

Los Alamos National Laboratory Site-wide Environmental Impact Statement (LANL SWEIS)

**Briefing to Los Alamos County Council –
Status of Final SWEIS**

**Stephanie Stringer, Associate Deputy Field
Office Manager for Mission, Security, and
Landlord Stewardship
NA-LA**

Peace Through Atomic Strength



U.S. DEPARTMENT
of ENERGY



Purpose and Agenda

PURPOSE: Briefing to the Los Alamos County Council on the status of the Final SWEIS

- AGENDA:**
- 1) Overview
 - 2) Timeline
 - 3) SWEIS Layout and Content
 - 4) Campus Master Plan (CMP)
 - 5) Alternatives Evaluated in the SWEIS
 - 6) Environmental Resource Areas
 - 7) Key Changes from Draft to Final

1) Overview

- The NNSA-Los Alamos Field Office worked with DOE-EM-LA to prepare a new SWEIS that evaluates operations through 2038. The last SWEIS was published in 2008.
- This SWEIS analyzed future planned operations at LANL and developed impacts to the local environment, focusing on three alternatives:
 - ❖ No Action Alternative
 - ❖ Modernized Operations Alternative
 - ❖ Expanded Operations Alternative

2) Timeline of SWEIS



*Comment Period
extended to April 10,
2025

3) SWEIS Layout and Content

➤ The Final SWEIS consists of the following:

❖ Summary

❖ Volume 1 Chapters:

- Chapter 1 – Introduction and Purpose and Need
- Chapter 2 – LANL Missions, Programs, and Major Facilities
- Chapter 3 – Proposed Action and Alternatives
- Chapter 4 – Affected Environment
- Chapter 5 – Environmental Consequences
- Chapter 6 – Cumulative Impacts
- Chapter 7 – References

3) SWEIS Layout (continued)

➤ The Final SWEIS consists of the following:

❖ Volume 2 Appendices include:

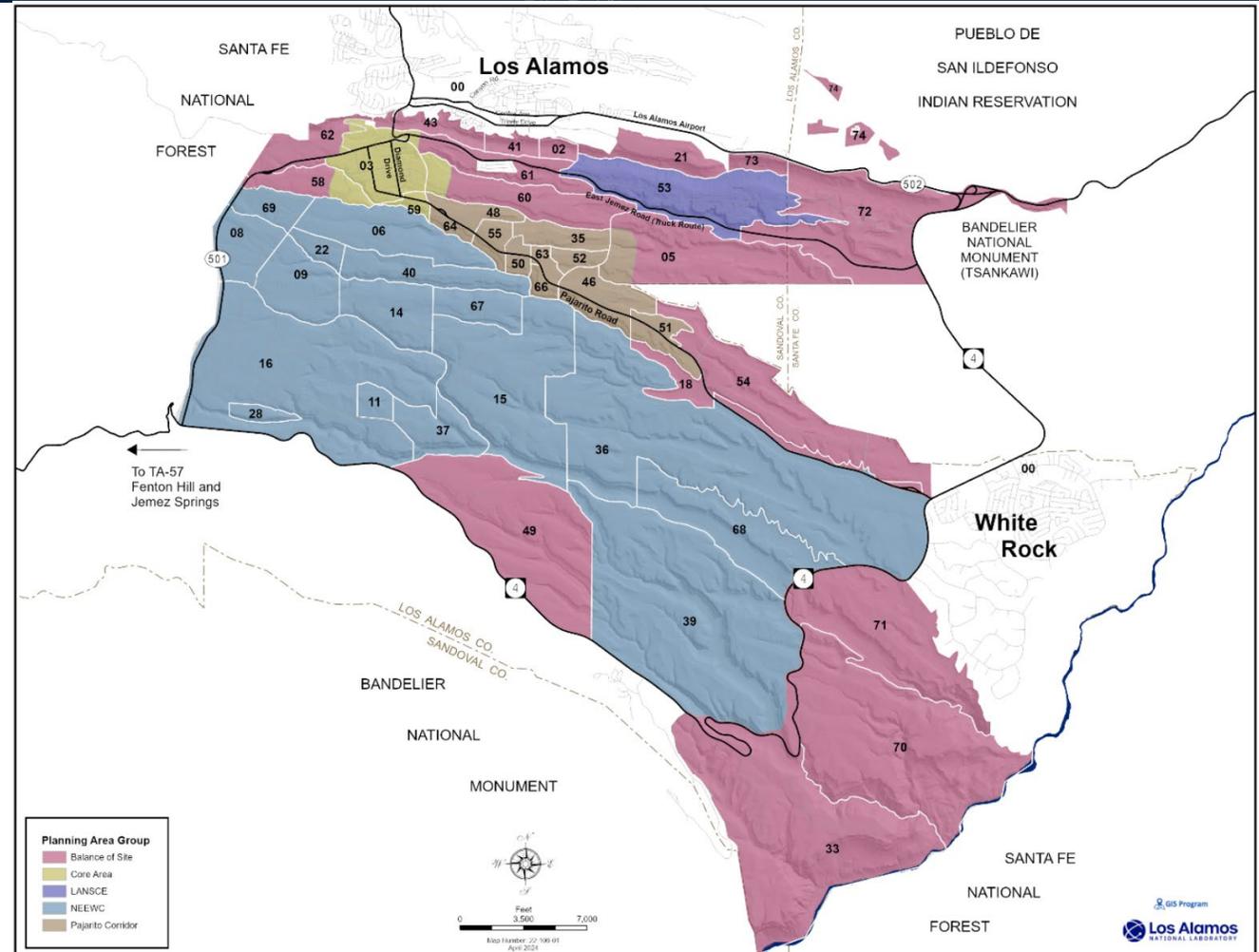
- App A, Supplemental Supporting Information
- App B, Scoping Process
- App C, Methodologies
- App D, Human Health and Accidents
- App E, LANL Facility Information
- App F, Radiological Transportation
- App G, Environmental Remediation
- App H, Air Quality
- App I, Categorical Exclusions
- App J, Public Notices
- App K, Disclosure Statements
- App L, Operational Changes for R&D for Radioisotope Thermoelectric Generators (Export-Controlled)
- App M, Intentional Destructive Acts (classified)
- App N, Comment Response Document
- App O, Glossary
- App P, List of Preparers

