INFORMATION: The Department of Energy has filed an application (NVN 77880) to withdraw the following described public land from settlement, sale, location, or entry under the general land laws, including the mining laws and the mineral leasing laws, subject to valid existing rights:

Mount Diablo Meridian

A corridor one mile in width that contains a portion of, or are wholly encompassed within, the following sections:

10S 46E 01	1N 55E 24	2N 58E 03	3N 48E 35	4N 49.2E 35
10S 46E 02	1N 55E 25	2N 58E 04	3N 48E 36	4N 49.2E 36
10S 46E 12	1N 55E 26	2N 58E 05	3N 49E 02	4N 49E 24
10S 46E 13	1N 55E 27	2N 58E 07	3N 49E 03	4N 49E 25
10S 47E 06	1N 55E 28	2N 58E 08	3N 49E 04	4N 49E 26
10S 47E 07	1N 55E 29	2N 58E 09	3N 49E 05	4N 49E 33
10S 47E 08	1N 55E 30	2N 58E 13	3N 49E 07	4N 49E 34
10S 47E 09	1N 55E 31	2N 58E 17	3N 49E 08	4N 49E 35
10S 47E 15	1N 55E 32	2N 58E 18	3N 49E 09	4N 49E 36
10S 47E 16	1N 55E 33	2N 58E 19	3N 49E 10	4N 50E 30
10S 47E 17	1N 56E 01	2N 58E 20	3N 49E 17	4N 50E 31
10S 47E 18	1N 56E 02	2N 58E 21	3N 49E 18	4N 50E 32

10S 47E 21	1N 56E 09	2N 58E 22	3N 49E 19	4N 60E 20
10S 47E 22	1N 56E 10	2N 58E 23	3N 50E 02	4N 60E 21
10S 47E 23	1N 56E 11	2N 58E 24	3N 50E 03	4N 60E 22
10S 47E 26	1N 56E 12	2N 58E 25	3N 50E 04	4N 60E 23
10S 47E 27	1N 56E 13	2N 58E 26	3N 50E 10	4N 60E 24
10S 47E 28	1N 56E 14	2N 58E 27	3N 50E 11	4N 60E 25
10S 47E 34	1N 56E 15	2N 58E 28	3N 50E 14	4N 60E 26
10S 47E 35	1N 56E 16	2N 58E 29	3N 50E 15	4N 60E 27
11S 47E 01	1N 56E 17	2N 58E 30	3N 50E 22	4N 60E 28
11S 47E 02	1N 56E 18	2N 58E 31	3N 50E 23	4N 60E 29
11S 47E 03	1N 56E 19	2N 58E 32	3N 50E 24	4N 60E 31
11S 47E 11	1N 56E 20	2N 59E 02	3N 50E 25	4N 60E 32
11S 47E 12	1N 56E 21	2N 59E 03	3N 50E 26	4N 60E 33
11S 47E 13	1N 57E 03	2N 59E 04	3N 50E 35	4N 61E 19
11S 47E 14	1N 57E 04	2N 59E 08	3N 50E 36	4N 61E 20
11S 47E 24	1N 57E 05	2N 59E 09	3N 58E 24	4N 61E 28
11S 47E 25	1N 57E 06	2N 59E 10	3N 58E 25	4N 61E 29
11S 48E 07	1N 62E 01	2N 59E 16	3N 58E 26	4N 61E 30
11S 48E 08	1N 62E 12	2N 59E 17	3N 58E 33	4N 61E 32
11S 48E 09	1N 63E 06	2N 59E 18	3N 58E 34	4N 61E 33
11S 48E 10	1N 63E 07	2N 59E 19	3N 58E 35	4N 61E 34
11S 48E 11	1N 63E 08	2N 59E 20	3N 58E 36	4S 43E 01
11S 48E 14	1N 63E 17	2N 60E 01	3N 59E 12	4S 43E 02
11S 48E 15	1N 63E 18	2N 61E 06	3N 59E 13	4S 43E 03
11S 48E 16	1N 63E 19	2N 62E 01	3N 59E 14	4S 43E 10
11S 48E 17	1N 63E 20	2N 62E 02	3N 59E 19	4S 43E 11
11S 48E 18	1N 63E 21	2N 62E 03	3N 59E 20	4S 43E 12
11S 48E 19	1N 63E 26	2N 62E 04	3N 59E 21	4S 43E 14
11S 48E 20	1N 63E 27	2N 62E 05	3N 59E 22	4S 43E 15
11S 48E 21	1N 63E 28	2N 62E 10	3N 59E 23	4S 43E 22
11S 48E 22	1N 63E 29	2N 62E 11	3N 59E 24	4S 43E 23
11S 48E 27	1N 63E 30	2N 62E 12	3N 59E 25	4S 43E 26
11S 48E 28	1N 63E 32	2N 62E 13	3N 59E 26	4S 43E 27
11S 48E 29	1N 63E 33	2N 62E 14	3N 59E 27	4S 43E 28
11S 48E 30	1N 63E 34	2N 62E 15	3N 59E 28	4S 43E 33
11S 48E 31	1N 63E 35	2N 62E 24	3N 59E 29	4S 43E 34
11S 48E 32	1S 43E 01	2N 62E 25	3N 59E 30	4S 67E 01
11S 48E 33	1S 43E 02	2N 62E 36	3N 59E 33	4S 67E 02
11S 48E 34	1S 43E 03	2N 63E 07	3N 59E 34	4S 67E 04
12S 48E 02	1S 43E 04	2N 63E 18	3N 59E 35	4S 67E 05
12S 48E 03	1S 43E 09	2N 63E 19	3N 59E 36	4S 67E 06
12S 48E 04	1S 43E 10	2N 63E 30	3N 60E 05	4S 67E 07
12S 48E 05	1S 43E 11	2N 63E 31	3N 60E 06	4S 67E 08
12S 48E 06	1S 43E 12	2S 43E 03	3N 60E 07	4S 67E 09
12S 48E 09	1S 43E 13	2S 43E 04	3N 60E 08	4S 67E 12
12S 48E 10	1S 43E 14	2S 43E 09	3N 60E 18	4S 68E 06
12S 48E 11	1S 43E 15	2S 43E 10	3N 60E 19	4S 68E 07
12S 48E 13	1S 43E 16	2S 43E 15	3N 60E 20	4S 68E 08
12S 48E 14	1S 43E 21	2S 43E 16	3N 60E 21	4S 68E 17
12S 48E 15	1S 43E 22	2S 43E 20	3N 60E 22	4S 68E 18
12S 48E 23	1S 43E 23	2S 43E 21	3N 60E 25	5S 43E 03
12S 48E 24	1S 43E 24	2S 43E 22	3N 60E 26	5S 43E 04
12S 48E 25	1S 43E 25	2S 43E 27	3N 60E 27	5S 43E 05
12S 48E 26	1S 43E 27	2S 43E 28	3N 60E 28	5S 43E 08
12S 48E 35	1S 43E 28	2S 43E 29	3N 60E 29	5S 43E 09
12S 48E 36	1S 43E 33	2S 43E 32	3N 60E 30	5S 43E 15
12S 49E 31	1S 43E 34	2S 43E 33	3N 60E 31	5S 43E 16
13S 48E 09	1S 44E 18	2S 43E 34	3N 60E 34	5S 43E 17
13S 48E 10	1S 44E 19	2S 43E 35	3N 60E 35	5S 43E 21
13S 48E 14	1S 44E 29	2S 43E 36	3N 60E 36	5S 43E 22
13S 48E 15	1S 44E 30	2S 44E 04	3N 61E 02	5S 43E 27
13S 48E 16	1S 44E 31	2S 44E 05	3N 61E 03	5S 43E 28
13S 48E 22	1S 44E 32	2S 44E 06	3N 61E 04	5S 43E 33
13S 48E 23	1S 51.2E 06	2S 44E 08	3N 61E 09	5S 43E 34
13S 48E 24	1S 51.2E 07	2S 44E 09	3N 61E 10	5S 43E 35
13S 48E 25	1S 51.2E 08	2S 44E 16	3N 61E 11	6S 43E 01
13S 48E 26	1S 51.2E 17	2S 44E 17	3N 61E 12	6S 43E 02
13S 48E 36	1S 51.2E 18	2S 44E 20	3N 61E 13	6S 43E 03
13S 49E 13	1S 51.2E 19	2S 44E 21	3N 61E 14	6S 43E 10
13S 49E 14	1S 51.2E 20	2S 44E 22	3N 61E 22	6S 43E 11
13S 49E 19	1S 51.2E 28	2S 44E 27	3N 61E 23	6S 43E 12
13S 49E 22	1S 51.2E 29	2S 44E 28	3N 61E 24	6S 43E 13
13S 49E 23	1S 51.2E 30	2S 44E 32	3N 61E 25	6S 43E 14
13S 49E 24	1S 51.2E 31	2S 44E 33	3N 61E 26	6S 43E 15
13S 49E 25	1S 51.2E 32	2S 44E 34	3N 61E 27	6S 43E 23
13S 49E 26	1S 51.2E 33	2S 51.2E 04	3N 61E 28	6S 43E 24

13S 49E 27	1S 51E 01	2S 51.2E 05	3N 61E 29	6S 43E 25
13S 49E 29	1S 51E 02	2S 51.2E 06	3N 61E 30	6S 43E 26
13S 49E 30	1S 51E 03	2S 51.2E 07	3N 61E 31	6S 43E 27
13S 49E 31	1S 51E 10	2S 51.2E 08	3N 61E 32	6S 43E 34
13S 49E 32	1S 51E 11	2S 51.2E 09	3N 61E 33	6S 43E 35
13S 49E 33	1S 51E 12	2S 51.2E 16	3N 61E 34	6S 43E 36
13S 49E 34	1S 51E 13	2S 51.2E 17	3N 61E 35	6S 44E 06
13S 49E 35	1S 51E 14	2S 51.2E 18	3N 61E 36	6S 44E 07
13S 49E 36	1S 51E 24	2S 51.2E 20	3N 62E 18	6S 44E 08
13S 50E 30	1S 51E 25	2S 51.2E 21	3N 62E 19	6S 44E 15
13S 50E 31	1S 51E 36	2S 51E 01	3N 62E 20	6S 44E 16
14S 49E 01	1S 52E 31	2S 51E 12	3N 62E 28	6S 44E 17
14S 49E 02	1S 53E 25	2S 52E 06	3N 62E 29	6S 44E 18
14S 49E 03	1S 53E 35	2S 52E 07	3N 62E 30	6S 44E 20
14S 49E 04	1S 53E 36	2S 52E 08	3N 62E 31	6S 44E 21
14S 49E 05	1S 54E 01	2S 52E 11	3N 62E 32	6S 44E 22
14S 49E 08	1S 54E 10	2S 52E 12	3N 62E 33	6S 44E 27
14S 49E 09	1S 54E 11	2S 52E 13	3N 62E 34	6S 44E 28
14S 49E 10	1S 54E 12	2S 52E 14	3N 62E 35	6S 44E 31
14S 49E 11	1S 54E 13	2S 52E 15	3S 43E 01	6S 44E 33
14S 49E 12	1S 54E 14	2S 52E 16	3S 43E 02	6S 44E 34
14S 49E 15	1S 54E 15	2S 52E 17	3S 43E 03	7S 43E 01
14S 49E 16	1S 54E 16	2S 52E 18	3S 43E 04	7S 43E 02
14S 50E 06	1S 54E 20	2S 52E 19	3S 43E 10	7S 43E 03
1N 43E 23	1S 54E 21	2S 52E 20	3S 43E 11	7S 43E 11
1N 43E 24	1S 54E 22	2S 52E 21	3S 43E 12	7S 43E 12
1N 43E 25	1S 54E 23	2S 52E 22	3S 43E 13	7S 43E 13
1N 43E 26	1S 54E 28	2S 52E 23	3S 43E 14	7S 43E 14
1N 43E 27	1S 54E 29	2S 53E 01	3S 43E 15	7S 43E 24
1N 43E 34	1S 54E 30	2S 53E 02	3S 43E 22	7S 43E 25
1N 43E 35	1S 54E 31	2S 53E 03	3S 43E 23	7S 44E 03
1N 43E 36	1S 55E 05	2S 53E 07	3S 43E 24	7S 44E 04
1N 44E 19	1S 55E 06	2S 53E 08	3S 43E 25	7S 44E 05
1N 44E 20	1S 55E 07	2S 53E 09	3S 43E 26	7S 44E 06
1N 44E 21	1S 63E 01	2S 53E 10	3S 43E 27	7S 44E 07
1N 44E 22	1S 63E 02	2S 53E 11	3S 43E 34	7S 44E 08
1N 44E 23	1S 63E 11	2S 53E 15	3S 43E 35	7S 44E 09
1N 44E 24	1S 63E 12	2S 53E 16	3S 43E 36	7S 44E 10
1N 44E 25	1S 63E 13	2S 53E 17	3S 44E 04	7S 44E 14
1N 44E 26	1S 64E 07	2S 53E 18	3S 44E 05	7S 44E 15
1N 44E 27	1S 64E 15	2S 65E 01	3S 44E 07	7S 44E 16
1N 44E 28	1S 64E 16	2S 65E 02	3S 44E 08	7S 44E 17
1N 44E 29	1S 64E 17	2S 65E 03	3S 44E 09	7S 44E 18
1N 44E 30	1S 64E 18	2S 65E 11	3S 44E 17	7S 44E 19
1N 45E 19	1S 64E 19	2S 65E 12	3S 44E 18	7S 44E 21
1N 45E 20	1S 64E 20	2S 65E 13	3S 44E 19	7S 44E 22
1N 45E 25	1S 64E 21	2S 65E 14	3S 44E 20	7S 44E 23
1N 45E 26	1S 64E 22	2S 66E 01	3S 44E 30	7S 44E 25
1N 45E 27	1S 64E 23	2S 66E 02	3S 44E 31	7S 44E 26
1N 45E 28	1S 64E 24	2S 66E 03	3S 67E 01	7S 44E 27
1N 45E 29	1S 64E 25	2S 66E 04	3S 67E 02	7S 44E 29
1N 45E 30	1S 64E 26	2S 66E 05	3S 67E 03	7S 44E 30
1N 45E 32	1S 64E 27	2S 66E 07	3S 67E 10	7S 44E 31
1N 45E 33	1S 65E 19	2S 66E 08	3S 67E 11	7S 44E 32
1N 45E 34	1S 65E 20	2S 66E 09	3S 67E 12	7S 44E 33
1N 45E 35	1S 65E 27	2S 66E 10	3S 67E 13	7S 44E 35
1N 45E 36	1S 65E 28	2S 66E 11	3S 67E 14	7S 44E 36
1N 46E 25	1S 65E 29	2S 66E 12	3S 67E 15	8S 44E 01
1N 46E 26	1S 65E 30	2S 66E 13	3S 67E 16	8S 44E 02
1N 46E 27	1S 65E 32	2S 66E 14	3S 67E 21	8S 44E 03
1N 46E 28	1S 65E 33	2S 66E 16	3S 67E 22	8S 44E 04
1N 46E 29	1S 65E 34	2S 66E 17	3S 67E 23	8S 44E 05
1N 46E 30	1S 65E 35	2S 66E 18	3S 67E 24	8S 44E 09
1N 46E 31	2N 47E 25	2S 66E 20	3S 67E 25	8S 44E 10
1N 46E 32	2N 47E 35	2S 66E 24	3S 67E 27	8S 44E 11
1N 46E 33	2N 47E 36	2S 67E 07	3S 67E 28	8S 44E 12
1N 46E 34	2N 48E 02	2S 67E 08	3S 67E 29	8S 44E 13
1N 46E 35	2N 48E 03	2S 67E 09	3S 67E 32	8S 44E 14
1N 46E 36	2N 48E 04	2S 67E 14	3S 67E 33	8S 44E 15
1N 47E 01	2N 48E 08	2S 67E 15	3S 67E 35	8S 44E 16
1N 47E 02	2N 48E 09	2S 67E 16	3S 67E 36	8S 44E 22
1N 47E 03	2N 48E 10	2S 67E 17	3S 68E 01	8S 44E 23
1N 47E 10	2N 48E 16	2S 67E 18	3S 68E 12	8S 44E 24
1N 47E 11	2N 48E 17	2S 67E 19	3S 68E 19	8S 44E 25
1N 47E 12	2N 48E 18	2S 67E 20	3S 68E 30	8S 44E 26
1N 47E 14	2N 48E 19	2S 67E 21	3S 68E 31	8S 44E 36

1N 47E 15	2N 48E 20	2S 67E 22	3S 69E 03	8S 45E 06
1N 47E 16	2N 48E 21	2S 67E 23	3S 69E 04	8S 45E 07
1N 47E 20	2N 48E 29	2S 67E 24	3S 69E 05	8S 45E 18
1N 47E 21	2N 48E 30	2S 67E 25	3S 69E 06	8S 45E 19
1N 47E 22	2N 48E 31	2S 67E 26	3S 69E 07	8S 45E 20
1N 47E 28	2N 50E 01	2S 67E 29	3S 69E 08	8S 45E 28
1N 47E 29	2N 50E 02	2S 67E 30	3S 69E 09	8S 45E 29
1N 47E 30	2N 50E 11	2S 67E 35	3S 69E 10	8S 45E 30
1N 47E 31	2N 50E 12	2S 67E 36	3S 69E 11	8S 45E 31
1N 47E 32	2N 50E 13	2S 68E 19	3S 69E 13	8S 45E 32
1N 50E 01	2N 50E 14	2S 68E 23	3S 69E 14	8S 45E 33
1N 50E 12	2N 50E 24	2S 68E 25	3S 69E 15	9S 45E 02
1N 51E 05	2N 50E 25	2S 68E 26	3S 69E 22	9S 45E 03
1N 51E 06	2N 50E 36	2S 68E 27	3S 69E 23	9S 45E 04
1N 51E 07	2N 51E 18	2S 68E 28	3S 69E 24	9S 45E 05
1N 51E 08	2N 51E 19	2S 68E 29	3S 69E 25	9S 45E 06
1N 51E 16	2N 51E 30	2S 68E 30	3S 70E 08	9S 45E 09
1N 51E 17	2N 51E 31	2S 68E 31	3S 70E 09	9S 45E 10
1N 51E 18	2N 56E 36	2S 68E 32	3S 70E 10	9S 45E 11
1N 51E 19	2N 57E 13	2S 68E 33	3S 70E 11	9S 45E 12
1N 51E 20	2N 57E 14	2S 68E 34	3S 70E 12	9S 45E 13
1N 51E 21	2N 57E 22	2S 68E 35	3S 70E 13	9S 45E 14
1N 51E 22	2N 57E 23	2S 68E 36	3S 70E 14	9S 45E 24
1N 51E 26	2N 57E 24	2S 69E 30	3S 70E 15	9S 46E 07
1N 51E 27	2N 57E 25	2S 69E 31	3S 70E 16	9S 46E 17
1N 51E 28	2N 57E 26	2S 69E 32	3S 70E 17	9S 46E 18
1N 51E 29	2N 57E 27	2S 69E 33	3S 70E 18	9S 46E 19
1N 51E 33	2N 57E 28	3.2N 50E 33	3S 70E 19	9S 46E 20
1N 51E 34	2N 57E 29	3.2N 50E 34	3S 70E 20	9S 46E 21
1N 51E 35	2N 57E 31	3N 48E 13	3S 70E 22	9S 46E 22
1N 51E 36	2N 57E 32	3N 48E 23	3S 70E 23	9S 46E 26
1N 55E 13	2N 57E 33	3N 48E 24	3S 70E 24	9S 46E 27
1N 55E 14	2N 57E 34	3N 48E 25	4N 49.2E 25	9S 46E 28
1N 55E 21	2N 57E 35	3N 48E 26	4N 49.2E 26	9S 46E 29
1N 55E 22	2N 57E 36	3N 48E 27	4N 49.2E 27	9S 46E 33
1N 55E 23	2N 58E 02	3N 48E 34	4N 49.2E 34	9S 46E 34
				9S 46E 35
				9S 46E 36

The area described contains 308,600 acres in Clark, Esmeralda, Lincoln, and Nye Counties.

This withdrawal approximates the land encompassed by the Caliente rail corridor as described in the Department of Energy's Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada, February 2002. The purpose of the withdrawal is to evaluate the land for the potential construction and operation of a branch rail line for the transportation of spent nuclear fuel and high-level radioactive waste in the event the Nuclear Regulatory Commission authorizes a geologic repository at Yucca Mountain as provided for under the Nuclear Waste Policy Act of 1982, as amended.

For a period of 90 days from the date of publication of this notice, all persons who wish to submit comments, suggestions, or objections in connection with the proposed withdrawal may present their views in writing to the Nevada State Director of the Bureau of Land Management.

Notice is hereby given that there will be at least one public meeting in connection with the proposed withdrawal to be announced at a later date. A notice of the time, place, and date will be published in the **Federal Register** and a local newspaper at least 30 days before the scheduled date of a meeting.

Comments, including names and street addresses of commenters, will be available for public review at the Nevada State Office, 1340 Financial Boulevard, Reno, Nevada, during regular business hours 7:30 a.m. to 4:30 p.m., Monday through Friday, except holidays. Individual respondents may request confidentiality. If you wish to hold your name or address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your comments. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses will be made available for public inspection in their entirety.

The application will be processed in accordance with the regulations set forth in 43 CFR Part 2300.

For a period of 2 years from December 29, 2003, in accordance with 43 CFR 2310.2(a), the lands described in this notice will be segregated from surface entry and mining, unless the application is denied or canceled, or the withdrawal is approved prior to that date. Other uses which may be permitted during this segregative period are rights-of-way, leases, and permits as long as they do not conflict with the proposed withdrawal.

Dated: December 19, 2003.

Margaret L. Jensen,

Deputy State Director, Natural Resources, Lands, and Planning.

[FR Doc. 03–31901 Filed 12–24–03; 8:45 am]

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A.3 69 *FR* 18557, April 8, 2004

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DEPARTMENT OF ENERGY

Record of Decision on Mode of Transportation and Nevada Rail Corridor for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, NV

AGENCY: Office of Civilian Radioactive Waste Management, U.S. Department of Energy.

ACTION: Record of decision.

SUMMARY: On July 23, 2002, the President signed into law (Pub. L. 107–200) a joint resolution of the U.S. House of Representatives and the U.S. Senate designating the Yucca Mountain site in Nye County, Nevada, for development as a geologic repository for the disposal of spent nuclear fuel and high-level radioactive waste. In the event the Nuclear Regulatory Commission (NRC) authorizes construction of the repository and receipt and possession of spent nuclear fuel and high-level radioactive waste at Yucca Mountain, the Department of Energy (Department or DOE) would be responsible for transporting these materials to the Yucca Mountain Repository as part of its obligations under the Nuclear Waste Policy Act (NWPA). Pursuant to the NWPA and the National Environmental Policy Act (NEPA), DOE issued the "Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada'' (DOE/EIS–0250F, February 2002) (Final EIS). That document analyzed the environmental impacts of the proposed action of constructing, operating and monitoring, and eventually closing a geologic repository for the disposal of 70,000 metric tons of heavy metal (MTHM) of spent nuclear fuel and high-level radioactive waste at Yucca Mountain, as well as of transporting spent nuclear fuel and high-level radioactive waste from commercial and DOE sites to the Yucca Mountain site.

In preparing the Final EIS, DOE initiated public scoping in 1995, and subsequently issued for public comment a Draft EIS in 1999 and a Supplement to the Draft EIS in 2000. During the 199–day public comment period on the Draft EIS, DOE held public hearings in 21

locations across the country, 10 of which were held throughout the State of Nevada. An additional hearing was convened in Las Vegas for members of Native American Tribes in the region. During the 56–day public comment period on the Supplement to the Draft EIS, DOE held three public hearings in Nevada. The Department received more than 13,000 comments on the Draft EIS and the Supplement to the Draft EIS; about 3,600 of these comments addressed transportation related matters.

DOE is now in the process of preparing an application to the Nuclear Regulatory Commission (NRC) seeking authorization to construct the repository. In addition, in order to be in a position to transport waste to the repository should the NRC approve construction and waste receipt, DOE must proceed with certain decisions relating to the transportation of this material. In particular, the Department has decided to select the mostly rail scenario analyzed in the Final EIS as the transportation mode both on a national basis and in the State of Nevada. Under the mostly rail scenario, the Department would rely on a combination of rail, truck and possibly barge to transport to the repository site at Yucca Mountain up to 70,000 MTHM of spent nuclear fuel and high-level radioactive waste, with most of the spent nuclear fuel and high-level radioactive waste being transported by rail. This will ultimately require construction of a rail line in Nevada to the repository. In addition, the Department has decided to select the Caliente rail corridor [1] in which to examine potential alignments within which to construct that rail line. Should the Department select an alignment within that corridor, it will obtain all necessary regulatory approvals before beginning construction.

ADDRESSES: Copies of the Final EIS and this Record of Decision may be obtained by calling or mailing a request to: Ms. Robin Sweeney, Office of National Transportation, Office of Civilian Radioactive Waste Management, U.S. Department of Energy, 1551 Hillshire Drive, M/S 011, Las Vegas, NV 89134, Telephone 1–800–967–3477. The Final EIS, including the Readers Guide and Summary, is available via the Internet at *http://www.ocrwm.doe.gov/ documents/ feis_a/index.htm*. This Record of Decision is available at *http:// www.ocrwm.doe.gov* under "What's New''. Questions regarding the Final EIS or this Record of Decision can be submitted by calling or mailing them to Ms. Robin Sweeney at the above phone number or address.

FOR FURTHER INFORMATION CONTACT: For general information regarding the DOE National Environmental Policy Act (NEPA) process contact: Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Compliance (EH–42), U.S. Department of Energy, 1000 Independence Ave., SW., Washington, DC 20585, Telephone 202–586–4600, or leave a message at 1–800–472–2756.

SUPPLEMENTARY INFORMATION:

Transportation-Related Decisions

The analyses in the Final EIS provide the bases for the following three decisions under NEPA related to the establishment of a transportation program under which the Department would transport spent nuclear fuel and high-level radioactive waste to a repository at Yucca Mountain:

1. Outside Nevada, the selection of a national mode of transportation scenario (mostly rail or mostly legal-weight truck),
2. In Nevada, the selection among transportation mode scenarios (mostly rail, mostly legal-weight truck, or mostly heavy-haul truck with an associated intermodal transfer station), and
3. In Nevada, if the mostly rail scenario or mostly heavy-haul truck scenario were selected, the selection among rail corridor implementing alternatives, or heavy-haul truck route implementing alternatives with use of an associated intermodal transfer station.

See Figure 2–5 on page 2–7 of the Final EIS for a graphical depiction of the different transportation scenarios and implementing alternatives.

Part I. Record of Decision for Mode of Transportation

Proposed Action and Transportation Mode Scenarios Considered in the Final EIS

The Final EIS examines a Proposed Action under which DOE would ship spent nuclear fuel and high-level radioactive waste from 72 commercial and 5 DOE sites [2] to the Yucca Mountain Repository. The Final EIS considers the potential environmental impacts of transporting spent nuclear fuel and high-level radioactive waste to the repository under a variety of modes, including legal-weight truck, rail, heavy-haul truck, and possibly barge. The Final EIS also considers the environmental impacts of two No-Action Alternatives, one under which spent nuclear fuel and high-level radioactive waste would remain at the 72 commercial and five DOE sites under institutional control for at least 10,000 years, and one under which these materials would remain at the 77 sites in perpetuity, but under institutional control for only 100 years.

At the outset, we note that over the past 30 years, more than 2,700 shipments of spent nuclear fuel have been completed, none of which has resulted in an identified injury caused by the release of radioactive material. That basic fact provides important context for our decisionmaking today.

The Final EIS examines various national transportation scenarios and Nevada transportation implementing alternatives to reflect the range of potential environmental impacts that could occur. Two national transportation scenarios, referred to as the "mostly legal-weight truck'' scenario and the "mostly rail'' scenario, and three Nevada scenarios, referred to as the legal-weight truck scenario, the rail scenario, and the heavy-haul truck scenario, were evaluated. The three broad scenarios discussed below represent the combinations of the scenarios and implementing alternatives as analyzed in the Final EIS.

[1] A corridor is a strip of land, approximately 0.25 miles (400 meters) wide, that encompasses one of several possible routes through which DOE could build a rail line. An alignment is the specific location of a rail line in a corridor.

[2] Fifty-four additional sites (primarily domestic research reactors) were expected to ship spent nuclear fuel to two DOE sites prior to disposal at the repository. DOE plans to consolidate these materials at the two DOE sites are independent of the decisions relating to a repository at Yucca Mountain. Shipments from these sites to DOE sites were analyzed in the "Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs Environmental Impact Statement'' (PEIS) (DOE/EIS–0202–F; April 1995), and associated Records of Decision (June 1, 1995; 60 FR 28680 and March 8, 1996; 61 FR 9441). The direct impacts of this consolidation are not included in the analysis of the alternatives analyzed in the Final EIS for the repository, because they would occur whether or not DOE proceeds with the repository at Yucca Mountain. Since the PEIS was published, three research reactors have closed. As provided for in the Record of Decision (ROD) for the PEIS, spent nuclear fuel from one reactor was sent to the Savannah River Site and fuel from another reactor was sent to the Idaho National Engineering and Environmental Laboratory (INEEL). Fuel from the third reactor, which the ROD for the PEIS anticipated would be consolidated at INEEL, was sent on an interim basis to the United States Geological Survey (USGS) site in Lakewood, Colorado (which also was one of the fifty-four sites analyzed in the PEIS). It is still ultimately expected to be consolidated at INEEL as provided in the ROD for the PEIS, whence it will be shipped to the repository. The fuel that went to USGS is within the amounts analyzed by the PEIS as going from USGS to INEEL. Moreover, since the change in interim storage plans does not affect the shipment of fuel to Yucca Mountain, it does not affect the transportation analysis in the Final EIS for the repository.

Mostly Rail to the Yucca Mountain Repository—Preferred Mode of Transportation

Under the preferred mode of transportation as analyzed in the Final EIS (the mostly rail scenario), DOE would ship most of the spent nuclear fuel and high-level radioactive waste from the 77 sites to the Yucca Mountain Repository by rail. DOE would construct a rail line in one of five rail corridors considered in the Final EIS to connect the repository at Yucca Mountain to an existing main rail line in Nevada.

Under the mostly rail scenario analyzed in the Final EIS, radioactive materials from certain commercial nuclear sites that do not have the capability to load rail-shipping casks would be shipped by legal-weight truck to the repository. For other commercial sites that have the capability to load rail shipping casks, but do not have rail access, materials would be shipped either by heavy-haul truck or possibly barge to a nearby railhead outside Nevada for shipment by rail to the repository at Yucca Mountain.

Under the mostly rail alternative, about 9,000 to 10,000 train shipments (assuming one cask per train [3]) of spent nuclear fuel and high-level radioactive waste would travel on the nation's rail network over the anticipated 24–year period (DOE's current plan calls for three casks per train shipment, about 3,000 to 3,300 total shipments). In addition, there would be about 1,000 legal-weight truck shipments from commercial sites that do not have the capability to load rail-shipping casks to the repository at Yucca Mountain.

Mostly Rail to Nevada With Transfer to Heavy-Haul Truck for Shipment to the Repository

Under this scenario as analyzed in the Final EIS, DOE would ship most spent nuclear fuel and high-level radioactive waste from the 77 sites to Nevada by rail. Rail shipments would terminate in Nevada at an intermodal transfer station where shipping casks would be transferred from rail cars to heavy-haul trucks for shipment to the Yucca Mountain Repository. DOE would construct an intermodal transfer station at one of three locations analyzed in the Final EIS. One of the five heavy-haul routes analyzed in the Final EIS would be upgraded to improve transportation operations, reduce traffic congestion, and enable year-round shipments to the repository.

Under this scenario, radioactive materials from certain commercial nuclear sites that do not have the capability to load rail-shipping casks would be shipped by legal-weight truck directly to the repository.

Under this alternative, about 9,000 to 10,000 train shipments (assuming one cask per train) of spent nuclear fuel and high-level radioactive waste would travel on the nation's rail network to Nevada over the 24-year period. There also would be about 9,000 to 10,000 heavy-haul truck shipments in Nevada from the intermodal transfer station to the repository. In addition, there would be about 1,000 legal-weight truck shipments from commercial sites that do not have the capability to load rail-shipping casks to the repository at Yucca Mountain.

Mostly Legal-Weight Truck to the Yucca Mountain Repository

Under the mostly legal-weight truck scenario, as analyzed in the Final EIS, DOE would ship most spent nuclear fuel and high-level radioactive waste from the 77 sites to the repository by legal-weight truck. About 53,000 legal-weight trucks carrying these materials would travel primarily on the nation's interstate highway system during the 24-year period. About 300 shipments of naval spent nuclear fuel would travel from the Idaho National Engineering and Environmental Laboratory to Nevada by rail, where the rail casks would be transferred to heavy-haul trucks for shipment to the repository.

Environmentally Preferable Transportation Mode Alternative

In making this determination, DOE considered human health and environmental impacts that could occur from shipping spent nuclear fuel and high-level radioactive waste from the 77 sites to the repository at Yucca Mountain. DOE also considered the human health and environmental impacts that could occur from the construction of a rail line and from any upgrades to existing highways (the heavy-haul truck routes) in Nevada.

The Final EIS indicates that some potential non-radiological fatalities could occur as a result of traffic accidents during the transportation of spent nuclear fuel and high-level radioactive waste to the repository at Yucca Mountain. The Final EIS indicates that the highest number of potential traffic fatalities (about five) could occur under the mostly legal-weight truck scenario, whereas the mostly rail scenario could result in about three potential traffic fatalities during the 24-year period of shipping spent nuclear fuel and high-level radioactive waste to the repository at Yucca Mountain.

The Final EIS also considers the potential health effects that could result from radiation exposure to workers during shipping and from cask loading and unloading, and to the general population along the transportation routes to the repository. Under the mostly legal-weight truck scenario, the Final EIS indicates that about 12 worker and three general public latent cancer fatalities could occur from routine (incident-free) exposures during the 24-year period of shipping spent nuclear fuel and high-level radioactive waste to the repository. Under the mostly rail scenario, about three worker and one general public latent cancer fatalities could occur during the 24-year period. The radiation dose to any one individual would be extremely small.

DOE also estimated the potential health effects to the general public that could result from a severe transportation accident during shipments to the repository (referred to in the Final EIS as a maximum reasonably foreseeable accident). The probability that this accident could occur is extremely unlikely—about three chances in 10 million per year. If such an accident were to occur in an urban population setting, less than one latent cancer fatality could be expected under the mostly legal-weight truck scenario, whereas about five latent cancer fatalities could be expected under the mostly rail scenario, primarily because of the greater amounts of radioactive materials that could be released from a rail cask in such an accident.

In Nevada, construction of a rail line, regardless of the rail corridor selected, would involve the disturbance of land (and associated impacts, although low, to natural resources such as biological and cultural resources) in amounts greater than those associated with any heavy-haul truck alternative. For example, construction of a rail line in the shortest rail corridor (Valley Modified) would result in the disturbance of about 1,240 acres; rail line construction in the longest corridor (Carlin) would disturb about 4,900 acres. Construction of an intermodal transfer station and the upgrade of the longest heavy-haul route would result in the disturbance of about 1,000 acres. Furthermore, the construction of any rail line would involve various land use conflicts that, for the most part, would not occur with the limited construction required to improve any of the heavy-haul truck routes. No land disturbances

[3] The final EIS stated that DOE anticipated as many as 5 casks per train. However, DOE conservatively estimated 1 cask per train for analytical purposes to ensure that it considered routine and accident transportation risks that could result from a larger number of train shipments (9,000 to 10,000).

would occur under the legal-weight truck alternative.

The Department also evaluated the risk of sabotage, including terrorism. For reasons the NRC has carefully explained, this analysis is most likely not required by NEPA.[4] It is not possible to predict whether such acts would occur and, if they did, the nature of such acts. Moreover, such analysis does not advance the public participation purpose of NEPA, since there are serious limits on what information can responsibly be disseminated on these issues without risking disclosure of information that might be used in planning or carrying out such an act.[5] Nevertheless, the Final EIS includes the consequences of a potentially successful attempt on a cask during shipment via rail or legal-weight truck. In both instances, a successful attack would result in the release of contaminants into the environment. The consequences estimated for a rail shipment would be less than those estimated for a legal-weight truck shipment, mostly because the thicker shield wall of the heavier rail cask would tend to mitigate the effects of the sabotage event when compared to the lighter, legal-weight truck transportation cask.

None of the three transportation scenarios analyzed in the Final EIS is clearly environmentally preferable. Each would result in some impact to the environment, and public health and safety, although all impacts would be small. For example, transporting by either rail or heavy-haul truck in Nevada would result in some land disturbance, although the impacts would be greater for rail because more land would be disturbed during the construction of a rail line than during the upgrading of existing highways to accommodate heavy-haul trucks. Radiation exposure to workers and the public from either routine rail or truck shipments to the repository at Yucca Mountain would be very small, and the differences among the different modes of transportation also would be very small. Similarly, accident risks under each alternative would be very small, and associated differences among alternatives also very small. The Department does not consider the differences among modes to be sufficiently distinct to make any of them clearly environmentally preferable.

Although the potential impacts of any of the transportation alternatives would be small, they would be greater than the transportation-related impacts of the No-Action Alternatives. Overall however, as analyzed in the Final EIS, the impacts of proceeding with construction and operation of a repository at Yucca Mountain, including transportation, would cause relatively small public health impacts through the period 10,000 years after repository closure and would cause fewer public health impacts than the No-Action Alternative. For the No-Action Alternative with institutional controls for 10,000 years, the potential long-term environmental impacts also would be small, but significantly greater than the proposed action because the potential for nonradiological fatalities to workers under this alternative is significantly greater. Additional information may be found on pages S–82 through S–88 and Chapters 2 and 7 of the Final EIS. The cost of this No-Action Alternative is also significantly greater than that of the proposed action ($42.7 billion to $57.3 billion (in 2001 dollars) for the proposed action versus $167 billion to $184 billion for the first 300 years of institutional control and $519 million to $572 million per year thereafter). Additionally, the public health and safety impacts of the No-Action Alternative without effective institutional control are significantly greater than the proposed action. Likewise, in the long run, securing these materials by consolidating them and disposing of them in a secure, remote location, better protects against terrorist attack than leaving them at 72 commercial and 5 DOE sites in 35 states within 75 miles of more than 161 million Americans.[6] Moreover, for the reasons expressed by the Secretary and the President in their site recommendations and by the Congress in passing the joint resolution, it is in the national interest to move forward with this project.

In any event, in the Yucca Mountain Development Act, Pub. L. 107–200, Congress directed DOE to proceed with the development of a license application for a repository for the disposal of spent nuclear fuel and high-level radioactive waste. DOE believes that this statute and the NWPA make it incumbent on DOE to proceed with appropriate transportation planning so the Department will be in a position to fulfill its responsibility under the NWPA to begin disposal of this material promptly, should the NRC grant the necessary authorizations for it to do so.

Transportation-Related Comments on the Final EIS

DOE distributed about 6,200 copies of the Final EIS and has received written comments on the Final EIS from the White Pine County Nuclear Waste Project Office, White Pine County Board of County Commissioners, Board of County Commissioners Lincoln County, Board of Mineral County Commissioners, and a member of the public. Although comments were received on a variety of issues, the following summation addresses only those few comments related to the transportation of spent nuclear fuel and high-level radioactive waste to a Yucca Mountain repository.

Commenters stated that DOE should develop specific transportation-related mitigation measures, and encouraged DOE to do so in a cooperative manner. Commenters also stated that additional, more detailed and community-specific transportation analyses are needed for purposes of mitigation planning, as well as to support DOE in its transportation decisionmaking, such as the decision on the mode of transportation. Commenters also encouraged DOE to develop plans for transportation, such as route selection for shipments of spent nuclear fuel and high-level radioactive waste, and emergency planning and response. Commenters also requested clarification of the roles of the NRC and DOE's transportation services contractors, and whether counties are eligible for technical assistance and funding under Section 180(c) of the Nuclear Waste Policy Act (NWPA).

As discussed below in Use of All Practicable Means to Avoid or Minimize Harm (Parts I and II), DOE has already adopted measures to avoid or minimize environmental harm that could result from the transportation of spent nuclear fuel and high-level radioactive waste. Additional potential mitigation measures associated with the construction of a rail line will be identified during preparation of an environmental impact statement that considers alternative alignments within the Caliente corridor for construction of the rail line (see PART II of this ROD). DOE also will consult with states, Native American tribes, local governments, utilities, the transportation industry and other interested parties in a cooperative

[4] *See Duke Cogema Stone & Webster,* 56 N.R.C. 335 (2002); *Private Fuel Storage, L.L.C.,* 56 N.R.C. 340 (2002); *Duke Energy Corp.,* 56 N.R.C. 358 (2002); *Dominion Nuclear Connecticut, Inc.,* 56 N.R.C. 367 (2002); *Pacific Gas & Electric Company,* 57 N.R.C. 1 (2003); and *Pacific Gas & Electric Company,* 58 N.R.C. 185 (2003), appeal docketed, No. 03–74628 (9th Cir. Dec. 12, 2003).

[5] *See* materials cited in footnote 4

[6] As explained in footnote 2, some additional materials are currently stored at 50 additional sites (54 at the time of site recommendation), consisting primarily of research reactors, in four additional states, but DOE plans to consolidate these materials at two DOE sites for reasons unrelated to its repository plans.

manner to refine the transportation system as it is developed. Furthermore, DOE must comply with the transportation-related provisions of the NWPA. Spent nuclear fuel and high-level radioactive waste will be shipped to Yucca Mountain in casks that have been certified by the NRC (Section 180(a)). Prior to these shipments, DOE will comply with the regulations of the NRC regarding advanced notification of state and local governments (Section 180(b)).

Transportation Mode Decision

Under the NWPA, the Department is responsible for planning that will allow for the transportation of spent nuclear fuel and high-level radioactive waste in the event the NRC authorizes receipt and possession of these materials at Yucca Mountain. Accordingly, as the next step in fulfilling that responsibility, the Department is issuing this Record of Decision to select a transportation mode. The Department has decided to select the preferred mode of transportation analyzed in the Final EIS, the mostly rail scenario, both on a national basis and in the State of Nevada. Under this decision, the Department would rely on a combination of rail, truck and possibly barge to transport to the repository up to 70,000 MTHM of spent nuclear fuel and high-level radioactive waste. Most of the spent nuclear fuel and high-level radioactive waste would be transported by rail. The Department would use truck transport where necessary, depending on certain factors such as the timing of the completion of the rail line proposed to be constructed in Nevada. This could include building an intermodal capability at a rail line in Nevada to take legal-weight truck casks from rail cars and transport them the rest of the way to the repository via highway, should the rail system be unavailable at the time of the opening of the repository [7]. In addition, since some commercial utilities are not able to accommodate rail casks, they would ship by legal-weight truck to the repository. Additionally, the Department would use heavy-haul truck and possibly barge as needed to ship spent nuclear fuel from commercial nuclear sites to nearby railheads outside Nevada for shipment to the repository.

[7] In March 2004, DOE issued a Supplement Analysis and determined, in accordance with 10 CFR 1021.314, that this rail/legal-weight truck scenario would not constitute a substantial change to the proposal previously analyzed in the Final EIS or significant new circumstances or information relevant to environmental concerns, as discussed in 40 CFR 1502.9(c)(1).

Basis for Transportation Mode Decision

As we explain below, the Department has concluded that it should use mostly rail nationwide and in Nevada based, in large part, on the analyses of the Final EIS. The Department also considered the preferences for rail transportation expressed by the State of Nevada and other factors described below.

The analyses in the Final EIS demonstrate that the potential radiation doses to workers and the general public from rail, truck or barge transportation would be very small, and that the differences in resulting potential impacts from such exposures among the different modes of transportation also would be very small. Nevertheless, using mostly rail tends to minimize the potential environmental impacts that could occur. The decision to rely primarily on the nation's rail system to ship these materials would result in fewer shipments than would occur if legal-weight trucks were the primary mode of transportation. This in turn would result in fewer trucks on public highways. The lower number of rail shipments as compared to truck shipments is estimated to result in fewer potential traffic fatalities and, under routine conditions, slightly fewer latent cancer fatalities to workers and the general public relative to mostly legal-weight truck shipments.

In reaching its decision, DOE also considered the number of commercial nuclear sites having, or expected to have, the capability to handle rail casks, the distances to suitable railheads near the commercial nuclear sites, and historical experience using rail to ship spent nuclear fuel and other large reactor-related components. The Department found that the preponderance of commercial sites have the capability and experience to ship to nearby railheads.

The Department also considered preferences expressed by the State of Nevada in its comments on the Draft EIS. In these comments, the state indicated that DOE should plan its transportation system to maximize the use of rail.

The Department also considered irreversible and irretrievable commitments of resources and cumulative impacts in making its decision. There would be an irreversible and irretrievable commitment of resources, such as land, electric power, fossil fuels and construction materials, associated with the construction of a rail line in Nevada, although this commitment of resources would not significantly diminish these resources, either nationwide or in Nevada. DOE also recognizes that for all alternatives involving transportation of spent nuclear fuel and high-level radioactive waste, there could be cumulative impacts from past, present and reasonably foreseeable future activities involving transportation of other radioactive materials. Based on the analyses in the Final EIS, DOE does not expect that any cumulative impacts would be significant over the duration of shipping spent nuclear fuel and high-level radioactive waste to the repository.

Based on these various considerations, DOE concludes that shipping by mostly rail, both nationally and in the State of Nevada, would be preferable to shipping by mostly truck or using heavy-haul trucks in Nevada.

Use of All Practicable Means To Avoid or Minimize Harm—Transportation Mode

The shipment of spent nuclear fuel and radioactive waste is highly regulated and subject to the utmost scrutiny. DOE carefully follows the Department of Transportation (DOT) and NRC transportation rules now and will follow or exceed any others that may be established in the future whether by the Congress or by DOT or NRC. DOE also will consult with states, Native American tribes, local governments, utilities, the transportation industry and other interested parties in a cooperative manner to refine the transportation system as it is developed.

Measures DOE will implement to avoid or minimize harm include the following [8]: prior to the shipment of spent nuclear fuel, the shipper or carrier must select routes and prepare a written plan listing origin and destination of the shipment, scheduled route, all planned stops, estimated time of departure and arrival, and emergency telephone numbers; advance notice must be provided to State and local governments prior to shipping irradiated reactor fuel through their states; anyone involved in the preparation or transport of radioactive materials will be required to have proper training; carriers must be provided with shipping papers containing emergency information, including contacts and telephone numbers, readily available during transport for inspection by appropriate officials; clearly identifiable markings, labels, and placards of hazardous contents must be provided; and all spent nuclear fuel and high-level

[8] Application of these measures to national security activities may, in some respects, be subject to section 7 of the Nuclear Waste Policy Act, 42 U.S.C. section 10106.

radioactive waste shipments would be in the most rugged casks (Type B, which range from small containers of sealed radioactive sources to heavily shielded steel casks that sometimes weigh as much as 150 tons).

The NRC has promulgated rules (10 CFR 73.37) and interim compensatory measures (March 4, 2002; 67 FR 9792) specifically aimed at protecting the public from harm that could result from sabotage of spent nuclear fuel casks. These security rules are designed to minimize the possibility of sabotage and facilitate recovery of spent nuclear fuel shipments that could come under the control of unauthorized persons. The use of armed escorts for all shipments; safeguarding the detailed shipping schedule information, monitoring of shipments through satellite tracking and a communication center with 24-hour staffing; and coordinating logistics with state and local law enforcement agencies all contribute to shipment security. Additionally, the cask safety features that provide containment, shielding, and thermal protection provide protection against sabotage. The Department and other agencies continue to examine the protections built into their physical security and safeguards systems for transportation shipments.

DOE is now developing its transportation security plan and its design basis threat for transportation. The transportation security plan will be developed in cooperation with other Federal agencies, including the NRC, DOT, and the Department of Homeland Security. The Office of Civilian Radioactive Waste Management is exploring the use of armed Federal agents as escorts for all shipments and other operational techniques employed by the National Nuclear Security Administration's Office of Secure Transportation as well as the design of special security cars for rail transport, to further mitigate the potential threat of a terrorist act. In addition to its domestic efforts, the Department is a member of the International Working Group on Sabotage for Transport and Storage Casks, which is investigating the consequences of a potential act of sabotage and is exploring opportunities to enhance the physical protection of casks. As a result of the above efforts, DOE will modify its methods and systems as appropriate between now and the time shipments start.

In compliance with section 180(c) of the NWPA, DOE will provide technical assistance and funds to states for training public safety officials of appropriate units of local government and Native American tribes through whose jurisdictions the Department plans to ship spent nuclear fuel and high-level radioactive waste. The training of public safety officials will cover procedures required for safe routine transportation of these materials and for dealing with emergency response situations.

Pursuant to the NWPA, spent nuclear fuel and high-level radioactive waste will be transported in casks certified by the NRC. The NRC regulates and certifies the design, manufacture, testing and use of these casks. Additionally, the NWPA requires that DOE comply with NRC regulations regarding advance notification of State and local governments prior to transportation of spent nuclear fuel or high-level radioactive waste.

At this stage in the decision-making, the Department believes it has incorporated all practicable mitigation measures. The Department will continue to identify and evaluate potential mitigation measures as the transportation system develops and as a result of the lessons learned from the shipping of spent nuclear fuel and high-level radioactive waste.

Part II. Record of Decision for Nevada Rail Corridor

Background

As noted above, the mostly rail scenario assumes that DOE will ultimately construct a rail line in Nevada to ship spent nuclear fuel and high-level radioactive waste to the repository. To implement that scenario, DOE therefore needs to select among alternative rail corridors within which to study possible alignments in which it will pursue construction of a rail line that would connect the repository at Yucca Mountain to an existing main rail line in Nevada in the event the NRC authorizes construction of a repository at Yucca Mountain. In the Final EIS, DOE analyzed five potential rail corridors—Caliente, Carlin, Caliente-Chalk Mountain, Jean and Valley Modified—for this potential rail line. Additional descriptive information, including variations associated with each corridor, may be found in section 2.1.3.3 and Appendix J, section J.3.1.2, of the Final EIS. The Final EIS did not specify a corridor preference, but in December 2003, DOE announced its preference for the Caliente corridor (*Notice of Preferred Nevada Rail Corridor*; 68 FR 74951; December 29, 2003.

