Update on

Multi-Sector General Storm Water Permit

NMED Order and FFCA/AO Requirements

March 16, 2004

Regulatory Enforcement Trends Regarding Water Quality --

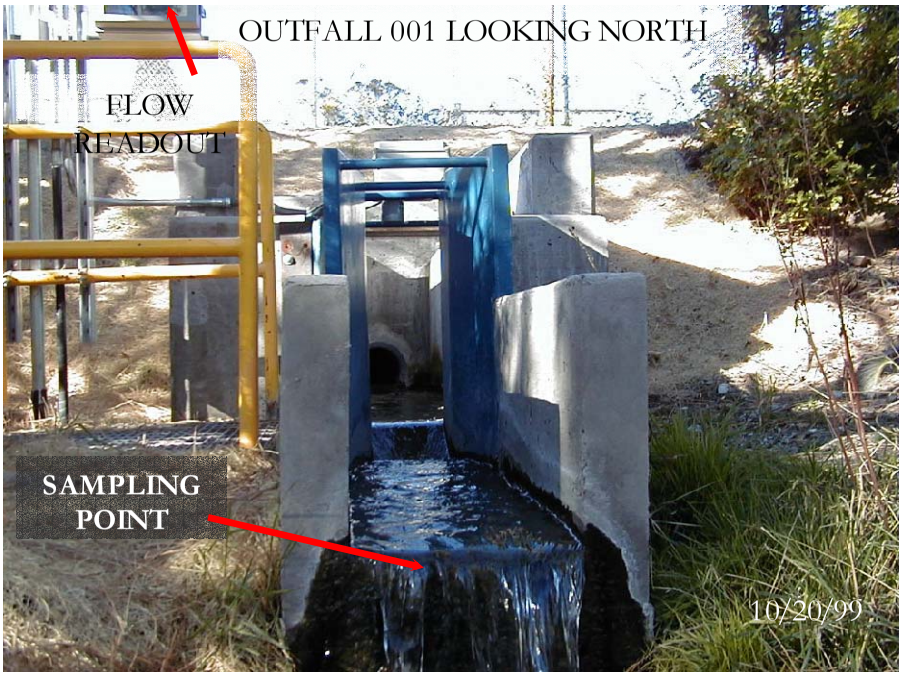
- Regulatory emphasis is shifting from point source discharges from treatment facilities to storm water discharges from operating facilities, construction sites, and SWMUs.
- N.M. Stream Standards are continuing to become more stringent and are directly enforceable by NMED.
- Regulatory agencies continue to look towards new and advanced analytical methods (i.e. PCBs, perchlorate, etc.) to measure contaminants to determine enforcement actions.

Point Source Discharges from Treatment Facilities --

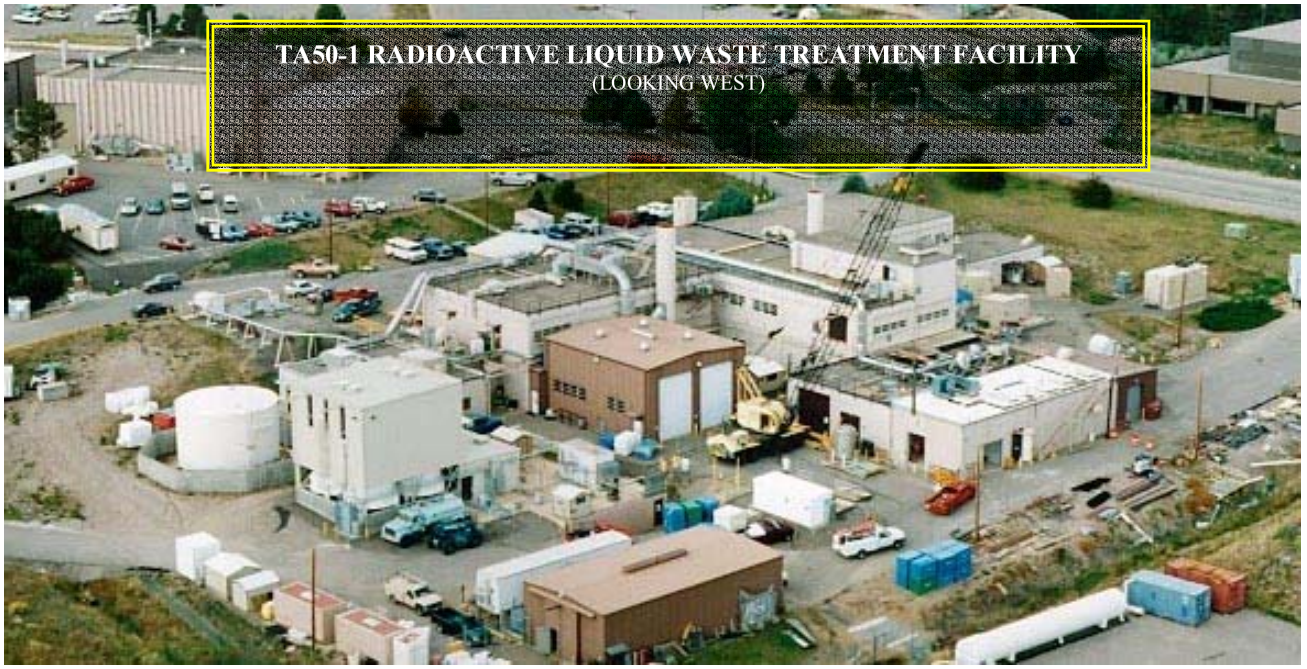
During 1990s and early 2000s, the Laboratory made major investments in treatment facility upgrades

