

**New Mexico  
Environment  
Department-  
Hazardous Waste  
Bureau**

**Memo**

**To:** Gedi Cibas  
**From:** John Young  
**CC:** James Bearzi  
**Date:** 11/14/00  
**Re:** Special Environmental Analysis: Actions Taken in Response to the Cerro Grande Fire at LANL [Referenced by NMED file number: 1404 ER]

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 Los Alamos National Laboratory (LANL). In addition, storm water monitoring should 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 NMED's Hazardous Waste Bureau as well as their Multi-Sector General Permit Storm Water Pollution Prevention Permit administered by the Environmental Protection Agency.

LANL should identify contingency plan(s) that will address the potential impacts to down-stream receptors (e.g., San Ildefonso, Cochiti Reservoir, agricultural). Potential impacts that may result from erosion and floods as deposition of contaminated sediments may occur off-site and will need evaluated and a remedial action may be required.

On page 3-33, section 3.14, Human Health, LANL mentions that "storm water runoff monitoring indicate that concentrations of plutonium-239 and other radionuclides are below allowable concentrations for public drinking water". If a potential receptor were to drink the 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 that are used for agricultural or cultural purposes. Concentrations of contaminants within produce grown in these areas may pose an unacceptable risk due to plant uptake.

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.



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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 contains low-levels of high explosive compounds and may also pick up additional constituents that may adversely impact the ground water. LANL should install monitoring wells to evaluate recharge and potential impacts to the groundwater caused by these structures.

LANL should identify contingency plan(s) to remove sediment that is trapped behind the engineered structures. The sediment may be contaminated with hazardous and/or radioactive materials and may require remediation to minimize negative affects to human health and the environment.

LANL should indicate whether the Pajarito Canyon Flood Retention Structure will be removed after the threat of severe flooding has diminished.