Proposed Action and Nevada Rail Corridors Considered in the Final EIS

A. Caliente Rail Corridor—Preferred Alternative

The Caliente corridor originates at an existing siding to the mainline railroad near Caliente, Nevada. The corridor extends in a westerly direction to the northwest corner of the Nevada Test and Training Range (previously known as Nellis Air Force Range), before turning south-southeast to the repository at Yucca Mountain. The corridor ranges between 318 miles (512 kilometers) and 344 miles (553 kilometers), depending on the variations to the corridor considered in the Final EIS. Construction of a rail line within the Caliente corridor would take about 46 months. The total life-cycle cost for construction and operation of the rail line is estimated to be $880 million (2001 dollars).

B. Carlin Rail Corridor

The Carlin corridor originates at the mainline railroad near Beowawe in north central Nevada. The Carlin and Caliente corridors converge near the northwest boundary of the Nevada Test and Training Range. Past this point, they are identical. The Carlin corridor ranges between 319 miles (513 kilometers) and 338 miles (544 kilometers) long, depending on the variations to the corridor. Construction of a rail line within the Carlin corridor would take about 46 months. The total life-cycle cost for construction and operation of the rail line is estimated to be $821 million (2001 dollars).

C. Caliente-Chalk Mountain Rail Corridor

The Caliente-Chalk Mountain corridor is identical to the Caliente corridor until it approaches the northern boundary of the Nevada Test and Training Range. At that point the Caliente-Chalk Mountain corridor turns south through the Nevada Test and Training Range and the Nevada Test Site to the Yucca Mountain site. Depending on the variations, the corridor is between 214 miles (344 kilometers) and 242 miles (382 kilometers) long from the tie-in at the mainline near Caliente to the Yucca Mountain site. Construction of a rail line within the Caliente-Chalk Mountain corridor would take about 43 months. The total life-cycle cost for construction and operation of the rail line is estimated to be $622 million (2001 dollars). The Department designated the Caliente-Chalk Mountain alternative as non-preferred in the Final EIS due to national security concerns raised by the U.S. Air Force.

D. Jean Rail Corridor

The Jean corridor originates at the existing mainline railroad near Jean, Nevada. The corridor ranges between 112 miles (181 kilometers) and 127 miles (204 kilometers) long from the tie-in with the mainline to the Yucca Mountain site. Construction of a rail line within the Jean corridor would take about 43 months. The total life-cycle cost for construction and operation of the rail line is estimated to be $462 million (2001 dollars).

E. Valley Modified Rail Corridor

The Valley Modified corridor originates at an existing rail siding off the mainline railroad northeast of Las Vegas. Depending on the variations, the corridor is between 98 miles (157 kilometers) and 101 miles (163 kilometers) long from the tie-in with the mainline to the Yucca Mountain site. Construction of a rail line within the Valley Modified corridor would take about 40 months. The total life-cycle cost for construction and operation of the rail line is estimated to be $283 million (2001 dollars).

Environmentally Preferable Rail Corridor Alternative

DOE considered human health and environmental impacts that could occur from the construction of a rail line, as well as from shipping spent nuclear fuel and high-level radioactive waste in Nevada.

Construction of a rail line, regardless of the rail corridor selected, would involve the disturbance of land and associated impacts, although low, to natural resources such as biological and cultural resources. For example, construction of a rail line in the Valley Modified corridor (shortest) would result in the disturbance of about 1,240 acres; rail line construction in the Carlin corridor (longest) would disturb about 4,900 acres.

Construction of any rail line in Nevada also would conflict with existing land uses. Depending on the variations considered, privately-owned lands occur on less than one percent of the lands analyzed under the Caliente (ranges from 222 to 618 acres), Caliente-Chalk Mountain (ranges from 198 to 272 acres) and Valley Modified (ranges from 0 to 44 acres) corridors, but up to about five and seven percent of the lands analyzed under the Jean (ranges from 32 to 865 acres) and Carlin (ranges from 1,804 to 3,756 acres) corridors, respectively. The Caliente and Carlin corridors cross Timbisha-Shoshone trust lands, and a relatively short distance on the Nevada Test and Training Range, although variations are available that would avoid these lands. The Caliente corridor crosses two wilderness study areas, and the Valley Modified corridor passes through the Desert National Wildlife Range, although variations may be available to avoid these lands. The Caliente-Chalk Mountain corridor crosses land dedicated to testing and training activities of the U.S. Air Force and Department of Defense on the Nevada Test and Training Range; no variations are available that would avoid the Range under this corridor alternative.

Under any rail corridor alternative, water would be used for compaction of the rail bed and dust suppression, and by workers during construction. Water consumption would vary, primarily because of the length of the corridor, ranging from 320 acre-feet for the Valley Modified corridor to 710 acre-feet for the Caliente corridor.

During the 24-year shipping period, assuming standard nationwide rail routing practices, the incident-free (routine) collective dose to members of the public from the transportation of spent nuclear fuel and high-level radioactive waste by rail would result in less than one latent cancer fatality regardless of which corridor is selected. The difference in impacts among the corridors is minimal. Similarly, less than one latent cancer fatality would occur in the exposed worker population, and that is not affected by the Nevada corridor selection.

DOE also estimated the potential health effects to the general public that could result from a severe transportation accident during shipments to the repository (referred to in the Final EIS as a maximum reasonably foreseeable accident). If such an accident were to occur in a rural population setting, the collective radiological dose to members of the public would result in less than one latent cancer fatality. The probability that this accident could occur is extremely unlikely—about 2 chances in 1 million per year.

The environmental impacts identified in the Final EIS do not provide a clear basis for discriminating among alternative rail corridors in Nevada. Each of these alternatives would result in some impact to the environment and public health and safety. Construction of a rail line within any rail corridor would involve certain land use conflicts, and land disturbance with attendant impacts (although small, the impacts tend to increase with increasing corridor length). Radiation exposure to workers and the public in Nevada would be small, and the differences among the rail corridor alternatives also would be very small.

For these reasons, DOE does not consider the differences among the corridor alternatives to be sufficient to make any of them clearly environmentally preferable.

Finally, although the potential impacts of any of the five potential rail corridors would be small, they would be greater than the potential transportation-related impacts of the No-Action Alternatives. Nevertheless, as explained above, the impacts of proceeding with construction and operation of a repository at Yucca Mountain, including transportation, are relatively small and less than either of the No-Action Alternative scenarios. Part I (of this ROD) provides further comparison of the proposed action and the No-Action Alternative scenarios. In any event, given DOE's responsibilities under the Yucca Mountain Development Act and the NWPA, DOE believes it is obligated to proceed with appropriate transportation planning, including, given its selection of the mostly rail scenario in Nevada, the selection of a corridor in which to study possible alignments for the Nevada rail line, in preference to either No-Action Alternative scenario.

Comments on Preferred Rail Corridor

DOE noticed its preference for the Caliente corridor in the **Federal Register** (December 29, 2003; 68 FR 74951). The Carlin corridor was identified as a secondary preference. The Department has received comments on the preference announcement. Concerns expressed in these comments included the need for a comprehensive programmatic EIS covering all aspects of nuclear waste transportation to Yucca Mountain, avoidance of all major population centers with transportation routes, and provision of documentation supporting the preference decision. Other comments addressed the need for adequate opportunities for public participation and comment on the corridor preference announcement, including a request for cooperating agency status for any future rail alignment EIS. Selection of a corridor preference prior to having a mode of transportation decision was raised as a concern. In addition, there was confusion regarding the designation of the Carlin corridor as a secondary preference and its relationship to the upcoming rail alignment EIS process. Furthermore, commenters indicated that a rail line in the Caliente corridor would have significant negative impacts on cultural, socioeconomic, and wildlife resources, as well as a massive modern

sculpture project. Others raised the potential for impacts to ranchers living in proximity to the proposed Caliente corridor, including questions regarding the design and operation of a rail line and the nature of measures that could mitigate resulting adverse impacts. Finally, several commenters thanked DOE for announcing its corridor preference, recognizing the challenges and opportunities and associated need to coordinate closely as DOE proceeds with transportation planning.

Comments calling for DOE to prepare a programmatic transportation EIS and the need to avoid all major Nevada population centers with transportation routes were addressed in the response to comments in the Final EIS. DOE believes a programmatic EIS to be unnecessary as its Final EIS provides the environmental impact information necessary to make certain broad transportation-related decisions (as described above in Transportation-Related Decisions).

With regard to avoiding population centers, the analyses of the Final EIS illustrate that potential public health and safety impacts would be so low for individuals who lived and worked along any route that individual impacts would not be discernible, even if the corresponding doses could be measured.

Although some commenters stated that DOE's intent in identifying the Carlin corridor as a secondary preference was unclear, the decision to select the Caliente corridor also represents DOE's intent to no longer consider the Carlin corridor for development of a rail line. This decision and the basis for not selecting the Carlin corridor are discussed below in Rail Corridor Decision and Basis for Rail Corridor Decision.

The remaining concerns and issues regarding potential environmental impacts associated with the development of a rail line, potential mitigation measures, and opportunities for public involvement and project participation will be addressed during the future preparation of a rail alignment EIS. As part of developing this documentation, DOE will identify and adopt measures to avoid or minimize environmental harm that could result from the construction and operation of a rail line within the Caliente corridor.

Rail Corridor Decision

In Part I of this Record of Decision, the Department selected, both on a national basis and in the State of Nevada, the mostly rail scenario. That decision is premised on the assumption that DOE will ultimately construct a rail line to connect the repository site to an existing rail line in the State of Nevada. To that end, the Department has decided to select the preferred rail corridor alternative, the Caliente corridor, in which to evaluate alignments for a rail line.

Basis for Rail Corridor Decision

The Department decided to evaluate alignments within the Caliente corridor for possible construction of a rail line based, in large part, on the analyses of the Final EIS. The Department, however, also considered other factors discussed below, such as potential for construction delay, direct and indirect costs of each alternative, and comments received from the public.

The Department considered irreversible and irretrievable commitments of resources and cumulative impacts in making its decision. There would be an irreversible and irretrievable commitment of resources, such as electric power, fossil fuels, construction materials, and water associated with the construction of a rail line in Nevada, although this commitment of resources would not significantly diminish the resources in question in Nevada. DOE recognizes that for all rail corridors there could be cumulative impacts from past, present and reasonably foreseeable future activities.

The Department considered potential land use conflicts and their potential to affect adversely construction of a rail line, as analyzed in the Final EIS in making this decision. If the Department were to select the Valley Modified rail corridor there may be conflicts with the Desert National Wildlife Range and local community plans for development in the greater Las Vegas metropolitan area. If the Department were to select the Caliente-Chalk Mountain corridor there would be conflicts with U.S. Air Force and Department of Defense testing and training activities directly related to national security interests on the Nevada Test and Training Range. If the Department were to select the Jean corridor it may require crossing relatively greater amounts of private land, and would pose greater potential land use conflicts because of its proximity to the greater Las Vegas metropolitan area. If the Department were to select the Carlin corridor it would also require crossing relatively greater amounts of private land. Moreover, little infrastructure, such as roads and electric power, is available over long segments, which would tend to make logistics during construction as well as emergency response capabilities more challenging. Overall, the Caliente rail corridor appears to have the fewest land use or other conflicts that could lead to substantial delays in acquiring the necessary land and rights-of-way, or in beginning construction.

DOE also considered concerns expressed by the public in Nevada. In these comments, the public stated that DOE should avoid rail corridors in the Las Vegas Valley.

The Department also considered the direct costs of constructing and operating a rail line, and the indirect costs resulting from potential delays in the availability of the rail line. The Jean and Valley Modified corridors are the shortest and have the lowest estimated construction costs. The Carlin and Caliente corridors are the longest and on the basis of construction cost alone would be more expensive to develop. However, delays in the construction of the rail line because of land use or other conflicts and the resulting inability to accept large amounts of spent nuclear fuel and high-level radioactive waste transported by a railroad to the repository in a timely manner could add to both the liability costs for delayed acceptance of commercial spent nuclear fuel and the costs of continued storage of DOE wastes.

Based on all of the above, DOE concludes that the Caliente corridor is preferable to the other corridors it evaluated as a potential corridor in which to construct a rail line. Therefore, DOE has decided to select the Caliente corridor as the one within which to evaluate possible alignments for the rail line connecting the repository to an existing main rail line in Nevada.

Use of All Practicable Means To Avoid or Minimize Harm—Rail Corridor

In the Final EIS, DOE identified transportation-related measures that would be implemented, and other measures that would require further consideration and refinement before adoption to avoid or minimize environmental harm. As described in Part I, this decision adopts all practicable measures to avoid or minimize adverse environmental impact that could result from the transportation of spent nuclear fuel and high-level radioactive wastes to a repository at Yucca Mountain appropriate at this stage of decision-making. Construction of a rail line will be consistent with applicable Federal, state and Native American tribal requirements. In addition to these measures, other potential mitigation measures associated with the construction of a rail line will be identified and evaluated during preparation of future NEPA documentation.

A.4 69 *FR* 18565, April 8, 2004

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DEPARTMENT OF ENERGY

Notice of Intent to Prepare an Environmental Impact Statement for the Alignment, Construction, and Operation of a Rail Line to a Geologic Repository at Yucca Mountain, Nye County, NV

AGENCY: U.S. Department of Energy.

ACTION: Notice of intent.

SUMMARY: The U.S. Department of Energy (DOE or the Department) announces its intent to prepare an environmental impact statement (EIS) under the National Environmental Policy Act (NEPA) for the alignment, construction, and operation of a rail line for shipments of spent nuclear fuel, high-level radioactive waste, and other materials from a site near Caliente, Lincoln County, Nevada, to a geologic repository at Yucca Mountain, Nye County, Nevada. On April 2, 2004, the Department signed a Record of Decision announcing its selection, both nationally and in the State of Nevada, of the mostly rail scenario analyzed in the "Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada'' (DOE/EIS–0250F, February 2002) (Repository Final EIS). This decision will ultimately require the construction of a rail line to connect the repository site at Yucca Mountain to an existing rail line in the State of Nevada for the shipment of spent nuclear fuel and high-level radioactive waste, in the event that the Nuclear Regulatory Commission authorizes construction of the repository and receipt and possession of these materials at Yucca Mountain. To that end, the Department also decided to select the Caliente rail corridor [1] in which to examine possible alignments for construction of a rail line that would connect the repository at Yucca Mountain to an existing main rail line in Nevada. DOE is now announcing its intent to prepare this Rail Alignment EIS to assist in selecting this alignment. The EIS also would consider the potential construction and operation of a rail-to-truck intermodal transfer facility, proposed to be located at the confluence of an existing mainline railroad and a highway, to support legal-weight truck transportation until the rail system is fully operational.

DATES: The Department invites and encourages comments on the scope of the EIS (hereafter referred to as the Rail Alignment EIS) to ensure that all relevant environmental issues and reasonable alternatives are addressed. Public scoping meetings are discussed below in the **SUPPLEMENTARY INFORMATION** section. DOE will consider all comments received during the 45-day public scoping period, which starts with the publication of this Notice of Intent and ends May 24, 2004. Comments received after the close of the public scoping period will be considered to the extent practicable.

ADDRESSES: Written comments on the scope of this Rail Alignment EIS, questions concerning the proposed action and alternatives, requests for maps that illustrate the Caliente corridor and alternatives, or requests for additional information on the Rail Alignment EIS or transportation planning in general should be directed to: Ms. Robin Sweeney, EIS Document Manager, Office of National Transportation, Office of Civilian Radioactive Waste Management, U.S. Department of Energy, 1551 Hillshire Drive, M/S 011, Las Vegas, NV 89134, Telephone 1–800–967–3477, or via the Internet at *http://www.ocrwm.doe.gov* under "What's New.''

FOR FURTHER INFORMATION CONTACT: For general information regarding the DOE NEPA process contact: Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Compliance (EH–42), U.S. Department of Energy, 1000 Independence Ave., SW., Washington, DC 20585, Telephone 202–586–4600, or leave a message at 1–800–472–2756.

SUPPLEMENTARY INFORMATION:

Background

On July 23, 2002, the President signed into law (Pub. L. 107–200) a joint resolution of the U.S. House of Representatives and the U.S. Senate designating the Yucca Mountain site in Nye County, Nevada, for development as a geologic repository for the disposal of spent nuclear fuel and high-level radioactive waste. Subsequently, the Department issued a Record of Decision (April 2, 2004) to announce its selection, both nationally and in the State of Nevada, of the mostly rail scenario analyzed in the Repository Final EIS as the mode of transportation of spent nuclear fuel and high-level radioactive waste to the repository. Under the mostly rail scenario, the Department would rely on a combination of rail, truck and possibly barge to transport to the repository site at Yucca Mountain up to 70,000 metric tons of heavy metal (MTHM) of spent nuclear fuel and high-level radioactive waste. Most of the spent nuclear fuel and high-level radioactive waste, however, would be transported by rail.

The Department's decision to select the mostly rail scenario in Nevada will ultimately require the construction of a rail line to connect the repository site at Yucca Mountain to an existing rail line in the State of Nevada for the shipment of spent nuclear fuel and high-level radioactive waste in the event that the Nuclear Regulatory Commission authorizes construction of the repository and receipt and possession of these materials at Yucca Mountain. To that end, in the same Record of Decision, the Department also decided to select the Caliente rail corridor to study possible alignments for this rail line.

In the Repository Final EIS, DOE defined a rail corridor as a 0.25 miles (400-meter) wide strip of land that encompasses one of several possible alignments or specific locations within which DOE could build a rail line. The Caliente rail corridor was described as originating at an existing siding to the mainline railroad near Caliente, Nevada, and extending in a westerly direction to the northwest corner of the Nevada Test and Training Range, before turning south-southeast to the repository at Yucca Mountain.

In the Repository Final EIS, DOE also identified eight variations along the Caliente corridor that may minimize or avoid environmental impacts and/or mitigate construction complexities. Variations were defined as a strip of land 0.25 miles (400-meters) wide that describes a different route, from one point along the corridor to another point on the corridor. Thus, the Caliente corridor ranges between 318 miles (512 kilometers) and 344 miles (553 kilometers) in length, depending on the variations considered. In the Repository Final EIS, DOE did not identify variations for about 55 percent of the length of the corridor (hereafter these areas are referred to as "common segments'').

DOE proposes to consider the common segments and the eight variations as preliminary alternatives to be evaluated in the Rail Alignment EIS. These alternatives are described in the *Preliminary Alternatives* section. In addition, DOE will consider other potential variations outside of the 0.25

[1] A corridor is a strip of land 0.25 miles (400 meters) wide that encompasses one of several possible routes through which DOE could build a rail line. An alignment is the specific location of a rail line in a corridor.

mile wide corridor that might minimize, avoid or mitigate adverse environmental impacts.

For purposes of analysis in the Rail Alignment EIS, a rail line alignment is defined as a strip of land 100 feet (30 meters) on either side of the centerline of the track within the Caliente corridor, passing through the common segments and variations. DOE will define regions of influence for each environmental resource (for example, biological or cultural resources) that will extend beyond the dimensions of the alignment and allow DOE to estimate environmental impacts over the geographic area in which the impact is likely to be realized. Within these regions of influence, DOE will estimate environmental impacts of the common segments and alternatives, both separately and in aggregate. In this way, the analyses of the Rail Alignment EIS will offer DOE flexibility to minimize, avoid or otherwise mitigate potential environmental impacts of the final alignment chosen for construction.

Proposed Action

In the Rail Alignment EIS, the Proposed Action is to determine a rail alignment, and to construct and operate a rail line for shipments of spent nuclear fuel, high-level radioactive waste, and other materials [2] from a site near Caliente, Lincoln County, Nevada to a geologic repository at Yucca Mountain, Nye County, Nevada. Under the Proposed Action, the Caliente rail line would be designed and built consistent with Federal Railroad Administration safety standards. Construction would take between three and four years.

Construction activities would include the development of construction support areas; construction of access roads to the rail line construction initiation points [3] and to major structures to be built, such as bridges and culverts; and movement of materials and equipment to the construction initiation points. The number and location of construction initiation points would be based on such variables as the length of the rail line, the construction schedule, the number of contractors used for construction, the number of structures to be built, the supply of materials, and the locations of existing access roads adjacent to the rail line.

The construction of the rail line would require the clearing and excavation of previously undisturbed lands, and the establishment of borrow and spoils [4] areas. To establish a stable base for the rail track, construction crews would excavate some areas and fill (add more soil to) others, as determined by terrain features. To the extent possible, material excavated from one area would be used in areas that required fill material. However, if the distance to an area requiring fill material were excessive, the excavated material would be disposed of in spoils areas, and a borrow area would be established adjacent to the area requiring fill material. Access roads to spoils and borrow areas would be built during the track base construction work.

Under the Proposed Action, DOE would construct a secure railyard and facilities at the operational interface with the mainline railroad near Caliente, Nevada. The facilities would include sidings connected to the mainline, and buildings and associated equipment for track and equipment maintenance, locomotive refueling, and train crew quarters.

DOE also will consider the potential construction and operation of a rail-to-truck intermodal transfer facility to support limited legal-weight truck transportation until the rail system is fully operational. This intermodal transfer facility could be constructed at the confluence of an existing mainline railroad and a highway.

Typical construction equipment (front-end loaders, power shovels, and other diesel-powered support equipment) would be used for clearing and excavation work. Trucks would spray water along graded areas for dust control and soil compaction. The fill material used along the rail line to establish a stable base for the track would be compacted to meet design requirements. Water could be shipped from other locations or obtained from wells drilled along the rail line.

Railroad track construction would consist of the placement of railbed material (sub-ballast), ballast (support and stabilizing materials for the rail ties), ties and rail over the completed railbed base. Other activities would include: installation of at-grade crossings, fencing as needed, train monitoring and signals and communication equipment, and final grading of slopes, rock-fall protection devices, and restoration of disturbed areas.

Operation of the Caliente rail line would be consistent with Federal Railroad Administration standards for maintenance, operations, and safety. A typical spent nuclear fuel and high-level radioactive waste train would consist of two diesel-electric locomotives; three or more rail cars containing spent nuclear fuel or high-level radioactive waste; buffer cars; and an escort car. A typical train carrying construction materials would not have buffer cars or an escort car.

At the Yucca Mountain repository, rail cars containing casks of spent nuclear fuel and high-level radioactive waste would move through a security check into the radiologically controlled area. The casks would be inspected and protective barriers removed, in preparation for waste handling at the repository. Rail cars carrying construction materials would be offloaded and the materials stockpiled on site.

Preliminary Alternatives

As required by the Council on Environmental Quality and Department regulations that implement NEPA, the Rail Alignment EIS will analyze and present the environmental impacts associated with the range of reasonable alternatives to meet DOE's purpose and need for a rail line, and a no action alternative. The preliminary alternatives for the alignment comprise a series of common segments and alternatives (maps may be obtained as described above in **ADDRESSES**). The Department is particularly interested in identifying and subsequently evaluating any additional reasonable alternatives that would reduce or avoid known or potential adverse environmental impacts, national security activities, features having aesthetic values, and land-use conflicts, or alternatives that should be eliminated from detailed consideration. This could include identifying alternatives that could avoid wilderness study areas or other land use conflicts. The preliminary alternatives include:

Interface With Mainline Railroad

Three alternatives are available to connect to the existing mainline railroad, each of which would intersect the common segment of the rail alignment about 4 miles (6.5 kilometers) southwest of Panaca, Nevada, along U.S. 93 in the Meadow Valley area. The Caliente Alternative would begin at the town of Caliente, enter Meadow Valley at Indian Cove and extend north

[2] Other materials refer to materials related to the construction (*e.g.,* reinforcing steel, cement) and operation (*e.g.,* waste packages, fuel oil) of the repository.

[3] DOE anticipates that construction of the rail line may occur at several locations simultaneously along the alignment.

[4] Borrow areas are areas outside of the rail alignment where construction personnel could obtain earthen materials such as aggregate for construction of the rail line. Spoil areas are areas outside of the alignment for the deposition of excess earthern materials excavated during construction of the rail line.

through Meadow Valley to converge with the common segment. This alternative is about 10.5 miles (17 kilometers) in length.

The Eccles Alternative would begin at the Eccles siding along Clover Creek about 5 miles (8 kilometers) east of Caliente, trend generally north entering Meadow Valley on the southeast, and would then trend northward to converge with the common segment. This alternative is about 11 miles (18 kilometers) in length.

The Crestline Alternative would begin north of the Crestline siding in Sheep Spring Draw, extend west after crossing Lincoln County Road 75, and pass north of the Cedar Range. It would then veer northwesterly just north of Miller Spring Wash and converge with the common segment just south of the Big Hogback. This alternative is about 23 miles (38 kilometers) in length.

White River

The two White River Alternatives would depart from the common segment about 1.5 miles (2.5 kilometers) west of its crossing of the White River immediately west of State Route 318. The northern White River Alternative (WR1) would follow the White River, curve around the northern end of the Seaman Range, and then turn southwest entering Coal Valley. This alternative is about 25 miles (40 kilometers) in length.

The southern White River Alternative (WR2) would depart the same common segment but would extend westerly along the flanks of Timber Mountain, proceed through Timber Mountain Pass, and then enter Coal Valley. This alternative is about 18.5 miles (30 kilometers) in length.

Once in Coal Valley, both alternatives would merge with the Garden Valley Alternatives. Several options are available to merge the White River Alternatives with the Garden Valley Alternatives.

Garden Valley

The southern Garden Valley Alternative (GV2) would start about 2 miles (3 kilometers) east of the water gap located along Seaman Wash Road, proceed westward through the Golden Gate Mountains, and turn southwesterly through Garden Valley to reconnect to a common segment about 2.5 miles (4 kilometers) northeast of the pass between the Worthington Mountains and the Quinn Canyon Range. This alternative is about 17 miles (27.5 kilometers) in length.

The northern Garden Valley Alternative (GV1) would diverge from the same common segment as Alternative GV2, but would pass through the Golden Gate Mountains about 4 miles (6.5 kilometers) further north of the Alternative GV2 location. Alternative GV1 would then continue southwesterly through Garden Valley to reconnect with the common segment described for Alternative GV2. This alternative is about 19 miles (31 kilometers) in length.

Mud Lake

The Mud Lake Alternatives would depart a common segment located near the northwest corner of the Nevada Test and Training Range (previously known as Nellis Air Force Range) immediately north of Mud Lake. The western Mud Lake Alternative (ML1) would pass about 1.5 miles (2.5 kilometers) northwest of Mud Lake avoiding its western shoreline, and would extend southward to reconnect with a common segment. This alternative is about 3 miles (5 kilometers) in length.

The eastern Mud Lake Alternative (ML2) also would skirt Mud Lake to avoid its western shoreline and would reconnect with the same common segment as the western Mud Lake Alternative. This alternative is about 4 miles (6.5 kilometers) in length.

Goldfield

There are two alternatives associated with Goldfield. The western Goldfield Alternative (GF1), from its connection to Alternative ML1, would extend southward into the Goldfield Hills area passing about 1 mile (1.5 kilometers) east of Black Butte. This alternative would then turn east to pass about 1 mile (1.5 kilometers) northeast of Espina Hill and then would bear south to pass about 1 mile (1.5 kilometers) east of Blackcap Mountain. Alternative GF1 would then continue in a southerly direction following an abandoned rail line to reconnect to a common segment located about 2.5 miles (4 kilometers) north-northeast of Ralston, Nevada. This alternative is about 25 miles (41 kilometers) in length.

From its connection with Alternative ML2, the eastern Goldfield Alternative (GF2) would extend south-southeast into the Nevada Test and Training Range, and then would emerge from the Range turning southwest to converge with the western Goldfield Alternative (GF1) as it enters Stonewall Flat. This alternative is about 22 miles (35.5 kilometers) in length.

DOE is aware of concerns raised by the Department of Defense and the U.S. Air Force regarding the alternatives that intersect the Nevada Test and Training Range lands, and will consult with the Department of Defense and the U.S. Air Force during the Rail Alignment EIS process to ensure the transportation alignment selected does not compromise public safety, national security interests, or training and testing at the Nevada Test and Training Range.

Bonnie Claire

Bonnie Claire comprises two alternatives that would depart a common segment located about 3.3 miles (5.5 kilometers) southeast of Lida Junction, Nevada. The western Bonnie Claire Alternative (BC1) would follow an abandoned rail line to cross U.S. 95 about 1 mile (1.5 kilometers) south of Stonewall Pass, and would then trend southeast paralleling U.S. 95 on the west across Sarcobatus Flat. This alternative would then cross State Route 267 about 1.5 miles (2.5 kilometers) southwest of Scotty's Junction, continuing southeasterly until crossing U.S. 95 again on the eastern edge of Sarcobatus Flat about 14 miles (22.5 kilometers) northwest of Springdale, Nevada. This alternative is about 22 miles (35.5 kilometers) in length.

The eastern Bonnie Claire Alternative (BC2) would parallel the contours of Stonewall Mountain to the southeast and would then extend south, adjacent to the western edge of Pahute Mesa. This alternative would then parallel the northern side of U.S. 95 about 1 mile (1.5 kilometers) until it converges with the western Bonnie Claire Alternative (BC1) on the eastern edge of Sarcobatus Flat. This alternative is about 25.5 miles (41 kilometers) in length.

DOE is aware of concerns raised by the Department of Defense and the U.S. Air Force regarding the alternatives that intersect the Nevada Test and Training Range lands, and will consult with the Department of Defense and the U.S. Air Force during the Rail Alignment EIS process to ensure the transportation alignment selected does not compromise public safety, national security interests, or training and testing at the Nevada Test and Training Range.

Oasis Valley

Oasis Valley includes two alternatives that would avoid naturally-occurring springs. Both alternatives would depart a common segment about 2 miles (3 kilometers) east-northeast of Oasis Mountain. Alternative OV1 is about 3 miles (5 kilometers) in length. Alternative OV2, which is about 3.5 miles (5.5 kilometers) in length, would cross Oasis Valley further to the east of Alternative OV1, thereby increasing the distance to the springs.

Beatty Wash

The Beatty Wash alternatives would depart from a common segment about 3

miles (5 kilometers) east-northeast of the hot springs north of Beatty and about 2 miles (3 kilometers) north-northeast of Beatty Wash. The eastern Beatty Wash Alternative (BW2) would extend east for about 5 miles (8 kilometers), then turn southward crossing a pass about 1 mile (1.5 kilometers) east of the Silicon and Thompson Mines. Alternative BW2 would then turn south to converge with Alternative BW1 about 4 miles (6.5 kilometers) east-northeast of Merklejoho Peak. This alternative is about 14 miles (22 kilometers) in length.

The western Beatty Wash Alternative (BW1) would extend south from the common segment described for Alternative BW2, crossing Beatty Wash and proceeding to the west of the Silicon and Thompson Mines before reconnecting with a common segment. This alternative is about 8 miles (13 kilometers) in length.

No Action Alternative

The No Action Alternative would evaluate the consequences of not constructing a rail line in Nevada for the transportation of spent nuclear fuel, high-level radioactive waste and other materials. Under the No Action Alternative, these materials would be shipped by legal-weight and heavy-haul truck within the State of Nevada to a repository at Yucca Mountain. About 53,000 legal-weight truck and 300 heavy-haul truck shipments of spent nuclear fuel and high-level radioactive waste would be required.

Environmental Issues and Resources To Be Examined

To facilitate the scoping process, DOE has identified a preliminary list of issues and environmental resources that it may consider in the Rail Alignment EIS. The list is not intended to be all-inclusive or to predetermine the scope or alternatives of the Rail Alignment EIS, but should be used as a starting point from which the public can help DOE define the scope of the EIS. DOE anticipates incorporating by reference the relevant analyses of the Repository Final EIS, supplemented as appropriate.

- Potential impacts to the concept of multiple use as it applies to public land use planning and management specified by the Federal Land Policy and Management Act of 1976.
- Potential impacts to land use and ownership.
- Potential impacts to plants, animals and their habitats, including impacts to wetlands, and threatened and endangered and other sensitive species.
- Potential impacts to cultural and Native American resources.
- Potential impacts to paleontological resources.
- Potential impacts to the public from noise and vibration.
- Potential impacts to the general public and workers from radiological exposures during incident-free operations of the rail line in Nevada.
- Potential impacts to the general public and workers from radiological exposures from potential accidents during operations of the rail line in Nevada.
- Potential impacts to water resources and floodplains.
- Potential impacts to aesthetic values.
- Potential disproportionately high and adverse impacts to low-income and minority populations (environmental justice).
- Irretrievable and irreversible commitment of resources.
- Compliance with applicable Federal, state and local requirements.

The Department specifically invites comments on the following:

1. Should additional alternatives be considered that might minimize, avoid or mitigate adverse environmental impacts (for example, looking beyond the 0.25 mile wide corridor, avoiding wilderness study areas, Native American Trust Lands, or encroachment on the Nevada Test and Training Range)?
2. Should any of the preliminary alternatives be eliminated from detailed consideration?
3. Should additional environmental resources be considered?
4. Should DOE allow private entities to ship commercial commodities on its rail line?
5. What mitigation measures should be considered?
6. Are there national security issues that should be addressed?

Schedule

The DOE intends to issue the Draft Rail Alignment EIS early in 2005 at which time its availability will be announced in the **Federal Register** and local media. A public comment period will start upon publication of the Environmental Protection Agency's Notice of Availability in the **Federal Register**. The Department will consider and respond to comments received on the Draft Rail Alignment EIS in preparing the Final Rail Alignment EIS.

Other Agency Involvement

The Department expects to invite the following agencies to be cooperating agencies in the preparation of the Rail Alignment EIS: U.S. Bureau of Land Management, the U.S. Air Force, and the U.S. Surface Transportation Board. These agencies were selected because they have management and regulatory authority over lands traversed by an alternative rail alignment within the Caliente rail corridor, or special expertise germane to the construction and operation of a rail line. DOE will consult with the U.S. Bureau of Indian Affairs, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Nuclear Regulatory Commission, Native American Tribal organizations, the State of Nevada, and Nye, Lincoln and Esmeralda Counties regarding the environmental and regulatory issues germane to the Proposed Action. DOE invites comments on its identification of cooperating and consulting agencies and organizations.

Public Scoping Meetings

DOE will hold public scoping meetings on the Rail Alignment EIS. The meetings will be held at the following locations and times:

- Amargosa Valley, Nevada. Longstreet Inn and Casino, Highway 373, May 3, 2004 from 4–8 p.m.
- Goldfield, Nevada. Goldfield Community Center, 301 Crook Street, May 4, 2004 from 4–8 p.m.
- Caliente, Nevada. Caliente Youth Center, U.S. Highway 93, Caliente, Nevada, May 5, 2004 from 4–8 p.m.

The public scoping meetings will be an open meeting format without a formal presentation by DOE. Members of the public are invited to attend the meetings at their convenience any time during meeting hours and submit their comments in writing at the meeting, or in person to a court reporter who will be available throughout the meeting. This open meeting format increases the opportunity for public comment and provides for one-on-one discussions with DOE representatives involved with the Rail Alignment EIS and Nevada transportation project.

The public scoping meetings will be held during the public scoping comment period. The comment period begins with publication of this NOI in the **Federal Register** and closes May 24, 2004. Comments received after this date will be considered to the extent practicable. Written comments may be provided in writing, facsimile, or by email to Ms. Robin Sweeney, EIS Document Manager (see **ADDRESSES** above).

Public Reading Rooms

Documents referenced in this Notice of Intent and related information are available at the following locations: Beatty Yucca Mountain Information Center, 100 North E. Avenue, Beatty, NV

A.5 69 *FR* 22496, April 26, 2004

22496 **Federal Register** / Vol. 69, No. 80 / Monday, April 26, 2004 / Notices

DEPARTMENT OF ENERGY

Comment Period Extension and Additional Public Scoping Meetings for an Environmental Impact Statement for the Alignment, Construction, and Operation of a Rail Line to a Geologic Repository at Yucca Mountain, Nye County, NV

AGENCY: U.S. Department of Energy.

ACTION: Notice of comment period extension and additional public meetings.

SUMMARY: On April 8, 2004, the U.S. Department of Energy (DOE) published a Notice of Intent (69 FR 18565) announcing its intent to prepare an environmental impact statement (EIS) under the National Environmental Policy Act for the alignment, construction, and operation of a rail line for shipments of spent nuclear fuel, high-level radioactive waste, and other materials from a site near Caliente, Lincoln County, Nevada, to a geologic repository at Yucca Mountain, Nye County, Nevada, and announced three public scoping meetings during a 45-day public comment period ending May 24, 2004. In response to a request from the State of Nevada, DOE is now announcing two additional public meetings, one in Las Vegas, Nevada, and one in Reno, Nevada, and extending the comment period to June 1, 2004.

DATES: The additional public meetings will be held at the following locations and times:

- Las Vegas, Nevada. Las Vegas Yucca Mountain Information Center, 4101 B Meadows Lane, May 10, 2004, from 4–8 p.m.
- Reno, Nevada. University of Nevada-Reno, Lawlor Event Center-Silver and Blue Room, 15th & North Virginia, May 12, 2004, from 4–8 p.m.

The comment period on the Notice of Intent is being extended to June 1, 2004. DOE will consider comments on the proposed scope of the Rail Alignment EIS received after June 1, 2004, to the extent practicable.

ADDRESSES: Written comments on the scope of this Rail Alignment EIS, questions concerning the proposed action and alternatives, requests for maps that illustrate the Caliente corridor and alternatives, or requests for additional information on the Rail Alignment EIS or transportation planning in general should be directed to: Ms. Robin Sweeney, EIS Document Manager, Office of National Transportation, Office of Civilian Radioactive Waste Management, U.S. Department of Energy, 1551 Hillshire Drive, M/S 011, Las Vegas, NV 89134, telephone 1–800–967–3477, or via the Internet at *http://www.ocrwm.doe.gov* under ''What's New.''

Issued in Washington, DC, on April 20, 2004.

Margaret S. Y. Chu,

Director, Office of Civilian Radioactive Waste Management.

[FR Doc. 04–9524 Filed 4–23–04; 8:45 am]

BILLING CODE 6450–01–P

A.6 69 *FR* 23177, April 28, 2004

Federal Register / Vol. 69, No. 82 / Wednesday, April 28, 2004 / Notices 23177

DEPARTMENT OF ENERGY

Comment Period Extension and Additional Public Scoping Meetings for an Environmental Impact Statement for the Alignment, Construction, and Operation of a Rail Line to a Geologic Repository at Yucca Mountain, Nye County, Nevada; Correction

AGENCY: Department of Energy.

ACTION: Notice of Comment Period Extension and Additional Public Meetings; correction.

SUMMARY: The Department of Energy published a document in the **Federal Register** of April 26, 2004, concerning the additional scoping meetings to be held in support of the Rail Alignment EIS. The document contained an incorrect date and location for the Las Vegas, NV scoping meetings.

FOR FURTHER INFORMATION CONTACT: Robin Sweeney at 1–800–967–3477.

Correction

In the **Federal Register** of April 26, 2004, in FR Vol 69, No. 80, on Page 22496, in the first column, correct the date and location for the Las Vegas, NV scoping meeting to read: Las Vegas, Nevada. Cashman Center, Rooms 103–106, 850 Las Vegas Blvd. North, May 17, 2004, from 4–8 p.m.

Dated: April 26, 2004.

Margaret S.Y. Chu,

Director, Office of Civilian Radioactive Waste Management.

[FR Doc. 04–9719 Filed 4–27–04; 8:45 am]

BILLING CODE 6450–01–P

A.7 70 *FR* 51029, August 29, 2005

Federal Register / Vol. 70, No. 166 / Monday, August 29, 2005 / Notices **51029**

DEPARTMENT OF ENERGY

Notice of Availability of the Environmental Assessment Supporting the Department of Energy's Application to the Department of the Interior for a Public Land Order To Withdraw Public Lands Within and Around the Caliente Rail Corridor, Nevada, From Surface Entry and New Mining Claims

AGENCY: Office of Civilian Radioactive Waste Management, U.S. Department of Energy.

ACTION: Notice of availability.

SUMMARY: This notice announces the availability, and opportunity for public review and comment, of the environmental assessment (EA) that supports the Department of Energy's (DOE) application to the Department of the Interior, filed with the Bureau of Land Management (BLM), for a Public Land Order to withdraw public lands within and surrounding the Caliente Rail Corridor. As applied for, the withdrawal would preclude surface entry and new mining claim locations for a 20 year period.

DATES: Comments should be received by DOE no later than September 28, 2005.

ADDRESSES: Comments, or requests for copies of the draft EA, should be sent to Lee Bishop, EA Document Manager, United States Department of Energy, 1551 Hillshire Drive, Las Vegas, NV 89134. Requests for copies of the draft EA may also be made by calling 1–800–225–6972. The draft EA and electronic comment forms are available at *http://www.ocrwm.doe.gov.* Comments may also be faxed to 1–800–967–0739.

FOR FURTHER INFORMATION CONTACT: Lee Bishop, EA Document Manager, at the address above or at 1–800–225–6972.

SUPPLEMENTARY INFORMATION: A notice of proposed withdrawal was published in the **Federal Register** on December 29, 2003 (68 FR 74965–74968), stating that the Bureau of Land Management had received an application from DOE to withdraw for 20 years approximately 308,600 acres of public land from surface entry and mining locations while DOE evaluates the land for the potential construction, operation, and maintenance of a branch rail line. The rail line would be used for the transportation of spent nuclear fuel and high-level radioactive waste as provided under the Nuclear Waste Policy Act of 1982, as amended (42 U.S.C. 10101 *et seq.*). BLM held public meetings on the application in June 2004.

In accordance with 43 CFR 2310.3–2(b)(3), DOE has prepared a draft EA to support its application, with the BLM participating as a cooperating agency. The application seeks a Public Land Order for the purpose of precluding surface entry and the location of new mining claims which could interfere with the evaluation of the land. The proposed Public Land Order would not affect existing mining claims or other activities such as grazing rights, water rights, and recreational uses.

The draft EA may be reviewed on the Internet at *http://www.ocrwm.doe.gov.* Copies of the EA may also be obtained by contacting Mr. Lee Bishop (see address above). Comments may be submitted to Mr. Bishop or through the comment form at the above website, and should be received by September 28, 2005.

Three public meetings on the draft EA will be held as follows:

Monday, September 12, 2005, 4 p.m. to 8 p.m., Longstreet Inn & Casino, Highway 373, Amargosa Valley, NV;

Tuesday, September 13, 2005, 4 p.m. to 8 p.m., Goldfield School Gymnasium, 233 Ramsey, Goldfield, NV; and

Thursday, September 15, 2005, 4 p.m. to 8 p.m., Caliente Youth Center, U.S. Highway 93, Caliente, NV.

Comments received will be considered in finalizing the EA. After the EA is finalized it will be formally submitted to the BLM. The BLM will subsequently make a recommendation to the Secretary of the Interior, who will make a final determination regarding DOE's application for a Public Land Order.

Issued in Washington, DC.

Paul M. Golan,

Principal Deputy Director, Office of Civilian Radioactive Waste Management.

[FR Doc. 05–17143 Filed 8–26–05; 8:45 am]

BILLING CODE 6450–01–P

A.8 70 *FR* 76854, December 28, 2005

76854 **Federal Register** / Vol. 70, No. 248 / Wednesday, December 28, 2005 / Notices

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[NV–040–1920–ET–4662; NVN–77880; 6–08807]

Public Land Order No. 7653; Withdrawal of Public Lands for the Department of Energy To Protect the Caliente Rail Corridor; Nevada

AGENCY: Bureau of Land Management, Interior.

ACTION: Public Land Order.

SUMMARY: This order withdraws approximately 308,600 acres of public lands within the Caliente Rail Corridor, Nevada, from surface entry and the location of new mining claims, subject to valid existing rights, for a period of 10 years to allow the Department of Energy to evaluate the lands for the potential construction, operation, and maintenance of a rail line which would be used to transport spent nuclear fuel and high-level radioactive waste to the proposed Yucca Mountain Repository as part of the Department of Energy's responsibility under the Nuclear Waste Policy Act, as amended, 42 U.S.C. 10101 *et seq.*

DATES: Effective Date: December 28, 2005.

FOR FURTHER INFORMATION CONTACT: Dennis J. Samuelson, BLM Nevada State Office, P.O. Box 12000, Reno, Nevada 89520, 775–861–6532.

SUPPLEMENTARY INFORMATION: The evaluation of the Caliente Rail Corridor will assist the Department of Energy to determine through the preparation of the Caliente Corridor rail alignment environmental impact statement, conducted pursuant to the National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321 *et seq.*, whether to construct the rail line in that location. Construction of a rail line within the Caliente Rail Corridor would require that the Department of Energy apply for and receive a right-of-way grant from the Bureau of Land Management in accordance with the Federal Land Policy and Management Act, as amended, 43 U.S.C. Subchapter V.

Order

By virtue of the authority vested in the Secretary of the Interior by section 204 of the Federal Land Policy and Management Act of 1976, 43 U.S.C. 1714 (2000), it is ordered as follows:

1. Subject to valid existing rights, the following described public lands are hereby withdrawn from settlement, sale, location, or entry under the general land laws, including the United States mining laws (30 U.S.C. Ch. 2 (2000)), but not from leasing under the mineral leasing laws, for a period of 10 years, to allow the Department of Energy to evaluate lands within the Caliente Rail Corridor for the potential construction, operation, and maintenance of a rail line which would be used to transport spent nuclear fuel and high-level radioactive waste to the proposed Yucca Mountain Repository as part of the Department of Energy's responsibility under the Nuclear Waste Policy Act, as amended, 42 U.S.C. 10101 *et seq.*

A corridor 1-mile in width that contains a portion of, or is wholly encompassed within the following sections and/or quarter sections and government lots:

T. 1 N., R. 43 E.,
- Sec. 23, S½;
- Sec. 24, NE¼ and S½;
- Secs. 25 and 26;
- Sec. 27, E½;
- Secs. 34, 35, and 36.

T. 1 S., R. 43 E.,
- Sec. 1, lots 2, 3, and 4, S½NW¼, and SW¼;
- Secs. 2 and 3;
- Sec. 4, E½;
- Sec. 9, E½;
- Secs. 10 and 11;
- Sec. 12, W½;
- Sec. 13;
- Sec. 14, E½ and NW¼;
- Sec. 15;
- Sec. 16, E½;
- Sec. 21;
- Sec. 22, NE¼ and W½;
- Sec. 23, NE¼;
- Sec. 24;
- Sec. 25, E½;
- Sec. 27, W½;
- Secs. 28 and 33;
- Sec. 34, W½.

