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NEW MEXICO ENVIRONMENT DEPARTMENT  
ENVIRONMENTAL REVIEW COMMENT FORM

HSWA LAND G/00/01

TO: James Bearzi  
HWB

FROM: GEDI CIBAS  
OFFICE OF THE SECRETARY  
HAROLD RUNNELS BUILDING  
P.O. BOX 26110  
SANTA FE, NM 87505-4182  
Tel.: 827-2176 Fax: 827-2836  
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DATE: 7-17-01

PROJECT TITLE:  
Los Alamos County Fuel Modification and Management  
Project Alternatives

NMED FILE NO.: 1475ER

SAI NO.: \_\_\_\_\_

A. Please review the attached document and return your comments to me (1) in hard copy AND (2) electronically, via E-mail or diskette (using WORD format), by no later than 7-25-01

Your review should consider:

- (1) All requirements or conflicts with NMED laws and regulations of which you know;
- (2) All deficiencies or inaccuracies in the information provided which prevent an adequate environmental assessment of the project;
- (3) If applicable, whether the anticipated accomplishments of the proposal justify the requested funding;
- (4) Other information which may be helpful to understand the environmental impact of the project (e.g., other environmental problems in the vicinity, other project impacts, problems which may develop for which no specific NMED law and regulations apply, and so on).

B. Unless otherwise noted, please apply the following procedures when conducting the review:

- (1) Use its above-stated NMED FILE NO. when referring to the project.
- (2) Return this routing sheet with the hard copy of your comments.
- (3) (a) Return document to me after review: YES  NO
- (b) Return document to me ASAP if you have an extra copy for your review; indicating that that is why, in fact, you are returning it.

COMMENTS:

I am attaching for your information the related  
NMED Comment files: (1) 1381 ER  
& (2) 1404 ER



13552

TR



June 5, 2001

Mr. James P. Bearzi, Director  
The New Mexico Environmental Department  
Hazardous Waste Bureau  
2044 Galisteo PO Box 26110  
Santa Fe, New Mexico 87502

**RE: Request for Project Review--Los Alamos County Fuels Modification and Management**

Dear Mr. Bearzi:

URS Corporation (URS) has been retained by the Federal Emergency Management Agency (FEMA) to prepare an Environmental Assessment (EA) for the selective removal of vegetation in the Los Alamos County area. On behalf of FEMA, and in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, URS requests that your agency review both action alternatives and provide comments and any available information on resources under your agency's jurisdiction within the project area.

As part of the Cerro Grande Fire Assistance Act, the County of Los Alamos has applied for funding from FEMA to remove excess vegetation from 900 acres of County-owned property, which were not burned during the Cerro Grande fire. The purpose of the vegetation management project is to reduce the currently high risk of wildfire to avert adverse impacts to human health and property, and to maintain the ecological health of the forestlands in the project area.

In preparing the EA for this project, FEMA is considering three separate alternatives to address the issue of excess vegetation in Los Alamos County: 1) No Action Alternative; 2) Fuel Reduction Alternative (Proposed Action); and 3) Prescribed Burn Alternative (Alternate Action). Detailed descriptions of the proposed alternatives are attached along with a map of the project area.

Please direct any comments related to the proposed project to my attention. If your office requires any further information about the proposed project, or if you have any questions, please feel free to contact me at (301) 670-5465. Thank you in advance for your assistance.

Sincerely,

A handwritten signature in black ink that reads "Jonathan Randall".

Jonathan Randall  
Senior Environmental Planner

Enclosures as noted

cc: Matt Campbell, FEMA HQ

URS Corporation  
200 Orchard Ridge Drive, Suite 101  
Gaithersburg, MD 20878  
Tel. 301 258 9780  
Fax: 301.869.8728

## Attachment:

# Los Alamos County Fuels Modification and Management Project Alternatives

### No Action Alternative

Under the No Action Alternative, Cerro Grande Fire Assistance Act funds would not be used for fuels management actions related to mitigating fire hazards in the Los Alamos community. Without specific actions to remove vegetation, a defensible space around the urban areas of Los Alamos County would not be created and the fuel load accumulation would continue to increase. The existing fire hazard would not be mitigated, and could potentially increase with the further accumulation of fuels.

### Fuel Reduction Alternative (Proposed Action)

Under the Fuel Reduction Alternative, Los Alamos County would remove excess vegetation from 900 acres of County-owned property which were not burned during the Cerro Grande fire and continue to pose a risk of wildfire to the Los Alamos community. All dead brush and most woody understory vegetation would be removed. Additionally, an average of 400 trees per acre less than 10 inches in diameter (between 10 to 15 cords of wood per acre) would be removed. It is estimated that this would reduce the total per-acre fuel load by approximately one-half. In addition, the smaller, more flammable trees would be removed, greatly reducing "ladder fuels" which increase the probability of a wildfire becoming a crown fire.

