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National Nuclear Security Administration

Supplement Analysis

Security Perimeter Project

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Los Alamos Site Office

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Introduction

This Supplement Analysis (SA) has been prepared to determine if previous Department of Energy (DOE), National Nuclear Security Administration (NNSA) environmental assessments (EAs), including EA-1429 *Environmental Assessment for Proposed Access Control and Traffic Improvements at Los Alamos National Laboratory, Los Alamos, New Mexico* (DOE 2002) adequately address the environmental effects of a proposed modification to the location and alignment of a bypass road at Technical Area (TA) 3, or if this EA or others need to be supplemented.

Council on Environmental Quality regulations at Title 40, Section 1502.9 (c) of the Code of Federal Regulations (40 CFR 1502.9[c]) require federal agencies to prepare a supplement to an Environmental Impact Statement (EIS) when an agency makes substantial changes in the proposed action that are relevant to environmental concerns, or there are circumstances or information relevant to concerns and bearing on the proposed action or its impacts. NNSA interprets this requirement also apply to EAs in accordance with Section 10 CFR 1021.300(b) of the DOE regulations for the National Environmental Policy Act (NEPA) implementation that states "Notwithstanding any other provision of these regulations, DOE may prepare a NEPA document for any DOE action at any time in order to further the purposes of NEPA." This is in keeping with 10 CFR 1021.101 that "It is DOE's policy to follow the letter and spirit of NEPA; comply fully with the CEQ Regulations; and apply the NEPA review process early in the planning stages for DOE proposals." 10 CFR 1021.314(c) states "When it is unclear whether or not an EIS supplement is required, DOE shall prepare a Supplement Analysis." NNSA Los Alamos Site Office (LASO) interprets this to also apply to EAs.

This SA specifically compares key impact assessment parameters of the Security Perimeter Project evaluated in EA-1429 and other relevant EAs (DOE-EA-1329 *Environmental Assessment for the Wildfire Hazard Reduction and Forest Health Improvement Program at Los Alamos National Laboratory* [DOE 2000], and DOE-EA-1212 *Environmental Assessment for Lease of Land for the Development of a Research Park at Los Alamos National Laboratory* [DOE 1997]). It also provides an explanation of any differences between the proposed action and activities described in the previous EA analyses.

This project entails establishment of a vehicle security perimeter around a major portion of the core area of Los Alamos National Laboratory (LANL). Figure 1 shows the conceptual plan for the security perimeter project. Actual alignment may vary somewhat.

Background

As a result of the events of September 11, 2001, the nature of the terrorist threat has changed significantly in terms of the potential magnitude of the attack as well as the terrorists' motivations, targets, and methods. The most recent attacks appeared to be intent on maximizing disruption, destruction and casualties, and include the willingness to conduct suicide attacks. In recognition of this increased threat, LANL Management and Security officials have determined that there is a critical need to upgrade the physical protection around critical assets at the core of the site.