- Waste Stream Characterization
- Waste Acceptance Criteria (WACs)
- Outfall Reduction (141 to 20)
- Sanitary Treatment Plant Consolidation (9 to 1)
- New HE Treatment Plant
- Upgrades to Cooling Towers
- Upgrades to TA-50 RLWTF

LOS ALAMOS NATIONAL LABORATORY
NPDES PERMIT No. NM0028355
OUTFALL 13S



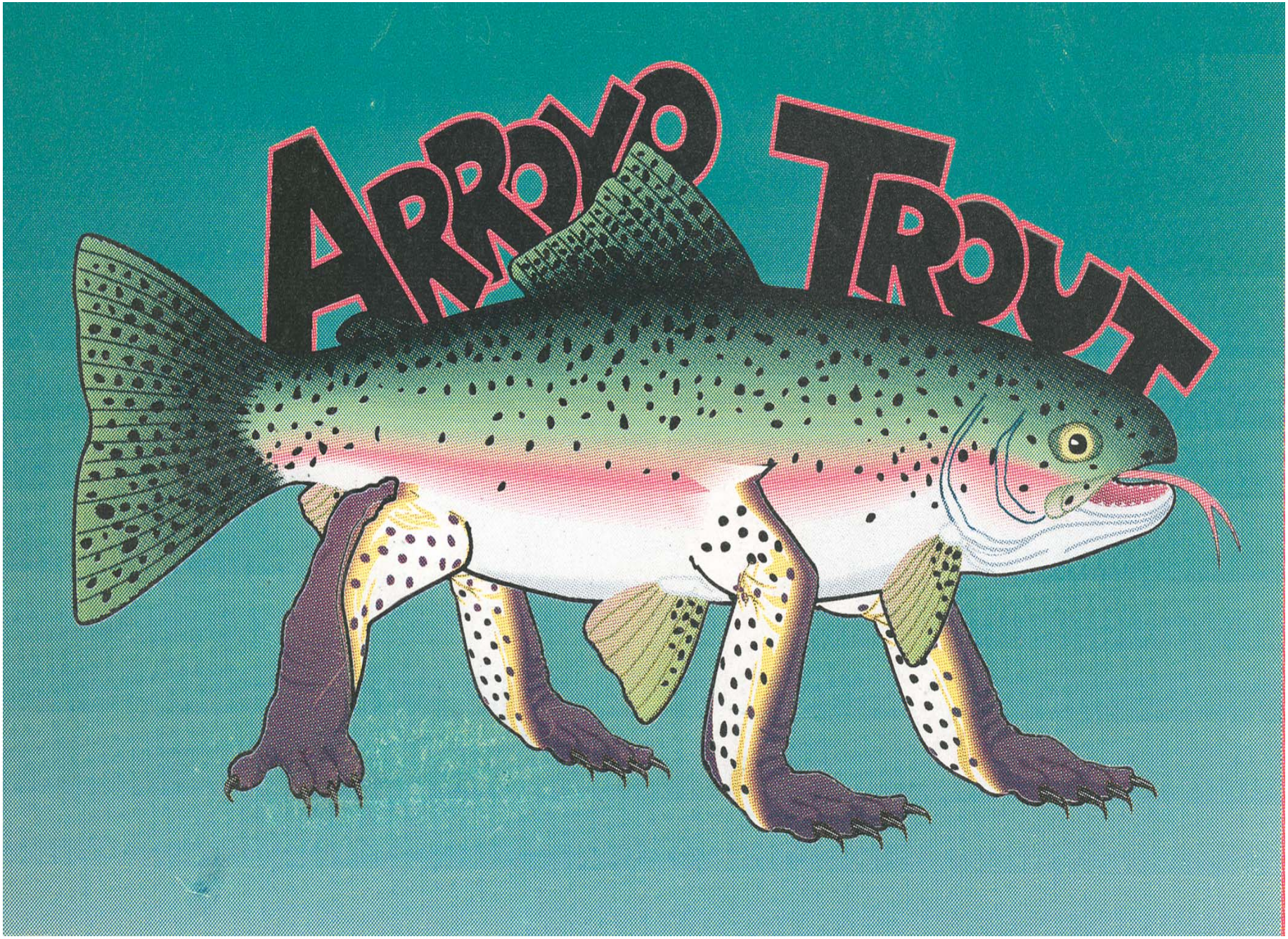
LOS ALAMOS NATIONAL LABORATORY
NPDES PERMIT No. NM0028355
OUTFALL 051



Triennial Review of N.M. Stream Standards N.M. Water Quality Control Commission, Feb. 24 - March 4, 2004

Laboratory Issues and Testimony

- Application of chronic or acute criteria for aquatic life to emphemeral streams (storm water flows).
- Number of samples collected to establish standards verses enforcement.
- Approval process for new analytical methods and consistent application across the state.


