

Final Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada (DOE/EIS-0250F-S1) (Repository SEIS)

8.6.2 NYE COUNTY VIEWPOINT (AS WRITTEN BY NYE COUNTY)

Nye County would host the repository and associated facilities and would be the funnel through which all waste shipments converged for disposal, regardless of the final mode or method of transportation. The proposed repository is one of many federal and private sector actions that have affected, or have the potential to affect, county resources. About 98 percent of the total land area of Nye County is under the stewardship of federal agencies, which have conducted a wide range of activities, including atomic and conventional weapons testing and training, habitat and wilderness preservation, waste disposal, and resource development. Past, present, and reasonably foreseeable future activities by these agencies have direct and indirect cumulative impacts on the county environment and economy. These impacts are cumulative with activities in the private sector, including mining and milling, agriculture, and land development, although impacts from such activities could be offset by economic and other benefits to the county.

From the Nye County perspective, impacts from the proposed repository would be cumulative with all past, present, and reasonably foreseeable future actions by the federal and private sectors. Therefore, in accordance with its status as a cooperating agency for this Repository SEIS, Nye County is providing its perspective on the cumulative impacts of the Proposed Action. DOE based the discussion in this section on the technical resource document prepared by the County (DIRS 182884-NWRPO 2007, all). This section provides an objective assessment that reflects the county's unique perspective on cumulative impacts.

8.6.2.1 Nye County's Assessment of Baseline Environment and Baseline Conditions

In Nye County's view, the baseline for the Proposed Action predates all historical repository-related actions, regardless of when the actions occurred. The conditions that currently exist in the regions of influence include impacts of past repository-related actions (for example, the segregation of certain land from mineral entry), and reflect direct or *indirect impacts* related to the repository program, rather than true baseline conditions. Nye County does not believe that the current existing conditions are the baseline against which DOE should measure repository and cumulative impacts.

Where the implementation of historical federal actions has affected Nye County (for example, withdrawal of public land from any form of public entry for the Nevada Test and Training Range and the Nevada Test Site), the existing conditions include the impacts associated with those actions. Those impacts contribute to the cumulative impacts of past federal actions and to the total cumulative impacts of federal and non-federal actions on the county.

8.6.2.2 Nye County's Assessment of Region of Influence

From the Nye County perspective, the region of influence should include Nye County in its entirety as well as the region around the county. The County recognizes that the region of influence that DOE considered for analysis of cumulative impacts will vary depending on the evaluated element of the

affected environment, and that DOE should base its analysis on the region in which impacts could reasonably be expected to occur. For geology, cultural resources, noise, and biological resources and soils, the region of influence can be limited to only those areas that would be disturbed, or where activities would occur. The region of influence for air quality includes all topographic basins in which land disturbances or emissions would occur, and where additional urban development would occur as a result of employee in-migration. For socioeconomics and occupational and public health and safety, the region of influence potentially includes all of Nye County, and could include each potentially affected unit of local government and the State of Nevada. The region of influence for surface-water resources includes hydrographic basins in which DOE would take actions and any basins to which they are tributary. For groundwater resources, the region of influence includes the entire Death Valley regional flow system.

8.6.2.3 Nye County's Assessment of Impacts of Past and Present Federal and Private Sector Actions

Past and present actions by federal agencies in Nye County are characterized in four broad areas: (1) land withdrawals and designations; (2) conventional and nuclear weapons testing and training; (3) waste disposal operations; and (4) congressional mandates regarding land and resource uses. The Nye County technical resource document describes adverse and beneficial direct and indirect impacts from these actions (DIRS 182884-NWRPO 2007, all).

