# Committee on High-Level Radioactive Waste


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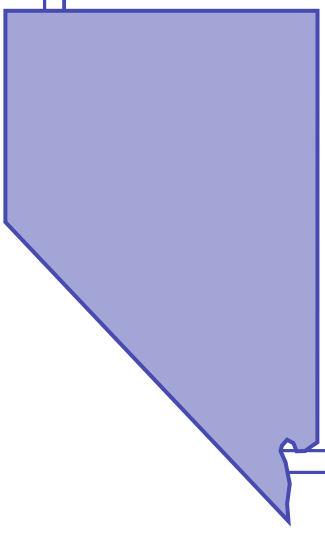

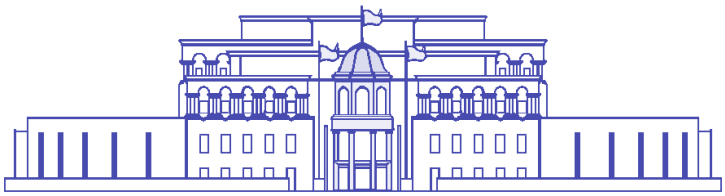

# LEGISLATIVE COMMITTEE ON HIGH-LEVEL RADIOACTIVE WASTE

# BULLETIN 03-21

**JANUARY 2003**

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## ACRONYMS USED BULLETIN NO. 03-21

AULG ..... Affected Units of Local Governments

DOE. ..... United States Department of Energy

EIS ..... Environmental Impact Statement

EM ..... Environmental Management

EPA ..... United States Environmental Protection Agency

HLRW ..... High-Level Radioactive Waste

LCB ..... Legislative Counsel Bureau

NANP ..... Nevada's Agency for Nuclear Projects

NCSL ..... National Conference of State Legislatures

NRC ..... United States Nuclear Regulatory Commission

NTS ..... Nevada Test Site

NWPA ..... Nuclear Waste Policy Act of 1982

OCRWM ..... Office of Civilian Radioactive Waste Management
United States Department of Energy

S.J.R. ..... Senate Joint Resolution

WIPP ..... Waste Isolation Pilot Plant

# REPORT TO THE 72ND SESSION OF THE NEVADA LEGISLATURE BY NEVADA'S LEGISLATIVE COMMITTEE ON HIGH-LEVEL RADIOACTIVE WASTE

## I. INTRODUCTION

Nevada's Legislative Committee on High-Level Radioactive Waste is a permanent committee of the Nevada Legislature whose authorization and duties are set forth under *Nevada Revised Statutes* 459.0085 (See Appendix A). Created in 1985, the Committee is responsible for performing legislative oversight responsibilities to study and evaluate the following:

- Information and policies regarding the location of a facility for the disposal of high-level radioactive waste in the State of Nevada;
- Any potential adverse effects from the construction and operation of a facility and the ways of mitigating those effects;
- Any other policies relating to the disposal of high-level radioactive waste; and
- Recommendations concerning appropriate legislation to be presented to the Legislature and the Legislative Commission.

The Committee also provides a forum for the discussion of high-level radioactive waste matters with federal, state, and local officials; representatives of special interest groups; and other interested individuals.

### A. Committee Members and Staff

The following legislators served on the Committee during the 2001-2002 Legislative Interim:

Assemblyman Harry Mortenson, Chairman
Senator Mike McGinness, Vice Chairman
Senator Lawrence E. Jacobsen
Senator Joseph M. Neal, Jr.
Senator Raymond C. Shaffer
Assemblyman John J. Lee
Assemblyman Robert E. Price
Assemblywoman Sandra J. Tiffany

The Legislative Counsel Bureau (LCB) provided staff services to the Committee. Research Division staff included Marjorie Paslov Thomas, Senior Research Analyst; John L. Meder, Senior Research Analyst; and Nenita Wasserman, Senior Research Secretary.

R. René Yeckley, Principal Deputy Legislative Counsel, provided staff services from the Legal Division.

## B. Meetings and Activities

The Committee held three meetings during the 2001-2002 Legislative Interim period. As well as performing its mandated oversight functions, the Committee has monitored the actions of the 107th Session of the United States Congress. Committee members participated in the National Conference of State Legislatures' (NCSL) Environmental Management Legislative Roundtables, which included site visits to the Idaho National Engineering and Environmental Laboratory in Idaho; the Rocky Flats Environmental Technology Site, in Colorado; and the Waste Isolation Pilot Project in New Mexico (the only operating nuclear waste repository in the United States). Additionally, members monitored meetings of the United States Nuclear Waste Technical Review Board, the Advisory Committee on Nuclear Waste of the United States Nuclear Regulatory Commission (NRC), Nevada's Commission on Nuclear Projects, and technical exchange meetings between the United States Department of Energy (DOE) and the NRC.

At this time, the Committee does not recommend legislative action. However, in addition to the Committee's legislative oversight responsibilities, it will continue to monitor: (1) the State of Nevada's legal cases against the Federal Government; and (2) other activities including transportation issues pertaining to the nation's high-level radioactive waste program. If deemed appropriate, the Committee will recommend relevant action to the Nevada Legislature or Legislative Commission.

The purpose of this report is to provide general information on: (1) the Federal Nuclear Waste Program; (2) the actions of the 107th Session of the United States Congress pertaining to the proposed geologic high-level radioactive waste repository at Yucca Mountain; (3) the activities of the Committee on High-Level Radioactive Waste (HLRW); and (4) the activities of state and local government oversight organizations.

# II. BACKGROUND INFORMATION

In 1957, the first nuclear power plant in the United States began operation. Since that time, more than 100 nuclear power plants have been constructed and, in 1999 they produced more than 20 percent of the nation's electricity. However, the benefits of nuclear power are connected with the enormous challenge of safely managing the temporary storage and permanent disposal of spent fuel and high-level radioactive waste (See Appendix B).

In 1982, the United States Congress passed the Nuclear Waste Policy Act (NWPA) (42 *United States Code* 10101 *et seq*.), which was crafted to provide for the safe and permanent disposal of spent nuclear fuel from the nation's civilian power plants and defense high-level radioactive waste, in a deep geological repository. This policy was based primarily on recommendations

from the scientific community, including a 1957 report by the National Academy of Sciences, which recommended the burial of high-level and transuranic radioactive waste in geologic formations. High-level radioactive waste is a byproduct of nuclear power and requires permanent isolation from the environment. Transuranic waste consists primarily of equipment, protective clothing, sludge, soil, and tools that have been contaminated with trace amounts of manmade radioactive elements, such as plutonium.

In the NWPA, Congress designated the three agencies responsible for implementing this policy and their specified roles. First, the DOE must characterize, site, design, build, and manage a federal waste repository. Second, the United States Environmental Protection Agency (EPA) must set the public health standards for a waste repository. Finally, the NRC must license the construction, operation, and closure of a waste repository.

In 1985, the Nevada Legislature created the Committee on High-Level Radioactive Waste, Nevada Commission on Nuclear Projects, and Nevada's Agency for Nuclear Projects (NANP) to conduct state oversight of the Yucca Mountain Site Characterization Program. Subsequently, in 1987, Congress amended the NWPA and directed the DOE to study only Yucca Mountain to determine its suitability as a geologic high-level nuclear waste repository.

## III. PROGRAM OVERVIEW

### A. Federal Historical Perspective

The site characterization of Yucca Mountain began in 1977 when the DOE initiated an investigation to determine the possibility of disposing high-level radioactive waste in a geologic repository at the Nevada Test Site (NTS). Over the next two years, the DOE investigated a number of locations at the NTS and ultimately selected Yucca Mountain as a potentially acceptable repository site.

The enactment of the NWPA in 1982 established the national policy for the disposal of high-level radioactive waste materials. These materials consist primarily of spent nuclear fuel from commercial power reactors and defense high-level radioactive waste. The NWPA created a federal obligation to accept spent nuclear fuel and dispose of it in a geologic facility. Further, the Federal Government would be responsible for the timely development of a national capability to accept, transport, store, and permanently dispose of high-level radioactive waste in a manner that will assure public and worker health, protect the environment, merit public confidence, and be economically viable.

The NWPA created the Office of Civilian Radioactive Waste Management (OCRWM) within the DOE and assigned it the responsibility for developing a waste management system. The NWPA also:

- Established a Nuclear Waste Fund to finance the system through a surcharge on electricity produced by nuclear power;

- Specified the process for siting repositories for the permanent deep geologic disposal of spent nuclear fuel and high-level radioactive waste;

- Required the DOE to submit a proposal to construct a facility for monitored interim storage of spent nuclear fuel;

- Required the President of the United States to evaluate the use of the repositories to be developed under the NWPA for the disposal of high-level waste from defense activities; and

- Included specific provisions for the participation of states and Indian Tribes in the waste management program.

The DOE developed guidelines for evaluating the suitability of sites for repositories, obtained concurrence on the guidelines from the NRC, and began the site screening process. Nine possible repository sites, located throughout the nation, were initially evaluated. Three of those sites ([1] Yucca Mountain, Nevada; [2] Deaf Smith, Texas; and [3] Hanford, Washington) were ranked as being the most suitable for a detailed study and analysis (site characterization) as possible repository sites.

In 1987, amendments to the NWPA specified Yucca Mountain as the only site to be characterized to determine its suitability as a geologic repository. Under the NWPA, the DOE must contemplate several important stages in evaluating the site before a Secretarial recommendation can occur. It directs the Secretary of Energy to develop a site characterization plan, one that will help guide test programs for the collection of data to be used in evaluating the site. It also directs the Secretary to conduct such characterization studies as may be necessary to evaluate the site's suitability. Further, it directs the Secretary to hold hearings in the vicinity of the prospective site to inform the residents and receive their comments.

If the Secretary of Energy finds the site suitable, he will recommend it to the President for development as a permanent repository. However, under the NWPA, if the DOE finds Yucca Mountain unsuitable, the agency must mitigate all site characterization activities and any significant adverse environmental impacts, and provide recommendations to Congress for further action to assure safe, permanent disposal of spent fuel and high-level radioactive waste.

In accordance with the NWPA, the DOE developed a Site Characterization Plan in 1988. The Yucca Mountain Project Office, OCRWM, conducted scientific investigations to determine if Yucca Mountain would be suitable for a permanent repository. The Draft Environmental Impact Statement (EIS) for a repository at Yucca Mountain was released to the public on August 13, 1999. Approximately 2,800 individuals attended the 21 public hearings

that were held by the DOE; 716 people commented at the hearings. Ten hearings were held in Nevada with the remainder being held at different locations throughout the United States. The Final EIS considered both individually and collectively more than 11,000 comments received at the hearings or via electronic mail, facsimile, or United States mail.

After reviewing the extensive analysis undertaken by DOE of the Yucca Mountain Site, the Secretary of Energy found Yucca Mountain to be suitable, within the meaning of the NWPA, for development as a permanent nuclear waste and spent fuel repository.

The DOE's Web site contains detailed information on the Yucca Mountain Site Characterization Program. The site may be accessed on the Internet at: http://www.ymp.gov.

## B. State Historical Perspective

The NWPA, as amended, authorizes Nevada's Legislature and Governor to carry out oversight on all aspects of the High-Level Radioactive Waste Program. State legislative oversight began in 1983 with the adoption of Senate Concurrent Resolution No. 52 (File No. 135, *Statutes of Nevada 1983*), which directed the Legislative Commission to appoint an interim committee to observe and participate in the federal study. The Committee's major objectives were to:

- Become familiar with the federal program for study of potential locations of a repository; and

- Establish a structure within the State of Nevada to analyze and address the issues associated with the possibility of locating a repository in the state.

The interim committee recommended to the 1985 Legislature that:

- The Legislature continue to be actively involved in the state's program by creating a permanent legislative committee to perform oversight functions and formulate recommendations concerning the high-level radioactive waste repository issue; and

- An executive branch advisory commission and agency be legally created by statute.

### *1. Creation of Permanent Legislative Oversight Committee*

The Nevada Legislature's Committee on High-Level Radioactive Waste was created in 1985 by Senate Bill 55 (Chapter 211, *Statutes of Nevada*). This permanent committee was charged with legislative oversight responsibilities as outlined on page 1 of this report.

The Committee is not authorized to undertake technical studies or duplicate efforts of Nevada's Agency for Nuclear Projects.

### *2. Creation of Commission and State Agency*

Pursuant to the Federal NWPA, Nevada's Agency for Nuclear Projects (NANP) was established in early 1983 by Executive Order of the Governor and placed within the Department of Minerals. In December 1983, the NANP was transferred to the Governor's Office. In 1985, Senate Bill 56 (Chapter 680, *Statutes of Nevada*) created the Commission on Nuclear Projects and the responsibilities of NANP.

Major functions of NANP include:

- Identifying health, safety, and environmental issues which are of concern to Nevada;
- Reviewing and evaluating the DOE's environmental, socioeconomic, and technical studies; and
- Performing selective independent studies of critical issues in order to confirm or negate the DOE's analysis.

According to Robert Loux, Executive Director, NANP, the agency has aggressively performed its monitoring and oversight responsibilities. Emphasis has been placed on reviewing and commenting on technical studies in the areas of hydrology, groundwater travel time, pneumatic pathways, volcanism, seismology, transportation routes and modes, waste packaging, and socioeconomic impacts, as well as providing information to the public about the Yucca Mountain Site Characterization Program.

Details of NANP's oversight activities can be obtained by contacting the office at 1802 North Carson Street, Suite 252, Carson City, Nevada 89701; telephone: 775/687-3744; or Web site: http://www.state.nv.us/nucwaste/yucca/agency. Copies of NANP reports and studies are available at most public libraries in Nevada.

### *3. Affected Units of Local Governments*

The NWPA provides that units of local governments that might be affected by a repository may conduct certain types of independent oversight of the High-Level Radioactive Waste Program.

The Affected Units of Local Governments (AULG) have been identified as the county in which the proposed repository site is being studied and the counties which surround it. The AULG for the Yucca Mountain Site Characterization Project are Churchill, Clark, Esmeralda, Eureka, Lander, Lincoln, Mineral, Nye, and White Pine Counties in Nevada, and Inyo County in California.

The oversight activities of the AULG include the following:

- Review studies and materials for the purpose of determining any potential economic, social, public health and safety, and environmental impacts of a repository;

- Develop a request for impact assistance;

- Engage in monitoring, testing, or evaluating activities with respect to site characterization programs;

- Provide information to residents regarding activities of the DOE, NRC, or state with respect to the site; and

- Request information from, and make comments and recommendations to the DOE regarding activities undertaken with respect to the site.

Details of the activities and the status of each AULG's oversight program may be obtained by contacting a specific AULG directly. (Appendix C is a list of each AULG and contact information.)

## IV. ACTIONS OF THE 107TH SESSION OF THE UNITED STATES CONGRESS REGARDING THE DEVELOPMENT OF THE PROPOSED YUCCA MOUNTAIN SITE AS A HIGH-LEVEL RADIOACTIVE WASTE REPOSITORY

As previously mentioned, under the NWPA, DOE is charged with determining if the Yucca Mountain site would be suitable as a repository for the geologic disposal of spent nuclear fuel and high-level nuclear waste. Under the provisions of the NWPA, DOE must develop and submit a Site Recommendation Report, which includes a Final EIS, to the Secretary of Energy. If the Secretary agrees with the site recommendation, he must forward it to the President and the United States Congress. If approved by the President and Congress, the DOE then must submit an application to the NRC for a license to construct and operate a repository.

The Governor of Nevada or the Legislature may then submit a notice of disapproval to the United States Congress within 60 days after the President submits his recommendation to Congress. After receiving the notice of disapproval, Congress, within 90 days of a continuous session, may pass a resolution to approve the site, thereby overriding the effect of the state's notice of disproval. However, failure to approve the resolution within the 90-day period ends further consideration of Yucca Mountain as the repository site with no immediate available site alternatives (See Appendix D).

After spending more than $4 billion over a period of 20 years, the DOE determined that Yucca Mountain would be a suitable site, within the meaning of the NWPA, for development as a permanent nuclear waste and spent fuel repository. Following is a timeline of events that occurred regarding the recommendation to develop Yucca Mountain as a high-level radioactive waste repository:

- On January 10, 2002, United States Secretary of Energy, Spencer Abraham, notified Nevada Governor Kenny C. Guinn and the Nevada Legislature of his decision to recommend the Yucca Mountain site for development as a nuclear waste repository (See Appendix E).

- On February 14, 2002, the Secretary submitted his site recommendation to President George W. Bush. (No earlier than 30 days after providing such notice to the Governor and the Legislature, the Secretary is required to submit his site recommendation to the President) (See Appendix F).

- On February 15, 2002, President Bush submitted his recommendation to the United States Congress for approval of the Yucca Mountain site (See Appendix G).

- On April 8, 2002, Governor Guinn submitted a notice of disapproval regarding the President's recommendation. However, within 90 days of a continuous session of Congress after receiving the notice of disapproval, Congress may pass a resolution to approve the site, thereby overriding the effect of the state's notice of disapproval (See Appendix H).

- On May 8, 2002, the United States House of Representatives rejected Governor Guinn's notice of disapproval and supported the President's recommendation by a vote of 306 to 117 (See Appendix I).

- On July 9, 2002, the United States Senate voted to override Governor Guinn's notice of disapproval and supported the President's recommendation by a vote of 60 to 39.

Congressional approval of the President's recommendation to move forward with the Yucca Mountain site allows DOE to begin the application process to the NRC for a license to construct and operate a facility at Yucca Mountain. The DOE expects to file a license application by late 2004. If the license application is approved, construction of a facility will begin. The DOE will then have to seek and obtain a second operating license from the NRC before any nuclear waste could be received. Further, the EPA must set the public health standards for the site. The DOE has stated that shipments of nuclear waste materials could begin as early as 2010 (See Appendix J).

## V. LEGISLATIVE OVERSIGHT — 2001 THROUGH 2002

During the 2001-2002 Legislative Interim period, the Legislative Committee on High-Level Radioactive Waste held three meetings in Las Vegas, Nevada. All three meetings were public hearings and were videoconferenced between the Legislative Building in Carson City and the Grant Sawyer State Office Building in Las Vegas. All minutes of meetings and their corresponding exhibits are on file in the LCB's Research Library (775/684-6827). In addition to the original documents on file with the Research Library, minutes (without exhibits) are available on-line at: http://www.leg.state.nv.us/71st/Interim/StatCom/HLRW/. (See Appendix M for copies of agendas of the meetings held during the 2001-2002 Legislative Interim.)

In addition, the Committee participated in four meetings of the NCSL's Environmental Management Legislative Roundtables. Committee members also monitored meetings of: (1) the Nuclear Waste Technical Review Board; (2) the NRC's Advisory Committee on Nuclear Waste; (3) Nevada's Commission on Nuclear Projects; and (4) various technical exchange and management meetings between the DOE and the NRC.

### A. Committee Oversight Meetings

Following are summaries of the Committee's discussion and activities at each of its three meetings held in Las Vegas:

#### *1. November 15, 2001*

At it's November 15, 2001, meeting, the Committee received a presentation from the DOE regarding the status of the underground and surface scientific studies relating to the Yucca Mountain Site Characterization project. The DOE also provided information on its findings of the Site Suitability Evaluation Report. Further, the Committee received a status report of public hearings, comments, responses, and schedule for possible recommendation by the Secretary of Energy to the President. Finally, the DOE reported on the status of legal actions regarding the failure of the DOE to begin accepting spent nuclear fuel by 1998 at the Yucca Mountain Project. The NANP also provided an update of its activities.

#### *2. January 29, 2002*

At this meeting, staff of the LCB provided a review for the Committee of the federal statutory process regarding the designation of the Yucca Mountain Site as a nuclear repository. Staff discussed the role of the Legislature in this process and offered the following possible options for the Committee to consider recommending to the Nevada Legislature:

- Forward a copy of Senate Joint Resolution (S.J.R.) No. 6 (File No. 17, *Statutes of Nevada 2001*) by the Legislative Commission to Governor Guinn and request it be included when he sends a notice of disapproval to Congress.