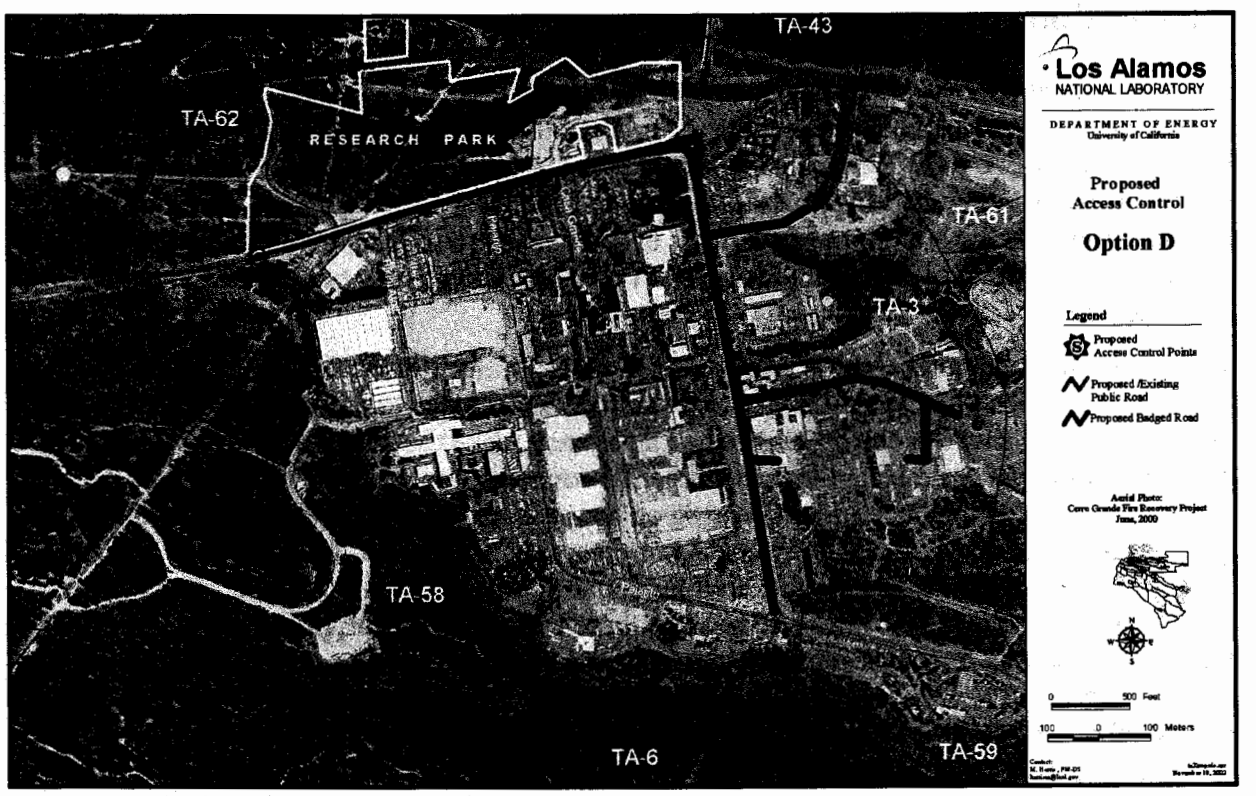

Figure 1. Proposed Security Perimeter Project Roadway Project

LANL is one of the few DOE complex sites where the general public has access to the core technical area and has public roads that pass in close proximity to Category I or II facilities. Temporary measures have recently been implemented to help protect particular LANL assets, but long-term measures are required to provide an additional level of protection to the core of LANL which houses vital national assets, government property, and critical scientific and support staff. Unauthorized (unscreened) access in the future must be restricted and controlled to minimize the possibility of a terrorist threat being introduced into the core area.

In January 2002, a list of 89 actions to address terrorist attacks was prioritized and presented to General Gordon by General Haeckel and Bill Hensley. It was agreed that the top 25 of the 89 items should receive immediate NNSA attention. The construction of the new roads that will allow LANL to create this needed security perimeter was among the top 25 projects.

LANL submitted an initial CD-0 request for the Bypass Roads Project to DOE in May 2002. The initial CD-0 request was not supported because it was felt that a majority of the project scope was of a non-security nature. This revised CD-0 request is a result of a review of several different approaches considered to focus on security goals. It is noted that security goals cannot be accomplished without some improvements to the road system.

In order to secure the majority of the LANL core area from access by the general public in unscreened vehicles, two goals must be accomplished. First, all vehicle traffic attempting to enter the LANL core area must be routed through access control stations.

Screening, badge checks, searches and other security processes will be accomplished at the access control stations. Secondly, the road system must be modified to force vehicle traffic

attempting to enter LANL to go through an access control station. Some new road sections must be constructed and other roads must be closed or rerouted in order to force vehicle traffic through the access control stations.

Proposed Action

The selected approach combines the installation of three access control stations at key locations with the development of a single bypass road at the north end of TA-3 to accomplish the mission need described. The proposed north bypass road will connect East Jemez Road, Diamond Drive and West Jemez Road. The proposed north bypass road is essentially a reroute of East and West Jemez Road. Access from this road into the Los Alamos County Research Park must be provided. Some parking areas impacted by the road reroute must be replaced.