ARROYO TROUT

Multi Sector General Storm Water Permit Industrial Activities at the Laboratory --

Conventional Industrial Activities (Seven Sectors)

- **Asphalt Batch Plant**
- **Primary Metals Work**
- **Hazardous Waste Treatment, Storage, and Disposal Facilities**
- **Landfills and Land Application Sites**
- **Steam Electric Power Generating**
- **Land Transportation and Warehousing**
- **Metals Fabrication**

Solid Waste Management Units

- **Approx. 320 SWMUs**

Multi Sector General Storm Water Permit

NMED Order and FFCA/AO Requirements --

Conventional Industrial Activities (MSGP only)

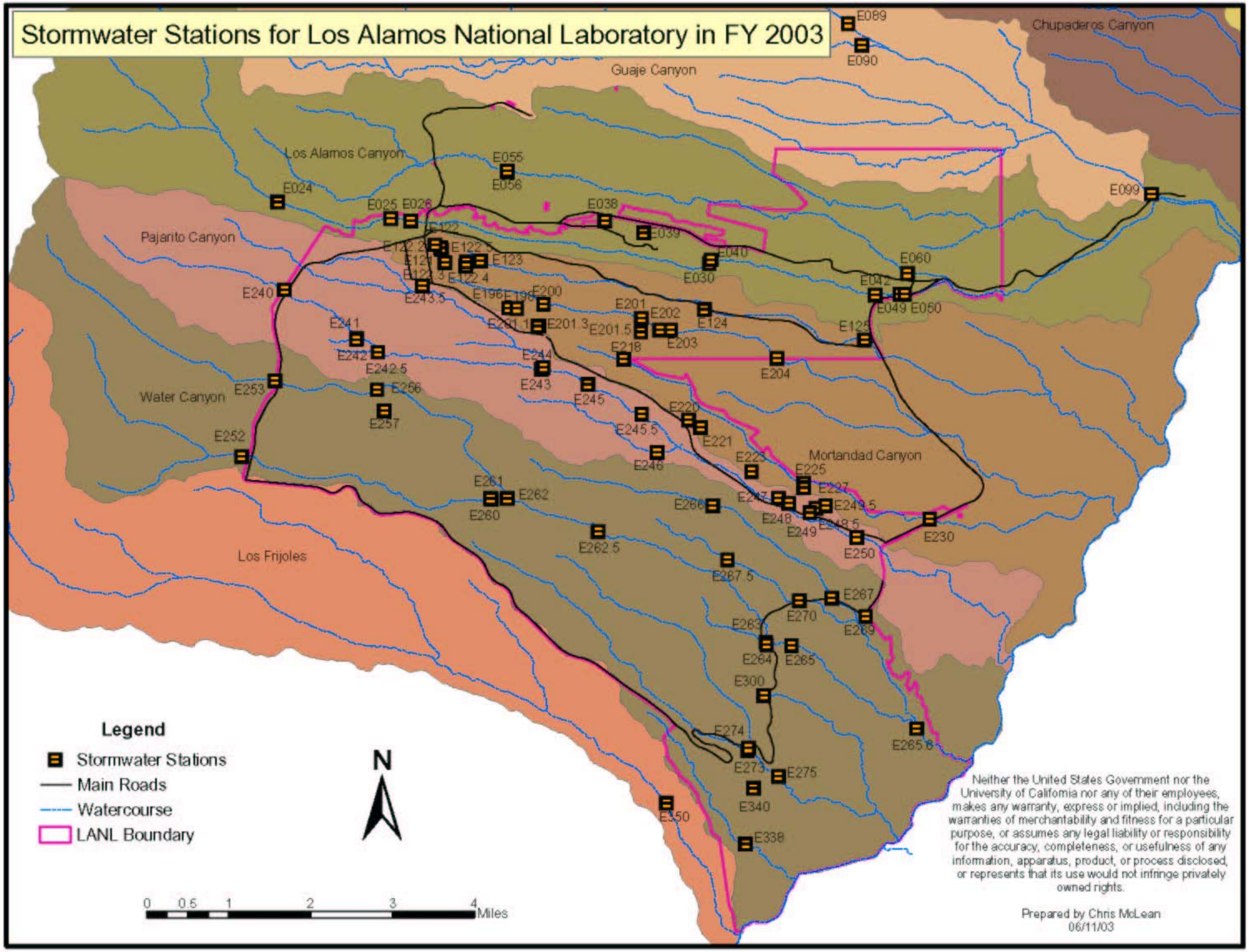
- 18 SWPP Plans updated annually
- 20 Gaging Stations operated and maintained
- Quarterly BMP inspection and maintenance
- DMRs submitted to EPA and NMED