- Adopt a resolution reaffirming the Legislature's position on the Yucca Mountain Project, which was established during the 2001 Legislative Session with the adoption of S.J.R. No. 6. Further, request the Governor include the Legislature's official position, if adopted by the Legislative Commission, to support his notice of disapproval.

- Request Governor Guinn call a special session of the Legislature to allow the Legislature to adopt a Notice of Disapproval.

- Send a letter from the Committee to the President of the United State and appropriate members of Congress reaffirming the Legislature's position on the Yucca Mountain Project.

- Send individual letters from Committee members to each Congressional Representative reaffirming the Legislature's position on the Yucca Mountain Project.

- Take no Committee action.

The Committee approved a motion recommending that the Legislative Commission transmit a copy of S.J.R. No. 6 to Governor Guinn. The Committee also recommended that the resolution be included with the Governor's expected "Notice of Disapproval," should President Bush submit a Yucca Mountain Project site suitability recommendation to Congress (See Appendix K).

Additionally, the Committee approved a motion to have the chairman of the Committee transmit a letter to Secretary of Energy Abraham requesting that when the Yucca Mountain site suitability recommendations are submitted to the President, it contain the Final EIS and Record of Decision for Yucca Mountain as required by the NWPA and the National Environmental Protection Act of 1973 (See Appendix L).

During public testimony, the Committee was provided with information concerning the preliminary assessment report on the impacts in Lincoln County and the City of Caliente, Nevada, of developing and operating the Yucca Mountain Repository. Further, the Committee reviewed tribal concerns and opposition to the transport of high-level radioactive waste and the possible transportation routes.

### *3. October 8, 2002*

At its final meeting, the Committee heard from representatives of NANP regarding the State of New Mexico's experiences in negotiating for benefits over the Waste Isolation Pilot Plant with the Federal Government.

Additionally, Joseph Egan, Lead Counsel, Egan and Associates, made a presentation on the status of pending court actions regarding Yucca Mountain in which the State of Nevada is

involved and the legal services that have been contracted by NANP. Mr. Egan outlined the existing legal cases that have been filed in the United States Court of Appeals in Washington, D.C. Since Congress passed and President Bush signed House Joint Resolution No. 87, the State of Nevada may file legal cases against the Federal Government. Mr. Egan reported that the State of Nevada is waging a battle on five fronts that include questioning the constitutionality of the project and whether the geology, environmental impacts, health rules, and safety rules are safe and lawful. Many of these cases are expected to be heard in 2003.

Further, the DOE and NRC reported on the licensing application process to begin construction of a geologic high-level radioactive waste repository at Yucca Mountain. A representative of NCSL gave an update on the activities of the NCSL High-Level Radioactive Waste Working Group. The Committee also heard from representatives of the Nevada Counties of Clark and Nye regarding oversight activities of Yucca Mountain as AULG.

## B. Legislative High-Level Radioactive Waste Interim Storage and Transportation Working Group of the National Conference of State Legislatures

The members of Nevada's HLRW Committee serve on NCSL's Legislative High-Level Radioactive Waste Working Group and NCSL's Environmental Management Legislative Roundtable. The NCSL Roundtable held four meetings during the 2001-2002 Interim period.

Listed below are the dates, locations, and a brief description of each meeting held by NCSL.

- The June 27 and 28, 2001, Roundtable was held in Colorado. The group made a site visit to the Rocky Flats Environmental Technology Site. The workshop focused on presentations from DOE and legislators from the State of Colorado. In addition, a summary was given on previous roundtable meetings, the role of legislators in these issues, and the potential impact of term limits.

- The May 8, 2002, Roundtable was held in Washington, D.C. The DOE gave a briefing on that status of its Environmental Management (EM) cleanup projects. Also, a presentation was made concerning DOE's budget and cleanup priorities at EM sites.

- The June 12 and 13, 2002, Roundtable was held in New Mexico. The group made a site visit to the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico. The WIPP became the nation's first operating underground repository for defense-generated radioactive transuranic waste on March 26, 1999. The project facilities include disposal rooms excavated 2,150 feet under ground in an ancient, stable salt formation. The workshop focused on the political history of WIPP; transportation of nuclear waste, which included packaging systems, routing, and tracking shipments; and emergency responder, training, accident analysis, and response.

- The October 12 and 13, 2002, Roundtable was held in Idaho Falls, Idaho. The group toured the Idaho National Environmental and Engineering Laboratory. The workshop focused on the status of EM cleanup projects; an update on Idaho's milestones for shipping transuranic waste to WIPP; overview of the Idaho State Oversight Program; and a presentation on the Snake River Plain Aquifer.

## C. Meetings Monitored

In addition to participating in the meetings listed above, the members of the Committee have monitored meetings of other oversight organizations, which are listed below.

### *1. The Nuclear Waste Technical Review Board*

This board was created to advise both Congress and the Secretary of Energy on the technical and scientific validity of the DOE's Civilian Radioactive Waste Program. The members are appointed by the President from a list of nationally recognized scientists who are recommended by the National Academy of Sciences.

### *2. The Advisory Committee on Nuclear Waste to the Nuclear Regulatory Commission*

This committee conducts independent oversight of the nation's high-level radioactive waste program and reports its findings and recommendations to the NRC. The Committee also consists of nationally recognized scientists who are appointed by the NRC.

### *3. Nevada's Commission on Nuclear Projects*

This Commission was created by the Nevada Legislature to review, report, and make recommendations to the Governor and Legislature on matters relating to the disposal of radioactive waste. The Commission is composed of seven members appointed by the Governor (three members chosen by the Governor, two members recommended by the Legislative Commission, and two members recommended by the Nevada Association of Counties and the Nevada League of Cities).

### *4. Technical Exchange Meetings Between the DOE and the NRC Staff*

These meetings are conducted regularly to share information on specific aspects of the Yucca Mountain Site Characterization Project.

### *5. Miscellaneous Meetings*

Meetings are monitored between stakeholders, AULGs, and other interested groups and organizations.

## VI. FUTURE OVERSIGHT ACTIVITIES OF THE NEVADA LEGISLATURE'S COMMITTEE ON HIGH-LEVEL RADIOACTIVE WASTE

The Legislative Committee on High-Level Radioactive Waste will continue its ongoing oversight and monitoring efforts, and maintain its focus on the topics discussed below.

### A. Legal Challenges Made by the State of Nevada Against the Federal Government

The State of Nevada filed seven lawsuits against the Federal Government including the DOE, the President of the United States, the EPA, and the NRC. The lawsuits challenge various aspects of the Federal Government's decision that designated Yucca Mountain as a nuclear waste repository. For instance, one legal case contests President Bush's designation of Yucca Mountain as invalid because the DOE, EPA, and NRC violated the law throughout the Yucca Mountain site recommendation and approval process. Another case asks the courts to stop construction of the repository pending final outcomes of the cases.

At the request of attorneys for the State of Nevada, a federal appeals court agreed in November 2002, for "in-tandem" consideration of its three court challenges pending in the District of Columbia Court of Appeals. The decision to allow "in-tandem" consideration enables all the significant questions concerning the proposed repository to be addressed concurrently. The three legal cases include: (1) a consolidated challenge to the DOE's site suitability rule and the EIS for Yucca Mountain; (2) a challenge to the Yucca Mountain radiation standard; and (3) a challenge to the NRC's licensing rule will be heard together in September 2003. The legal brief may be viewed in its entirety on the NANP's Web site available at: http://www.state.nv.us/nucwaste.

All lawsuits are filed in either the Ninth Circuit Court of Appeals or the District of Columbia Court of Appeals. The State of Nevada has hired Egan and Associates, PLLC, of Virginia to represent its interests in court. Egan and Associates specializes in nuclear law and has handled many high-profile cases throughout the world.

### B. Yucca Mountain Project, DOE

Because Congress has made a recommendation to develop Yucca Mountain as a nuclear waste repository, important scientific studies and engineering tests will continue in order to augment a license application to the NRC. The ongoing studies and tests include: (1) drift-scale tests; (2) cross-drift tests; (3) lithistratigraphy and hydrogeologic framework; (4) natural convection tests; (5) breached waste package and drip shield experiments; (6) thermal properties investigations; and (7) thermal-mechanical shock properties investigations. These studies and tests are explained on the Yucca Mountain Project's Web site available at: http://www.ymp.gov.

## C. Potential Transportation Routes for Legal-Weight Truck Shipments of Spent Nuclear Fuel and High-Level Radioactive Waste Material to Yucca Mountain

If the NRC licenses the Yucca Mountain site as the national repository, it will be necessary to transport the spent nuclear fuel and high-level radioactive waste located throughout the nation to the site. The DOE must make transportation-related decisions that would include: (1) the national mode of transportation outside of Nevada (whether by mostly legal-weight truck or mostly rail); (2) alternative transportation modes in Nevada (mostly legal-weight truck, mostly rail, or heavy-haul truck with use of an associated intermodal transfer station); and (3) alternative rail corridors or heavy-haul truck routes with use of an intermodal transfer station in Nevada. Under DOE's current schedule, 2010 is the earliest date that shipments to Yucca Mountain could begin (See Appendix N).

## D. Additional Oversight Issues

The following are additional issues that will be monitored by the Committee:

- The submission of a licensing application by DOE to begin construction of a facility at Yucca Mountain;
- The NRC's review of a licensing application from DOE to begin construction of a facility at Yucca Mountain;
- Federal legislation introduced by Senator Richard Durbin (D-Illinois), which he asserts would make nuclear waste transportation to Nevada safer;
- The NRC study to update the requirements for Spent Fuel Transportation Pack Performance and other related transportation issues; and
- Liaison with state and local government monitoring agencies.

# VII. CONCLUDING REMARKS

The OCRWM believes that the scientific studies and engineering tests of the Yucca Mountain site that began in 1987 have generated enough information to make a site recommendation. The Secretary of Energy submitted a site recommendation report to the President, which Congress approved.

However, the recommendation is a preliminary step. It begins the formal safety evaluation process. Before a license is granted to begin operation of a facility at Yucca Mountain, the DOE must submit an application for a construction license. The DOE must defend its application through the formal review, which includes public hearings, and receive authorization from the NRC. According to DOE, the NRC licensing process is expected to

take at least three years. If the NRC grants this license, it will only authorize initial construction. The DOE will then have to seek and obtain a second operating license from the NRC before any waste could be received. Altogether, the process is expected to take at least eight years.

Further, at least three of the State of Nevada's legal cases against the Federal Government are expected to be heard next year. It is possible that the courts could rule that President Bush's designation of Yucca Mountain was invalid. If this occurs, DOE will not be able to continue its license application to the NRC.

Therefore, Nevada's Legislative Committee on High-Level Radioactive Waste is of the opinion that it is too soon to make any recommendations to the Nevada Legislature. The Committee will continue to vigilantly monitor the progress of the DOE, Congress, and the Bush Administration, and to make any recommendations for legislative action at the appropriate time.

## VIII. APPENDICES

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## APPENDIX A

*Nevada Revised Statutes* 459.0085

*NEVADA REVISED STATUTES*

## COMMITTEE ON HIGH-LEVEL RADIOACTIVE WASTE

**NRS 459.0085 Creation; membership; duties; compensation and expenses of members.**

1. There is hereby created a committee on high-level radioactive waste. It is a committee of the legislature composed of:

(a) Four members of the senate, appointed by the majority leader of the senate.

(b) Four members of the assembly, appointed by the speaker.

2. The legislative commission shall select a chairman and a vice chairman from the members of the committee.

3. The committee shall meet at the call of the chairman to study and evaluate:

(a) Information and policies regarding the location in this state of a facility for the disposal of high-level radioactive waste;

(b) Any potentially adverse effects from the construction and operation of a facility and the ways of mitigating those effects; and

(c) Any other policies relating to the disposal of high-level radioactive waste.

4. The committee shall report the results of its studies and evaluations to the legislative commission and the interim finance committee at such times as the legislative commission or the interim finance committee may require.

5. The committee may recommend any appropriate legislation to the legislature and the legislative commission.

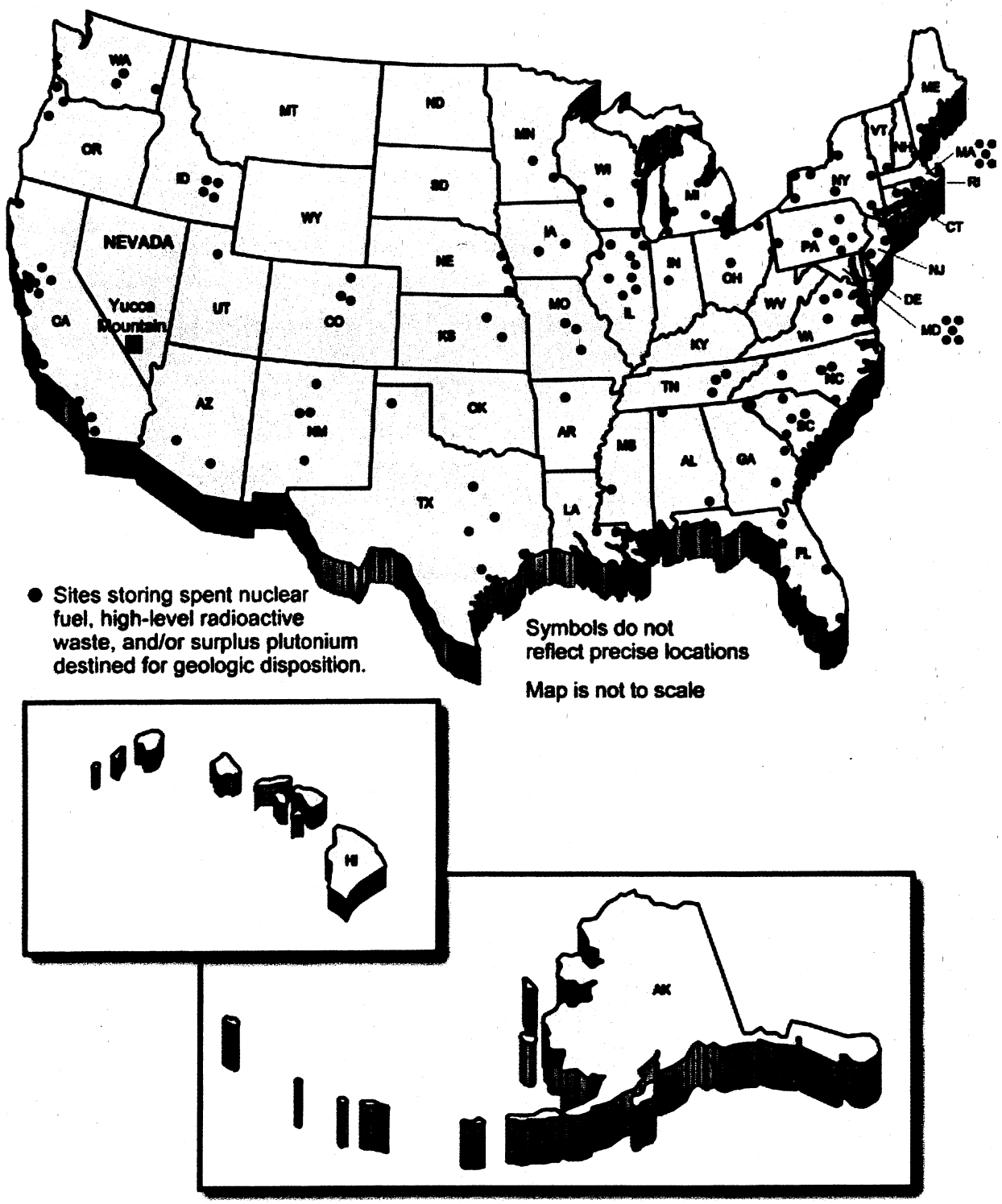
6. The director of the legislative counsel bureau shall provide a secretary for the committee on high-level radioactive waste. Except during a regular or special session of the legislature, each member of the committee is entitled to receive the compensation provided for a majority of the members of the legislature during the first 60 days of the preceding regular session for each day or portion of a day during which he attends a committee meeting or is otherwise engaged in the work of the committee plus the per diem allowance provided for state officers and employees generally and the travel expenses provided pursuant to NRS 218.2207. Per diem allowances, salary and travel expenses of members of the committee must be paid from the legislative fund.

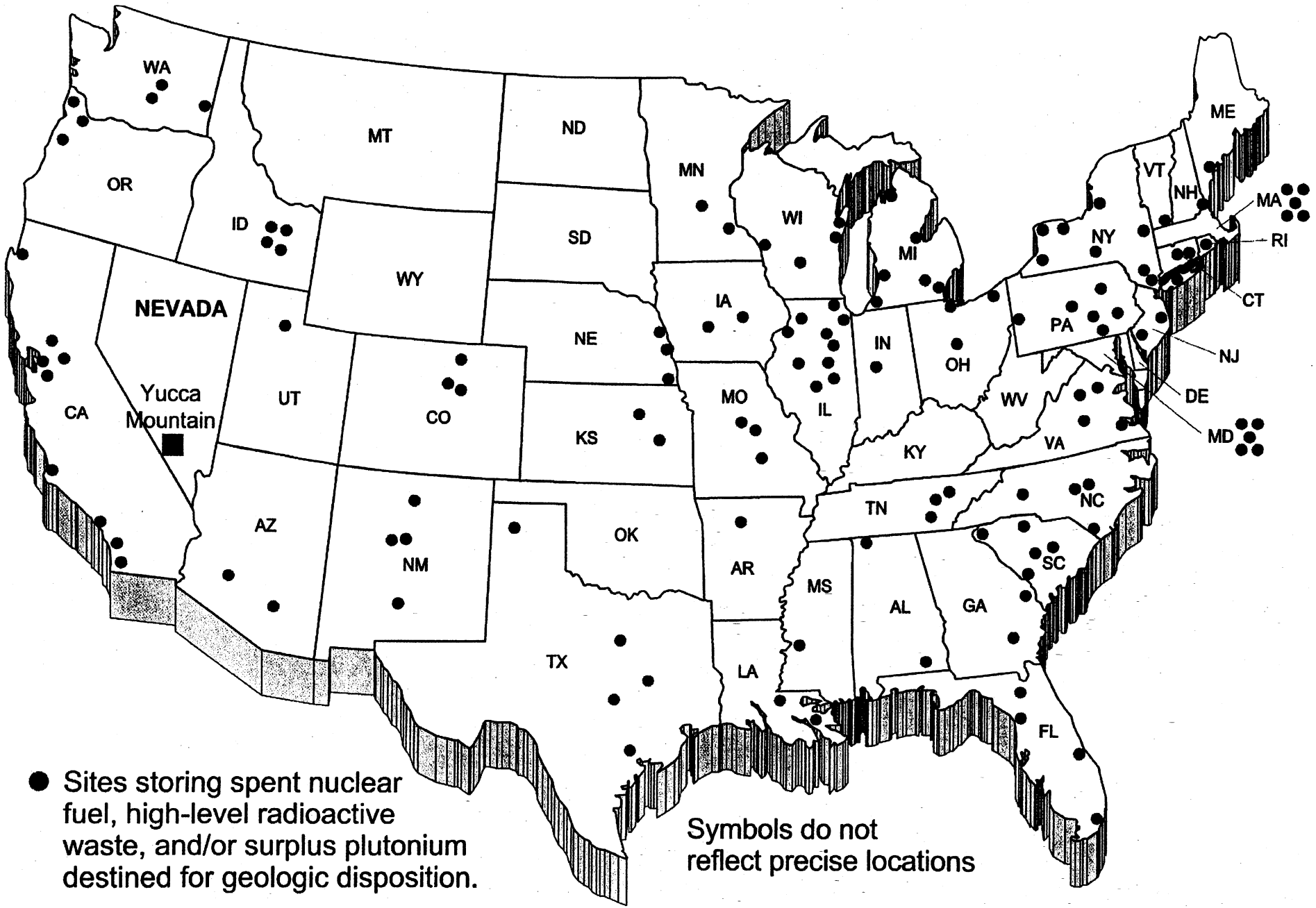
(Added to NRS by 1985, 685; A 1987, 399; 1989, 1221; 1995, 1454)

