



Update on DOE/NNSA Long Term Stewardship Programs

T.P. Longo

NNSA/NA-00-10/Office of Environment, Safety & Health

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Background

- Technical or economic limitations, or worker health and safety considerations, prevent many Cold War sites from being remediated to unrestricted use
- Sites must meet regulatory standards for engineered and institutional controls for in-place remedy integrity and protection of human health, the environment, and heritage resources
- Residual risks may remain for hundreds or thousands of years and lead to need for “long term stewardship” (LTS) activities—all those physical and institutional controls, information management, and monitoring and maintenance activities to ensure protection of people and the environment
 - There is no time limit on DOE’s obligation to protect human health and the environment from onsite residual risks—for as long as the hazards remain

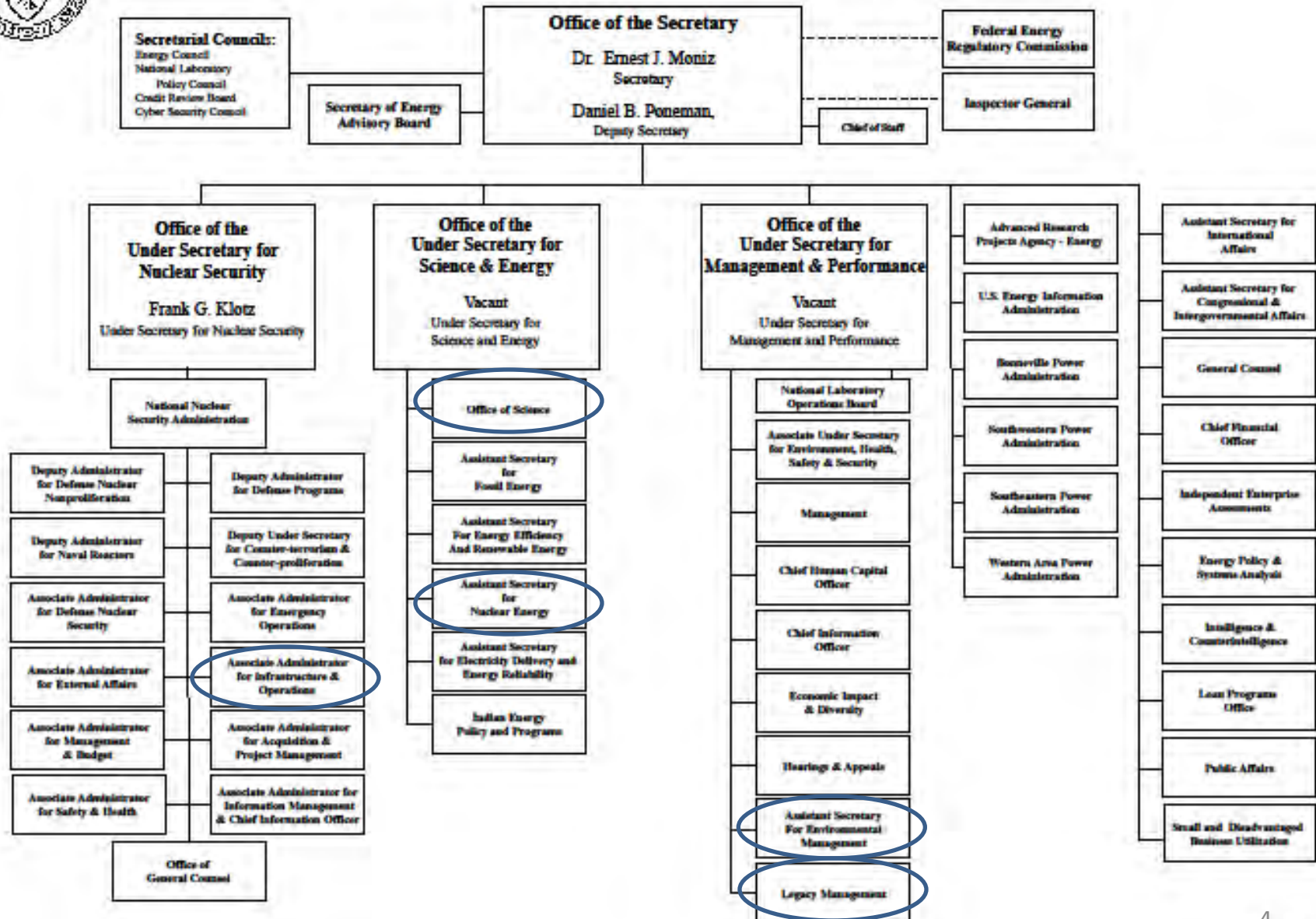


Background, continued

- DOE has multiple organizations responsible for LTS activities, with two having separate budget “line” items for the activity:
 - Office of Legacy Management (LM)-100 sites
 - NNSA/Office of Infrastructure and Operations (NA-00)-5 sites
 - Office of Science (SC)-5 sites
 - Office of Environmental Management (EM)- 9 sites
 - Office of Nuclear Energy (NE)-1 site
- A key role played by these organizations at multi-program sites is as the “host landlord” (cf. “tenant” role)
 - The landlord owns the site and has overall responsibility for facilities asset management and for maintaining the infrastructure



