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Fiscal Year 2013 Planning— Continuing the Governor's Priorities

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Presentation outline

- ✓ **Mission**
- ✓ **Program status and progress**
- ✓ **Fiscal year 2013 work scope**
- ✓ **Below-ground transuranic waste deliverable**
- ✓ **What's next**

Environmental Programs' mission



Workers repackage radioactive waste for shipment to permanent disposal facilities.



The Rio Chama, where the Laboratory monitors water levels and samples the river for chemicals.

- **Clean up legacy waste sites and contaminated areas**
- **Safely manage hazardous and radioactive waste for shipment to permanent disposal facilities**
- **Decontaminate and demolish unused buildings**
- **Monitor the regional aquifer and protect northern New Mexico's water resources**

Cleaning up legacy waste from past operations

- **2,120 cleanup sites around the Laboratory and town of Los Alamos**
 - Range from small spills to large landfills
 - Radioactive and chemical contamination from operations during World War II and Cold War eras
 - More than half have been remediated
 - 922 sites currently under investigation
 - After cleanup, areas can be transferred back to the county for reuse



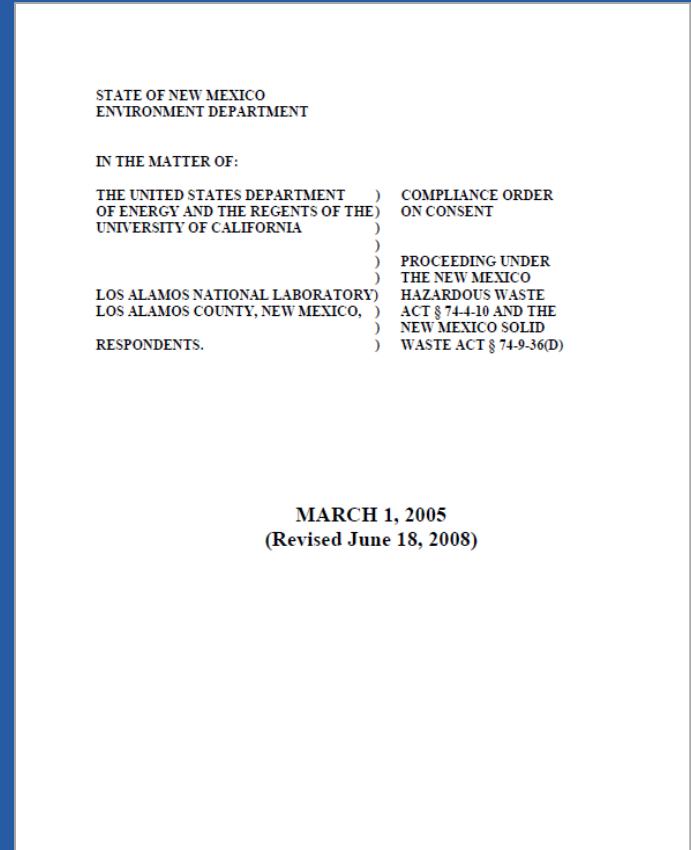
Excavation and cleanup of a World War II-era landfill at Los Alamos



The Lab investigates sites where past operations resulted in chemical or radioactive contamination.

