U.S. DEPARTMENT OF ENERGY | OFFICE OF ENVIRONMENTAL MANAGEMENT

EM Program Update for the Environmental Management Advisory Board

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The EM Cleanup Program: What We Do, How We Do It, and Why

EM's mission is to clean up hazardous or potentially hazardous radioactive and other substances, much of which were generated in connection with the early days of the Nation's atomic energy defense activities.

EM is building on past successes to complete ambitious remediation projects and treatment facilities.

EM operates one-of-a-kind nuclear facilities to manage high-level radioactive waste and dispose of materials like plutonium.

EM cleanup addresses the environmental legacy of America's nuclear weapons research and production complex.

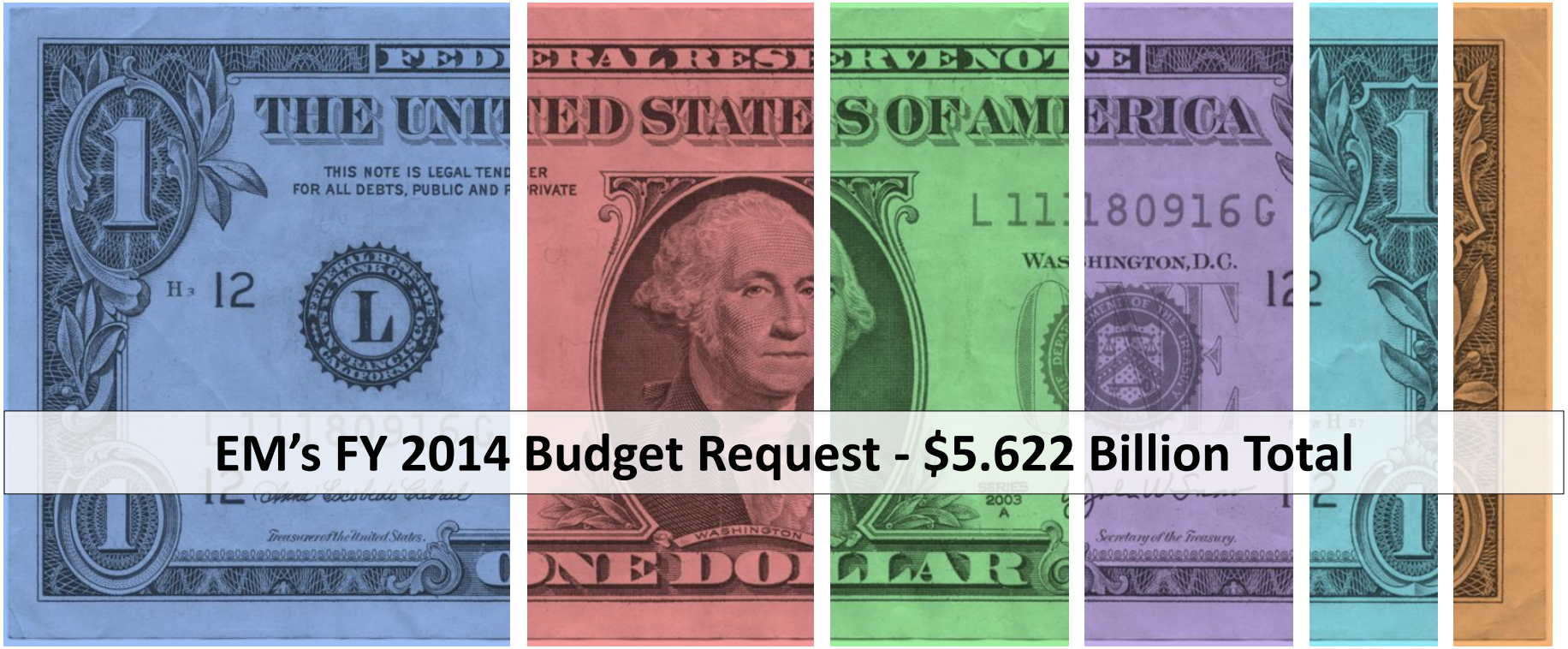
OFFICE OF ENVIRONMENTAL MANAGEMENT

Where Does Each Dollar of Funding Go?
Funding by EM Mission Area in FY 2014

Radioactive Tank Waste
$ 1,933M / 34%

Special Nuclear Materials and Used Nuclear Fuel**
$ 906M / 16%

Soil and Groundwater
$ 492M / 9%



EM's FY 2014 Budget Request - $5.622 Billion Total

Facility D&D
$ 1,095M / 19%

Transuranic & Solid Waste
$ 804M / 14%

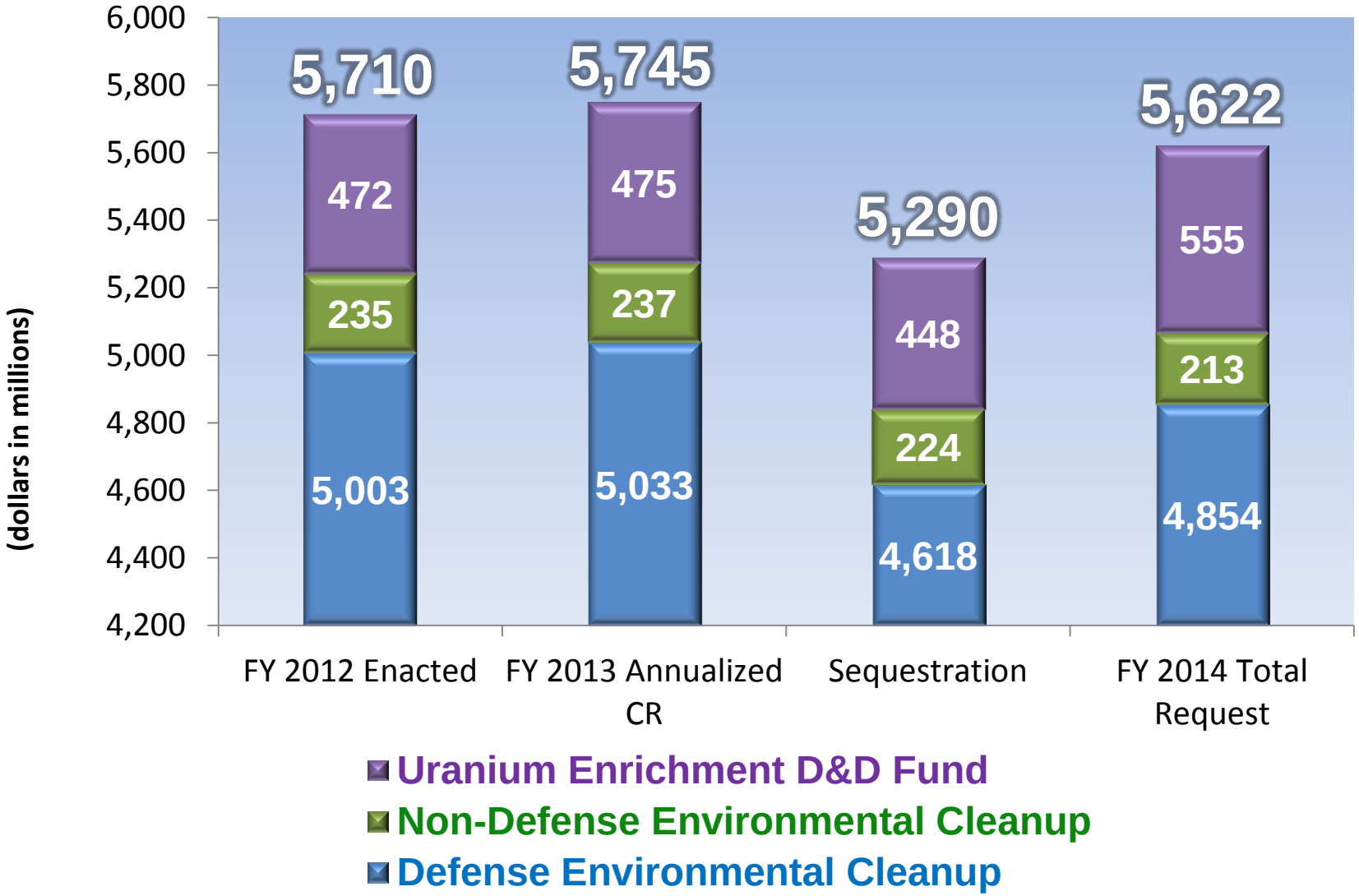
Essential Site Services*
$ 392M / 7%

*Includes Program Direction, Program Support, TDD, Post Closure Administration and Community and Regulatory Support