4) Campus Master Plan

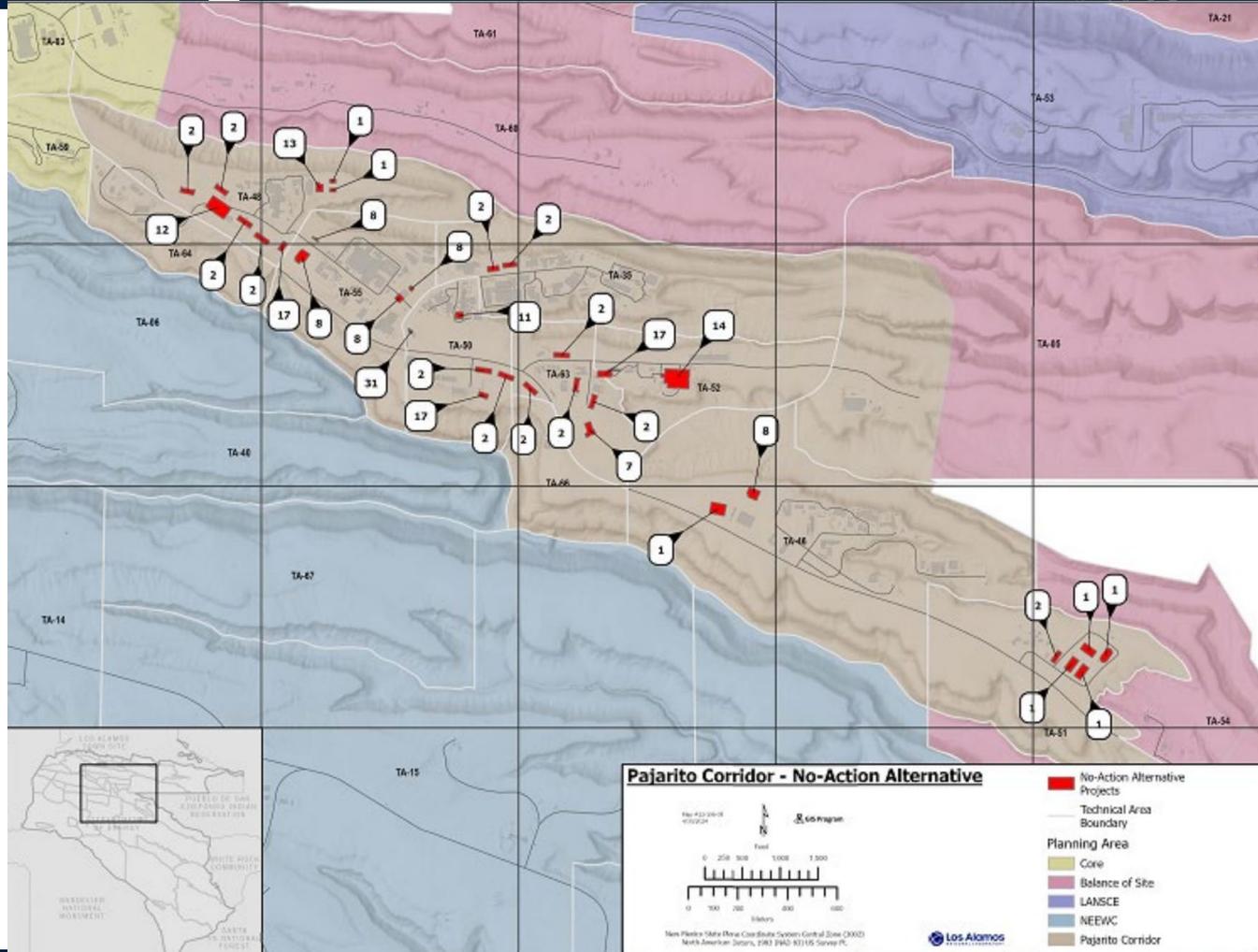
➤ The SWEIS evaluates projects proposed in the CMP (and other documents) for a period of 15 years (to 2038).