This approach also requires rework of the intersection of East/West Jemez Road and Diamond Drive, a new intersection with East Jemez Road leading into the east access control station, and a new intersection with the north bypass road leading into the west access control station. Several existing utilities require relocation or rerouting. Some existing structures require relocation. One canyon crossing is required and will be accomplished by a bridge.

Three staffed access control stations with vehicle queuing approaches and necessary utilities are required at the following locations:

- Near the west end of the proposed north bypass road, connecting to West Jemez Road.
- Near the east end of the proposed north bypass road, connecting to Diamond Drive.
- Near the east end of Pajarito Road just west of the intersection with State Route 4.

These staffed access control stations will allow closure of three temporary guard posts currently located within the TA-3 area.

Diamond Drive must be permanently closed to unscreened traffic just south of the existing bridge across Los Alamos Canyon. West Jemez Road must be permanently closed to unscreened traffic just west of the Wellness Center. The east access control station road will require some improvements at the intersections with the north bypass road and with Diamond Drive. The west access control station road will require some improvements at the intersections with the north bypass road and with West Jemez Road.

EA-1429 and other applicable EAs

Three environmental assessments completed during the past six years are used in this supplement analysis to determine whether the Proposed Action (Security Perimeter Project) would be bounded.

EA-1429: *Environmental Assessment for Proposed Access Control and Traffic Improvements at Los Alamos National Laboratory, Los Alamos, New Mexico.*

This EA analyzed the construction of eastern and western bypass roads around the LANL TA-3 area and the installation of vehicle access controls and related improvements to enhance security along Pajarito Road and in the LANL core area (Figure 2). DOE, NNSA issued a Finding of No Significant Impact on August 23, 2002. The Proposed Action would modify the current roadway network and traffic patterns. It would also result in traversing Areas of Environmental Interest identified in the LANL Habitat Management Plan, demolition of part of an historic structure at