## APPENDIX B

Maps of the United States' Waste Locations

***At present, spent nuclear fuel and high-level radioactive waste are temporarily stored at 131 locations in 39 states.***




WA
OR
CA
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NEVADA
Yucca Mountain
MT
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WI
IL
MS
MI
IN
KY
TN
AL
OH
WV
GA
FL
SC
NC
VA
PA
NY
ME
VT
NH
MA
RI
CT
NJ
DE
MD
● Sites storing spent nuclear fuel, high-level radioactive waste, and/or surplus plutonium destined for geologic disposition.
Symbols do not reflect precise locations

## APPENDIX C

Contact List for Affected Units of Local Government

## CONTACT LIST FOR
## Affected Units of LOCAL GOVERNMENT

September 17, 2002

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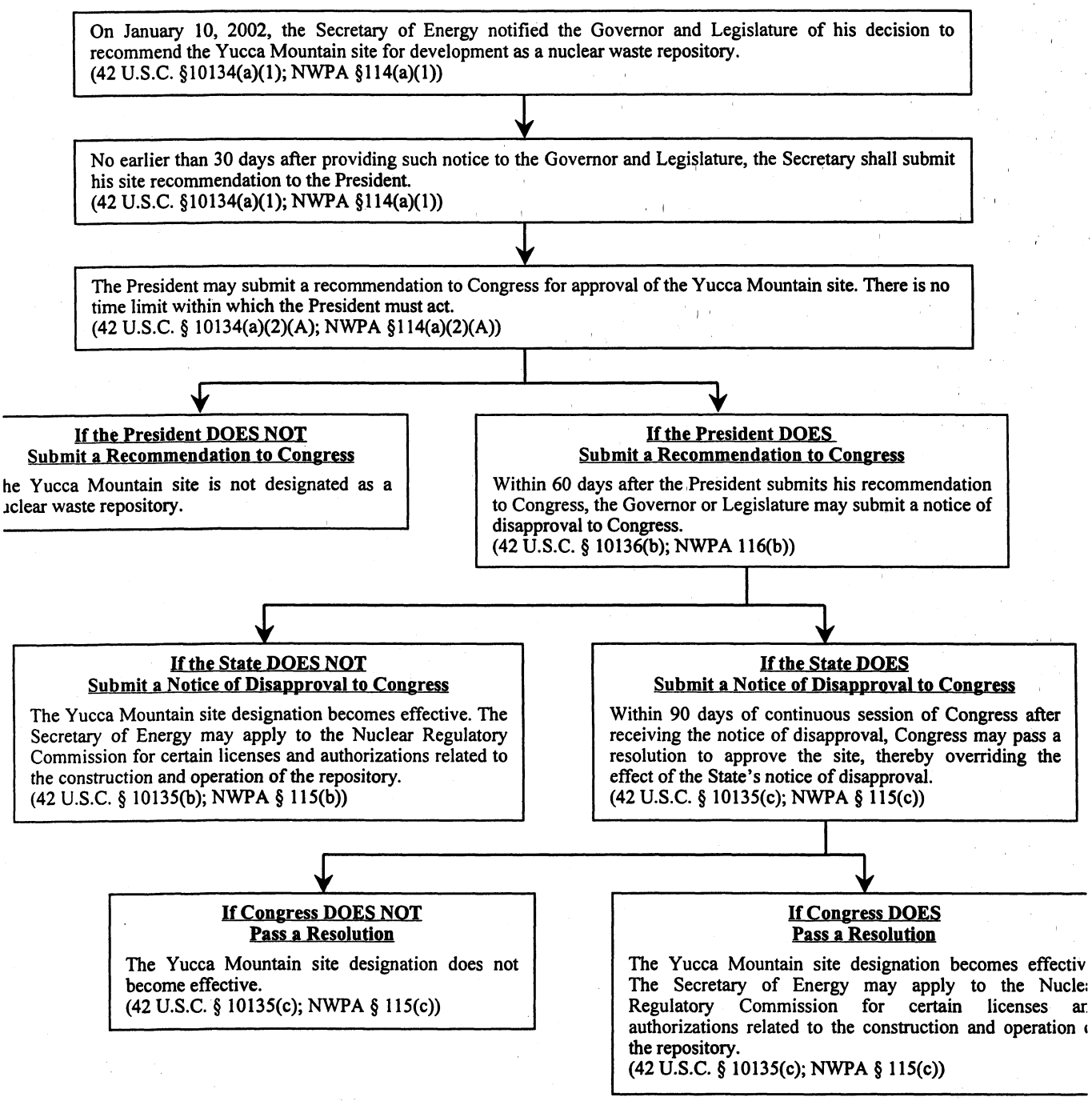
**NOTE: This list is maintained by Eureka County. Please call Abby Johnson at 775/882-0296 or email** abbyj@gbis.com **for corrections/additions/deletions. Thank you.**

# APPENDIX D

Federal Statutory Process Concerning the Designation of
the Yucca Mountain Site as a Nuclear Waste Repository

## Federal Statutory Process Concerning the Designation of the Yucca Mountain Site as a Nuclear Waste Repository

U.S. Secretary of Energy, Spencer Abraham, has decided to recommend to President Bush the approval of the Yucca Mountain site for the development of a nuclear waste repository. On January 10, 2002, Secretary Abraham notified Governor Guinn and the Nevada Legislature of his decision. The following is a brief depiction of the statutory process set forth in the *Nuclear Waste Policy Act* ("the NWPA") concerning the designation of the Yucca Mountain site as a nuclear waste repository.



## APPENDIX E

Recommendation to the Legislature: Secretary of Energy

The Secretary of Energy
Washington, DC 20585
January 10, 2002

The Honorable Richard Perkins
Speaker, Nevada State Assembly and
Chair, Nevada Legislative Commission

The Honorable Dean A. Rhoads
Vice Chair, Nevada Legislative Commission
401 S. Carson Street
Carson City, Nevada 89701-4747

Dear Messrs. Perkins and Rhoads:

This letter is to notify you, in accordance with section 114(a)(1) of the Nuclear Waste Policy Act, of my intention to recommend to the President approval of the Yucca Mountain site for the development of a nuclear waste repository. In accordance with the requirements of the Act, I will be submitting my recommendation to the President no sooner than 30 days from this date. At that time, as the Act also requires, I will be submitting to the President a comprehensive statement of the basis for that recommendation.

First, and most important, that recommendation will include the basis for and documentation supporting my belief that the science behind this project is sound and that the site is technically suitable for this purpose.

Second, there are compelling national interests that require us to complete the siting process and move forward with the development of a repository, as Congress mandated almost 20 years ago. In brief, the reasons are these.

- A repository is important to our national security. We must advance our non-proliferation goals by providing a secure place to dispose of any spent fuel and other waste products that result from decommissioning unneeded nuclear weapons, and ensure the effective operations of our nuclear navy by providing a secure place to dispose of its spent nuclear fuel.

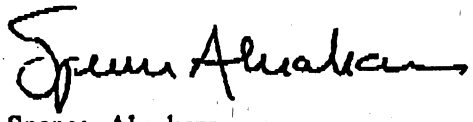
- A repository is important to the secure disposal of nuclear waste. Spent nuclear fuel, high level radioactive waste, and excess plutonium for which there is no complete disposal pathway without a repository are currently stored at over 131 sites in 39 States. We should consolidate the nuclear wastes to enhance protection against terrorists attacks by moving them to one underground location that is far from population centers.

- A repository is important to our energy security. We must ensure that nuclear power, which provides 20% of the nation's electric power, remains an important part of our domestic energy production.

- And a repository is important to our efforts to protect the environment. We must clean up our defense waste sites permanently and safely dispose of other high level nuclear waste.

As I indicated earlier, pursuant to section 114(a) of the NWPA, I will be submitting my recommendation to the President no earlier than 30 days from today, together with the other documentation the statute requires. I will provide you with a copy of those materials at that time.

Sincerely,



Spencer Abraham

## APPENDIX F

Recommendation to the President:  Secretary of Energy

**The Secretary of Energy**
Washington, DC 20585

February 14, 2002

The President
The White House
Washington, D.C. 20500

Dear Mr. President:

I am transmitting herewith, in accordance with section 114(a)(1) of the Nuclear Waste Policy Act of 1982 (the "Act"), 42 U.S.C. 10134, my recommendation for your approval of the Yucca Mountain site for the development of a nuclear waste repository, along with a comprehensive statement of the basis of my recommendation. In making this recommendation, I have examined three considerations.

First, and most important, I have considered whether sound science supports the determination that the Yucca Mountain site is scientifically and technically suitable for the development of a repository. I am convinced that it does. This suitability determination provides the indispensable foundation for my recommendation. Irrespective of any other considerations, I could not and would not recommend the Yucca Mountain site without having first determined that a repository at Yucca Mountain will bring together the location, natural barriers, and design elements necessary to protect the health and safety of the public, including those Americans living in the immediate vicinity, now and long into the future.

The Department has engaged in over 20 years of scientific and technical investigation of the suitability of the Yucca Mountain site. As part of this investigation, some of the world's best scientists have been examining every aspect of the natural processes – past, present and future – that could affect the ability of a repository beneath Yucca Mountain to isolate radionuclides emitted from any spent fuel and radioactive waste disposed there. They have been conducting equally searching investigations into the processes that could affect the behavior of the engineered barriers that are expected to contribute to successful isolation of radionuclides. These investigations have run the gamut, from mapping the geologic features of the site, to studying the repository rock, to investigating whether and how water moves through the Yucca Mountain site.

To give just a few examples, Yucca Mountain scientists have: mapped geologic structures, including rock units, faults, fractures, and volcanic features; excavated more than 200 pits and trenches to remove rocks and other material for direct observation; drilled more than 450 boreholes; collected over 75,000 feet of core, and some 18,000 geologic and water samples; constructed six and one-half miles of tunnels to provide access to the rocks that would be used for the repository; mapped the geologic features exposed by the underground openings in the tunnels; conducted the largest known test in history to simulate heat effects of a repository, heating some seven million cubic feet of rock over its ambient temperature; tested mechanical,

chemical, and hydrologic properties of rock samples; and examined over 13,000 engineered material samples to determine their corrosion resistance in a variety of environments.

The findings from these and numerous other studies have been used to expand our knowledge of the rocks beneath Yucca Mountain and the flow of water through these rocks, including amounts, pathways, and rates. Yucca Mountain scientists have used this vast reservoir of information to develop computer simulations that describe the natural features, events and processes that exist at Yucca Mountain and, in turn, have used these descriptions to develop the models to forecast how a repository will perform far into the future. Yucca Mountain scientists have followed a deliberately cautious approach to enhance confidence in any prediction of future performance.

The results of this investigation have been openly and thoroughly reviewed by the Department and oversight entities such as the Nuclear Regulatory Commission (NRC), the Nuclear Waste Technical Review Board, and the U.S. Geological Survey, as well as having been subjected to scientific peer reviews, including a review undertaken by the International Atomic Energy Agency. The Department also has made available the scientific materials and analyses used to prepare the technical evaluations of site suitability for public review by all interested parties. The results of this extensive investigation and the external technical reviews of this body of scientific work give me confidence for the conclusion, based on sound scientific principles, that a repository at Yucca Mountain will be able to protect the health and safety of the public when evaluated against the radiological protection standards adopted by the Environmental Protection Agency and implemented by the NRC in accordance with Congressional direction in the Energy Policy Act of 1992.

Second, having found the site technically suitable, I am also convinced that there are compelling national interests that require development of a repository. In brief, the reasons are these:

- A repository is important to our national security. About 40% of our fleet's principal combat vessels, including submarines and aircraft carriers, are nuclear-powered. They must periodically be refueled and the spent fuel removed. This spent fuel is currently stored at surface facilities under temporary arrangements. A repository is necessary to assure a permanent disposition pathway for this material and thereby enhance the certainty of future naval operational capability.

- A repository is important to promote our non-proliferation objectives. The end of the Cold War has brought with it the welcome challenge of disposing of surplus weapons-grade plutonium as part of the process of decommissioning weapons we no longer need. A geological repository is an integral part of our disposition plans. Without it, our ability to meet our pledge to decommission our weapons could be placed in jeopardy, thereby jeopardizing the commitment of other nations, such as Russia, to decommission its own.

- A repository is important to our energy security. We must ensure that nuclear power, which provides 20% of the nation's electric power, remains

an important part of our domestic energy production. Without the stabilizing effects of nuclear power, energy markets will become increasingly more exposed to price spikes and supply uncertainties, as we are forced to replace it with other energy sources to substitute for the almost five hours of electricity that nuclear power currently provides each day, on average, to each home, farm, factory and business in America. Nuclear power is also important to sustainable growth because it produces no controlled air pollutants, such as sulfur and particulates, or greenhouse gases. A repository at Yucca Mountain is indispensable to the maintenance and potential growth of this environmentally efficient source of energy.

- A repository is important to our homeland security. Spent nuclear fuel, high-level radioactive waste, and excess plutonium for which there is no complete disposal pathway without a repository are currently stored at over 131 sites in 39 States. More than 161 million Americans live within 75 miles of one or more of these sites. The facilities housing these materials were intended to do so on a temporary basis. They should be able to withstand current terrorist threats, but that may not remain the case in the future. These materials would be far better secured in a deep underground repository at Yucca Mountain, on federal land, far from population centers, that can withstand an attack well beyond any that is reasonably conceivable.

- And a repository is important to our efforts to protect the environment. It is past time for the federal government to implement an environmentally sound disposition plan for our defense wastes, which are located in Tennessee, Colorado, South Carolina, New Mexico, New York, Washington and Idaho. Among the wastes currently at these sites, approximately 100,000,000 gallons of high-level liquid waste are stored in, and in some instances have leaked from, temporary holding tanks. About 2,500 metric tons of solid un-reprocessed fuel from production and other reactors also are stored at these sites. It is also past time for the federal government to begin disposition of commercial spent fuel, a program that was to have begun in 1998. A repository is necessary for accomplishment of either of these objectives.

Third, I have considered carefully the primary arguments against locating a repository at Yucca Mountain. None of these arguments rises to a level that would outweigh the case for going forward. This is not to say that there have not been important concerns identified. I am confident, however, these concerns have been and will continue to be addressed in an appropriate manner.

In short, after months of study based on scientific and technical research unique in its scope and depth, and after reviewing the results of a public review process that went well beyond the requirements of the Act, I reached the conclusions described in the preceding paragraphs – namely, that technically and scientifically the Yucca Mountain site is fully suitable; that development of a repository at the Yucca Mountain site serves the national interest in numerous important ways; and that the arguments against its designation do not rise to a level that would outweigh the case for going forward. Not completing the site designation process and moving forward to licensing the development of a repository, as Congress mandated almost 20 years ago, would be an irresponsible dereliction of duty.

Accordingly, I recommend the Yucca Mountain site for the development of a nuclear waste repository.

Respectfully,

Spencer Abraham

## APPENDIX G

Letter to Congress: President George W. Bush

The White House
President George W. Bush

For Immediate Release
Office of the Press Secretary
February 15, 2002

**Presidential Letter to Congress**
Text of a Letter from the President to the Speaker of the House of Representatives and the President of the Senate
February 15, 2002

Dear Mr. Speaker: (Dear Mr. President:)

In accordance with section 114 of the Nuclear Waste Policy Act of 1982, 42 U.S.C. 10134 (the "Act"), the Secretary of Energy has recommended approval of the Yucca Mountain site for the development at that site of a repository for the geologic disposal of spent nuclear fuel and high level nuclear waste from the Nation's defense activities. As is required by the Act, the Secretary has also submitted to me a comprehensive statement of the basis of his recommendation.

Having received the Secretary's recommendation and the comprehensive statement of the basis of it, I consider the Yucca Mountain site qualified for application for a construc-tion authorization for a repository. Therefore, I now recommend the Yucca Mountain site for this purpose. In accordance with section 114 of the Act, I am transmitting with this recommenda-tion to the Congress a copy of the comprehensive statement of the basis of the Secretary's recommendation prepared pursuant to the Act. The transmission of this document triggers an expedited process described in the Act. I urge the Congress to undertake any necessary legislative action on this recommendation in an expedited and bipartisan fashion.

Proceeding with the repository program is necessary to protect public safety, health, and the Nation's security because successful completion of this project would isolate in a geologic repository at a remote location highly radioactive materials now scattered throughout the Nation. In addition, the geologic repository would support our national security through disposal of nuclear waste from our defense facilities.

A deep geologic repository, such as Yucca Mountain, is important for our national security and our energy future. Nuclear energy is the second largest source of U.S. electricity generation and must remain a major component of our national energy policy in the years to come. The cost of nuclear power compares favorably with the costs of electricity generation by other sources, and nuclear power has none of the emissions associated with coal and gas power plants.

This recommendation, if it becomes effective, will permit commencement of the next rigorous stage of scientific and technical review of the repository program through formal licensing proceedings before the Nuclear Regulatory Commission. Successful completion of this program also will redeem the clear Federal legal obligation safely to dispose of commercial spent nuclear fuel that the Congress passed in 1982.

more

(OVER)



This recommendation is the culmination of two decades of intense scientific scrutiny involving application of an array of scientific and technical disciplines necessary and appropriate for this challenging undertaking. It is an undertaking that was mandated twice by the Congress when it legislated the obligations that would be redeemed by successful pursuit of the repository program. Allowing this recommendation to come into effect will enable the beginning of the next phase of intense scrutiny of the project necessary to assure the public health, safety, and security in the area of Yucca Mountain, and also to enhance the safety and security of the Nation as a whole.

Sincerely,

GEORGE W. BUSH

# # #

# APPENDIX H

Statements of Reasons Supporting the Governor of Nevada's Notice of Disapproval of the Proposed Yucca Mountain Project, April, 8, 2002

# Statement of Reasons Supporting the Governor of Nevada's Notice of Disapproval of the Proposed Yucca Mountain Project

**Kenny C. Guinn**
**Governor of Nevada**

**April 8, 2002**

# Statement of Reasons Supporting the Governor of Nevada's Notice of Disapproval of the Proposed Yucca Mountain Project

**Kenny C. Guinn**

April 8, 2002

Honorable members of Congress, it is my privilege and duty, under Section 116(b)(2) of the Nuclear Waste Policy Act, to articulate my reasons for issuing a Notice of Disapproval of the designation of Yucca Mountain in Nevada as the site for the nation's high-level nuclear waste repository. I trust you will carefully consider Nevada's views. As a matter of science and the law, and in the interests of state comity and sound national policy, Yucca Mountain should not be developed as a high-level nuclear waste repository.

## Introduction

Nevada strongly opposes the designation of Yucca Mountain for nuclear waste disposal because the project is scientifically flawed, fails to conform to numerous laws, and the policy behind it is ever changing and nonsensical. The Department of Energy has so compromised this project through years of mismanagement that Congress should have no confidence in any representation made by DOE about either its purpose or its safety. Nevada is not anti-nuclear and does not oppose nuclear power. Our state is pro-science and pro-common sense.

Because of the state's longstanding opposition to the Yucca Mountain project, some have accused Nevada of being a not-in-my-backyard, or NIMBY, state. Nothing could be further from the truth. Nevada has already borne more than its fair share of this nation's radioactive waste burdens.

During the Cold War, Nevada served as host to hundreds of nuclear weapons tests, most with bombs several times more powerful than the Hiroshima blast. The government misrepresented the risks and impacts of those tests to our citizenry, and many Nevadans were injured as a result. Nearly 300 million curies of toxic radioactive contaminants remain in the ground in our state to this day. We have not forgotten this legacy.

Nevada is also being forced by the Energy Department to play host to the world's largest low-level and mixed radioactive waste disposal facility, at the Nevada Test Site. DOE plans to use this site for the disposal of hundreds of millions of cubic feet of radioactive and hazardous garbage and contaminated soil from the nation's nuclear weapons complex. Tens of thousands of shipments of this waste through our state are anticipated.

