

1.0 Introduction

1.1 BACKGROUND

In the 1950s, the United States government decided it was in the nation's best interest to pursue nuclear energy technologies that would significantly reduce environmental pollutant emissions through sustainable, economical means. The federal government agreed to take responsibility for the spent nuclear fuel (SNF) and other high level radioactive waste (HLRW) that resulted from this process. Numerous methods of disposal were examined and an independent body of scientists concluded that a deep geologic repository was the safest solution to the disposition of SNF and HLRW. The Nuclear Waste Policy Act of 1982 (NWPA), acknowledged the federal government's obligation as it relates to SNF and set forth a process for selecting a site for the final disposition of these materials. In 1987, the NWPA was amended, selecting only Yucca Mountain in Nevada for further site characterization studies. Site characterization proceeded and in 2002, Yucca Mountain was recommended by the Secretary of the Department of Energy (DOE) as a suitable site. President George W. Bush approved the site recommendation and in 2003 he signed into law the joint resolution of the U.S. House of Representatives and the U.S. Senate that officially designated Yucca Mountain for development as the nation's first deep geologic repository for SNF and HLRW. In or around 1988, Lincoln County, Nevada applied for status as an Affected Unit of Local Government. Lincoln County received this designation and has engaged in a robust oversight program.

Lincoln County, its residents and property owners will primarily be affected by the transportation of the SNF and HLRW. The national experience with these types of shipments includes over 2,700 shipments across 1,600,000 miles over 30 years without a harmful release of radiation. These shipments have been made by rail, barge and truck. The DOE began studying transportation modes and routes for SNF and HLRW shipments to Yucca Mountain, Nevada decades ago. In the 2002 Final Environmental Impact Statement for Yucca Mountain (FEIS), the DOE included analysis of five potential rail corridors: Jean, Valley Modified, Carlin, Caliente and Caliente-Chalk Mountain. Caliente-Chalk Mountain was listed as a non-preferred alternative in the FEIS due to national security issues relating to Nellis Air Force Range and the Nevada Test Site. The DOE's Office of Civilian Radioactive Waste Management (OCRWM) announced December 2003, that the Caliente rail corridor (CRC) was its preference for construction of a rail line to serve the Yucca Mountain Repository in Nevada. The DOE also identified Carlin as the secondary preferred corridor. The Bureau of Land Management (BLM) also released a Notice of Proposed Land Withdrawal for the CRC in December 2003. In 2004, DOE issued a Record of Decision (ROD) to select mostly rail as the shipment mode nationwide and in Nevada, and to select the CRC as the preferred transportation corridor in which to construct a railroad to Yucca Mountain, Nevada. At the same time, DOE issued a Notice of Intent to issue a Draft Environmental Impact Statement for the Construction and Operation of a railroad in Nevada to a Geologic Repository at Yucca Mountain, Nye County, Nevada. This *Draft 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* (DEIS-RA) was released for review and comment on October 12, 2007.

1.2 PURPOSE AND NEED FOR REPORT

Lincoln County, with advice from the Joint City County Impact Alleviation Committee (JCCIAC), determined a more thorough assessment of the impacts and associated mitigation actions of the CRC and Alternatives would be necessary to better inform their citizenry and prepare requests for impact mitigation. Specifically, Lincoln County contracted with two professional services firms, Resource Concepts Inc. (RCI) and Robison/Seidler, Inc. to evaluate the impacts of the proposed alignments that are outlined in the DOE's DEIS-RA. Furthermore, they directed that two additional alternatives with the potential for less adverse impacts than the DOE proposed route be considered. This report is intended to present the findings of this evaluation. No policy recommendations are contained within this report regarding whether any person or agency in Lincoln County or the City of Caliente should support or oppose any of the alternatives analyzed.

Robison/Seidler, Inc., at the request of the Lincoln County Commission, subcontracted the fieldwork for the route identification, impact analysis and recommended mitigation actions to L&H Consulting, a locally based firm. L & H had the task of identifying potential routes that may result in fewer impacts to the citizens and property owners in Lincoln County. Additionally, L & H had the responsibility of identifying impacts to the community at large and suggesting mitigation actions. Robison/Seidler, Inc. served as a facilitator in the production of this report.

Resource Concepts, Inc. was tasked with the identification of the impacts to public land, specifically regarding grazing operations and required mitigations.

1.3 DELIMITATIONS AND LIMITATIONS OF THIS REPORT

The project team was assigned a very specific and narrow scope for this report. This is not intended to be a complete environmental assessment of the DOE's plans to construct and operate a railroad or a complete analysis of all existing options, including the no action alternative that must be considered in a full environmental impact statement. The team was only to consider the impacts of and mitigation requirements for the construction and operation of a proposed railroad commencing at an existing Union Pacific track near Caliente and traveling through Lincoln County to Yucca Mountain, Nevada. The team was not assigned the task of analyzing other alternatives such as truck transportation. Furthermore, the team was to look primarily at the impacts to public land—grazing permittees and private property owners within Lincoln County. There are numerous other potential impacts that have not been evaluated as part of this report due to time and resource constraints or have only been evaluated in so far as they relate to the specific scope. This includes, but is not limited to the following:

1. Rail support facilities and construction facilities (i.e., staging yards, man camps)
2. Shared use rail system
3. Seismic activities and hazards
4. Air quality
5. Hydrology (i.e., drainage, groundwater)
6. Wetlands
7. Biological resources (i.e., land cover, special status species)
8. Noise and vibration
9. Occupational and public health and safety

Time and resource constraints also affected the existing report. Information had been requested from the DOE prior to their release of the DEIS-RA. Much of this information was not provided to the team. Once the DEIS-RA was released, the size and questionable basis for some of the conclusions contained within the DEIS-RA made it difficult to fully analyze and discuss the relevant information as a part of this report.