Watershed-Based Monitoring (NMED Order and FFCA/AO)

- 1 Storm Water Monitoring Plan updated annually
- 58 Gaging Stations operated and maintained
- DMRs submitted to EPA and NMED (?)
- Corrective actions (?)

SWMU-Specific Monitoring (NMED Order and FFCA/AO)

- 1 SWPP Plan covering approx. 320 SWMUs
- 20 to 40 SWMUs originally proposed in FY04 (now 62)
- Quarterly BMP inspection and maintenance
- DMRs submitted to EPA and NMED (?)
- Corrective actions (?)

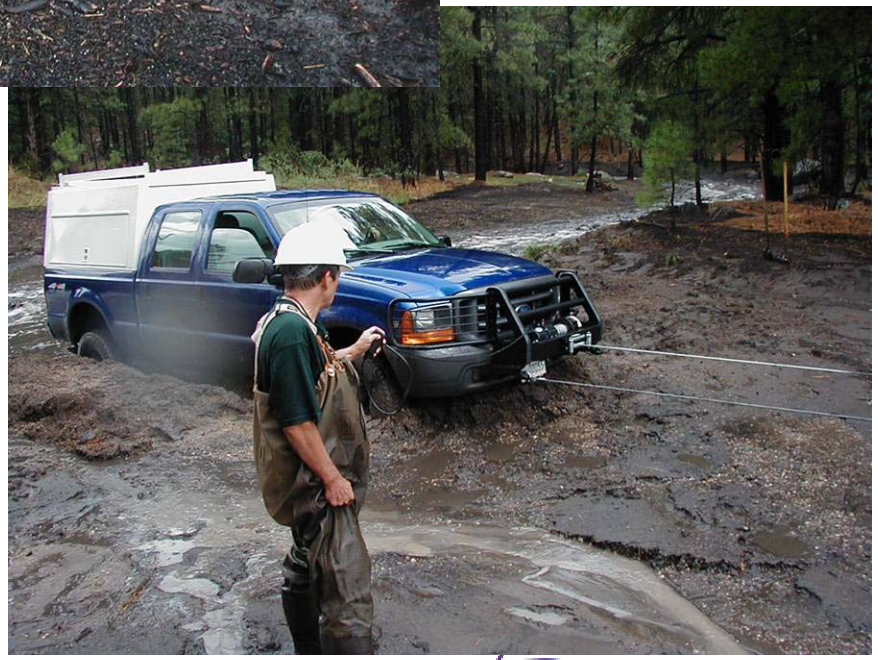

Stormwater Stations for Los Alamos National Laboratory in FY 2003
Guaje Canyon
Chupaderos Canyon
Los Alamos Canyon
Pajarito Canyon
Water Canyon
Mortandad Canyon
Los Frijoles
Legend
Stormwater Stations
Main Roads
Watercourse
LANL Boundary
N
0 0.5 1 2 3 4 Miles
Neither the United States Government nor the University of California nor any of their employees, makes any warranty, express or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.
Prepared by Chris McLean
06/11/03