Once upon a time not long ago, the concept of "environmental equity" would have made it unthinkable, given the sacrifices already imposed on Nevada, that the state would be forced to play host to yet an additional nuclear waste dump – indeed, the dump to end all dumps. DOE plans to use Yucca Mountain for the disposal of 77,000 tons of high-level radioactive waste and spent fuel from throughout the United States and 42 other countries. And we know if we permit it to happen, it won't end there.

But Nevada will not permit it to happen. Not simply because it is the wrong thing to do, at the wrong time, from the standpoint of environmental equity. Even when carrying the load of others, Nevadans will never tire of serving their country for a worthy cause.

We will not permit Yucca Mountain to happen – and it will not happen – because the project is manifestly *not* a worthy cause. Yucca Mountain is but the latest in a long series of DOE boondoggles – one based on bad science, bad law, and bad public policy. In addition, better, cheaper, and safer alternatives exist. Finally, national security will not be helped, but hindered, by this ill-advised project.

Some say Nevada should acquiesce to the project because the Yucca Mountain repository is now inevitable. Obviously, they fail to understand Nevadans, or the power of the American legal system. I assure you, the only thing inevitable about Yucca Mountain is that it will plot the course of so many other doomed DOE mega-projects.

## The Science

Although DOE bureaucrats claim the Yucca Mountain site is suitable for nuclear waste disposal based on "sound science," it is hard to find a *scientist* who agrees. Even the project's apologists know that hundreds of technical issues remain unresolved. Initially, the scientific community was optimistic about the prospects of Yucca Mountain. When Congress selected the site in 1987 for intensive study, preliminary data showed it would likely have good geology. In the past four years, however, DOE's own studies proved the mountain was in fact so porous to water, and otherwise so geologically unfit, that the very concept of geologic isolation of the waste had to be abandoned. But geologic isolation was the very purpose of the federal repository program.

DOE no longer refers to the Yucca Mountain project as a deep "geologic" repository. Rejecting the global scientific consensus that nuclear waste should be disposed of by means of geologic isolation, DOE now calls Yucca Mountain merely a deep "underground" repository. This is no surprise. There is nothing "geologic" about it. As the former director of the Yucca Mountain project, Dr. John Bartlett, recently testified, the project has become nothing more than a series of fancy engineered waste packages that just happens to be located 1000 feet underground. The Nuclear Energy Institute recently bragged that the repository can be licensed "without the mountain."

Which begs several questions: If the mountain itself is irrelevant, and waste packages can now be made to last for 10,000 years, why make tens of thousands of

shipments of lethal radioactive waste through the nation's cities to the seismically adverse, volcanic zone of Yucca Mountain? It can go practically anywhere else – or stay where it is. If the only reason the waste must be buried is to protect it from terrorists, why spend $60 billion putting it 1000 feet underground, when a mere 20 feet would do the job? And this could surely be done at the reactor sites. NRC has recently re-affirmed the safety of on-site storage.

In the absence of geologic isolation, we don't believe for a minute that DOE can demonstrate the long-term safety of the Yucca Mountain repository. We don't believe an agency that, as the General Accounting Office has noted, has rarely succeeded at building anything can now build a first-of-a-kind waste package that will soak in Yucca Mountain groundwater for 10,000 years without a leak.

DOE's computer models of Yucca Mountain repository performance and radiation emissions currently have an uncertainty factor of up to 10,000. This incredible number bears some pondering. Imagine if a salesman with nothing but fancy computer models told you the brakes on his new model car would be safe for 10,000 miles, plus or minus an uncertainty factor of 10,000. Think about it. What this means is, your brakes could be safe for as many as 100 million miles, or as few as *one* mile. We simply can't know.

Maybe we Nevadans are a people of uncommon sense. Because that's a car we simply wouldn't buy. That's a car we wouldn't let on our roads.

DOE has yet to finish the very design of the Yucca Mountain repository. We don't even know whether it will be a high temperature repository (above the boiling point of water) or a low temperature repository (below the boiling point of water), a feature that could change the amount of real estate required for the project by up to a factor of 10. Imagine if you submitted a plan for your new house to local authorities for a building permit. You tell them: It may be a 4,000 square-foot gas-heated house, or a 40,000 square-foot all-electric house; the design is still unfinished. I don't have to tell you what our local authorities would do with that plan.

The scientific uncertainties of the Yucca Mountain project are so numerous as to defy enumeration. Attempting to count them all, the Nuclear Regulatory Commission recently identified 293 unresolved technical issues in 9 critical areas. Though DOE dismisses these as trivial, perfunctory, or problems that will be solved "as we go" over the next 300 years, their mere specification belies this claim.

The unresolved issues include critical matters such as volcanism: DOE's gamblers say the odds of a volcano at Yucca Mountain are only 1 in 70 million per year. Yet, there have actually been three active volcanic eruptions within 50 kilometers of the Yucca Mountain site in the past 80,000 years. Indeed, Nevada's geologic studies indicate Yucca Mountain appears to be at the center of one of the most potentially active volcanic areas in the west.

Unresolved are issues such as the seismic integrity of the site: Yucca Mountain sits dead-center in one of the largest earthquake fault zones east of California. In 1992, a magnitude 5.6 earthquake caused tens of thousands of dollars of damage to DOE's own facilities right at Yucca Mountain. More than 600 earthquakes greater than magnitude 2.5 have been recorded at Yucca Mountain just in the past two decades.

Among other things, there remains a real question whether the above-ground storage facility required to facilitate storage and burial of spent fuel at the site can ever meet Nuclear Regulatory Commission temporary storage standards, given the site's adverse seismicity. In other words, it may not be possible to license an above-ground concrete storage pad at this earthquake-prone location. What does this say about the safety of the complex underground facility? And why is it not necessary for DOE to complete seismic studies before plunging ahead with a site determination?

The plethora of unresolved issues includes critical problems such as rapid groundwater flow through the repository: Flows measured by DOE have been more than 100 times greater than was expected when Congress designated Yucca Mountain in 1987 as the only site to be characterized. Surface water that was supposed to have taken thousands of years to pass through the planned repository area to the underlying water table was found to have actually done so in less than 50 years. One former NRC Commissioner visiting the underground test area at Yucca Mountain described its humid environment as a "tropical rain forest."

Secretary Abraham recently wrote, in a *Washington Post* Op-Ed piece March 26, that "Yucca Mountain has an average precipitation of under 8 inches a year, less than half an inch of which actually makes it below the surface." If that is true, Mr. Secretary, why has DOE posted a sign deep within the mountain informing visitors not to worry about liquid dripping from the ceiling of underground caverns, that this liquid is only water, and that it is normal for the subterranean environment of Yucca Mountain? Why is DOE proposing to build a $5 billion titanium "drip shield" around buried spent fuel to channel away effusive dripping water?

The tangled web of man-made contrivances necessary to compensate for the stunning geological surprises at Yucca Mountain has turned the repository system into a kind of Rube Goldberg contraption. To prevent the unexpected water from corroding spent fuel containers, a titanium drip shield is required for each package to channel water away from the containers. But channeled water is apparently subject to boiling from the decay heat of buried spent fuel. Therefore, say independent experts, the repository must be redesigned to space the fuel packages further apart, vastly increasing the real estate, and of course the amount of titanium, required. But there may not be enough real estate within the Yucca Mountain site boundary to do that. And the titanium itself is subject to corrosion. Therefore, all waste packages must be fabricated from a "miracle metal," Alloy-22, to prevent them from corroding if the drip shield fails.

And what about Alloy 22? You guessed it. As recently as last month, the Chairman of the Nuclear Waste Technical Review Board wrote DOE that so little is

known "it is not currently possible" to assess the likelihood of corrosion of Alloy 22 for the thousands of years that will be required to assure the safety of the facility. Indeed, Nevada's independent laboratory tests of Alloy 22 showed corrosion in less than half a year. And the titanium apparently fares no better. Just two weeks ago, DOE's own Waste Package Materials Performance Peer Review Panel issued its report with the astonishing revelation that, unless the proposed titanium drip shields somehow perform better in the ground than they have in laboratory tests, they *cannot be used* at Yucca Mountain. What's next? Maybe the drip shield will need a drip shield.

Secretary Abraham calls this "sound science." We beg to differ.

## The Law

Nevada currently has four legal actions pending against the Yucca Mountain project. These include a challenge to the siting guidelines re-released at the eleventh hour by DOE, and a challenge to the Environmental Protection Agency's gerrymandered health and safety standards for Yucca Mountain licensing. They include a challenge to DOE's misuse of Nevada's precious water resources, and a challenge to the legal soundness of both the Secretary's and the President's Yucca Mountain site recommendations.

At least two additional actions, one challenging DOE's Environmental Impact Statement, and one challenging NRC's Yucca Mountain licensing rule, will be filed imminently by Nevada.

These are each serious lawsuits, raising fundamental, dispositive legal issues – issues that ought to concern every member of Congress. Issues such as whether DOE cavalierly ignored the dictates of your institution and blatantly violated the Nuclear Waste Policy Act or the National Environmental Policy Act. Issues such as whether the repository is fundamentally unsafe even if it is theoretically "licensable." Issues such as whether radioactive emissions from the site can be declared safe by EPA merely by first diluting them in Nevada's drinking water.

We are not suing simply for the sake of suing. We are suing to enforce the law, because, unfortunately, government bureaucrats pushing Yucca Mountain have chosen to ignore it. It is not necessary for us to win them all, though we believe all are legally sound. One and only one will suffice.

It is astounding to Nevada that DOE refused to postpone its site recommendation pending the outcome of any of these lawsuits. After all, DOE itself says it will not be ready to submit a license application to NRC until at least December 2004. What, then, is the rush? It is likely that all of Nevada's cases will have been decided long before that time.

Let me describe to you just one of our lawsuits – the one against DOE. It's really quite remarkable: After 17 *years* of using one set of site suitability rules, DOE made the

surprising determination that Yucca Mountain, unlike the WIPP nuclear waste repository in New Mexico, couldn't pass the "good geology" test. Instead of reporting this bad news to Congress, as the law requires, DOE changed the rules late last fall. A mere 17 *days* or so later, DOE proclaimed the site "suitable" using these new rules, ignoring the bedrock geologic isolation requirements of Congress. "Good geology" – the cornerstone of every high-level nuclear waste repository program in the world – was simply ignored by DOE.

To Nevadans, we are like passengers sitting on the runway in a brand new experimental aircraft for 17 hours while mechanics crawl all over the plane inspecting it. After this enormously long wait, the mechanics finally determine the plane is unfit to fly. At the same time, bureaucrats come on the loudspeakers: "Not to worry, folks. We've just changed the flight fitness rules, and the plane will be taking off in 17 seconds." Needless to say, that's a plane none of us would dare dream of flying. But that is exactly what DOE has done with Yucca Mountain.

The *New York Times* recently published an editorial suggesting Congress should simply approve the Yucca Mountain site recommendation and refer all remaining issues of site suitability to the NRC, which was purported to have the expertise to make appropriate decisions in this regard. Remarkably, notwithstanding his own agency's clear statutory duties, Secretary Abraham likewise adopted this view in his recent editorial.

This approach, however, poses both a scientific and a legal paradox. DOE and NRC have each taken the position, in their respective Yucca Mountain rules, that site suitability is a matter to be assessed by *DOE* and its geologists, not by NRC and its nuclear engineers. Under NRC's current licensing rule for Yucca Mountain (which Nevada will soon fight in court), site suitability is presumed determined the moment the Yucca Mountain application comes in the door. NRC merely determines repository licensability, not Yucca Mountain site suitability. NRC will not evaluate the suitability of Yucca Mountain's geology. That was supposed to have been DOE's job.

Adopting the approach suggested by the *New York Times* would mean DOE's bogus site suitability determination could never be reviewed on the technical merits. On an issue of this magnitude, Nevada and the country as a whole deserve their day in court. And we think Congress should wait until that day has come and gone.

## National Security and Public Policy

In the wake of the terrorist attacks of 9/11, DOE has tried to paint the Yucca Mountain project as a badly needed national security measure. A well-financed promotional campaign by the nuclear industry appears to have helped shape the public policy debate in this regard. The Secretary himself, in his *Washington Post* piece last month, strongly urged that "*one safe site*" for the nation's nuclear waste is best for national security, rather than having the waste scattered at numerous reactor sites across

America. This national security myth is one that can and must be debunked. The Yucca Mountain site will contribute nothing to national security.

Even if you believe DOE's optimistic schedule, Yucca Mountain will not be ready even to begin receiving spent fuel from reactor sites for a decade. DOE plans to ship 77,000 tons of high-level waste and spent fuel – the project's design capacity – in up to 98,000 shipments extending through 2046. Once there, the spent fuel will remain stored above ground at Yucca Mountain for up to 100 years while it cools. In the meantime, reactors (many operating on renewed licenses) will continue to generate at least 2000 additional tons of waste each year.

By 2046, even if (in the unlikely event) Yucca Mountain proceeds on schedule, there will be *at least* 77,000 tons of additional waste still stored at reactor sites, awaiting shipment to a supposed second repository. As the waste is removed, it will merely make room for an equivalent amount of newly generated waste that will take its place at the various sites. I'm no nuclear engineer, but this sounds like the status quo to me. I fail to understand how this aids national security.

DOE's Acting Director of the Yucca Mountain project affirmed last month before a House appropriations committee that as long as there are nuclear reactors operating, there will continue to be spent fuel stored above ground at sites all across America. In fact, he confirmed, given the slow pace at which spent fuel will be transported to Yucca Mountain, together with the fact that newly generated waste will continue to pile up almost as fast as the old waste is removed, the current backlog of 46,000 tons at plant sites now *will never be less than 42,000 tons* by the time Yucca Mountain is filled to its design capacity. In short, Yucca Mountain will change nothing.

And that may not be the end, but apparently only the beginning. In its annual strategic plan, "Vision 2020," the Nuclear Energy Institute claims utilities will build as many as 50 new nuclear plants by 2020 if their growing nuclear waste stockpiles are bounded by the availability of Yucca Mountain. More waste is coming to your jurisdictions, not less.

The bottom line is this: Even if Yucca Mountain proceeds, spent fuel will continue to be stored above ground at reactor sites across America for many decades, perhaps centuries, to come. Secretary Abraham's "one safe site" is a figment of DOE's imagination. The Yucca Mountain site is neither "safe" nor will it ever be "one."

The solution to the security issue is to shore up existing storage facilities and increase security at the reactor sites – not to magnify the existing storage facility targets with shipments of tens of thousands of mobile, new targets traversing the country on their way to a geologically flawed Yucca Mountain repository. Not to expose tens of millions of additional citizens to the risks posed by spent fuel packages.

Utilities across the nation are now building interim dry storage facilities, where spent fuel will be stored in casks capable of safely containing the fuel for up to hundreds

of years. Several such interim storage facilities are already operating at various utility sites. Since, in any event, these casks will be stored on site for many decades, some experts say they should be covered in a concrete containment to shield them from terrorist attack. NRC is studying the use of anti-aircraft guns at nuclear sites. Reactor sites already have armed guards and comprehensive security plans. Given these measures, the casks will continue to be far more secure at reactor sites than they will ever be on the streets of St. Louis, Chicago, or Peoria – or on barges cruising the Hudson River.

What really *does* implicate national security is the widespread shipment of spent fuel in casks that, we now know, are not impervious to ubiquitous armor-piercing weapons. It was surprising for us to learn recently from NRC that, since 9/11, the only analysis done by industry or the government of the impacts of terrorism on spent fuel shipments involved merely a computer simulation of a Boeing 767 engine (unaccompanied by aircraft and fuel) striking a railcar shipping cask at 350 miles per hour. Not to worry, said the modelers: the virtual train car moved only a virtual tenth of an inch from the virtual impact, and the virtual lethal waste was contained.

To anyone who watched in horror as the twin towers of the World Trade Center collapsed, this timid virtual test result seems more than a bit incredible. On the other hand, the possibility of a terrorist shooting at a cask from the back of a pickup truck with a small optically-guided armor-piercing missile has been considered by NRC and the industry as "too remote." We once heard the same about suicide bombers.

Thanks to a secret videotape of an industry-sponsored test done by the Army at the Aberdeen Proving Grounds in 1998, obtained last month by Nevada representatives, we now know such a weapon can blow a hole through even the heartiest of spent fuel casks. According to credible sources, there are over 500,000 TOW missiles alone in circulation in at least 36 countries, including over 1700 in Iran. These missiles can penetrate up to 30 inches of armor. Smaller, hand-held weapons in widespread use, like the Stinger, can pierce up to 15 inches of steel.

If Yucca Mountain proceeds, just one of these could potentially give a terrorist access to tens of thousands of radioactive "dirty bombs," with free delivery to hundreds of U.S. targets. Clearly, this is an issue warranting careful investigation by Congress, not a cover-up of the facts by DOE. Many in Congress already share my view; hearings on the security of waste transport to Yucca Mountain are scheduled for later this spring.

In responding to our legitimate concerns, some have accused Nevada of fear-mongering, claiming the Aberdeen test was flawed, that a small missile would "only" blow a six-inch hole in some casks, that few if any people would die in such an event, and that further tests are unnecessary. Since no one has studied the issue in light of current events, however, we don't really know. If DOE will not undertake these studies, surely Congress must. If Nevada's mere mention of the potential event is causing fear, imagine the panic if, God forbid, it actually happens.

## The "PECO Alternative"

Though the nuclear industry seems to prefer you didn't know it, there *is* a viable alternative to Yucca Mountain – one that has already been quietly embraced by DOE and at least one utility, PECO Energy, a division of the nation's largest nuclear utility, Exelon Corporation.

In June 2000, PECO signed a deal with DOE that would ultimately have DOE take title to PECO's spent fuel on-site at the Peach Bottom nuclear plant in Pennsylvania. PECO will construct a dry storage facility, ownership of which will also eventually be assumed by DOE. At a date certain, DOE will own, operate, and manage the facility, with the waste stored there in robust, dry casks for the indefinite future. Funds for the deal are provided from the $8 billion Nuclear Waste Fund.

At the time, DOE touted the deal as an arrangement all nuclear utilities should follow. And for good reason. If adopted by the industry, the PECO alternative would solve a host of pressing problems.

First, it would end all utility spent fuel lawsuits against DOE – now estimated to pose up to a $58 billion contingent liability. Second, it would allow utilities to remove spent fuel liabilities from their books and decommission their retired nuclear plants on schedule. Third, it would remove the fuel from utility rate bases and the jurisdiction of state utility commissions, ending their numerous lawsuits against DOE as well. Fourth, it would buy the government time to find a viable new repository or develop new technologies to vastly reduce the dangers of nuclear waste. (Many of these technologies, under development at our national laboratories, already look promising.) Fifth, as Senator Domenici has long indicated, it would preserve the substantial energy content of spent fuel for later use if necessary to supplement the nation's energy needs. Finally, implementing the PECO alternative would cost ratepayers and taxpayers merely pennies on the dollar to the estimated $60 billion (and growing) price tag of Yucca Mountain.

Far from embracing the deal, however, a group of competing utilities sued last year to block it, claiming, ironically, that it gives PECO an unfair economic *advantage* over utilities who choose to sue the government and place their bets on Yucca Mountain. A ruling is expected from the Eleventh Circuit Court of Appeals soon. Rather than await this key decision, DOE pressed forward with its Yucca Mountain site recommendation as if its own PECO deal were nonexistent. The PECO alternative is not even mentioned in the 67 pounds of Yucca Mountain documents DOE recently sent to the President. It is not even mentioned in the so-called "no action" alternative to Yucca Mountain in DOE's voluminous Final Environmental Impact Statement. Yet, when the deal was signed less than two years ago, DOE endorsed it as "a precedent for additional settlement negotiations with other utilities."