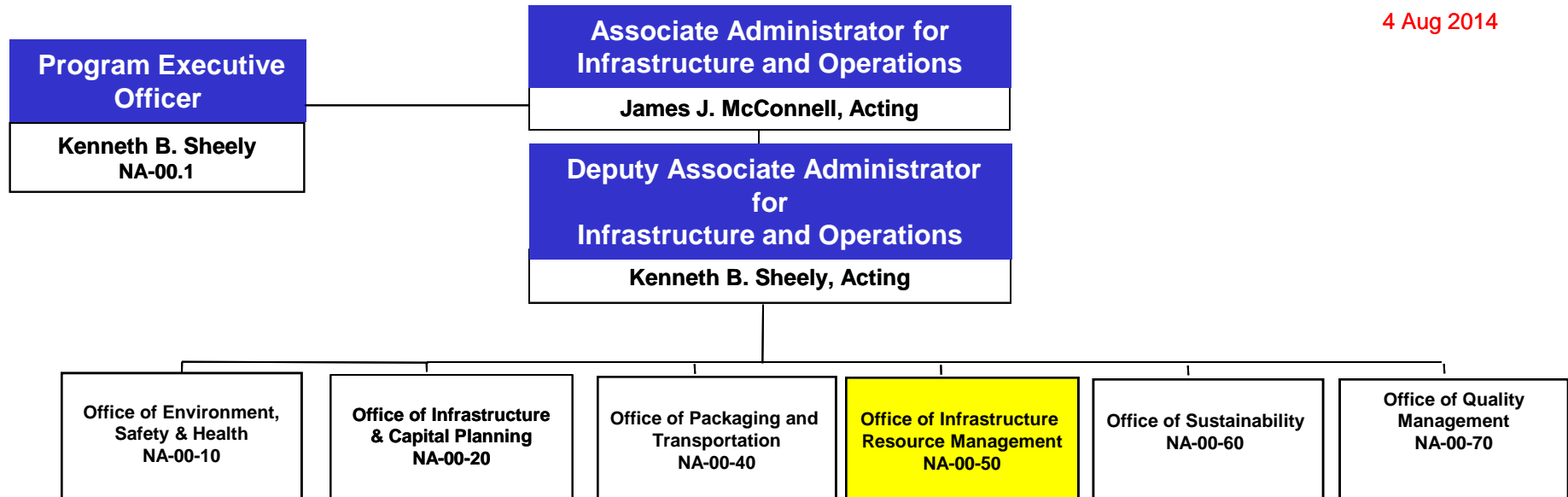
DEPARTMENT OF ENERGY





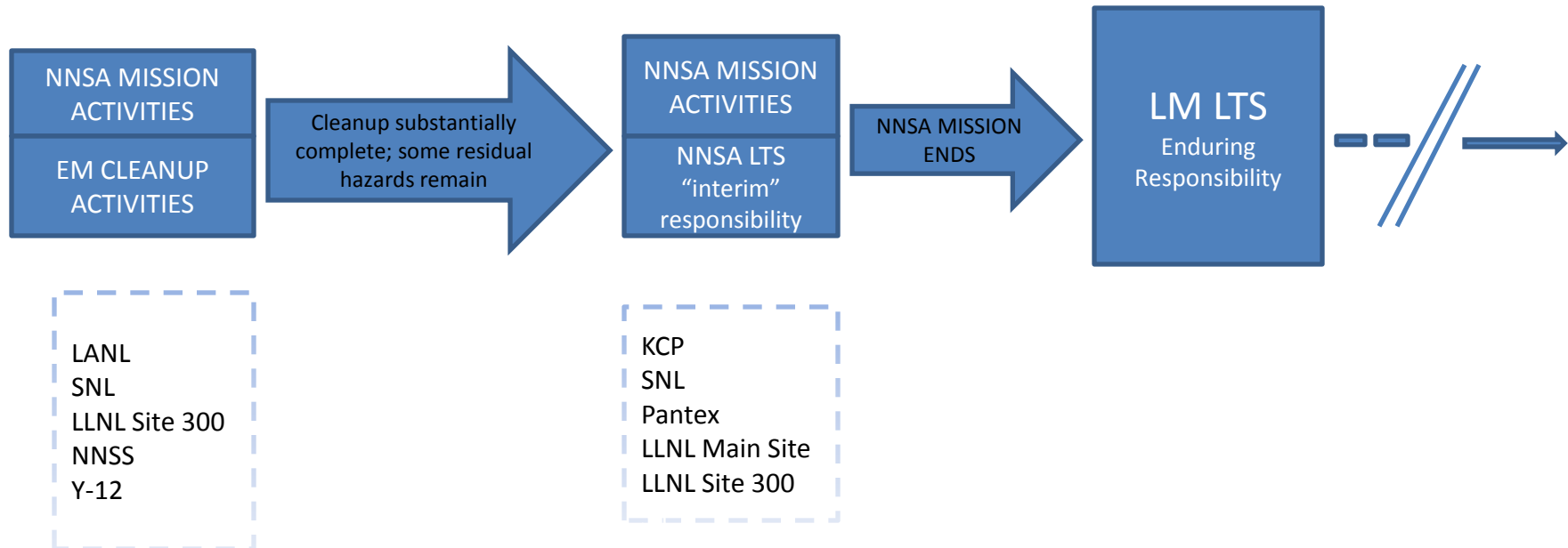
NA-00 Organization Chart

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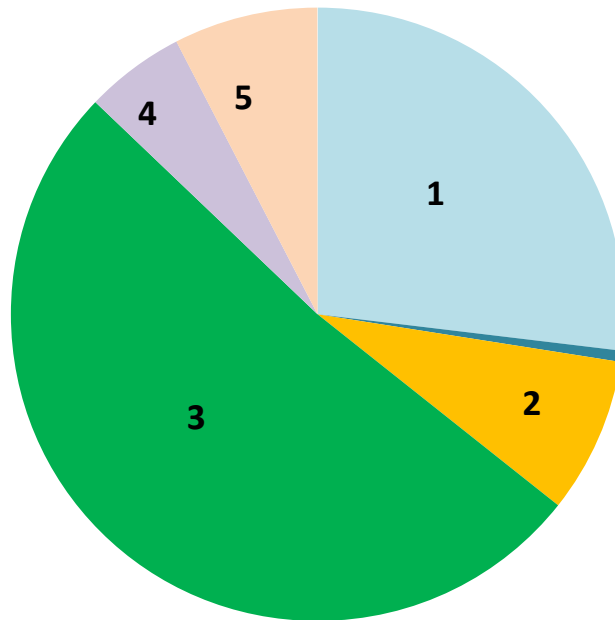
“Life Cycle” of LTS in DOE





LM Mission and Goals within the Department

LM Mission: Fulfill the Department's post-closure responsibilities and ensure the future protection of human health and the environment.