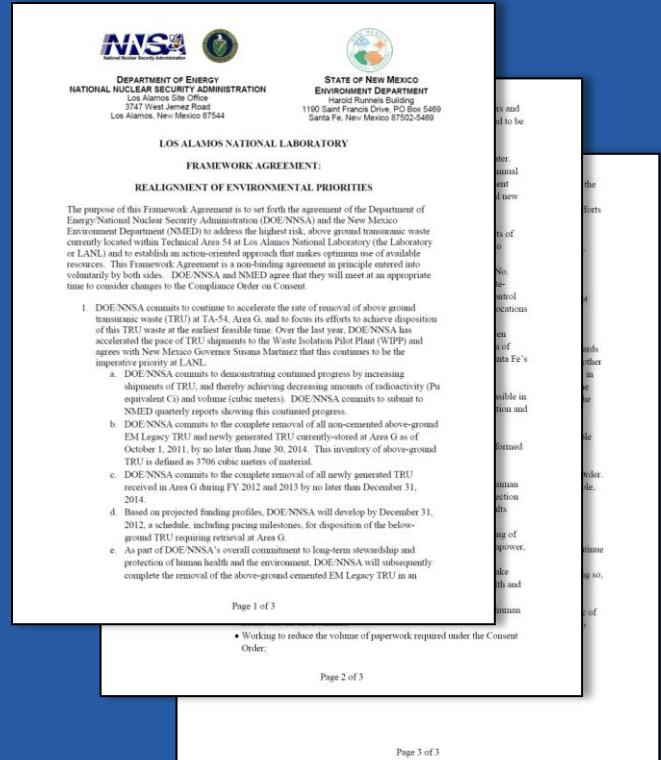
Consent order governs much of our work

- **Compliance Order on Consent (known as “Consent Order”)**
 - **Signed in 2005**
 - **Mechanism for implementing RCRA corrective action**
 - **Signed by New Mexico Environment Department, NM Attorney General, DOE, and LANS**
 - **Includes requirements for investigating and, as necessary, remediating sites where hazardous chemical and/or radioactive materials are present**



Framework agreement has realigned priorities

- **Risk-based realignment of environmental priorities**
- **Announced in January 2012**
- **Agreement among:**
 - **New Mexico Environment Department**
 - **Department of Energy**
 - **National Nuclear Security Administration**
 - **Los Alamos National Laboratory**
- **The 2005 Consent Order remains in place**



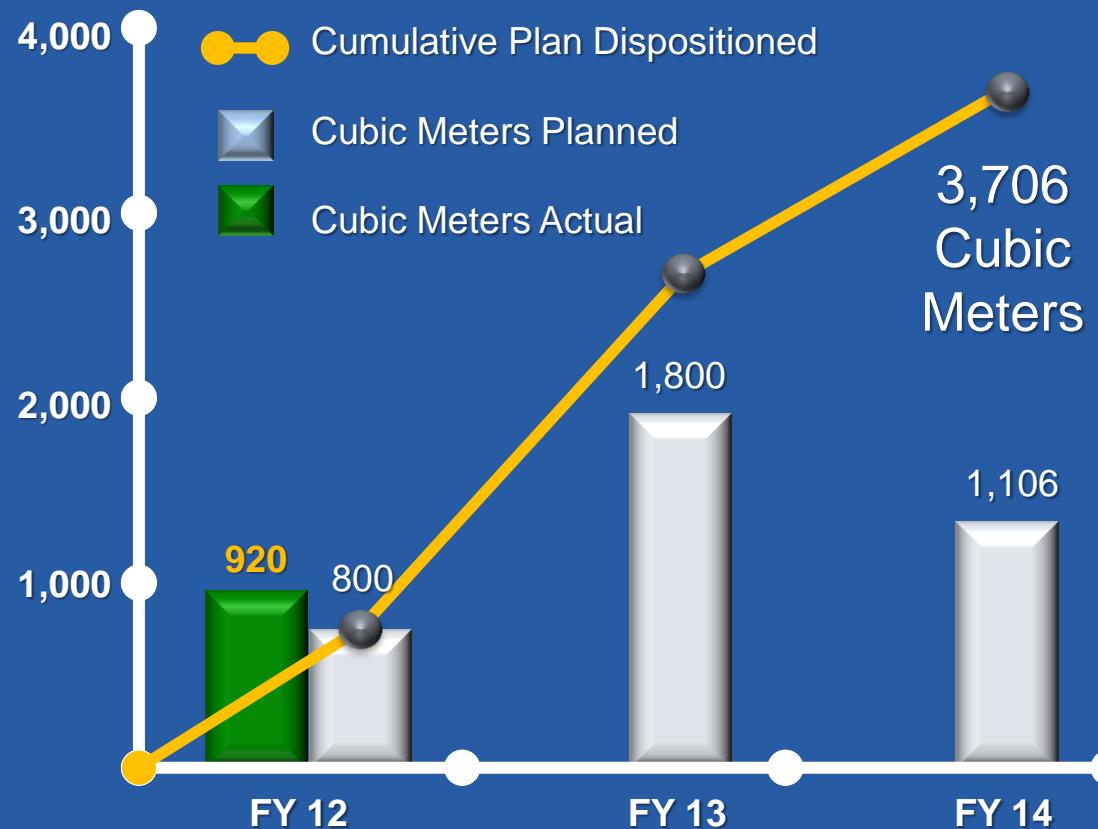
Partnering with DOE/NNSA and NMED on priorities



- **Made the shift from lower-risk activities to address highest-risk above-ground TRU waste**
- **Continuing priority on protecting groundwater and surface water**
- **With NMED, have aligned remaining efforts on priority cleanup**

Removing transuranic waste

- **Top priority shared by the State of New Mexico, Department of Energy and the Laboratory**
- **Current focus is to remove more than 3,000 cubic meters of above-ground waste by June 30, 2014**
- **Steadily decreasing the amount of material at risk**



Protecting the environment of northern New Mexico

- **Focus on protecting water resources**
- **Coordination with NMED and Los Alamos county to resolve regulatory issues and facilitate county economic development projects**
- **All FY12 Consent Order commitments delivered on time or ahead of schedule**



We are committed to protecting the environment of northern New Mexico, now and into the future.