I urge Congress to explore DOE's arrangement with PECO in detail. I applaud the deal made by the nation's leading nuclear utility in the state of our new Homeland Security Director, Tom Ridge, while he was a fellow Governor in Pennsylvania. The

PECO arrangement is a convincing and practical alternative to a diseased and utopian Yucca Mountain project. It is a *real* contributor to national security, not a mythical one.

## Conclusion

The State of Nevada will redouble its efforts to bring science and the law back to the nation's high-level waste program, and to restore sanity to America's nuclear energy security policy. But we are not alone.

A growing chorus of scientists and independent technical reviewers has voiced grave reservations about the project. These include the NRC's Advisory Committee on Nuclear Waste, the General Accounting Office, the Congressionally-created Nuclear Waste Technical Review Board, the National Academy of Sciences, *Physics Today*, the International Atomic Energy Agency, and the OECD's Nuclear Energy Agency, among others. A recent national poll concludes that those Americans opposed to Yucca Mountain now equal in number those in favor.

I urge each and every one of you to look carefully at the facts. Yes, Yucca Mountain is the most studied piece of real estate in the world. What the studies starkly *concluded*, however, has been overshadowed by the mere fact they occurred. A hundred more years of study will not change the fatally poor geology of Yucca Mountain, or remove the site from an earthquake fault zone. Nor will decades of moving waste across the countryside to Yucca Mountain even dent the amount of spent nuclear fuel stored above ground at nuclear sites throughout America.

We are well beyond the days when Yucca Mountain was simply Nevada's problem. If the project proceeds, high-level nuclear waste shipments will impact as many as 44 states, 703 counties, and 109 cities with populations of 100,000 or greater, including several major metropolitan areas. Nearly 50 million American citizens reside within three miles of a proposed shipping route. There will be more spent fuel shipments in the first year of Yucca Mountain operations than occurred in the entire history of such shipments in this country. We are in this together.

In short order, Congress will have the prerogative to consider my Notice of Disapproval and, under procedures in the Nuclear Waste Policy Act, override it by simple majority vote in both houses, with a signature by the President. I respectfully urge Congress not to take such action. With the proliferation of safe, economical dry storage facilities at reactor sites, we face no spent fuel emergency. Nuclear power plants face no risk of shutdown. We have the time to do this right. And Yucca Mountain is not right.

Nevada deserves better, and so does this nation.

* * * *

For additional information, see Nevada's Yucca Mountain website at *www.state.nv.us/nucwaste*. This Statement of Reasons has been posted there.

# APPENDIX I

House Joint Resolution No. 87, Public Law 105-525

H. J. Res. 87

# One Hundred Seventh Congress of the United States of America

**AT THE SECOND SESSION**

***Begun and held at the City of Washington on Wednesday, the twenty-third day of January, two thousand and two***

## Joint Resolution

Approving the site at Yucca Mountain, Nevada, for the development of a repository for the disposal of high-level radioactive waste and spent nuclear fuel, pursuant to the Nuclear Waste Policy Act of 1982.

*Resolved by the Senate and House of Representatives of the United States of America in Congress assembled*, That there hereby is approved the site at Yucca Mountain, Nevada, for a repository, with respect to which a notice of disapproval was submitted by the Governor of the State of Nevada on April 8, 2002.

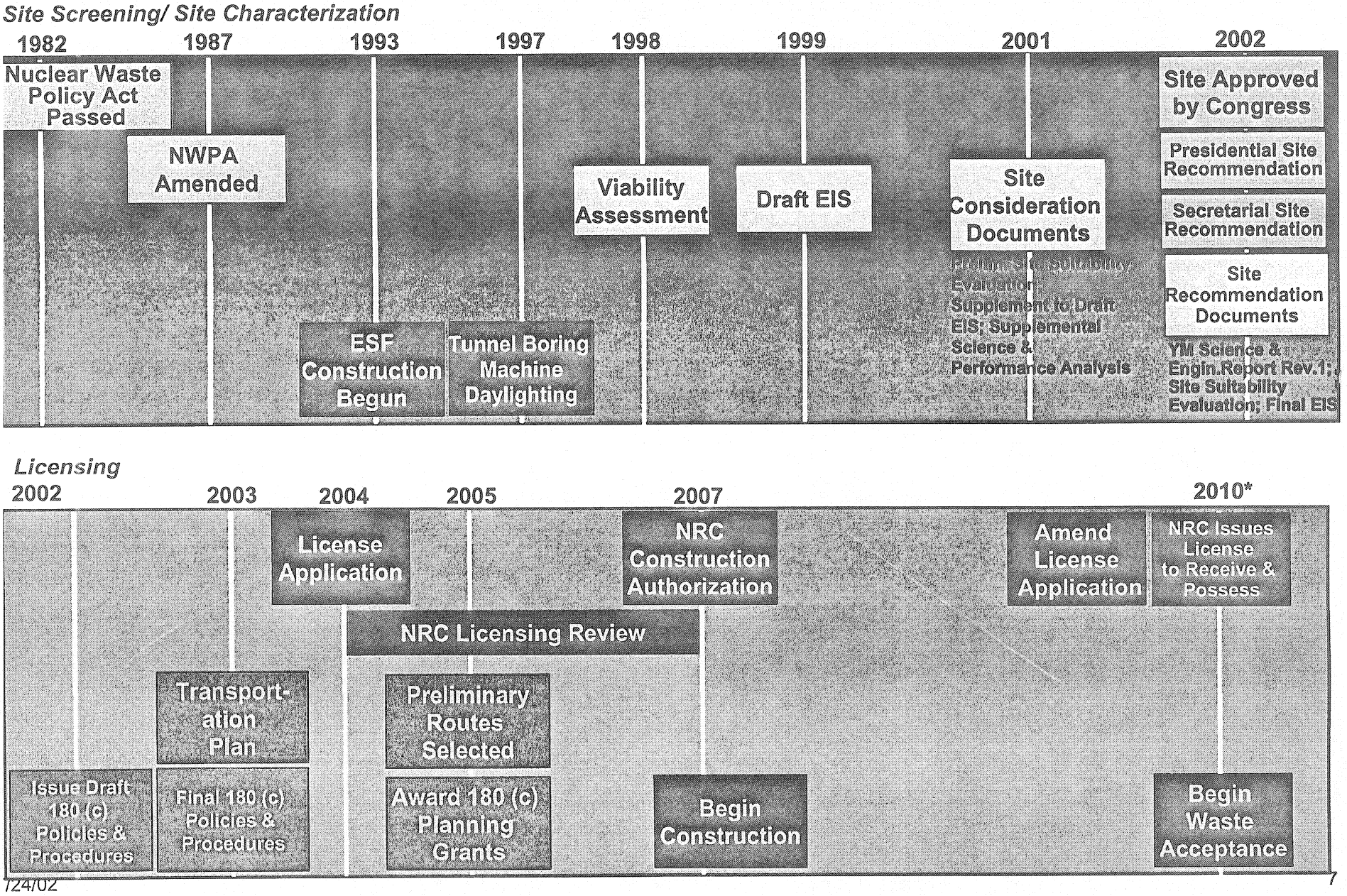
*Speaker of the House of Representatives.*

*Vice President of the United States and President of the Senate.*

# APPENDIX J

Program Schedule
Office of Civilian Radioactive Waste Management, United States Department of Energy

# Program Schedule



## APPENDIX K

Letter to Legislative Commission from the Committee and
a copy of Senate Joint Resolution No. 6

STATE OF NEVADA
LEGISLATIVE COUNSEL BUREAU
LEGISLATIVE BUILDING
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RICHARD D. PERKINS, *Assemblyman, Chairman*
Lorne J. Malkiewich, *Director, Secretary*

INTERIM FINANCE COMMITTEE (775) 684-6821
WILLIAM J. RAGGIO, *Senator, Chairman*
Gary L. Ghiggeri, *Fiscal Analyst*
Mark W. Stevens, *Fiscal Analyst*

PAUL V. TOWNSEND, *Legislative Auditor* (775) 684-6815
ROBERT E. ERICKSON, *Research Director* (775) 684-6825
BRENDA J. ERDOES, *Legislative Counsel* (775) 684-6830

February 13, 2002

The Honorable Richard Perkins
Nevada State Assemblyman
408 Glasgow Street
Henderson, Nevada 89015-5631

Dear Speaker Perkins:

At the January 29, 2002, meeting of the Legislature's Committee on High-Level Radioactive Waste, the Committee reviewed United States Secretary of Energy Spencer Abraham's letter of January 10, 2002, to the Nevada Legislature and Governor Kenny Guinn indicating the Secretary's intent to make a Yucca Mountain site suitability recommendation to President George W. Bush. The Committee also reviewed the process established by the *Nuclear Waste Policy Act* (NWPA) of 1982, as amended, for designating a high-level nuclear waste repository site. After conducting such reviews, the Committee voted to make the following recommendation to the Nevada Legislative Commission:

## RECOMMENDATION

The Committee recommends that the Legislative Commission transmit a copy of Senate Joint Resolution 6 (*Statutes of Nevada,* File No. 17, 2001) to Governor Guinn and recommend that the resolution be included with the Governor's expected "Notice of Disapproval," should President Bush submit a Yucca Mountain Project site suitability recommendation to Congress.

## RATIONALE FOR RECOMMENDATION

The NWPA provides that if the President submits a recommendation to Congress for the approval of the Yucca Mountain site as a nuclear waste repository, the Governor or Legislature has 60 days from the date of that recommendation to submit a "Notice of Disapproval" to Congress. NWPA § 116(b). Further, the NWPA provides that if the notice of disapproval is properly submitted, the "site shall be disapproved unless, during the first period of 90 calendar days of continuous session of the Congress after

the date of the receipt by the Congress of such notice of disapproval, the Congress passes a resolution of repository siting approval in accordance with [NWPA § 115(c)] approving such site, and such resolution thereafter becomes law." NWPA § 115(c). During the 2001 Legislative Session, the Nevada Legislature enacted Senate Joint Resolution No. 6, which provides in pertinent part, that "[this resolution] constitutes notice of disapproval from the Nevada Legislature pursuant to the Nuclear Waste Policy Act of 1982, 42 U.S.C. § 10136, as amended, should the President recommend to Congress that Yucca Mountain be developed as a repository for spent nuclear fuel and high-level radioactive waste." The Legislative Counsel Bureau legal staff has determined that S.J.R. 6 certainly established the Legislature's position on Yucca Mountain, but did not constitute a notice of disapproval for purposes of the NWPA. Rather than ask Governor Guinn to call a special session so that the Legislature could reaffirm its opposition to the proposed Yucca Mountain repository, the Committee felt that the Legislature's opposition could be effectively expressed if S.J.R. 6 were included as an element of the Notice of Disapproval that Governor Guinn is expected to issue, should the President make a site recommendation to Congress.

The vote on the recommendation is: Yeas: Mortenson, Lee, Price, Tiffany, McGinness, Neal, and Shaffer. Nays: Jacobsen

## ADDITIONAL ACTION

The Committee also approved a motion to have Chairman Mortenson transmit a letter to Secretary of Energy Spencer Abraham, requesting that Yucca Mountain site suitability recommendations be submitted to the President, that it contain the Final Environmental Impact Statement and Record of Decision for Yucca Mountain as required by the NWPA and the National Environmental Protection Act. The vote on this motion was unanimous. A copy of the letter from Assemblyman Mortenson to Secretary Abraham is enclosed for your information.

If you have any questions or would like additional information on the Committee's recommendations please contact me at 702/362-3366 or the Committee's staff, John Meder at 775/684-6825.

Sincerely,

Harry Mortenson
Nevada State Assemblyman, Chairman
Nevada's Committee on High-Level
Radioactive Waste

HM/nw:L16
Encs.
cc: Lorne Malkiewich, Director, LCB
Members of the Committee on High-Level Radioactive Waste

Senate Joint Resolution No. 6–Senators Titus, Wiener, Schneider, Mathews, Carlton, Amodei, Care, Coffin, Jacobsen, James, McGinness, O'Connell, O'Donnell, Porter, Raggio, Rawson, Rhoads, Shaffer, Townsend and Washington

Joint Sponsors: Assemblymen Perkins, Buckley, Gibbons, Parks, Bache, Koivisto, Leslie, Anderson, Angle, Arberry, Beers, Berman, Brower, Brown, Carpenter, Cegavske, Chowning, Claborn, Collins, de Braga, Dini, Giunchigliani, Goldwater, Gustavson, Hettrick, Humke, Lee, Manendo, McClain, Mortenson, Neighbors, Nolan, Oceguera, Ohrenschall, Parnell, Price, Smith, Von Tobel and Williams

FILE NUMBER.....

SENATE JOINT RESOLUTION—Providing notice of disapproval to Congress and the President of the United States if Yucca Mountain is recommended as the site for a repository for spent nuclear fuel and high-level radioactive waste.

WHEREAS, Pursuant to the Nuclear Waste Policy Act of 1982, 42 U.S.C. §§ 10101 et seq., as amended, the United States Department of Energy has been studying Yucca Mountain in southern Nevada as a possible site for a repository for spent nuclear fuel and high-level radioactive waste; and

WHEREAS, The Department of Energy continues to make unfounded and biased assumptions about the suitability of Yucca Mountain as a repository for spent nuclear fuel and high-level radioactive waste, despite mounting scientific evidence that there are serious flaws at the site and that Yucca Mountain cannot meet required health and safety standards; and

WHEREAS, A recently released memorandum from the Department of Energy openly admits that the Department's site evaluation reports are not aimed at determining whether Yucca Mountain can safely isolate deadly radioactive waste from people and the environment, but rather are designed to "sell" the project to members of Congress; and

WHEREAS, The Yucca Mountain Project is currently being investigated by the Department of Energy's own Office of Inspector General because of mounting evidence of possible bias in the Department's approach to site characterization; and

WHEREAS, Certain members of Congress and supporters of the for-profit, commercial nuclear power industry continue to press for legislation that would allow spent nuclear fuel to be shipped to Nevada for "temporary" storage even though Yucca Mountain has not been found to be suitable as a repository; and

WHEREAS, Congress and the commercial nuclear power industry continue to ignore the reality that neither Yucca Mountain nor the Nevada Test Site are suitable locations for storing spent nuclear fuel and high-level radioactive waste; and

WHEREAS, The promotion of new nuclear power plants under the guise of responding to the electricity crisis facing California, as proposed in energy legislation being considered in Congress, is irresponsible given that the issue of safe disposal of the waste has not been resolved; and

WHEREAS, New and innovative approaches to the management of spent nuclear fuel and high-level radioactive waste are needed before any actions are taken that would result in the creation of new facilities that would add to the waste problem; and

WHEREAS, The Department of Energy has announced that it plans to make a recommendation regarding the suitability of Yucca Mountain as a repository for spent nuclear fuel and high-level radioactive waste to the President in 2001; and

WHEREAS, The Department of Energy has the opportunity to put the nation back on course toward a credible, effective and fair approach to dealing with the problem of spent nuclear fuel and high-level radioactive waste by acknowledging that Yucca Mountain is not a suitable or safe location for a repository, and recommending to the President that the site be disqualified; and

WHEREAS, The Nuclear Waste Policy Act of 1982, as amended, provides for the submission of a notice of disapproval by the Legislature or Governor of the State of Nevada in the event the President recommends Yucca Mountain for development as a repository for spent nuclear fuel and high-level radioactive waste; and

WHEREAS, The Nuclear Waste Policy Act of 1982, as amended, also provides that such a notice of disapproval shall cause Yucca Mountain to be withdrawn from further consideration unless overridden by a majority in both houses of Congress; now, therefore, be it

RESOLVED BY THE SENATE AND ASSEMBLY OF THE STATE OF NEVADA, JOINTLY, That the Nevada Legislature protests, in the strongest possible terms, the biased and blatantly political manner in which the Department of Energy has conducted its evaluation of the suitability of Yucca Mountain as the location of a repository for spent nuclear fuel and high-level radioactive waste and the unconscionable use of so-called "scientific" reports to openly promote the project with members of Congress and others; and be it further

RESOLVED, That the Nevada Legislature calls on President George W. Bush to veto any legislation that would attempt to locate a temporary or interim storage facility for spent nuclear fuel in Nevada; and be it further

RESOLVED, That the Nevada Legislature calls on Spencer Abraham, the Secretary of Energy, to abandon consideration of Yucca Mountain as a repository site, initiate a process whereby the nation can again engage in innovative and ultimately successful strategies for dealing with the problems of spent nuclear fuel and high-level radioactive waste, and oppose any effort to promote new nuclear power facilities until these new solutions have been implemented; and be it further

RESOLVED, That the Nevada Legislature formally restates its strong and unyielding opposition to the development of Yucca Mountain as a repository for spent nuclear fuel and high-level radioactive waste and to the storage or disposal of spent nuclear fuel and high-level radioactive waste in the State of Nevada; and be it further

RESOLVED, That the Federal Government, its agencies and instrumentalities is prohibited from establishing a repository for spent nuclear fuel and high-level radioactive waste at Yucca Mountain without the prior expressed consent of the Nevada Legislature or a cession of

jurisdiction pursuant to chapter 328 of the Nevada Revised Statutes, and that such consent and cession are hereby withheld; and be it further

RESOLVED, That this resolution hereby constitutes notice of disapproval from the Nevada Legislature pursuant to the Nuclear Waste Policy Act of 1982, 42 U.S.C. § 10136, as amended, should the President recommend to Congress that Yucca Mountain be developed as a repository for spent nuclear fuel and high-level radioactive waste; and be it further

RESOLVED, That this resolution becomes effective upon passage and constitutes the official position of the Nevada Legislature; and be it further

RESOLVED, That the Secretary of the Senate prepare and transmit a copy of this resolution to the President of the United States, the Vice President of the United States as the presiding officer of the United States Senate, the Speaker of the House of Representatives, the Secretary of Energy and each member of the Nevada Congressional Delegation.

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## APPENDIX L

Letter to Secretary of Energy from Chairman Mortenson

STATE OF NEVADA
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LEGISLATIVE BUILDING
401 S. CARSON STREET
CARSON CITY, NEVADA 89701-4747
Fax No.: (775) 684-6600

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(775) 684-6800

LEGISLATIVE COMMISSION (775) 684-6800
RICHARD D. PERKINS, *Assemblyman, Chairman*
Lorne J. Malkiewich, *Director, Secretary*

INTERIM FINANCE COMMITTEE (775) 684-6821
WILLIAM J. RAGGIO, *Senator, Chairman*
Gary L. Ghiggeri, *Fiscal Analyst*
Mark W. Stevens, *Fiscal Analyst*

PAUL V. TOWNSEND, *Legislative Auditor* (775) 684-6815
ROBERT E. ERICKSON, *Research Director* (775) 684-6825
BRENDA J. ERDOES, *Legislative Counsel* (775) 684-6830

February 8, 2002

The Honorable Spencer Abraham
United States Secretary of Energy
Department of Energy
Forrestal Building 1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Secretary Abraham:

The Nevada Legislature's Committee on High-Level Radioactive Waste has requested, that I write to you to ask that in the event you recommend the Yucca Mountain site to the President, that such recommendation be made concurrent with the release of the Final Environmental Impact Statement for the Yucca Mountain site. Further, the Committee requests that you issue a Record of Decision relative to the Final Environmental Impact Statement for the Yucca Mountain site, consistent with the and DOE regulations implementing said Act (10 CFR 1021.315).

Sincerely,

Harry Mortenson
Nevada State Assemblyman, Chairman
Nevada's Committee on High-Level
Radioactive Waste

HM/nw:L15



(NSPO Rev. 8-02) (O) 1578E

# APPENDIX M

Meeting Notices and Agendas of the
Nevada Legislature's Committee on High-Level Radioactive Waste

STATE OF NEVADA
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## MEETING NOTICE AND AGENDA

Name of Organization: Nevada Legislature's Committee on High-Level Radioactive Waste (*Nevada Revised Statutes* 459.0085)

Date and Time of Meeting: Thursday, November 15, 2001
9:30 a.m.