FY 2015 - \$172.0M

LM GOALS:

1. **Protect human health and the environment; also includes ~\$1M for Environmental Justice (\$47M)**
2. **Preserve, protect, and share records and information (\$14M)**
3. Meet commitments to the contractor workforce (\$88M)
4. Optimize the use of land and assets (\$9M)
5. Sustain management excellence (\$13M)

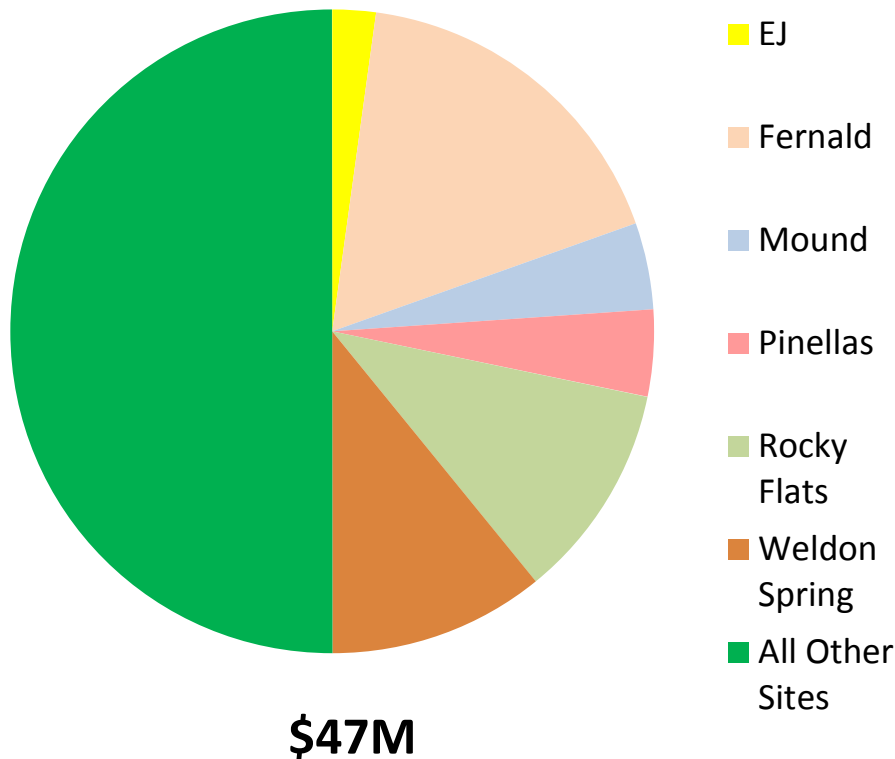


Goal 1. Protect Human Health and the Environment



Manage DOE's investments in environmental remedies and infrastructure through efficient and effective long-term surveillance and maintenance

Long-Term Surveillance & Maintenance – FY 2015



- Monitor and conduct long-term treatment at 97 LM sites in accordance with legal, contractual, and regulatory agreements.
- Reduce the cost of long-term surveillance and maintenance from the baseline by ~2 percent per year starting in FY 2013.
- Accept three other smaller sites scheduled to transfer to LM by the end of FY 2015.
- Prepare for the future transition of 24 other sites to LM by FY 2020.
- Coordinate the Department's environmental justice activities.