T. 2 S., R. 43 E.,
- Sec. 3, lots 3 and 4, S½NW¼, and SW¼;
- Secs. 4 and 9;
- Sec. 10, W½;
- Sec. 15, W½;
- Sec. 16 (except patented land);
- Sec. 20, SE¼ (except patented land);
- Sec. 21 (except patented land);
- Sec. 22, W½ (except patented land);
- Sec. 27, SW¼ (except patented land);
- Sec. 28 (except patented land);

Sec. 29, E½ (except patented land);
Sec. 32, NE¼ (except patented land);
Secs. 33 and 34 (except patented land);
Sec. 35, W½ and SE¼ (except patented land);
Sec. 36, SW¼.
T. 3 S., R. 43 E.,
Secs. 1, 2, and 3 (except patented land);
Sec. 4, NE¼ (except patented land);
Sec. 10 (except patented land);
Secs. 11 and 12;
Sec. 13, NE¼ and W½;
Sec. 14;
Sec. 15, E½;
Sec. 22, E½;
Secs. 23 to 26, inclusive;
Sec. 27, E½;
Sec. 34, E½;
Secs. 35 and 36.
T. 4 S., R. 43 E.,
Sec. 1, lots 2, 3, and 4, S½NE¼, S½NW¼, and SW¼;
Sec. 2;
Sec. 3; lots 1 and 2, S½NE¼, and S½;
Secs. 10 and 11;
Sec. 12, W½;
Secs. 14, 15, and 22;
Sec. 23, W½;
Sec. 26, NW¼;
Sec. 27;
Sec. 28, E½;
Sec. 33;
Sec. 34, NE¼ and W½.
T. 5 S., R. 43 E., Unsurveyed
Sec. 3, NW¼;
Secs. 4, 5, 8, 9, 15, and 16;
Sec. 17 (except patented land);
Secs. 21, 22, 27, 28, 33, 34, and 35.
T. 6 S., R. 43 E., Unsurveyed
Secs. 1, 2, 3, Secs. 10 to 15, inclusive, and Sec. 23;
Secs. 24 and 25 (except patented land);
Sec. 26;
Sec. 27, E½;
Sec. 34, E½;
Secs. 35 and 36.
T. 7 S., R. 43 E., Unsurveyed
Secs. 1 and 2;
Sec. 3, E½;
Secs. 11 to 14, inclusive, Secs. 24 and 25.
T. 1 N., R. 44 E.,
Sec. 19, lots 2, 3, and 4, E½SW¼, and E½;
Secs. 20, 21, and 22;
Sec. 23, W½ and SE¼;
Sec. 24, S½;
Secs. 25 and 26;
Sec. 27, N½;
Sec. 28, N½;
Sec. 29, N½;
Sec. 30, lots 1, 2, and 3, NE¼, E½NW¼, and E½SW¼.
T. 7 S., R. 44 E., Partially Surveyed
Secs. 6, 7, 17, 18, 19, and 20;
Sec. 21, NE¼ and N½NW¼;
Sec. 27;
Sec. 29, W½;
Sec. 29, SE¼ (reserved minerals only);
Secs. 30 and 31.
T. 8 S., R. 44 E., Partially Surveyed
Sec. 2, E½;
Sec. 9, N½ (reserved minerals only);
Sec. 9, S½;
Sec. 10, N½ (reserved minerals only);
Sec. 10, S½;
Sec. 11, SW¼;
Sec. 12, E½;
Secs. 13 to 16, inclusive;
Sec. 22, NE¼;
Secs. 23 to 26, inclusive, and Sec. 36.
T. 1 N., R. 45 E.,
Sec. 19, lot 4, E½SW¼, and SE¼;
Sec. 20, S½;
Sec. 25, S½;
Sec. 26, NW¼ and S½;
Secs. 27 to 30, inclusive;
Sec. 32, N½;
Sec. 33, N½;
Sec. 34, N½;
Secs. 35 and 36.
T. 8 S., R. 45 E., Unsurveyed
Sec. 19 and Secs. 28 to 33, inclusive.
T. 9 S., R. 45 E., Unsurveyed
Secs. 2 to 6, inclusive, Secs. 8 to 14, inclusive, and Sec. 24.
T. 1 N., R. 46 E.,
Sec. 25, NE¼ and S½;
Sec. 26, S½;
Sec. 27, S½;
Sec. 28, S½;
Sec. 29, S½;
Sec. 30, lot 4, E½SW¼, and SE¼;
Secs. 31 to 36, inclusive.
T. 9 S., R. 46 E., Unsurveyed
Sec. 7 and Secs. 17 to 21, inclusive;
Sec. 22, SW¼;
Secs. 26 to 29, inclusive, and Secs. 33 to 36, inclusive.
T. 10 S., R. 46 E., Unsurveyed
Secs. 1, 2, 12, and 13.
T. 1 N., R. 47 E.,
Sec. 1, lots 1 to 4, inclusive, S½NE¼, S½NW¼, and SW¼;
Sec. 2;
Sec. 3, SE¼;
Secs. 10 and 11;
Sec. 12, NW¼;
Sec. 14, NW¼;
Sec. 15;
Sec. 16, NE¼ and S½;
Sec. 20, NE¼ and S½;
Sec. 21;
Sec. 22, NE¼ and W½;
Sec. 28, NE¼ and W½;
Secs. 29 and 30;
Sec. 31, lots 1, 2 and 3, NE¼, and E½NW¼;
Sec. 32 NW¼.
T. 2 N., R. 47 E.,
Sec. 25, NE¼ and S½;
Sec. 35, E½;
Sec. 36.
T. 10 S., R. 47 E., Partially Surveyed
Sec. 6, SW¼;
Secs. 7 and 8;
Sec. 9, SW¼;
Sec. 15, NW ¼ and S½;
Secs. 16, 17, and 18;
Sec. 21, N½ and SE½;
Sec. 22, E½NE¼, W½, and SE¼SE¼;
Sec. 23, S½NW¼ and SW¼;
Sec. 26, W½;
Sec. 27; E½ and SW¼SW¼;
Sec. 28, NE¼;
Sec. 34;
Sec. 35, W½ and SE¼.
T. 11 S., R. 47 E.,
Sec. 1, SW¼;
Sec. 2;
Sec. 3, lots 1 and 2, S½NE¼, and SE¼;
Sec. 11;
Sec. 12, W½ and SE¼;
Sec. 13;
Sec. 14, N½ and SE¼;
Sec. 24, N½ and SE¼;
Sec. 25, NE¼.
T. 2 N., R. 48 E.,
Sec. 2, lots 3 and 4, and S½NW¼;
Sec. 3;
Sec. 4, lot 1, S½NE¼, and S½;
Sec. 8, E½;
Sec. 9;
Sec. 10, NE¼ and W½;
Sec. 16, NE¼ and W½;
Sec. 17;
Sec. 18, SE¼;
Sec. 19, lots 3 and 4, E½, and E½SW¼;
Sec. 20;
Sec. 21, NW¼;
Sec. 29, NW¼;
Sec. 30;
Sec. 31, lots 1 to 4, inclusive, NE¼, and E½NW¼.
T. 3 N., R. 48 E.,
Sec. 13, E½ and SW¼;
Sec. 23, E½;
Sec. 24;
Sec. 25, N½ and SW¼;
Sec. 26;
Sec. 27, SE¼;
Secs. 34 and 35;
Sec. 36, NW¼.
T. 11 S., R. 48 E., Unsurveyed
Sec. 7, S½;
Secs. 8 to 11, inclusive, Secs. 14 to 22, inclusive, and Secs. 27 to 34, inclusive.
T. 12 S., R. 48 E., Unsurveyed
Secs. 2 to 6, inclusive;
Sec. 9, NE¼;
Secs. 10 and 11;
Sec. 13, SW¼;
Secs. 14, 15, and Secs. 23 to 26, inclusive;
Sec. 35, E½;
Sec. 36.
T. 13 S., R. 48 E., Unsurveyed
Secs. 9, 10, 14, 15, 16, and Secs. 22 to 26, inclusive;
Sec. 36, NE¼.
T. 3 N., R. 49 E.,
Sec. 2, lots 3 and 4, and S½NW¼;
Secs. 3 and 4;
Sec. 5, SE¼;
Sec. 7, E½SW¼ and SE¼;
Secs. 8 and 9;
Sec. 10, NW¼;
Sec. 16, NW¼;
Sec. 17, N½ and SW¼;
Sec. 18;
Sec. 19, lots 1, 2, and 3, NE¼, and E½NW¼.
T. 4 N., R. 49 E.,
Sec. 24, SE¼;
Sec. 25;
Sec. 26, NE¼ and S½;
Sec. 33, SE¼;
Secs. 34 and 35;
Sec. 36, N½ and SW¼.
T. 12 S., R. 49 E., Unsurveyed
Sec. 31.
T. 13 S., R. 49 E., Unsurveyed
Secs. 13, 14,
Secs. 22 to 27, inclusive, and
Secs. 29 to 36, inclusive.
T. 14 S., R. 49 E., Unsurveyed
Secs. 1 to 5, inclusive,
Secs. 8 to 11, inclusive,
Secs. 15 and 16.
T. 4 N., R. 49½ E., Unsurveyed
Secs. 25, 26, 27, 34, 35, and 36.

T. 1 N., R. 50 E.,
Sec. 1, lots 1 and 2, S½NE¼, and SE¼;
Sec. 12, NE¼ (excluding Kawich Wilderness Study Area).
T. 2 N., R. 50 E.,
Sec. 1;
Sec. 2, lots 1 and 2, S½NE¼, and SE¼;
Sec. 11, E½;
Secs. 12 and 13;
Sec. 14, NE¼;
Secs. 24 and 25;
Sec. 36, E½ and NW¼.
T. 3 N., R. 50 E., Unsurveyed
Secs. 2, 3, 4, 10, 11, and 14;
Sec. 15, E½;
Sec. 22, NE¼;
Secs. 23 to 26, inclusive, Secs. 35 and 36.
T. 3½ N., R. 50 E., Unsurveyed
Secs. 33 and 34.
T. 4 N., R. 50 E., Partially Surveyed
Secs. 30 and 31;
Sec. 32, SW¼.
T. 13 S., R. 50 E., Unsurveyed
Secs. 30 and 31.
T. 1 N., R. 51 E.,
Sec. 6 (excluding South Reveille Wilderness Study Area);
Sec. 7 (excluding Kawich and South Reveille Wilderness Study Areas);
Sec. 17 (excluding South Reveille Wilderness Study Area);
Sec. 18 (excluding Kawich and South Reveille Wilderness Study Areas);
Sec. 19 NE¼ (excluding Kawich Wilderness Study Area);
Sec. 20 and 28 (excluding South Reveille Wilderness Study Area);
Sec. 29, E½ and NW¼;
Sec. 33, E½ and NW¼;
Sec. 34 (excluding South Reveille Wilderness Study Area).
T. 2 N., R. 51 E.,
Sec. 18, lots 3 and 4;
Sec. 19, lots 1 to 4, inclusive, E½NW¼, and E½SW¼;
Sec. 30, lots 1 to 4, inclusive, E½NW¼, E½SW¼, and SE¼;
Sec. 31, (excluding South Reveille Wilderness Study Area).
T. 1 S., R. 51 E., Unsurveyed
Sec. 2, (excluding South Reveille Wilderness Study Area);
Sec. 3;
Secs. 11, 12, and 13 (excluding South Reveille Wilderness Study Area);
Sec. 14, E½;
Sec. 24; Sec. 25, E½;
Sec. 36, E½.
T. 1 S., R. 51½ E., Unsurveyed
Secs. 19, 29, and 30 (excluding South Reveille Wilderness Study Area);
Sec. 31;
Sec. 32 (excluding South Reveille Wilderness Study Area).
T. 2 S., R. 51½ E., Unsurveyed
Secs. 4 and 5 (excluding South Reveille Wilderness Study Area);
Secs. 6, 7, and 8;
Sec. 9, (excluding South Reveille Wilderness Study Area);
secs, 16 and 17;
Sec. 18, NE¼;
Sec. 20, NE¼;
Sec. 21.
T. 2 S., R. 52 E., Unsurveyed
Secs. 7 and 11 (excluding South Reveille Wilderness Study Area);
Secs 12 and 13;
Secs. 14 to 18, inclusive (excluding South Reveille Wilderness Study Area);
Secs. 19, 20, and 21;
Sec. 22, N½;
Sec. 23, N½.
T. 1 S., R. 53 E.,
Sec. 25;
Sec. 35, E½ and SW¼;
Sec. 36.
T. 2 S., R. 53 E.,
Sec. 1, lots 3 and 4, and S½NW¼;
Sec. 2;
Sec. 3, lot 1, S½NE¼, and S½;
Sec. 7, lot 4, E½SW¼, and SE¼;
Sec. 8, S½;
Secs. 9 and 10;
Sec. 11, N½ and SW¼;
Sec. 15, N½;
Sec. 16, N½ and SW¼;
Secs. 17 and 18.
T. 1 S., R. 54 E.,
Sec. 1, S½NE¼ and S½;
Sec. 10, SE¼;
Secs. 11 and 12;
Sec. 13, N½;
Secs. 14 and 15;
Sec. 16, SE¼;
Sec. 19, lots 3 and 4, E½SW¼, and SE¼;
Sec. 20, S½;
Secs. 21 and 22;
Sec. 23, NW¼;
Sec. 28, N½ and SW¼;
Secs. 29 and 30;
Sec. 31, lots 1 and 2, and E½NW¼;
Sec. 32, NW¼.
T. 1 N., R. 55 E.,
Sec. 13, S½;
Sec. 14, SE¼;
Sec. 21, S½;
Sec. 22, NE¼ and S½;
Secs. 23 and 24;
Sec. 25, NW¼;
Sec. 26, N½;
Secs. 27 and 28;
Sec. 29, NE¼ and S½;
Sec. 30, SE¼;
Secs. 31 and 32;
Sec. 33, N½.
T. 1 S., R. 55 E.,
Sec. 5, lot 4 and S½NW¼;
Sec. 6;
Sec. 7, lots 1, 2, and 3, NE¼, and E½NW¼.
T. 1 N., R. 56 E., Partially Surveyed
Sec. 1;
Sec. 2, S½NE¼ and SE¼;
Sec. 9, S½;
Secs. 10 and 11;
Sec. 12, NE¼ and W½;
Sec. 13, NW¼;
Sec. 14, N½;
Secs. 15, 16, and 17;
Sec. 18, lots 3 and 4, E½, and E½SW¼;
Sec. 19, lots 1, 2, 3, NE¼, E½NW¼, NE¼SW¼, and NW¼SE¼;
Sec. 20, N½;
Sec. 21, N½.
T. 2 N., R. 56 E., Partially Surveyed
Sec. 36.
T. 1 N., R. 57 E., Partially Surveyed
Sec. 3, lots 3 and 4, and S½NW¼;
Sec. 4, lots 1 to 4, inclusive, and S½NW¼;
Sec. 5, lots 1 to 4, inclusive, S½NE¼, S½NW¼, and W½SW¼;
Sec. 6.
T. 2 N., R. 57 E.,
Sec. 13;
Sec. 14, SE¼;
Sec. 22, S½;
Secs. 23 to 28, inclusive;
Sec. 29, S½;
Sec. 31, lots 3 and 4, E½, and E½SW¼;
Secs. 32 to 35, inclusive;
Sec. 36, NE¼ and W½.
T. 2 N., R. 58 E.,
Sec. 2, lots 3 and 4, and S½NW¼;
Secs. 3 and 4;
Sec. 5, S½;
Sec. 7, lot 4, E½SW¼, and E½;
Sec. 8;
Sec. 9, NE¼ and W½;
Sec. 10, NW¼;
Sec. 13, SW¼ and S½SE¼;
Sec. 17, NE¼ and W½;
Sec. 18;
Sec. 19, lots 1 and 2, and E½NW¼;
Sec. 20, S½;
Sec. 21, S½;
Sec. 22, NE¼ and S½;
Secs. 23 and 24;
Sec. 25, N½;
Sec. 26, N½;
Secs. 27 to 30, inclusive;
Sec. 31, lots 1 and 2, NE¼, and E½NW¼;
Sec. 32, N½.
T. 3 N., R. 58 E.,
Sec. 24, SE¼;
Sec. 25;
Sec. 26, NE¼ and S½;
Sec. 33, SE¼;
Secs. 34 and 35;
Sec. 36, N½ and SW¼.
T. 2 N., R. 59 E.,
Sec. 2, lots 2, 3, and 4, and S½NW¼;
Sec. 3, lots 1 to 4, inclusive, S½NE¼, and S½NW¼;
Sec. 4;
Sec. 8, NE¼ and S½;
Sec. 9;
Sec. 16, N½ and SW¼;
Secs. 17, 18, and 19;
Sec. 20, NW¼.
T. 3 N., R. 59 E.,
Sec. 12, E½ and SW¼;
Sec. 13;
Sec. 14, SE¼;
Sec. 19, lots 3 and 4, NE¼, E½SW¼, and SE¼;
Sec. 20;
Sec. 21, S½SW¼ and SE¼;
Sec. 22, NE¼ and S½;
Secs. 23 to 28, inclusive;
Sec. 29, N½;
Sec. 30;
Sec. 33, SE¼;
Secs. 34, 35, and 36.
T. 2 N., R. 60 E., Unsurveyed
Sec. 1.
T. 3 N., R. 60 E., Unsurveyed
Secs. 5 to 8, inclusive, Secs. 18 to 22, inclusive, Secs. 25 to 31, inclusive, Secs. 34, 35, and 36.
T. 4 N., R. 60 E.,
Sec. 20, SE¼;
Sec. 21, S½;
Secs. 22, 23, and 24;
Sec. 25, N½;
Sec. 26, N½;
Sec. 27, E½NE¼ and W½;
Secs. 28 and 29;
Sec. 30, SE¼;

Sec. 31, lots 3 and 4, E½, and E½SW¼;
Sec. 32;
Sec. 33, NW¼.
T. 2 N., R. 61 E., Unsurveyed
Sec. 6.
T. 3 N., R. 61 E., Unsurveyed
Secs. 2, 3, 4, and Secs. 9 to 15, inclusive;
Sec. 22, SE¼;
Secs. 23 and 24;
Sec. 25 (excluding Weepah Spring Wilderness Area);
Secs. 26 to 33, inclusive.
Secs. 34, 35, and 36 (excluding Weepah Spring Wilderness Area).
T. 4 N., R. 61 E.,
Sec. 19, lots 2, 3, and 4, E½SW¼, and SE¼;
Sec. 20, SW¼;
Sec. 28, SW¼;
Secs. 29 and 30;
Sec. 31, NE¼;
Secs. 32 and 33;
Sec. 34, S½.
T. 1 N., R. 62 E., Unsurveyed
Sec. 1, E½;
Sec. 12, E½;
Sec. 13.
T. 2 N., R. 62 E., Unsurveyed
Secs. 1 to 4, inclusive;
Sec. 5, N½;
Secs. 10 to 14, inclusive;
Sec. 15, NE¼;
Secs. 24 and 25;
Sec. 36, E½.
T. 3 N., R. 62 E.,
Sec. 18, lots 2, 3, and 4, E½SW¼, and SE¼;
Sec. 19;
Sec. 20, W½ and SE¼;
Sec. 28, W½ and SE¼;
Secs. 29 and 30;
Sec. 31 (excluding Weepah Spring Wilderness Area);
Secs. 32, 33, and 34, inclusive;
Sec. 35, SW¼.
T 1 N., R. 63 E., Unsurveyed
Secs. 6, 7, 8, Secs. 17 to 21, inclusive, and Secs. 26 to 30, inclusive;
Secs. 32 and 35, inclusive.
T. 1 S., R. 63 E., Unsurveyed
Secs. 1, 2, 11, 12, and 13.
T. 2 N., R. 63 E.,
Sec. 7, lots 1 to 4, inclusive, E½NW¼, E½SW¼, and SE¼;
Secs. 18, 19, 30, and 31.
T. 1 S., R. 64 E.,
Sec. 7, lots 2, 3, and 4, E½NW¼, E½SW¼, and SE¼;
Sec. 15, SW¼;
Sec. 16, S½;
Secs. 17 and 18;
Sec. 19, NE¼ and E½NW¼;
Secs. 20 to 23, inclusive;
Sec. 24, NW¼ and S½;
Sec. 25;
Sec. 26, N½;
Sec. 27, N½.
T. 1 S., R. 65 E.,
Sec. 19, lots 3 and 4, E½SW¼, and SE¼;
Sec. 20, SW¼;
Sec. 27, W½ and SE¼;
Secs. 28, 29, and 30;
Sec. 32, N½;
Sec. 33, N½ and SE¼;
Sec. 34;
Sec. 35, NW¼ and S½.
T. 2 S., R. 65 E.,
Sec. 1, S½NW¼ and SW¼;
Sec. 2;
Sec. 3, lots 1, 2, and 3, S½NE¼, S½NW¼, and SE¼;
Secs. 11, 12, and 13;
Sec. 14, NE¼.
T. 2 S., R. 66 E., Unsurveyed
Secs. 1 to 5, inclusive, Secs. 7 to 14, inclusive, Secs. 16, 17, 18, 20, and 24;
Secs. 16 to 18, inclusive.
T. 2 S., R. 67 E.,
Sec. 7, E½SE¼;
Sec. 8, S½;
Sec. 9, SW¼;
Sec. 14, SW¼ and W½SE¼;
Sec. 15, NW¼ and S½;
Secs. 16 to 20, inclusive;
Sec. 21, N½ and SE¼;
Sec. 22;
Sec. 23, NE¼NE¼, W½NE¼, W½, and SE¼;
Sec. 24, NW¼SW¼, S½SW¼, and NW¼SE¼;
Sec. 25 NW¼NW¼;
Sec. 26, NE¼;
Sec. 29, NW¼;
Sec. 30, lots 1 and 2, NE¼, and E½NW¼;
Sec. 35, NW¼NE¼;
Sec. 36, W½NE¼, SE¼NE¼, E½NW¼, E½SW¼, SW¼SW¼, and SE¼.
T. 3 S., R. 67 E.,
Sec. 1;
Secs. 12 and 13;
Sec. 16, E½;
Sec. 20, SE¼;
Sec. 21, W½NE¼, SW¼, NW¼SE¼, and N½SW¼SE¼;
Sec. 23, E½;
Secs. 24 and 25;
Sec. 28, W½NW¼, S½SW¼, and SE¼;
Sec. 29, NE¼, SW¼, N½SE¼, and SE¼SE¼;
Sec. 32, E½NE¼, NW¼, W½SW¼, NE¼SW¼, and E½SE¼;
Sec. 33, lots 2 and 3, and NW¼;
Sec. 35, E½;
Sec. 36.
T. 4 S., R. 67 E.,
Sec. 1;
Sec. 2, lots 1 and 2, S½NE¼, and SE¼;
Sec. 4, lots 3 and 4, S½NW¼, and SW¼;
Sec. 5, lots 1 and 4, SE¼NE¼, SW¼NW¼, NW¼SW¼, NE¼SE¼, and S½SE¼;
Sec. 6, lot 1, S½NE¼, and SE¼;
Sec. 7, lot 5;
Sec. 8, S½SE¼;
Sec. 9, N½NW¼ and SW¼;
Sec. 12, NE¼, N½NW¼, SE¼NW¼, and SE¼.
T. 2 S., R. 68 E.,
Sec. 23, S½;
Secs. 25 to 29, inclusive;
Sec. 30, E½, SE¼NW¼, and E½SW¼;
Sec. 31, NE¼ and E½NW¼;
Sec. 32, N½;
Sec. 33, N½;
Sec. 34, N½;
Sec. 35, N½;
Sec. 36.
T. 3 S., R. 68 E.,
Sec. 1;
Sec. 12, NE¼;
Sec. 19, lots 3 and 4, and E½SW¼;
Sec. 30, lots 1 to 4, inclusive, E½NW¼, and E½SW¼;
Sec. 31, lots 1 and 2, and E½NW¼.
T. 4 S., R. 68 E.,
Sec. 6, lots 5, 6, and 7, SE¼NW¼, E½SW¼, and SE¼;
Sec. 7, lots 2, 3, and 4, NE¼, E½SW¼, and SE¼;
Sec. 8, W½;
Sec. 17, NW¼;
Sec. 18, lot 1, NE¼, E½NW¼.
T. 2 S., R. 69 E.,
Sec. 30, lots 3 and 4, and E½SW¼;
Sec. 31, lots 1 to 4, inclusive, E½NW¼, E½SW¼, and SE¼;
Sec. 32, S½;
Sec. 33, S½.
T. 3 S., R. 69 E.,
Sec. 3, lot 4, S½NW¼, SW¼, and SE¼;
Secs. 4 to 7, inclusive;
Sec. 8, W½;
Sec. 9, E½ and NW¼;
Sec. 10;
Sec. 11, SW¼;
Sec. 13, S½;
Secs. 14 and 15;
Sec. 22, NE¼;
Secs. 23 and 24;
Sec. 25, N½.
T. 3 S., R. 70 E.,
Sec. 8, S½;
Sec. 9, S½;
Sec. 10, S½;
Sec. 11, S½;
Sec. 12, S½;
Secs. 13 to 17, inclusive;
Sec. 18; lots 8 to 12, inclusive, and E½;
Sec. 19; sec. 20, N½;
Sec. 22, NE¼;
Sec. 23, N½;
Sec. 24, NW¼.

2. This order does not authorize the construction, operation, or maintenance of a rail line to transport spent nuclear fuel and high-level radioactive waste to the Yucca Mountain Repository.

3. All public lands included in this withdrawal will be managed in accordance with applicable Bureau of Land Management land use plans, laws, regulations, and policy. The actions of the Department of Energy in evaluation of the lands covered by this withdrawal will meet the Bureau of Land Management's definition of ''casual use'' as set forth at 43 CFR 2801.5. The withdrawal made by this order does not alter the applicability of those public land laws governing the use of the lands under lease, license, or permit, or governing the disposal of their mineral or vegetative resources other than under the mining laws.

4. This withdrawal will expire 10 years from the effective date of this order unless, as a result of a review conducted before the expiration date pursuant to section 204(f) of the Federal Land Policy and Management Act of 1976, 43 U.S.C. 1714(f) (2000), the Secretary determines that the withdrawal shall be extended.

(Authority: 43 U.S.C. 1714(a); 43 CFR 2310.3–3(b)(1))

Dated: December 21, 2005.

Mark Limbaugh,

Assistant Secretary of the Interior.

[FR Doc. 05–24579 Filed 12–27–05; 8:45 am]

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A.9 71 *FR* 60484, October 13, 2006

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DEPARTMENT OF ENERGY

Amended Notice of Intent To Expand the Scope of the Environmental Impact Statement for the Alignment, Construction, and Operation of a Rail Line to a Geologic Repository at Yucca Mountain, Nye County, NV

AGENCY: Department of Energy.

ACTION: Amended notice of intent.

SUMMARY: The Department of Energy (DOE or the Department) is providing this Amended Notice of Intent to expand the scope of the ongoing Environmental Impact Statement for the Alignment, Construction and Operation of a Rail Line to a Geologic Repository at Yucca Mountain, Nye County, Nevada (DOE/EIS–0369, Rail Alignment EIS, Notice of Intent, April 8, 2004, 69 FR 18565). In the ongoing Rail Alignment EIS, DOE has undertaken an analysis of alternative rail alignments in which to construct and operate a rail line within what is referred to as the Caliente corridor. Based on new information, DOE now plans to expand the Rail Alignment EIS to incorporate analysis of a new rail corridor alternative. This additional analysis will supplement the corridor analyses in the ''Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada'' (DOE/EIS–0250F, Yucca Mountain Final EIS, February 2002). The expanded analysis will consider the potential environmental impacts of a newly proposed Mina rail corridor at the same level of corridor analysis as is contained in the Yucca Mountain Final EIS, and will review the rail corridor analyses of that Final EIS, and update, as appropriate. The expanded scope will then proceed to include a detailed analysis of alternative alignments within the Mina corridor at the same level of analysis of the ongoing alignment analysis for the Caliente corridor. The result will be to provide the public with information concerning both the potential corridor and alignment impacts of the Mina corridor at the same time DOE presents the potential impacts for the construction and operation of a rail line within the Caliente corridor. The expanded EIS will be entitled the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS (DOE/EIS–0250F–S2 and DOE/EIS–0369).

On April 8, 2004 (69 FR 18557), the Department issued a Record of Decision announcing its selection, both nationally and in the State of Nevada, of the mostly rail scenario analyzed in the Yucca Mountain Final EIS. This decision will ultimately require the construction of a rail line to connect the repository site at Yucca Mountain to an existing rail line in the State of Nevada for the shipment of spent nuclear fuel and high-level radioactive waste. To that end, the Department also selected the Caliente rail corridor in which to examine possible alignments for construction of that rail line. On April 8, 2004 (69 FR 18565), DOE issued a Notice of Intent to prepare an EIS under the National Environmental Policy Act (NEPA) for the alignment, construction, and operation of a rail line for shipments of spent nuclear fuel, high-level radioactive waste, and other materials from a site near Caliente, Nevada, to a geologic repository at Yucca Mountain, Nevada (the Rail Alignment EIS).

During subsequent public scoping, DOE received comments that offered preferences for various rail corridors analyzed in detail in the Yucca Mountain Final EIS, and identified other rail corridors for consideration. In particular, commenters recommended that DOE consider the Mina route, which would include use of an existing rail line from Hazen, Nevada, to the Thorne siding in Hawthorne, Nevada, and the construction of new rail line that would follow an abandoned rail line nearly to Yucca Mountain.

In the Yucca Mountain Final EIS, DOE considered, but eliminated from detailed study, several potential rail routes. One of those potential rail routes, the Mina route, could only connect to an existing rail line by crossing the Walker River Paiute Tribe Reservation northwest of Hawthorne, Nevada, and the Tribe had informed DOE that it would refuse to allow nuclear waste to be transported across its reservation (letter dated December 6, 1991). For this reason, the Department considered the Mina route to pose an unavoidable land use conflict and thus to be unavailable for further consideration.

Following review of the scoping comments for the Rail Alignment EIS, DOE held discussions with the Walker River Paiute Tribe regarding the availability of the Mina route. Subsequently, in May 2006, the Walker River Paiute Tribe informed DOE that the Tribal Council had withdrawn its objection to the completion of an EIS studying the transportation of nuclear waste across its reservation. The Tribe stated that its Tribal Council had not decided to allow such shipments, but indicated that inclusion of the Mina route in an EIS would allow the Tribe

to make a more informed, final decision about the matter.

In view of the Tribal Council's decision, DOE initiated a study to determine the feasibility of the Mina route, and to identify a specific corridor (Mina corridor) and associated preliminary alternative alignments (described below under Mina Alternative Alignments). Based on DOE's preliminary analysis, in comparison with other rail corridors, the Mina corridor appears to offer potential advantages to the extent it would cross fewer mountain ranges, utilize existing rail bed, and also be a shorter distance. These potential advantages would simplify design and construction of a rail line, and therefore would be less costly to construct. The Mina corridor also would appear to have fewer land use conflicts, and would involve less land disturbance, which tends to result in lower adverse environmental impacts overall.

For these reasons, DOE has concluded that the Mina corridor warrants further detailed study. Accordingly, DOE is announcing its intent to expand the scope of the Rail Alignment EIS to supplement the rail corridor analyses of the Yucca Mountain Final EIS, and analyze the Mina corridor. This Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS [1] also will consider, in detail, alignments for the construction and operation of a rail line within the Caliente and Mina rail corridors.

DATES: The Department invites comments on the scope of the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS to ensure that all relevant environmental issues and reasonable alternatives are addressed. Public scoping meetings are discussed below in the **SUPPLEMENTARY INFORMATION** section. DOE will consider all comments received during the 45-day public scoping period, which starts with publication of this Amended Notice of Intent and ends November 27, 2006. Comments received after this date will be considered to the extent practicable.

ADDRESSES: Requests for additional information on the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS or transportation planning in general should be directed to: Mr. M. Lee Bishop, EIS Document Manager, Office of Logistics Management, Office of Civilian Radioactive Waste Management, U.S. Department of Energy, 1551 Hillshire Drive, M/S 011, Las Vegas, NV 89134, Telephone 1–800–967–3477. Written comments on the scope of the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS may be submitted to Mr. M. Lee Bishop at this address, by facsimile to 1–800–967–0739, or via the Internet at *http://www.ocrwm.doe.gov* under the caption, What's New.

FOR FURTHER INFORMATION CONTACT: For general information regarding the DOE NEPA process contact: Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Compliance, U.S. Department of Energy, 1000 Independence Ave., SW., Washington, DC 20585, Telephone 202–586–4600, or leave a message at 1–800–472–2756.

SUPPLEMENTARY INFORMATION:

Background

On July 23, 2002, the President signed into law (Pub. L. 107–200) a joint resolution of the U.S. House of Representatives and the U.S. Senate designating the Yucca Mountain site in Nye County, Nevada, for development as a geologic repository for the disposal of spent nuclear fuel and high-level radioactive waste. Subsequently, the Department issued a Record of Decision (April 8, 2004) to announce its selection, both nationally and in the State of Nevada, of the mostly rail scenario analyzed in the Yucca Mountain Final EIS as the mode of transportation for spent nuclear fuel and high-level radioactive waste to the repository. Under the mostly rail scenario, the Department would rely on a combination of rail, truck and possibly barge to transport to the repository site at Yucca Mountain up to 70,000 metric tons of heavy metal of spent nuclear fuel and high-level radioactive waste. Most of the spent nuclear fuel and high-level radioactive waste, however, would be transported by rail.

The Department's decision to select the mostly rail scenario in Nevada ultimately will require the construction of a rail line [2] to connect the repository site at Yucca Mountain to an existing rail line in the State of Nevada for the shipment of spent nuclear fuel and high-level radioactive waste in the event the Nuclear Regulatory Commission authorizes construction of the repository, and receipt and possession of these materials at Yucca Mountain. To that end, in the same Record of Decision, the Department also decided to select the Caliente rail corridor [3] to study possible alignments for this proposed rail line. The Caliente rail corridor originates at an existing siding to the Union Pacific railroad near Caliente, Nevada, and extends in a westerly direction to the northwest corner of the Nevada Test and Training Range, before turning south-southeast to the repository at Yucca Mountain. The Caliente corridor ranges between 512 kilometers (318 miles) and 553 kilometers (344 miles) in length, depending on the alternative alignments considered.

On April 8, 2004, DOE issued a Notice of Intent to prepare an EIS under NEPA for the alignment, construction, and operation of a rail line for shipments of spent nuclear fuel, high-level radioactive waste, and other materials [4] from a site near Caliente, Nevada to a geologic repository at Yucca Mountain, Nevada. During subsequent public scoping, DOE received comments that offered preferences for various rail corridors analyzed in detail in the Yucca Mountain Final EIS, and identified other rail corridors for consideration. In particular, commenters recommended that DOE consider ''the Mina route,'' which would include use of an existing rail line from Hazen, Nevada, to the Thorne siding at Hawthorne, Nevada, and the construction of new rail line that would follow an abandoned rail line nearly to Yucca Mountain.

In the Yucca Mountain Final EIS, DOE considered, but eliminated from detailed study, the Mina route and several other potential rail routes (see Section 2.3.3.1). These other potential rail routes were identified in a series of three transportation studies—''Preliminary Rail Access Study'' (January, 1990), the ''Nevada Potential Repository Preliminary Transportation Strategy, Study 1'' (February, 1995), and the ''Nevada Potential Repository Preliminary Transportation Strategy, Study 2'' (February, 1996). Based on the latter (1996) study and public scoping, five potential rail corridors were considered in detail in the Yucca Mountain Final EIS.

In the 1996 study, the Mina route was not recommended for further study, because a rail line within the Mina route could only connect to an existing rail line by crossing the Walker River Paiute

[1] Coincident with this Amended Notice of Intent, DOE is publishing a Notice of Intent to prepare a Supplemental Yucca Mountain EIS (DOE/EIS–0250F–S1). That Supplement will consider the current repository design and plans for its construction and operation, and the transportation of spent nuclear fuel and high-level radioactive waste from sites around the United States to the repository at Yucca Mountain.

[2] Rail line means the railroad track and underlying earthworks.

[3] A corridor is a strip of land 400 meters (0.25 mile) wide through which DOE would identify an alignment for the construction of a rail line.

[4] Other materials are those related to the construction and operation of the repository.

Tribe Reservation, and the Tribe had informed DOE that it would refuse to allow nuclear waste to be transported across its reservation (letter dated December 6, 1991). For this reason, the Department considered the Mina route to pose an unavoidable land use conflict and thus to be unavailable for further consideration (see Section 2.3.3.1 in the Yucca Mountain Final EIS).

Following review of the scoping comments for the Rail Alignment EIS, DOE held discussions with the Walker River Paiute Tribe regarding the availability of the Mina route. Subsequently, in May 2006, the Walker River Paiute Tribe informed DOE that the Tribal Council had withdrawn its objection to the completion of an EIS studying the transportation of nuclear waste across its reservation. The Tribe stated that its Tribal Council had not decided to allow such shipments, but indicated that inclusion of the Mina route in an EIS would allow the Tribe to make a more informed, final decision about the matter.

In view of the Tribal Council's decision, DOE initiated a study to determine the feasibility of the Mina route, and to identify a specific corridor (the Mina corridor) and associated preliminary alternative alignments. Based on DOE's preliminary analysis, in comparison with other rail corridors, the Mina corridor appears to offer potential advantages to the extent it would cross fewer mountain ranges, utilize existing rail bed, and also be a shorter distance. These potential advantages would simplify design and construction of the rail line, and therefore would be less costly to construct. The Mina corridor also would appear to have fewer land use conflicts, and would involve less land disturbance, which tends to result in lower adverse environmental impacts overall.

For these reasons, DOE has concluded that the Mina corridor warrants further detailed study. Accordingly, DOE is announcing its intent to expand the scope of the Rail Alignment EIS to prepare a Supplemental EIS that will supplement the rail corridor analyses of the Yucca Mountain Final EIS. In the Yucca Mountain Final EIS, DOE evaluated the construction and operation of a rail line within five corridors—Caliente, Caliente-Chalk Mountain, Carlin, Jean and Valley Modified. In the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS, DOE will review the environmental information and analyses for these corridors, and update, as appropriate [5]; DOE also plans to consider the Mina corridor at a level of detail commensurate with that of the Yucca Mountain Final EIS. In addition, the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS will consider, in detail, alignments for the construction and operation of a rail line within the Caliente and Mina corridors.

The Mina corridor originates at an existing rail line near Wabuska, Nevada, where it proceeds southeasterly through Hawthorne to Blair Junction, and then on to Lida Junction. At that point, it becomes coincident with the Caliente corridor trending southeasterly through Oasis Valley before turning north-northeast to Yucca Mountain. The Mina corridor is about 450 kilometers (280 miles) in length; however, construction of new rail line would range between about 386 kilometers (240 miles) and 409 kilometers (254 miles) because the corridor includes the existing Department of Defense rail line from Wabuska to the Hawthorne Army Depot in Hawthorne.

Previous Public Scoping Comments

The Department received more than 4,100 comments during the public scoping period for the Rail Alignment EIS that ended June 1, 2004. In general, many of these comments offered preferences for various rail corridors or requested DOE to evaluate rail corridors other than Caliente, and suggested new alternative alignments or criteria (*e.g.*, avoid wilderness study areas) that could be used to modify the preliminary alignments proposed by DOE or to create new alternative alignments. These comments helped inform DOE's decision to expand the scope of the Rail Alignment EIS as discussed under Background above, and to identify the range of reasonable alternative alignments as discussed under Caliente Alternative Alignments below.

Commenters also requested that DOE allow other commodities to be shipped on the rail line by private entities (referred to herein as shared use). As described under Proposed Action below, the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS will evaluate shipments of commercial commodities, in addition to shipments of DOE materials.

DOE also received comments regarding analytical methods for various environmental resources such as cultural resources and water use, treatment of cumulative impacts and Native American concerns, the nature of the evaluation of potential accidents and sabotage, and the identification of mitigation measures. These comments and associated issues will be addressed in the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS.

Proposed Action

Under the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS, the Proposed Action is to determine a rail alignment [6] (within a rail corridor) in which to construct and operate a rail line for shipments of spent nuclear fuel, high-level radioactive waste, and other materials from an existing railroad in Nevada to a geologic repository at Yucca Mountain, Nye County, Nevada. DOE now plans to review the environmental information and analyses for four rail corridors, and update, as appropriate (Caliente, Carlin, Jean and Valley Modified), include and analyze the Mina corridor, and evaluate in detail two alternatives that would implement the Proposed Action—the Mina Alternative and the Caliente Alternative. Under each implementing alternative, DOE will evaluate the potential environmental impacts from the construction and operation of a rail line along various alternative alignments [7] and common segments.[8] As part of rail line operations, DOE also will evaluate, as an option to the Mina and Caliente implementing alternatives, the shipment of commercial commodities by private entities (shared use).

Preliminary Alternatives

As required by the Council on Environmental Quality and Departmental regulations that implement NEPA, the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS will analyze and present the environmental impacts associated with the range of reasonable alternatives to meet DOE's purpose and need for a rail line, and a no-action alternative. The preliminary alternative alignments for the Caliente and Mina rail alignments comprise a series of common segments and alternatives (maps may be obtained as described above in

[5] In a letter to the U.S. Air Force (dated December 1, 2004), DOE eliminated from detailed study alignments that would intersect the Nevada Test and Training Range because of concerns regarding military readiness testing and training activities. This letter was in response to a May 28, 2004 letter from the U.S. Air Force. For the same reasons cited in these letters, DOE does not intend to consider further the Caliente-Chalk Mountain rail corridor.

[6] A strip of land less than 400 meters (0.25 mile) wide through which the location of a rail line would be identified.

[7] A geographic region of the rail alignment for which multiple routes for the rail line have been identified.

[8] A geographic region of the rail alignment for which a single route for the rail line has been identified.

ADDRESSES). The Department is interested in identifying and subsequently evaluating any additional reasonable alternative alignments within the Caliente or Mina corridors that would reduce or avoid known or potential adverse environmental impacts, features having aesthetic values, and land-use conflicts, or alternatives that should be eliminated from detailed consideration. This could include identifying alternative alignments that could avoid environmentally sensitive areas or other land use conflicts.

Caliente Alternative Alignments

DOE's Notice of Intent (April 8, 2004) identified preliminary alternative alignments and common segments to be evaluated in the Rail Alignment EIS. The Notice of Intent also indicated that DOE would consider other potential alternatives if they would minimize, avoid or otherwise mitigate adverse environmental impacts.

Following scoping, DOE evaluated all public comments, as well as information from other sources, that could affect the preliminary alternative alignments and common segments identified in the Notice of Intent. Based on this information, DOE identified additional alternative alignments, and modified the preliminary alignments and common segments identified in the Notice of Intent to create a suite of potential alternatives. This suite was then evaluated using environmental features and engineering and design factors to determine, preliminarily, the range of reasonable alternative alignments. As an example, commenters identified alternative alignments that would avoid Garden Valley by identifying routes through Coal Valley that cross the Golden Gate Range. However, DOE found these alignments are not reasonable alternatives because they would either exceed engineering and design factors or would be far more costly to construct than other alignments that pass through Garden Valley.

On this basis, DOE has identified, preliminarily, alternative alignments at the interface with the Union Pacific Railroad near Caliente, in Garden Valley, near the Reveille Range and the Town of Goldfield, north of Scottys Junction (referred to as Bonnie Claire), and in Oasis Valley. These alternative alignments, which are described below, will be considered in detail in the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS.

Interface With Union Pacific Railroad

DOE has identified two alternative alignments, Caliente and Eccles, either of which alternative alignment would connect the proposed rail line to the existing Union Pacific Railroad in or near the City of Caliente. The Caliente alternative alignment would begin in Caliente, enter Meadow Valley Wash at Indian Cove, and extend generally north through Meadow Valley Wash and along U.S. 93. This alternative alignment would then cross U.S. 93 about 5 kilometers (3 miles) southwest of Panaca and connect to Common Segment 1 about 1 kilometer (0.6 mile) northwest of U.S. 93 and 18 kilometers (11 miles) south of Pioche. The Caliente alternative alignment would be approximately 18 kilometers (11 miles) long.

The Eccles alternative alignment would begin along Clover Creek about 8 kilometers (5 miles) east of Caliente and trend generally north to enter Meadow Valley Wash from the southeast. This alternative alignment would then cross U.S. 93 about 5 kilometers (3 miles) southwest of Panaca and connect to Common Segment 1 about 1 kilometer (0.6 mile) northwest of U.S. 93 and 18 kilometers (11 miles) south of Pioche. The Eccles alternative alignment would be about 18 kilometers (11 miles) long.

Garden Valley

DOE is considering four alternative alignments in the Garden Valley area, referred to as Garden Valley 1, 2, 3, and 8. Garden Valley 1 would run due west through the Golden Gate Range for about 7 kilometers (4 miles), trend in a southwesterly direction through Garden Valley, cross the Lincoln and Nye County line, and connect to Common Segment 2 about 5 kilometers (3 miles) north of the Worthington Mountains Wilderness Area, and 3 kilometers (2 miles) east of the Humboldt Toiyabe National Forest. The Garden Valley 1 alternative alignment would be approximately 35 kilometers (22 miles) long.

Garden Valley 2 would run to the south of Garden Valley 1 and Garden Valley 3, crossing the Lincoln and Nye County line. Garden Valley 2 would continue southwesterly through the Golden Gate Range at Water Gap, turn westward through Garden Valley, and continue southwesterly to connect to Common Segment 2 about 5 kilometers (3 miles) north of the Worthington Mountains Wilderness Area and 3 kilometers (2 miles) east of the Humboldt Toiyabe National Forest. The Garden Valley 2 alternative alignment would be about 37 kilometers (23 miles) long.

Garden Valley 3 would run due west through the Golden Gate Range and then in a northwesterly direction until turning southwest to run along the southeast base of the Quinn Canyon Range. Continuing in a southwesterly direction, it would run through Garden Valley, cross the Lincoln and Nye County line, and connect to Common Segment 2 about 5 kilometers (3 miles) north of the Worthington Mountains Wilderness Area and 3 kilometers (2 miles) east of the Humboldt Toiyabe National Forest. The Garden Valley 3 alternative alignment would be approximately 36 kilometers (22 miles) long.

Garden Valley 8 would run to the south of Garden Valley 1 and Garden Valley 3, crossing the Lincoln and Nye County line. It would continue southwesterly through the Golden Gate Range at Water Gap, would turn westward through Garden Valley, and run in a southwesterly direction before turning sharply westward. Garden Valley 8 would proceed westward and connect to Common Segment 2 about 5 kilometers (3 miles) north of the Worthington Mountains Wilderness Area and 3 kilometers (2 miles) east of the Humboldt Toiyabe National Forest. The Garden Valley 8 alternative alignment would be about 38 kilometers (23 miles) long, 8 kilometers (5 miles) of which parallels Garden Valley Road.

South Reveille

South Reveille 2 and South Reveille 3 alternative alignments would begin 5 kilometers (3 miles) south of the South Reveille Wilderness Study Area. South Reveille 2 would trend to the northwest along the border of the South Reveille Wilderness Study Area. South Reveille 3 would trend northwest a few kilometers to the west and roughly parallel to South Reveille 2. South Reveille 2 or South Reveille 3 would connect to Common Segment 3 in Reveille Valley about 14 kilometers (9 miles) west of State Route 375. South Reveille 2 would be approximately 19 kilometers (12 miles) long and South Reveille 3 would be approximately 20 kilometers (12 miles) long.

Goldfield

DOE is considering three alternative alignments in the Goldfield area, referred to as Goldfield 1, 3, and 4. Goldfield 1 would extend south into the Goldfield Hills area, passing east of Black Butte. It would turn east near Espina Hill and head south to the east of Blackcap Mountain. It would wind around a series of hills and valleys to

maintain an acceptable grade. Goldfield 1 would run for approximately 11 kilometers (7 miles) along an abandoned rail line before joining Common Segment 4 about 1 kilometer (0.6 mile) northeast of Ralston. In total, the Goldfield 1 alternative alignment would be 47 kilometers (29 miles) long.

Goldfield 3 would extend south and farther to the east than the other Goldfield alternative alignments. Like Goldfield 1, Goldfield 3 would wind around a series of hills and valleys to maintain an acceptable grade. Also like Goldfield 1, Goldfield 3 would run for approximately 11 kilometers (7 miles) along an abandoned rail line before joining common Segment 4 about 1 kilometer (0.6 mile) northeast of Ralston. In total, the Goldfield 3 alternative alignment would be about 50 kilometers (31 miles) long.

The western Goldfield alternative alignment, Goldfield 4, would depart from Common Segment 3 to the north of Black Butte and trend southwest. It would then cross U.S. 95 and turn south toward Goldfield. After passing through the southwestern edge of Goldfield and crossing U.S. 95 again, Goldfield 4 would turn south to connect with Common Segment 4. Goldfield 4 would be about 53 kilometers (33 miles) long.

Bonnie Claire

DOE is considering two alternative alignments, Bonnie Claire 2 and 3. Bonnie Claire 2 would depart Common Segment 4 about 8 kilometers (5 miles) north of Stonewall Pass and would trend east toward the Nevada Test and Training Range for about 5 kilometers (3 miles) before turning south for an additional 17 kilometers (11 miles). Bonnie Claire 2 generally would follow the Nevada Test and Training Range boundary and would join Common Segment 5 in Sarcobatus Flats to the north of Scottys Junction near the intersection of State Route 267 and U.S. 95. Bonnie Claire 2 would be approximately 20 kilometers long.

Bonnie Claire 3 would depart Common Segment 4 about 8 kilometers (5 miles) north of Stonewall Pass. Bonnie Claire 3 would trend generally south, paralleling U.S. 95 to the east. After approximately 10 kilometers (6 miles), Bonnie Claire 3 would turn southeast and continue for an additional 10 kilometers (6 miles) through Sarcobatus Flats. It would then join Common Segment 5 approximately 4 kilometers (2 miles) north of Scottys Junction near the intersection of State Route 267 and U.S. 95. Bonnie Claire 3 would be approximately 20 kilometers (12 miles) long.

Oasis Valley

DOE is considering two alternative alignments, referred to as Oasis Valley 1 and Oasis Valley 3. Oasis Valley 1 would depart Common Segment 5 about 3 kilometers (2 miles) north of Oasis Mountain and would run southeast and connect to Common Segment 6. Oasis Valley 1 would be approximately 10 kilometers (6 miles) long.

Oasis Valley 3 would also depart Common Segment 5 about 3 kilometers (2 miles) north of Oasis Mountain and would run generally east and then south before crossing Oasis Valley farther to the east than Oasis Valley 1, and then connecting to Common Segment 6. Oasis Valley 3 would be 14 kilometers (9 miles) long.

Mina Alternative Alignments

Following receipt of the letter regarding the Walker River Paiute Tribal Council decision (May, 2006), the Department initiated a study to consider the feasibility of the Mina route, and to identify a specific corridor (Mina corridor) and associated preliminary alternative alignments. The process used to identify the preliminary alternative alignments within the Mina corridor is consistent with that described under Caliente Alternative Alignments. Alternative alignments were identified near the Town of Schurz, around the Montezuma Range, north of Scottys Junction (referred to as Bonnie Claire), and in Oasis Valley. These are described below.

Town of Schurz

DOE has identified three alternative alignments that would bypass the Town of Schurz, Nevada. Schurz Bypass 1 would depart from the existing rail line about 30 kilometers (18 miles) northwest of the Town of Schurz passing along the eastern side of the valley (Sunshine Flat). From there, the alignment passes east of Weber Reservoir and crosses U.S. 95 about 8 kilometers (5 miles) north of the intersection of U.S. 95 and Alternate U.S. 95. Schurz Bypass 1 then trends southeast remaining on the far side of the valley to where it rejoins the existing rail line about 13 kilometers (8 miles) south of Schurz. Schurz Bypass 1 would be 51 kilometers (32 miles) long.

Schurz Bypass 2 also would depart the existing line at the same point of departure as Schurz Bypass 1 and would pass along the eastern side of Sunshine Flat. From there, the alignment passes east of Weber Reservoir and crosses U.S. 95 about 7 kilometers (4 miles) north of the intersection of U.S. 95 and Alternate U.S. 95. From there, the alignment trends to the southeast but staying to the east of Schurz and west of Schurz Bypass 1 until it rejoins the existing rail line about 13 kilometers (8 miles) south of Schurz. Schurz Bypass 2 would be 50 kilometers (31 miles) long.

Schurz Bypass 3 would depart the existing rail line about 9 kilometers (6 miles) northwest of the Town of Schurz where it would cross the Walker River. The alignment then crosses U.S. 95 about 8 kilometers (5 miles) north of the intersection of U.S. 95 and Alternate U.S. 95 at which point it continues southeasterly to a point where it rejoins the existing rail line about 13 kilometers (8 miles) south of Schurz, on the east side of the valley.

Montezuma Range

DOE identified two alternative alignments that depart near Blair Junction at the intersection of U.S. 95 and U.S. 6 to avoid the Montezuma Range; they rejoin at a point just east of Lida Junction. The first alignment, Montezuma Range 1, would depart Blair Junction paralleling State Route 265 to the Town of Silver Peak where it would proceed north to follow the western side of Clayton Ridge. The alignment would then turn south approximately 16 kilometers (10 miles) before Railroad Pass at which point it would turn east between the southern end of the Goldfield Hills and the Cuprite Hills. The alignment would then cross U.S. 95 about 7 kilometers (5 miles) north of Lida Junction and, paralleling U.S. 95, then head south to a point just east of Lida Junction. Montezuma Range 1 would be about 134 kilometers (83 miles) long.

Montezuma Range 2, after departing from the intersection of U.S. 95 and U.S. 6, would follow the abandoned Tonopah and Goldfield rail roadbed east to the north of Lone Mountain, at which point the alignment would head south following the abandoned roadbed. The alignment would traverse Montezuma Valley south to Klondike and would then parallel U.S. 95 as it approaches the Town of Goldfield. Montezuma Range 2 would stay west of Goldfield and then trend southeasterly to a point just east of Lida Junction where it would reconnect with Montezuma Range 1. Montezuma Range 2 would be about 135 kilometers (84 miles) long.

Bonnie Claire and Oasis Valley

The Bonnie Claire and Oasis Valley alternative alignments are as described above under Caliente Alternative Alignments.

No Action Alternative

The Council on Environmental Quality and Departmental regulations that implement NEPA require consideration of the alternative of no action. Under the No Action Alternative, DOE would not select a rail alignment within the Caliente or Mina rail corridors for the construction and operation of a rail line. As such, the No Action Alternative provides a basis for comparison to the Proposed Action.