Protecting water resources

- **We monitor area groundwater and surface water and protect watersheds**
 - **Extensive monitoring network includes 119 wells**
 - **We sample at 178 locations around the Lab:**
 - **Surface water, springs, and three groundwater zones**
 - **Total of about 600 water samples per year**
 - **Monitoring includes chromium in Sandia Canyon**
- **We also monitor summer monsoon storms to ensure no contaminants have moved off the Laboratory in runoff water**



The Laboratory samples water at area springs, as well as groundwater and surface water locations.

Buckman Direct Diversion

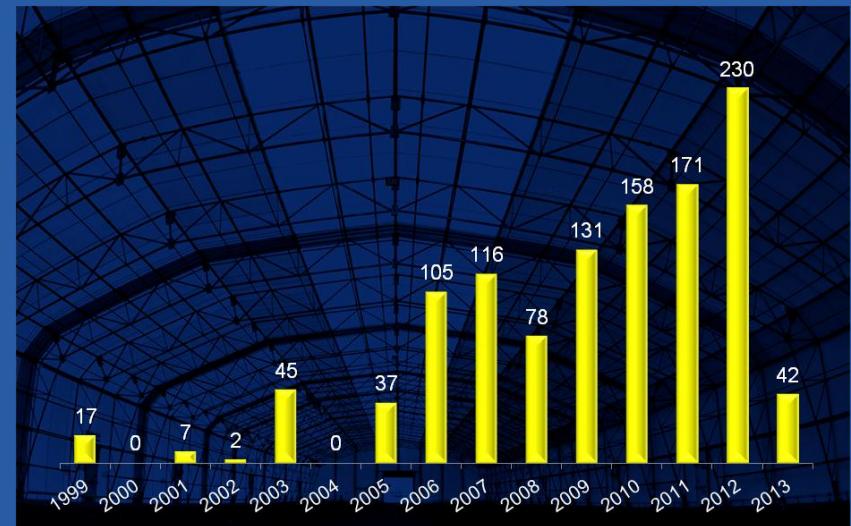
- Provide support for the Buckman Direct Diversion Project
- Storm water runoff flows toward the Rio Grande (and Santa Fe)
- Large-scale mitigations in place to minimize effects of runoff
- Automated gauges at key points in canyon detect water flow levels, take samples, send wireless signals to Buckman operators



Structures such as this one minimize the effect of runoff water from rain and snow.

Accomplishments over the past two years

- Successfully completed projects funded by the American Recovery and Reinvestment Act
 - Decontamination and demolition of 24 buildings
 - Cleanup of a World War II-era landfill to residential standards
- Met all regulatory commitments
- Developed strong working relationship with New Mexico Environment Department
- Set Lab TRU waste shipment records four years in a row



The Laboratory has met its transuranic waste removal objectives and set records for TRU waste shipments.

Consent Order accomplishments



- Submitted 73 major Consent Order documents to the New Mexico Environment Department on time or ahead of schedule
- Achieved certificates of completion for 83 sites and requested certificates for an additional 52 sites
- Facilitated economic development for townsit/Los Alamos County mesa top and land transfer projects
- Installed and activated the Buckman Direct Diversion Project telemetry system

FY12 TRU waste campaign accomplishments

■ Highlights

- 280 days accident free
- 920 cubic meters removed
- 23,075 Plutonium-equivalent curies (PE Ci) removed
- 230 shipments to WIPP completed
- Dome 375 & 231 box lines nearing completion
- 1,000th shipment - June 6, 2012