Place of Meeting: Grant Sawyer State Office Building
Room 4412
555 East Washington Avenue
Las Vegas, Nevada

Note: Some members of the committee may be attending the meeting and other persons may observe the meeting and provide testimony, through a simultaneous videoconference conducted at the following location:

Legislative Building
Room 3143
401 South Carson Street
Carson City, Nevada

*If you cannot attend the meeting, you can listen to it live over the Internet. The address for the Legislative Web site is http://www.leg.state.nv.us. For audio broadcasts, click on the link "Listen to Meetings Live on the Internet."*

## AGENDA

I. Opening Remarks and Introductions by the Chairman.
Assemblyman Harry Mortenson

*II. Approval of Meeting Minutes of November 29, 2000.

*III. Overview of the Committee's statutory powers and duties.

R. René Yeckley, Principal Deputy Legislative Counsel
Legal Division of the Legislative Counsel Bureau

IV. Reports to Committee.

A. Update on Status of the High-Level Radioactive Waste Program of the United States Department of Energy (DOE).

J. Russell Dyer, Ph.D., Project Manager, Department of Energy Yucca Mountain (Nevada) Site Characterization Office

Topics to include:

1. Status of the underground and surface scientific studies relating to the Yucca Mountain Site Characterization project.

(continued)

2. Findings of the Site Suitability Evaluation Report and status of public hearings, comments, responses, and schedule for possible recommendation by the Secretary of Energy to the President.

3. Federal Fiscal Year 2002 budget and work goals for the Yucca Mountain Office.

4. Status of legal actions regarding failure of the DOE to begin accepting spent nuclear fuel by 1998 at the Yucca Mountain Project.

B. Update on the Nevada Agency for Nuclear Projects' (NANP) Activities and Review of Scientific Studies.

Robert R. Loux, Executive Director

Topics to include:

1. Status of the NANP's Yucca Mountain Project monitoring efforts.

2. Status of pending court actions regarding Yucca Mountain in which the state is involved and the legal services for which NANP is contracting.

3. Public education efforts concerning the issues related to the transportation of spent nuclear fuel and high-level radioactive waste.

4. Status and findings of the State Impact Report.

5. Work plan for use of Federal appropriation to the State of Nevada and the $4 million appropriated by the 2001 Nevada Legislature.

C. Lunch

D. Update on High-Level Radioactive Waste Activities of the National Conference of State Legislatures.

Linda Sikkema, Program Principal

E. Update on Oversight Activities of the Affected Units of Local Governments (*The Nuclear Waste Policy Act*).

Representatives from Churchill, Clark, Esmeralda, Eureka, Lander, Lincoln, Mineral, Nye, and White Pine Counties in Nevada and Inyo County in California.

V. Public Testimony.

VI. Comments and Discussion by Committee Members.

VII. Adjournment.

*Denotes item on which the committee may take action.

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Note: We are pleased to make reasonable accommodations for members of the public who are disabled and wish to attend the meeting. If special arrangements for the meeting are necessary, please notify the Research Division of the Legislative Counsel Bureau, in writing, at the Legislative Building, 401 South Carson Street, Carson City, Nevada 89701-4747, or call Nenita Wasserman, at (775) 684-6825, as soon as possible.

Notice of this meeting was posted in the following Carson City, Nevada, locations: Blasdel Building, 209 East Musser Street; Capitol Press Corps, Basement, Capitol Building; City Hall, 201 North Carson Street; Legislative Building, 401 South Carson Street; and Nevada State Library, 100 Stewart Street. Notice of this meeting was faxed for posting to the following Las Vegas, Nevada, locations: Clark County Office, 500 South Grand Central Parkway; and Grant Sawyer State Office Building, 555 East Washington Avenue. Notice of this meeting was posted on the Internet through the Nevada Legislature's Web site at www.leg.state.nv.us.

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ROBERT E. ERICKSON, *Research Director* (775) 684-6825
BRENDA J. ERDOES, *Legislative Counsel* (775) 684-6830

# MEETING NOTICE AND AGENDA

Name of Organization: Nevada Legislature's Committee on High-Level Radioactive Waste (*Nevada Revised Statutes* 459.0085)

Date and Time of Meeting: Tuesday, January 29, 2002
10 a.m.

Place of Meeting: Grant Sawyer State Office Building
Room 4412
555 East Washington Avenue
Las Vegas, Nevada

Note: Some members of the committee may be attending the meeting and other persons may observe the meeting and provide testimony, through a simultaneous videoconference conducted at the following location:

Legislative Building
Room 3138
401 South Carson Street
Carson City, Nevada

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## AGENDA

I. Opening Remarks and Introductions by the Chairman.
Assemblyman Harry Mortenson

*II. Approval of Meeting Minutes of November 15, 2001.

*III. Reports to Committee.

A. Secretary of Energy Spencer Abraham's notice to the Nevada Legislature announcing his intent to make a site recommendation on Yucca Mountain Repository Project to President Bush.

Legislative Counsel Bureau Staff

B. Yucca Mountain Site Suitability Process as prescribed by the *Nuclear Waste Policy Act*.

Legislative Counsel Bureau Staff

C. Role of Legislature and possible Committee Recommendation.

Legislative Counsel Bureau Staff



(NSPO Rev. 8-02)

(O) 1578E

IV. Public Testimony.

V. Comments and Discussion by Committee Members.

VI. Adjournment.

*Denotes item on which the committee may take action.

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ROBERT E. ERICKSON, *Research Director* (775) 684-6825
BRENDA J. ERDOES, *Legislative Counsel* (775) 684-6830

## MEETING NOTICE AND AGENDA

Name of Organization: Nevada Legislature's Committee on High-Level Radioactive Waste (*Nevada Revised Statutes* 459.0085)

Date and Time of Meeting: Tuesday, October 8, 2002
10 a.m.

Place of Meeting: Grant Sawyer State Office Building
Room 4401
555 East Washington Avenue
Las Vegas, Nevada

Note: Some members of the committee may be attending the meeting and other persons may observe the meeting and provide testimony, through a simultaneous videoconference conducted at the following location:

Legislative Building
Room 2135
401 South Carson Street
Carson City, Nevada

*If you cannot attend the meeting, you can listen to it live over the Internet. The address for the legislative Web site is http://www.leg.state.nv.us. For audio broadcasts, click on the link "Listen to Meetings Live on the Internet."*

## AGENDA

I. Introductions and Opening Remarks
Assemblyman Harry Mortenson, Chairman

*II. Approval of Minutes of the January 29, 2002, Meeting

*III. Reports to Committee

A. Update on Status of the High-Level Radioactive Waste Program of the United States Department of Energy (DOE)

J. Russell Dyer, Ph.D., Project Manager, DOE Yucca Mountain (Nevada) Site Characterization Office

Topics to include:

1. Status of current studies and research regarding Yucca Mountain

2. Overview of the license application that must be submitted by the DOE to



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(O) 1578E

the United States Nuclear Regulatory Commission (NRC) for authorization to begin construction of a geologic high-level radioactive waste repository at Yucca Mountain

3. Schedule of the DOE's license application to the NRC

4. Plan to transport nuclear waste from reactor sites located throughout the United States to Yucca Mountain, including routes and mode selection through Nevada

B. Update on Status of the NRC Regulatory Process for Licensing a Geologic High-Level Radioactive Waste Repository

Robert Latta, Senior On Site Representative, NRC

Topics to include:

1. Overview of the NRC's licensing process regarding the DOE's application for authorization to construct a geologic high-level radioactive waste repository at Yucca Mountain, including a description of the three phases of the NRC's licensing process

2. Role of the NRC in the pre-licensing process of authorizing the construction of a geologic high-level radioactive waste repository at Yucca Mountain

C. Update on the Activities of the Nevada Agency for Nuclear Projects' (NANP)

Robert R. Loux, Executive Director, NANP
Marta A. Adams, Senior Deputy Attorney General, Office of the Attorney General
Joseph Egan, Special Deputy Attorney General, Egan and Associates

Topics to include:

1. Overview of New Mexico's experiences with the Waste Isolation Pilot Plant, including successes and failures in bargaining for benefits from the federal government

2. Status of pending court actions regarding Yucca Mountain in which the State is involved and the legal services for which NANP is contracting

D. Update on High-Level Radioactive Waste Activities of the National Conference of State Legislatures (NCSL)

Linda Sikkema, Program Principal, NCSL

E. Update on Oversight Activities of the Affected Units of Local Governments (*The Nuclear Waste Policy Act)*

Les Bradshaw, Manager, Department of Natural Resources and Federal Facilities, Nye County
Henry Neth, Commissioner, Nye County

Irene Navis, Clark County Nuclear Waste Division, Clark County

Representatives invited from Churchill, Esmeralda, Eureka, Lander, Lincoln, Mineral, and White Pine Counties in Nevada and Inyo County in California

IV. Public Testimony

V. Comments and Discussion by Committee Members

VI. Adjournment

*Denotes items on which the committee may take action.

Note: We are pleased to make reasonable accommodations for members of the public who are disabled and wish to attend the meeting. If special arrangements for the meeting are necessary, please notify the Research Division of the Legislative Counsel Bureau, in writing, at the Legislative Building, 401 South Carson Street, Carson City, Nevada 89701-4747, or call Nenita Wasserman at (775) 684-6825 as soon as possible.

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## APPENDIX N

"Detailed Nevada Transportation Maps" from the Final Environmental Impact Statement, Office of Civilian Radioactive Waste Management, United States Department of Energy

## S.13 Detailed Nevada Transportation Maps

Figures S-23 through S-35 are maps that show the candidate rail corridors and heavy-haul truck routes in Nevada. Figures S-23 and S-30 are index maps for rail and heavy-haul routes, respectively. That is, they identify the relationships of the more detailed maps that follow them. Figure S-23 shows the relationship of six detailed maps (Figures S-24 through S-29), each of which shows potential corridors (or portions of corridors) for the five candidate rail corridors, including variations. Similarly, Figure S-30 shows the relationship of four detailed maps (Figures S-31 through S-34), each of which shows candidate heavy-haul truck routes (or portions of routes). Finally, Figure S-35 is a legend for all of the detailed maps.

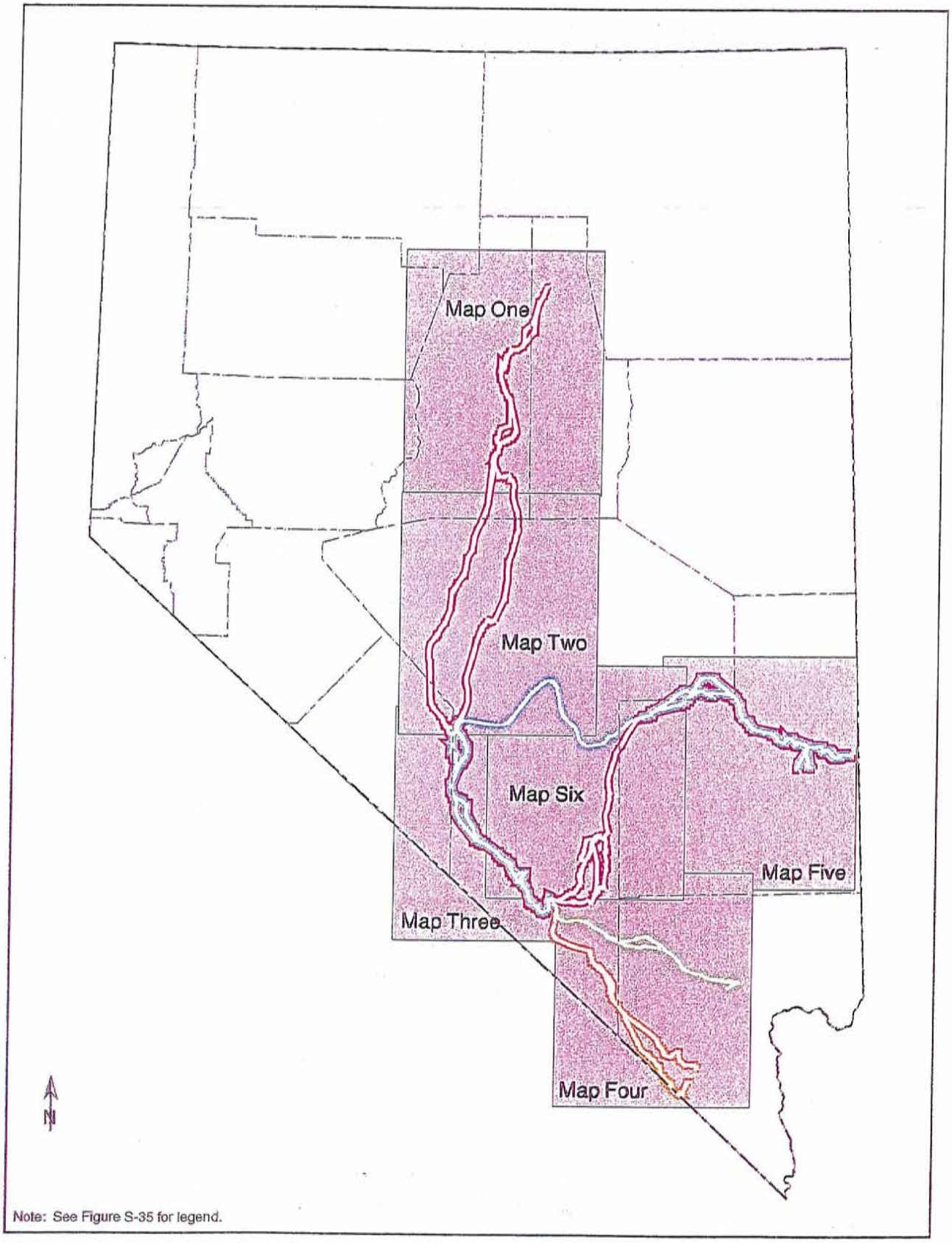



**Figure S-23.** Candidate rail corridors (Index).

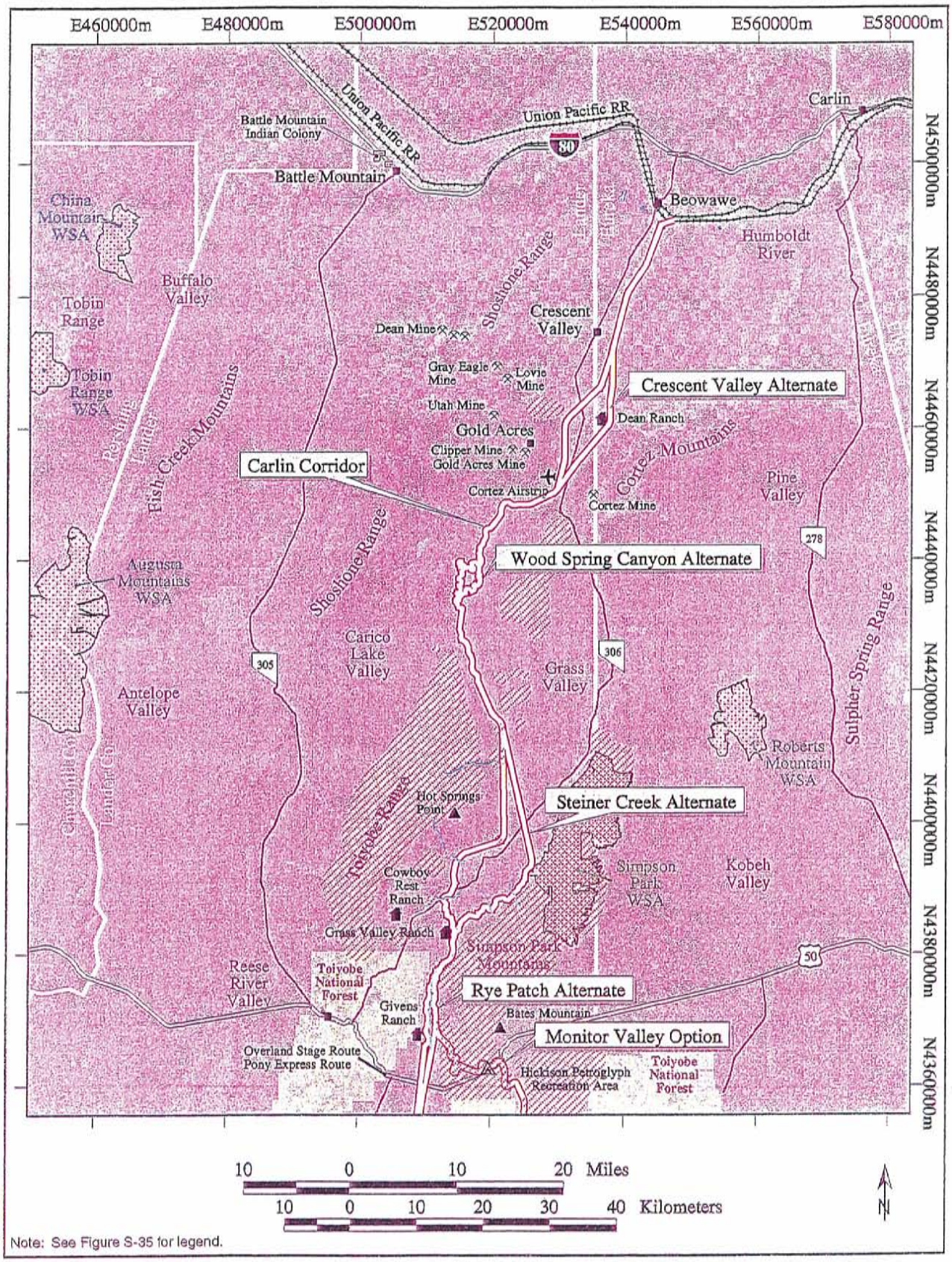
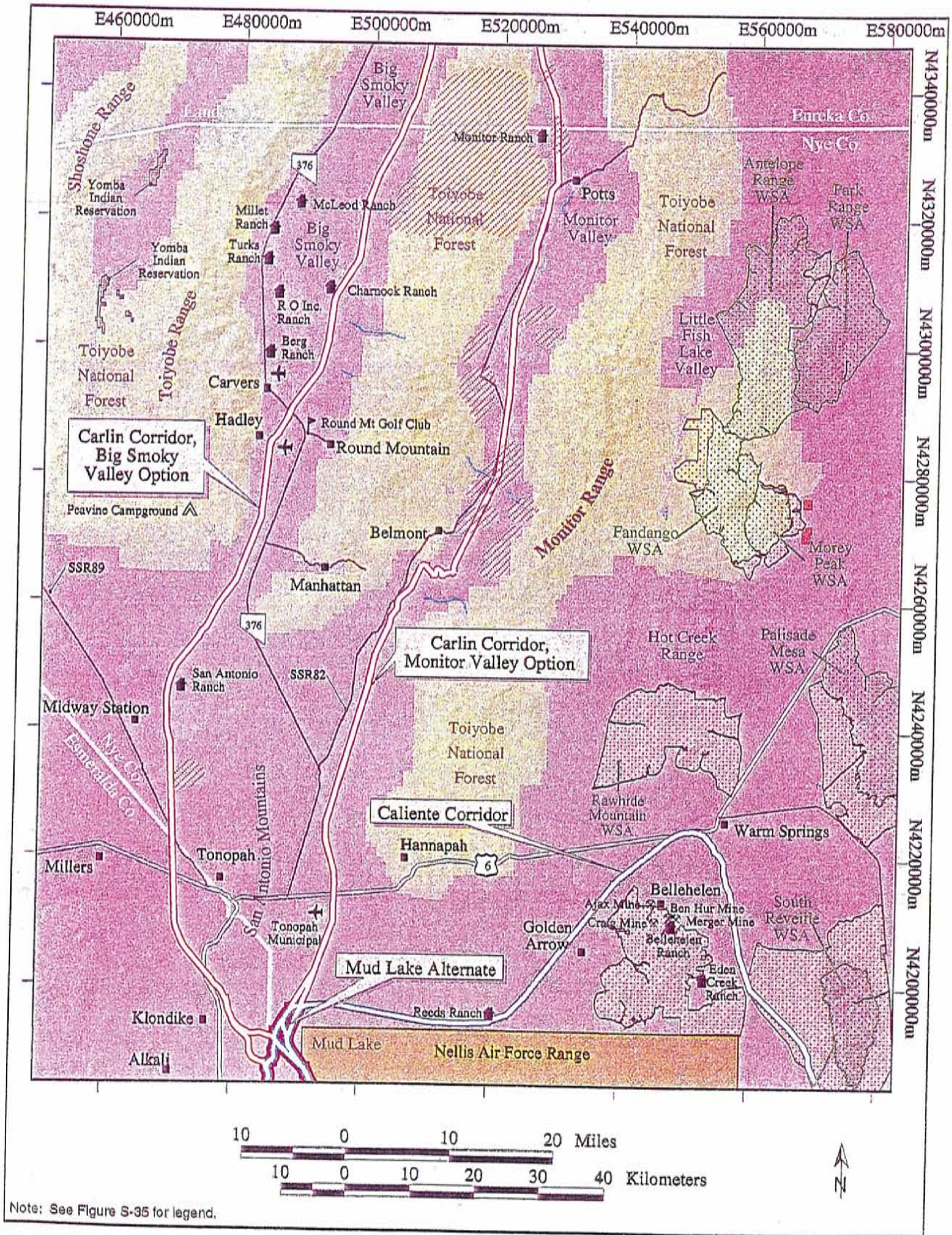



**Figure S-24.** Candidate rail corridors (Map One).




Note: See Figure S-35 for legend.

