

LA-UR-11-11152

Approved for public release; distribution is unlimited.

Title: Los Conchas Storm Water Monitoring

Author(s): Katzman, Danny

Intended for: NMED
NMED
Remediation
Reading Room
Consent



Disclaimer:

Los Alamos National Laboratory, an affirmative action/equal opportunity employer, is operated by the Los Alamos National Security, LLC for the National Nuclear Security Administration of the U.S. Department of Energy under contract DE-AC52-06NA25396. By acceptance of this article, the publisher recognizes that the U.S. Government retains nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or to allow others to do so, for U.S. Government purposes. Los Alamos National Laboratory requests that the publisher identify this article as work performed under the auspices of the U.S. Department of Energy. Los Alamos National Laboratory strongly supports academic freedom and a researcher's right to publish; as an institution, however, the Laboratory does not endorse the viewpoint of a publication or guarantee its technical correctness.

Las Conchas Stormwater Monitoring

LANL - Post-Las Conchas Fire Stormwater Monitoring Plan

Watershed	Gage	Gage Name	Las Conchas Affected?	SSC	TAL Metals (F/F)	Cyanide	Gross Alpha	Gross Beta	Gamma Spec	ISO Pu	ISO U	ISO Am	Sr-90	PCB Congener	HE	Dioxins/Furans
Los Alamos/Pueblo	E099	Guaje Canyon at SR 502	Y	All	All	All	All	NR	All	All	All	All	All	All	All	NR
Los Alamos/Pueblo	E026	Los Alamos below Ice Bank	Y	All	All	All	All	NR	All	All	All	All	All	All	All	NR
Los Alamos/Pueblo	E030	Los Alamos above DP Canyon	Y	4+	4+	4+	4+	NR	4+	4+	4+	NR	4+	4+	NR	4+
Los Alamos/Pueblo	E042.1	Los Alamos above low-head weir	Y	4+	4+	4+	4+	All	4+	4+	4+	4+	4+	4+	NR	4+
Los Alamos/Pueblo	E050.1	Los Alamos below low-head weir	Y	All	All	All	All	All	All	All	All	All	All	All	All	NR
Los Alamos/Pueblo	E109.9	Los Alamos above Rio Grande	Y	All	All	All	All	All	All	All	All	All	All	All	All	NR
Pajarito	E240	Pajarito Canyon below SR-501	Y	All	All	All	NR	NR	All	All	All	All	All	All	All	All
Pajarito	E243	Pajarito Canyon above Two Mile Canyon	Y	4	4	4	4	NR	4	4	4	4	4	4	4	4
Pajarito	E244	Pajarito Canyon above Two Mile Canyon at mouth	Y	4	4	4	4	NR	4	4	4	4	4	4	4	4
Pajarito	E250	Pajarito Canyon above SR 4	Y	All	All	All	NR	NR	All	All	All	All	All	All	All	All
Water/Cañon de Valle	E252	Water above SR-501	Y	All	All	All	All	NR	All	All	All	All	All	All	All	NR
Water/Cañon de Valle	E252.5	Water Canyon above S-Site Canyon	Y	4	4	4	4	NR	4	4	4	4	4	4	4	4
Water/Cañon de Valle	E253	Cañon de Valle above SR-501	Y	All	All	All	All	NR	All	All	All	All	All	All	All	NR
Water/Cañon de Valle	E256	Cañon de Valle below MDA-P	Y	4	4	4	4	NR	4	4	4	4	4	4	4	4
Water/Cañon de Valle	E262	Cañon de Valle at mouth	Y	4	4	4	4	NR	4	4	4	4	4	4	4	4
Water/Cañon de Valle	E265	Water Canyon below SR 4	Y	All	All	All	All	NR	All	All	All	All	All	All	All	NR
Frijoles	E350	Rio de los Frijoles at Bandelier	Y	All	All	All	All	NR	All	All	All	All	All	All	All	NR