➤ The SWEIS and the CMP present projects by “Planning Areas,” which include:

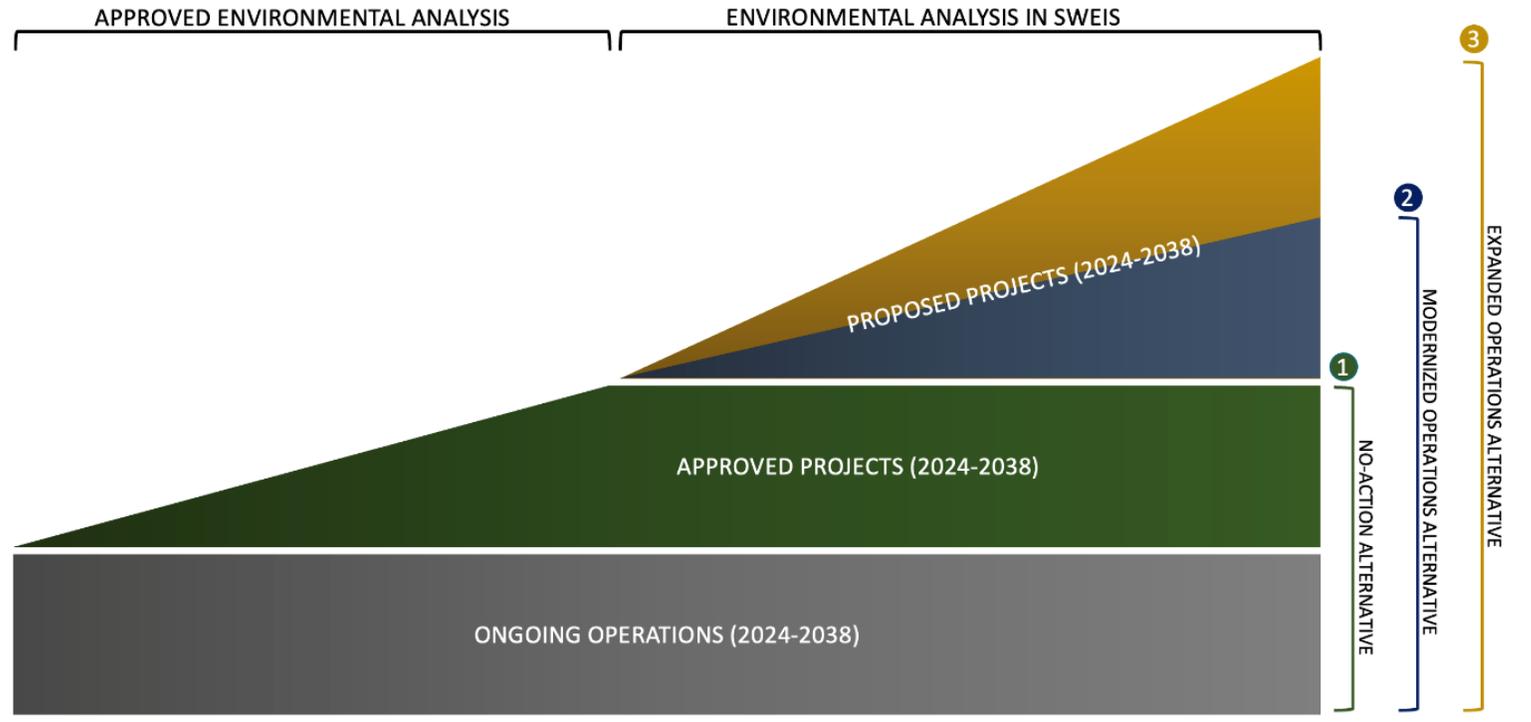
- ❖ Core Area
- ❖ Pajarito Corridor
- ❖ National Energetic and Engineering Weapons Campus (NEEWC)
- ❖ Los Alamos Neutron Science Center (LANSCE)
- ❖ Balance of Site (includes the DOE-EM sites)