**Figure S-25.** Candidate rail corridors (Map Two).

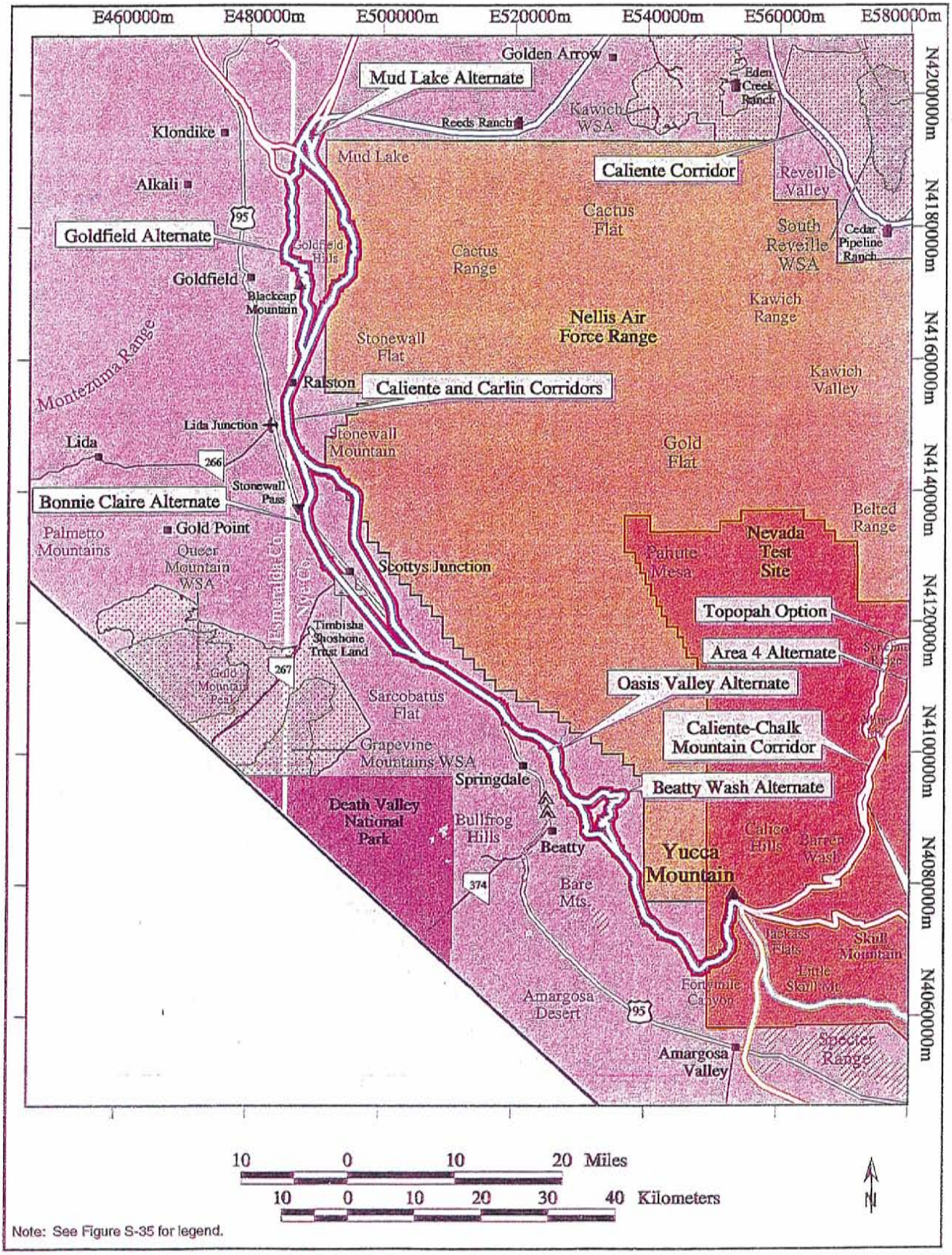



**Figure S-26.** Candidate rail corridors (Map Three).

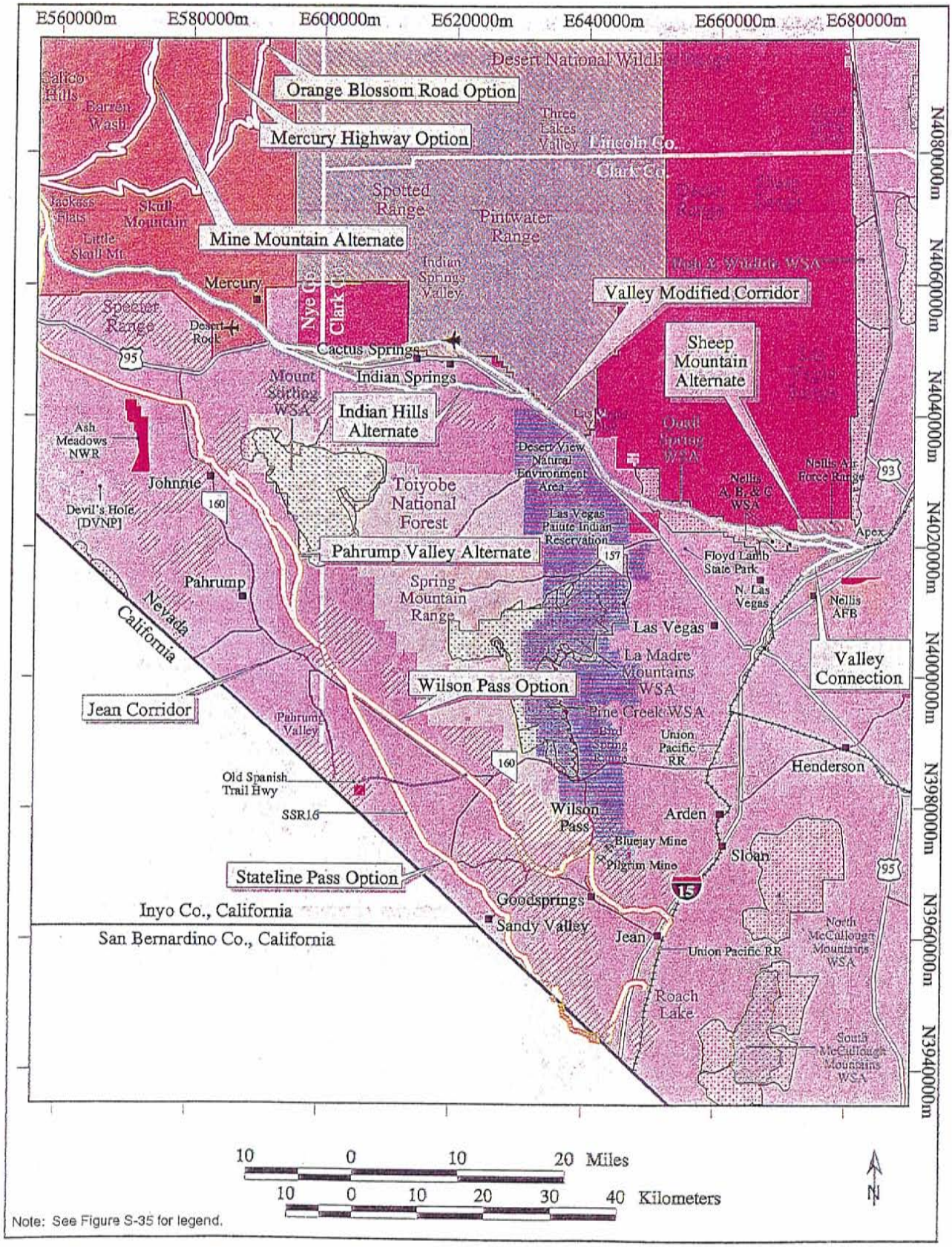



Figure S-27. Candidate rail corridors (Map Four).

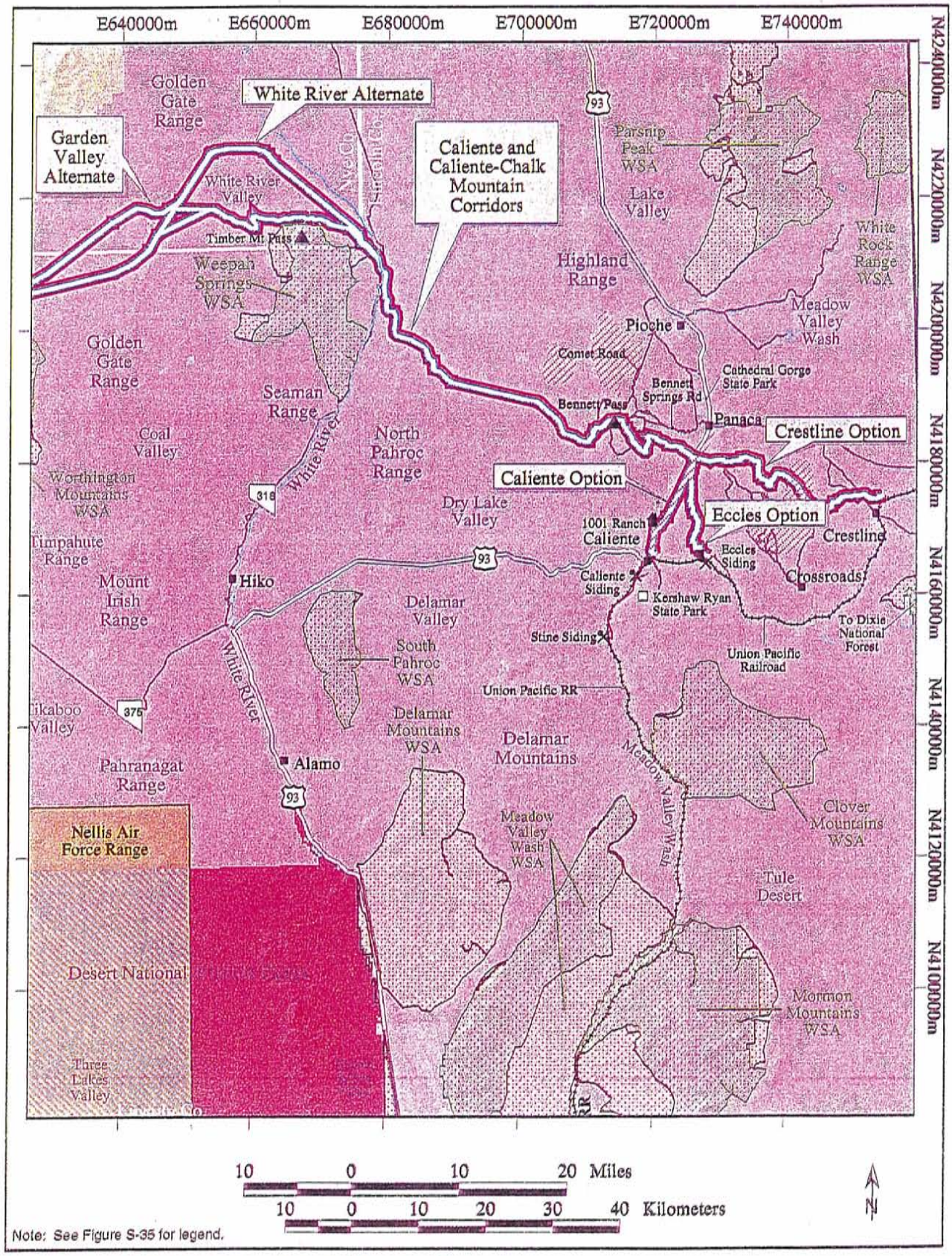



**Figure S-28.** Candidate rail corridors (Map Five).

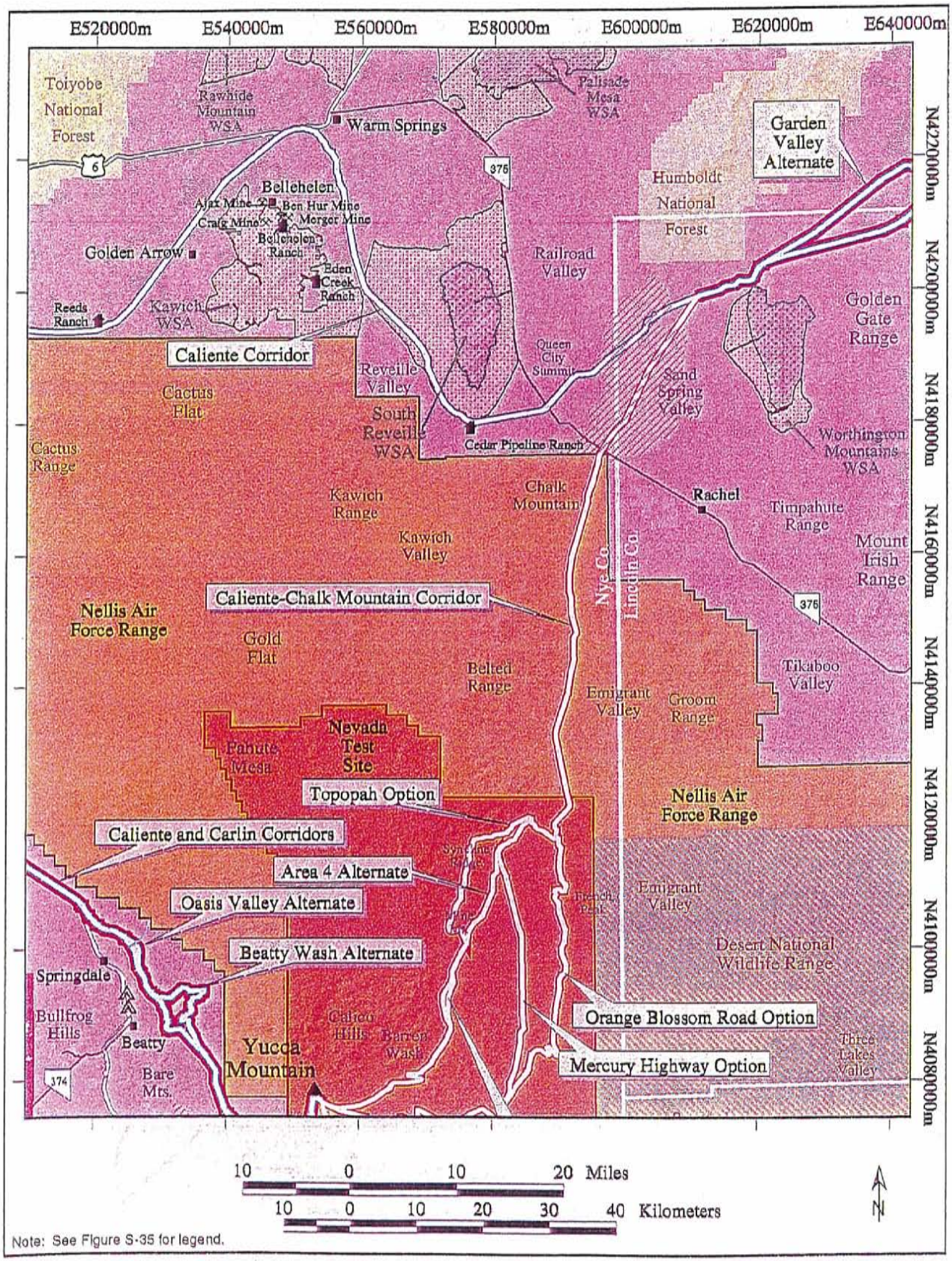



Figure S-29. Candidate rail corridors (Map Six).

