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LANL  
NM0028355



**M E M O R A N D U M**

**TO:** Gedi Cibas, Program Support Bureau

**THROUGH:** Jim Piatt, Acting Chief, Surface Water Quality Bureau

**FROM:** Stephanie Kruse, Surface Water Quality Bureau

**SUBJECT:** EID File # 603 ER: Environmental Assessment for the proposed Materials Science Lab, LANL

**DATE:** January 22, 1991

Staff of the Surface Water Quality Bureau have completed review of this environmental assessment. Under the proposed project, LANL will construct and operate a laboratory facility within TA-3 on a 7-acre disturbed site immediately above the north end of Mortandad Canyon. The site is covered with fill excavated from the construction of adjacent facilities. This fill material will be removed to permit footing the new laboratory in bedrock. In addition, an access road will be relocated to cross Mortandad Canyon on concrete-faced fill; a culvert through the fill will provide for water flow.

No threatened or endangered species are recorded in the area. The main aquifer is more than 850 feet below the surface, and no adverse impacts from the project are expected to this aquifer. Surface water concerns are:

*3rd waste stream  
pipeline*

a. The new facility will use existing outfalls for two liquid waste streams: Sanitary waste water will be drained into the existing TA-3 sanitary sewer system; and radioactive and other liquid wastes not controlled under RCRA will be drained into the Radioactive Liquid Waste System for treatment at the radioactive liquid waste treatment facility at TA-50. These waste streams must be included in LANL's NPDES permit No. NM0028355 before discharge. When characterization of the waste streams and paths of discharge has been completed, this information should be provided to EPA and to EID so that these waste streams can be permitted in a timely manner.

b. Surface flow in the canyon consists of "discharges from cooling towers...and runoff of precipitation from parking lots and other paved areas near the canyon". All existing outfalls in TA-3 discharge to Mortandad Canyon below the proposed facility.

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Construction activities on site and in the canyon can adversely impact the watercourse in several ways. Management practices to control these impacts should be utilized throughout the construction period. For example, removal of vegetative cover from the canyon bottom and slopes during relocation of the road across the canyon should be minimized. Fill removed from the site should be disposed of in a manner that will prevent its being carried into Mortandad Canyon or other watercourses in the area during storm events and should be adequately stabilized by vegetation or other means. Runoff caused by construction activities should be managed to prevent erosion and to control the kinds and levels of pollutants to Mortandad Canyon.

EPA now requires that these and other, similar impacts be addressed under the recently published (November 16, 1990) Storm Water Regulations. Under these regulations, storm water discharges from construction activities must be permitted under the NPDES program. LANL must make application to EPA for a construction permit at least 90 days before construction is to commence. The application information should also be supplied to EID for NPDES permit certification purposes. Application for this permit should include measures to address the concerns raised above, other potential adverse impacts associated with runoff generated by construction activities, and mitigation measures to control storm water runoff after construction has been completed and during operation of the facility.