

## Lab Groundwater Cleanup Stalled As Plutonium Pit Production Expands

As late as the late 1990s, the Los Alamos National Laboratory (LANL) was falsely [claiming](#) that groundwater contamination was impossible because the underlying volcanic tuff is “impermeable,” unscientifically ignoring the complex web of underground seismic fractures. The Lab even went so far as to ask for a waiver from the New Mexico Environment Department’s (NMED’s) groundwater monitoring requirement, which NMED fortunately denied. Today, extensive groundwater contamination has been identified that LANL and the Department of Energy (DOE) are failing to clean up. This will become an increasingly important issue as expanding nuclear weapons production is prioritized over clean up and New Mexico grows increasingly arid.

Cleanup funding by the DOE Office of Environmental Management is currently being cut to \$280 million. In contrast, funding for the Lab’s nuclear weapons program, which caused the mess to begin with, has more than doubled over the last decade to \$5 billion annually. This is mostly driven by

*A 2004 LANL hydrogeologic report explicitly stated, “Future contamination at additional locations is expected over a period of decades to centuries as more of the contaminant inventory reaches the water table.” This demands comprehensive cleanup at LANL that permanently protects irreplaceable groundwater resources for future generations.*

expanded production of plutonium “pit” bomb cores for new-design nuclear weapons. LANL and DOE plans for Lab cleanup have always been cleanup on the cheap, which is to “cap and cover” some half-million cubic yards of radioactive and toxic wastes, leaving them permanently buried in unlined pits and trenches as a perpetual threat to groundwater.

But now even this inadequate cleanup may be under threat. The DOE Assistant Secretary of Environment Management recently announced that his Office’s name would be changed to “The Office of Nuclear Restoration and Revitalization.” This aligns with Trump’s executive orders promoting the third or fourth self-proclaimed “renaissance” of nuclear energy, this time likely involving massive data centers and artificial intelligence. This will be energy and water intensive, no doubt further deprioritizing comprehensive cleanup.

### Chromium Groundwater Contamination at LANL

In February 2026 the New Mexico Environment Department issued Administrative Compliance Orders and civil penalties for violations of groundwater standards concerning a massive hexavalent chromium plume. The Lab had been ineffectively remediating the mile-long chromium plume ever since it was first discovered in 2004. Hexavalent chromium is a highly toxic, carcinogenic compound that if inhaled or ingested can cause lung cancer, nasal ulcers, skin irritation, and organ damage. It is best known as the contaminant of concern in the Oscar-winning movie *Erin Brocovich*. NMED’s assessed a total of \$15.8 million in civil penalties and is requiring the Department of Energy to submit a revised work plan and schedule for approval.

From 1956 to 1972, the Lab used water containing potassium dichromate, with chromium in its hexavalent form, as a corrosion inhibitor in cooling towers. The contaminated water was discharged untreated into Sandia Canyon, releasing as much as 160,000 pounds of potassium dichromate. In 2004, samples from a newly constructed monitoring well exceeded the groundwater standard of 50 micrograms per liter of water. Over a 3-year period ending in November 2022, LANL extracted and

treated more than 400 million gallons of water, but only removed 680 pounds of chromium. At this rate it will take more than a century to cleanup LANL's threat to regional groundwater.

Over the past twenty years, the Lab has installed over 30 extraction, injection and monitoring wells to remediate the chromium plume. For a few years, the Lab extracted contaminated water from the middle of the plume and reinjected treated water near its boundary, in theory creating a hydraulic wall preventing migration onto San Ildefonso Pueblo. But because the Lab did not know the depth and extent of the plume, NMED was concerned that reinjection would push contamination and ordered it stopped. In November 2025, the chromium plume was confirmed for the first time to have crossed the Pueblo boundary, with contamination levels exceeding State groundwater standards.

## **RDX Groundwater Contamination**

Groundwater contamination under LANL cries for greater attention and regulation given limited resources in an increasingly arid state. Chemicals used to make high explosives for nuclear weapons have also reached the regional groundwater aquifer. The DOE Office of Environmental Management at LANL started work in 2015 on a plan to clean up a decades-old concentration of RDX (Royal Demolition Explosive). Contaminated surface soil was removed but the RDX groundwater plume 1,000 feet below remains untreated. Several RDX standard exceedances are detected every year and repeatedly flagged by NMED. However, DOE's position is to indefinitely postpone cleanup, claiming that the RDX will not reach any drinking water supply wells until the year 2100. DOE plans to just let it continue to leach into the environment, hoping that the RDX will just go away. **So, currently, neither the RDX plume nor the chromium plume are actually being remediated, despite annual samples that exceed New Mexico State groundwater standards.**

## **Perchlorate and Other Groundwater Contamination**

Perchlorates, used in explosives and rocket fuel, also exceeded groundwater contamination standards in 2025. Samples taken at Technical Area-50 detected contamination extending into the regional aquifer exceeding 100 micrograms per liter (the standard is 13.8 micrograms per liter). Perchlorates interfere with the normal functioning of the thyroid gland by reducing iodine uptake, which can impact thyroid hormone production. Thyroid hormones help balance body metabolism and are critical for growth and development, including brain development. **There are currently no plans to remediate the perchlorate plume.**

There are over twenty other different contaminants found in groundwater samples taken at LANL in 2025 that exceed New Mexico State standards. There are over 200 instances of Nitrate-Nitrogen exceedances, can be fatal to infants and livestock. most of which were in the regional aquifer. The emerging issue of "forever chemicals" is also a serious concern. Perfluorooctanesulfonic acid (PFOS) was found to be exceeding the New Mexico State standard in 2025. PFOS is banned in California and Maine and restricted internationally. Although of low acute toxicity, [PFOS](#) has attracted much attention for its pervasiveness and environmental impact.

Nuclear Watch New Mexico recently reviewed groundwater samples taken during 2025 in LANL's public environmental database known as "Intellus New Mexico." We found 533 cases of regulatory exceedances involving numerous different toxic and carcinogenic contaminants. This illustrates the need for greater public involvement and regulatory oversight by the New Mexico Environment Department in protecting New Mexico's greatest asset, uncontaminated groundwater. Agua es Vida!

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