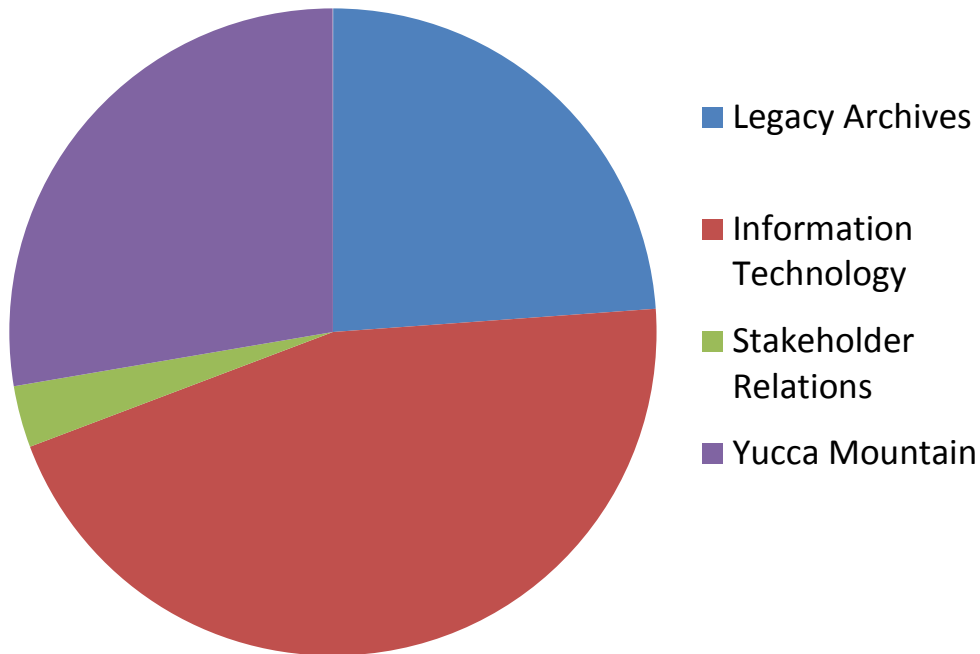


Goal 2. Preserve, protect, and share records and information



LM provides transparent public access to information about current site activities and historical data and documents.