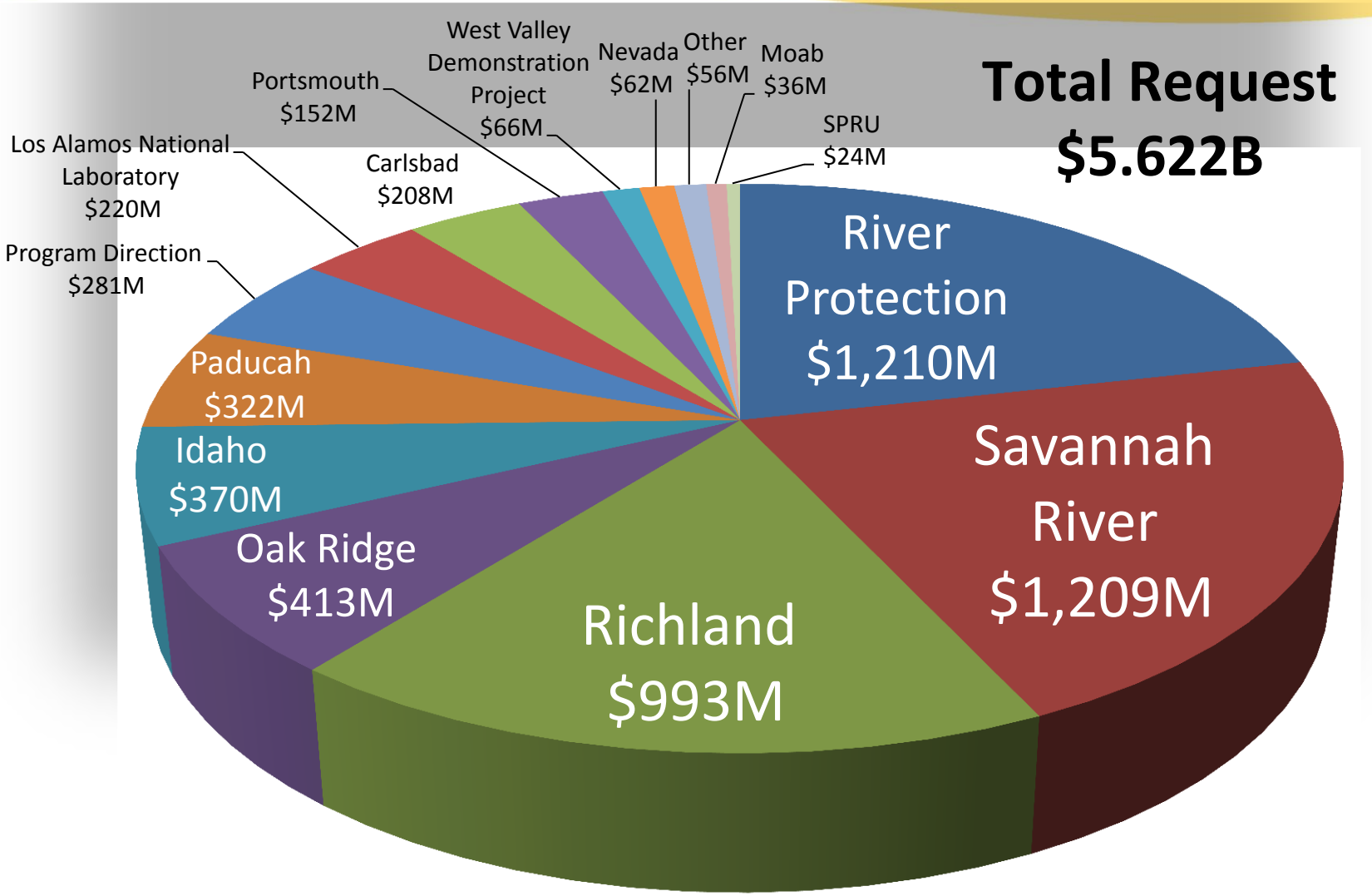
**Includes Safeguards and Security

Percentages do not add to 100% due to rounding

EM Funding Levels: FY 2012 – FY 2014 ($M)