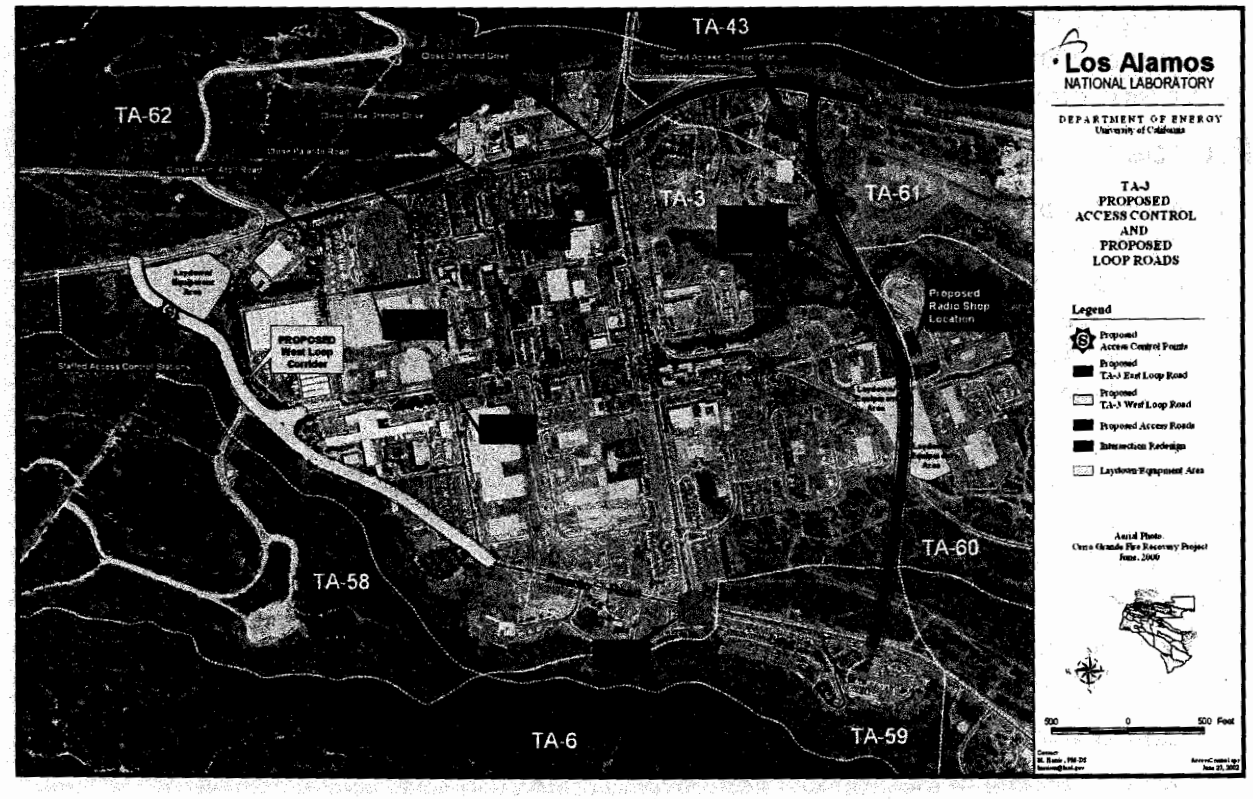

Figure 2. Access Controls and Loop Roads Around TA-3 Analyzed in DOE/EA-1429

Building 3-40, and traverse several potential release sites and part of the Los Alamos County landfill. These sites would either be sampled and remediated in accordance with New Mexico Environment Department requirements before construction or avoided to allow for future remediation. Structural bridges would be used to span canyons that are Areas of Environmental Interest because they include habitat for threatened and endangered species, or because they are 100-year floodplains or wetlands. Traffic congestion would not be expected to increase once construction was completed. Construction and demolition wastes would be transported to a licensed commercial landfill or recycled for other construction projects at LANL or offsite. Construction for the proposed bypass roads would be expected to produce only temporary and localized air and noise emissions. The Proposed Action would have no effects on visual resources, land use, socioeconomics, or environmental justice. The roadways would be designed to accommodate geologic and soil conditions. The demolition of part of Building 3-40 could have an adverse effect on historic structures since it is eligible for the National Register of Historic Places (NRHP) and, therefore, a treatment plan would be negotiated between NNSA and the State Historic Preservation Office. Cumulative effects of the Proposed Action, along with past, present, and reasonably foreseeable actions, on LANL and surrounding lands would be anticipated to be negligible.

EA-1329: *Environmental Assessment for the Wildfire Hazard Reduction and Forest Health Improvement Program at Los Alamos National Laboratory.*

The Proposed Action (the No Burn Alternative) of this EA that was completed in August 2000, just two months after the Cerro Grande Fire, consists of implementing a Wildfire Hazard

Reduction and Forest Health Improvement Program at LANL that would not use fire as a treatment measure. This ecosystem-based management program would be a series of individual, small-scale projects using mechanical and manual thinning methods that would be conducted over about 10 years with ongoing, long-term maintenance projects conducted thereafter. These carefully planned initial projects would be conducted to bring the forests at LANL to the desired end-state for wildfire risk followed by an on-going maintenance program to maintain the forests in this desired state with enhancements to improve overall forest health. An estimated 35 percent, approximately 10,000 acres (4,000 hectares), of LANL would be treated under this program using forest thinning and the construction of access roads and fuel breaks as treatment measures. Wood materials generated by the treatment measures would be either donated or salvaged; waste wood materials would primarily be disposed of through chipping and used as mulch on-site. Wood contaminated by depleted uranium could be disposed of at TA-54, Area G. Thinning in and around the area of the Proposed Security Perimeter Project, particularly the Research Park, has already occurred.

EA-1212: *Environmental Assessment for Lease of Land for the Development of a Research Park at Los Alamos National Laboratory.*

This October 1997 EA analyzed the potential impacts of leasing 60 acres and developing approximately 30 acres north of TA-3 between West Jemez Road and Los Alamos Canyon as a research park for private sector use. The research park has been partially built with one structure and related parking immediately across from TA-3. The Environmental effects of the Proposed Action would be limited to the loss of a small amount of wildlife habitat.