In the event that DOE were not to select a rail alignment in the Caliente or Mina corridors, the future course that it would pursue is uncertain. DOE recognizes that other possibilities could be pursued, including identifying and evaluating alignments in other corridors considered in the Yucca Mountain Final EIS.

Potential Environmental Issues and Resources To be Examined

The Council on Environmental Quality regulations direct Federal agencies preparing an EIS to focus on significant environmental issues (40 CFR 1502.1) and discuss impacts in proportion to their significance (40 CFR 1502.2). Accordingly, the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS will analyze issues and impacts with the amount of detail commensurate with their importance.

To facilitate the scoping process, DOE has identified a preliminary list of issues and environmental resources that it may consider in the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS. The list is not intended to be all-inclusive or to predetermine the scope or alternatives of the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS, but should be used as a starting point from which the public can help DOE define the scope of the EIS.

- Potential impacts to the concept of multiple use as it applies to public land use planning and management specified by the Federal Land Policy and Management Act of 1976.
- Potential impacts to land use and ownership.
- Potential impacts to plants, animals and their habitats, including impacts to wetlands, and threatened and endangered and other sensitive species.
- Potential impacts to cultural resources.
- Potential impacts to American Indian resources.
- Potential impacts to paleontological resources.
- Potential impacts to the public from noise and vibration.
- Potential impacts to the general public and workers from radiological exposures during incident-free operations of the railroad.
- Potential impacts to the general public and workers from radiological exposures from potential accidents during operations of the railroad.
- Potential impacts to water resources and floodplains.
- Potential impacts to aesthetic values.
- Potential disproportionately high and adverse impacts to low-income and minority populations (environmental justice).
- Irretrievable and irreversible commitment of resources.
- Compliance with applicable Federal, state and local requirements.

The Department specifically invites comments on the following relative to the Mina corridor and its alternative alignments:

1. Should additional alternative alignments be considered that might minimize, avoid or mitigate adverse environmental impacts (for example, looking beyond the 0.25 mile wide Mina corridor, avoiding environmentally sensitive areas)?
2. Should any of the preliminary alternatives be eliminated from detailed consideration?
3. Should additional environmental resources be considered?
4. What mitigation measures should be considered?

In addition, the Department is interested in identifying any significant changes to, or new information relevant to, the rail corridors analyzed in the Yucca Mountain Final EIS.

Schedule

The DOE intends to issue the Draft Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS in 2007 at which time its availability will be announced in the **Federal Register** and local media. A public comment period will start upon publication of the Environmental Protection Agency's Notice of Availability in the **Federal Register**. The Department will consider and respond to comments received on the Draft in preparing the Final Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS.

Other Agency Involvement

Currently, the U.S. Bureau of Land Management, U.S. Air Force and the U.S. Surface Transportation Board are cooperating agencies in the preparation of the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS. The Department also expects to invite the following to be cooperating agencies: Walker River Paiute Tribe, U.S. Bureau of Indian Affairs, and the U.S. Army. The Tribe and these agencies have management and regulatory authority over lands traversed by alternative rail alignments within the Mina and Caliente rail corridors, or special expertise germane to the construction and operation of a rail line. DOE will consult with the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Nuclear Regulatory Commission, Native American Tribal organizations, the State of Nevada, and Nye, Lincoln, Esmeralda, Mineral, Churchill and Lyon Counties regarding the environmental and regulatory issues germane to the Proposed Action. DOE invites comments on its identification of cooperating and consulting agencies and organizations.

Public Scoping Meetings

DOE will hold public scoping meetings on the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS. The meetings will be held at the following locations and times:

- Amargosa Valley, Nevada. Longstreet Hotel Casino, Nevada State Highway 373, November 1, 2006 from 4–7 p.m.[9]
- Caliente, Nevada. Caliente Youth Center, U.S. 93 North, November 8, 2006 from 6–8 p.m.
- Goldfield, Nevada. Goldfield School Gymnasium, Hall and Euclid, November 13, 2006 from 4–7 p.m.
- Hawthorne, Nevada. Hawthorne Convention Center, 932 E. Street, November 14, 2006 from 4–7 p.m.
- Fallon, Nevada. Fallon Convention Center, 100 Campus Way, November 15, 2006 from 4–7 p.m.

The public scoping meetings will be an open meeting format without a formal presentation by DOE. Members of the public are invited to attend the meetings at their convenience any time during meeting hours and submit their comments in writing at the meeting, or in person to a court reporter who will be available throughout the meeting. This open meeting format increases the opportunity for public comment and provides for one-on-one discussions with DOE representatives involved with

[9] DOE will hold a joint public scoping meeting on the Supplemental Yucca Mountain EIS (DOE/EIS–0250F–S1) and Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS (DOE/EIS–0250F–S2 and DOE/EIS–0369) in Amargosa Valley, Longstreet Hotel Casino, Nevada State Highway 373, November 1 from 4–7 pm. Additional public scoping meetings on the Supplemental Yucca Mountain EIS will be held in Washington, DC, L'Enfant Plaza Hotel, 480 L'Enfant Plaza, SW, October 30 from 4–7 pm; and Las Vegas, Cashman Center, 850 North Las Vegas Blvd., November 2 from 4–7 pm.

the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS, and transportation planning in general.

The public scoping meetings will be held during the public scoping comment period. The comment period begins with publication of this Amended Notice of Intent in the **Federal Register** and closes November 27, 2006. Comments received after this date will be considered to the extent practicable. Written comments may be provided in writing, facsimile, or by the Internet to Mr. Lee Bishop, EIS Document Manager (see **ADDRESSES** above).

Public Reading Rooms

Documents referenced in this Amended Notice of Intent and related information are available at the following locations: Beatty Yucca Mountain Information Center, 100 North E. Avenue, Beatty, NV 89003, (775) 553–2130; Esmeralda County Yucca Mountain Oversight Office, 274 E. Crook Avenue, Goldfield, NV 89013, (775) 485–3419; Las Vegas Yucca Mountain Information Center, 4101–B Meadows Lane, Las Vegas, NV 89107, (702) 295–1312; Lincoln County Nuclear Waste Project Office, 100 Depot Avenue, Caliente, NV 89008, (775) 726–3511; Nye County Department of Natural Resources and Federal Facilities, 1210 E. Basin Road, Suite #6, Pahrump, NV 89060 (775) 727–7727; Pahrump Yucca Mountain Information Center, 2341 Postal Drive, Pahrump, NV 89048, (775) 571–5817; University of Nevada, Reno, The University of Nevada Libraries, Business and Government Information Center, M/S 322, 1664 N. Virginia Street, Reno, NV 89557, (775) 784–6500, Ext. 309; and the U.S. Department of Energy Headquarters Office Public Reading Room, 1000 Independence Avenue SW., Room 1E–190 (ME–74) FORS, Washington, DC 20585, 202–586–3142.

Issued in Washington, DC, October 10, 2006.

David R. Hill,

General Counsel.

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60490 **Federal Register** / Vol. 71, No. 198 / Friday, October 13, 2006 / Notices

DEPARTMENT OF ENERGY

Supplement to the Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, NV

AGENCY: U.S. Department of Energy.

ACTION: Notice of intent.

SUMMARY: The U.S. Department of Energy (DOE or the Department) is announcing its intent to prepare a Supplement to the ''Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada'' (DOE/EIS–0250F, February 2002) (Yucca Mountain Final EIS). The Proposed Action addressed in the Yucca Mountain Final EIS is to construct, operate and monitor, and eventually close a geologic repository at Yucca Mountain in southern Nevada for the disposal of spent nuclear fuel and high-level radioactive waste.

The Yucca Mountain Final EIS considered the potential environmental impacts of a repository design for surface and subsurface facilities, a range of canister packaging scenarios and repository thermal operating modes, and plans for the construction, operation and monitoring, and eventual closure of the repository. The Yucca Mountain Final EIS also considered the environmental impacts of the transportation of spent nuclear fuel and high-level radioactive waste from commercial and DOE sites to the repository by two principal modes—mostly truck and mostly rail. In the Yucca Mountain Final EIS DOE recognized that these repository design concepts and operational plans would continue to develop during the design and engineering process.

Since publication of the Yucca Mountain Final EIS, DOE has continued to develop the repository design and associated plans. As now planned, the proposed surface and subsurface facilities would allow DOE to operate the repository following a primarily canistered approach in which most commercial spent nuclear fuel would be packaged at the commercial sites in multipurpose transport, aging and disposal canisters (TADs), and all DOE materials would be packaged in disposable canisters at the DOE sites. Waste packages would be arrayed in the repository underground to achieve what is referred to as a higher-thermal operating mode, and most spent nuclear fuel and high-level radioactive waste would arrive at the repository by rail.

To evaluate the potential environmental impacts of the current repository design and operational plans, DOE has decided to prepare a Supplement to the Yucca Mountain Final EIS [1], consistent with the National Environmental Policy Act (NEPA) and the Nuclear Waste Policy Act, as amended (Pub. L. 97–425) (NWPA). This Supplemental Yucca Mountain EIS (DOE/EIS–0250–S1) is being prepared to assist the U.S. Nuclear Regulatory Commission (NRC) in satisfying its NEPA responsibilities pursuant to the NWPA (Section 114(f)(4)) [2].

DATES: The Department invites comments on the scope of the Supplemental Yucca Mountain EIS to ensure that all relevant environmental issues are addressed. Public scoping meetings are discussed below in the **SUPPLEMENTARY INFORMATION** section. DOE will consider all comments received during the 45-day public scoping period, which starts with publication of this Notice of Intent and ends November 27, 2006. Comments received after this date will be considered to the extent practicable.

ADDRESSES: Requests for additional information on the Supplemental Yucca Mountain EIS or on the repository program in general, should be directed to: Dr. Jane Summerson, EIS Document Manager, Regulatory Authority Office, Office of Civilian Radioactive Waste Management, U.S. Department of Energy, 1551 Hillshire Drive, M/S 010, Las Vegas, NV 89134, Telephone 1–800–967–3477. Written comments on the scope of the Supplemental Yucca Mountain EIS may be submitted to Dr. Jane Summerson at this address, or by facsimile to 1–800–967–0739, or via the Internet at *http://www.ocrwm.doe.gov* under the caption What's New.

FOR FURTHER INFORMATION CONTACT: For general information regarding the DOE NEPA process contact: Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Compliance, U.S. Department of Energy, 1000 Independence Ave., SW., Washington, DC 20585, Telephone 202–586–4600, or leave a message at 1–800–472–2756.

SUPPLEMENTARY INFORMATION:

[1] Coincident with this Notice of Intent, DOE is publishing an Amended Notice of Intent to prepare a Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS (DOE/EIS–0250F–S2 and DOE/EIS–0369). That EIS will review the rail corridor analyses of the Yucca Mountain Final EIS, and update, as appropriate, and will analyze the proposed Mina corridor; it also will include detailed analyses of alternative alignments for the construction and operation of a rail line within the Mina corridor, as well as the Caliente corridor.

[2] Section 114(f)(4) of the NWPA provides that any environmental impact statement ''prepared in connection with a repository * * * shall, to the extent practicable, be adopted by the Commission [NRC] in connection with the issuance by the Commission of a construction authorization and license for such repository. To the extent such statement is adopted by the Commission, such adoption shall be deemed to also satisfy the responsibilities of the Commission under the National Environmental Policy Act of 1969 * * *.''

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Background

Section 111(a)(4) of the NWPA states that the Federal government has the: ''responsibility to provide for the permanent disposal of high-level radioactive waste and such spent nuclear fuel as may be disposed of in order to protect the public health and safety and the environment.''

The NWPA directs the Secretary of Energy, if the Secretary decides to recommend approval of the Yucca Mountain site for development of a repository, to submit a final environmental impact statement with any recommendation to the President. The Department prepared the Yucca Mountain Final EIS to fulfill that requirement.

On February 14, 2002, the Secretary, in accordance with the NWPA, transmitted his recommendation (including the Yucca Mountain Final EIS) to the President for approval of the Yucca Mountain site for development of a geologic repository. The President considered the site qualified for application to the NRC for a construction authorization and recommended the site to the U.S. Congress. Subsequently, on July 23, 2002, the President signed into law (Pub. L. 107–200) a joint resolution of the U.S. House of Representatives and the U.S. Senate designating the Yucca Mountain site for development as a geologic repository for the disposal of spent nuclear fuel and high-level radioactive waste. The Department is now preparing a license application for submittal to the NRC seeking authorization to construct the repository, as required by the NWPA (Section 114(b)).

In the Yucca Mountain Final EIS, DOE considered the potential environmental impacts of a repository design for surface and subsurface facilities, a range of canister packaging scenarios and repository thermal operating modes, and plans for the construction, operation and monitoring, and eventual closure of the repository. The Yucca Mountain Final EIS also described and evaluated the transportation of spent nuclear fuel and high-level radioactive waste from commercial and DOE sites to the repository by two principal modes—mostly truck and mostly rail. DOE recognized at that time that these repository design concepts and operational plans would continue to develop during the design and engineering process.

More specifically, the Yucca Mountain Final EIS included evaluations of separate canistered and uncanistered packaging scenarios for commercial spent nuclear fuel, and a repository design comprised of three primary surface operations areas (North Portal Operations Area, South Portal Development Area, Ventilation Shaft Operations Area) in which spent nuclear fuel and high-level radioactive waste would be handled in two principal facilities (Carrier Preparation Building, Waste Handling Building). The Yucca Mountain Final EIS also evaluated a range of underground thermal operating modes (referred to as lower- and higher-temperature modes) in which heat from the waste packages would raise the temperature of the adjacent rock to a range of temperatures from below the boiling point of water to above the boiling point. Two scenarios, mostly truck and mostly rail, were analyzed for the transportation of spent nuclear fuel and high-level radioactive waste from the commercial and DOE sites to the repository.

Since publication of the Yucca Mountain Final EIS, DOE has continued to develop the repository design and associated plans. As now planned (and described in greater detail in the Proposed Action below), the proposed surface and subsurface facilities would allow DOE to operate the repository following a primarily canistered approach in which most commercial spent nuclear fuel would be packaged at the commercial sites in TADs, and all DOE materials would be packaged in disposable canisters at the DOE sites. These TADs and disposable canisters then would be transported mostly by rail [3] to the repository where they would be placed on aging (or staging) [4] pads prior to disposal, or inserted into waste packages and disposed of in the repository underground.

At the repository site, spent nuclear fuel and high-level radioactive waste would now be handled in up to six principal facilities located within three primary surface operations areas. A fourth operations area would be developed to support excavation of the underground repository. A higher-thermal (temperature) operating mode would be employed.

Based on the current planning, the Department does not believe that any of the developments to the repository design or operational plans would have a significant impact on the environmental effects considered in the Yucca Mountain Final EIS. Nevertheless, to assist NRC in satisfying its NEPA responsibilities pursuant to the NWPA (Section 114(f)(4)), DOE has decided to prepare this Supplemental EIS.

Proposed Action

Under the Proposed Action, DOE would construct, operate and monitor, and eventually close a geologic repository at Yucca Mountain for the disposal of up to 70,000 metric tons of heavy metal (MTHM) of commercial and DOE-owned spent nuclear fuel and high-level radioactive waste.[5] DOE would dispose of these materials in the repository using the inherent, natural geologic features of the mountain and engineered barriers to ensure long-term isolation of the spent nuclear fuel and high-level radioactive waste from the human environment. These materials would be emplaced underground at least 200 meters (660 feet) below the surface and at least 160 meters (530 feet) above the water table. The NRC, through its licensing process, would regulate repository construction, operation and monitoring, and closure.

Under the Proposed Action, most spent nuclear fuel and high-level radioactive waste would be shipped from 72 commercial and 4 DOE sites [6] to the repository in NRC-certified transportation casks placed on trains dedicated only to these shipments. Some shipments, however, would arrive at the repository by truck.

Under the Proposed Action, all DOE spent nuclear fuel and high-level radioactive waste would be placed in disposable canisters at the DOE sites, and as much as 90 percent of the commercial spent nuclear fuel would be placed in TADs at the commercial sites prior to shipment. Upon arrival at the repository, both types of canisters (DOE disposable and TADs) would be placed into corrosion-resistant overpacks

[3] On April 8, 2004 (69 FR 18557), the Department issued a Record of Decision selecting, both nationally and in the State of Nevada, the mostly rail scenario analyzed in the Yucca Mountain Final EIS. This decision will ultimately require the construction of a rail line to connect the repository site at Yucca Mountain to an existing rail line in the State of Nevada.

[4] The terminology refers to retaining commercial spent nuclear fuel on the surface at the repository to meet waste package thermal limits (aging), or to provide a surge capacity to maintain flexibility in waste handling operations (staging).

[5] The 70,000 MTHM includes 63,000 MTHM of commercial spent nuclear fuel, about 2,333 MTHM of DOE fuel (includes about 65 MTHM of naval fuel), and about 4,667 MTHM of DOE high-level radioactive waste.

[6] In 2002, fifty-four additional sites, primarily domestic research reactors, were expected to ship spent nuclear fuel to two DOE sites prior to disposal at the repository (see Records of Decision June 1, 1995 at 60 FR 28680, and March 8, 1996 at 61 FR 9441). Also, the Yucca Mountain Final EIS analyzed fuel shipments from 5 DOE sites, including Fort St. Vrain, to the repository. Presently, it is anticipated that fuel from Fort St. Vrain will be shipped to Idaho National Laboratory prior to being shipped to the repository.

(waste packages) prior to emplacement in the repository underground.

The remaining commercial spent nuclear fuel (about 10 percent) would be transported to the repository in dual-purpose canisters (canisters suitable for storage and transportation), or would be uncanistered. At the repository, uncanistered spent nuclear fuel would be placed directly into TADs and then waste packages for disposal. Commercial spent nuclear fuel arriving in dual-purpose canisters would first be removed from the canisters, placed into TADs and then into waste packages for disposal.

Handling of spent nuclear fuel and high-level radioactive waste would take place in the geologic repository operations area, which includes the North Portal area, the South Portal development area, a North Construction Portal development area, and the surface shaft areas. The surface portion of the geologic repository operations area also would include the facilities necessary to receive, package, and support emplacement of spent nuclear fuel and high-level radioactive waste in the repository. Waste transfer operations would be conducted inside reinforced concrete and metal frame buildings designed and constructed to withstand earthquakes and other phenomena. Workers and the public would be protected from radiation by shielded transfer equipment and walls, exhaust filtering systems, and the use of remotely controlled equipment to remove the waste forms from the transportation casks for insertion into waste packages.

The primary surface waste handling facilities include a wet handling facility, a receipt facility, and three separate canister receipt and closure facilities. DOE also is considering an initial handling facility. These facilities would allow the various types of materials received at the repository to be prepared for disposal.

The wet handling facility would receive commercial spent nuclear fuel as bare fuel assemblies (uncanistered) or in dual-purpose canisters, either in truck or rail transportation casks. Commercial spent nuclear fuel would be transferred underwater from the transportation casks or dual-purpose canisters into TADs. The wet handling facility would include provisions for opening transportation casks and dual-purpose canisters, and for drying and closing the loaded TADs. Loaded TADs either would be placed into overpacks for placement on aging/staging pads, or would be transferred to the canister receipt and closure facilities for loading into waste packages for disposal.

The receipt facility would receive TADs and dual-purpose canisters in rail transportation casks. The TADs and dual-purpose canisters would be transferred (dry) from the transportation casks either to overpacks for placement on the aging/staging pads, or to shielded transfer casks for transfer to the canister receipt and closure facilities. Shielded transfer casks also would transfer dual-purpose canisters to the wet handling facility, as necessary.

The canister receipt and closure facilities would receive DOE disposable canisters and TADs in rail transportation casks, shielded transfer casks and aging/staging overpacks. These facilities also could receive truck casks. There, TADs and DOE disposable canisters would be placed into waste packages for disposal.

If constructed, the initial handling facility would receive DOE high-level radioactive waste canisters and naval spent nuclear fuel canisters in truck and rail transportation casks. These canisters would be removed from the transportation casks and transferred to waste packages for disposal.

Waste packages containing TADs, naval nuclear spent fuel, or DOE disposable canisters would be placed on pallets and loaded onto shielded waste package transporters. The shielded waste package transporters would transfer the waste packages to the underground for emplacement in dedicated tunnels (drifts). In these drifts, waste packages would be aligned end-to-end. Emplacement drifts would be excavated in a series of panels, phased to match the anticipated throughput rate of the surface waste handling facilities.

The repository also would have other underground excavations. These would include, for example, main drifts to provide access to the surface and the emplacement drifts, and exhaust mains to exhaust ventilation air from the emplacement drifts.

Under the Proposed Action, thermal output of the waste packages would heat the adjacent rock in excess of the boiling temperature of water (i.e., higher-thermal operating mode). In this higher-thermal mode, the repository emplacement drifts would remain open and ventilated for a nominal period of 50 years after emplacement of the spent nuclear fuel and high-level radioactive waste; ventilation would remove much of the heat and humidity from the emplacement drifts during this period. The higher thermal operating mode would be achieved by a combination of closely spaced waste packages, a nominal ventilation period of 50 years, and managing waste package thermal output by mixing lower heat output waste packages with higher heat output packages in the drifts (for example).

After the repository is closed and sealed, the rock around the emplacement drifts would dry, minimizing the amount of water that might contact the waste packages for hundreds of years. However, a substantial portion of the rock between the drifts would remain at temperatures below boiling, and this would promote drainage of water through the central portions of the rock, rather than into the emplacement drifts.

The surface and subsurface facilities and associated infrastructure,[7] such as the on-site road and water distribution networks and emergency response facilities, would be constructed in phases to accommodate the expected receipt rates of spent nuclear fuel and high-level radioactive waste. Emplacement (disposal) operations, which would last up to 50 years, would be followed by a preclosure monitoring period of 50 years. Towards the end of the preclosure monitoring period, titanium drip shields would be installed over the waste packages. The drip shields would divert moisture that might drip from the drift walls, as well as condensed water vapor around the waste packages, to the drift floor thereby increasing the life expectancy of the waste packages. Drip shields also would protect the waste packages from rock falls.

Under the Proposed Action, emplaced waste packages could be retrieved at any time prior to 100 years after the start of emplacement. Following waste emplacement, surface facilities would be decommissioned and after the monitoring period the repository would be closed. Closure would involve sealing the shafts, ramps, exploratory boreholes and other repository openings. The main drifts would be filled with crushed rock and surface caps would be installed to discourage human intrusion. A network of monuments and markers would be erected around the site surface to warn

[7] DOE published a ''Draft Environmental Assessment for the Proposed Infrastructure Improvements for the Yucca Mountain Project, Nevada'' on July 6, 2006 (71 FR 38391). DOE proposes to repair, replace, or improve certain infrastructure at the site to enhance safety and to safely continue operations, scientific testing, and maintenance until such time as NRC decides whether to authorize construction of a repository. To the extent that activities proposed by DOE in its environmental assessment, such as construction of a new access road or new power lines, may not be undertaken in the timeframe considered in the environmental assessment, they will be considered in this Supplemental Yucca Mountain EIS (DOE/EIS–0250F–S1).

future generations of the presence and nature of the buried radioactive waste.

No Action Alternative

Under the No Action Alternative, DOE would terminate activities at Yucca Mountain and undertake site reclamation to mitigate any significant adverse environmental impacts. Commercial nuclear power utilities and DOE would continue to manage spent nuclear fuel and high-level radioactive waste at sites throughout the United States. The No Action Alternative was analyzed in the Yucca Mountain Final EIS as a basis for comparison with the Proposed Action.

Since completion of the Yucca Mountain Final EIS, DOE has not identified any relevant changes in circumstances or information bearing on environmental concerns regarding the No Action Alternative. For this reason, DOE anticipates that the Supplemental Yucca Mountain EIS will incorporate by reference the information describing and analyzing the No Action Alternative presented in the Yucca Mountain Final EIS (pursuant to Council on Environmental Quality (CEQ) regulations at 40 Code of Federal Regulations (CFR) 1502.21).

Potential Environmental Issues and Resources To Be Examined

The CEQ regulations direct Federal agencies preparing an EIS to focus on significant environmental issues (40 CFR 1502.1) and discuss impacts in proportion to their significance (40 CFR 1502.2). Accordingly, the Supplemental Yucca Mountain EIS will analyze issues and impacts with the amount of detail commensurate with their importance. Under these guidelines, aspects of the Proposed Action with clearly small environmental impacts usually would require less depth and breadth of analysis. To the degree that the Proposed Action would affect public health or safety, however, the potential impacts generally are a matter of public interest, regardless of their significance. Therefore, DOE plans to pay particular attention to worker and public health and safety associated with the handling and disposal, and transportation of spent nuclear fuel and high-level radioactive waste, even where such impacts would not be significant.

To facilitate the scoping process, DOE has identified a preliminary list of issues and environmental resources that it may consider in the Supplemental Yucca Mountain EIS. The list is not intended to be all-inclusive, but should be used as a starting point for public input on the scope of the Supplemental Yucca Mountain EIS.

- Radiological releases. The potential impacts (i.e., latent cancer fatalities) to the public and workers from potential radiological releases during routine loading of canisters and transportation casks at the commercial sites, and from handling and disposal operations at the repository.
- Worker safety and health. Potential health and safety impacts (i.e., injuries and fatalities) to workers during handling and disposal operations at the commercial and DOE sites and the repository.
- Transportation. The potential radiological and non-radiological impacts (i.e., traffic injuries and fatalities) to the public and workers associated with the shipment of materials to the repository under the mostly rail scenario.
- Accidents. The potential radiological impacts to workers and the public from reasonably foreseeable accidents during loading of canisters at the sites, transportation and repository operations, including any accidents with low probability but high potential consequences.
- Sabotage. The potential radiological impacts to workers and the public from sabotage of transportation and repository operations.
- Waste isolation. Potential radiological and non-radiological impacts (e.g., chemically toxic materials) associated with the long-term performance of the repository.
- Socioeconomic conditions. Potential local regional socioeconomic impacts to the surrounding communities from construction, operation and closure of the repository.
- Water and air resources. Potential impacts to air resources, and water quality and use.
- Cultural resources. Potential impacts to archaeological and historic resources and American Indian issues of concern.
- Biological resources. Potential impacts to plants, animals and their habitats, including impacts to endangered and threatened species.
- Cumulative impacts from the Proposed Action and other past, present and reasonably foreseeable future actions.
- Environmental justice. Potential for disproportionately high and adverse impacts on minority or low-income populations.

Schedule

The DOE intends to issue the Draft Supplemental Yucca Mountain EIS in 2007, at which time its availability will be announced in the **Federal Register** and in media in Nevada. A public comment period will start upon publication of the Environmental Protection Agency's Notice of Availability in the **Federal Register**. DOE will hold public hearings during the comment period. The Department will consider and respond to comments received on the Draft Supplemental Yucca Mountain EIS in preparing the Final Supplemental Yucca Mountain EIS.

Other Agency Involvement

The Department intends to consult with Federal agencies, such as the U.S. Army Corps of Engineers, U.S. Bureau of Land Management, U.S. Air Force, and the U.S. Department of the Navy, and with state agencies, such as the Nevada Department of Transportation and the Nevada Division of Environmental Protection, during preparation of the Supplemental Yucca Mountain EIS.

Public Scoping Meetings

DOE will hold public scoping meetings on the Supplemental Yucca Mountain EIS. The meetings will be held at the following locations and times:

- Washington, District of Columbia, L'Enfant Plaza Hotel, 480 L'Enfant Plaza, SW., October 30 from 4–7 p.m.
- Amargosa Valley, Nevada. Longstreet Hotel Casino, Nevada State Highway 373, November 1 from 4–7 p.m.[8]
- Las Vegas, Nevada. Cashman Center, 850 North Las Vegas Blvd., November 2 from 4–7 p.m.

The public scoping meetings will be an open meeting format without a formal presentation by DOE. Members of the public are invited to attend the meetings at their convenience any time during meeting hours and submit their comments in writing at the meeting, or in person to a court reporter who will be available throughout the meeting. This open meeting format increases the opportunity for public comment and provides for one-on-one discussions with DOE representatives involved with

[8] DOE will hold a joint public scoping meeting on the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS (DOE/EIS–0250F–S2 and DOE/EIS–0369) and on the Supplemental Yucca Mountain EIS (DOE/EIS–0250F–S1) in Amargosa Valley, Longstreet Hotel Casino, Nevada State Highway 373, November 1 from 4–7 pm. Additional public scoping meetings on the Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS will be held in Caliente, Caliente Youth Center, U.S. 93 North, November 8 from 6–8 pm; Goldfield, Goldfield School Gymnasium, Hall and Euclid, November 13 from 4–7 pm; Hawthorne, Hawthorne Convention Center, 932 E. Street, November 14 from 4–7 pm; and Fallon, Fallon Convention Center, 100 Campus Way, November 15, from 4–7 pm.

the Supplemental Yucca Mountain EIS and the repository program.

The public scoping meetings will be held during the public scoping comment period. The comment period begins with publication of this Notice of Intent in the **Federal Register** and closes November 27, 2006. Comments received after this date will be considered to the extent practicable. Written comments may be provided in writing, by facsimile, or via the Internet to Dr. Jane Summerson, EIS Document Manager (see **ADDRESSES** above).

Public Reading Rooms

Documents referenced in this Notice of Intent and related information are available at the following locations: Beatty Yucca Mountain Information Center, 100 North E. Avenue, Beatty, NV 89003, (775) 553–2130; Esmeralda County Yucca Mountain Oversight Office, 274 E. Crook Avenue, Goldfield, NV 89013, (775) 485–3419; Las Vegas Yucca Mountain Information Center, 4101–B Meadows Lane, Las Vegas, NV 89107, (702) 295–1312; Lincoln County Nuclear Waste Project Office, 100 Depot Avenue, Caliente, NV 89008, (775) 726–3511; Nye County Department of Natural Resources and Federal Facilities, 1210 E. Basin Road, Suite #6, Pahrump, NV 89060 (775) 727–7727; Pahrump Yucca Mountain Information Center, 2341 Postal Drive, Pahrump, NV 89048, (775) 571–5817; University of Nevada, Reno, The University of Nevada Libraries, Business and Government Information Center, M/S 322, 1664 N. Virginia Street, Reno, NV 89557, (775) 784–6500, Ext. 309; and the U.S. Department of Energy Headquarters Office Public Reading Room, 1000 Independence Avenue, SW., Room 1E–190 (ME–74) FORS, Washington, DC, 20585, 202–586–3142.

Issued in Washington, DC, October 10, 2006.

David R. Hill,

General Counsel.

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A.11 72 *FR* 1235, January 10, 2007

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DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[NV–930–1920–ET–4662; NVN 82752; 7–08807]

Notice of Proposed Withdrawal and Opportunity for Public Meeting; Nevada

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice.

SUMMARY: The Department of Energy (DOE) has filed an application with the Bureau of Land Management (BLM) requesting the Secretary of the Interior to withdraw 208,037 acres of public lands from surface entry and mining through December 27, 2015, to evaluate the lands for the potential construction, operation, and maintenance of a rail line for the transportation of spent nuclear fuel and high-level radioactive waste in the event the Nuclear Regulatory Commission authorizes a geologic repository at Yucca Mountain as provided for under the Nuclear Waste Policy Act of 1982, as amended. This notice segregates the lands from surface entry and mining for up to 2 years while various studies and analyses are made to support a final decision on the withdrawal application.

DATES: Comments and requests for a public meeting should be received on April 10, 2007.

ADDRESSES: Comments and meeting requests should be sent to the Nevada State Director, BLM, P.O. Box 12000, Reno, Nevada 89520–0006.

FOR FURTHER INFORMATION CONTACT: Dennis J. Samuelson, BLM Nevada State Office, 775–861–6532.

SUPPLEMENTARY INFORMATION: The DOE has filed an application with the BLM requesting the Secretary of the Interior to withdraw the following described public lands from settlement, sale, location, or entry under the general land laws, including the United States mining laws, but not from leasing under the mineral leasing laws, subject to valid existing rights:

Mount Diablo Meridian

A corridor 1-mile in width that contains a portion of, or is wholly encompassed within the following sections and/or quarter sections and government lots:

Caliente Rail Corridor (additional lands)

T. 1 S., R. 42 E.,
Sec. 36, E½SE¼.
T. 2 S., R. 42 E.,
Sec. 1;
Sec. 2, SE¼;
Sec. 10, SE¼;
Sec. 11;
Sec. 12, N½ and SW¼;
Sec. 13, NW¼NW¼;
Secs. 14 and 15 (except patented land);
Sec. 22 (except patented land);
Sec. 23, W½NW¼ and W½SW¼ (except patented land);
Sec. 26, W½NW¼ and W½SW¼ (except patented land);
Secs. 27 and 34 (except patented land);
Sec. 35, W½ (except patented land).
T. 3 S., R. 42 E.,
Sec. 3 (except patented land);
Sec. 10, E½ and NE¼NW¼;
Secs. 11 and 12 (except patented land);
Sec. 13, N½ and N½SE¼;
Sec. 14, NE¼ and NE¼NW¼.
T. 1 N., R. 43 E.,
Sec. 33, SE¼SW¼ and SE¼.
T. 1 S., R. 43 E.,
Sec. 4, W½;
Sec. 5, SE¼NE¼ and SE¼;
Sec. 8, E½;
Sec. 9, W½;
Sec. 13, SW¼SW¼;
Sec. 14, SW¼;
Sec. 16, W½;
Sec. 17, E½;
Sec. 20;
Sec. 22, SE¼;
Sec. 23, W½ and SE¼;
Sec. 24, W½NW¼;
Sec. 26;
Sec. 27, E½;
Sec. 29;
Sec. 30, E½ and SE¼SW¼;
Sec. 31;
Sec. 32, NW¼NE¼ and W½;
Sec. 34, E½;
Sec. 35;
Sec. 36, W½ and W½SE¼.
T. 2 S., R. 43 E.,
Sec. 1;
Sec. 2, E½ and SE¼SW¼;
Sec. 6;
Sec. 7, NW¼NW¼;
Sec. 8, E½SE¼;
Sec. 11;
Sec. 12, NW¼NE¼, NW¼, and W½SW¼;
Sec. 13, W½;
Sec. 14;
Sec. 17, SE¼SE¼ (except patented land);
Sec. 20, NE¼ and SE¼SW¼ (except patented land);
Sec. 23, E½ and E½NW¼;
Sec. 24, NW¼NE¼, W½, and W½SE¼;
Sec. 25;
Sec. 26, NE¼ and E½SE¼ (except patented land);
Sec. 29, E½NW¼ and E½SW¼ (except patented land);
Sec. 32, NE¼NW¼ (except patented land);
Sec. 35, NE¼;
Sec. 36, E½ and NW¼.
T. 3 S., R. 43 E.,
Sec. 4, SE¼ (except patented land);
Sec. 7, (except patented land);
Sec. 8, S½ (except patented land);
Sec. 9, NE¼NE¼ (except patented land);
Sec. 13, SE¼;
Sec. 16, W½NW¼ and W½SW¼;
Sec. 17 (except patented land);
Sec. 18, lots 1, 2, and 3, NE¼, E½NW¼, NE¼SW¼, and N½SE¼ (except patented land);
Sec. 19, E½ and SE¼SW¼;
Sec. 20;

Sec. 21, NW¼NW¼;
Sec. 27, SW¼;
Sec. 28, S½NW¼ and S½;
Sec. 29;
Sec. 30, E½, E½NW¼, and NE¼SW¼;
Sec. 31, NE¼NE¼;
Sec. 32, N½;
Sec. 33, N½, NE¼SW¼, and N½SE¼;
Sec. 34, W½.
T. 4 S., R. 43 E.,
Sec. 3, lot 3 and SE¼NW¼;
Sec. 13, W½NW¼ and W½SW¼;
Sec. 21, SE¼SE¼;
Sec. 23, E½;
Sec. 24, NW¼NW¼;
Sec. 28, SE¼SW¼;
Sec. 32, SE¼SE¼.
T. 5 S., R. 43 E.,
Sec. 20, E½NE¼ and E½SE¼;
Sec. 29, NE¼NE¼.
T. 6 S., R. 44 E., Unsurveyed
Sec. 7;
Sec. 18, E½, E½NW¼, and E½SW¼;
Sec. 19, E½ and E½NW¼;
Sec. 20;
Secs. 28 and 29;
Sec. 30, E½NE¼;
Sec. 32, NE¼NE¼;
Sec. 33.
T. 7 S., R. 44 E., Partially Surveyed
Sec. 3, W½NW¼ and W½SW¼;
Sec. 4;
Sec. 5, S½SW¼ and SE¼SE¼;
Secs. 8 and 9;
Sec. 10, SW¼NW¼ and SW¼;
Secs. 15, 16, and 22;
Sec. 23, W½ and SW¼SE¼;
Sec. 25, SW¼SW¼;
Sec. 26;
Sec. 34, NE¼NE¼;
Sec. 35;
Sec. 36, W½ and SW¼SE¼.
T. 8 S., R. 44 E.,
Sec. 1;
Sec. 13, E½;
Sec. 24, NE¼NE¼.
T. 8 S., R. 45 E.,
Sec. 6, W½SW¼;
Sec. 7, W½ and SW¼SE¼;
Sec. 17, SW¼SW¼;
Sec. 19;
Sec. 20, W½.
T. 1 N., R 46 E.,
Sec. 30, lot 3.
T. 9 S., R. 46 E.,
Sec. 8, SW¼SW¼;
Sec. 16, SW¼ and SW¼SE¼;
Sec. 22, NW¼ and SE¼;
Sec. 23, S½SW¼.
T. 10 S., R. 46 E.,
Sec. 11, NE¼.
T. 1 N., R. 47 E.,
Sec. 9, SE¼SE¼;
Sec. 31, NE¼SW¼.
T. 2 N., R. 47 E.,
Sec. 24, SE¼SE¼;
Sec. 35, SE¼SW¼.
T. 10 S., R. 47 E.,
Sec. 9, SE¼;
Sec. 10, S½ and SE¼NE¼;
Sec. 11, S½NE¼, S½NW¼, and S½;
Sec. 13, W½;
Sec. 14 (except patented land);
Sec. 15, NE¼;
Sec. 22, W½NE¼ (except patented land);
Sec. 23, E½ and N½NW¼ (except patented land);
Sec. 24, W½NW¼;
Sec. 26, W½NE¼ and NW¼SE¼.
T. 11 S., R. 47 E.,
Sec. 10, NE¼NE¼;
Sec. 23, NE¼NE¼;
Sec. 24, E½SW¼;
Sec. 25, NE¼SE¼;
Sec. 36, E½NE¼.
T. 2 N., R. 48 E.,
Sec. 8, SE¼SW¼;
Sec. 19, SE¼NW¼.
T. 3 N., R. 48 E.,
Sec. 23, SE¼SW¼;
Sec. 33, SE¼SE¼.
T. 3 N., R. 49 E.,
Sec. 7, SE¼NE¼.
T. 3 N., R. 50 E.,
Sec. 22, E½SE¼.
T. 1 S., R. 51 E.,
Sec. 10, E½NE¼;
Sec. 14, E½NW¼;
Sec. 23, NE¼NE¼;
Sec. 25, W½;
Sec. 36, E½NW¼ and E½SW¼.
T. 2 N., R. 51 E.,
Sec. 18, lot 2.
T. 2 S., R. 52 E.,
Sec. 24, N½NE¼ and N½NW¼.
T. 1 S., R. 53 E.,
Sec. 26, SE¼SE¼;
Sec. 35, SE¼NW¼.
T. 1 S., R. 54 E.,
Sec. 1, lot 1;
Sec. 13, NW¼SW¼;
Sec. 16, SE¼SW¼;
Sec. 20, NE¼ and SE¼NW¼;
Sec. 23, NW¼NE¼.
T. 1 N., R. 55 E.,
Sec. 22, SE¼NW¼;
Sec. 29, S½NW¼.
T. 1 N., R. 56 E.,
Sec. 12, NW¼SE¼;
Sec. 14, NW¼SW¼;
Sec. 18, SE¼NW¼.
T. 1 N., R. 57 E.,
Sec. 2, lots 1 to 4, inclusive, and S½NW¼;
Sec. 3, NE¼;
Sec. 4, S½NE¼;
Sec. 5, NE¼SW¼ and NW¼SE¼;
Sec. 7, lot 1.
T. 2 N., R. 57 E.,
Sec. 1, lots 1 to 4, inclusive, S½NE¼, S½NW¼, and SW¼;
Sec. 2;
Sec. 3, SE¼NE¼ and SE¼;
Sec. 9, SE¼SE¼;
Sec. 10;
Sec. 11, N½ and SW¼;
Sec. 14, NW¼NW¼;
Sec. 15;
Sec. 16, E½ and S½SW¼;
Sec. 20, E½ and SW¼;
Sec. 21;
Sec. 22, NW¼NE¼ and NW¼;
Sec. 29, N½;
Sec. 30, E½ and SE¼SW¼;
Sec. 31, lots 1 and 2, and E½NW¼;
Sec. 36, SE¼.
T. 3 N., R. 57 E.,
Sec. 25, SE¼SE¼;
Sec. 35, SE¼;
Sec. 36.
T. 2 N., R. 58 E.,
Sec. 6, lot 4;
Sec. 25, S½;
Sec. 26, S½;
Sec. 31, lots 3 and 4, E½SW¼, and SE¼;
Sec. 32, S½;
Secs. 33 and 34;
Sec. 35, N½, SW¼, and NW¼SE¼;
Sec. 36, NW¼NW¼.
T. 3. N., R. 58 E.,
Sec. 13, S½NE¼, S½NW¼, and S½;
Sec. 14, S½NE¼, S½NW¼, and S½;
Sec. 15, S½;
Sec. 16, SE¼SE¼;
Sec. 20, SE¼SW¼ and SE¼;
Secs. 21 and 22;
Sec. 23, N½;
Sec. 24, N½;
Sec. 27, NW¼NW¼;
Sec. 28, N½ and SW¼;
Sec. 29;
Sec. 30, lots 3 and 4, S½NE¼, E½SW¼, and SE¼;
Sec. 31;
Sec. 32, NW¼NE¼ and NW¼.
T. 2 N., R. 59 E.,
Sec. 5, SE¼SE¼;
Sec. 7, SE¼SE¼;
Sec. 20, NW¼NE¼;
Sec. 30, lots 1 and 2, and E½NW¼.
T. 3 N., R. 59 E.,
Sec. 14, NE¼ and SW¼;
Sec. 17, SW¼SW¼;
Sec. 18, lots 2, 3, and 4, E½SW¼, and SE¼;
Sec. 19, lots 1 and 2, and W½NE¼;
Sec. 33, NE¼ and E½SW¼.
T. 4 N., R. 60 E.,
Sec. 21, S½NE¼ and SE¼NW¼;
Sec. 31, SE¼NW¼.
T. 4. N., R. 61 E.,
Sec. 19, S½NE¼ and SE¼NW¼;
Sec. 20, SW¼SE¼.
T. 2 N., R. 62 E.,
Sec. 9, NE¼NE¼;
Sec. 15, NE¼SE¼;
Sec. 23, E½ and NE¼NW¼.
T. 1 N., R. 63 E.,
Sec. 22, SW¼SW¼.
T. 1 S., R. 64 E.,
Sec. 19, lot 1.
T 2 S., R. 65 E.,
Sec. 1, lots 3 and 4, and S½NW¼.
T. 1 S., R. 66 E.,
Sec. 35, S½SW¼ and S½SE¼.
T. 2 S., R. 67 E.,
Sec. 21, E½SW¼;
Sec. 24, NE¼SW¼.
T. 3 S., R. 67 E.,
Sec. 21, SE¼NW¼ and S½SW¼SE¼;
Sec. 26, E½NE¼.
T. 4 S., R. 68 E.,
Sec. 7, E½NW¼;
Sec. 8, W½SE¼;
Sec. 17, NW¼NE¼.

The additional lands for the Caliente Corridor aggregate 68,646 acres in Esmeralda, Lincoln, and Nye Counties.