Monitoring at Conventional Industrial Site

Flow Event in Ephemeral Drainage

Severe flooding in canyons

Safety issues are a concern

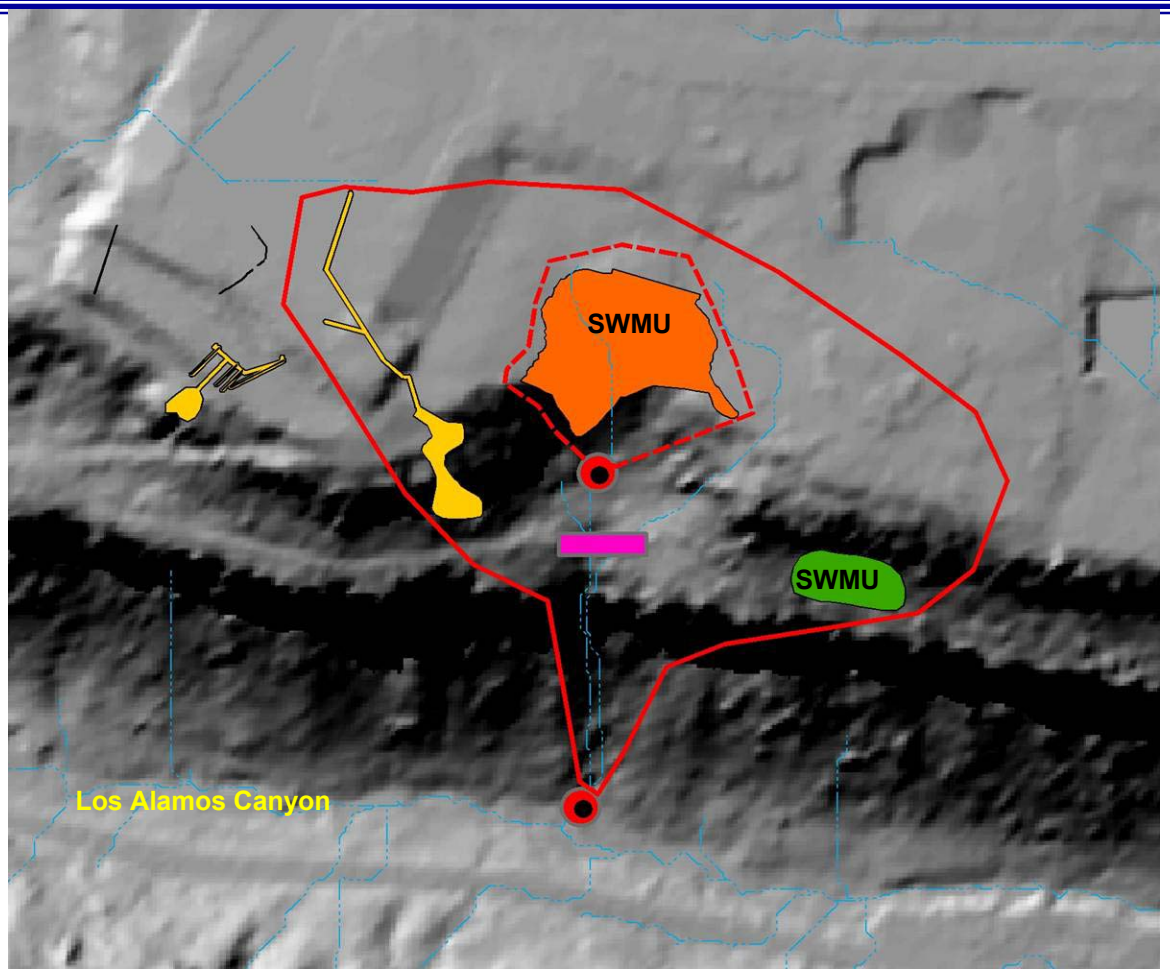


Create Stormwater Management Areas (SMAs)