Potential Consequences of the Proposed Action

This section addresses the potential environmental effects of the Proposed Action and compares them with the resources previously analyzed in EA-1429, 1329 and 1212. Environmental effects are identified and addressed based on the sliding scale approach discussed in DOE's NEPA guidance (DOE 1993); that is, certain aspects of the Proposed Action have a greater potential for creating environmental effects than others. Table 1 lists the potential environmental resource areas that could be affected by the proposed new security perimeter road project, identifies the resources for which there is no major change in potential effects from those already analyzed in the three subject EAs, and identifies two potential resource areas (visual and cultural resources) that were identified for a more in depth comparison off effects analyzed.

Table 1. Potential Environmental Consequences of Security Perimeter Project

Land Use	No major change in potential effects
Visual Resources	Traffic along the proposed security perimeter road would be visible to about a dozen households along Fairway Drive in the Western Area of Los Alamos townsite. This change in route is different from the routes analyzed in prior DOE/EA-1429, the Access Control EA, but this rerouting of the traffic would not likely result in major changes to visual resources of the area.
Noise	No major change in potential effects
Geology	No major change in potential effects
Soils	No major change in potential effects

Table 1. cont.

Surface Water Quality	No major change in potential effects
Groundwater Quality	No major change in potential effects
Air Quality	No major change in potential effects
Public Health	No major change in potential effects
Environmental Justice	No major change in potential effects
Socioeconomics	No major change in potential effects
Cultural Resources	The proposed security perimeter road could adversely affect different cultural resource sites from those potentially affected in the prior DOE/EAs-1429, 1329, and 1212. Adverse affect to the various resource sites could be mitigated through consultation and data recovery as was the case for effects to those sites analyzed in the three EAs previously identified, so that the proposed security perimeter road would not likely result in major changes to cultural resources of the area.
Waste Management	No major change in potential effects
Biological Resources	The proposed security perimeter road would cross a side canyon that drains into Los Alamos Canyon by way of a bridge constructed to span that area. Changes in rerouting traffic into this area would not likely result in major changes to biological resources of the area.
Transportation, Traffic, and Infrastructure	No major change in potential effects

The resources identified in Table 1 that would be affected by the Proposed Action are visual and cultural resources. The following concluding paragraphs discuss these potential effects and describe how these effects are bounded by EAs-1429, 1329 and 1212.

Conclusion

Visual Resources

The Security Perimeter Project would occur within an area where visual resources are already affected by the ongoing activities previously analyzed by EAs-1429, 1329, and 1212. The Proposed Action analyzed in each of these EAs received a Finding of No Significant Impact by DOE and NNSA. The Security Perimeter Project would not create new vistas or otherwise alter the visual resources of the project area beyond these previously approved projects. The environmental effects of the newly proposed road segment route around the north side of the Research Park would be about the same as for those analyzed in EA-1429, except the roadway and traffic thereon would be more visible to some residents across Los Alamos Canyon and there could be more audible noise. However, these visual and auditory effects would be little changed from those analyzed in the Research Park EA-1212, and the Wildfire Hazards Reduction Program EA-1329.

The proposed Security Perimeter road and would have a minimal effect on visual resources at LANL and the surrounding area given the degraded panoramas of the Pajarito Plateau and Jemez Mountains since the Cerro Grande Fire. The actions now underway and planned for the future that were analyzed in EA-1329 would affect visual resources because they involve vegetation

removal that would occur as a result of selected thinning activities. The forest at LANL would become more park-like with an increase in the diversity of shrubs, herbs, and grasses in the understory. Some facilities currently screened from casual view may become visible to viewers at various vantage points. The overall effect of the thinning would be to make the contrast between the scenic background setting and LANL's industrial character more obvious.

The development of the Research Park as analyzed in EA-1329, will alter the visual character of the leased tract and the adjoining undeveloped areas by removing natural vegetation and interspersing office and commercial buildings. New three- to five-story buildings in the western part of the tract will alter the visual character of these areas and would create a visual field more similar to the commercial appearance of the eastern portion. Neither the future Research Park buildings nor the proposed security perimeter road would likely obscure views of the mountains to the east or west. Segments of the proposed perimeter security road would remain screened by existing (thinned) forest and the topography while the segment closest to the Omega Bridge would likely be quite visible but still in keeping with the developed nature of the main entrance to LANL. There are no designated scenic areas or parks that would be affected. Construction of the Research Park would already be expected to introduce an industrial view for five to ten years during which time the security perimeter would also be constructed.