Accumulated fuels would be removed through both mechanical and manual means. Mechanical methods would be used on slopes of less than 40 percent where the terrain is more level. Mechanical methods include the use of wheeled forestry equipment, such as a low soil-compaction harvester with boom, or feller-buncher. These machines enable trees to be cut in a swath of approximately 25 feet on either side of the equipment. Mechanical methods may also include the use of a forwarder (i.e. machine that loads cut materials onto a wagon to be taken offsite). On uneven slopes or slopes greater than 40%, manual removal methods would be used. These include the use of chainsaws and removal by hand.

The downed plant material would be disposed of using several methods including chipping, hydromulching, cut-and-pile, incineration, composting, and removal off-site. Incineration would be accomplished through the use of an air curtain incinerator or other temporary incinerator, or the use of incinerators at the Los Alamos National Laboratory located in the vicinity of the project area. In Bayo and Acid Canyons, plant material would be cut-and-piled, chipped, and/or hydromulched, and left on-site. A constant supply of between 30-50 cords of wood would be deposited at the Los Alamos landfill to be available as firewood for local residents. Project activities are anticipated to occur in several phases over the course of approximately 3-5 years. The effectiveness of the treatment is expected to last about 25

years, after which trees would have regenerated sufficiently to warrant another large-scale thinning.

### **Prescribed Burn Alternative (Alternate Action)**

Under the Prescribed Burning Alternative, a prescribed burn would be conducted at the sites within the 900 acres identified in Figure 3. In general, this alternative would remove 70-80 percent of the dead vegetative material at each site, and it is estimated that live vegetation density will be reduced by up to 25 percent.

The 900 acres would be divided into separate burn units and the prescribed burn would be applied to select vegetation within select areas of each unit. The prescribed burn would be controlled such that a low to moderate temperature burn would be achieved, depending on several characteristics in the burn unit, such as amount of dead material and vegetative moisture content. In general, it is anticipated that the prescribed burn would be maintained at a low to moderate temperature (roughly 212° to 752° F) over the majority of the burn units, but a higher intensity burn (over 752° F) may result in areas with a higher quantity of dead vegetation.

The low to moderate burn, coupled with the mosaic burn application allows for the retention of existing tree, plant, and animal communities. The low to moderate temperature burn will also allow the root systems of existing vegetation to remain intact.

The prescribed burns would be conducted over a period of 5 years. The precise scheduling of the burn program would vary from site to site. Additionally, a burn plan detailing burn conditions (such as location, weather conditions, fuel moisture, and desired fire behavior), and a smoke management plan, which describes smoke-sensitive areas, wind direction, and affected air pollution districts, are both required prior to conducting the burn.



June 6, 2001

Mr. James P. Bearzi, Director  
New Mexico Environmental Department  
Hazardous Waste Bureau  
2044 Galisteo PO Box 26110  
Santa Fe, New Mexico 87502

**RE: Request for Project Review  
Los Alamos County Relocation of 7.75-Million-Gallon Water Tank**

Dear Mr. Bearzi:

URS Group, Inc. (URS) has been retained by the Federal Emergency Management Agency (FEMA) to prepare an Environmental Assessment for the relocation of a 7.75-million-gallon water tank, currently owned by the Department of Energy, to a site located above Arizona Avenue on U.S. Forest Service property. The purpose of the water tank relocation is to provide greater protection to the community of Los Alamos from the effects of wildfires by providing a large supply of gravity-fed water. On behalf of FEMA, and in compliance with the National Environmental Policy Act of 1969, as amended, URS requests that your agency review the proposed action and provide comments and any available information on resources under your agency's jurisdiction within the project area.

As part of the Cerro Grande Fire Assistance Act, the County of Los Alamos has applied for funding from FEMA to relocate the 7.75-million-gallon water tank to a site located above Arizona Avenue. A map showing the area of the proposed project is attached. The proposed project would occur in several phases as follows:

**Phase 1: Disassembly and Lead-Based Paint Stripping**

The tank would be disassembled at its present location. The interior surface of each piece would be stripped of lead-based paint. The stripping operation would be conducted in accordance with appropriate Occupational Safety and Health Administration (OSHA) regulations for worker safety and Environmental Protection Agency (EPA) regulations for public safety. Resulting waste material would be disposed of in a regulated waste disposal facility appropriate to the Resource Conservation and Recovery Act (RCRA) regulatory status of the material. The individual pieces would then be stored until needed for reconstruction.