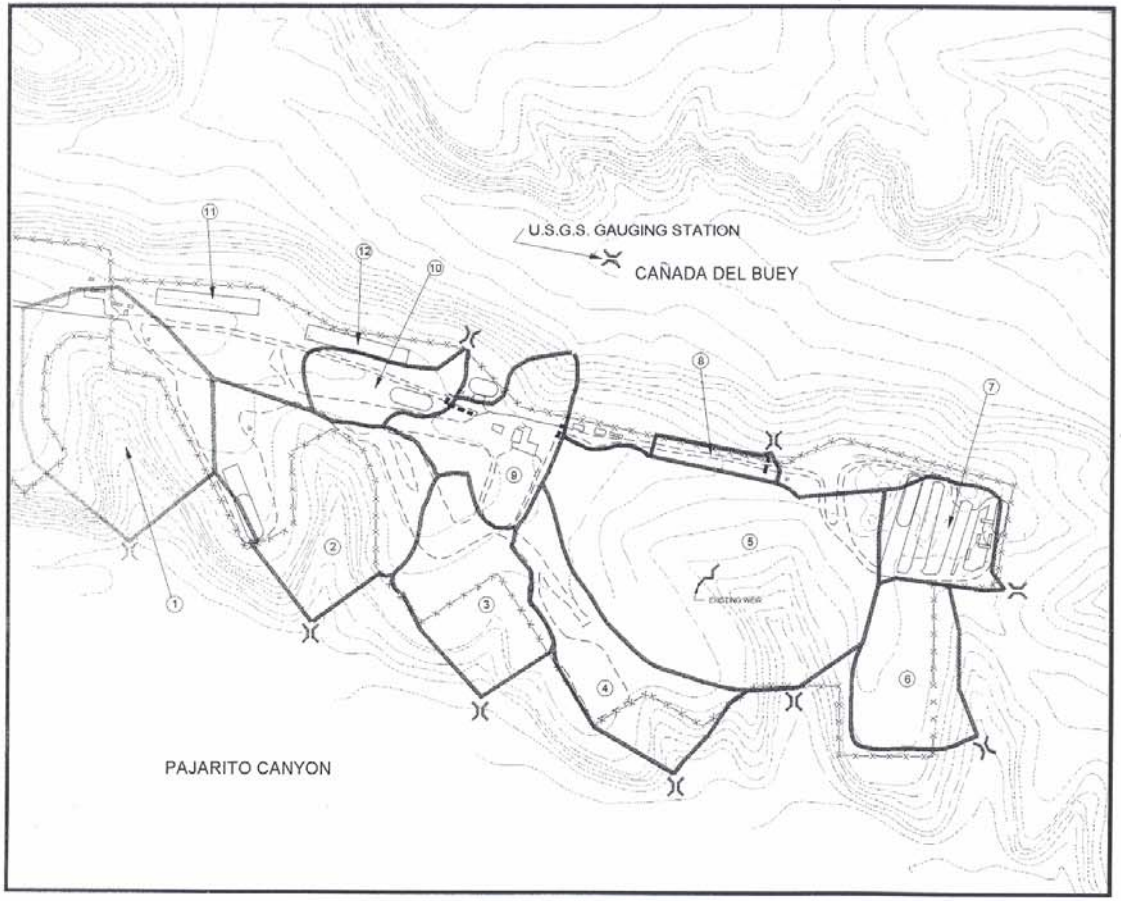
Erosion Scores

- = 40-50
- = 50-60
- >60
- Proposed Monitoring Location
- BMP Installation
- Site Hydrology

Conceptual only



TA-54 AREA G, STORM WATER MONITORING SITES



ACTIVITY AREAS

1 ACCESS TO "OLD AREA G"
2 MIXED WASTE PAD.
MIXED TRITIUM STORAGE.
3 MESON SHAFT DISPOSAL.
4 TRITIUM SHAFT DISPOSAL
5 OLD PIT AREA &
PCB DISPOSAL.
6 TRU-PAD REMEDIATION
PROJECT STORAGE AREA.
7 TRU PAD REMEDIATION
PROJECT.
8 ROAD WAY.
9 SHAFT DISPOSAL.
10 TRU FRP/DRUM DOME
STORAGE.
11 PIT 38 (CONSTRUCTION
PENDING).
12 PIT 31 RADIOACTIVE
ASBESTOS PIT.

Multi Sector General Storm Water Permit Future Outlook --

- Laboratory has requested an FFCA/AO to bridge the gap until individual storm water permit is developed for SWMUs.
- Laboratory has requested that storm water monitoring requirements be removed from NMED Order to avoid dual regulation.
- Approx. 75 gaging stations required for Conventional and Watershed-Based Monitoring.
- Approx. 160 sampling devices required for 320 SWMUs.
- Approx. 1200 inspections required annually.
- Monitoring results to drive corrective actions (BMPs and clean-ups).