EM's FY 2014 Budget Request: Funding by Site



Achieving Cleanup in a New National Environment

After 25 years of cleanup progress, the EM program's challenges have changed significantly. In response to this changing environment, EM must take the opportunity to strategically refocus our cleanup program, maximizing all of our resources to best serve the American people.

Key Challenges Facing EM

- Along with other federal programs, EM is facing an **uncertain fiscal environment**.
- Major **technical challenges** have emerged, particularly for large construction projects.

The Path Forward

- Partner with regulators, tribal nations and other stakeholders to **align cleanup priorities** and commitments with expected performance and funding levels.
- In close consultation with stakeholders, work to **optimize existing waste disposal** processes and systems.
- Improve project and contract **management**.
- Invest in **targeted, applied technology** development in areas where cleanup depends on the use of new technologies and where innovative technologies can reduce the risk and cost of cleanup.

Headquarters Technology Development & Deployment

Dollars in thousands

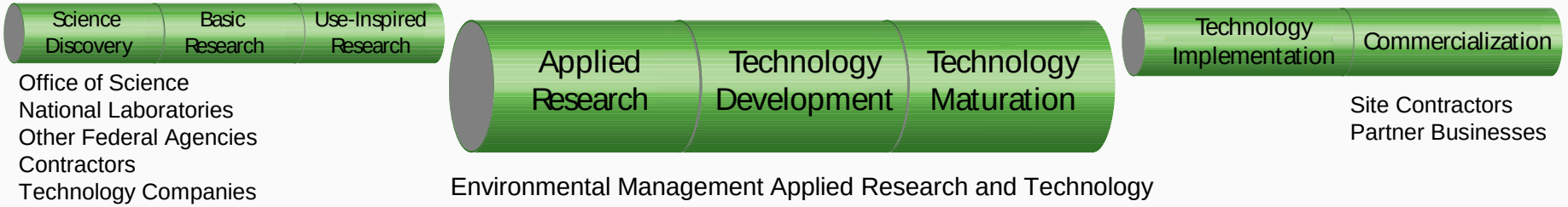
Site	FY 2012 Current	FY 2014 Cong. Request	FY 2014 vs. FY 2012 Current
Defense Environmental Cleanup	10,622	20,000	9,378

- EM will continue coordination with the Office of Science to leverage investments in research and utilize their expertise to address EM issues
- EM is proposing to enhance its Technology Development efforts in FY 2014, with a coordinated, two-pronged approach where select activities will be managed at HQ while others will be managed at the field sites
  - Long term technology development activities with lower maturity levels are to be managed at headquarters.
  - Short term technology development activities with higher maturity levels are to be managed at the sites.

Site Infrastructure/Support/Program Management (HQ-TD-0100) $20,000 (+$9,378)

- Conduct scientific research and development activities to provide the technical basis for supplemental low activity immobilization waste for and to provide a solution for the separation of Technicium-99 from the low activity waste
- Continue development of supplemental salt processing technology augmenting the Salt Waste Processing Facility capability and the Hanford tank waste system
- Test cleanup scenarios at key DOE sites through the use of Advanced Simulation Capabilities for Environmental Management as part of the End States Initiative
- Continue development and testing of innovative embedded sensors and long-term monitoring technologies for In-Situ Decommissioning

Technologies that are used by Environmental Management to complete our mission are developed via a multi-partner, public/private development pipeline



Solvent Extraction Technology Developed from Decades of DOE Investment, Partnerships, and On-going Applied Research