**Phase 2: Site Selection and Preparation**

The proposed site for the 7.75-million-gallon water tank is proposed to be located on a ridge above the group 12 water tank situated on Arizona Avenue. The site base elevation is to be approximately 7,588 feet above sea level so the overflow elevation of the 7.75-million-gallon water tank would



Mr. James P. Bearzi, Director  
New Mexico Environmental Department  
Hazardous Waste Bureau  
June 6, 2001  
Page 2 of 2

match that of the existing 0.5-million-gallon tank serving the area. It is anticipated that the tank site would be recessed into the hillside. In order to determine the suitability of the location, a geotechnical investigation would be performed.

Once a location has been selected to match the required base elevation, site preparation activities would begin. The site location would be accessed by an existing dirt road. The site would be graded to provide a level circular area approximately 250 feet in diameter. Because the site would be recessed into the hillside, excavation of materials would be required. Excavation would be accomplished with mechanical means where possible; if hard rock is encountered, some blasting may be necessary. Soil and rock refuse material would be disposed of at a yet to be determined location.

**Phase 3: Foundation Construction and Tank Reconstruction**

The 7.75-million-gallon water tank would require the construction of ring-wall foundation. This foundation would be approximately 18 inches wide and approximately 3 feet deep, and made of reinforced concrete. Sand would be placed on the interior surface of the ring-wall and leveled. A non-toxic sealant would then be sprayed on the sand to inhibit water from reaching the tank surface and corroding the bottom of the tank.

The 7.75-million-gallon water tank would be reconstructed on the sand area within the ring-wall foundation. Pieces of the tank would be welded back together and a final protective coating would be applied.

**Phase 4: Water Main Construction**

The 7.75-million-gallon water tank would be connected to the Los Alamos County water system via approximately 3,000 linear feet of 16-inch ductile iron pipe. This water main would be laid on the dirt access road in a 4-foot wide and 4-foot deep trench. The soils excavated from the trench would be replaced and compacted.

Please direct comments and information directly to me at the letterhead address. If you have any questions, please feel free to contact me at (301) 670-3387.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ryan Thompson'.

Ryan Thompson  
Environmental Planner

Enclosure

cc: Matt Campbell, FEMA HQ



GARY E. JOHNSON  
GOVERNOR

*State of New Mexico*  
**ENVIRONMENT DEPARTMENT**  
*Office of the Secretary*  
*Harold Runnels Building*  
1190 St. Francis Drive, P.O. Box 26110  
Santa Fe, New Mexico 87502-6110  
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PETER MAGGIORE  
SECRETARY

PAUL R. RITZMA  
DEPUTY SECRETARY

July 27, 2000

Elizabeth Withers  
NEPA Compliance Officer  
Los Alamos Area Office  
528 35<sup>th</sup> Street  
MS-A316  
Los Alamos, N.M. 87544

Dear Ms. Withers:

**RE: DRAFT ENVIRONMENTAL ASSESSMENT FOR WILDFIRE HAZARD REDUCTION AND FOREST HEALTH IMPROVEMENT PROGRAM AT LOS ALAMOS NATIONAL LABORATORY, LOS ALAMOS, NEW MEXICO; PREPARED BY DEPARTMENT OF ENERGY, LOS ALAMOS AREA OFFICE; JULY 6, 2000**

The following transmits New Mexico Environment Department (NMED) staff comments concerning the above-referenced Draft Environmental Assessment (DEA).

**A. Background**

In May 2000, The Cerro Grande Fire burned approximately 43,000 ac (17,200 ha) of land, of which approximately 7,500 ac (3,000 ha) were located within the Los Alamos National Laboratory (LANL) boundaries. The potential for regional and local wildfires poses a substantial risk to the current operational capabilities that ensure mission requirements are met at LANL. Consequently, there is a defined need to (1) reduce the risk of damage and injury to property, human life and health, and biological resources at LANL from high-intensity wildfires and (2) enhance forest health at LANL. This plan intends to address those concerns.

**B. General Comments**

The Cerro Grande Fire has significantly reduced the available Mexican Spotted Owl (MSO) habitat on the Pajarito Plateau. The Cerro Grande fire destroyed the majority of the suitable MSO habitat west and north of LANL in Pajarito, Water, Valle, Rendija, and Guaje Canyons (Figure 5, page 9).