LANL - Other Canyons Stormwater Monitoring

Los Alamos/Pueblo	E038	DP above TA-21	N	4+	4+	NR	4+	NR	4+	4+	4+	NR	4+	4+	NR	4+
Los Alamos/Pueblo	E039.1	DP below grade control structure	N	4+	4+	NR	4+	NR	4+	4+	4+	NR	4+	4+	NR	4+
Los Alamos/Pueblo	E040	DP above Los Alamos Canyon	N	4+	4+	NR	4+	NR	4+	4+	4+	NR	4+	4+	NR	4+
Los Alamos/Pueblo	E055	Pueblo above Acid	N	4+	4+	NR	4+	NR	4+	4+	4+	NR	4+	4+	NR	4+
Los Alamos/Pueblo	E055.5	South Fork of Acid Canyon	N	4+	4+	NR	4+	NR	4+	4+	4+	NR	4+	4+	NR	4+
Los Alamos/Pueblo	E056	Acid above Pueblo	N	4+	4+	NR	4+	NR	4+	4+	4+	NR	4+	4+	NR	4+
Los Alamos/Pueblo	E059	Pueblo above WWTP	N	4+	4+	NR	4+	NR	4+	4+	4+	NR	4+	4+	NR	4+
Los Alamos/Pueblo	E060.1	Pueblo below grade control structure	N	4+	4+	NR	4+	NR	4+	4+	4+	NR	4+	4+	NR	4+
Los Alamos/Pueblo	E070	Bayo Canyon below TA-All	N	4	4	NR	4	NR	NR	4	4	4	4	4	NR	4
Sandia	E123	Sandia Canyon below Wetland	N	4	4	NR	4	NR	4	4	4	4	4	4	NR	4
Sandia	E125	Sandia Canyon above SR 4	N	4	4	NR	4	NR	4	4	4	4	4	4	NR	4
Mortandad	E201	Mortandad Canyon above Ten Site Canyon	N	4	4	NR	4	NR	4	4	4	4	4	4	NR	4
Mortandad	E201.5	Ten Site Canyon at mouth	N	4	4	NR	4	NR	4	4	4	4	4	4	NR	4
Mortandad	E204	Mortandad Canyon at LANL boundary	N	4	4	NR	4	NR	4	4	4	4	4	4	NR	4
Mortandad	E230	Cañada del Buey at White Rock	N	4	4	NR	4	NR	4	4	4	4	4	4	NR	4
Pajarito	E246	Three Mile Canyon at TA-18	N	4	4	NR	4	NR	4	4	4	4	4	4	NR	4
Water/Cañon de Valle	E252.8	S-Site Canyon at mouth	N	4	4	NR	4	NR	4	4	4	4	4	4	NR	4
Water/Cañon de Valle	E267	Potilla Canyon near White Rock	N	4	4	NR	4	NR	NR	4	4	4	4	4	NR	4
Ancho	E275	Ancho Canyon below North Fork	N	4	4	NR	4	NR	4	4	4	4	4	4	NR	4
Chaquehul	E338	Chaquehul Canyon South Site	N	4	4	NR	4	NR	NR	4	4	4	4	4	NR	4
Chaquehul	E340	Chaquehul Canyon Main Site	N	4	4	NR	4	NR	NR	4	4	4	4	4	NR	4

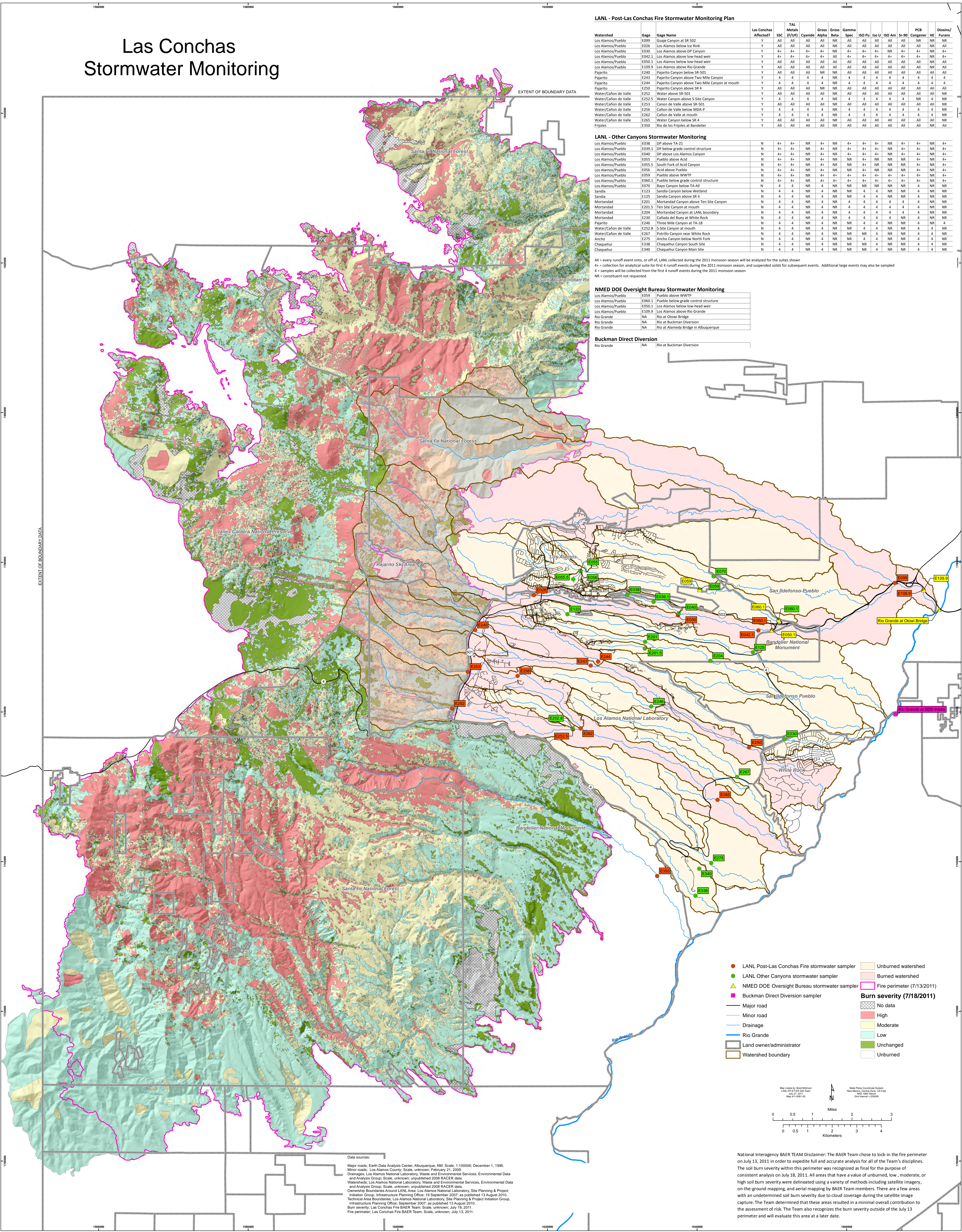
All = every runoff event onto, or off of, LANL collected during the 2011 monsoon season will be analyzed for the suites shown
 4+ = collection for analytical suite for first 4 runoff events during the 2011 monsoon season, and suspended solids for subsequent events. Additional large events may also be sampled
 4 = samples will be collected from the first 4 runoff events during the 2011 monsoon season
 NR = constituent not requested