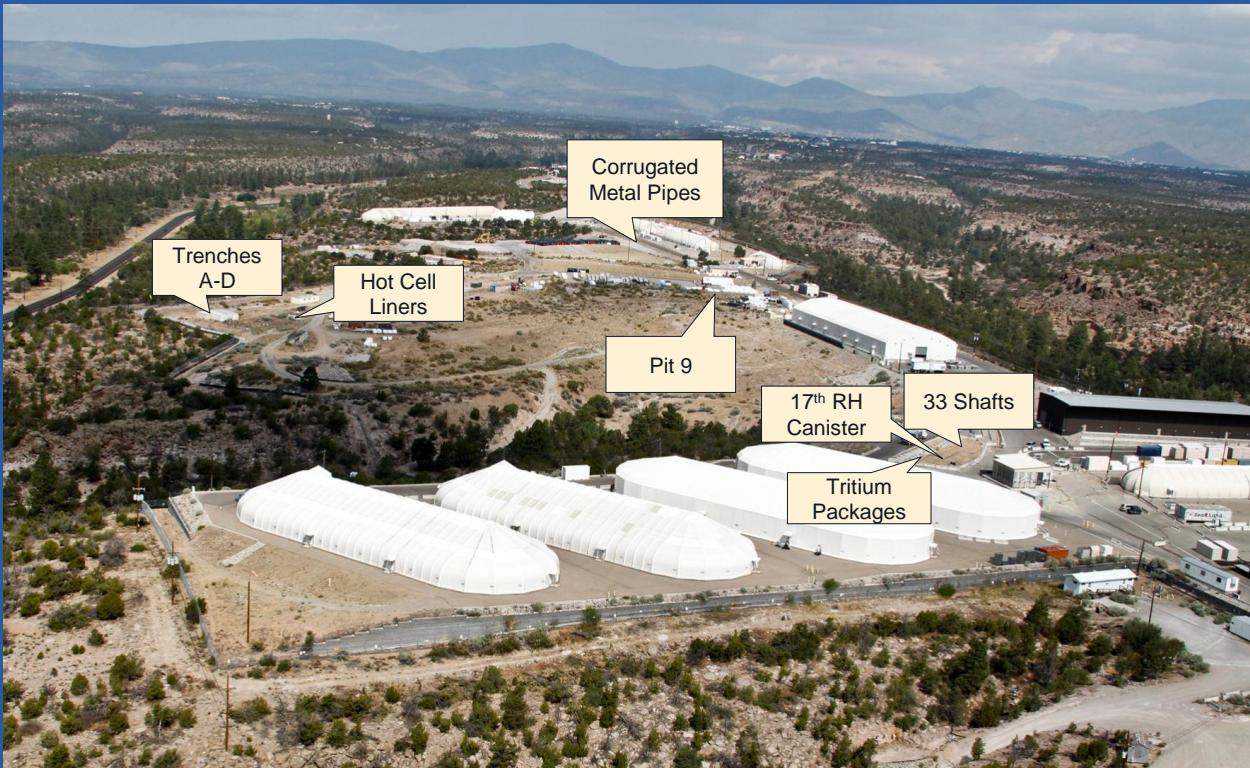
Every LANL shipping record was shattered in 2012

Framework Agreement progress

- **Section 1(a-c) of the Framework Agreement contains the following commitments:**
 - a. **DOE/NNSA commits to demonstrating continued progress by increasing shipments of TRU, and thereby achieving decreasing amounts of radioactivity (Pu equivalent Ci) and volume (cubic meters). DOE/NNSA commits to submit to NMED quarterly reports showing this continued progress.**
 - b. **DOE/NNSA commits to the complete removal of all non-cemented above-ground EM Legacy TRU and newly generated TRU currently-stored at Area G as of October 1, 2011, by no later than June 30, 2014. This inventory of above-ground TRU is defined as 3706 cubic meters of material.**
 - c. **DOE/NNSA commits to the complete removal of all newly generated TRU received in Area G during FY 2012 and 2013 by no later than December 31, 2014.**