The suitable MSO habitat at LANL is primarily limited to the mixed conifer/aspen vegetation zone. It should be noted that the extent of mixed conifer/aspen vegetation zone is limited to stringers in the western ends of LANL canyons (Page 5, Figure 3). These remnants of MSO

habitat will be critical for the survival of the MSO population at LANL (and the Pajarito Plateau) until severely damaged MSO habitat recovers. These mixed conifer/aspen stringers also provide habitat and migration corridors for other important species such as black bear.

### C. Specific Comments

#### 1. Page 16, Development of End-State Conditions:

The end-state conditions described may be appropriate for the Ponderosa Pine habitat or pinion pine/juniper habitats found at LANL but are not appropriate for the mixed conifer/aspen habitat.

The reduction of under story (removal of "ladder" fuels), reductions of canopy cover to 40-60 percent, separation of tree crowns, reduction of tree density, and reduction of ground fuels (MSO prey habitat & cover) all severely limit the suitability of MSO habitat. These end-state conditions, if applied to currently suitable or potentially suitable MSO habitat, would effectively eliminate that habitat as suitable or prevent potential habitat from attaining suitability in the future.

Recommendation: All mixed conifer habitat (suitable and potential MSO habitat) should not be treated and all treatments should be restricted to ponderosa pine or pinion pine/juniper habitat. This would provide protection for the MSO habitats without destroying them.

#### 2. Threatened and Endangered Species Protection Measures section; Page 21, Mexican Spotted Owl section:

The actions proposed for both core and buffer areas for MSO Areas of Environmental Interest (AEIs) within 380 m of explosives testing and firing sites are excessive and if applied to mixed conifer habitat would render it no longer suitable MSO habitat. Limiting treatments to 10 percent in historically occupied habitats may be excessive treatment considering that the Cerro Grande fire has severely reduced MSO habitat over the entire Pajarito Plateau.

There is no mention of limiting treatments in unoccupied MSO habitat. This indicates that all MSO habitats will be subject to treatments. Considering the limited post-fire MSO habitat distributions at LANL and on the Pajarito Plateau, this could result in severe reductions in available MSO habitat.

Recommendation: See Specific Comment number 1.

#### 3. Ecological Field Studies; page 23:

After noting the need for ecological studies of the effects of forestry treatments on local fauna and flora, the DEA states that these studies may be initiated based on need and funding (emphasis added). These post-treatment studies should be initiated based on need and should not be subject to future funding cuts.

Recommendation: The DOE should anticipate the need for these studies and should commit to allocating adequate funding for them.

Elizabeth Withers

July 27, 2000

Page 3

4. Environmental Consequences; page 42:

USFWS concurrence with DOE's determination that management measures described in the Habitat Management Plan may affect, but would not likely adversely affect listed species, may need to be revisited considering the large-scale impacts of the Cerro Grande fire on MSO habitat and the potential effects of this Wildfire Hazard Reduction and Forest Health Improvement Program on available MSO habitat.

5. Air Quality Issues:

The LANL area is currently in attainment for all National Ambient Air Quality Standards (NAAQS). The no burn alternative would be the preferred alternative for air quality related issues. If either of the Limited Burn or Burn alternatives is chosen, LANL must work with the Department's Air Quality Bureau and receive permits prior to conducting these burns. If the program is carried out as described in the DEA, unacceptable impacts to air quality should not occur.

We appreciate the opportunity to comment on this document. Please let us know if you have any questions on the above.

Sincerely,



Gedi Cibas, Ph.D.  
Environmental Impact Review Coordinator

NMED File No. 1381ER



GARY E. JOHNSON  
GOVERNOR

*State of New Mexico*  
**ENVIRONMENT DEPARTMENT**

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*Harold Runnels Building*  
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PETER MAGGIORE  
SECRETARY

PAUL R. RITZMA  
DEPUTY SECRETARY

November 21, 2000

Elizabeth Withers  
SEA Document Manager  
Los Alamos Area Office  
U.S. Department of Energy  
Los Alamos, N.M. 87544

Dear Ms. Withers:

**RE: SPECIAL ENVIRONMENTAL ANALYSIS (SEA) FOR THE DEPARTMENT OF ENERGY, NATIONAL NUCLEAR SECURITY ADMINISTRATION: ACTIONS TAKEN IN RESPONSE TO THE CERRO GRANDE FIRE AT LOS ALAMOS NATIONAL LABORATORY, LOS ALAMOS, N.M.; LOS ALAMOS AREA OFFICE, USDOE, SEPTEMBER 2000**

This transmits New Mexico Environment Department (NMED) staff comments concerning the above-referenced Special Environmental Analysis (SEA).