Mina Rail Corridor

T. 15 N., R. 26 E.,
Sec. 26, S½SE¼;
Sec. 35, lots 2, 3, and 4, E½NW¼, NE¼, and SE¼;
Sec. 36.
T. 9 N., R. 31 E.,
Sec. 32, lots 1 to 4, inclusive, N½SW¼, and N½SE¼.
T. 8 N., R. 32 E.,
Sec. 7, lots 3 and 4, E½SW¼;

Sec. 13, S½SW¼ and S½SE¼;
Sec. 14, S½SW¼ and S½SE¼;
Sec. 15, SW¼ and S½SE¼;
Sec. 16, S½NE¼, W½, and SE ¼;
Sec. 17, SE¼SW¼;
Sec. 19, N½NE¼ and N½NW¼;
Sec. 20, NE¼ and N½NW¼;
Sec. 21, N½ and N½SE¼ (except patented land);
Sec. 22, N½, N½SW¼, and SE¼;
Secs. 23 and 24.
T. 8 N., R. 33 E.,
Sec. 17, S½SW¼ and S½SE¼;
Sec. 18, lot 4, SE¼SW¼, and S½SE¼;
Secs. 19 to 24, inclusive;
Sec. 25, N½;
Sec. 26, N½;
Sec. 27, N½NE¼ and N½NW¼;
Sec. 28, N½NE¼ and N½NW¼;
Sec. 29, N½NE ¼ and N½NW ¼.
T. 7 N., R. 34 E.,
Sec. 1, lot 1 and SE¼NE¼.
T. 8 N., R. 34 E.,
Sec. 19, lots 2, 3, and 4, S½NE¼, SE¼NW¼, W½SW¼, and SE¼;
Sec. 20, S½NE¼, S½NW¼, and S½;
Sec. 21, S½NE¼, S½NW¼, and S½;
Sec. 22, S½;
Sec. 23, S½;
Sec. 24, S½ (except patented land);
Sec. 25;
Sec. 26, N½, N½SW¼, and N½SE¼;
Sec. 27, N½, N½SW¼, and N½SE¼;
Sec. 28, N½ and N½SE¼;
Sec. 29, N½;
Sec. 30, lots 1 and 2, NE¼, and E½NW¼;
Sec. 36, E½ and N½NW¼.
T. 4 N., R. 35 E.,
Sec. 1, N½ and SE¼;
Sec. 2, NE¼;
Sec. 12, N½NE¼.
T. 5 N., R. 35 E.,
Sec. 1, S½NE¼, S½NW¼, and S½;
Sec. 2;
Sec. 3, lots 1, 2, and 3, S½NE¼, and SE¼;
Sec. 11, NE¼ and N½NW¼;
Sec. 12, E½, NW¼, and E½SW¼;
Sec. 13, NE¼ and E½SE¼;
Sec. 24, E½;
Sec. 25, E½, E½NW¼, and SW¼;
Sec. 36.
T. 6 N., R. 35 E.,
Sec. 4, lot 4, SW¼NW¼, SW¼, and S½SE¼;
Sec. 5;
Sec. 8 (except patented lands);
Sec. 9;
Sec. 10, S½NW¼ and SW¼;
Sec. 15, W½ and W½SE¼;
Sec. 16, E½, NW¼, and E½SW¼;
Sec. 21, E½;
Sec. 22, W½NE¼, W½, and W½SE¼;
Sec. 27, W½NE¼, W½, and W½SE¼;
Sec. 28, NE¼ and N½SW¼;
Sec. 33, E½ (except patented land);
Sec. 34;
Sec. 35, S½SW¼.
T. 7 N., R. 35 E.,
Sec. 5, lot 4, S½NW¼, and SW¼;
Sec. 6;
Sec. 7, N½NE¼, E½NW¼, and SE¼;
Sec. 8, W½NE¼, W½, and SE¼;
Sec. 16, W½NW¼ and SW¼;
Sec. 17;
Sec. 18, E½NE¼;
Sec. 20;
Sec. 21, W½;
Sec. 28, NW¼ and W½SW¼;
Sec. 29;
Sec. 30, S½SE¼;
Sec. 31, E½NE¼;
Sec. 32;
Sec. 33, W½SW¼.
T. 8 N., R. 35 E.,
Sec. 30, lots 1 to 4, inclusive, E½NW¼, E½SW¼, and W½SE¼ (except patented land);
Sec. 31 (except patented land).
T. 3 N., R. 36 E.,
Sec. 1;
Sec. 12, E½, E½NW¼, and E½SW¼;
Sec. 13, E½;
Sec. 24, E½;
Sec. 25, N½NE¼.
T. 4 N., R. 36 E., Unsurveyed
Sec. 5, SW¼;
Sec. 6;
Sec. 7, N½ and SE¼;
Sec. 8, W½ and SE¼;
Sec. 9, S½SW¼;
Sec. 15, SW¼;
Sec. 16, W½ and SE¼;
Sec. 17;
Sec. 18, NE¼;
Sec. 20, NE¼;
Sec. 21, N½ and SE¼;
Sec. 22;
Sec. 23, S½;
Sec. 25, W½;
Sec. 26;
Sec. 27, N½;
Sec. 35, N½ and SE¼;
Sec. 36.
T. 5 N., R. 36 E., Unsurveyed
Sec. 6, SW¼;
Sec. 7, W½;
Sec. 18, W½;
Sec. 19, W½;
Sec. 30, W½;
Sec. 31, W½.
T. 2 N., R. 37 E.,
Sec. 4, W½SW¼;
Sec. 5;
Sec. 6, lots 1 and 2, S½NE¼, and E½SE¼;
Sec. 8;
Sec. 9, W½NW¼, SW¼, and S½SE¼;
Sec. 13, S½NE¼, S½NW¼, and S½;
Sec. 14, S½NE¼ and S½;
Sec. 15, NW¼ and S½;
Sec. 16;
Sec. 17, N½NE¼, SE¼NE¼, E½NW¼, and E½SE¼;
Sec. 21, NE¼;
Sec. 22, N½, N½SW¼, and N½SE¼;
Sec. 23, N½ and N½SW¼;
Sec. 24, N½.
T. 3 N., R. 37 E., Unsurveyed
Sec. 6, W½;
Sec. 7, W½ and E½SE¼;
Sec. 18, W½NE¼, W½, and W½SE¼;
Sec. 19;
Sec. 29, W½;
Sec. 30;
Sec. 31, E½ and E½NW¼;
Sec. 32, W½NE¼, W½, and W½SE¼.
T. 4 N., R. 37 E., Unsurveyed
Sec. 31, S½SW¼.
T. 1 N., R. 38 E., Unsurveyed
Sec. 3, W½NW¼ and SW¼;
Sec. 4;
Sec. 5, E½NE¼;
Sec. 9, E½ and E½NW¼;
Sec. 10;
Sec. 11, SW¼;
Sec. 14, W½NE¼, W½, and SE¼;
Sec. 15, E½ , NW¼, and N½SW¼;
Sec. 16, N½NE¼;
Sec. 22, NE¼;
Sec. 23;
Sec. 24, W½ and W½SE¼;
Sec. 25;
Sec. 26, NE¼ and E½SE¼;
Sec. 36, NE¼ and N½NW¼.
T. 2 N., R. 38 E., Unsurveyed
Sec. 13, S½SW¼ and SE¼;
Sec. 16, S½NW¼ and SW¼;
Secs. 17 and 18;
Sec. 19, N½;
Sec. 20, E½ and NW¼;
Sec. 21, W½ and SE¼;
Sec. 22, S½;
Sec. 23, NE¼, S½NW¼, and S½;
Sec. 24;
Sec. 25, N½NW¼;
Sec. 26, N½;
Sec. 27, N½;
Sec. 28;
Sec. 29, E½;
Sec. 32, E½;
Sec. 33.
T. 1 N., R. 38.2 E., Unsurveyed
Sec. 30, S½NW¼, SW¼, and S½SE¼;
Sec. 31, N½, N½SW¼, and SE¼;
Sec. 32, W½ and SE¼.
T. 2 N., R. 38.2 E.,
Sec. 4;
Sec. 5, S½SE¼;
Sec. 7, S½SE¼;
Sec. 8, E½, S½NW¼, and SW¼;
Sec. 9;
Sec. 16, N½NW¼;
Sec. 17, N½, SW¼, and N½SE¼;
Sec. 18;
Sec. 19, N½ and N½SW¼;
Sec. 20, N½NW¼.
T. 1 S., R. 39 E.,
Sec. 4, lots 3 and 4, S½NW¼, and S½;
Sec. 5;
Sec. 6, lots 1 and 2, and S½NE¼;
Sec. 8, NE¼;
Sec. 9;
Sec. 10, W½NW¼ and SW¼;
Sec. 14, W½SW¼;
Sec. 15;
Sec. 16, E½ and E½NW¼;
Sec. 21, N½NE¼;
Sec. 22;
Sec. 23, W½NW¼ and W½SW¼;
Sec. 26, W½NW¼ and W½SW¼;
Sec. 27, E½, E½NW¼, and E½SW¼;
Sec. 34, E½, E½NW¼, and SW¼;
Sec. 35, W½.
T. 2 N., R. 39 E., Unsurveyed
Sec. 4, NW¼;
Sec. 5, N½ and SW¼;
Sec. 6;
Sec. 7, N½ and SW¼.
T. 2 S., R. 39 E.,
Sec. 2, lot 4, S½NW¼, and SW¼;
Sec. 3, lots 1 to 4, inclusive, S½NE¼, S½NW¼, E½SW¼, and SE¼;
Sec. 10, E½, E½NW¼, and E½SW¼;
Sec. 11, W½;
Sec. 14, W½NE¼, W½, and W½SE¼;
Sec. 15, E½ and E½NW¼;
Sec. 22 (except patented land);
Sec. 23, W½NE¼, W½, and W½SE¼;
Sec. 25, S½SW¼;

Sec. 26;
Sec. 27, E½;
Sec. 34, N½NE¼;
Sec. 35;
Sec. 36, W½ and SE¼.
T. 3 N., R. 39 E.,
Sec. 13, S½SE¼;
Sec. 22, S½SE¼;
Sec. 23, S½NE¼ and S½;
Sec. 24;
Sec. 25, N½ and N½SW¼;
Secs. 26 and 27;
Sec. 28, S½NE¼ and S½;
Sec. 29, S½SE¼;
Sec. 31, S½SW¼ and SE¼;
Secs. 32 and 33;
Sec. 34, N½ and N½SW¼;
Sec. 35, N½NW¼.
T. 3 S., R. 39 E.,
Sec. 1;
Sec. 2, lots 1 and 2, S½NE¼, and E½SE¼;
Sec. 12, NE¼.
T. 2 S., R. 40 E.,
Sec. 22, S½SW¼ and SE¼;
Sec. 23, S½ and S½NE¼;
Sec. 24, NE¼, S½NW¼, and S½;
Sec. 25, N½;
Sec. 26, N½, N½SW¼, and N½SE¼;
Sec. 27;
Sec. 28, lot 1 and lots 3 to 8, inclusive, and SW¼;
Sec. 29, S½SE¼;
Sec. 31, E½SW¼ and SE¼;
Sec. 32;
Sec. 33, N½, SW¼, and N½SE¼;
Sec. 34, NW¼.
T. 3 N., R. 40 E.,
Sec. 8, S½SE¼;
Sec. 9, S½NE¼ and S½;
Sec. 10 (except patented land);
Sec. 11 (except patented land);
Sec. 12, S½NE¼, S½NW¼, and S½;
Sec. 13, N½ and N½SE¼;
Sec. 14, N½ (except patented land);
Sec. 15, N½ and N½SW¼;
Secs. 16 and 17;
Sec. 18, lot 4, S½NE¼, E½SW¼, and SE¼;
Sec. 19;
Sec. 20, N½ and N½SW¼;
Sec. 21, N½NW¼;
Sec. 30, lot 1 and E½NW¼.
T. 3 S., R. 40 E.,
Sec. 4, lot 4;
Sec. 5, lots 1 to 4, inclusive, S½NE¼, S½NW¼, and SW¼;
Sec. 6;
Sec. 7, lot 1, E½NW¼, and N½NE¼.
T. 2 S., R. 40.2 E., Unsurveyed
Sec. 4, S½SE¼;
Sec. 8, E½ and SW¼;
Sec. 9;
Sec. 16, N½;
Sec. 17;
Sec. 18, S½NE¼, S½SW¼, and SE¼;
Sec. 19;
Sec. 20, NE¼ and W½;
Sec. 30, N½.
T. 1 N., R. 41 E.,
Sec. 1;
Sec. 2, lots 1 and 2, S½NE¼, and E½SE¼;
Sec. 12, N½, E½SW¼, and SE¼;
Sec. 13, E½.
T. 2 N., R. 41 E.,
Sec. 3, lots 2, 3, and 4, S½NE¼, S½NW¼, and S½;
Sec. 4, lots 1, 2, and 3, S½NE¼, S½NW¼, and SE¼;
Sec. 9, NE¼;
Sec. 10;
Sec. 11, W½;
Sec. 14;
Sec. 15, E½ and E½NW¼;
Sec. 22, N½NE¼;
Sec. 23;
Sec. 24, W½NW¼ and W½SW¼;
Sec. 25, W½;
Sec. 26, E½, NW¼, and E½SW¼;
Sec. 35, E½ and E½NW¼;
Sec. 36, W½NE¼, W½, and SE¼.
T. 2 S., R. 41 E.,
Sec. 3, W½SW¼;
Sec. 4, S½NE¼, S½NW¼, and S½;
Sec. 5, S½NE¼ and S½;
Sec. 6, lots 10 to 16, inclusive, and S½SE¼;
Secs. 7, 8, and 9;
Sec. 10, W½NW¼ and W½SW¼;
Sec. 15, W½NW¼;
Sec. 16;
Sec. 17, E½ and SW¼;
Sec. 18, N½NE¼;
Sec. 19, E½NE¼ and E½SE¼;
Sec. 20;
Sec. 21, NW¼ and N½SW¼;
Sec. 29, NE¼, W½, and W½SE¼;
Sec. 30, E½;
Sec. 31, lots 8 to 11, inclusive, and E½;
Sec. 32, N½NE¼ and W½.
T. 3 N., R. 41 E.,
Sec. 7, lots 3 and 4, E½SW¼, and SE¼;
Sec. 8, SW¼;
Sec. 16, S½SW¼; secs. 17 and 18;
Sec. 19, N½NE¼;
Sec. 20;
Sec. 21, W½ and W½SE¼;
Sec. 27, S½SW¼;
Sec. 28;
Sec. 29, E½;
Sec. 32, N½NE¼;
Sec. 33;
Sec. 34, W½ and S½SE¼.
T. 3 S., R. 41 E.,
Sec. 4, lot 4 and S½NW¼;
Sec. 5;
Sec. 6, lot 1, SE¼NE¼, and SE¼;
Sec. 7, E½;
Sec. 8, W½NE¼, W½, and W½SE¼;
Sec. 16, SW¼ and S½SE¼ (except patented land);
Sec. 17;
Sec. 18, E½;
Sec. 19, N½NE¼;
Sec. 20, N½ and SE¼;
Sec. 21;
Sec. 22, S½NE¼, W½, and SE¼;
Sec. 23, S½;
Sec. 24, S½;
Sec. 25;
Sec. 26, N½, N½SW¼, and N½SE¼;
Sec. 27, N½;
Sec. 28, NE ¼.
T. 1 N., R. 42 E.,
Sec. 6, lots 6 and 7, and E½SW¼;
Sec. 7, lots 1 to 4, inclusive, E½NW¼, E½SW¼, and W½SE¼;
Sec. 17, SW¼;
Sec. 18;
Sec. 19, lot 1, E½NW¼, and E½;
Sec. 20;
Sec. 21, SW¼;
Sec. 28, W½NE¼, W½, and SE¼;
Sec. 29;
Sec. 30, N½NE¼;
Sec. 32, NE¼;
Sec. 33;
Sec. 34, W½ and W½SE¼.
T. 1 S., R. 42 E.,
Sec. 3;
Sec. 4, lots 1 and 2, S½NE¼, and SE¼;
Sec. 9, E½NE¼;
Sec. 10;
Sec. 11, W½SW¼;
Sec. 14, W½NW¼ and W½SW¼;
Secs. 15 and 22;
Sec. 23, W½;
Sec. 26, W½;
Sec. 27, E½, E½NW¼, and E½SW¼;
Sec. 34, E½, E½NW¼, and E½SW¼;
Sec. 35, W½.
T. 2 S., R. 42 E.,
Sec. 2, lots 3 and 4, S½NW¼, and W½SW¼;
Sec. 3, lots 1, 2, and 3, S½NE¼, S½NW¼, E½SW¼, and SE¼;
Sec. 10;
Sec. 11, W½NW¼ and W½SW¼;
Sec. 14, W½NW¼ and W½SW¼ (except patented land);
Secs. 15 and 22 (except patented land);
Sec. 23, W½NW¼ and W½SW¼ (except patented land);
Sec. 26, W½NW¼ and W½SW¼ (except patented land);
Secs. 27 and 34 (except patented land);
Sec. 35, W½NW¼ and W½SW¼ (except patented land).
T. 3 S., R. 42 E.,
Sec. 3, lots 1, 2, and 3, S½NE¼, S½NW¼, E½SW¼, and SE¼ (except patented land);
Sec. 10, NE¼ and E½SE¼ (except patented land);
Secs. 11 and 12 (except patented land);
Sec. 13, N½ (except patented land);
Sec. 14, N½NE¼ (except patented land);
Sec. 19, lots 4 to 9 inclusive, and S½SE¼;
Sec. 20, S½SW¼ and S½SE¼;
Sec. 28, W½NE¼, W½, and SE¼;
Secs. 29 and 30;
Sec. 32, N½NE¼ and S½SE¼;
Sec. 33.
T. 4 S., R. 42 E.,
Sec. 4;
Sec. 5, lot 1, S½NE¼, and SE¼;
Sec. 8, E½, E½NW¼, and E½SW¼;
Sec. 9, W½NE¼ and W½;
Sec. 16, W½;
Sec. 17;
Sec. 18, S½SE¼;
Sec. 19, E½NE¼ and E½SE¼;
Sec. 20;
Sec. 23, S½SW¼ and S½SE¼;
Sec. 24, S½SW¼ and S½SE¼;
Secs. 25 and 26;
Sec. 27, NE¼ and S½;
Sec. 28, W½NW¼, W½SW¼, and SE¼;
Secs. 29, 32, and 33;
Sec. 34, N½, SW¼, and N½SE¼;
Sec. 35, N½NE¼ and NW¼.
T. 5 S., R. 42 E., Unsurveyed
Sec. 4, N½NE¼ and N½NW¼;
Sec. 5, N½NE¼.
T. 3 S., R. 43 E.,
Sec. 7 (except patented land);
Sec. 8, S½ (except patented land);
Sec. 16, W½NW¼ and W½SW¼;
Secs. 17 and 18 (except patented land);

Sec. 19, E½ and E½SW¼;
Sec. 20;
Sec. 21, N½NW¼;
Sec. 27, S½;
Sec. 28, S½NE¼, S½NW¼, and S½;
Sec. 29;
Sec. 30, E½ and E½NW¼;
Sec. 31, N½NE¼;
Sec. 32, N½;
Sec. 33, N½ and SE¼;
Sec. 34;
Sec. 35, E½NW¼ and E½SW¼.
T. 5 S., R. 43 E., Unsurveyed
Sec. 6;
Sec. 7, E½ and E½NW¼;
Sec. 18, N½NE¼.

The lands in the Mina Corridor aggregate 139,391 acres in Esmeralda, Lyon, and Mineral Counties.

Public Land Order (PLO) No. 7653, 70 FR 76854–76858 (December 28, 2005), withdrew approximately 308,600 acres of public lands from surface entry and mining for the purpose of evaluating a suite of alternative rail alignments along the Caliente Corridor, as described in the DOE's Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada, February 2002. The evaluation is for the potential construction, operation, and maintenance of a rail line which would be used to transport spent nuclear fuel and high-level radioactive waste to the proposed Yucca Mountain Repository as part of the DOE's responsibility under the Nuclear Waste Policy Act, as amended, 42 U.S.C. 10101 *et seq.*

The DOE has identified an additional 68,646 acres of public lands for evaluation along the Caliente Corridor. Since PLO No. 7653 can not be amended to add lands, the DOE has filed this new withdrawal application for those additional lands.

The DOE's withdrawal application also includes 139,391 acres of public lands for the purpose of evaluating the potential construction, operation, and maintenance of a rail line along a suite of alternative rail alignments referred to by the DOE as the ''Mina Route.'' The width of the withdrawal is 1 mile.

The expiration date for this proposed withdrawal would be the same as the expiration date for PLO No. 7653, which is December 27, 2015.

The use of a right-of-way, interagency agreement, or cooperative agreement would not adequately constrain non-discretionary uses that could irrevocably affect the evaluation of these lands for a potential rail line alignment.

There are no suitable alternative sites, since the lands described identify the alternative alignments that need to be evaluated.

No water rights will be needed to fulfill the purpose of the withdrawal.

Possible mineral deposits present in the above-described land areas include some locatable and salable minerals.

For a period of 90 days from the date of publication of this notice, all persons who wish to submit comments, suggestions, or objections in connection with the proposed withdrawal may present their views in writing to the BLM Nevada State Director.

Comments, including names and street addresses of respondents, will be available for public review at the BLM Nevada State Office, 1340 Financial Blvd., Reno, Nevada, during regular business hours, 7:30 a.m. to 4:30 p.m., Monday through Friday, except holidays. Individual respondents may request confidentiality. If you wish to withhold your name or address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your comments. Such requests will be honored to the extent allowed by the law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Notice is hereby given that in addition and subsequent to the 90-day public comment period mentioned above, there will be at least one public meeting in connection with the proposed withdrawal to be announced at a later date. A notice of the time, place, and date will be published in the **Federal Register** and a local newspaper at least 30 days before the scheduled date of a meeting.

This withdrawal proposal will be processed in accordance with the regulations set forth in 43 CFR part 2300.

For a period of 2 years from the date of publication of this notice in the **Federal Register,** the lands described above will be segregated as specified above unless the application is denied or cancelled or the withdrawal is approved prior to that date.

Licenses, permits, cooperative agreements, or discretionary land use authorizations of a temporary nature which will not significantly impact the purpose of the proposed withdrawal may be allowed with the approval of the authorized officer of the BLM during the segregative period.

(Authority: 43 CFR 2310.3–1(a))

Dated: October 30, 2006.

Margaret L. Jensen,

Deputy State Director, Natural Resources, Lands, and Planning.

[FR Doc. E7–84 Filed 1–9–07; 8:45 am]

BILLING CODE 4310–HC–P

A.12 72 *FR* 40139, July 23, 2007

Federal Register / Vol. 72, No. 140 / Monday, July 23, 2007 / Notices **40139**

DEPARTMENT OF ENERGY

Office of Civilian Radioactive Waste Management; Safe Routine Transportation and Emergency Response Training; Technical Assistance and Funding

AGENCY: Department of Energy.

ACTION: Notice of revised proposed policy and request for comments.

SUMMARY: The Department of Energy (DOE) is publishing this notice of revised proposed policy to set forth its revised plans for implementing Section 180(c) of the Nuclear Waste Policy Act of 1982 (the NWPA). Under Section 180(c) of the NWPA, DOE shall provide technical and financial assistance for training of local public safety officials to States and Indian Tribes through whose jurisdictions the DOE plans to transport spent nuclear fuel or high-level

radioactive waste to a facility authorized under Subtitle A or C of the NWPA (NWPA-authorized facility). The training is to cover both safe routine transportation and emergency response procedures. The purpose of this notice is to communicate to stakeholders the revised proposed policy of DOE regarding Section 180(c) issues and request comments on this revised proposed policy and the questions specified herein. Written and electronic comments may be submitted to DOE on this document.

DATES: Comments must be received by DOE on or before October 22, 2007.

ADDRESSES: Written comments should be directed to Ms. Corinne Macaluso, U.S. Department of Energy, c/o Patricia Temple, Bechtel SAIC Company, LLC, 955 N. L'Enfant Plaza, SW., Suite 8000, Washington, DC 20024. The revised proposed policy and electronic comment forms are also available at *http://www.ocrwm.doe.gov*. Fill out the form and click ''submit'' to send your comments in through the Web site. Persons submitting comments should include their name and address. Receipt of written comments in response to this notice will be acknowledged if a stamped, self-addressed postal card or envelope is enclosed. Electronic comments will receive an electronic notice of receipt.

FOR FURTHER INFORMATION CONTACT: For further information on the transportation of spent nuclear fuel and high-level radioactive waste under the NWPA, please contact: Ms. Corinne Macaluso, Office of Logistics Management, Office of Civilian Radioactive Waste Management (RW–10), U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC, 20585, Telephone: 202–586–2837.

General program information is available on the Office of Civilian Radioactive Waste Management (OCRWM) Web site located at *www.ocrwm.doe.gov*.

Copies of comments received will be posted on the OCRWM Web site. Please allow up to two weeks after DOE receives comments to view them on the Web site.

Request for Comments: DOE will consider all comments submitted by the closing date. Comments received after that date will be considered to the extent practicable. DOE requests that commenters pay particular attention to the questions at the end of this revised proposed policy.

SUPPLEMENTARY INFORMATION:

I. Purpose and Need for Agency Action

Under the NWPA, DOE is responsible for the transportation of spent nuclear fuel and high-level radioactive waste to an NWPA-authorized facility. In particular, under Section 180(c) of the NWPA, DOE is responsible for providing technical and financial assistance for training of local public safety officials to States and Indian Tribes through whose jurisdiction the Secretary plans to transport spent nuclear fuel or high-level radioactive waste to an NWPA-authorized facility. Section 180(c) further provides that such training cover procedures required for both safe routine transportation of these materials and for dealing with emergency response situations. Section 180(c) identifies the Nuclear Waste Fund as the source of funds for this assistance.

DOE has announced a schedule to begin shipping spent nuclear fuel and high-level radioactive waste to an NWPA-authorized facility in 2017.[1] Subject to the availability of appropriated funds, DOE plans to conduct a pilot program for 180(c) grants beginning in fiscal year 2008. DOE will evaluate public comments received on this revised proposed policy prior to implementing the pilot program. After review of the comments received on this revised proposed policy and completion of the pilot program, DOE plans to issue a new revised proposed policy for public comment and thereafter to issue a final policy prior to awarding the first 180(c) grants. The first grants are planned to be issued approximately four years prior to the commencement of shipments through a State or Tribe's jurisdiction to support assessing the need for and planning for training.

The *Office of Civilian Radioactive Waste Management, Strategic Plan for the Safe Transportation of Spent Nuclear Fuel and High-Level Radioactive Waste to Yucca Mountain: A Guide to Stakeholder Interactions* calls for DOE to work closely with State Regional Groups and individual impacted States and Tribes as it makes operational decisions regarding shipments to an NWPA-authorized facility. The DOE's practice of involving States, Tribes, industry, utilities, and other interested parties in transportation planning has contributed to a decades-long record of safely transporting such material. This revised proposed policy supports the DOE's OCRWM objective to develop and begin implementation of a comprehensive national spent fuel transportation plan that accommodates State, local, and Tribal concerns and input to the greatest extent practicable.

[1] The schedule for the proposed Yucca Mountain repository is based on factors within the control of DOE, appropriations consistent with optimum Project execution, issuance of an Nuclear Regulatory Commission (NRC) Construction Authorization consistent with the three year period specified in the Nuclear Waste Policy Act, and the timely issuance by the NRC of a Receive and Possess license. This schedule also is dependent on the timely issuance of all necessary other authorizations and permits, the absence of litigation related delays, and the enactment of legislation proposed by the Administration.

II. Background

On January 3, 1995, DOE issued a proposed policy on how it would implement Section 180(c) of the NWPA (60 FR 99). DOE subsequently issued several notices relating to its proposed 180(c) policy in the **Federal Register** on July 18, 1995 (60 FR 36793), May 16, 1996 (61 FR 24772), July 17, 1997 (62 FR 38272), and April 30, 1998 (63 FR 23753). DOE is publishing this Notice of Revised Proposed Policy to set forth and communicate to stakeholders the revised policy by which DOE currently intends to implement Section 180(c). DOE previously requested comments on the 1998 Notice of Revised Proposed Policy and Procedures. Those comments were reviewed and considered during the development of this revised proposed policy.

As part of its longstanding commitment to work with stakeholders on transportation matters, DOE has engaged in ongoing discussions on how to implement Section 180(c). Such discussions have taken place in the context of the Transportation External Coordination (TEC) Working Group, which is comprised of representatives of State, Tribal, and local governments, and professional, technical, and industry associations, and which meets biannually to identify and discuss issues related to the transport of radioactive materials. In 2004, DOE formed a TEC Topic Group specifically to discuss Section 180(c) issues, and the Topic Group met at least monthly from June 2004 through November 2005. In addition, DOE has discussed Section 180(c) issues with the six national and regional organizations with which DOE has cooperative agreements. These agreements enable DOE to exchange information and solicit input regarding the planned transportation activities of OCRWM, including Section 180(c) activities. These organizations comprise the four State Regional Groups (the Southern States Energy Board, Western Interstate Energy Board, Council of State Governments Midwestern Office, and Council of State Governments Eastern Regional Conference), the Commercial Vehicle Safety Alliance, and the

National Conference of State Legislatures.

Through the TEC Section 180(c) Topic Group, discussions with the national and regional organizations described above, and other stakeholder interactions, DOE received valuable comments and views on 180(c) issues which have been considered in the development of this revised proposed policy. The Topic Group reached significant agreement on eligibility requirements and timing of the grants and allowable uses of the funding.

This policy is intended to be consistent with Homeland Security Presidential Directives Number 5, ''Management of Domestic Incidents,'' issued February 28, 2003, and Number 8, ''National Preparedness,'' issued December 17, 2003; the Department of Homeland Security's National Preparedness Goal, issued December 2005; the National Preparedness Guidance issued April 27, 2005; the National Incident Management System, issued March 1, 2004; and the National Response Plan, issued December 2004.

III. Policy

Policy Statement

Section 180(c) of the NWPA states:

> The Secretary [of DOE] shall provide technical assistance and funds to States for training for public safety officials of appropriate units of local government and Indian tribes through whose jurisdiction the Secretary plans to transport spent nuclear fuel or high-level radioactive waste under subtitle A or under subtitle C. Training shall cover procedures required for safe routine transportation of these materials, as well as procedures for dealing with emergency response situations.

This proposed policy addresses the provision of technical and financial assistance for training, both for normal transportation operations and for potential incidents that may require emergency response during shipments of spent nuclear fuel or high-level radioactive waste to an NWPA-authorized facility. Technical assistance to support 180(c) activities will consist of non-monetary assistance that the Secretary of Energy can provide from DOE's specific knowledge, expertise, and existing resources to aid training of public safety officials on procedures for safe routine transportation and for emergency response situations during the transport of spent nuclear fuel and high-level radioactive waste to an NWPA-authorized facility. Technical assistance includes, but is not limited to, access to DOE's regional and Headquarters representatives involved in the planning and operation of NWPA transportation or emergency preparedness activities, provision of information packets that include materials about the OCRWM Program and shipments, and provision of other training materials and information. Financial assistance will consist of assessment and planning grants and annual training grants. The provision of grants will be subject to the criteria described herein, as well as the availability of appropriated funds.

This revised proposed policy is consistent with DOE's longstanding commitment to meet or exceed requirements and standards applicable to the transport of spent nuclear fuel and high-level radioactive waste; to cooperate with States, Tribes, and local governments; and to make use of the existing expertise of States, Tribes, and local governments to the maximum extent practicable.

Section 180(c) funds are intended to be used for training specific to shipments of spent nuclear fuel and high-level radioactive waste to an NWPA-authorized facility. DOE will work with States and Tribes to evaluate current preparedness for safe routine transportation and emergency response capability and will provide funding as appropriate to ensure that State, Tribal, and local officials are prepared for OCRWM shipments. Section 180(c) funds and related training are intended to supplement but not duplicate existing training for safe routine transportation and emergency preparedness. DOE will work with States and Tribes to coordinate and integrate Section 180(c) activities with existing training programs designed for State, Tribal, and local public safety officials. Equipment purchased with Section 180(c) funds is intended to be used for training to prepare for the specific hazards presented by shipments to an NWPA-authorized facility. If necessary, such equipment could then be used for inspections and for responding to emergencies. Since State and Tribal governments have primary responsibility to protect the public health and safety in their jurisdictions, they will have flexibility to decide which allowable activities to request Section 180(c) assistance to meet their unique needs within the limits of the NWPA and DOE and other Federal financial assistance regulations and restrictions.

Training with Section 180(c) funds should be to the level of detail and to the degree necessary to prepare for shipments to an NWPA-authorized facility. When necessary or appropriate, training should be consistent with the Occupational Safety and Health Administration (OSHA) awareness or operations levels, as those terms are defined in 29 CFR 1910.120, and the jurisdiction's emergency response plans. Any deficiency in basic emergency response capability may be addressed through consultation and technical assistance.

Funding Mechanism

DOE will implement Section 180(c) by funding direct grants to eligible States and Tribes. The grants program will be administered in accordance with the DOE Financial Assistance rules (10 CFR part 600), which implement applicable Office of Management and Budget circulars, and applicable law. The grant application process will require States and Tribes to describe and justify their proposed work in the format of a five-year project with a more detailed two-year work plan. Applications will only be accepted through the Federal government's electronic grant application system at *www.grants.gov.*

Basis for Cost Estimate/Grant Funding Allocation to States

DOE anticipates providing funds to States in accordance with the approach described below. Specifically, DOE expects to make two grants available to States: An assessment and planning grant and an annual training grant.[2]

The assessment and planning grant to each eligible State will support an initial needs assessment to identify training needs that might be addressed in future training grants to that State. The amount of the assessment and planning grant is not expected to exceed $200,000, adjusted annually for inflation, for each eligible State based on appropriated funds available for that purpose in a particular fiscal year. The annual training grant to each eligible State will support allowable activities as specified in the grant. The annual training grant for each eligible State will consist of a base amount not expected to exceed $100,000, adjusted annually for inflation, as well as a variable amount. The base amount for each grant depends on Congressional appropriations. DOE selected the amounts of the base grants based on experience with similar training programs and discussions with State and emergency response officials about the scope of work likely for each grant.

The variable amount of the training grant will be determined through a risk-based formula using the factors of population along routes, route miles,

[2] DOE has recently begun meeting with Indian Tribes to discuss the funding allocation options for grants to Tribes. The proposed funding allocation approach described herein applies only to States.

APPENDIX B

INTERAGENCY, INTERGOVERNMENTAL, AND STAKEHOLDER INTERACTIONS

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APPENDIX B

INTERAGENCY, INTERGOVERNMENTAL, AND STAKEHOLDER INTERACTIONS

This appendix describes DOE interagency, intergovernmental, and stakeholder interactions during the preparation of the Nevada Rail Corridor SEIS and the Rail Alignment EIS.

During the preparation of the Nevada Rail Corridor SEIS and the Rail Alignment EIS, the U.S. Department of Energy (DOE or the Department) has interacted with a number of government agencies and other organizations. These interaction efforts have several purposes, as follows:

- To discuss issues of concern with organizations having an interest in or authority over land that the Proposed Action would directly affect, or organizations having other interests that some aspect of the Proposed Action could affect
- To obtain information pertinent to the environmental impacts analyses
- To initiate consultations or permitting processes, including providing data to agencies with oversight, review, or approval authority over some aspect of the Proposed Action

Sections B.1 through B.8 describe agency and organization interests in the proposed railroad project and DOE consultations and interactions with those agencies and organizations.

B.1 Cooperating Agencies

The Bureau of Land Management (BLM or the Bureau), the Surface Transportation Board (STB), and the U.S. Air Force are cooperating agencies in the preparation of the Rail Corridor SEIS and the Rail Alignment EIS, pursuant to Council on Environmental Quality regulations at 40 Code of Federal Regulations 1501.6. Since the Draft Nevada Rail Corridor SEIS and Draft Rail Alignment EIS were published, DOE invited Nye County, Esmeralda County, Lincoln County, and the City of Caliente to become cooperating agencies. Nye County, Esmeralda County, Lincoln County, and the City of Caliente have accepted the role of cooperating agencies in the development of the Nevada Rail Corridor SEIS (see Section 1.4 of the Nevada Rail Corridor SEIS) and the Rail Alignment EIS (see Section 1.5 of the Rail Alignment EIS), pursuant to Council on Environmental Quality regulations, and have participated in the preparation of the Nevada Rail Corridor SEIS and the Rail Alignment EIS. The BLM and the STB could issue decisions concerning the Proposed Action and alternatives to the Proposed Action and could adopt the Nevada Rail Corridor SEIS and the Rail Alignment EIS in whole or in part and use them as a basis for their decisions. These federal agencies have management and regulatory authority over lands and resources that would be crossed by or be close to the proposed railroad or they have special expertise related to the Proposed Action.

B.1.1 BUREAU OF LAND MANAGEMENT

DOE met routinely with the BLM to discuss project direction and coordination. DOE has held numerous briefings and working meetings with the BLM, including staff from the Tonopah, Ely, Battle Mountain, Las Vegas, Reno, and Carson City BLM field offices, regarding the status of the National Environmental Policy Act (NEPA) analyses. Table B-1 summarizes examples of major DOE interactions with the BLM. In addition, a BLM staff member resided in DOE offices during the development of the Nevada Rail Corridor SEIS and the Rail Alignment EIS to facilitate communications and interactions between DOE and the BLM.

Table B-1. Summary of DOE interactions with the BLM[a] (page 1 of 2).

Date	Office	Summary of interaction
07/14/04	DOE Las Vegas	Discussed the schedule for preparation of the Rail Alignment EIS and reviewed the preliminary scope and outline for the EIS
12/02/04	DOE Las Vegas	Reviewed the nature of the Proposed Action and alternatives (including alternative segments) and the locations of railroad construction and operations support facilities for purposes of analysis
12/14/04	BLM Ely	• Obtained initial information for biological surveys and physical setting • Discussed unique natural features; soil surveys; BLM special status species; fencing; grazing allotments; wetlands; and various wildlife species
12/15/04	BLM Tonopah	• Obtained initial information for biological surveys and physical setting • Discussed soil surveys; invasive species; wetlands; BLM special status species; fencing; grazing allotments; wetlands; and various wildlife species
01/03/05	BLM Las Vegas	Obtained and discussed BLM input on key observation points for aesthetics analysis
01/04/05	BLM Ely	Obtained and discussed BLM input on key observation points for aesthetics analysis
01/06/05	BLM Battle Mountain	Obtained and discussed BLM input on key observation points for aesthetics analysis
02/08/05	BLM Tonopah	• Discussed fencing, land segregation, invasive species, and land-use conflicts • Identified potential activities to be considered in the Shared-Use Option and the cumulative impacts analysis
02/16/05	BLM Las Vegas	• Provided an overview of proposed rail alignment and alternative actions for BLM • Learned of BLM concerns
03/17/05	DOE Las Vegas	Discussed the approach for addressing mitigation measures
04/06/05	BLM Ely	Discussed caves, paleontology, and unique natural features
04/06/05	BLM Las Vegas	Formal presentation to BLM on the Rail Alignment EIS to review historical perspective; discuss decisions supported by the EIS; the Proposed Action and alternatives; use of conceptual design information; approaches to analyzing resources; land acquisition; and schedule
04/12/05	DOE Las Vegas	Discussed the approach for addressing mitigation measures and a preferred alignment
04/21/05	BLM Las Vegas	Reviewed the approach for land acquisition; discussed economic or value assessment of mineral resources and ore bodies
05/18/05	BLM Las Vegas	• Provided an update regarding the Rail Alignment EIS • Discussed BLM concerns • Presented and discussed approach to analysis of cumulative impacts
05/24/05	BLM Ely	• Discussed availability of mapping of visual resource management classifications, and the record of decision for Caliente Management Framework • Planned for and discussed the upcoming resource management plan for the Garden Valley area

Table B-1. Summary of DOE interactions with the BLM[a] (page 2 of 2).

Date	Office	Summary of interaction
05/26/05	BLM Battle Mountain	• Coordinated use of BLM geographical information system data
06/07/05	BLM Ely	• Provided an update regarding the Rail Alignment EIS • Learned of BLM resource management plan update and identified projects that should be included in the Rail Alignment EIS • Discussed Rail Alignment EIS cumulative impacts analysis
06/22/05	BLM Tonopah	• Provided an update regarding the Rail Alignment EIS
06/29/05	BLM Battle Mountain	• Provided an update regarding the Rail Alignment EIS
02/07/06-02/08/06	DOE Las Vegas	• Presented the DOE preferred alternative segments and received input from cooperating agencies
03/14/06-03/16/06	BLM Ely	• Draft EIS workshop to discuss Proposed Action and potential impacts
11/28/06	BLM Reno	• Provided an update regarding the Nevada Rail Corridor SEIS and the Rail Alignment EIS
2/13/07	BLM Carson City	• Provided an update regarding the Nevada Rail Corridor SEIS and the Rail Alignment EIS

a. BLM = Bureau of Land Management; DOE = U.S. Department of Energy; EIS = environmental impact statement; SEIS = supplemental environmental impact statement.

B.1.2 SURFACE TRANSPORTATION BOARD

DOE met routinely with the STB to discuss project direction and coordination. DOE has held numerous briefings and working meetings with the STB regarding the status of the NEPA analyses. For example, the STB:

- Participated in a meeting on July 14, 2004, to discuss the Rail Alignment EIS preparation schedule and to review the preliminary scope and outline of the EIS
- Participated in a meeting on December 2, 2004, to review the nature of the Proposed Action and alternatives (including alternative segments) and to review the proposed locations of construction and operations support facilities for purposes of analysis
- Received a formal presentation from DOE on March 16, 2005, to review the proposed Caliente rail alignment alternative segments, use of conceptual design information, framework of the Shared-Use Option, and approaches to analyzing various environmental resources
- Participated in a meeting on April 12, 2005, to discuss the approach for addressing mitigation measures and a preferred alignment along the Caliente rail corridor and to review the approach for acquiring land
- Provided, on April 19, 2005, input regarding the extent to which truck traffic carrying general commodities should be evaluated under the No-Action Alternative
- Participated in a 2-day meeting on February 7 and 8, 2006, to discuss the DOE preferred alternative segments along the Caliente rail alignment
- Participated, on February 26, 2008, in a teleconference to discuss analyses of cultural resources and environmental justice that are consistent with policies and precedents of both agencies.

B.1.3 U.S. AIR FORCE

The U.S. Air Force participated in a meeting on July 14, 2004, to discuss the NEPA document preparation schedule and to review the preliminary scope and outline of the Rail Alignment EIS, and a 2-day meeting on February 7 and 8, 2006, to discuss the DOE preferred alternative segments along the Caliente rail alignment.

B.1.4 NYE COUNTY, NEVADA

Nye County, Nevada, is the situs jurisdiction of the Yucca Mountain Repository and portions of the proposed railroad and has special expertise on the relationship of DOE's Proposed Action to the objectives of regional and local land-use plans, policies and controls, and to the current and planned infrastructure in the county, including public services and traffic conditions. Subsequent to the release of the Draft Rail Alignment EIS, DOE invited and Nye County accepted cooperating agency status on the Rail Alignment EIS and the Nevada Rail Corridor SEIS.

B.1.5 ESMERALDA COUNTY, NEVADA

Esmeralda County, Nevada, contains portions of the proposed railroad and has special expertise on the relationship of DOE's Proposed Action to the objectives of regional and local land-use plans, policies and controls, and to the current and planned infrastructure in the county, including public services and traffic conditions. Subsequent to the release of the Draft Rail Alignment EIS, DOE invited and Esmeralda County accepted cooperating agency status on the Rail Alignment EIS and the Nevada Rail Corridor SEIS.

B.1.6 LINCOLN COUNTY, NEVADA

Lincoln County, Nevada, contains portions of the proposed railroad and has special expertise on the relationship of DOE's Proposed Action to the objectives of regional and local land-use plans, policies and controls, and to the current and planned infrastructure in the county, including public services and traffic conditions. Subsequent to the release of the Draft Rail Alignment EIS, DOE invited and Lincoln County accepted cooperating agency status on the Rail Alignment EIS and the Nevada Rail Corridor SEIS.

B.1.7 CITY OF CALIENTE, NEVADA

The City of Caliente, Nevada, contains portions of the proposed railroad and has special expertise on the relationship of DOE's Proposed Action to the objectives of local land-use plans, policies and controls, and to the current and planned infrastructure in the city, including public services and traffic conditions. Subsequent to the release of the Draft Rail Alignment EIS, DOE invited and the City of Caliente accepted cooperating agency status on the Rail Alignment EIS and the Nevada Rail Corridor SEIS.

B.2 Other Federal Agencies

B.2.1 U.S. DEPARTMENT OF THE INTERIOR

The U.S. Department of the Interior is responsible for most federally owned public lands and natural resources. Department of the Interior activities potentially affected by the Proposed Action include managing lands and resources, conducting scientific research and investigations, developing resources, and carrying out trust responsibilities of the U.S. Government with respect to American Indians. The Department of the Interior oversees various bureaus with jurisdictional responsibilities or interests that

would be affected by the proposed railroad, including the Bureau of Indian Affairs, the BLM, and the U.S. Fish and Wildlife Service.

The Bureau of Indian Affairs is responsible for administering and managing land held in trust by the United States for American Indians, Indian tribes, and Alaska Natives. The Bureau of Indian Affairs is responsible for developing forestlands, leasing assets on these lands, directing agricultural programs, protecting water and land rights, developing and maintaining infrastructure, and economic development.

On September 20, 2004, DOE responded to a letter from the Bureau of Indian Affairs, indicating that the Department had eliminated one Caliente alternative segment from further consideration based on the Bureau's concern that it would cross lands held in trust for the Timbisha Shoshone Tribe (DIRS 174558-Sweeney 2004, all).

To build the proposed railroad along the Mina rail alignment, the Department would construct a segment of rail line on the Walker River Paiute Reservation to bypass Schurz, and would operate over segments of the existing Department of Defense Branchline that through the Reservation. DOE would need to apply to the Bureau of Indian Affairs for a right-of-way in which to construct the rail line. Bureau of Indian Affairs regulations in 25 CFR Part 169 establish procedures for the issuance of rights-of-way over Indian lands. The Bureau of Indian Affairs was a cooperating agency in the preparation of the Draft Nevada Rail Corridor SEIS and the Draft Rail Alignment EIS to fulfill its NEPA responsibilities associated with any decision to grant a right-of-way for railroad construction and operations, and because of its expertise in American Indian issues. However, the Bureau of Indian Affairs decided not to remain a cooperating agency due to the nonpreferred status of the Mina Implementing Alternative resulting from the Walker River Paiute Tribe's withdrawal from the EIS process.

Under the Endangered Species Act of 1973 (16 United States Code [U.S.C.] 1531 *et seq.*), as amended, the U.S. Fish and Wildlife Service, a bureau of the U.S. Department of the Interior, has responsibility to determine if projects such as the proposed railroad would have an adverse impact on endangered or threatened species, on species proposed for listing as endangered or threatened, or on designated critical habitat.

- DOE met with staff from the U.S. Fish and Wildlife Service on January 27, 2005, March 2, 2006, and December 13, 2006, to introduce the project; discuss compliance with the Endangered Species Act; and consider potential impacts to threatened and endangered species.
- On April 12, 2006, representatives of the U.S. Fish and Wildlife Service and DOE visited the Caliente area to evaluate habitat for southwestern willow flycatchers and discuss impacts to that endangered species.
- On March 18, 2005, the U.S. Fish and Wildlife Service sent DOE a list of threatened and endangered species and candidate species that occur in the region of influence of the Caliente rail alignment (DIRS 174439-Williams 2005, all).
- On December 13, 2006, and April 11, 2007, DOE met with staff from the U.S. Fish and Wildlife Service Reno Office to discuss compliance with the Endangered Species Act and requested a list of endangered species that occur in the Mina rail alignment region of influence.
- On March 8, 2007, the Fish and Wildlife Service sent DOE a species list for the Mina rail alignment and an updated list for the Caliente rail alignment (DIRS 181055-Williams 2007, all).
- On March 13, 2008, DOE submitted to the Fish and Wildlife Service a *Biological Assessment of the Effects on Threatened and Endangered Species of Constructing and Operating a Railroad from Caliente, Nevada, to Yucca Mountain*, and requested initiation of formal consultation as required by Section 7 of the Endangered Species Act.

B.2.2 U.S. ARMY

B.2.2.1 U.S. Army Corps of Engineers

The Clean Water Act of 1977 (33 U.S.C. 1251 *et seq.*) gives the U.S. Army Corps of Engineers permitting authority over activities that discharge dredge or fill material into waters of the United States. If DOE activities associated with the proposed railroad would discharge dredge or fill into any such waters, the Department might need to obtain a permit from the U.S. Army Corps of Engineers.

On November 4, 2004, March 7, 2006, November 27, 2006, and March 5, 2007, DOE met with the U.S. Army Corps of Engineers to provide an overview of the plans for constructing a rail line to Yucca Mountain along the Caliente rail alignment and to obtain initial information from the U.S. Army Corps of Engineers on the permitting process for Section 404 of the Clean Water Act. At these meetings, DOE and the Corps of Engineers discussed the required state permits; Corps of Engineers jurisdiction over isolated waters; the type of permit DOE would have to obtain; content and timing of the permit application; potential mitigation; the addition of the Mina rail alignment and related construction plans; and compliance with the National Environmental Policy Act.

On August 28, 2007, DOE met with the U.S. Army Corps of Engineers to discuss the process for determining which waters along the rail alignments are regulated under Section 404 of the Clean Water Act. On October 16, 2007, DOE submitted to the U.S. Army Corps of Engineers a request for jurisdictional determination for the Caliente rail alignment.

DOE presented a summary of the proposed action of constructing a rail line along the Caliente alignment at a pre-application meeting hosted by the U.S. Army Corps of Engineers in Reno, Nevada, on October 25, 2007.

B.2.2.2 U.S. Army – Hawthorne Army Depot

The mission of the U.S. Army is to serve the American people, to defend the Nation, to protect vital national interests, and to fulfill national military responsibilities. The Mina rail alignment includes segments of an Army-owned rail line that runs from the Fort Churchill siding near Wabuska, Nevada, to the Hawthorne Army Depot near Hawthorne, Nevada. In addition, DOE is considering constructing a segment of rail line and a staging yard facility on the Hawthorne Army Depot. The U.S. Army, through the Hawthorne Army Depot and the U.S. Army Corps of Engineers, was a cooperating agency in the preparation of the Draft Nevada Rail Corridor SEIS and the Draft Rail Alignment EIS to ensure that the Army fulfilled its NEPA responsibilities associated with any decision to allow DOE to construct a segment of rail line and a staging yard facility on Army-controlled property. The U.S. Army decided not to remain a cooperating agency due to the nonpreferred status of the Mina Implementing Alternative resulting from the Walker River Paiute Tribe's withdrawal from the EIS process. The U.S. Army has participated in the following meetings:

- December 23, 2006, to discuss the status of document preparation, and the inclusion of the Mina rail alignment as part of the NEPA analysis
- January 8, 2007, to discuss rail alignment infrastructure in relation to the U.S. Army-established safety zones around munitions storage areas
- February 19, 2007, to discuss the location and use of switching yards from the existing U.S. Department of Defense Branchline

B.2.3 U.S. DEPARTMENT OF AGRICULTURE

The U.S. Department of Agriculture is responsible for ensuring that the potential for federal programs to contribute to unnecessary and irreversible conversion of farmlands to nonagricultural uses is kept to a minimum.

On March 9, 2007, DOE sent a letter to the Natural Resources Conservation Service requesting that the Service identify prime farmland along the Caliente and Mina rail alignments. In their response, the Natural Resources Conservation Service office identified two segments that would potentially cross farmland, centered around the junction between the end of the Caliente and Eccles alternative segments and the beginning of Caliente common segment 1. About 2 to 2.4 kilometers (1.2 to 1.5 miles) of the northern portion of the Eccles alternative segment would cross private land with the potential to be farmed (DIRS 181388-Arcaya 2007, all).

B.2.4 U.S. ENVIRONMENTAL PROTECTION AGENCY

On February 20, 2008, DOE met with staff of the U.S. Environmental Protection Agency to discuss that agency's comments on the Draft Rail Alignment EIS, and to describe analyses conducted and changes made to reduce the impacts of the Proposed Action on wetlands and other surface waters and comply with Section 404 of the Clean Water Act.

B.3 State of Nevada

If DOE decided to construct the proposed railroad along the Caliente rail alignment or the Mina rail alignment, the Department would need to obtain a range of permits and approvals from the State of Nevada (Rail Alignment EIS, Chapter 6, Statutory, Regulatory, and Other Applicable Requirements).

- On March 23, 2005, DOE met with personnel from the Nevada Department of Wildlife to identify information that they had regarding wildlife and sensitive animal species that could be included in the Rail Alignment EIS. Various species were discussed, as was fencing along the Caliente rail alignment. DOE had numerous informal follow-up meetings and conversations with the Nevada Department of Wildlife occurred to coordinate sharing of wildlife information.
- On March 23, 2005, DOE met with personnel from the Nevada Division of Forestry to identify pertinent information to be used in the Rail Alignment EIS. The Division of Forestry provided direction regarding where to obtain pertinent information.
- On December 20, 2005, DOE met with personnel from the Nevada Department of Transportation to introduce DOE plans for constructing a rail line to Yucca Mountain along the Caliente rail alignment and to inquire about standards or requirements for road upgrades/improvements, requirements for grade-crossing protection, anticipated improvement projects, and other related topics.
- On January 10, 2006, DOE met with the Nevada Bureau of Air Quality concerning air quality permits and the Rail Alignment EIS. The purpose of the meeting was to present to the Bureau a general overview of the Nevada Rail Project, and a description of air quality permitting that will be included in the Rail Alignment EIS.
- On November 31, 2006, and December 18, 2006, DOE met with the Nevada Division of Water Resources to discuss water appropriations for construction and operation of the proposed railroad along the Caliente rail alignment and the process for developing and submitting permit applications.

B.4 Federal and State Agencies Consulted Jointly

DOE, the Advisory Council on Historic Preservation, the Nevada State Office of Historic Preservation, the BLM, and the STB held numerous meetings during 2005 and 2006 to develop a programmatic agreement (see Appendix M) to address DOE responsibilities under Sections 106 and 110 of the National Historic Preservation Act and the Council's implementation regulations. The programmatic agreement provides that an appropriate level of field investigation, including on-the-ground intensive surveys, evaluations of all recorded resources in the *National Register of Historic Places*, assessments of adverse effects, and applicable mitigation of identified impacts, be completed prior to commencement of any ground-disturbing construction activities (DIRS 176912-Wenker et al. 2006, all). Cultural resource requirements for the segment of the rail alignment and the Rail Equipment Maintenance Yard and geologic repository operations area interface inside the Yucca Mountain Site boundary are covered by the existing programmatic agreement for *Development for the Nuclear Waste Deep Geologic Repository at Yucca Mountain, Nevada* (DIRS 104558-DOE 1988, all) between the DOE Office of Civilian Radioactive Waste Management, the Advisory Council on Historic Preservation, and the Nevada State Office of Historic Preservation.

Although not a formal signatory, the Nevada State Historic Preservation Officer has the right at any time, on request, to participate in monitoring DOE compliance with the programmatic agreement. In addition, DOE must provide opportunities for consultations with the Advisory Council on Historic Preservation, the Nevada State Historic Preservation Officer, the BLM, the STB, and American Indian tribes as appropriate throughout the process of implementing the programmatic agreement. DOE will submit an annual report to the Advisory Council, the Nevada State Historic Preservation Officer, the BLM, and the STB describing the activities it conducts each year to implement the stipulations of the programmatic agreement. DOE will continue to seek input from the Advisory Council on Historic Preservation, the Nevada State Historic Preservation Officer, the BLM, and the STB and will interact appropriately to meet the reporting and other stipulations of the programmatic agreement.

B.5 Local Agencies

Units of local government that would be affected by construction and operation of the proposed railroad along the Caliente rail alignment include Esmeralda, Lincoln, and Nye Counties and the City of Caliente.

Under a Cooperative Agreement with DOE, Nye County conducted a mail survey to property owners along or near the Caliente rail alignment to obtain their concerns and thoughts on potential mitigation measures (DIRS 182923-Miller 2003, all). Also under the Cooperative Agreement with DOE, the Nye County Department of Natural Resources and Federal Facilities conducted an assessment of the potential economic benefits of the proposed railroad to Lincoln, Nye, and Esmeralda Counties (DIRS 174090-Wilbur Smith Associates 2005, all).

DOE has interacted with Esmeralda, Lincoln, and Nye Counties and the City of Caliente on a regular basis throughout the preparation of the Nevada Rail Corridor SEIS and the Rail Alignment EIS. For example:

- On March 23, 2005, DOE conducted an all-day project status meeting with the affected units of government, which includes Inyo, Churchill, Esmeralda, Nye, Mineral, White Pine, Lincoln, Clark, Lander, and Eureka Counties. Each county provided an oversight activity report.
- On May 24, 2005, DOE provided an annual program update to the Lander County Commissioners.