NMED DOE Oversight Bureau Stormwater Monitoring

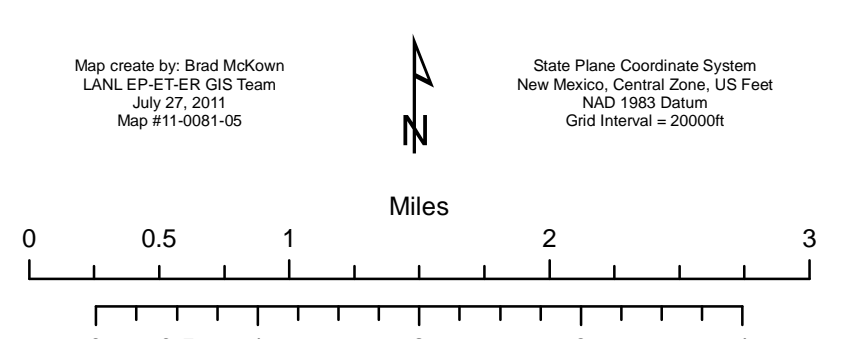
Los Alamos/Pueblo	E059	Pueblo above WWTP	
Los Alamos/Pueblo	E060.1	Pueblo below grade control structure	
Los Alamos/Pueblo	E109.9	Los Alamos above Rio Grande	
Rio Grande	NA	Rio at Otowi Bridge	
Rio Grande	NA	Rio at Buckman Diversion	
Rio Grande	NA	Rio at Alameda bridge in Albuquerque	

Buckman Direct Diversion

Rio Grande	NA	Rio at Buckman Diversion	
------------	----	--------------------------	--



- LANL Post-Las Conchas Fire stormwater sampler
- LANL Other Canyons stormwater sampler
- ▲ NMED DOE Oversight Bureau stormwater sampler
- Buckman Direct Diversion sampler
- Major road
- Minor road
- Drainage
- Rio Grande
- Land owner/administrator
- Watershed boundary
- Unburned watershed
- Burned watershed
- Fire perimeter (7/13/2011)
- Burn severity (7/18/2011)
- No data
- High
- Moderate
- Low
- Unchanged
- Unburned



Data sources:
 Major roads: Earth Data Analysis Center, Albuquerque, NM. Scale: 1:100,000; December 1, 1995.
 Minor roads: Los Alamos County. Scale: unknown; February 21, 2009.
 Drainages: Los Alamos National Laboratory, Waste and Environmental Services, Environmental Data and Analysis Group. Scale: unknown; unpublished 2008 RACER data.
 Watersheds: Los Alamos National Laboratory, Waste and Environmental Services, Environmental Data and Analysis Group. Scale: unknown; unpublished 2008 RACER data.
 Ownership Boundaries: Los Alamos National Laboratory, Site Planning & Project Initiation Group, Infrastructure Planning Office. 19 September 2007, as published 13 August 2010.
 Technical Area Boundaries: Los Alamos National Laboratory, Site Planning & Project Initiation Group, Infrastructure Planning Office. September 2007, as published 13 August 2010.
 Burn severity: Las Conchas Fire BAER Team. Scale: unknown; July 16, 2011.
 Fire perimeter: Las Conchas Fire BAER Team. Scale: unknown; July 13, 2011.

National Interagency BAER TEAM Disclaimer: The BAER Team chose to lock-in the fire perimeter on July 13, 2011 in order to expedite full and accurate analysis for all of the Team's disciplines. The soil burn severity within this perimeter was recognized as final for the purpose of consistent analysis on July 18, 2011. All areas that have a value of unburned, low, moderate, or high soil burn severity were delineated using a variety of methods including satellite imagery, on-the-ground mapping, and aerial mapping by BAER Team members. There are a few areas with an undetermined soil burn severity due to cloud coverage during the satellite image capture. The Team determined that these areas resulted in a minimal overall contribution to the assessment of risk. The Team also recognizes the burn severity outside of the July 13 perimeter and will evaluate this area at a later date.