Archives and Information Management – FY 2015



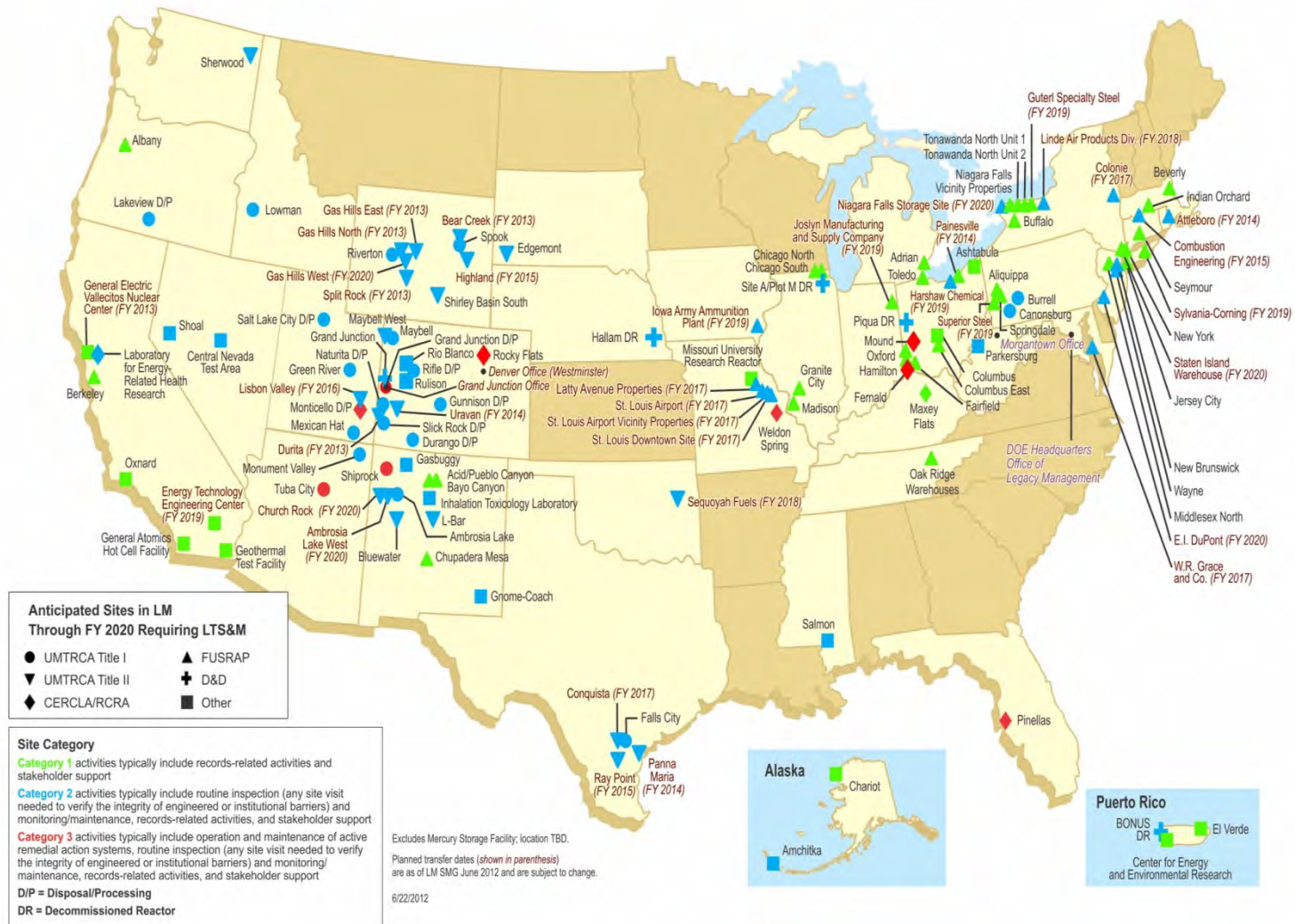
\$14M*

*Goal 2 also administers ~\$300K of EEOICPA requests which are reimbursable

- Records and electronic data volumes remain relatively constant during FY 2015.
- Reduce the cost of managing the records and information by ~3 percent per year starting in FY 2013.
- FOIA and PA requests are expected to remain relatively constant.
- Yucca Mountain records and IT systems are being maintained at full capability pending a final, non-appealable court decision.



LM expects to add 24 new sites between FY 2015 and FY 2020





NNSA LTS overview

- LTS responsibilities and activities include:
 - Remedy effectiveness and protection, including land-use controls
 - Continued operation of multiple, installed groundwater pump-and-treat systems
 - Integrate with similar environmental compliance and surveillance activities done by landlord programs as part of site operations
 - Operational compliance reported in Annual Site Environmental Reports (“ASERs”)
 - Compliance reporting
 - Regulatory and community interactions
 - Risk of fines and penalties if regulatory requirements not met
 - LTS scope revisited when regulations, permits, agreements, or technologies change, or problems with remedies crop up



NNSA overview, continued



- LTS implementation at NNSA sites:
 - LTS began in FY2007 at Sandia National Lab, Kansas City Plant, and Lawrence Livermore National Lab Main Site
 - Pantex Plant and LLNL Site 300 were added in FY2009 following completion of legacy waste cleanup
 - Los Alamos National Lab, Nevada National Nuclear Security Site, and Y-12 have yet to begin formal LTS activities, though “LTS-like” activities are carried out by the NNSA landlord



NNSA LTS FY13-19 budget



NNSA Sites with LTS In order of level of funding	Appropriation FY13	Appropriation FY14	Budget Request (\$K) FY15	Budget Request (\$K) FY16	Budget Request (\$K) FY17	Budget Request (\$K) FY18	Budget Request (\$K) FY19	LTS Activities