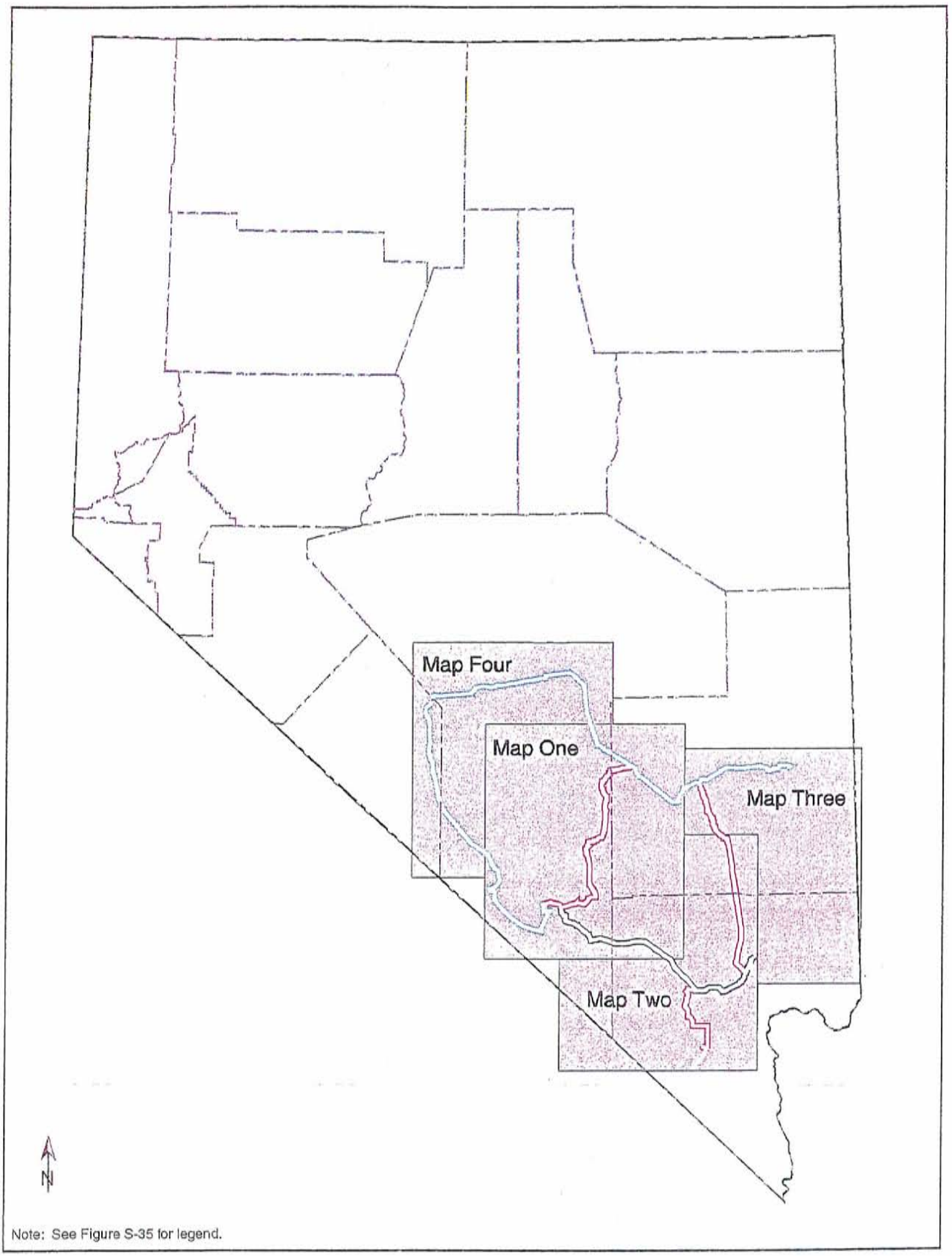
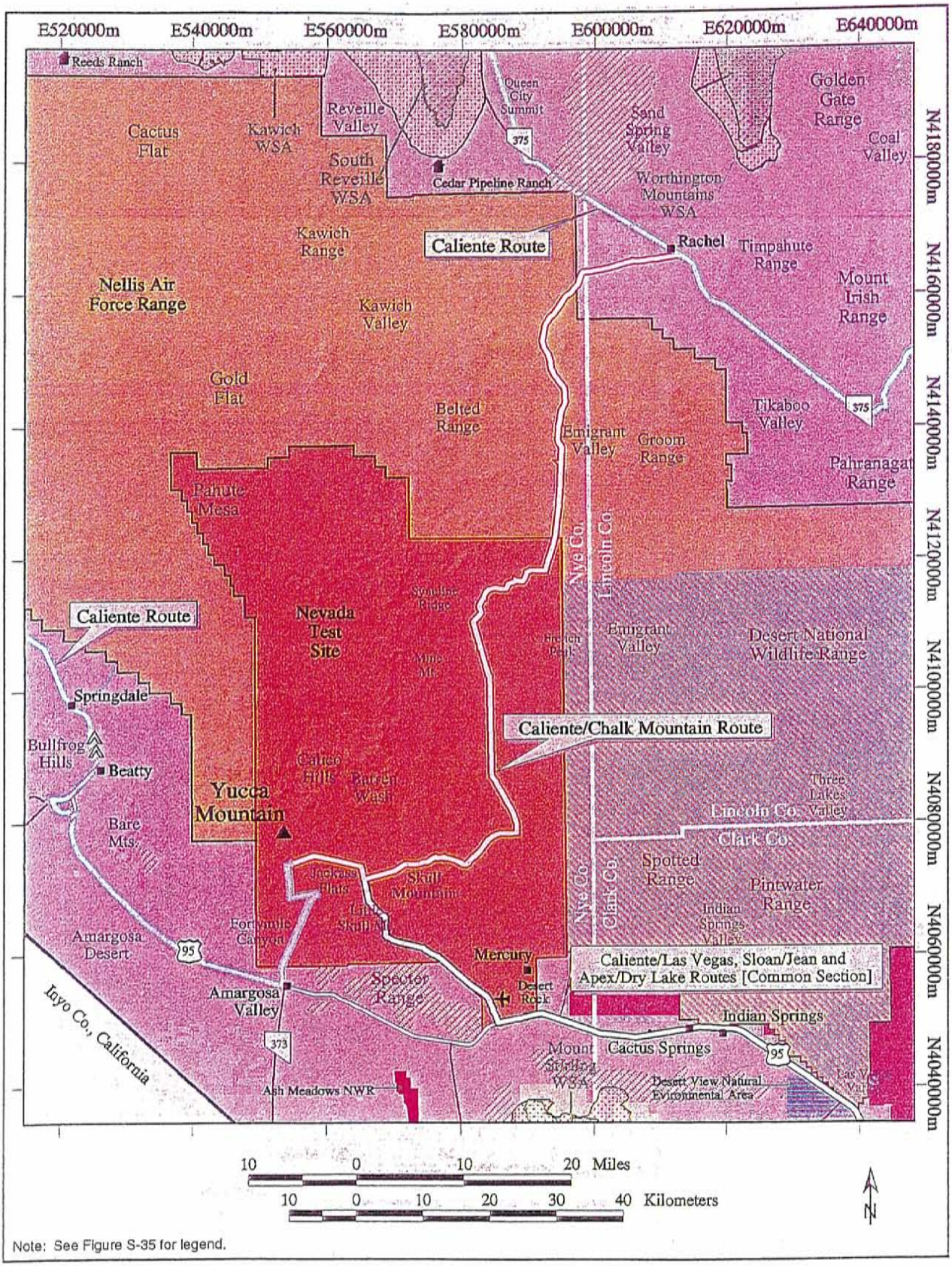
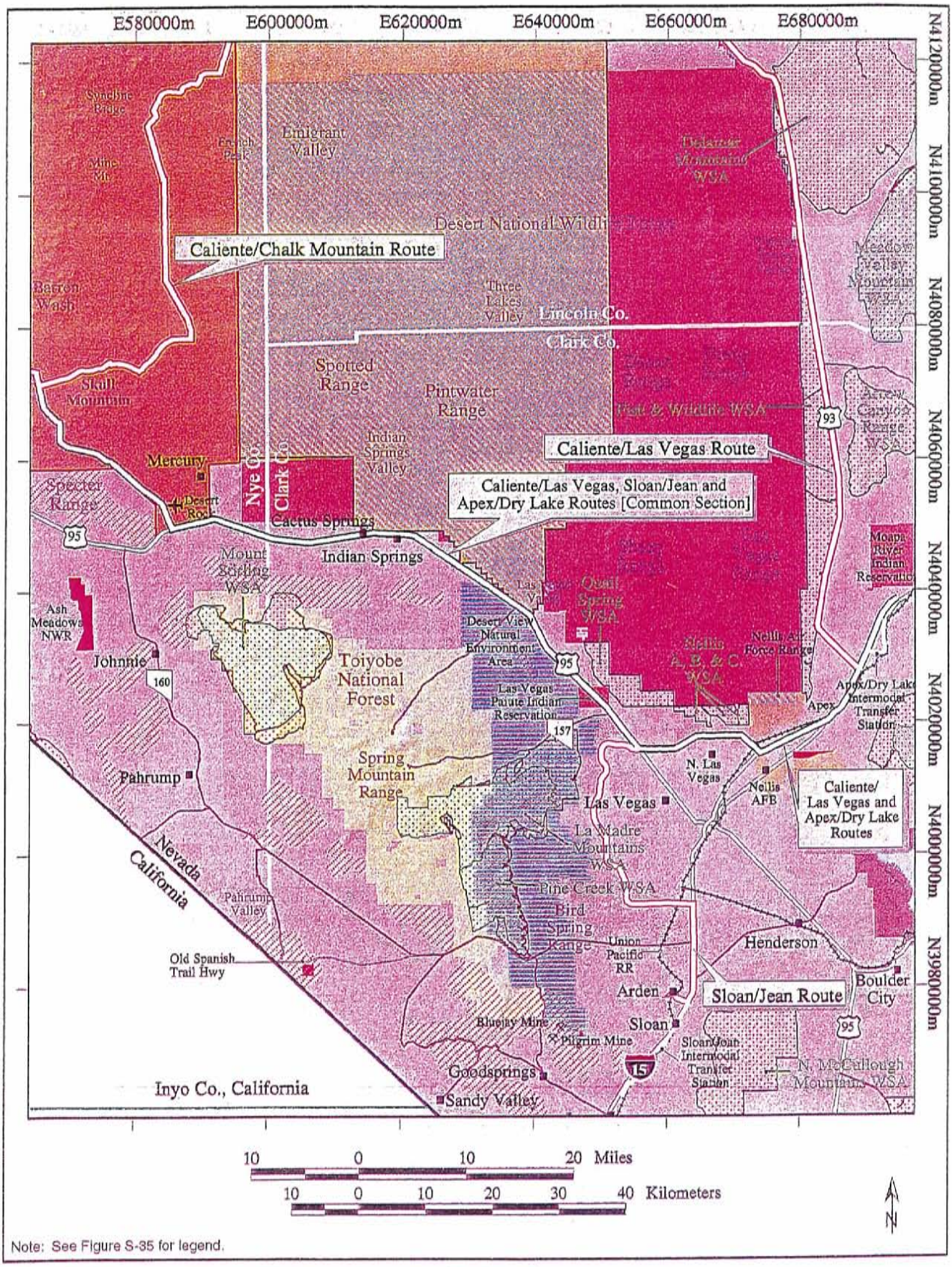



**Figure S-30.** Candidate heavy-haul truck routes (Index).



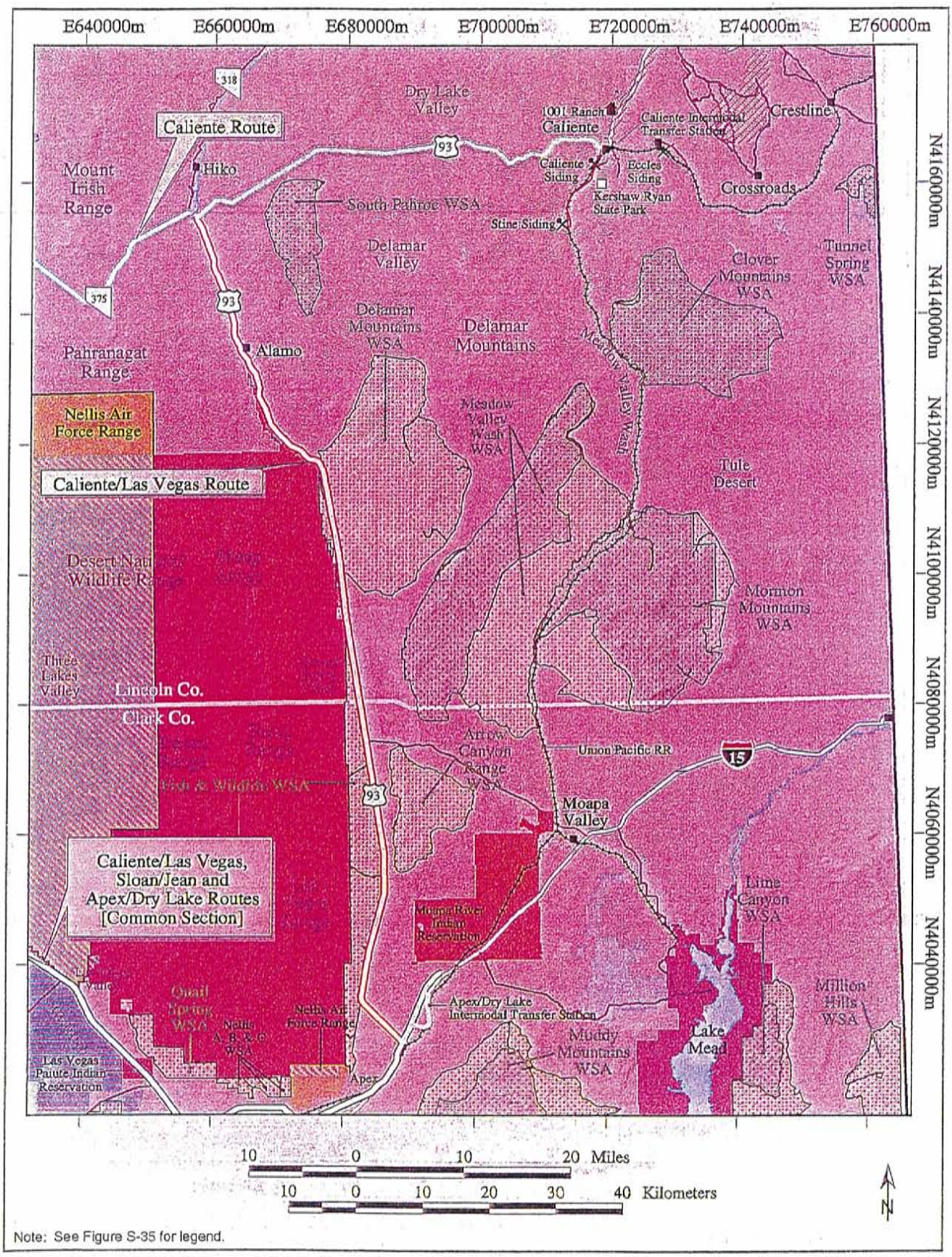

Note: See Figure S-35 for legend.

Figure S-31. Candidate heavy-haul truck routes (Map One).



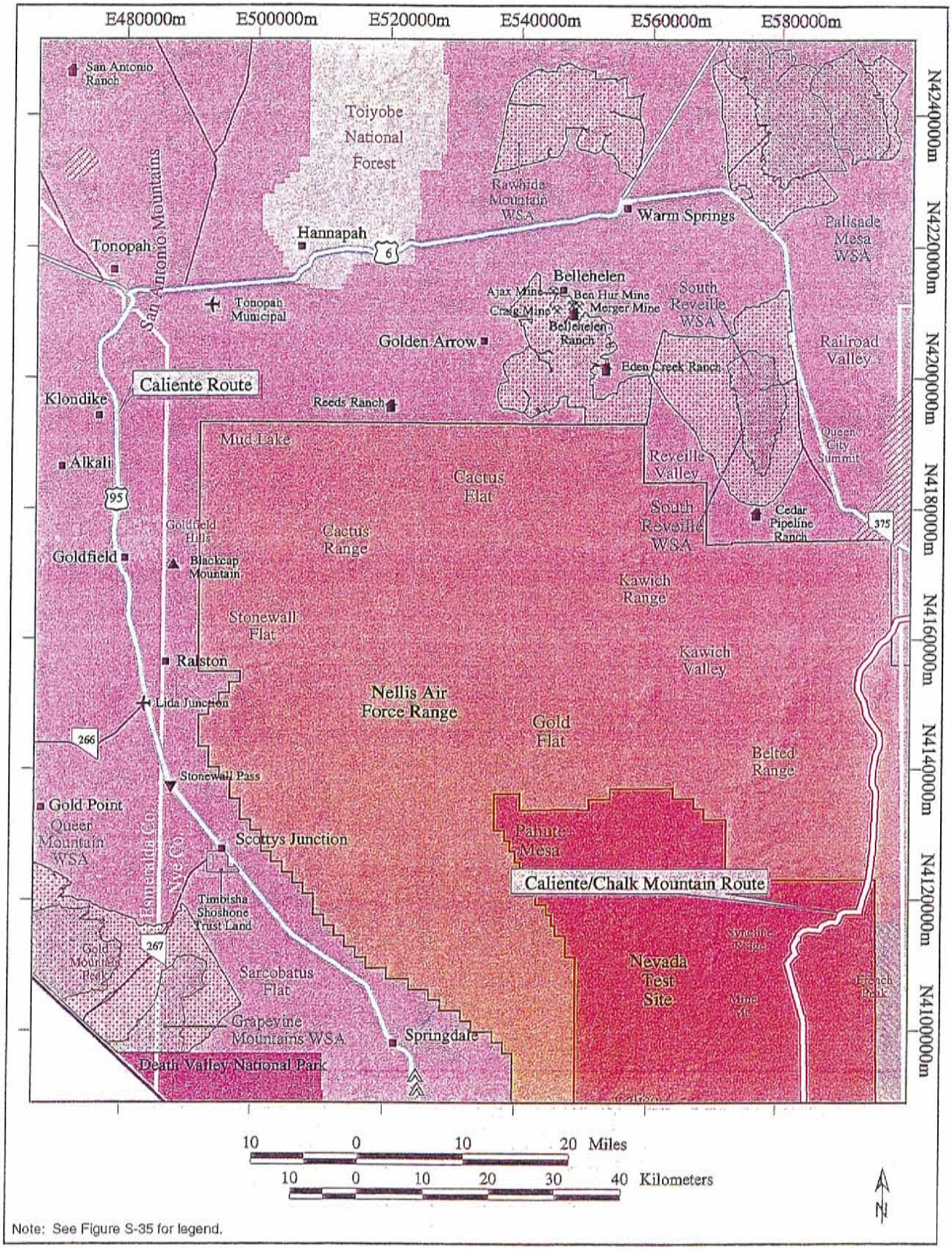

Note: See Figure S-35 for legend.

**Figure S-32.** Candidate heavy-haul truck routes (Map Two).




Note: See Figure S-35 for legend.

Figure S-33. Candidate heavy-haul truck routes (Map Three).




Note: See Figure S-35 for legend.

**Figure S-34.** Candidate heavy-haul truck routes (Map Four).

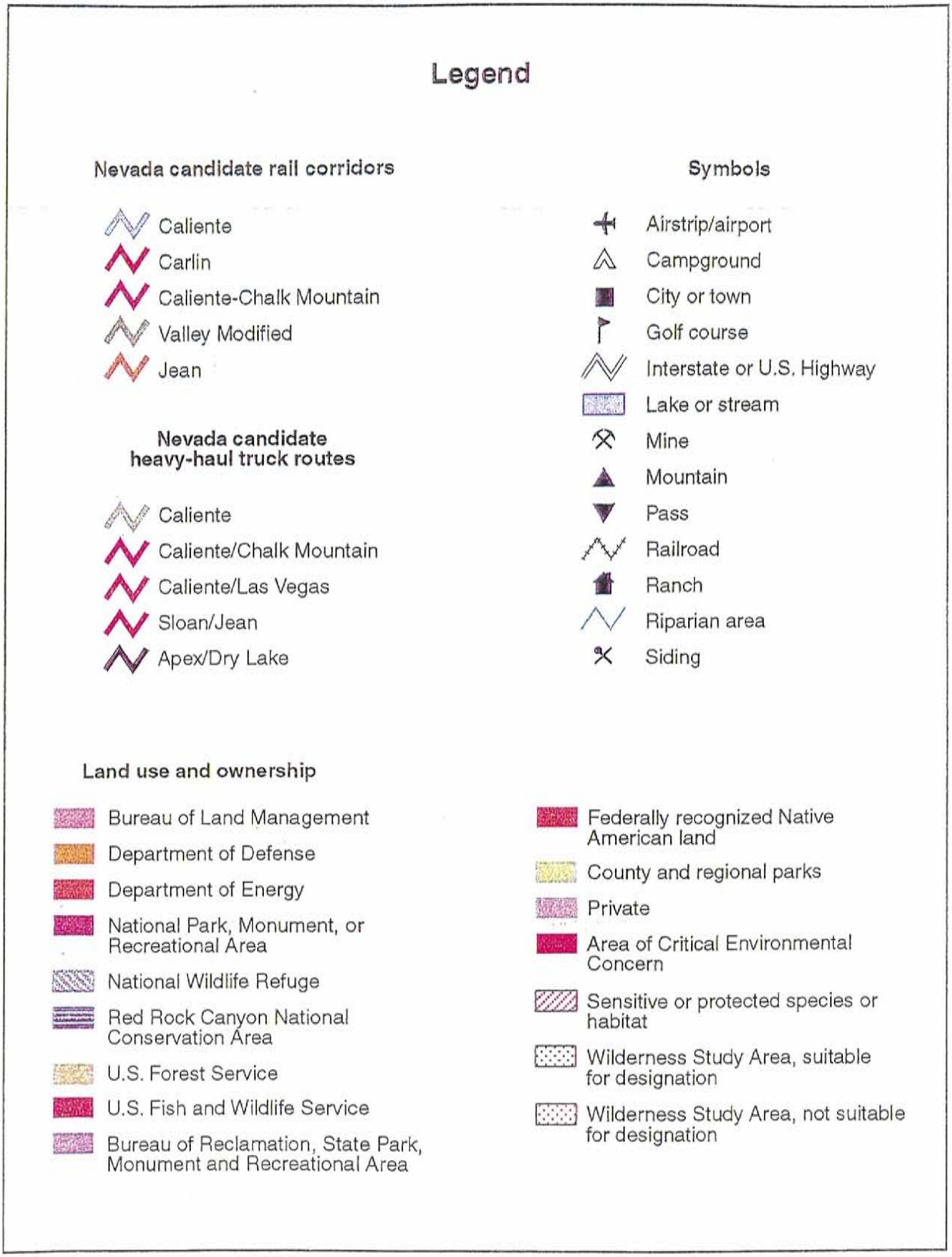



Figure S-35. Legend for candidate rail corridors and heavy-haul truck routes.