Cultural Resources

Cultural resources include any prehistoric sites, buildings, structures, districts, or other places or objects considered to be important to a culture or community for scientific, traditional, religious, or any other reason. They combine to form the human legacy for a particular place (DOE 1999). To date, over 1,950 archaeological sites and historic properties have been recorded at LANL. LANL has conducted field surveys of the areas affected by the proposed perimeter road. As a result of these surveys, one traditional cultural property (TCP), four prehistoric Archaic sites, and one historic site (a portion of a wagon road) were identified. The criteria used for evaluating cultural resources depends upon their significance as sites eligible for listing to the NRHP as described in the *National Historic Preservation Act* (16 United States Code 470). These determinations of significance are met by evaluating each cultural resource based on it meeting any one or more of the following characteristics:

- Association with events that have made a significant contribution to the broad pattern of our history.
- Association with the lives of persons significant in our past.
- Illustration of a type, period, or method of construction; for its aesthetic values or for its representation of the work of a master; or if it represents a significant and distinguished entity whose components may lack individual distinction.
- It has yielded, or may be likely to yield, information important in prehistory or history.

The partial wagon road site has been determined to be ineligible for preservation and thus is not an issue. The four Archaic sites are eligible for preservation. The planned construction of the perimeter road would adversely affect two of the recorded prehistoric archaeological sites in the area. The other two can be avoided. A TCP is also present within the project area. Adverse affects to this TCP by construction of the perimeter road are currently being identified by San Ildefonso Pueblo in consultation with LANL archaeologists.

Because the construction of a portion of the perimeter road would be an adverse effect to two of the Archaic sites, under Section 106 of the *National Historic Preservation Act of 1966* (as amended) and 36 CFR Part 800.5, "Assessment of Adverse Effects", a data recovery plan would be prepared to resolve these adverse effects and would be negotiated between the SHPO and the NNSA DOE. The data recovery plan would specify mitigation actions for each site. It is likely that at least one of the sites will require full excavation as an acceptable method for mitigating any adverse effects. The other sites will likely need partial or no excavation provided they could be avoided.

A Memorandum of Agreement for resolution of adverse effects would be prepared following SHPO concurrence on the NRHP eligibility assessment and would implement the data recovery plan. The Advisory Council on Historic Preservation would be notified of the Memorandum of Agreement and would have an opportunity to comment. No disturbance of the two Archaic sites or the TCP can take place until LANL and NNSA DOE prepare and implement the data recovery plan for mitigation of adverse effects.

Biological Resources

Biological resources include Federally protected threatened or endangered species. The Security Perimeter Project would occur next to Los Alamos Canyon and the road would span a shallow canyon that drains into Los Alamos Canyon. This area has been identified as potential Mexican spotted owl habitat. Surveys for Mexican spotted owls in Los Alamos Canyon have been repeated annually over the past seven years and no Mexican spotted owls have been identified as using this habitat area. Informal consultation has been reinitiated by NNSA with the Fish and Wildlife Service to satisfy the requirements of compliance with the Endangered Species Act. The NNSA has determined that the Security Perimeter Project may affect but is not likely to adversely affect either individual Mexican spotted owls or their potential critical habitat. Other species of animals in the project area would be expected to affected in the same manner as previously identified in the three subject EAs.

Finding

The United States Department of Energy, National Nuclear Security Administration finds that the environmental effects of the Proposed Action are adequately bounded by the analyses of impacts projected by previous environmental assessments EA-1429, EA-1329, and EA-1212, and no Supplemental EA is required. The Department of Energy, National Nuclear Security Administration makes this Finding pursuant to the National Environmental Policy Act of 1969 [42 U.S.C. 4321 et seq.], the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act [40 CFR 1500] and the Department of Energy National Environmental Policy Act Implementing Procedures [10 CFR 1021].

Signed in Los Alamos, New Mexico this 19th day of February, 2003

Ralph E. Erickson, Manager
Los Alamos Site Office

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