- On January 9, 2007, DOE met with Nye County to provide an update on the Nevada Rail Corridor SEIS and the Rail Alignment EIS.
- On January 12, 2007, DOE met with Mineral, Churchill, Esmeralda, and Nye Counties to discuss potential economic opportunities that would be associated with the Shared-Use Option.
- On February 2, 2007, DOE met with the Nye County Economic Development representatives to discuss the potential location of an industrial park the county is considering building near the Yucca Mountain Repository.
- On February 26, 2007, DOE met with Lincoln, Mineral, Nye, and Esmeralda Counties to discuss potential water-appropriations applications that would be required to construct and operate the proposed railroad.

B.6 American Indian Tribes

In 1987, DOE initiated the Native American Interaction Program to solicit input from and interact with tribes and organizations on the characterization of the Yucca Mountain Site and the possible construction and operation of a repository. These tribes and organizations – Southern Paiute; Western Shoshone; and Owens Valley Paiute and Shoshone people from Arizona, California, Nevada, and Utah – have cultural and historic ties to both the Yucca Mountain area and to the larger region that includes portions of the Caliente and Mina rail alignments.

The Native American Interaction Program concentrates on the protection of cultural resources at Yucca Mountain and contributes to a government-to-government relationship with the tribes and organizations. Its purpose is to help DOE comply with various federal laws and regulations, including the American Indian Religious Freedom Act (42 U.S.C. 1996); the Archaeological Resources Protection Act (16 U.S.C. 470aa *et seq.*); the National Historic Preservation Act (16 U.S.C. 470 *et seq.*); the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001); the American Indian and Alaska Native Tribal Government Policy; DOE Order 1230.2, *American Indian and Tribal Government Policy*; Executive Order 13007, *Indian Sacred Sites*; and Executive Order 13084, *Consultation and Coordination with Indian Tribal Governments*. These regulations and Executive Orders mandate the protection of archaeological sites and cultural items and require agencies to include American Indians and federally recognized tribes in discussions and interactions on major federal actions.

Initial ethnographic studies identified three tribal groups – the Southern Paiute, the Western Shoshone, and the Owens Valley Paiute and Shoshone – whose cultural heritage includes the Yucca Mountain region. Additional ethnographic efforts eventually led to the involvement of 17 tribes and organizations in the Yucca Mountain Project American Indian and cultural resource studies.

The 17 tribes and organizations have formed the Consolidated Group of Tribes and Organizations (an informal coalition), which consists of officially appointed tribal representatives who are responsible for presenting their respective tribal concerns and perspectives to DOE. A major priority of this group has been the protection of cultural resources and environmental restoration at Yucca Mountain. Members of the group have participated in many ethnographic interviews and have provided DOE valuable insights into American Indian cultural and religious values and beliefs. These interactions have produced several reports that record the regional history of American Indian people and the interpretation of American Indian cultural resources in the Yucca Mountain region.

On June 2, 2004, DOE met with the Consolidated Group of Tribes and Organizations to introduce the rail alignment project and learn of their concerns. In October 2004, a small group of designated tribal

representatives participated in a field reconnaissance trip along the proposed rail alignment, followed by a meeting with the larger consolidated group in late November 2004.

Based on these efforts, these tribal representatives known as the American Indian Writers Subgroup, a subgroup of the Consolidated Group of Tribes and Organizations, prepared *American Indian Perspectives on the Proposed Rail Alignment Environmental Impact Statement for the U.S. Department of Energy Yucca Mountain Project* (DIRS 174205-Kane et al. 2005, all). This document provides insight into American Indian viewpoints and concerns regarding cultural resources along the Caliente rail alignment and long-term impacts of DOE selection of a rail system to transport spent nuclear fuel and high-level radioactive waste to a geologic repository at Yucca Mountain, Nevada. This document is a supplement to the American Indian Writers Subgroup document produced in 1998 titled *American Indian Perspectives on the Yucca Mountain Site Characterization Project and the Repository Environmental Impact Statement* (DIRS 102043-AIWS 1998, all).

- In July 2005, DOE held a tribal update meeting with the Consolidated Group of Tribes and Organizations. The rail alignment project and the document prepared by the American Indian Writers Subgroup were topics of discussion.
- In September 2005, DOE held a special meeting with the Consolidated Group of Tribes and Organizations for discussions on the Environmental Assessment associated with the DOE request for a public land order to prevent new mining claims along the Caliente rail corridor study area.
- In April 2006, DOE again met with the American Indian Writers Subgroup for continued discussions and updates on the Caliente rail alignment. After each meeting between DOE and the Consolidated Group of Tribes and Organizations or the designated American Indian Writers Subgroup, the tribal representatives prepared a series of recommendations for DOE consideration.
- On November 29, 2006, DOE met with the Consolidated Group of Tribes and Organization to discuss the inclusion of the Mina rail alignment for analysis in the Nevada Rail Corridor SEIS and the Rail Alignment EIS and to provide an update on analysis of the Caliente rail alignment.
- On November 27, 2007, DOE hosted a meeting with the Consolidated Group of Tribes and Organizations to discuss program updates and receive comments on the Draft Rail Alignment EIS for eventual incorporation, along with responses, in the Comment Response Document for the Final EIS.

The Walker River Paiute Tribe is a Northern Paiute tribe and is a federally recognized tribal entity eligible to receive services from the Bureau of Indian Affairs. If DOE constructed and operated the proposed railroad along the Mina rail alignment, the Department would construct a segment of the rail line on the Walker River Paiute Reservation to bypass Schurz, and operate over segments of the existing Department of Defense Branchline that runs through the Reservation. DOE would need to apply to the Bureau of Indian Affairs for a right-of-way in which to construct the railroad. The Walker River Paiute Tribe had initially agreed to become a cooperating agency in the preparation of the Draft Nevada Rail Corridor SEIS and the Draft Rail Alignment EIS to allow the Tribe to make an informed decision on granting a right-of-way and because of the Tribe's special expertise associated with the environmental resources on the Reservation. However, on April 17, 2007, the Walker River Paiute Tribal Council announced a resolution that withdrew the Tribe from participating in the EIS process. The Walker River Paiute Tribe also decided to withdraw as a cooperating agency. Before withdrawing from the EIS process, the Walker River Paiute Tribe participated in several status meetings to discuss the Proposed Action and environmental analyses and document preparation.

B.7 Government Organization Having Oversight of DOE Activities Related to the Proposed Railroad, Nuclear Waste Technical Review Board

The Nuclear Waste Policy Amendments Act of 1987 (42 U.S.C. 10101 *et seq.*) created the 11-member Nuclear Waste Technical Review Board to evaluate DOE scientific and technical activities related to the management and disposal of the Nation's commercial spent nuclear fuel. The Technical Review Board's primary responsibility is to evaluate (1) the site characterization phase of the Yucca Mountain Project and the activities associated with determining whether the Yucca Mountain Site is suitable for further development as a geologic repository, and (2) the packaging and transportation of spent nuclear fuel and high-level radioactive waste.

The mandate of the Nuclear Waste Technical Review Board is to evaluate the scientific and technical work DOE is performing in its commercial nuclear waste disposal program. The Technical Review Board makes scientific and technical recommendations to DOE.

B.8 Stakeholders

On April 8, 2004, DOE published a Notice of Intent (69 *FR* 18565) that announced it would prepare an EIS for the alignment, construction, and operation of a railroad for shipment of spent nuclear fuel, high-level radioactive waste, and other materials from a site near Caliente, Lincoln County, Nevada to a geologic repository at Yucca Mountain.

After the Notice of Intent was published, but prior to the initiation of field activities to support the Rail Alignment EIS, DOE conferred with the Nye, Esmeralda, and Lincoln County commissioners on the planned field activities in their areas. To focus the initial discussion, DOE, together with Nye, Esmeralda, and Lincoln County representatives, organized and participated in one teleconference and four formal meetings. These interactions included approximately 10 interested parties. At these meetings participants discussed a methodology for informing stakeholders along the corridor of the nature and frequency of field work. As a result of these discussions, the county commissioners requested that DOE undertake face-to-face meetings with the stakeholders along the Caliente corridor to explain the planned field activities.

Starting in June 2004 and continuing into the fall, DOE began a major stakeholder interaction program to visit and inform stakeholders of planned field activities in support of the Rail Alignment EIS. DOE conducted approximately 30 face-to-face stakeholder interactions in Nye County, Esmeralda County, and Lincoln County. The interactions were conducted in concert with Nye and Lincoln County commissioners. Stakeholders included private land owners, grazing allotment permittees, mine operators and holders of mining claims, owners of commercial enterprises, and representatives from petroleum companies. In addition, as a result of a meeting with the representatives of the N-4 Grazing Board and Lincoln County, DOE organized two formal meetings in September 2004 to meet with grazing allotment permittees in Lincoln County. Approximately 27 stakeholders attended these two meetings.

To continue the stakeholder involvement effort, DOE appointed and maintained a Stakeholder Liaison whose function is to visit and/or telephone stakeholders and answer questions on the rail project, provide information, discuss agreements for access to private property, and inform stakeholders of field activities in their areas. About 105 face-to-face communications occurred from the fall of 2004 to the spring of 2006. In addition, the Stakeholder Liaison telephoned many stakeholders to arrange for face-to-face meetings and also to keep them informed of field activities. Moreover, while traveling through areas

along the corridors, the Stakeholder Liaison would occasionally stop and visit spontaneously with stakeholders met during past encounters to answer questions and provide status on the rail project.

In parallel with the interactions by the Stakeholder Liaison, DOE participated in additional stakeholder interactions along the Caliente corridor. In January 2005 DOE conducted a multiple-day trip to revisit many of the stakeholders DOE met during prior trips in 2004. During the January 2005 interactions, DOE engaged with approximately 25 stakeholders. These included private property owners, mine operations and holders of mining claims, local administrators, owners of commercial enterprises, and grazing allotment permittees.

On October 13, 2006, DOE published an Amended Notice of Intent (71 *FR* 60484) that announced the expanded scope of the Rail Alignment EIS to include detailed analyses of construction and operation of a railroad in the Mina corridor.

DOE interfaced on a regular basis (approximately bi-weekly) with the Walker River Paiute Tribe from April 2006 to April 2007. At these meetings DOE and the Walker River Paiute Tribe discussed various topics and DOE provided answers to questions related to the rail project.

Stakeholder interactions continued as the Stakeholder Liaison met on two separate occasions (July 2007 and August 2007) with the Utilities Supervisor of the Goldfield area to discuss impacts near Goldfield, Nevada. The BSC Stakeholder Liaison engaged in meetings in October 2007 with members of three off-road racing clubs.

Prior to the release of the Draft Rail Alignment EIS, DOE pursued a stakeholder initiative to inform stakeholders of the release of the document and give notice of the upcoming public comment hearings. DOE held approximately 35 face-to-face stakeholder interactions. Stakeholders included private property owners, grazing allotment permittees, and owners of commercial enterprises (DIRS 185397-Mrotek 2008, all).

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APPENDIX C

EVOLUTION OF ALTERNATIVE SEGMENTS AND COMMON SEGMENTS

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APPENDIX C

EVOLUTION OF ALTERNATIVE SEGMENTS AND COMMON SEGMENTS

This appendix describes the process DOE used to evaluate and determine the range of alternative segments considered in the Rail Alignment EIS and the results of that process.

Section C.7 defines terms shown in ***bold italics***.

Section C.1 of this appendix describes how the U.S. Department of Energy (DOE or the Department) developed the preliminary range of ***alternative segments***. Section C.2 describes the public scoping process and the comments DOE received and used as input to development of the sets of alternative segments and ***common segments*** analyzed in detail in the Rail Alignment ***Environmental Impact Statement*** (EIS). Section C.3 describes the alignment identification and analysis process. Section C.4 describes alternative segments eliminated from detailed analysis. Section C.5 describes the process DOE used to refine the alternative segments.

C.1 Development of the Range of Alternative Segments

To develop the range of alternative segments for evaluation in the Rail Alignment EIS, DOE evaluated a suite of potential alternative segments for the Caliente Implementing Alternative and the Mina Implementing Alternative to determine whether they would be practical or feasible from a technical, environmental, and economic standpoint. To develop the range of alternative segments, DOE:

Alternative segments are portions of the rail alignments for which DOE is considering two or more routes for the rail line.

Common segments are portions of the rail alignments for which DOE has identified a single route for the rail line.

- Identified public comments related to alternative segments; considered comments that suggested specific alternative segments, and comments that could be construed as criteria to modify the preliminary alternative segments and common segments described in the Notices of Intent (69 *Federal Register* [*FR*] 18565, April 18, 2004; and *FR* 60484, October 13, 2006), or as criteria to identify new alternative segments.
- Identified engineering factors relevant to the design and construction of a ***rail line***; considered factors consistent with those of railroad-industry standards and practices.
- Identified environmental features to determine whether they would be directly affected by potential alternative segments and common segments; considered features such as springs, wetlands, and Wilderness Study Areas.
- Identified potential conflicts with land uses, including American Indian lands, private lands, and mineral resources.
- Evaluated then-currently available information, such as U.S. Geological Survey topographic maps and associated databases.

- Evaluated the suite of potential alternative segments to determine whether they could be constructed to satisfy the engineering factors and avoid environmental features.
- Estimated costs to construct each potential alternative segment.

The process involved a number of steps for each ***rail corridor***, as depicted on Figure C-1. Sections C.2.1 through C.5 describe the evaluative process and results in more detail.

C.1.1 DEVELOPMENT OF THE RANGE OF ALTERNATIVE SEGMENTS WITHIN THE CALIENTE RAIL CORRIDOR

In the *Notice of Intent to Prepare an EIS for the Alignment, Construction, and Operation of a Rail Line to a Geologic Repository at Yucca Mountain, Nye County, Nevada* (69 *FR* 18565, April 8, 2004) (Notice of Intent), DOE identified preliminary alternative segments and common segments to be evaluated in the Rail Alignment EIS (Figure C-2).

The Department estimated that about 55 percent of the length of the Caliente rail corridor would not have alternative segments and these areas would be referred to as common segments. In the Notice of Intent, DOE indicated it would consider potential alternative segments outside the 0.4-kilometer (0.25-mile)-wide Caliente rail corridor that might minimize, avoid, or otherwise mitigate adverse environmental ***impacts***. More specifically, DOE invited comment on the following:

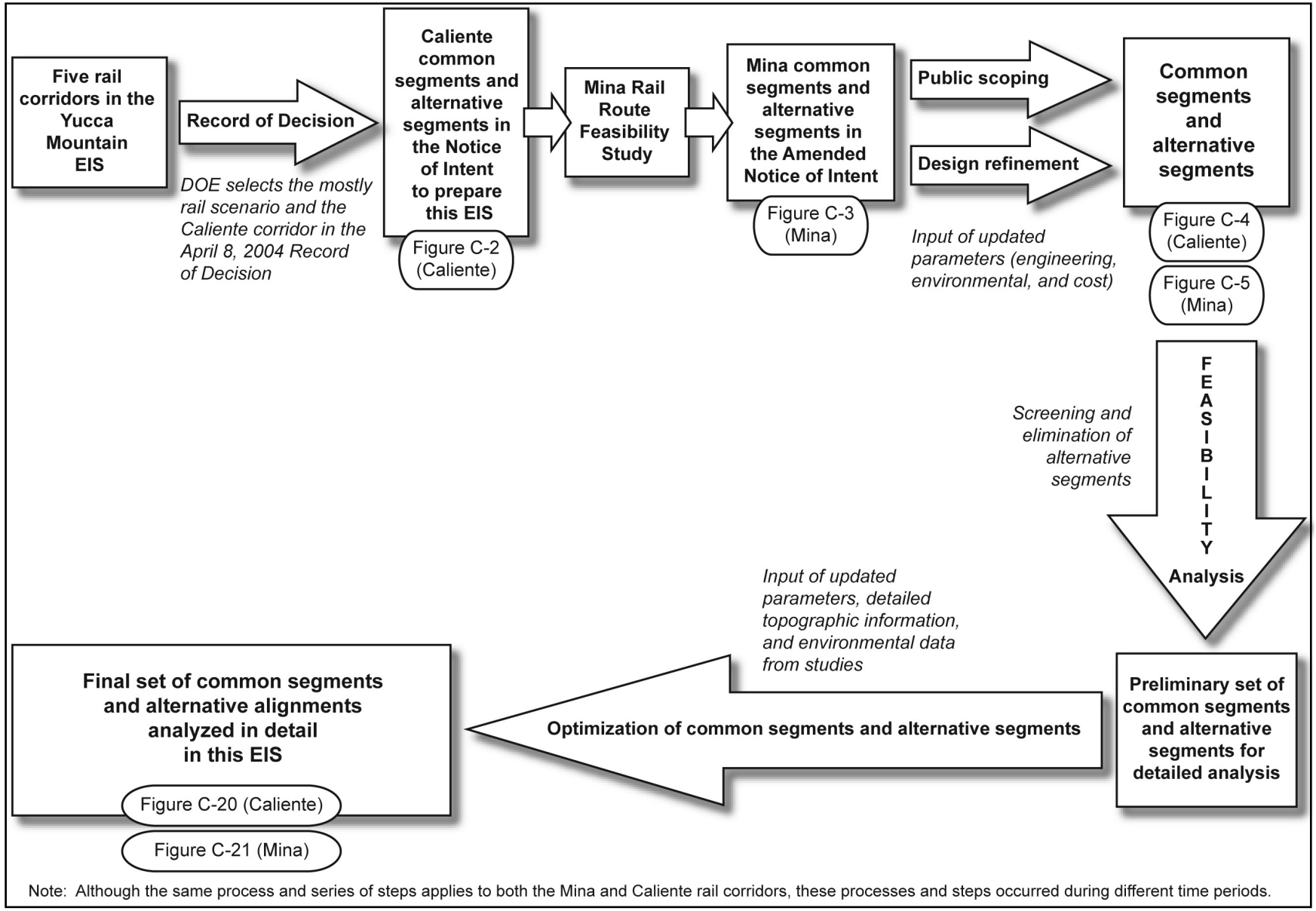
- Should additional alternative segments be considered that might minimize, avoid, or mitigate adverse environmental impacts, such as avoiding Wilderness Study Areas, American Indian trust lands, or encroachment on the Nevada Test and Training Range?
- Should any of the preliminary alternative segments be eliminated from detailed study?

C.1.2 DEVELOPMENT OF THE RANGE OF ALTERNATIVE SEGMENTS WITHIN THE MINA RAIL CORRIDOR

In the *Amended Notice of Intent to Expand the Scope of the Environmental Impact Statement for the Alignment, Construction, and Operation of a Rail Line to a Geologic Repository at Yucca Mountain, Nye County, NV* (71 *FR* 60484, October 13, 2006) (Notice of Intent), DOE announced that it had identified preliminary alternative segments and common segments for the Mina rail corridor to be evaluated in the Rail Alignment EIS (Figure C-3). In response to communications with the Walker River Paiute Tribe, DOE initiated a study to determine the feasibility of a rail line in the Mina rail corridor and to identify preliminary alternative segments (DIRS 180222-BSC 2006, all).

Based on this preliminary feasibility study, and the resultant alternative segments and common segments, DOE determined that the Mina rail corridor did warrant further detailed study.

The resulting alternative segments and common segments were presented in the Amended Notice of Intent. Through the Notice, DOE solicited input from the public regarding either the elimination of alternative segments, or identification and evaluation of any additional alternative segments within the Caliente rail corridor or Mina rail corridor that would reduce or avoid potential adverse environmental impacts.



Note: Although the same process and series of steps applies to both the Mina and Caliente rail corridors, these processes and steps occurred during different time periods.

Figure C-1. Process used to evaluate the Caliente and Mina rail corridors.

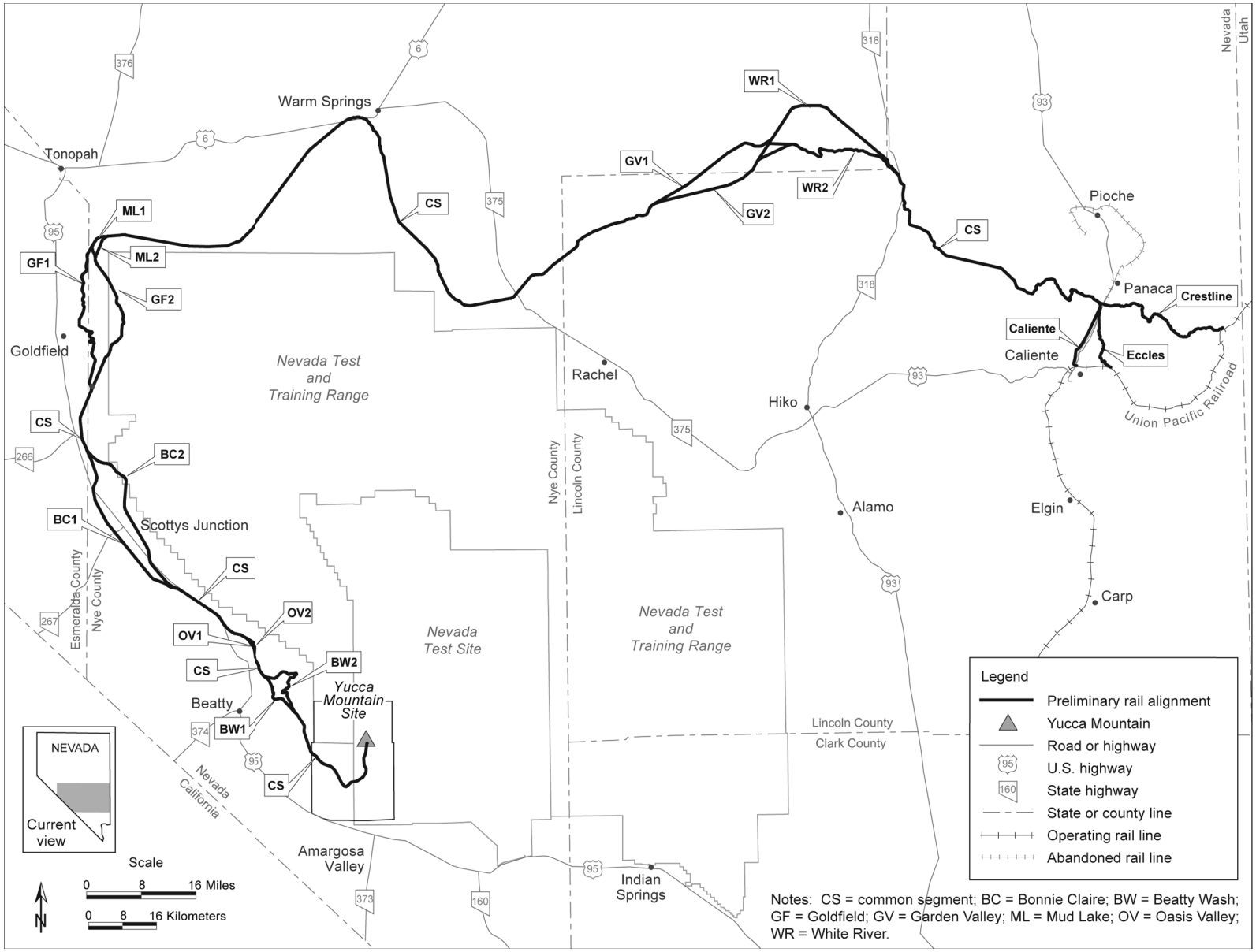


Figure C-2. Caliente rail corridor preliminary alternative segments and common segments as identified in the Notice of Intent.

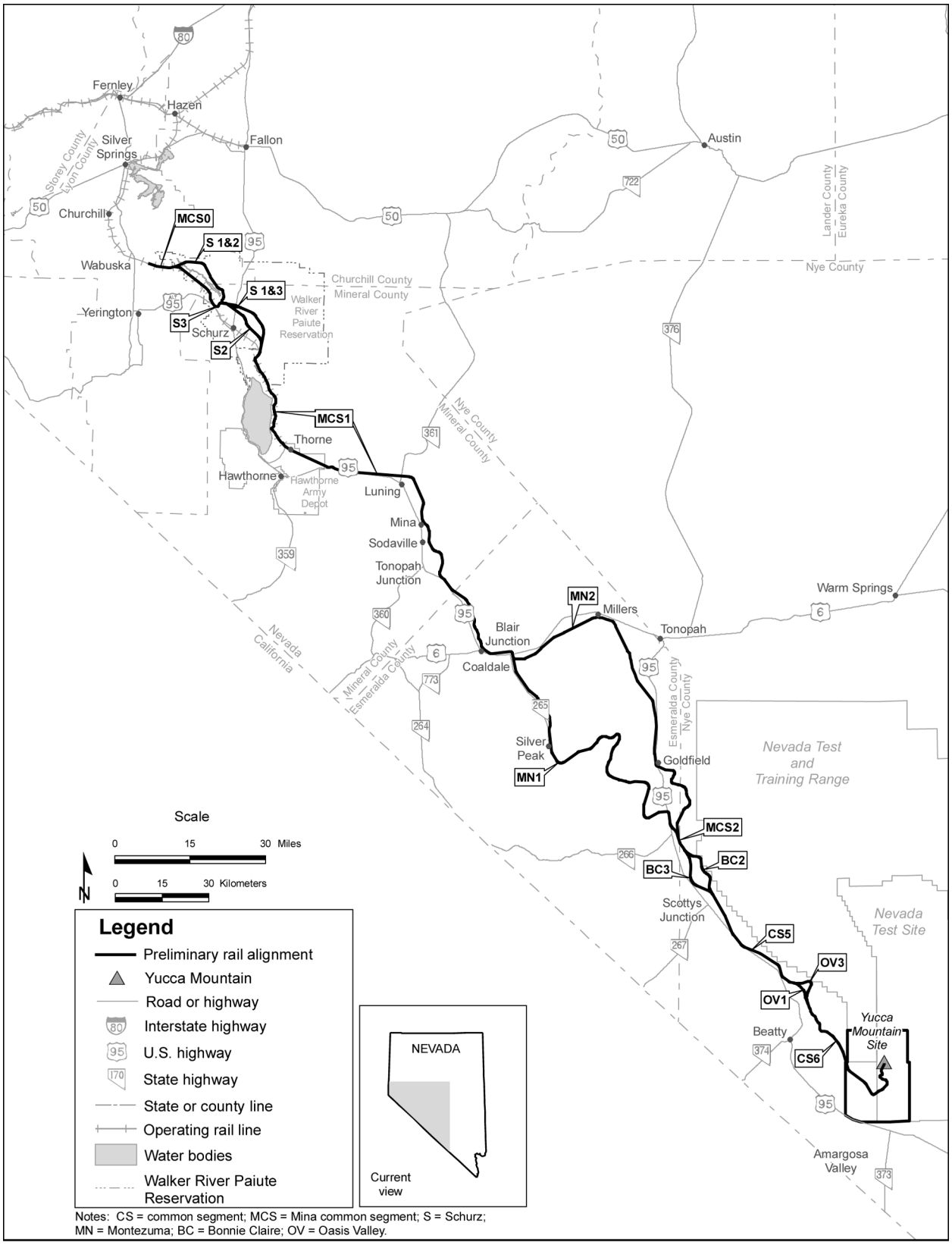


Figure C-3. Mina rail corridor preliminary alternative segments and common segments as identified in the Amended Notice of Intent.

C.2 Public Scoping

C.2.1 CALIENTE RAIL ALIGNMENT PUBLIC SCOPING

The Notice of Intent identified preliminary alternative segments to be evaluated in the Rail Alignment EIS. DOE evaluated all public comments received as a result of the public scoping process.

The Department considered comments the Bureau of Land Management (BLM) received during its public meetings on the DOE proposed land ***withdrawal*** from surface and mining entry for the Caliente rail corridor (see Chapter 1 of the Rail Alignment EIS) and information from interviews conducted by Lincoln and Nye Counties.

From these sources, DOE identified and evaluated all comments that could affect the preliminary alternative segments identified in the Notice of Intent and common segments. Some commenters offered specific recommendations or alternative segments, such as:

- Establish the interface with the Union Pacific Railroad near Elgin, Nevada.
- Start in Caliente, Nevada, and follow U.S. Highway 93 and State Route 375 to avoid Garden Valley.
- Cross south of the Weepah Springs Wilderness and pass through Seaman Narrows to Murphy Gap and then north to avoid Garden Valley.
- Bypass Goldfield to the west to avoid the town and its historic mining district.

Commenters also suggested that DOE use various criteria to modify the preliminary alternative segments and to identify new alternative segments. For example, commenters suggested that DOE avoid conflicts with, or impacts to, sensitive biological and cultural resources, mineral resources, mining operations, American Indian trust lands, the Nevada Test and Training Range, ranching and grazing land uses, and private lands.

C.2.2 MINA RAIL ALIGNMENT PUBLIC SCOPING

In the Amended Notice of Intent, DOE invited public comments concerning the evaluation of the Mina rail alignment in the Rail Alignment EIS. DOE developed a range of alternative segments for the Mina rail corridor to be evaluated in the EIS. The initial alternative segments and common segments were documented in the *Mina Rail Route Feasibility Study* (DIRS 180222-BSC 2006, all). DOE presented the preliminary alternative segments at public scoping meetings and through information provided at reading rooms in various towns in the general vicinity of the Mina rail corridor (see Chapter 1 of the Rail Alignment EIS).

DOE considered comments that suggested specific alternative segments and comments that could be construed as criteria to modify the preliminary alternative segments and common segments described in the Amended Notice of Intent, or as criteria to identify new alternative segments. Some commenters offered specific recommendations or alternative segments, for example:

- Follow the existing (unused) rail ***roadbed*** through Tonopah to minimize impacts.
- Follow the existing rail roadbed where feasible.
- Move Mina rail alignment Montezuma alternative segment 2/Caliente rail alignment Goldfield alternative segment 4 as far west as possible to avoid mining claims in the area.
- Avoid all communities.

DOE considered all comments and in some cases identified alternative segments that warranted further investigation. Commenters also suggested that DOE use various criteria to modify the preliminary alternative segments and to identify new alternative segments.

C.3 Alignment Identification and Analysis

C.3.1 CALIENTE RAIL CORRIDOR ALIGNMENT IDENTIFICATION AND ANALYSIS

Following the public scoping process, DOE identified additional alternative segments for the Caliente rail alignment, and modified the preliminary alternative segments and common segments identified in the Notice of Intent. To do so, DOE used a computer-based modeling system that allowed the Department to consider multiple alternative segments within the geographic area of the Caliente rail corridor.

First, DOE used the computer modeling system to evaluate topographic data to determine whether common segments and alternative segments would be relatively linear, or whether they would need to curve to avoid or reduce conflicts with areas having greater topographic relief, such as mountain ranges or associated foothills. Topographic data were based on U.S. Geological Survey maps compiled from two sets of information: (1) year 2003 roads, streams, and other landmarks and (2) year 2000 (or more recent) contour data. The system integrated topographic data with engineering factors, specifically the project-specific design elements and the associated standard. Table C-1 lists the primary engineering factors and standards DOE considered.

Table C-1. Primary engineering factors considered in the identification and analysis of Caliente and Mina alternative segments and common segments[a] (page 1 of 2).

Design element	Standard	Refinement software input
Civil works design speed	60 miles per hour[b]	Included in curvature and grade specifications
Operating train speed	Maximum 50 miles per hour	Included in curvature and grade specifications
Construction right-of-way width	1,000 feet[c] (nominal)	Defined 1,000-foot-wide right-of-way
Operations right-of-way width (minimum)	200 feet (nominal); expected to be narrower than the construction right-of-way in most cases. In some areas it could be the same width as the construction right-of-way. Actual operations right-of-way would be defined during final design.	Addressed by setting cut bench width
Vertical curves: rate of change between track gradients	Comply with American Railway Engineering and Maintenance-of-Way Association speed-based criteria	Defined in network data settings
Rail roadbed section		
Roadbed width (fill)	15 feet 6 inches[d] from centerline, 31 feet total	Generalized cross sections addressed through settings of cut bench width and geotypes
Roadbed width (cut)	62 feet total	
Subballast depth	Minimum 6 inches	

Table C-1. Primary engineering factors considered in the identification and analysis of Caliente and Mina alternative segments and common segments[a] (page 2 of 2).

Design element	Standard	Refinement software input
Vertical grades		
Maximum (allowable)	2 percent (curve-compensated)	Network data set so that grades on curves had to be compensated at 0.04 percent per degree of curve
Horizontal curve	6°–00” (mainline); radius = 955 feet	Defined in network data settings
Maximum degree of curve for yards and sidings	10°–00”; radius = 574 feet	
Minimum length of spiral per 0.5 inch of superelevation	30 feet	
Tangent lengths (between horizontal reverse curves)	300 feet 150 feet (yards, sidings, and back tracks)	Approximated with stiffness parameter in network data settings
Clearances for highway overpass		
Vertical	24 feet minimum	Vertical clearances requirements set as linear feature crossing rule

a. Source: DIRS 180916-Nevada Rail Partners 2007, all.
b. To convert miles per hour to kilometers per hour, multiply by 1.6093.
c. To convert feet to meters, multiply by 0.3048.
d. To convert inches to centimeters, multiply by 2.54.

DOE considered the following environmental and land-use features:

- Springs
- Wilderness Areas, Wilderness Study Areas, and wildlife preserves
- Locations of sensitive biological species
- Cultural resources
- Private lands, including patented mining claims
- Native American trust lands
- Federally managed lands, including the Nevada Test and Training Range, U.S. Forest Service lands, and national parks

With this integrated information, the computer modeling system identified and evaluated several million routes within the geographic limits defined by the input of start and stop points. The system, however, identified the 20 to 50 potential routes (for each start/stop point set) that came closest to, or most satisfied, engineering factors, and minimized or avoided conflicts with environmental and land-use features at the lowest cost to construct. For example, the modeling system identified a series of potential routes running west from Caliente across the Chief Range, some of which passed through Antelope Canyon. These routes were not presented in this appendix because they would have required extensive tunneling, which was considered undesirable in the design of the alignment, and would generally exceed maximum grade. Based on the results of this computer analysis, DOE selected a suite of common segments and alternative segments (Figure C-4) from which DOE identified the range of reasonable alternative segments analyzed in detail.

For each alternative segment and common segment, the computer modeling system provided information and data in a number of ways, including plan and profile, horizontal and vertical curvatures, and grade profiles. DOE used this information and data to estimate construction-related items such as earthworks (***cuts***, ***fills***, and haulage) and rail roadbeds (***subballast***, ***ballast***, track, and ties), and to identify design features such as bridges, overpasses, and underpasses. DOE also used the computer modeling system to develop preliminary construction-cost estimates by considering cost factors for construction-related items and design features. In general, the avoidance of environmental and land-use features typically resulted in alternative segments and common that were longer, which tended to increase earthworks, length of rail roadbeds, the number of structures, and, thus, construction costs (DIRS 180916-Nevada Rail Partners 2007, all).

Figure C-4 shows the full suite of common segments and potential alternative segments DOE produced for the Caliente rail corridor as a result of its analyses and public scoping comments.

C.3.2 MINA RAIL CORRIDOR ALIGNMENT IDENTIFICATION AND ANALYSIS

DOE developed the *Mina Rail Route Feasibility Study* (DIRS 180222-BSC 2006, all) to determine the feasibility of identifying a 0.4-kilometer (0.25-mile)-wide corridor in which to engineer a rail alignment that meets specific engineering criteria. As with the Caliente rail alignment, DOE employed software (using data from the feasibility study) to determine the feasibility of new alternative segments and common segments and realign existing alternative segments and common segments based on comments received during the scoping period. The software computes each segment's horizontal and vertical geometry and the cut and fill (earthwork) needed to construct each. The software then computes the segment geometries, incorporating topographic information, location-specific information, cross-section templates, and engineering criteria (as listed in Table C-1). Also addressed within the system were environmental and land-use features to be considered including:

- Springs
- Wilderness Areas, Wilderness Study Areas and wildlife preserves
- Locations of sensitive biological species
- Cultural resources
- Private lands, including patented mining claims
- American Indian trust lands
- Federally managed lands, including the Hawthorne Army Depot, U.S. Forest Service lands, and national parks

The modeling software derived alternative segments and common segments that met the applicable design criteria while addressing the need to minimize or avoid potentially adverse environmental impacts.

For each alternative segment and common segment, the software provided information and data in a number of ways, including plan and profile, horizontal and vertical curvatures, and grade profiles. DOE used this information and data for each alternative segment and common segment to estimate construction-related items such as earthworks (cuts, fills, and haulage) and rail roadbeds (subballast, ballast, track, and ties), and to identify design features such as bridges, overpasses, and underpasses.

DOE also used the software to develop preliminary construction cost estimates by considering cost factors for construction-related items and design features. In general, the avoidance of environmental features typically resulted in longer common segments and alternative segments, which tended to increase

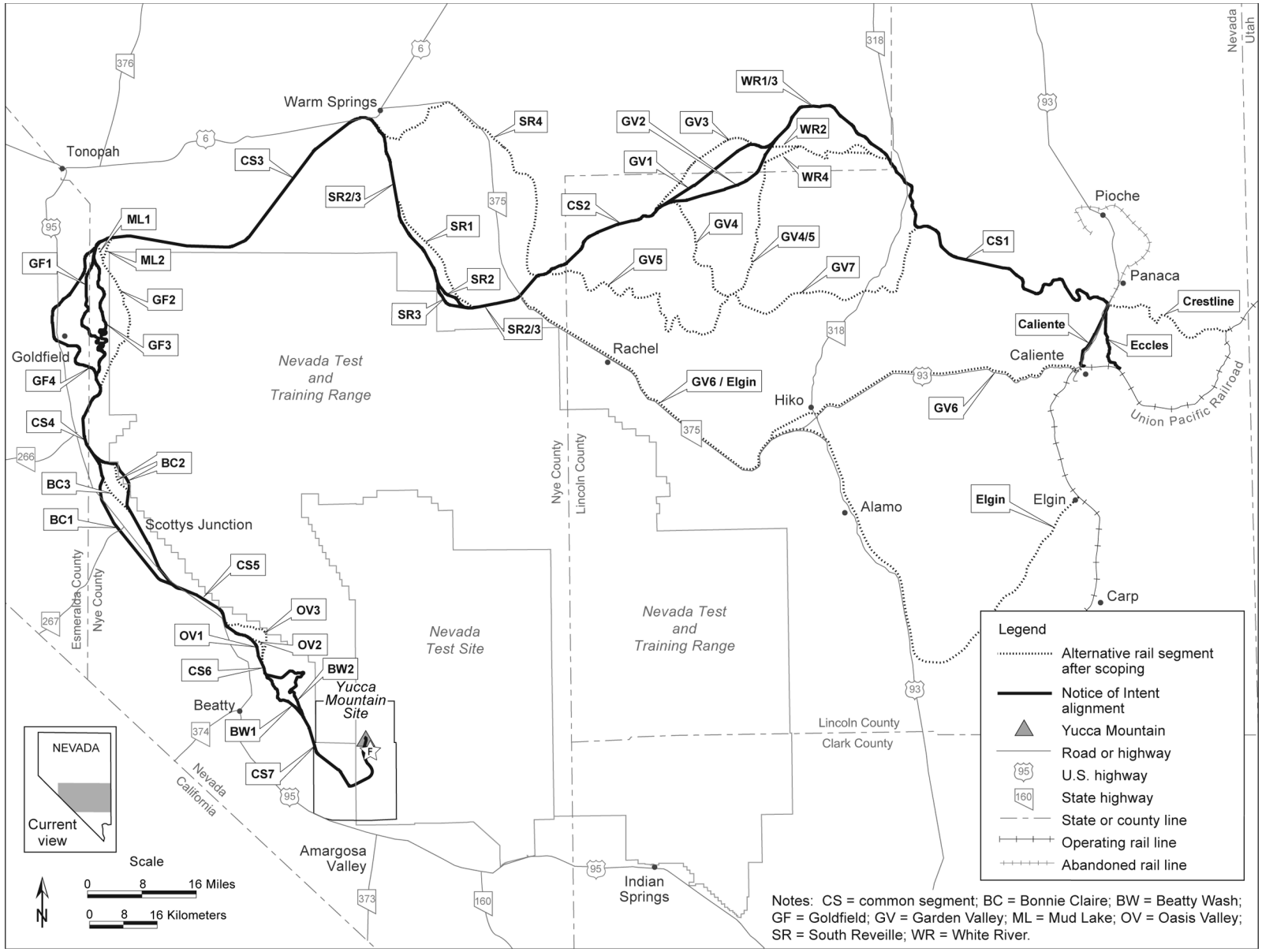


Figure C-4. Suite of potential alternative segments for the Caliente rail corridor.

earthworks, length of rail roadbeds, and the number of structures, and thus, construction costs (DIRS 180916-Nevada Rail Partners 2007, all).

As a result of the scoping process and subsequent analyses, DOE made several changes to the Mina rail alignment, as follows:

- At the request of the Walker River Paiute Tribe, eliminated two of the initial Schurz alternative segments and added three others.
- Made a slight modification to Mina common segment 1 in the Redlich area.
- Added a new alternative segment called Montezuma 3, which combined the northern section of Montezuma 2 and the southern section of Montezuma 1 with a crossover along the alluvial fans north of the Montezuma Range. The result was a new alignment that would avoid the communities of Goldfield and Silver Peak.

Figure C-5 shows the full suite of alternative segments and common segments DOE produced for the Mina rail corridor as a result of its analyses and public scoping comments.

C.4 Alternative Segments Eliminated from Detailed Analysis

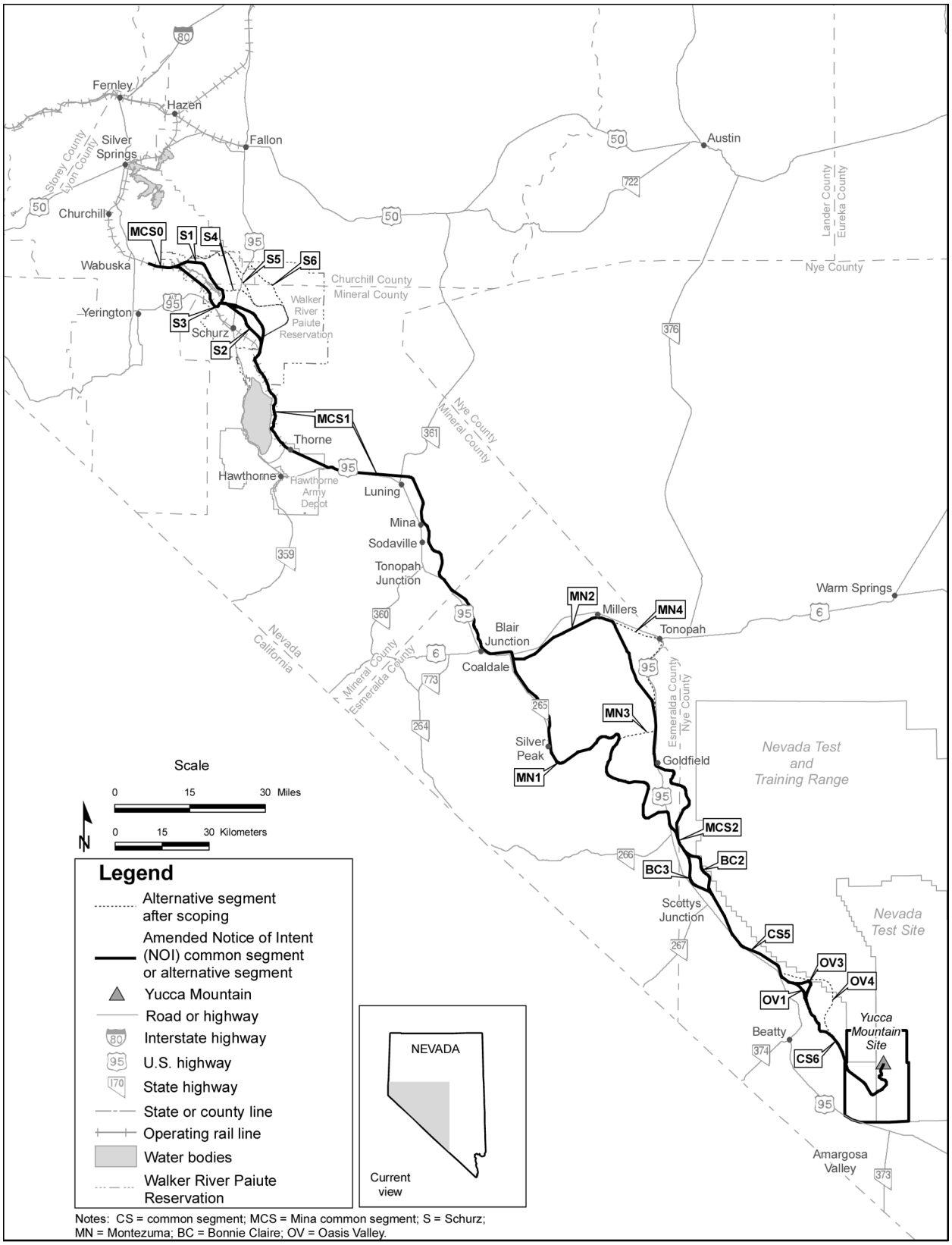
Council on Environmental Quality regulations that implement the procedural requirements of NEPA (40 CFR 1502.14) and DOE regulations (10 CFR Part 1021) require the identification and evaluation of a range of alternatives that might accomplish the objectives of the Proposed Action. In accordance with these regulations, this section briefly describes the alternative segments DOE eliminated from detailed study and the reasons for their elimination. Alternative segments and common segments DOE did not eliminate are those that are practical or feasible from a technical, environmental, and economic standpoint.

DOE adjusted alternative segments and common segments described in Section 2.2 of the Rail Alignment EIS from those identified in the Notice of Intent and the Amended Notice of Intent. In some cases, the lengths of the common segments have changed as alternative segments have been eliminated. The primary reasons for eliminating or adjusting an alternative segment include:

- Environmental constraints, such as impacts to Wilderness Areas or wildlife preserves
- Avoidance of private lands, mineral resources, or oil resources
- Engineering considerations, such as steep, heavy grades; tight curvature; tunneling; or excessive excavation or placement of fill materials
- Public safety and national security issues associated with the Nevada Test and Training Range

C.4.1 CALIENTE RAIL ALIGNMENT ALTERNATIVE SEGMENTS ELIMINATED FROM DETAILED ANALYSIS

Figure C-6 shows the Caliente rail alignment alternative segments DOE eliminated from detailed analysis. Table C-2 lists the alternative segments DOE identified in its Notice of Intent (69 *FR* 18565, April 8, 2004) and added for consideration based on public comments received during the EIS scoping process. The table also summarizes the reasons DOE eliminated certain of these alternative segments from detailed analysis in the Rail Alignment EIS.



Notes: CS = common segment; MCS = Mina common segment; S = Schurz; MN = Montezuma; BC = Bonnie Claire; OV = Oasis Valley.

Figure C-5. Suite of potential alternative segments for the Mina rail corridor.

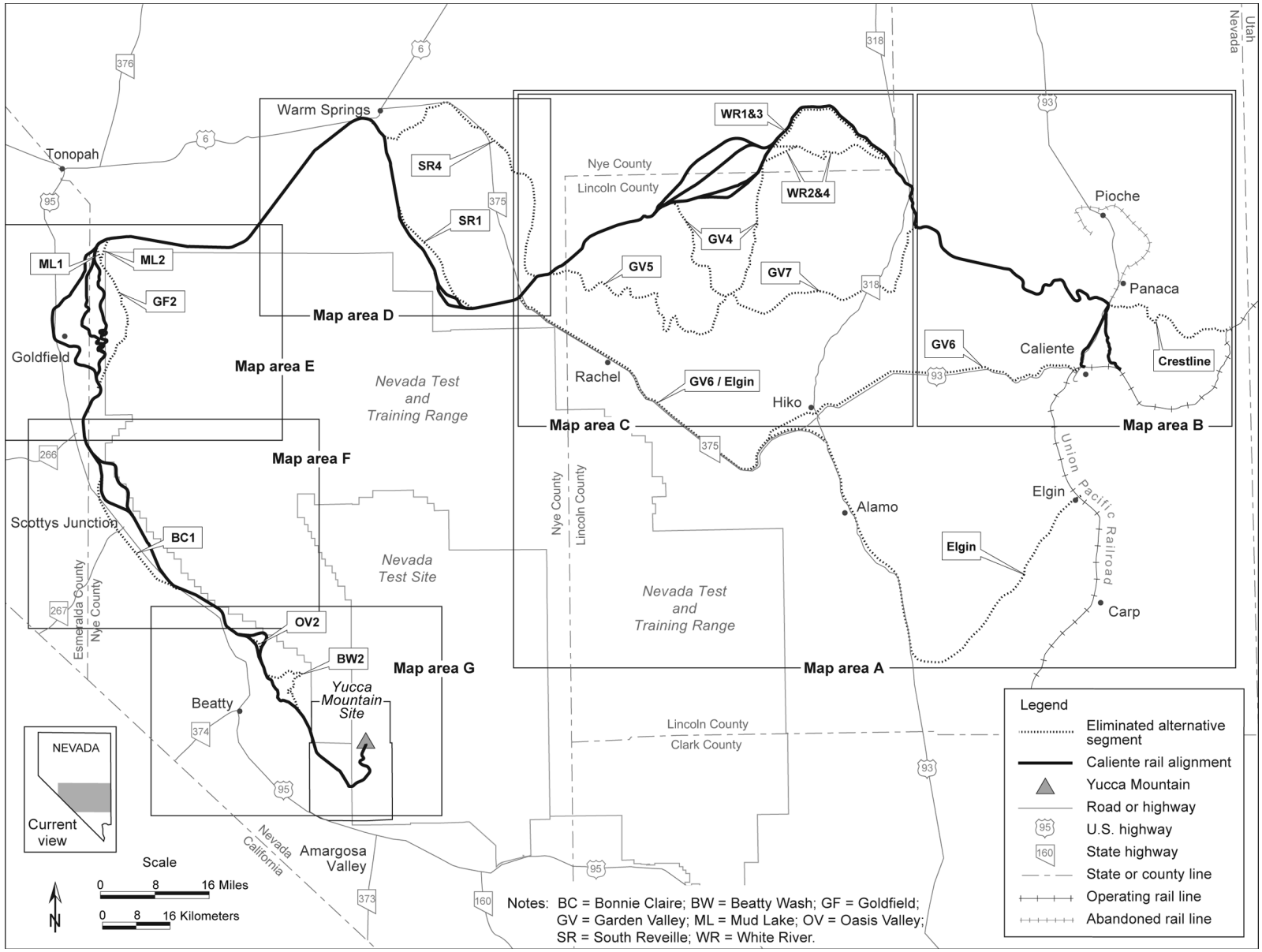


Figure C-6. Caliente rail alignment alternative segments DOE eliminated from detailed analysis.

