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LANL (7A-3) TA-67 Sandia Canyon LA County Landfill(11)

MEMORANDUM

To: Steve Yanicak, LANL POC, DOE OB
From: Ralph Ford-Schmid, DOE OB *RFS*
Date: December 5, 1997
Subject: **Los Alamos County Landfill erosion, field notes from November 26, 1997 meeting and site tour**

Background:

On November 12, 1997, Barbara Hoditschek, Surface Water Quality Bureau (SWQB), Alice Mayer, DOE OB, and myself visited the Sandia Canyon wetlands. At that time, we observed that the stream channel had eroded the north bank of the stream course and had undermined the existing silt fence. At the same location, erosion resulting from the failure of an existing stormwater retention pond had exposed an apparent refuse cell of the Los Alamos County Landfill.

As a result of these observations, the SWQB notified Los Alamos County that they might be in violation of 20 NMAC 6.2, Section 2201, Disposal of Refuse in a Watercourse, and that a notification of discharge per Section 1203 of 20 NMAC might also be required. The SWQB concurrently notified the Solid Waste Bureau.

After leaving the site, I contacted Garry Allen, formerly of LANL Environmental Restoration, Field Unit 1, to determine if there were any PRSs associated with the Los Alamos County Landfill. He assured me that the county has been the sole operator that disposed of solid waste at the landfill. He suggested that I contact Terry Rust, currently of Field Unit 1, so that he would be aware of any issues and/or remediation efforts in the wetlands that might impact the Sandia Canyon investigation.

The landfill is listed in the HSWA Module of the LANL RCRA permit, and is identified as SWMU 61-005. It has been proposed for Deferred Action because it is a regulated active landfill. All LANL refuse entering the landfill must contain no radioactive, mixed, or hazardous waste and all demolition refuse must be certified to contain no asbestos (RFI Work Plan for OU 1114). Samples from the landfill sediments along the north side of Sandia Canyon have not been collected and analyzed (Sandia Canyon Sampling and Analysis Plan, DRAFT, November 26, 1997).

LANL / bon-HSBA / wqcc



As a result of our observations on November 12, a meeting and site tour was held on November 26, 1997 and is described below:

November 26 meeting and site tour attendees:

Vince Valdez, Los Alamos County Landfill
Terry Rust, Environmental Restoration, FU 1
Ernie Guitierrez, NMED, Solid Waste Bureau
Holly Wheeler-Benson, LANL, ESH-19
Alex Puglesi, LANL, ESH-19
Ralph Ford-Schmid, NMED, DOE OB
Mike Thomlinson, Los Alamos County Landfill

Notes:

Mike Thomlinson stated that the county had operated the landfill in Sandia Canyon since 1974 and was responsible for all materials disposed of in the landfill. The County's records indicate that the waste pile that had eroded was comprised of construction rubble and any exposed plastic debris was heavy gage, construction related rubble. I informed Mr. Thomlinson that regardless of the source, the SWQB considered the plastic as refuse, and should not be allowed to enter the watercourse.

Temporary actions taken at the site:

- 1) The original silt fence that was undermined by high velocity flows in the Sandia Canyon stream has been replaced by a new silt fence installed at the toe of the eroded waste pile. The new silt fence appears to be installed properly and if not compromised by further erosion from the stream channel should prevent excessive sediment transport into the watercourse.
- 2) The stormwater retention pond above the site that when breached, resulted in the erosion of the pile from above, has been repaired. The capacity of the pond appears to be adequate to prevent further erosion of the pile until permanent measures are implemented.

Further actions needed:

- 1) The exposed soils on the eroded pile need to be stabilized. Mr. Thomlinson stated that the county will apply polymer and seed to the slope to stabilize the soil.
- 2) The bank of the stream, at the toe of the slope, should be armored to prevent further erosion of the slope by high velocity flows. Mr. Thomlinson indicated that a plan will be prepared to address this issue. I informed Mr. Thomlinson that prior to initiating any work in the stream that the county should apply to the Corps of Engineers and the State for a 404 permit and a 401 certification.

- 3) The county should develop permanent solutions to run-on and run-off controls at the landfill. A Stormwater Pollution Prevention Plan should be developed and fully implemented to address these issues.

Regulatory actions taken:

The Solid Waste Bureau issued a citation to the county for failure to control run-on and run-off at the landfill.

Recommendations:

The Sandia Wetlands Working Group should be revitalized. The group identified high velocity flows from the highly impermeable TA-3 area as a root cause of stream bank erosion and stream incision in Sandia Canyon. Corrective actions, identified by the team have yet to be implemented. In addition to armoring the banks of the stream at the head of the wetlands, measures to reduce peak run-off should be investigated. Stormwater detention/retention ponds or Stormceptor® (stormwater quality improvement devices) , to control and mitigate TA-3 discharges, may be necessary to reduce the erosive potential of these high velocity flows.

cc: John Parker, Chief, NMED, DOE OB
Benito Garcia, Chief, NMED, HRMB
Marcy Leavitt, Chief, NMED, GWQB
B. Hoditschek, NMED, SWQB
Ernie Gutierrez, NMED, SWB