Federal agencies have withdrawn more than 10,500 square kilometers (2.6 million acres) in Nye County for missions that include the Nevada Test Site, Nevada Test and Training Range, Death Valley National Park, National Wildlife Refuges, and American Indian reservations. In addition, agencies have designated more than 240 square kilometers (59,000 acres) for conservation, wildlife, or preservation. These land withdrawals and designations have had or will have significant adverse impacts due to the loss of potential revenues to Nye County from restrictions on development of mineral, renewable energy, oil and gas, and water resources; loss of future productivity from the withdrawn lands; and significant alterations of transportation routes through road closures and lack of rights-of-way across withdrawn lands. The designation by the Bureau of Land Management of about 190 square kilometers (46,000 acres) of federal land in Nye County for disposal to the private sector will result in impacts on water availability, infrastructure, and the environment as development occurs. Impacts from private sector development could be offset by economic and other benefits to the County provided that appropriate resources are applied to ensure development occurs in a controlled manner. Nye County is preparing a Yucca Mountain Project Gateway Area Concept Plan to provide a basis for managing development near the gateway to the repository, but might not have adequate resources to implement the plan without support from DOE. The Proposed Action would permanently withdraw about 180 square kilometers (44,000 acres) of additional public land currently within the taxing district for the town of Amargosa Valley. The impacts of that withdrawal would be cumulative with the other land withdrawals and designations.

Above-ground and subsurface nuclear weapons tests, conventional weapons and weapons systems tests, firing ranges, and activities associated with these operations result in significant disturbances over hundreds of square kilometers. Significant adverse impacts have included blast and collapse craters, radioactive contamination of soils and groundwater, safety hazards from unexploded ordnance, fugitive emissions from contaminated soils, annoyance and startle effects from supersonic aircraft, and a remaining radionuclide burden of more than 300 million *curies*. Significant injury to natural resources, especially water resources, has occurred with a corresponding significant loss of long-term productivity.

Waste disposal actions have included disposal of about 9.8 million curies of radioactive wastes in craters, the Greater Confinement Disposal site, and the Area 5 Radioactive Waste Disposal Site on the Nevada Test Site; disposal of ordnance and other waste on U.S. Air Force and DOE lands; disposal of low-level radioactive waste and hazardous waste at a privately operated site near the community of Beatty; and disposal of municipal waste at Amargosa Valley and Pahrump. Impacts associated with the latter two actions are offset by economic and other benefits to the county. The Proposed Action would add a significant new contribution to the radioactive burden in the county, generate an appreciable volume of industrial and construction wastes, and result in an increased demand for municipal waste disposal capacity in employment and housing centers. If DOE transported the high-level radioactive wastes to the repository site without incident, and the repository performed at least as well as estimated by the *Total System Performance Assessment* (Chapter 5), no significant new impacts to the environment would result from waste disposal at the repository. However, releases of radioactive constituents during transportation and handling or after emplacement could have significant impacts. *Stigma* associated with waste disposal (and disposal of radioactive waste in particular) could be a significant impact, but would vary by demographics. Although Nye County does not perceive any stigma from the Proposed Action at this time, public perception and the stigma associated with nuclear waste and waste management facilities could attach to the county and affect in-migration, adding to cumulative impacts from the Proposed Action.

Congressional mandates for resource management, protection, and preservation have resulted in significant adverse impacts on Nye County through the imposition of severe restrictions on water, mineral, and land development, with a corresponding decrease in long-term productivity from those lands and loss of potential tax revenues. Impacts from the implementation of the *Nuclear Waste Policy Act* are cumulative with those of other congressional mandates.

8.6.2.4 Nye County's Perspective of Reasonably Foreseeable Future Actions

Reasonably foreseeable future actions considered in Nye County planning include both federal and non-federal actions that are likely to occur by 2050. Federal actions would include continued operations at the Nevada Test Site and the Nevada Test and Training Range; implementation of resource management and general management plans for national parks, wildlife refuges, and public lands; and construction, operation, and closure of a high-level nuclear waste repository at Yucca Mountain.

DOE based the identification of reasonably foreseeable actions by local government and the private sector on planning estimates of future population, land development patterns, and the availability of additional natural resources. Reasonably foreseeable actions by local government and the private sector should lead to an increase in population in Amargosa Valley to about 50,000 persons by 2050, with a corresponding population increase in Pahrump to about 150,000 persons. These projections do not include the incremental impacts from construction and operation of the proposed repository. All remaining farmland in Pahrump should be retired from agriculture by 2030 and agriculture in Amargosa Valley should cease by 2050. At least one new precious metal mine is likely to be permitted and opened in the southern part of the county in a rural, generally undeveloped area; it would have an operating life of 40 years or less. Dairy operations should cease in Pahrump by 2012 and in Amargosa Valley by 2040. The waste disposal site at Beatty is likely to continue operations for 20 years, after which state regulatory authorities will permit no hazardous, mixed-waste, or low-level waste disposal operations. All groundwater resources in the southern part of Nye County will be appropriated and placed to a beneficial use by 2050.