4) Example of No-Action Projects in Pajarito Corridor



5) Alternative Analyzed in the SWEIS



Approved & Proposed Projects Include:

- New facility construction projects
- Modernization/upgrade of existing facilities, infrastructure, site utilities
- Operational changes
- Decontamination, decommissioning, and demolition (DD&D)

- ① **No-Action Alternative:** includes ongoing operations plus previously-approved projects (with separate completed NEPA documents)
- ② **Modernized Operations Alternative:** includes No-Action Alternative plus Modernization Operations Alternative projects (NEPA analyses in this SWEIS)
- ③ **Expanded Operations Alternative:** includes No-Action Alternative, Modernization Operations Alternative, and Expanded Operations Alternative projects (NEPA analyses in this SWEIS)

*the level of operations is not to scale because the scale depends on the resource area being evaluated

4) No Action Alternative

➤ **New Facility Construction**

- ❖ Construction projects totaling about 34 acres, for which NEPA review is complete. Examples include
 - Warehouses (22) and Offices (23)
 - Fire stations (3) and Cafeterias (3)

➤ **Infrastructure Upgrades**

- ❖ Existing facility upgrades and infrastructure or utilities.
 - Electric Power Capacity Upgrade (underwent separate NEPA review)
 - Roads and Parking
 - Institutional laydown areas

➤ **Operational Changes**

- ❖ Implement the pit production mission

➤ **Decontamination, Decommissioning, and Demolition (DD&D)**

- ❖ 186 excess facilities, 1.6M square feet, and about 36.7 acres

➤ **Continued Remediation in Compliance with the 2016 Compliance Order on Consent (as modified in 2024)**

5) Modernized Operations Alternative

➤ Includes all No-Action Alternative Projects

➤ New Facility Construction

❖ Construction projects (79 acres) to replace facilities approaching their end of life, upgrade facilities to extend their lifetimes, and improve work environments to enable NNSA to meet operational requirements. Examples:

- Warehouses (34), Offices (33), and Laboratories (27)
- Security Facilities (8) and Parking Structures (5)
- Explosives and Lasers Facility
- Visitor and Conference Center
- Consolidated Waste Facility
- Radiography/Assembly Complex (RACR)

➤ Infrastructure Upgrades

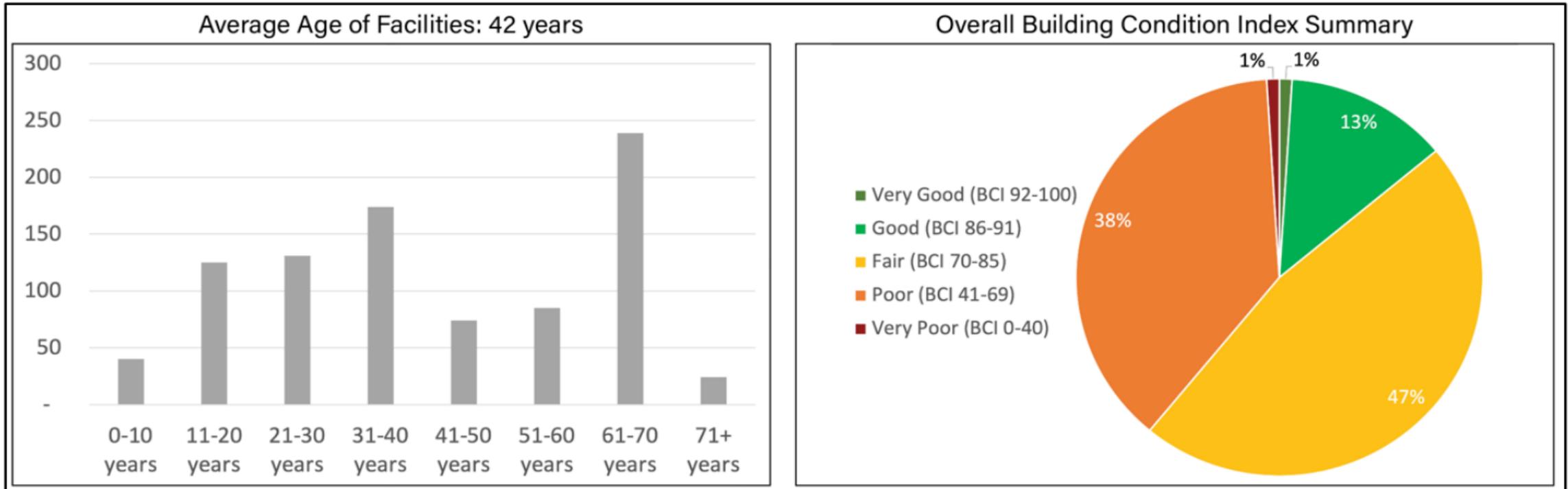
❖ Facility upgrades and infrastructure or utilities. Examples:

- Solar PV Arrays (up to 795 acres and 158 MW)
- LANSCE Accelerator Modernization Project (LAMP)
- Sanitary Wastewater System Replacement
- DARHT Capability Expansion (DCX)
- Los Alamos Canyon Bridge Replacement
- TA-72 Remote Parking Area (~25 acres)
- Roads, Parking, and Institutional laydown areas

➤ Decontamination, Decommissioning, and Demolition (DD&D)

❖ 156 additional excess facilities, 1.2M additional square feet, and about 27.5 acres

5) Modernized Operations Alternative



5) Expanded Operations Alternative

- **Includes all No-Action and Modernized Operations Projects**
- **New Facility Construction (21 acres)**
 - ❖ To expand operations and missions to respond to future national security challenges and meet increasing requirements.
Examples include:
 - New x-ray-free electron laser facility near LANSCE (DMMSC);
 - Microreactor;
 - TRU Waste Staging;
 - Limited enhancement of ARIES capability in existing facilities at TA-55
 - Open Burn/Open Detonation Advanced Technology Facilities
 - Reactivation or Expansion of Firing Sites
 - LANSCE Enhancements (LANE)
 - Future Supercomputer Infrastructure with Water Treatment Facility
 - Low Enriched Uranium Fuel Fabrication Facility (LEFFF)
- **Utilities/Infrastructure**
 - ❖ Pumped Hydropower
 - ❖ LANSCE Cooling Tower
 - ❖ Roads, Parking, and Institutional laydown areas
- **Operational Changes**
 - ❖ Wildland Fire Risk Reduction Treatments
 - ❖ Feral Cattle Management
- **No additional DD&D above No-Action and Modernized**

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6) Environmental Resource Areas

- The Final SWEIS analyzes the following resource areas:
 - ❖ Land Resources
 - ❖ Cultural and Paleontological Resources
 - ❖ Socioeconomics
 - ❖ Geology and Soils
 - ❖ Water Resources
 - ❖ Air Quality and Noise
 - ❖ Ecological Resources
 - ❖ Human Health and Safety
 - ❖ Infrastructure
 - ❖ Waste Management
 - ❖ Transportation
 - ❖ Accidents and Intentional Destructive Acts
- For each resource area, the SWEIS presents potential impacts for each alternative and identifies Best Management Practices and any mitigation measures required to eliminate or limit those potential impacts.

7) Changes From Draft to Final

- The FINAL SWEIS will have notable changes from the DRAFT SWEIS (Released January 10, 2025)
 - ❖ Rescission of Executive Orders (EO)s related to environmental justice and climate change impacts from GHGs.
 - ❖ Rescission of the Council on Environmental Quality (CEQ) NEPA regulations
 - ❖ New DOE NEPA implementing procedures (June 30, 2025)
 - ❖ Removal of over 180 pages from Volume 1 to align with the new page limit
 - ❖ 2023 LANL SWEIS Yearbook posted in early 2025 and incorporated as part of the baseline for the SWEIS.
 - ❖ Updates to analytical parameters for total workforce, estimated worker dose in PF-4, and projected waste generation during PF-4 refurbishment and pit production.
 - ❖ Removal of Surplus Plutonium Disposition Program from EXP (per EO 14302) and replaced with limited enhancement of ARIES for plutonium disposition.