Significant Progress in FY12 - - - LANL is On Target

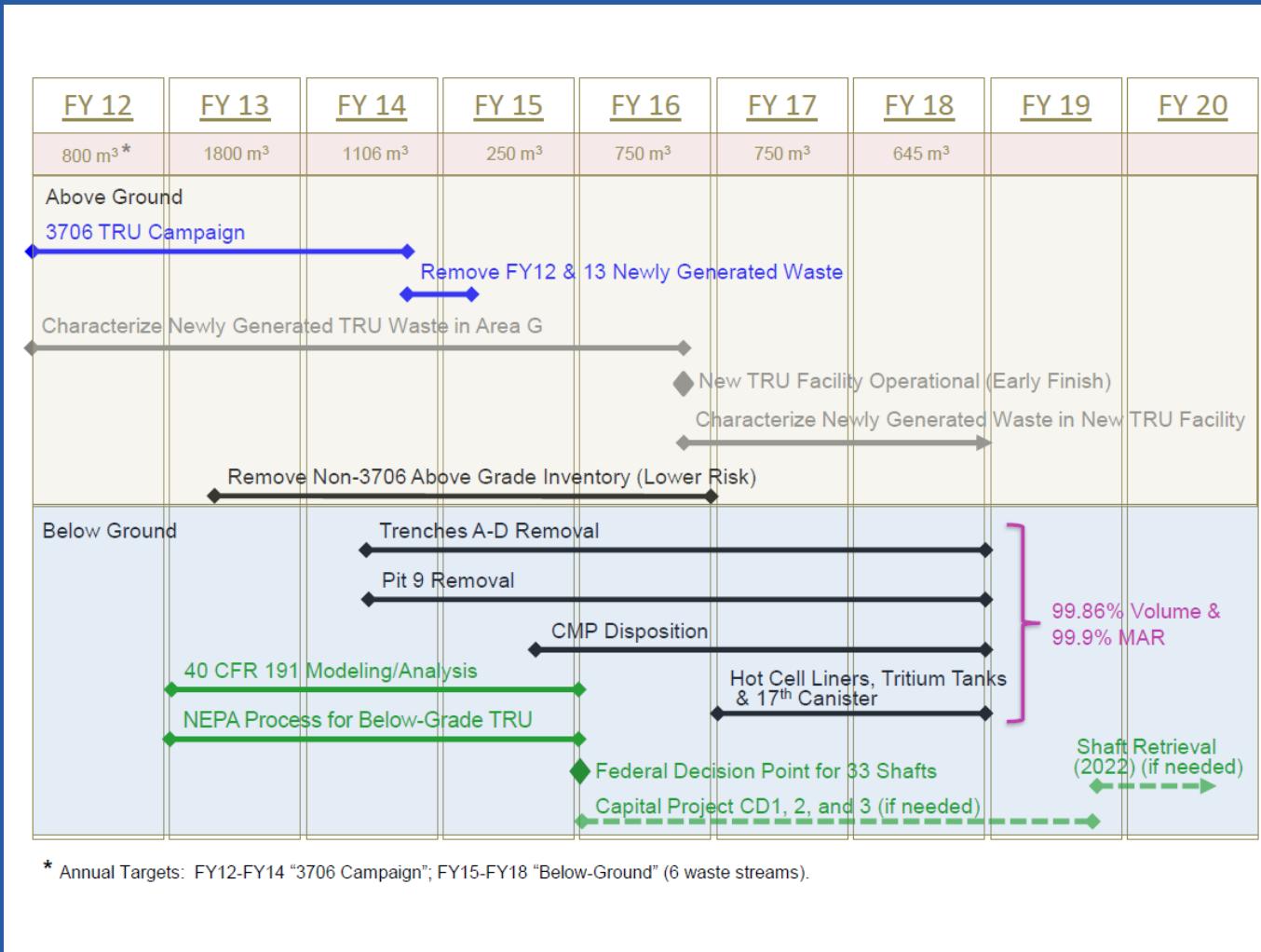
Below-ground TRU deliverable



- Section 1(d) of the Framework Agreement contains the following commitment:

Based on projected funding profiles, DOE/NNSA will develop by December 31, 2012, a schedule, including pacing milestones, for disposition of the below-ground TRU requiring retrieval at Area G.

Integrated TRU Program timeline



Assumes budget of \$239M

Scope for the second half of FY13

-- Budget-dependent

- **First six months of FY13**
 - Scope planned based on assumption of continuing resolution at \$91.7 million for the first six months of the year
- **Second six months for FY13**
 - Continuing resolution funding would equal \$188 million for the year
 - Current Congressional marks include additional funding, reflecting substantial increase to \$239M
- **However, there is uncertainty**

Priorities planned for fiscal year 2013



- Accelerated TRU program
- Groundwater
- Surface water
- Individual permit
- Other Consent Order-driven scope



What's next

- **Build on success of first year of campaign to remove above-ground TRU waste and continue to meet deadlines**
- **Double the volume and number of TRU waste shipments**
- **Establish plans for disposition of below-ground TRU waste**
- **Continue protection of area water resources and remediation of sites in and around the town of Los Alamos**
- **Continue to foster partnerships with the State of New Mexico, DOE/NNSA, and WIPP to achieve cleanup objectives**



One of our priorities over the next year is to meet TRU waste removal deadlines.