8.6.2.5 Nye County's Perspective of Cumulative Adverse Impacts

The cumulative adverse impacts of past, present, and future federal actions and mandates are significant. The most significant adverse impact is from conventional and nuclear weapons testing activities that have contaminated isolated areas on DOE and U.S. Air Force-controlled lands, and massive and widespread soil and groundwater contamination in large areas on the Nevada Test Site. The Nye County Water Resources Plan (August 2004) estimated that the volume of groundwater contaminated from weapons testing is about 6.17 billion cubic meters (5 million acre-feet). This contamination has significantly reduced the water resources available for use in the county. Contamination of the soils and groundwater on DOE-controlled land is cumulative with that on and under Air Force-controlled lands, and contamination from other sources, which includes waste disposal activities by the federal and private sectors. Soil or groundwater contamination that occurred as a result of the Proposed Action would add to the contamination that has already accumulated, further decreasing the water resources available to the county and the long-term productivity of the contaminated areas.

The second most important adverse impact from past federal actions is the loss of access to lands due to withdrawal by DOE, the Department of Defense, and the Department of the Interior, and the designation of lands for environmental protection through National Parks, National Wildlife Refuges, and Areas of Critical Environmental Concern. More than 8,100 square kilometers (2 million acres) of land in Nye County are not available for the development of mineral and water resources. The withdrawal of additional land for the Proposed Action would add to the cumulative impact of the loss of lands for water and mineral resource development.

The third most important adverse impact from federal actions relates to the inventory of *radioactivity* that weapons testing and past and continuing radioactive waste disposal on the Nevada Test Site, as well as commercial disposal of low-level radioactive waste near Beatty, have deposited in Nye County. In total, more than 300 million curies have been deposited at sites in Nye County, primarily on the Nevada Test Site. The Proposed Action would add an estimated 14 billion or more curies to this cumulative amount.

The last major category of adverse impacts is loss of local control as a result of congressional mandates and federal policies on land and resource use. Early federal policies led to the settlement and development of Nye County and the adverse as well as beneficial impacts from mining, ranching, farming, and urbanization that followed the implementation of these policies. In the mid-1900s, federal policies led to the development of vast weapons testing and military training programs that have resulted in significant adverse environmental impacts as discussed above. Subsequent federal policies aimed at environmental protection led to significant constraints on the development of resources the county needed to sustain its economic viability. Compliance with these more recent federal policies has resulted in reductions in employment in some sectors, increased costs for development of water and land resources, decreased tax revenues, and loss of long-term productivity for large areas in Nye County. DOE based the Proposed Action on a legislative mandate (the *Nuclear Waste Policy Act*) that would impose further constraints on resource utilization and would be cumulative with the significant adverse impacts that have already occurred.

Although Nye County believes that these cumulative adverse impacts have occurred and would increase incrementally as a result of the Proposed Action, it also believes that many of the impacts could be

addressed and mitigated through implementation of various, routine measures. Identification and implementation of such measures could be facilitated through consultation and cooperation between the County and DOE. In Chapter 9, Nye County presents its perspective on the types of measures that could be jointly pursued by DOE and Nye County to minimize and mitigate the expected incremental impacts of the Proposed Action. With a memorandum of understanding/consultation and cooperation agreement (NWPA, Section 117), Nye County will assist DOE in the identification of environmental and socioeconomic impacts and their significance, and then cooperatively plan and develop effective mitigation measures. As the situs jurisdiction for the Yucca Mountain Project, Nye County has a tremendous stake in the NEPA process and will continue to participate as a cooperating agency and protect the safety, environmental values, and economic well-being of the residents of Nye County.