Table C-2. Caliente rail alignment alternative segments identified and analyzed or eliminated from detailed analysis (page 1 of 3).

Map area	Alternative segment	Notice of Intent	Scoping	Analyzed in detail or eliminated
Interface with the Union Pacific Railroad Mainline	Caliente	Alternative segment identified		Analyzed in detail in the Rail Alignment EIS.
	Eccles	Alternative segment identified		Analyzed in detail in the Rail Alignment EIS.
	Crestline	Alternative segment identified		Eliminated because engineering criteria not met.
	Elgin		Alternative segment identified	Eliminated because it would exceed maximum allowable grade.
White River Valley Area	White River 1	Alternative segment identified		With the elimination of White River 2 and 3, White River 1 became part of Caliente common segment 1.
	White River 2	Alternative segment identified		Eliminated because engineering criteria not met and possible requirement for tunnel through Timber Mountains.
	White River 3		Alternative segment identified	When White River 2 and 3 were eliminated, White River 3 became part of Caliente common segment 1.
	White River 4		Alternative segment identified	Eliminated because engineering criteria not met and possible requirement for tunnel through Timber Mountains.
Garden Valley Area	Garden Valley 1	Alternative segment identified		Analyzed in detail in the Rail Alignment EIS.
	Garden Valley 2	Alternative segment identified		Analyzed in detail in the Rail Alignment EIS.
	Garden Valley 3		Alternative segment identified	Analyzed in detail in the Rail Alignment EIS.
	Garden Valley 4		Alternative segment identified	Eliminated because of operational issues.
	Garden Valley 5		Alternative segment identified	Eliminated because engineering criteria not met.
	Garden Valley 6		Alternative segment identified	Eliminated because engineering criteria not met.
	Garden Valley 7		Alternative segment identified	Eliminated because engineering criteria not met.
	Garden Valley 8		Alternative segment identified	Analyzed in detail in the Rail Alignment EIS.

Table C-2. Caliente rail alignment alternative segments identified and analyzed or eliminated from detailed analysis (page 2 of 3).

Map area	Alternative segment	Notice of Intent	Scoping	Analyzed in detail or eliminated
South Reveille Area	South Reveille 1	Alternative segment identified		Eliminated because it would cross into the South Reveille Wilderness Study Area.
	South Reveille 2		Alternative segment identified	Analyzed in detail in the Rail Alignment EIS.
	South Reveille 3		Alternative segment identified	Analyzed in detail in the Rail Alignment EIS.
	South Reveille 4		Alternative segment identified	Eliminated because engineering criteria not met.
Mud Lake Area	Mud Lake 1	Alternative segment identified		Eliminated because it links to Goldfield 2, which was also eliminated.
	Mud Lake 2	Alternative segment identified		Eliminated because it links to Goldfield 2, which was also eliminated.
Goldfield Area	Goldfield 1	Alternative segment identified		Analyzed in detail in the Rail Alignment EIS.
	Goldfield 2	Alternative segment identified		Eliminated because it would enter the Nevada Test and Training Range.
	Goldfield 3		Alternative segment identified	Analyzed in detail in the Rail Alignment EIS.
	Goldfield 4		Alternative segment identified	Analyzed in detail in the Rail Alignment EIS.
Bonnie Claire Area	Bonnie Claire 1	Alternative segment identified		Eliminated because it would enter Timbisha Shoshone Trust Lands.
	Bonnie Claire 2	Alternative segment identified		Analyzed in detail in the Rail Alignment EIS.
	Bonnie Claire 3		Alternative segment identified	Analyzed in detail in the Rail Alignment EIS.
Oasis Valley Area	Oasis Valley 1	Alternative segment identified		Analyzed in detail in the Rail Alignment EIS.
	Oasis Valley 2	Alternative segment identified		Eliminated during the public scoping process because engineering factors and land-use features are similar to Oasis Valley 1.
	Oasis Valley 3		Alternative segment identified	Analyzed in detail in the Rail Alignment EIS.

Table C-2. Caliente rail alignment alternative segments identified and analyzed or eliminated from detailed analysis (page 3 of 3).

Map area	Alternative segment	Notice of Intent	Scoping	Analyzed in detail or eliminated
Beatty Wash Area	Beatty Wash 1	Alternative segment identified		When Beatty Wash 2 was eliminated, Beatty Wash 1 became part of common segment 6.
	Beatty Wash 2	Alternative segment identified		Eliminated because engineering criteria not met.

C.4.1.1 Alternative Segments at the Interface with the Union Pacific Railroad Mainline

DOE identified four alternative segments to connect the rail line to the existing mainline railroad in eastern Nevada (Figures C-7 and C-8). The Notice of Intent identified Caliente, Eccles, and Crestline as possible interface locations near Caliente, Nevada. In response to public scoping comments suggesting an interface location near the town of Elgin, Nevada, DOE identified Elgin as a fourth alternative segment. The Department then evaluated whether these four alternative segments would be technically feasible according to the engineering design criteria, estimated the cost of each alternative segment, and considered the environmental and land-use features associated with each. The terrain around Crestline rendered it technically infeasible and Elgin would exceed the maximum allowable grade. Based on this analysis, DOE eliminated Crestline and Elgin from detailed analysis in the Rail Alignment EIS. The Department found the Caliente and Eccles alternative segments to be feasible from a technical and economic standpoint. Table C-3 provides a comparison of the key factors the Department used in this determination.

Table C-3. Comparison of possible alternative segments for the Interface with the Union Pacific Railroad Mainline.[a]

Attribute	**Crestline**	Eccles	Caliente	**Elgin**
Length (miles)[b]	24	12	11	140[c]
Construction cost ($ millions)	140	148	71.6	1,500[c]
Engineering factors	Rugged terrain and insufficient flat land to accommodate rail yard and associated facilities at the Interface with the Union Pacific Railroad Mainline	Meets engineering design criteria	Meets engineering design criteria	Would exceed maximum allowable grade
Key environmental and land-use features	No notable environmental or land-use constraints	Environmental and land-use constraints do not warrant elimination	Environmental and land-use constraints do not warrant elimination	Route would pass through the Desert National Wildlife Refuge

a. Eliminated alternative segments are shown in **bold**.
b. To convert miles to kilometers, multiply by 1.6093.
c. Elgin interface does not share a common end point with the other interface alternative segments.

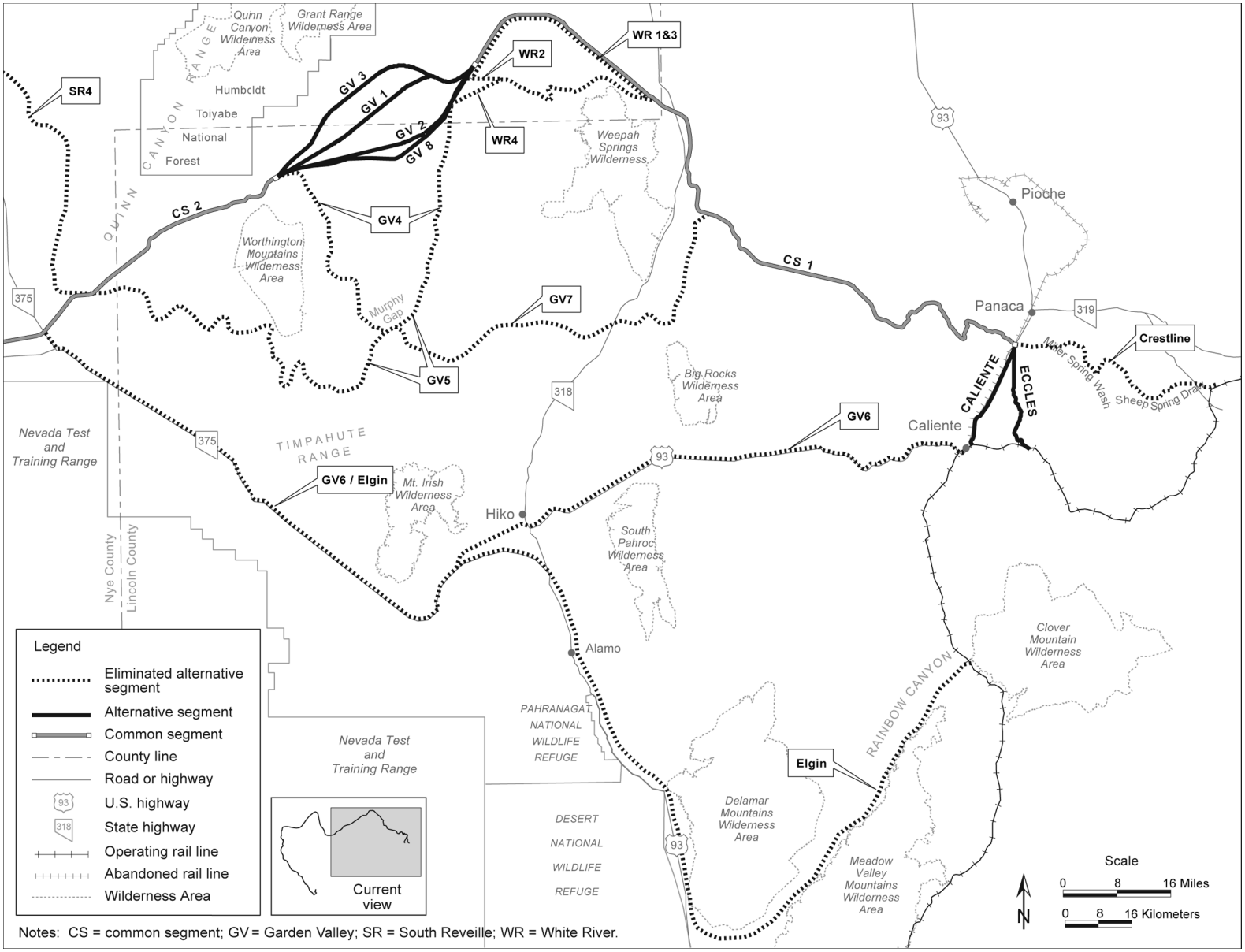


Figure C-7. Eliminated segments within Caliente map area A.

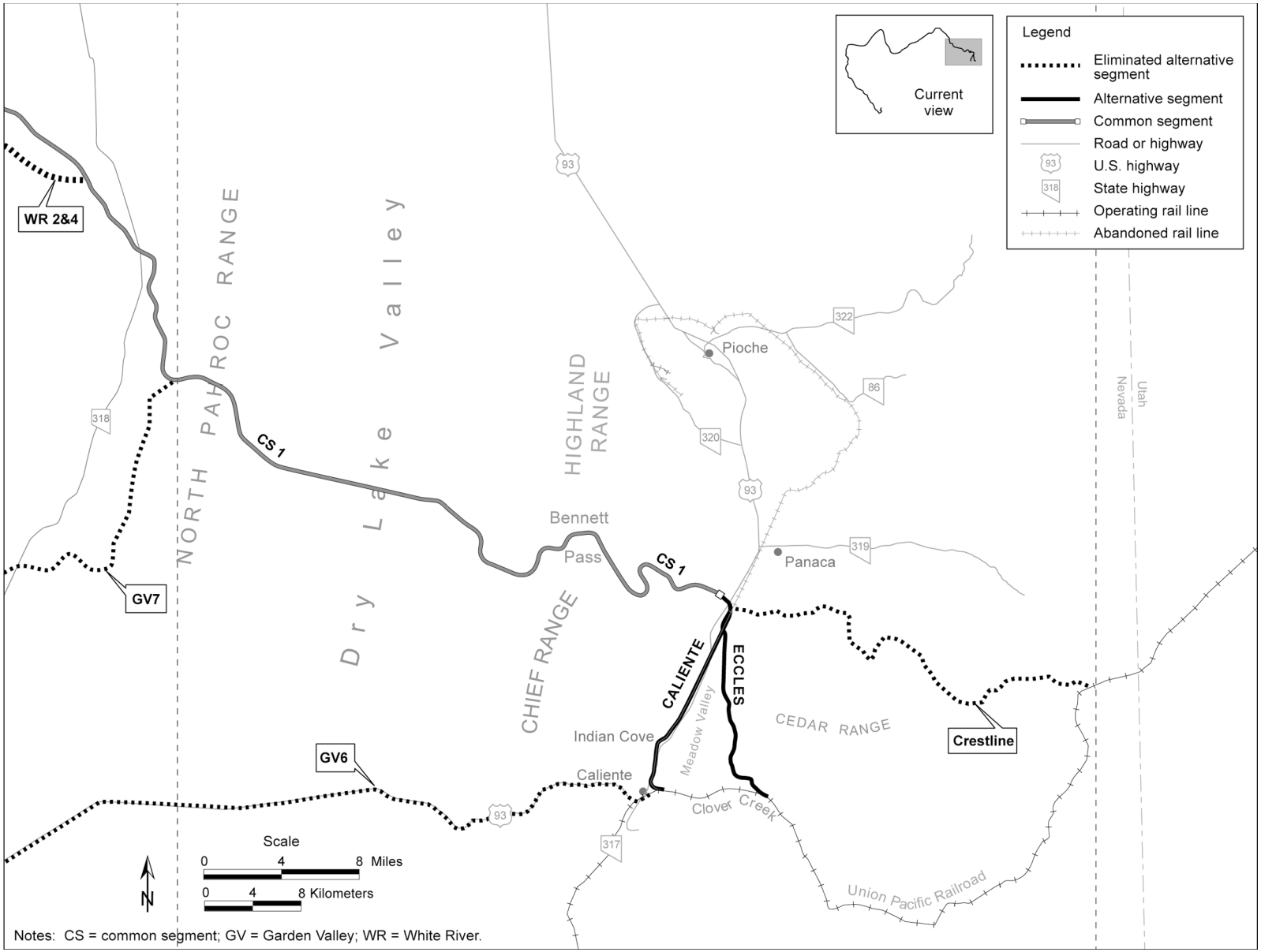


Figure C-8. Eliminated segments within Caliente map area B.

C.4.1.2 White River Valley Alternative Segments

DOE identified four possible alternative segments in the White River Valley area (Figures C-7 and C-9). The Notice of Intent identified White River 1 and White River 2. Later, DOE identified alternative segments White River 3 and White River 4 to avoid the Weepah Springs Wilderness. The Department then evaluated whether these four alternative segments would be technically feasible according to the engineering design criteria, estimated the cost to construct each alternative segment, and considered the environmental and land-use features associated with each. White River 2 and White River 4 would have required long stretches at the maximum allowable grade, might have required a tunnel through the Timber Mountains, and would be three times as costly as White River 1 and White River 3. Based on this analysis, DOE eliminated White River 2 and White River 4 from detailed analysis in the Rail Alignment EIS. DOE found White River 1 and 3 to be feasible from a technical and economic standpoint. Table C-4 provides a comparison of the key factors used in this determination.

Table C-4. Comparison of possible alternative segments in the White River Valley area.[a]

Attribute	White River 1	**White River 2**	White River 3	**White River 4**
Length (miles)[b]	29	26	30	26
Construction cost ($ millions)	46	160	46	140
Engineering factors	Would include a short stretch at maximum allowable grade	Would require long stretches at maximum allowable grade and/or a potential tunnel through the Timber Mountains	Would include a short stretch at maximum allowable grade	Would require long stretches at maximum allowable grade and/or a potential tunnel through the Timber Mountains
Key environmental and land-use features	No notable environmental or land-use constraints	No notable environmental or land-use constraints	No notable environmental or land-use constraints	No notable environmental or land-use constraints

a. Eliminated alternative segments are shown in **bold**.
b. To convert miles to kilometers, multiply by 1.6093.

Because DOE eliminated White River 2 and White River 4 from consideration, it was no longer necessary to maintain a distinction between White River 1 and White River 3. Although White River 3 was slightly longer than White River 1, elimination of White River 2 and White River 4 allowed DOE to establish a common end for White River 1 and White River 3, and then made the two alternative segments part of Caliente common segment 1.

C.4.1.3 Garden Valley Alternative Segments

DOE identified eight alternative segments in the Garden Valley area (Figures C-7 and C-9). The Notice of Intent identified Garden Valley 1 and Garden Valley 2. In response to public scoping comments regarding Garden Valley and perceived noise and visual impacts to an earthworks sculpture, *City*, DOE identified six additional alternative segments in the area (Garden Valley 3 through Garden Valley 8). The Department then evaluated whether the eight alternative segments would be technically feasible according to the engineering design criteria, estimated the cost of each alternative segment, and considered the environmental and land-use features associated with each. Garden Valley 4, 5, 6, and 7 would either exceed maximum allowable grade or require significant earthwork or construction of tunnels. Also, these alternative segments would have been longer than other available alternative segments in Garden Valley and had the potential to require a train crew change because of the additional travel time required. For these reasons, construction costs for Garden Valley 4, 5, 6, and 7 would have been significantly greater than for any of the other Garden Valley alternative segments. Therefore, DOE eliminated Garden Valley 4, 5, 6, and 7 from detailed analysis in the Rail Alignment EIS. Garden Valley 1, 2, 3, and 8

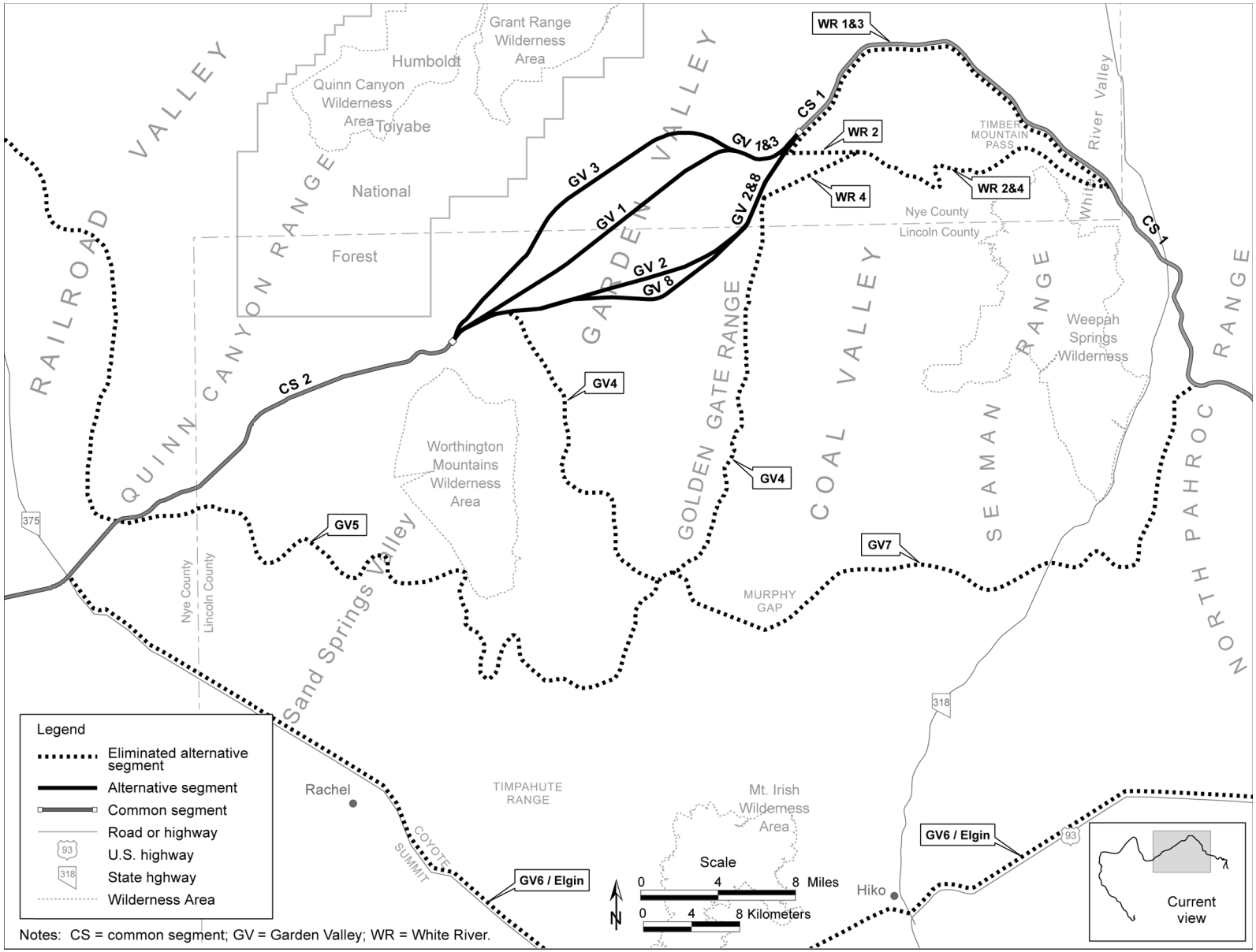


Figure C-9. Eliminated segments within Caliente map area C.

Table C-5. Comparison of possible alternative segments in Garden Valley.[a]

Attribute	Garden Valley 1	Garden Valley 2	Garden Valley 3	**Garden Valley 4**	**Garden Valley 5**	**Garden Valley 6**	**Garden Valley 7**	Garden Valley 8
Length (miles)[b]	22	22	24	42[c]	62[c]	99[c]	62[c]	23
Construction cost ($ millions)	126	120	109	170	160[d]	1,600[d]	380[d]	154
Engineering factors	Meets engineering design criteria	Meets engineering design criteria	Meets engineering design criteria	Would require more than 10 miles of continuous maximum allowable grade through Murphy Gap	Would exceed maximum allowable grade and there would be more than 10 miles of continuous maximum grade	Would require extensive tunneling to exit Caliente and then through each of the three passes to the west	Would require more than 10 miles of continuous maximum allowable grade through Murphy Gap	Meets engineering design criteria
Key environmental and land-use features	Environmental and land-use constraints do not warrant elimination	Environmental and land-use constraints do not warrant elimination	No notable environmental or land-use constraints	No notable environmental or land-use constraints	No notable environmental or land-use constraints	No notable environmental or land-use constraints	No notable environmental or land-use constraints	No notable environmental or land-use constraints

a. Eliminated alternative segments are shown in **bold**.
b. To convert miles to kilometers, multiply by 1.6093.
c. Garden Valley 4, 5, 6, and 7 do not share common starting and ending points with the other Garden Valley alternative segments.
d. Cost is approximate because the computer-based modeling system could not identify a feasible alignment for which construction costs could be estimated.

would be feasible from a technical, environmental, land-use, and economic standpoint. Table C-5 provides a comparison of the key factors DOE used in this determination.

C.4.1.4 South Reveille Alternative Segments

DOE identified four alternative segments in the South Reveille area, South Reveille 1 through South Reveille 4 (Figure C-10). South Reveille 1 was originally considered a common segment in the Notice of Intent, but became an alternative segment with the addition of South Reveille 2, South Reveille 3, and South Reveille 4. DOE developed these alternative segments in response to public scoping comments to avoid the South Reveille Wilderness Study Area, which the original common segment (South Reveille 1) would intersect. The Department then evaluated whether these four alternative segments would be technically feasible according to the engineering design criteria, estimated the cost of each alternative segment, and considered the potential environmental and land-use features associated with each. DOE concluded that South Reveille 1 would be incompatible with the current uses of the South Reveille Wilderness Study Area, and that South Reveille 4 would exceed the maximum allowable grade. Based on this analysis, the Department eliminated South Reveille 1 and South Reveille 4 from detailed analysis in the Rail Alignment EIS. Though there could be impacts to cultural resources along South Reveille 2 and land-uses along South Reveille 2 and 3 might be affected in the absence of mitigation, these constraints did not warrant elimination of South Reveille 2 and South Reveille 3. The DOE analysis found that South Reveille alternative segments 1 and 3 appear to be feasible from a technical and economic standpoint. Table C-6 provides a comparison of the key factors DOE used in this determination.

Table C-6. Comparison of possible alternative segments in Reveille Valley.[a]

Attribute	**South Reveille 1**	South Reveille 2	South Reveille 3	**South Reveille 4**
Length (miles)[b]	Alternative segment not evaluated because it would cross into the South Reveille Wilderness Study Area	12	12	52
Construction cost ($ millions)		82.6	80.3	126
Engineering factors		Meets engineering design criteria	Meets engineering design criteria	Would exceed maximum allowable grade
Key environmental and land-use features		Environmental and land-use constraints do not warrant elimination	Environmental and land-use constraints do not warrant elimination	Environmental and land-use constraints do not warrant elimination

a. Eliminated alternative segments are shown in **bold**.
b. To convert miles to kilometers, multiply by 1.6093.

C.4.1.5 Mud Lake Alternative Segments

The Notice of Intent identified two alternative segments in the Mud Lake area, Mud Lake 1 and Mud Lake 2 (Figure C-11). Mud Lake alternative segments 1 and 2 would begin near the northwest corner of the Nevada Test and Training Range. Mud Lake 1 would pass about 2 kilometers (1 mile) northwest of Mud Lake, avoiding its western shore, and would extend south to connect with Goldfield alternative segment 2. Mud Lake 2 would depart Caliente common segment 3 and run farther to the east before connecting with Goldfield alternative segment 2. Due to this arrangement, both Mud Lake alternative segments were dependent on Goldfield 2 as a viable alternative segment. Therefore, when DOE eliminated Goldfield 2 from further analysis, as described below, both Mud Lake 1 and Mud Lake 2 were also eliminated.

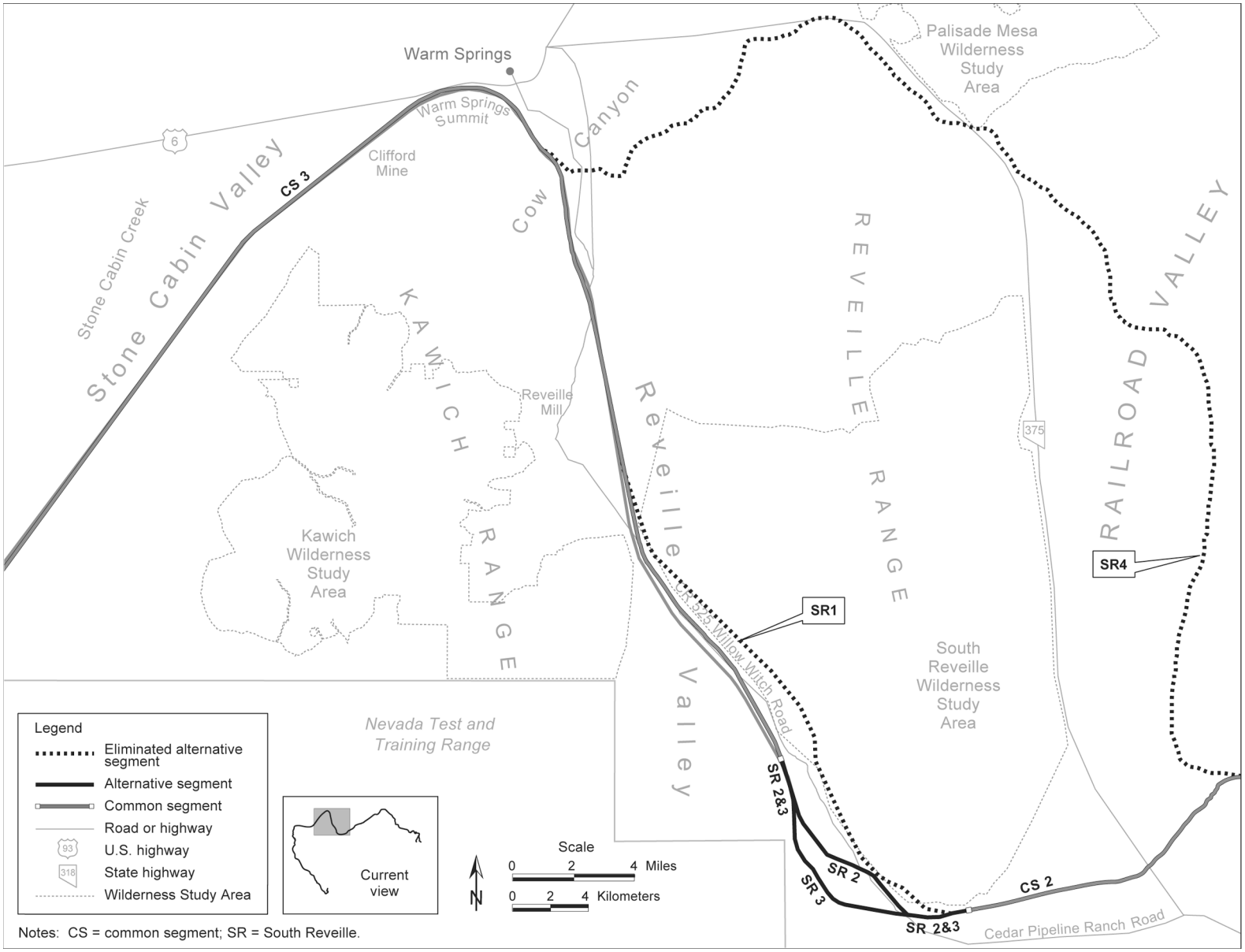


Figure C-10. Eliminated segments within Caliente map area D.

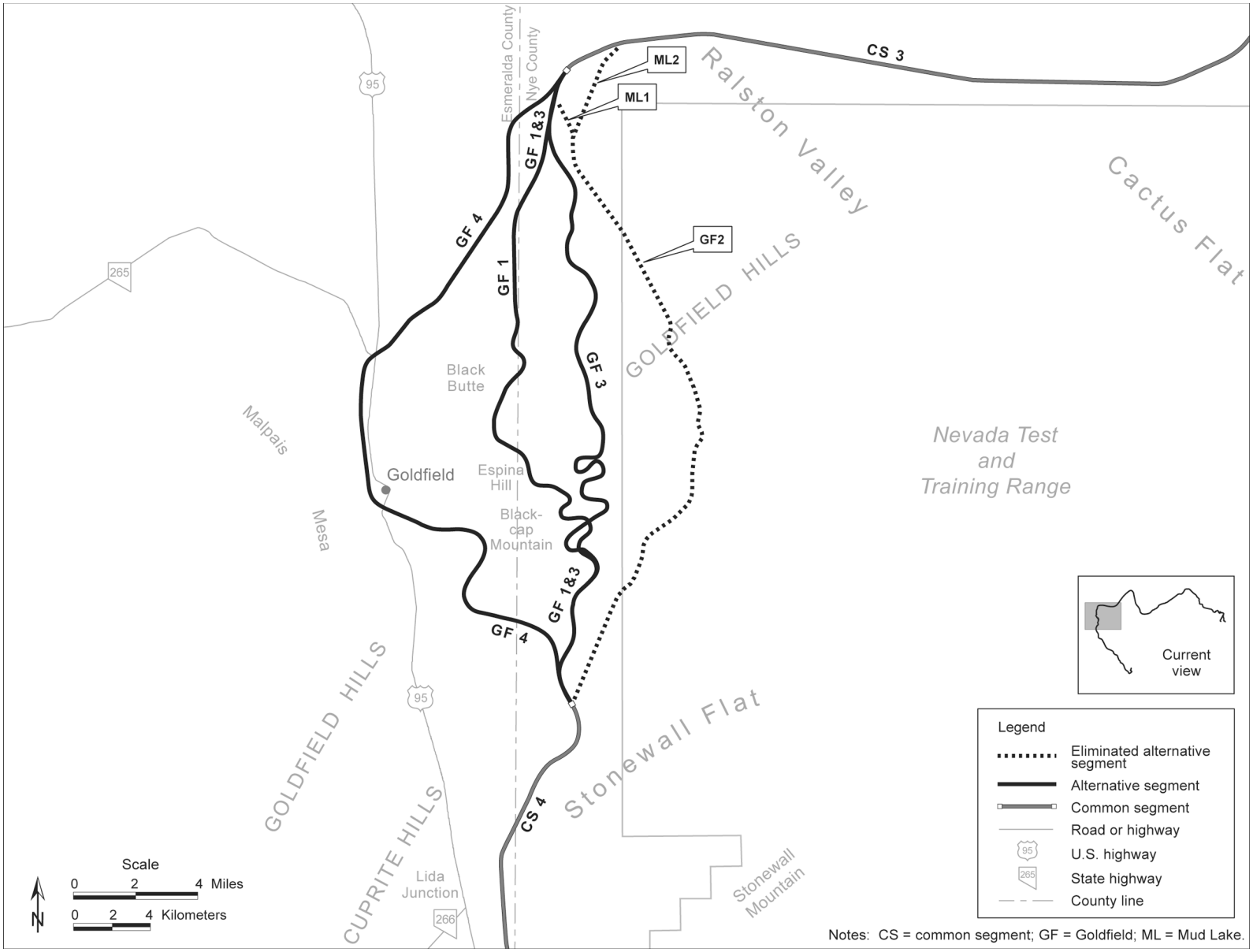


Figure C-11. Eliminated segments within Caliente map area E.

C.4.1.6 Goldfield Alternative Segments

DOE identified four alternative segments in the Goldfield area, Goldfield 1 through Goldfield 4 (Figure C-11). The Notice of Intent identified Goldfield 1 and Goldfield 2. DOE added Goldfield 3 and Goldfield 4 as a result of public scoping comments to avoid mineral resource areas to the north and east of Goldfield. The U.S. Air Force stated that a rail line would be incompatible with current uses of the Nevada Test and Training Range. Therefore, DOE eliminated Goldfield 2, which would enter the Nevada Test and Training Range, from detailed analysis. DOE then evaluated whether the remaining three Goldfield alternative segments would be technically feasible according to the engineering design criteria, estimated the cost of each alternative segment, and considered the environmental and land-use features associated with each. Table C-7 provides a comparison of the key factors DOE used in this determination.

Table C-7. Comparison of possible alternative segments in the Goldfield area.[a]

Attribute	Goldfield 1	**Goldfield 2**	Goldfield 3	Goldfield 4
Length (miles)[b]	29	Alternative segment not evaluated because it would enter the Nevada Test and Training Range	31	33
Construction cost ($ millions)	203		231	249
Engineering factors	Would cut through complex, steep terrain. Meets engineering design criteria.		Would cut through complex, steep terrain. Meets engineering design criteria.	Would require short stretch at maximum allowable grade. Meets engineering design criteria
Key environmental and land-use features	Environmental and land-use constraints do not warrant elimination		Environmental and land-use constraints do not warrant elimination	Environmental and land-use constraints do not warrant elimination

a. Eliminated alternative segment is shown in **bold**.
b. To convert miles to kilometers, multiply by 1.6093.

DOE found Goldfield alternative segments 1, 3, and 4 to have various construction and design complexities, such as grade-separated crossings, that would increase construction costs. Absent consideration of mitigation measures, each Goldfield alternative segment could also have the potential to impact mining interests and cultural resources. However, each alternative segment is feasible from a technical and economic standpoint and the environmental and land-use constraints do not warrant elimination of Goldfield 1, Goldfield 3, and Goldfield 4 from detailed analysis in the Rail Alignment EIS.

C.4.1.7 Bonnie Claire Alternative Segments

DOE identified three alternative segments in the Bonnie Claire area, Bonnie Claire 1 through Bonnie Claire 3 (Figure C-12). The Notice of Intent identified Bonnie Claire 1 and Bonnie Claire 2. As a result of public scoping comments that suggested avoiding the Nevada Test and Training Range and the Timbisha Shoshone Trust Lands near Scottys Junction, the Department modified Bonnie Claire 2 and identified a new alternative segment, Bonnie Claire 3. Additionally, based on comments from the Timbisha Shoshone Tribe that the rail line crossing their lands would be incompatible with their current and planned land uses, the Department eliminated Bonnie Claire 1 from detailed analysis in the Rail Alignment EIS. DOE then determined whether Bonnie Claire 2 and Bonnie Claire 3 would be technically feasible according to the engineering design criteria, estimated the cost of each alternative segment, and

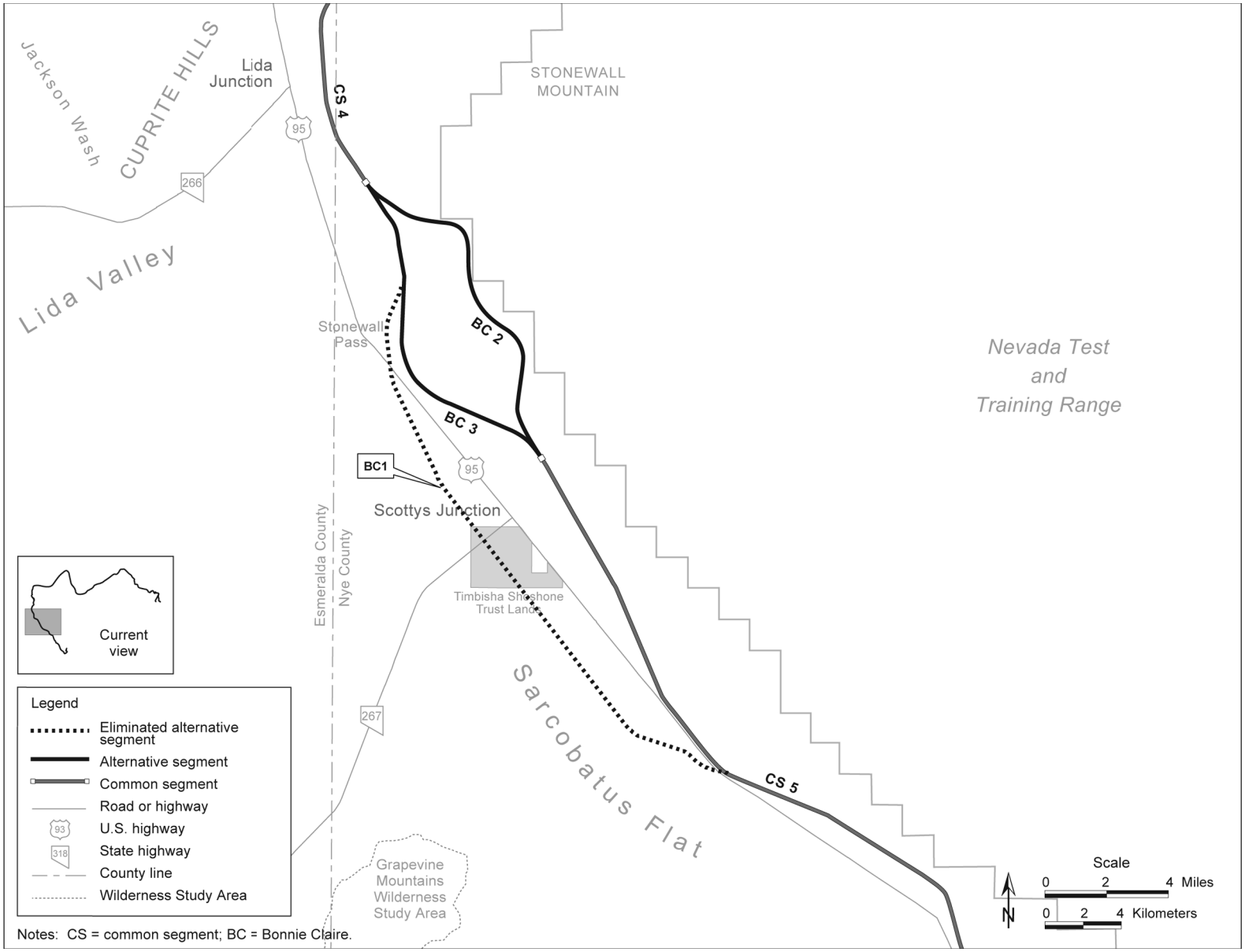


Figure C-12. Eliminated segments within Caliente map area F.

considered the environmental and land-use features associated with each. Based on this analysis, neither alternative segment was eliminated from detailed analysis in the Rail Alignment EIS. Table C-8 provides a comparison of the key factors DOE used in this determination.

Table C-8. Comparison of possible alternative segments in the Bonnie Claire area.[a]

Attribute	**Bonnie Claire 1**	Bonnie Claire 2	Bonnie Claire 3
Length (miles)[b]	Alternative segment not evaluated because it would cross Timbisha Shoshone Trust Lands.	12	12
Construction cost ($ millions)		96.9	74.9
Engineering factors		Meets engineering design criteria	Meets engineering design criteria
Key environmental and land-use features		Environmental and land-use constraints do not warrant elimination	Environmental and land-use constraints do not warrant elimination

a. Eliminated alternative segment is shown in **bold**.
b. To convert miles to kilometers, multiply by 1.6093.

Bonnie Claire alternative segments 2 and 3 would have various construction and design complexities. Both alternative segments would require bridges and near maximum allowable grade that would increase construction costs. In addition, absent consideration of mitigation, both alternative segments would have the potential to impact various environmental resources, such as access to mining operations. However, each alternative segment appears to be feasible from a technical and economic standpoint.

C.4.1.8 Oasis Valley Alternative Segments

DOE identified three alternative segments in the Oasis Valley area, Oasis Valley 1, Oasis Valley 2, and Oasis Valley 3 (Figure C-13). The Notice of Intent identified Oasis Valley 1 and Oasis Valley 2. Oasis Valley 1 would cross less private land, but Oasis Valley 2 would be further from springs in the vicinity. In response to public scoping comments to avoid or minimize intrusion on certain parcels of land, DOE added Oasis Valley 3 for consideration. The Department then determined whether these three alternative segments would be technically feasible according to the engineering design criteria, estimated the cost of each alternative segment, and considered the environmental and land-use features associated with each. Oasis Valley alternative segments 1, 2, and 3 appear to be feasible from a technical and economic standpoint. Oasis Valley 1 and 2 are immediately adjacent to one another and their engineering and construction factors would be similar. Both have similar land-use constraints, which do not warrant elimination of the alternative segments from detailed analysis. Because Oasis Valley 1 and Oasis Valley 2 have such similarities, DOE eliminated Oasis Valley 2 from detailed analysis. Table C-9 provides a comparison of the key factors DOE used in this determination.

Table C-9. Comparison of possible alternative segments in the Oasis Valley area.[a]

Attribute	Oasis Valley 1	**Oasis Valley 2**	Oasis Valley 3
Length (miles)[b]	6	Alternative segment not evaluated because engineering factors and environmental and land-use features similar to Oasis Valley 1	9
Construction cost ($ millions)	43.2		58.6
Engineering factors	Meets engineering design criteria		Meets engineering design criteria
Key environmental and land-use features	Environmental and land-use constraints do not warrant elimination		Environmental and land-use constraints do not warrant elimination

a. Eliminated alternative segment is shown in **bold**.
b. To convert miles to kilometers, multiply by 1.6093.

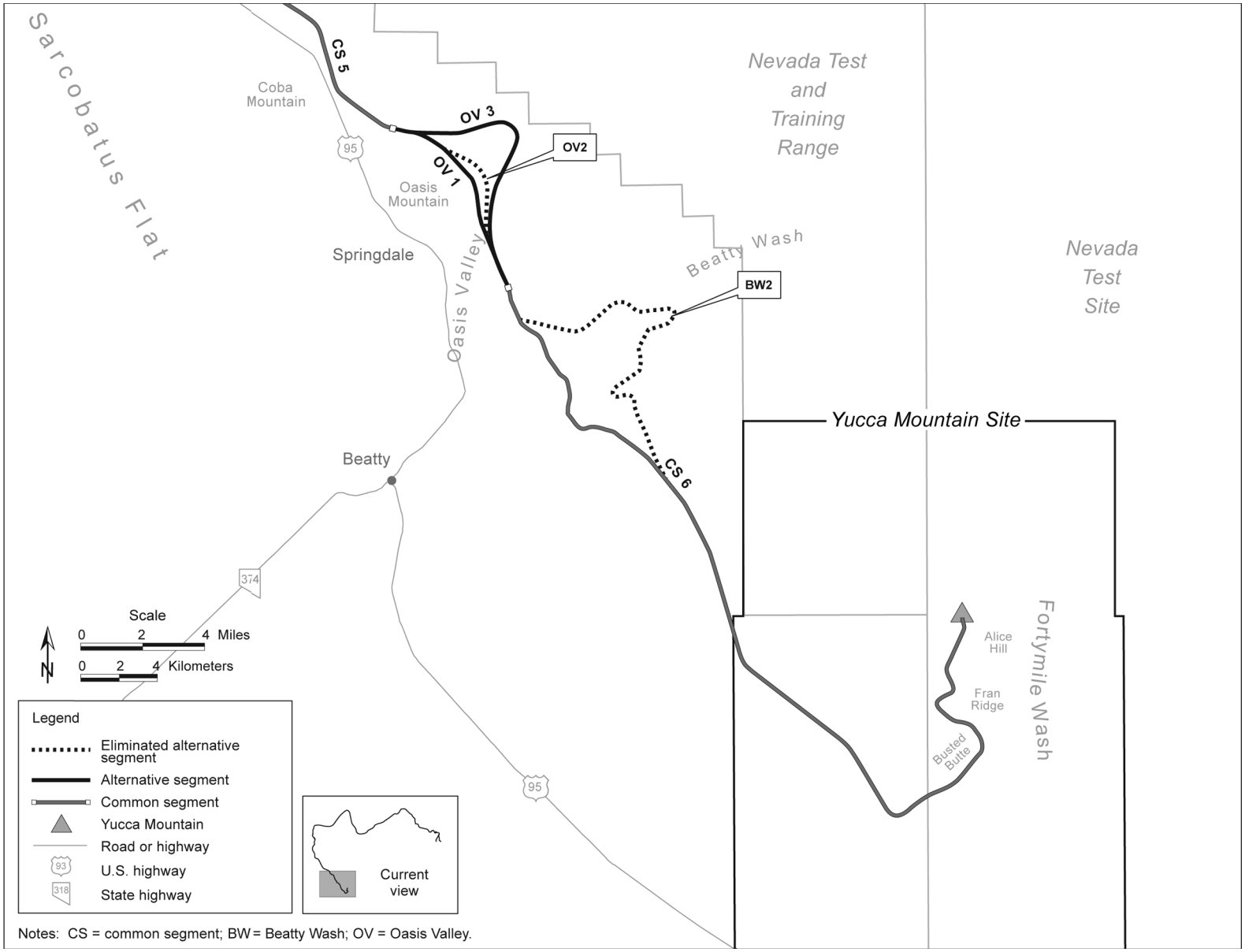


Figure C-13. Eliminated segments within Caliente map area G.

C.4.1.9 Beatty Wash Alternative Segments

In the Notice of Intent to prepare the Rail Alignment EIS (69 *FR* 18565, April 8, 2004), DOE identified two alternative segments in the Beatty Wash area, Beatty Wash 1 and Beatty Wash 2 (Figure C-13). DOE determined whether these two alternative segments would be technically feasible according to the engineering design criteria, estimated the cost of each alternative segment, and considered the environmental and land-use features associated with each. Beatty Wash 2 would exceed design criteria for horizontal and vertical curvature. Therefore, DOE eliminated Beatty Wash 2 from detailed analysis in the Rail Alignment EIS. Table C-10 provides a comparison of the key factors DOE used in this determination. Eliminating Beatty Wash 2 resulted in only one Beatty Wash alternative segment for detailed analysis; thus, Beatty Wash 1 became an addition to common segment 6.

Table C-10. Comparison of possible alternative segments in the Beatty Wash area.[a]

Attribute	Beatty Wash 1	**Beatty Wash 2**
Length (miles)[b]	8	13
Construction cost ($ millions)	36	More than 60[c]
Engineering factors	Meets engineering design criteria	Exceeds design criteria for horizontal and vertical curvature
Key environmental and land-use features	Environmental and land-use constraints do not warrant elimination	Environmental and land-use constraints do not warrant elimination

a. Eliminated alternative segment is shown in **bold**.
b. To convert miles to kilometers, multiply by 1.6093.
c. Cost is listed as approximate because the computer-based modeling system could not identify a viable alignment for construction estimating.

C.4.2 MINA RAIL ALIGNMENT ALTERNATIVE SEGMENTS ELIMINATED FROM DETAILED ANALYSIS

Figure C-14 shows the alternative segments DOE eliminated from consideration for the Mina rail corridor. Table C-11 identifies the alternative segments DOE identified in its Amended Notice of Intent (71 *FR* 60484, October 13, 2006) and alternative segments the Department added for consideration based on public comments. The table also summarizes the reasons DOE eliminated certain alternative segments from detailed analysis in the Rail Alignment EIS.

Table C-11. Mina rail alignment alternative segments identified and analyzed or eliminated from detailed analysis (page 1 of 2).

Map area	Alternative segment	Amended Notice of Intent	Scoping	Analyzed in detail or eliminated
Walker River Paiute Reservation area	Schurz 1	Alternative segment identified		Analyzed in detail in the Rail Alignment EIS.
	Schurz 2	Alternative segment identified		Eliminated based on input from the Walker River Paiute Tribe.
	Schurz 3	Alternative segment identified		Eliminated based on input from the Walker River Paiute Tribe.

Table C-11. Mina rail alignment alternative segments identified and analyzed or eliminated from detailed analysis (page 2 of 2).

Map area	Alternative segments	Amended Notice of Intent	Scoping	Analyzed in detail or eliminated
Walker River Paiute Reservation area (continued)	Schurz 4		Alternative segment identified	Analyzed in detail in the Rail Alignment EIS.
	Schurz 5		Alternative segment identified	Analyzed in detail in the Rail Alignment EIS.
	Schurz 6		Alternative segment identified	Analyzed in detail in the Rail Alignment EIS.
Montezuma Range area	Montezuma 1	Alternative segment identified		Analyzed in detail in the Rail Alignment EIS.
	Montezuma 2	Alternative segment identified		Analyzed in detail in the Rail Alignment EIS.
	Montezuma 3		Alternative segment identified	Analyzed in detail in the Rail Alignment EIS.
	Montezuma 4		Alternative segment identified	Eliminated because engineering criteria not met.
Bonnie Claire	Alternative segments and all factors are unchanged from Caliente analysis.			
Oasis Valley area	Oasis Valley 1	Alternative segment identified		Analyzed in detail in the Rail Alignment EIS.
	Oasis Valley 3	Alternative segment identified		Analyzed in detail in the Rail Alignment EIS.
	Oasis Valley 4		Alternative segment identified	Eliminated because of land-use constraints and because engineering criteria not met.