A. All best management practices (BMP's) should have a routine maintenance schedule referenced in the document. It is of utmost importance to maintain the integrity of the run-on/run-off controls at potential release sites (PRS's) located within the facility boundaries of Los Alamos National Laboratory (LANL). PRS's at LANL include solid waste management units as well as areas of concern.

Storm water monitoring should also occur at the higher priority PRS's to evaluate the effectiveness of the BMP's. Prevention of contaminant migration is required under LANL's current RCRA permit (Module II, § II.N Spills) administered by the New Mexico Environment Department's Hazardous Waste Bureau. In addition, LANL's Multi-Sector General Permit Storm Water Pollution Prevention Permit administered by the Environmental Protection Agency requires storm water monitoring. A contingency plan should also be developed to address those BMP's deemed ineffective by storm water monitoring.

B. LANL should develop contingency plan(s) that will address the potential impacts to downstream receptors from sediment deposition and use of contaminated ground and surface water (e.g., San Ildefonso, Cochiti Reservoir and agricultural). For example, contaminant migration resulting from erosion and floods and deposition of contaminated sediments may occur off-site and pose an unacceptable risk. The sediment deposited by the flood will need characterized and remedial action(s) options may be required.

Elizabeth Withers  
November 21, 2000

Page 2

C. On page 3-33, section 3.14, Human Health, LANL mentions that "storm water run-off monitoring indicate that concentrations of plutonium-239 and other radionuclides are below allowable concentrations for public drinking water". If a potential receptor drinks surface water this may be an acceptable comparison; however, there are other pathways/receptors that need to be addressed. For example, floods may deposit contaminated sediment on tribal lands used for agricultural or cultural purposes. In this case, the comparison to drinking water standards is not appropriate and other receptors/pathways need to be evaluated.

D. LANL should outline what actions were taken to protect production and monitoring wells (alluvial, intermediate and regional) from potential flooding as a result of the fire. All monitoring wells, moisture access tubes, etc. damaged by the fire or no longer in use need to be either repaired or plugged and abandoned as they may provide pathways for contaminated flood waters to the subsurface. If repairing or plugging and abandoning these wells did not occur immediately following the fire, LANL should submit a schedule and plan to do so.

E. The various engineered structures (e.g., Pajarito Canyon Flood Retention Structure and Los Alamos Canyon Low-Head Weir) may enhance groundwater recharge. This may occur during high flow events that transport large volumes of sediment and debris or as the outlet pipes are blocked and water ponds due to build up of sediment. Pajarito Canyon surface water currently contains low levels of high explosive compounds and storm water may pick up additional constituents that could adversely impact the ground water. LANL should install monitoring wells to evaluate recharge and potential impacts to the groundwater caused by these structures.

F. LANL should develop contingency plan(s) to remove sediment that settles out behind the engineered structures. Potentially hazardous and/or radioactively contaminated sediment may require characterization and proper disposal to minimize negative affects to human health and the environment.

G. LANL should indicate when the Pajarito Canyon Flood Retention Structure and Los Alamos Canyon Low-Head Weir will be removed after the threat of severe flooding has diminished.

H. The activities outlined above need to be funded separately to ensure that current environmental restoration and monitoring and surveillance projects are not delayed and/or not completed.

I. Regarding air quality, the SEA appears to assess only those impacts associated with emergency activities associated with the Cerro Grande Fire. We assume that a more detailed document addressing the region of influence (ROI) impacts of the fire is forthcoming. We also recommend that the report be released in the near future and address the following items:

- NEWNET and AIRNET monitoring data, such as radiological and particulate emissions data from the Jemez Pueblo.
- Lead and asbestos particulate emissions from LANL buildings and structures, both during and after the fire.
- Modeled PM10 exposure of citizens within the ROI.
- JAG and NMED air monitoring results.

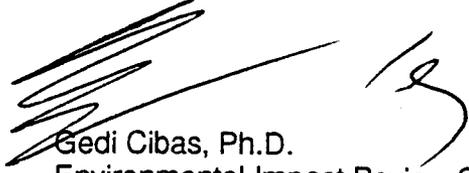
Elizabeth Withers  
November 21, 2000

Page 3

- Additional vehicular emissions data and monitored asbestos emissions data during demolition and rebuilding of LANL structures.

We appreciate the opportunity to comment on this document. Please let me know if you have any other questions on the above.

Sincerely,

A handwritten signature in black ink, appearing to be 'Gedi Cibas', written over a horizontal line.

Gedi Cibas, Ph.D.  
Environmental Impact Review Coordinator

NMED File No. 1404ER