LLNL Site 300, LLNL Livermore (Main) Site, Pantex, SNL, KCP (Bannister Federal Complex)	\$40,369	\$51,001	\$53,013	\$52,215	\$52,190	\$51,896	\$51,896	<ul style="list-style-type: none"> • Continue to treat contaminated ground water; performing environmental monitoring of surface water, ground water, and soils; operating and maintenance of landfill remedies, and working with EPA regions and various states to meet post-completion regulatory cleanup and reporting requirements. • Work in concert with other Federal agencies, states, and affected stakeholders to execute LTS activities in a cost-effective, compliant, and safe manner consistent with end states <ul style="list-style-type: none"> • Perform CERCLA and RCRA 5-year remedy reviews of selected cleanup remedies at Pantex Plant, LLNL Main Site, LLNL Site 300, and SNL. • Support corrective action required in the KCP Resource Conservation and Recovery Act permit for the Bannister Federal Complex.



Preliminary Conclusions

- Notwithstanding the Federal government's land management agencies, DOE likely the only Federal agency with a well-established and well-staffed LTS organization focused on contaminated sites. Head count in LM expected to be 64 in 2016
- Landlord organizations such as NNSA may well need to manage LTS programs for extended periods, perhaps decades
 - Since 2007, Congress has supported NNSA budget requests
 - NNSA recognizes need to sustain stewardship as a nondiscretionary function
- NNSA LTS consists primarily of active long-term remedial measures, in addition to monitoring, maintenance, and regulatory support
- DOE must routinely evaluate protectiveness of in-place remedies and controls and efficacy of more-active response measures as alternatives to long-term surveillance
- The financial liability for LTS is independently audited, updated annually in the DOE's *Agency Financial Report* , and includes liability covering a minimum of 75 years
 - Booked LTS estimate for entire DOE complex is \$13.63 billion including contingency
 - Booked estimate for LANL is \$319M including contingency