C.4.2.1 Schurz Alternative Segments

The Amended Notice of Intent identified three alternative segments near Schurz, Schurz 1, Schurz 2, and Schurz 3 (Figure C-15). Feedback from the Walker River Paiute Tribe suggested that Schurz 2 and Schurz 3 not be considered viable alternatives to provide a bypass around Schurz, and DOE eliminated those alternative segments from detailed analysis in the Rail Alignment EIS. The Walker River Paiute Tribe identified several additional alternative segments where the rail line would cross Walker River Paiute Reservation lands. DOE determined whether the alternative segments would be technically feasible according to the design criteria, estimated the cost of each alternative segment, and considered the environmental and land-use features associated with each. The results of these analyses indicated

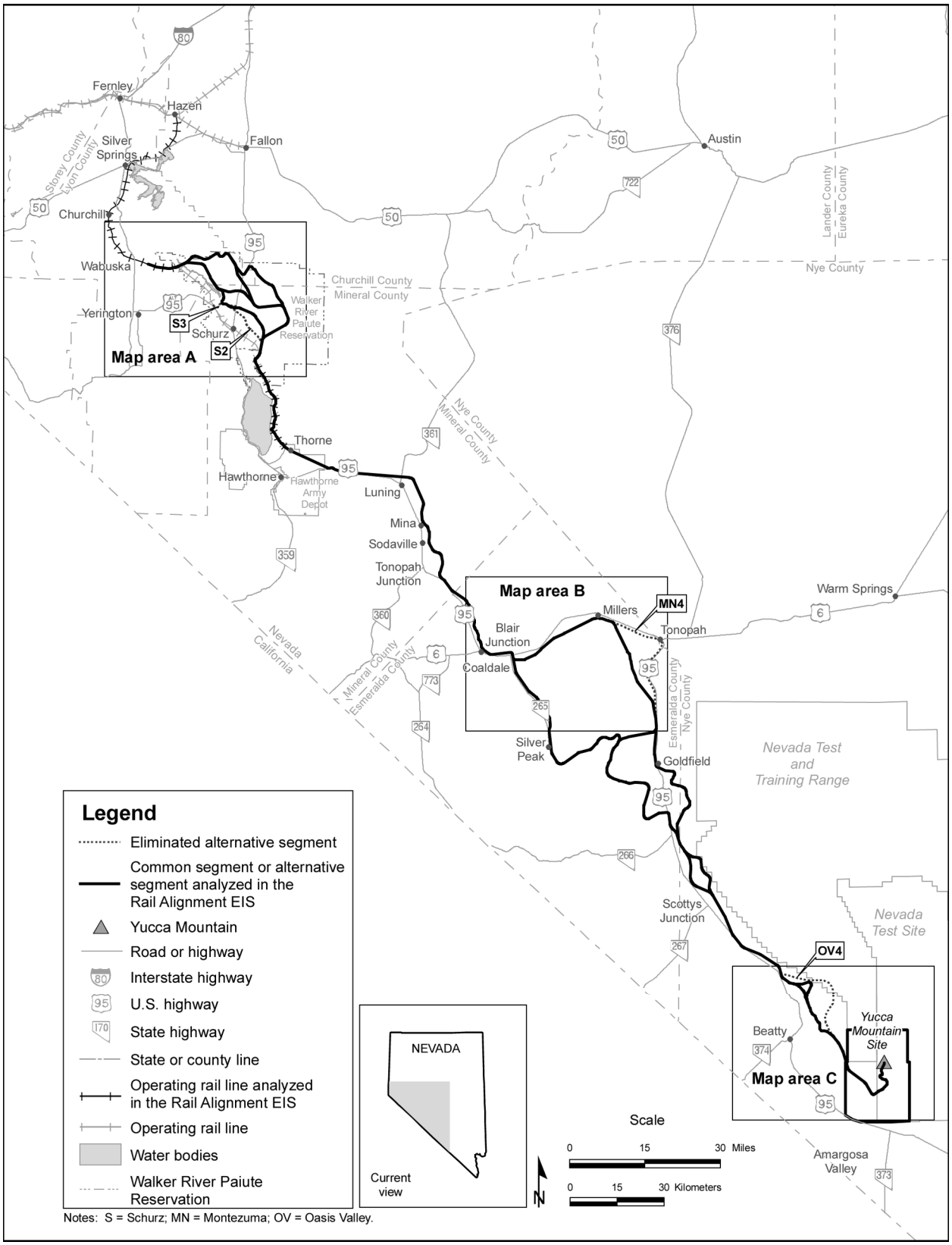


Figure C-14. Mina rail alignment alternative segments DOE eliminated from detailed analysis.

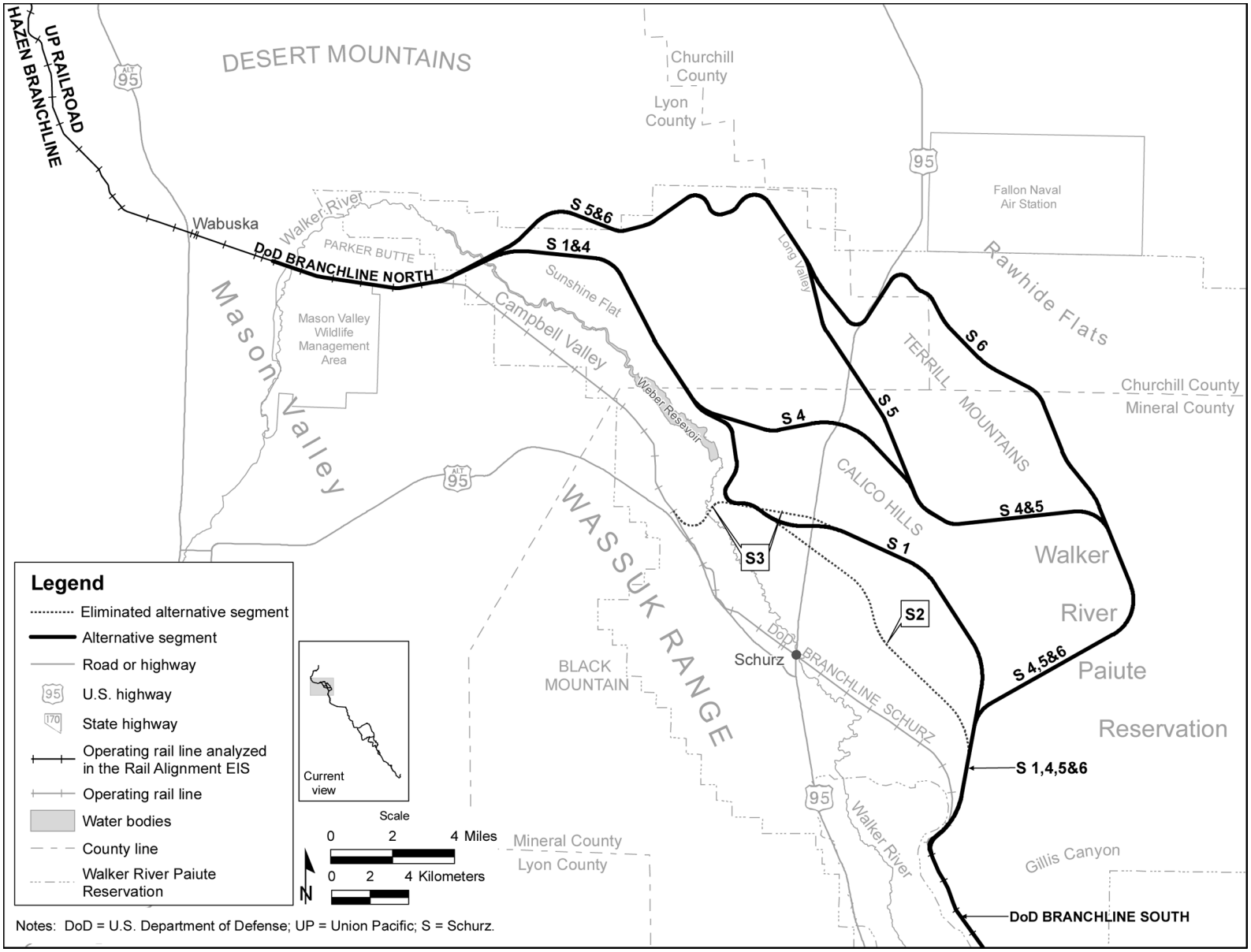


Figure C-15. Eliminated segments within Mina map area A.

that, while Schurz 4, Schurz 5, and Schurz 6 would each add additional length to the overall route and would present engineering challenges in several areas, each would meet engineering design criteria and present a viable alternative segment. Therefore, DOE added Schurz 4, 5, and 6 to the suite of alternative segments to be considered for detailed analysis in the EIS. Table C-12 lists the alternative segments considered.

Table C-12. Comparison of possible alternative segments in the Schurz area.[a]

Attribute	Schurz 1	**Schurz 2**	**Schurz 3**	Schurz 4	Schurz 5	Schurz 6
Length (miles)[b]	32	30	31	40	43	44
Construction cost ($ millions)	168	137	168	238	335	347
Engineering factors	Meets engineering design criteria	Eliminated due to input from the Walker River Paiute Tribe		Meets engineering design criteria	Meets engineering design criteria	Meets engineering design criteria
Key environmental and land-use features	Environmental and land-use constraints do not warrant elimination			No notable environmental or land-use constraints	No notable environmental or land-use constraints	Environmental and land-use constraints do not warrant elimination

a. Eliminated alternative segments are shown in **bold**.
b. To convert miles to kilometers, multiply by 1.6093.

C.4.2.2 Montezuma Alternative Segments

DOE considered four alternative segments in the Montezuma area (Figure C-16). The Amended Notice of Intent identified two alternative segments in the Montezuma Range area, Montezuma 1 and 2. Based on a public scoping comment to avoid communities along the Mina rail alignment, DOE added Montezuma alternative segment 3, which would avoid the communities of Goldfield and Silver Peak. Additionally, based on a comment received during public scoping, DOE examined Montezuma 4 as an alternative to constructing Montezuma 2. DOE determined whether the alternative segments would be technically feasible according to the engineering design criteria, estimated the cost of each alternative segment, and considered the environmental and land-use features associated with each. DOE determined that Montezuma 4 would impact private lands and that an alternative segment that meets the intent of the public scoping comment while meeting engineering and environmental criteria could not be derived. Therefore, DOE eliminated Montezuma 4 from detailed analysis in the Rail Alignment EIS. Table C-13 displays a comparison of the alternative segments considered.

Table C-13. Comparison of possible alternative segments in the Montezuma area.[a]

Attribute	Montezuma 1	Montezuma 2	Montezuma 3	**Montezuma 4**
Length (miles)[b]	73	74	87	90
Construction cost ($ millions)	485	383	475	Not calculated because eliminated from consideration
Engineering factors	Meets engineering design criteria	Meets engineering design criteria, utilizes existing rail roadbed	Meets engineering design criteria, utilizes existing rail roadbed	Exceeds grade criteria
Key environmental and land-use features	Environmental and land-use constraints do not warrant elimination	Environmental and land-use constraints do not warrant elimination	Environmental and land-use constraints do not warrant elimination	Environmental and land-use constraints do not warrant elimination

a. Eliminated alternative segment is shown in **bold**.
b. To convert miles to kilometers, multiply by 1.6093.

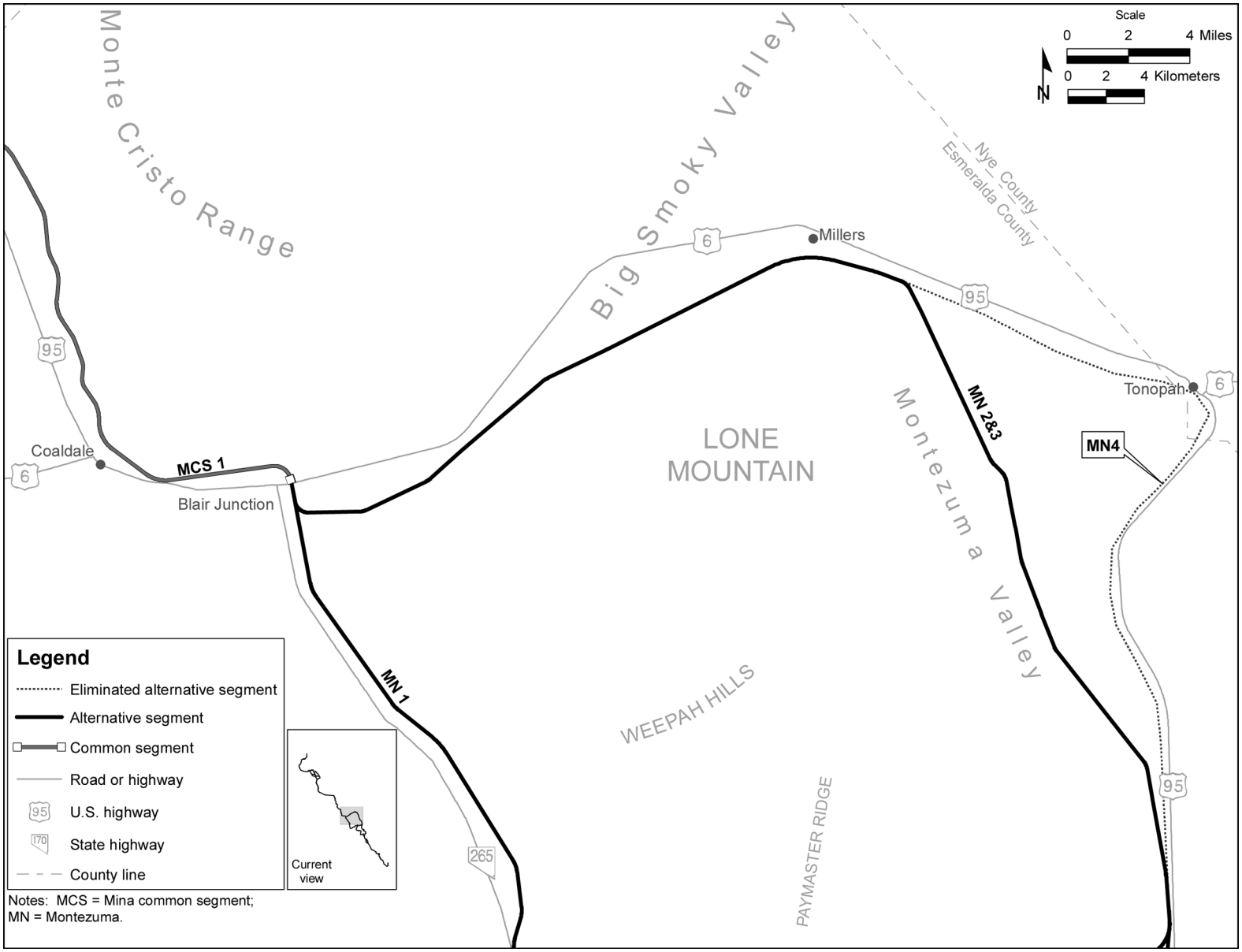


Figure C-16. Eliminated segments within Mina map area B.

C.4.2.3 Oasis Valley Alternative Segments

In total, DOE considered four alternative segments in Oasis Valley (Figure C-17). DOE identified Oasis Valley 1 and Oasis Valley 2 in its Notice of Intent. As discussed in Section C.4.1.8, during the Caliente rail alignment scoping process, DOE added Oasis Valley 3 to and eliminated Oasis Valley 2 from detailed analysis in the Rail Alignment EIS. The Amended Notice of Intent incorporated Oasis Valley 1 and Oasis Valley 3 by reference. Then, during scoping for the Mina rail alignment, one commenter suggested that DOE create an alternative segment in Oasis Valley to avoid private lands and eliminate perceived noise and vibration impacts. Based on this comment, DOE attempted to identify a feasible alternative segment, but could not without crossing onto the Nevada Test and Training Range. Table C-14 compares the Oasis Valley alternative segments DOE considered.

Table C-14. Comparison of possible alternative segments in the Oasis Valley area.[a]

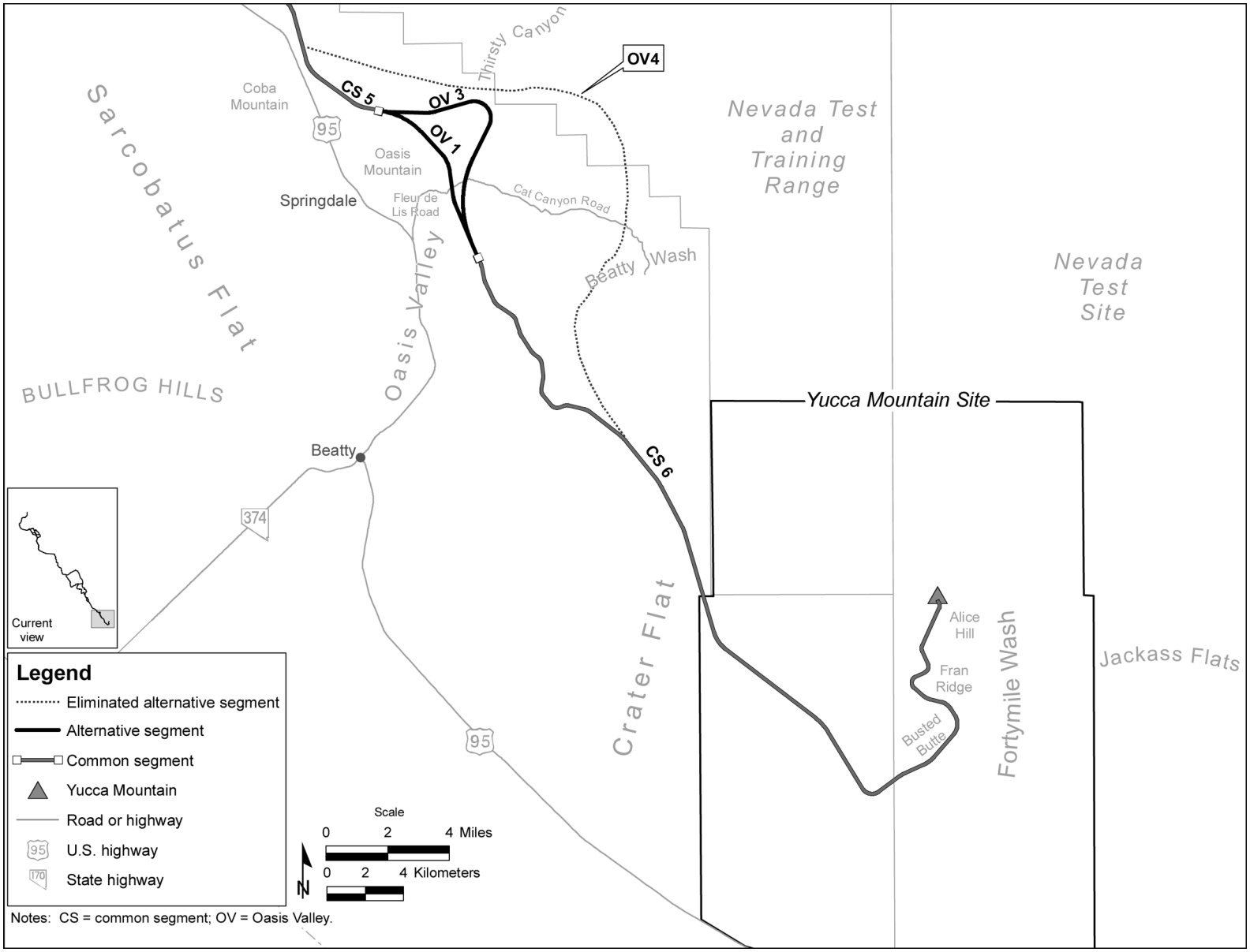
Alternative segment	Oasis Valley 1	Oasis Valley 3	**Oasis Valley 4**
Length (miles)[b]	6	9	Alternative segment not included in the Rail Alignment EIS as it would enter the Nevada Test and Training Range
Construction cost ($ millions)	43.2	58.6	
Engineering factors	Meets engineering design criteria	Meets engineering design criteria	
Key environmental and land-use features	Environmental and land-use constraints do not warrant elimination	Environmental and land-use constraints do not warrant elimination	

a. Eliminated alternative segment is shown in **bold**.
b. To convert miles to kilometers, multiply by 1.6093.

C.5 Rail Alignment Refinement Process

DOE continued with development of alternative segments and common segments that were identified for detailed analysis, as described above. DOE used Caliente- and Mina-specific information from the computer models to refine and adjust common segment and alternative segment geometry to reflect rail design and engineering criteria. The Department transferred the information developed by the computer modeling system to a computer-aided-design (commonly called CAD) platform, and to alignment-specialty software. DOE used the CAD platform to create engineered drawings and used the software to develop each segment's horizontal and vertical geometry and estimate earthwork volumes such as cuts and fills. In developing this geometry, DOE considered U.S. Geological Survey topographic information, specific location information, cross-section templates, and engineering criteria (DIRS 180916-Nevada Rail Partners 2007, all).

DOE reviewed the alternative segments and common segments generated by software to identify the potential for further refinements. Further refinements were undertaken to improve operational functionality using industry standard practices recommended by the American Railway Engineering and Maintenance-of-Way Association and the Association of American Railroads.



Notes: CS = common segment; OV = Oasis Valley.

Figure C-17. Eliminated segments within Mina map area C.

C.5.1 CALIENTE RAIL ALIGNMENT REFINEMENT PROCESS

Caliente rail alignment refinements were limited in geographic extent and mostly consisted of shifting the track centerline. Figures C-18 and C-19 illustrate the alternative segment DOE refined the most, Oasis Valley 3. Figure C-18 illustrates the alternative segment before the conceptual design process, and Figure C-19 illustrates the results of this initial process. Figure C-20 shows the resulting conceptual alternative segments and common segments.

Following receipt of new aerial mapping and terrain models for the Caliente rail alignment, DOE again used computer-based modeling software to evaluate and refine the alternative segments and common segments in light of the new topographic data. The second refinement, called the Revision 1 alignment, typically altered the centerline location (compare to Revision 0) by several hundred feet, and occasionally a greater distance if environmental impacts would be reduced, thereby improving the feasibility of the rail alignment.

Water availability is the major issue determining the location and design of the rail alignment. It simultaneously affects engineering design, environmental effects, permitting constraints, and project costs. The principal factor affecting water demand is earthwork. Ninety percent of the water DOE would need for the project would be used to provide for compaction of embankment fill materials, and to control dust during excavation and other earth-moving activities. In the first refinement (Revision 0), DOE prepared the track profile with the objective of trying to balance earthwork quantities (that is, keeping the total excavation [cut] approximately equal to the placement of embankment [fill]). However, the conceptual design approach used during Revision 1 was to adjust the profile so that cut and fill would be reduced. By reducing fill, the water demand for embankment compaction would also be reduced (DIRS 180916-Nevada Rail Partners 2007, all).

DOE considered additional environmental and land-use factors in deriving the alternative segments and common segments that make up the Caliente rail alignment. This information included the identification of known areas of potential cultural resources impacts based on cultural resources surveys, and DOE adjusted the alternative segments and common segments to decrease or eliminate impacts in these areas.

C.5.2 MINA RAIL ALIGNMENT REFINEMENT PROCESS

DOE developed a conceptual Mina rail alignment and refined it using the modeling program and the process described in Section C.5. Figure C-21 shows the resulting conceptual alternative segments and common segments that make up the Mina rail alignment.

Following the receipt of new aerial mapping and terrain models, DOE again used software to evaluate the Mina alternative segments and common segments in light of the new topographic data, utilizing the same process and factors described for the Caliente rail alignment refinement process in C.5.1.

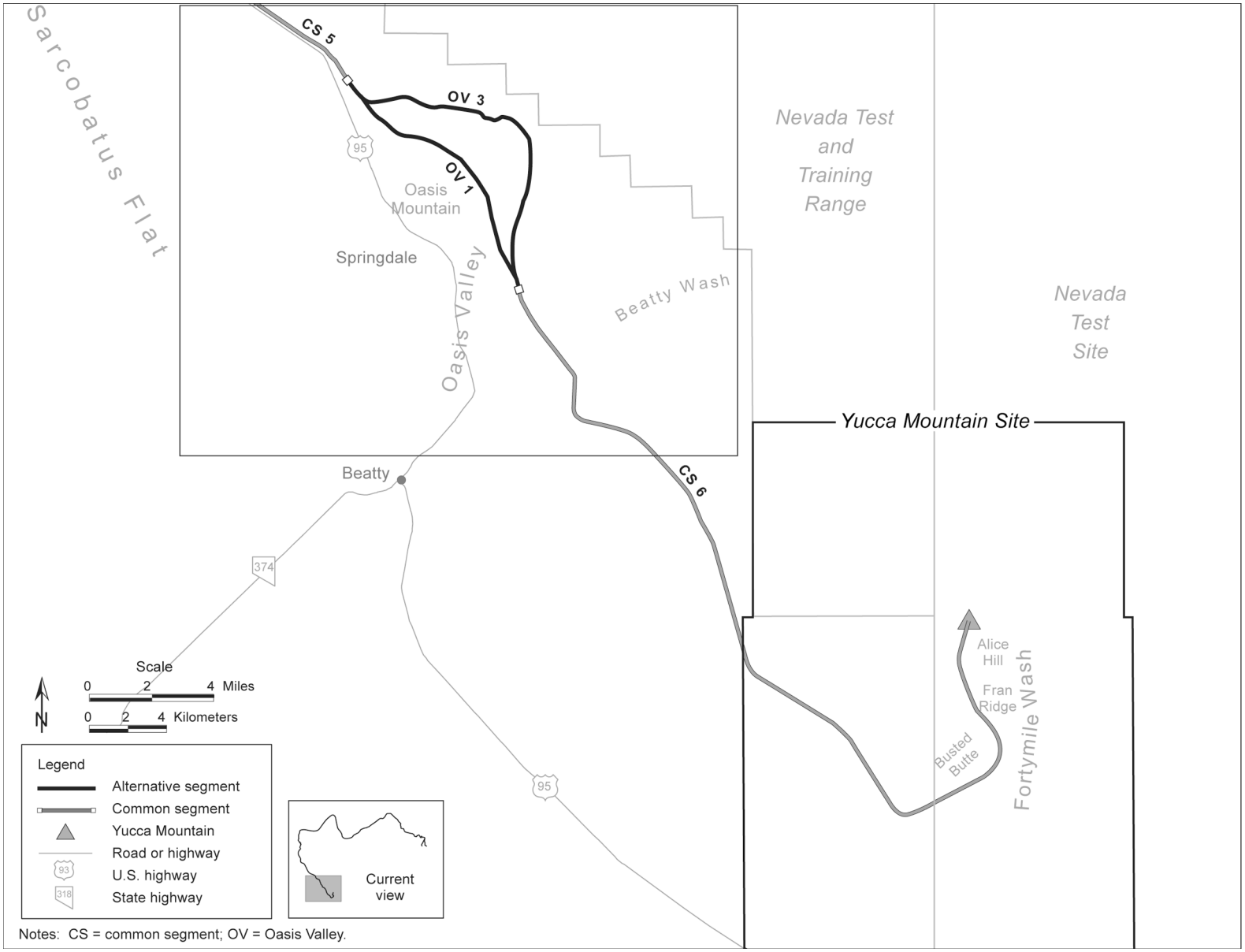


Figure C-18. The Oasis Valley alternative segments before the conceptual design process.

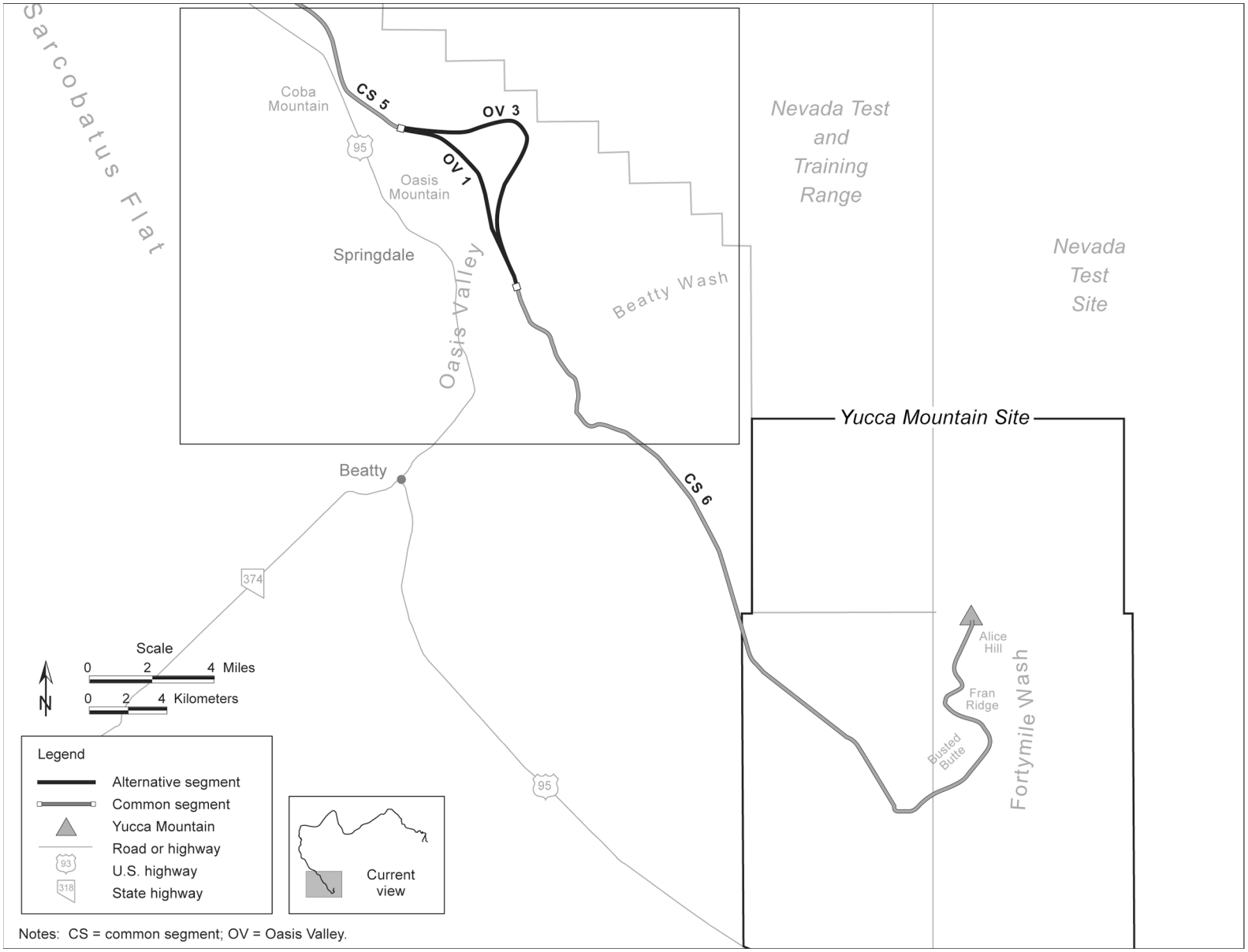


Figure C-19. The Oasis Valley alternative segments refined as a result of the conceptual design process.

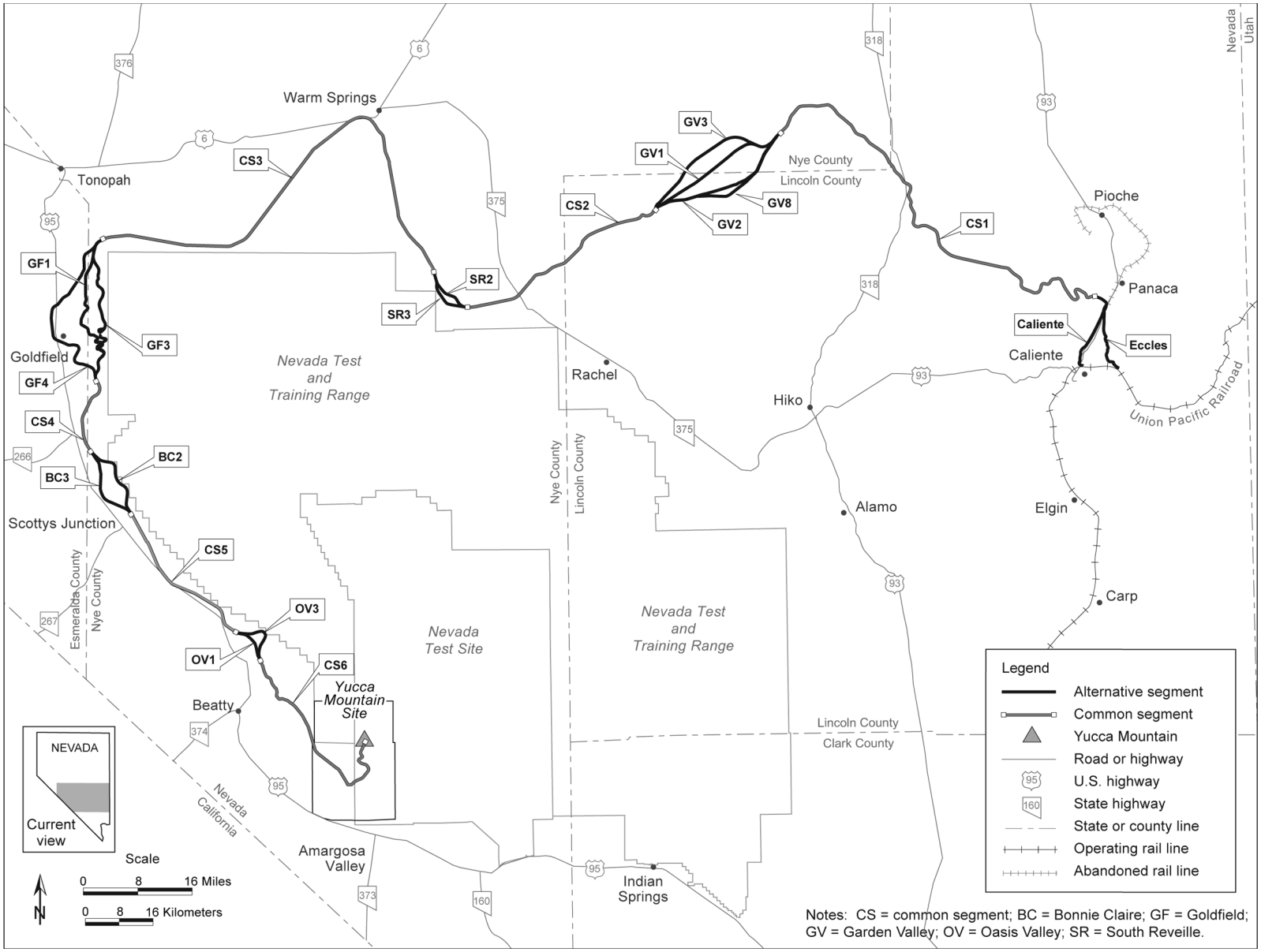
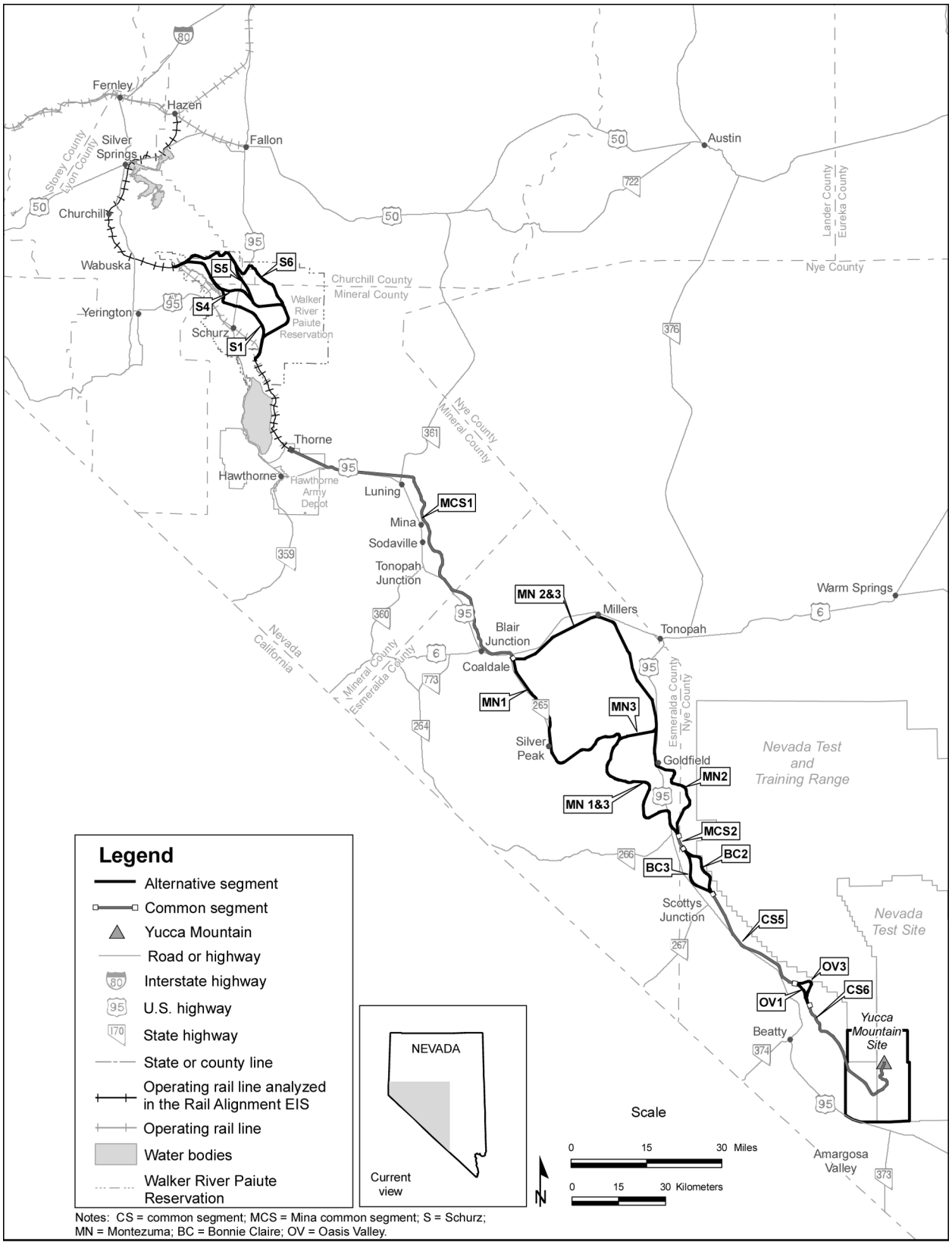


Figure C-20. Final alternative segments and common segments for analysis in the Rail Alignment EIS – Caliente rail alignment.



Notes: CS = common segment; MCS = Mina common segment; S = Schurz; MN = Montezuma; BC = Bonnie Claire; OV = Oasis Valley.

Figure C-21. Final alternative segments and common segments for analysis in the Rail Alignment EIS – Mina rail alignment.

C.6 Glossary

accessible environment

For this ***environmental impact statement*** (EIS), all points on Earth outside the surface and subsurface area controlled over the long term for the ***repository***, including the atmosphere above the controlled area.

accident

An unplanned sequence of events that results in undesirable consequences. Examples in the Rail Alignment EIS include an inadvertent release of radiation from the casks or hazardous materials from their containers; train derailments; vehicular accidents; and construction-related accidents that could affect workers.

air quality

A measure of the concentrations of pollutants, measured individually in the air.

alpha particle

A positively charged particle ejected spontaneously from the nuclei of some ***radioactive*** elements. It is identical to a helium nucleus and has a mass number of 4 and an electrostatic charge of +2. It has low penetrating power and a short range (a few centimeters in air). See ***ionizing radiation.***

alternative

One of two or more actions, processes, or propositions, from which a decisionmaker will determine the course to be followed. The National Environmental Policy Act, as amended, states that in preparing an EIS, an agency "shall … (s)tudy, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources" [42 U.S.C. 4321, Title I, Section 102(E)]. The regulations of the Council on Environmental Quality that implement the National Environmental Policy Act indicate that the alternatives section is "the heart of the environmental impact statement" (40 CFR 1502.14), and include rules for presentation of the alternatives, including no action, and their estimated impacts.

The Rail Alignment EIS analyzes one alternative to the ***Proposed Action*** – the ***No-Action Alternative*** – and two implementing alternatives under the Proposed Action – the Caliente Implementing Alternative and the Mina Implementing Alternative – for constructing, operating, and possibly abandoning a ***railroad*** for the shipment of ***spent nuclear fuel*** and ***high-level radioactive waste*** for long-term ***disposal*** in a ***geologic repository*** at Yucca Mountain. Under the No-Action Alternative, DOE would not construct the proposed railroad along the Caliente ***rail alignment*** or the Mina rail alignment.

alternative segment

Geographic region of the ***rail alignment*** for which multiple routes for the ***rail line*** have been identified. In the Rail Alignment EIS, there are different alignments identified within the Caliente ***rail corridor*** and the Mina rail corridor that could minimize or avoid environmental ***impacts*** and reduce construction complexities.

atomic mass

The mass of a neutral atom, based on a relative scale, usually expressed in atomic mass units. See ***atomic weight.***

atomic nucleus	See ***nucleus***.
atomic number	The number of ***protons*** in an atom's ***nucleus***.
atomic weight	The relative mass of an atom based on a scale in which a specific carbon atom (carbon-12) is assigned a mass value of 12. Also known as relative ***atomic mass***.
ballast	The coarse rock that is placed under the ***railroad*** tracks to support the railroad ties and improve drainage along the ***rail line***.
beta particle	A negatively charged ***electron*** or positively charged positron emitted from a ***nucleus*** during ***decay***. Beta decay usually refers to a ***radioactive*** transformation of a ***nuclide*** by electron emission, in which the ***atomic number*** increases by 1 and the mass number remains unchanged. In positron emission, the atomic number decreases by 1 and the mass number remains unchanged. See ***ionizing radiation.***
boiling-water reactor (BWR)	A ***nuclear reactor*** that uses boiling water to produce steam to drive a turbine.
common segment	Geographic region of the ***rail alignments*** for which a single route for the ***rail line*** has been identified.
cut	Cutting away from the top of a slope to fill in at the bottom, thereby providing a suitable grade for the rail ***roadbed***. See ***fill***.
decay (radioactive)	The process in which one ***radionuclide*** spontaneously transforms into one or more different radionuclides called decay products.
disposal (of spent nuclear fuel and high-level radioactive waste)	The ***emplacement*** in a ***repository*** of ***spent nuclear fuel***, ***high-level radioactive waste***, or other highly ***radioactive*** material with no foreseeable intent of recovery, whether or not such emplacement permits the recovery of such waste, and the ***isolation*** of such waste from the ***accessible environment***.
dose (radioactive)	The amount of ***radioactive*** energy taken into (absorbed by) living tissues. See ***effective dose equivalent***.
effective dose equivalent	Often referred to simply as ***dose***, it is an expression of the ***radiation*** dose received by an individual from external radiation and from ***radionuclides*** internally deposited in the body.
electron	A stable elementary particle that is the negatively charged constituent of ordinary matter.
emplacement	The placement and positioning of ***waste packages*** in the ***repository***.

environment	(1) Includes water, air, and land and all plants and humans and other animals living therein, and the interrelationship existing among these. (2) The sum of all external conditions affecting the life, development, and survival of an organism.
environmental impact statement (EIS)	A detailed written statement that describes: "...the environmental impact of the ***proposed action***; any adverse environmental effects which cannot be avoided should the proposal be implemented; ***alternatives*** to the proposed action; the relationship between local short-term uses of man's ***environment*** and the maintenance and enhancement of long-term productivity; and any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented." Preparation of an EIS requires a public process that includes public meetings, reviews, and comments, as well as agency responses to the public comments.
exposure (to radiation)	The condition of being subject to the effects of or potentially acquiring a ***dose*** of ***radiation***. The incidence of radiation on living or inanimate material by ***accident*** or intent. Background exposure is the exposure to natural ***ionizing radiation***. Occupational exposure is the exposure to ionizing radiation that occurs during a person's working hours. Population exposure is the exposure to a number of persons who inhabit an area.
fill	The material used to fill the bottom of a slope with material cut away from the top of a slope, thereby providing a suitable grade for the rail ***roadbed***. (See ***cut***.)
fission	The splitting of a ***nucleus*** into at least two other nuclei, resulting in the release of two or three ***neutrons*** and a relatively large amount of energy.
fission products	***Radioactive*** or nonradioactive atoms produced by the ***fission*** of heavy atoms, such as uranium.
fuel assembly	A number of fuel elements held together by structural materials, used in a ***nuclear reactor***; sometimes called a fuel bundle.
gamma ray	The most penetrating type of radiant nuclear energy. It does not contain particles and can be stopped by dense materials such as concrete or lead. See ***ionizing radiation.***
geologic repository	A system for the ***disposal*** of ***radioactive*** waste in excavated geologic media, including surface and subsurface areas of operation, and the adjacent part of the geologic setting that provides ***isolation*** of the radioactive waste in a controlled area.

high-level radioactive waste	The highly ***radioactive*** material that resulted from the reprocessing of spent nuclear fuel, including liquid waste produced directly in reprocessing, and any solid material derived from such liquid waste that contains ***fission products*** in sufficient concentrations.
impact	For an EIS, the positive or negative effect of an action (past, present, or future) on the natural ***environment*** (land use, ***air quality***, water resources, geological resources, ecological resources, aesthetic and scenic resources) and the human environment (***infrastructure***, economics, social, and cultural).
infrastructure	Basic facilities, services, and installations needed for the functioning of a community or society, such as transportation and communication systems.
ionizing radiation	(1) ***Alpha particles***, ***beta particles***, ***gamma rays***, ***X-rays***, ***neutrons***, high-speed ***electrons***, high-speed ***protons***, and other particles capable of producing ions. (2) Any ***radiation*** capable of displacing electrons from an atom or molecule, thereby producing ions.
irradiation	***Exposure*** to ***radiation***.
isolation	Inhibiting the transport of ***radioactive*** material so that the amounts and concentrations of this material entering the ***accessible environment*** stay within prescribed limits.
neutron	An atomic particle with no charge and an ***atomic mass*** of 1; a component of all atoms except hydrogen; frequently released as ***radiation***.
No-Action Alternative	Under the No-Action Alternative in the Rail Alignment EIS, DOE would not implement the ***Proposed Action*** in the Caliente rail corridor or the Mina rail corridor.
nuclear reactor	A device in which a nuclear ***fission*** chain reaction can be initiated, sustained, and controlled to generate heat or to produce useful ***radiation***.
nucleus	The central, positively charged, dense portion of an atom. Also known as ***atomic nucleus***.
nuclide	An atomic ***nucleus*** specified by its ***atomic weight***, ***atomic number***, and energy state; a ***radionuclide*** is a ***radioactive*** nuclide.
pressurized-water reactor (PWR)	A nuclear power ***reactor*** that uses water under pressure as a coolant. The water boiled to generate steam is in a separate system.

Proposed Action — The activity proposed to accomplish a federal agency's purpose and need. An EIS analyzes the environmental ***impacts*** of a proposed action, which includes the project and its related support activities.

The Proposed Action in the Rail Alignment EIS is to determine an alignment (within a corridor) and construct, operate, and potentially abandon a railroad in Nevada to transport spent nuclear fuel, ***high-level radioactive waste***, and other Yucca Mountain project materials to a repository at Yucca Mountain.

proton — An elementary particle that is the positively charged component of ordinary matter and, together with the ***neutron***, is a building block of all atomic ***nuclei***.

radiation — Energy traveling through space. Radiation can be non-ionizing, like radio waves, ultraviolet radiation, or visible light, or ionizing, depending on its effect on atomic matter. As used in this Rail Alignment EIS, "radiation" refers to ***ionizing radiation***. Ionizing radiation has enough energy to ionize atoms or molecules while non-ionizing radiation does not. ***Radioactive*** material is a physical material that emits ionizing radiation.

radioactive — Emitting ***radioactivity***.

radioactivity — (1) The spontaneous transformation of unstable atomic ***nuclei***, usually accompanied by the emission of ionizing ***radiation*** (e.g., such as ***alpha***, ***beta***, or ***gamma rays***). (2) The property of unstable nuclei in certain atoms (of elements such as uranium) to spontaneously emit ionizing radiation during nuclear transformations.

radionuclide — See ***nuclide***.

rail alignment — (1) A strip of land less than 400 meters (0.25 mile) wide through which the location of a rail line would be identified. (2) In this Rail Alignment EIS, the location of a ***rail line*** within a ***rail corridor***.

rail corridor — As used in this Rail Alignment EIS, a strip of land 400 meters (0.25 mile) wide through which DOE would identify an alignment (***rail alignment***) for the construction of a ***rail line*** in Nevada to a ***geologic repository*** at Yucca Mountain.

rail line — An engineered feature incorporating the track, ties, ***ballast***, and ***subballast*** at a specific location.

railroad — A transportation system incorporating the ***rail line***, operations support facilities, railcars, locomotives, and other related property and infrastructure.

reactor — See ***nuclear reactor***.

repository — See ***geologic repository***.

roadbed	The earthwork foundation upon which the track, ties, ***ballast***, and ***subballast*** of a ***rail line*** are lain.
spent nuclear fuel	Fuel that has been withdrawn from a ***nuclear reactor*** following ***irradiation***, the component elements of which have not been separated by reprocessing. For this project, this refers to (1) intact, nondefective ***fuel assemblies***, (2) failed fuel assemblies in ***canisters***, (3) fuel assemblies in canisters, (4) consolidated fuel rods in canisters, (5) nonfuel assembly hardware inserted in ***pressurized-water reactor*** fuel assemblies, (6) fuel channels attached to ***boiling-water reactor*** fuel assemblies, and (7) nonfuel assembly hardware and structural parts of assemblies resulting from consolidation in canisters.
subballast	A layer of crushed gravel that is used to separate the ***ballast*** and ***roadbed*** for the purpose of load distribution and drainage.
waste packages	Two thick metal cylinders, one nested within the other. The inner cylinder would be made of stainless steel to provide structural strength. The outer cylinder would be made of a nickel alloy that is highly resistant to corrosion.
withdrawal	Related to land use: Withholding an area of federal land from settlement, sale, location, or surface entry, under some or all of the general land laws, for the purpose of limiting activities under those laws to maintain other public values in the area or reserving the area for a particular public purpose or program. Related to water resources: Water diverted from the ground or diverted from a surface-water source for use.
X-rays	Penetrating electromagnetic ***radiation*** having a wavelength much shorter than that of visible light. X-rays are identical to ***gamma rays*** but originate outside the ***nucleus***, either when the inner orbital ***electrons*** of an excited atom return to their normal state or when a metal target is bombarded with high-speed electrons.

C.7 References

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180916	Nevada Rail Partners 2007	Nevada Rail Partners 2007. Alignment Development Report Caliente Rail Corridor, Task 6: Route Alignment Definition, REV. 03. Document No. NRP-R-SYSW-DA-0001-03. Las Vegas, Nevada: Nevada Rail Partners. ACC: ENG.20070620.0014.