

be no water bodies diverted in order to remediate the training sites. Accumulating rainwater in affected areas would be dammed, mixed with contaminated soils, and/or left to evaporate. Only small quantities of water would be used for dust suppression.

4.1.4 Ecological Resources

No long-term impacts to ecological resources are expected. However, short term impacts to flora and fauna would occur. The excavated areas would be graded to match pre-decommissioning topography and replaced with natural vegetation to blend with the landscape. The shrubs and grasses removed from radiologically impacted land areas would be replaced at the end of the project. Burrowing animals would likely leave the site during decommissioning activities and return when site vegetation has reestablished.

Kirtland AFB consulted with state and federal caretakers of natural heritage information. The licensee reviewed the Kirtland AFB Integrated Natural Resources Management Plan and Threatened and Endangered Species Survey of Kirtland AFB, New Mexico. According to the Kirtland AFB Integrated Natural Resource Management Plan, there are no known federally listed threatened or endangered species on the AFB. The New Mexico Natural Heritage Program (NMNHP) and the U.S. Fish and Wildlife Service (USFWS) were specifically requested to search their records for information on threatened or endangered species in the geographic areas where the decommissioning activities would occur; that is, Bernalillo County, Township 9 North, Range 4 East, Sections 7, 8, 9, 16, 17, and 18. The NMNHP and the USFWS determined that the proposed decommissioning activities would have no effect on federally listed endangered or threatened species.

The western burrowing owl (*Athene cunicularia hypugaea*) is a federal species of concern that has been observed on Kirtland AFB. Kirtland AFB personnel would survey the OT-10 sites immediately prior to decommissioning activities. If encountered, burrowing owls would be relocated, as documented in the DP.

4.1.5 Noise Impacts

Because noise levels are expected to exceed regulatory limits, site contractors would be required to apply hearing protection measures to protect workers. The storage bunkers which may be demolished, would be performed using a backhoe equipped with shears and/or

jackhammer. According to the study at the University of Washington, these activities have a mean 1-minute noise level of 86.1 dB. The noise generated from the decommissioning activities result from excavating equipment (front-end loader, dozer, and backhoe), a crane, water trucks, and light and heavy truck traffic. Soil in hot spots would be excavated from the surface to an estimated depth of 1 to 2 feet below the ground surface, using a backhoe. Soil in areas of dispersed contamination would be removed using a dozer. Front-end loaders or backhoes would transfer the contaminated soil, surface debris, and vegetation into steel intermodal containers. A crane would transfer the intermodal containers to transport trucks. All construction activities would occur during daytime hours. According to a study conducted by the University of Washington, the average noise generated at construction sites during "site preparation" is 82.7 affective decibels (dBA). Site preparation (site grading, debris and vegetation removal) noise levels are assumed comparable to the activities associated with the proposed decommissioning. In addition, the U.S. Army Corps of Engineers (USACE) set a noise exposure limit for construction sites of 85 dBA, which is consistent with National Institute for Occupational Safety and Health and U.S. Occupational Safety and Health Administration (OSHA) limits (90 dBA, 29 CFR 1910.95).

4.1.6 Historical and Cultural Resources Impact

The Site OT-10 decommissioning activities pose no long or short-term impacts to cultural/historical resources. After surveying for cultural resources, one historic site was located. However, this site would not be disturbed by the proposed action. No other historic properties have been located surrounding the project area. Therefore, the proposed project would have no adverse effect to historic properties or cultural resources. If cultural resources, including Indian artifacts, are found within the project area during decommissioning, work would discontinue and Kirtland AFB personnel would follow procedures outlined in the Kirtland AFB Cultural Resource Management Plan. By letter dated, April 9, 2002, the New Mexico State Historic Preservation Officer stated that this project would have a no adverse effect to historic properties.

4.1.7 Visual Resources

Only short-term impacts to site aesthetics would occur. Construction equipment would obstruct views.

However, there are no homes near the training sites which would be impacted. The shrubs and grasses removed from radiologically impacted land areas would be replaced at the end of the project. In addition, removal of debris and fences and potentially the Bunkers 28005 and 28010 at training site TS8, would improve site aesthetics.

4.1.8 Transportation

It is estimated there would be 1370 intermodal containers of contaminated soil and debris shipped offsite. Each truck would carry one intermodal container loaded with approximately 19 cubic yards of waste. It is estimated that 10 to 12 trucks will leave the base per day, 5 days per week for 7 to 8 months. There would be approximately 685 shipments by truck and/or rail to Envirocare of Utah in Clive, Utah, and 685 shipments by truck to Waste Control Specialists in Andrews County, Texas. Containers shipped to Envirocare will travel west on Gibson Boulevard to either Interstate 25 (truck shipments) or rail siding at 100 Woodward Road (rail shipments). If rail transport is utilized, the intermodal containers would be loaded onto six-position railcars with approximately 115 railcars utilized to transport the intermodals. Containers destined for WCS will travel north on Eubank Boulevard then west on Interstate 40 and south on State Highway 285.

The addition of 10 to 12 trucks to a documented traffic volume on Gibson Boulevard of 27,000 to 45,000 vehicles per day poses a negligible impact to traffic volume (TransCore, 2001). Ten to 12 trucks add less than 0.03 to 0.04 percent to the daily vehicle load.

Under normal operating conditions there is no expected dose to vehicle operators and members of the public, since the wastes are of low activity and would be shipped in U.S. DOT-compliant, strong-tight containers. The only radiological risks associated with the transport of the wastes would involve the cleanup of any spilled material. In the unlikely event that a spill were to occur during transport, radiological controls would most likely be implemented during the cleanup of the spilled waste material. Therefore, the risks associated with the transport of the waste material is minimal.

4.1.9 Occupational Health Impacts

Short and long-term impacts to human health, in terms of industrial hygiene, are possible. A Site-Specific Health and Safety Plan (HSP) that addresses known and reasonably anticipated health and safety hazards would be provided to site workers