



U.S. DEPARTMENT OF
ENERGY

Office of Environmental Management: A Journey to Excellence

Presented to:

National Transportation Stakeholders Forum

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EM *Environmental Management*

safety ♦ performance ♦ cleanup ♦ closure

www.em.doe.gov

EM's Journey to Excellence: Vision and Mission

Goal 1: Complete the three major tank waste projects within the current approved baselines.

Goal 2: Reduce the life cycle costs and accelerate the cleanup of the Cold War environmental legacy.

Goal 3: Complete the disposition of 90% of the legacy transuranic waste by 2015.

Goal 4: Reduce the EM legacy footprint by 40% by the end of 2011, leading to approximately 90% reduction by 2015.

EM's Vision

To be viewed as one of the best managed government programs and the employer of choice in the Federal Government.

Goal 5: Improve safety, security and quality assurance towards a goal of zero accidents, incidents, and defects.

Goal 6: Improve contract and project management with the objective of delivering results on time, and within cost.

Goal 7: Achieve excellence in management and leadership, making EM one of the best places to work in the Federal Government.

EM's Mission

To safely transform the environmental legacy of the Cold War into assets available for the Nation's future by completing quality cleanup work on schedule and within cost, delivering demonstrated value to the American taxpayer.



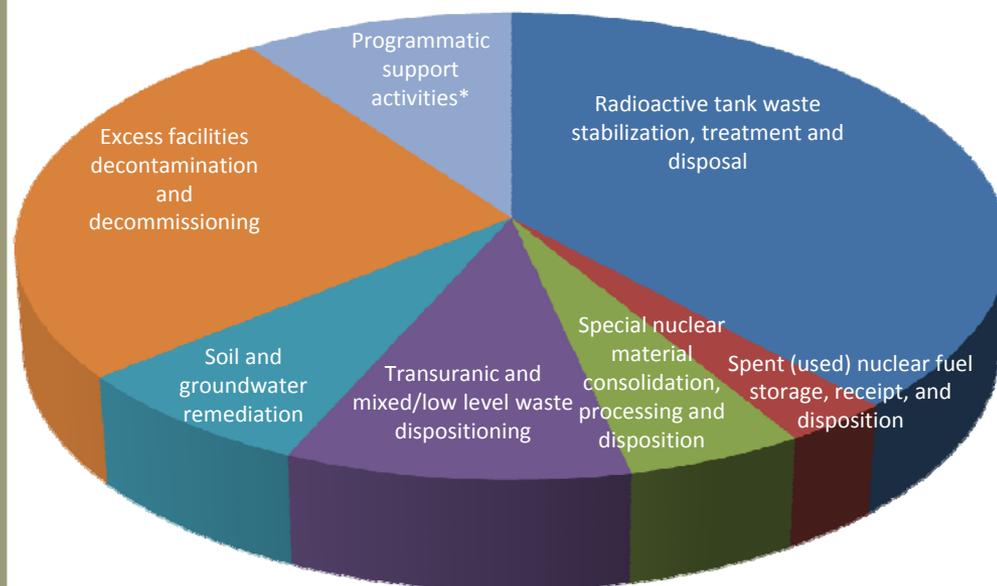
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EM Priorities

- Activities to maintain a **safe, secure, and compliant** posture in the EM complex
- **Radioactive tank waste** stabilization, treatment, and disposal
- **Spent (used) nuclear fuel** storage, receipt, and disposition
- **Special nuclear material** consolidation, processing, and disposition
- **Transuranic and mixed/low-level waste** disposition
- **Soil and groundwater** remediation
- Excess facilities **decontamination and decommissioning (D&D)**



EM's Journey to Excellence: Program Goals

Building on the ARRA momentum, the EM team will:

➤ **Complete the three major tank waste construction projects**

- Waste Treatment Plant by 2016 (operational 2019)
- Salt Waste Processing Facility by 2014 (operational 2014)
- Sodium Bearing Waste Facility by 2011 (operational 2012)

➤ **Reduce the life-cycle costs**

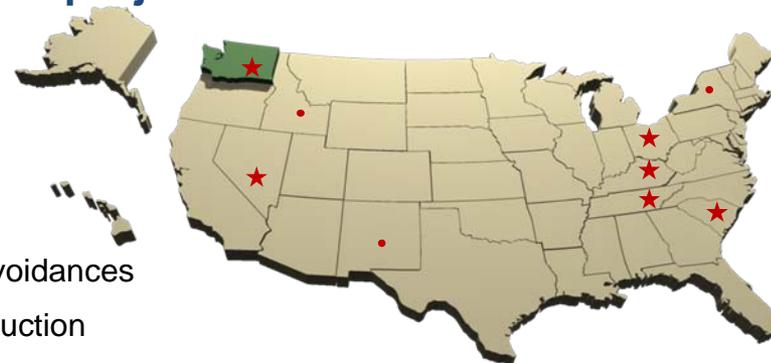
- Recovery Act investments – \$7 billion in cost savings and cost avoidances
- Transformational Tank Waste Technology – to date \$3 billion reduction

➤ **Disposition 90% of legacy TRU waste by 2015**

- All EM cleanup waste to WIPP by 2020, except for Hanford
- Approximately 41,000 m³ of TRU waste remains to be disposed to accomplish the 2015 goal (118,000 m³). Through 2010, approximately 77,000 m³ has been dispositioned

➤ **Shrink the EM legacy footprint 90% by 2015**

- In 1989, legacy cleanup footprint was 3,125 sq. miles. At the start of ARRA cleanup in 2009, it was 900 sq. miles. By the end of FY 2011, 540 sq. miles will remain. By 2015, it will be reduced to 90 sq. miles
- All Material Access Areas eliminated
- 2,636 facilities complete
- 7,745 remediations complete

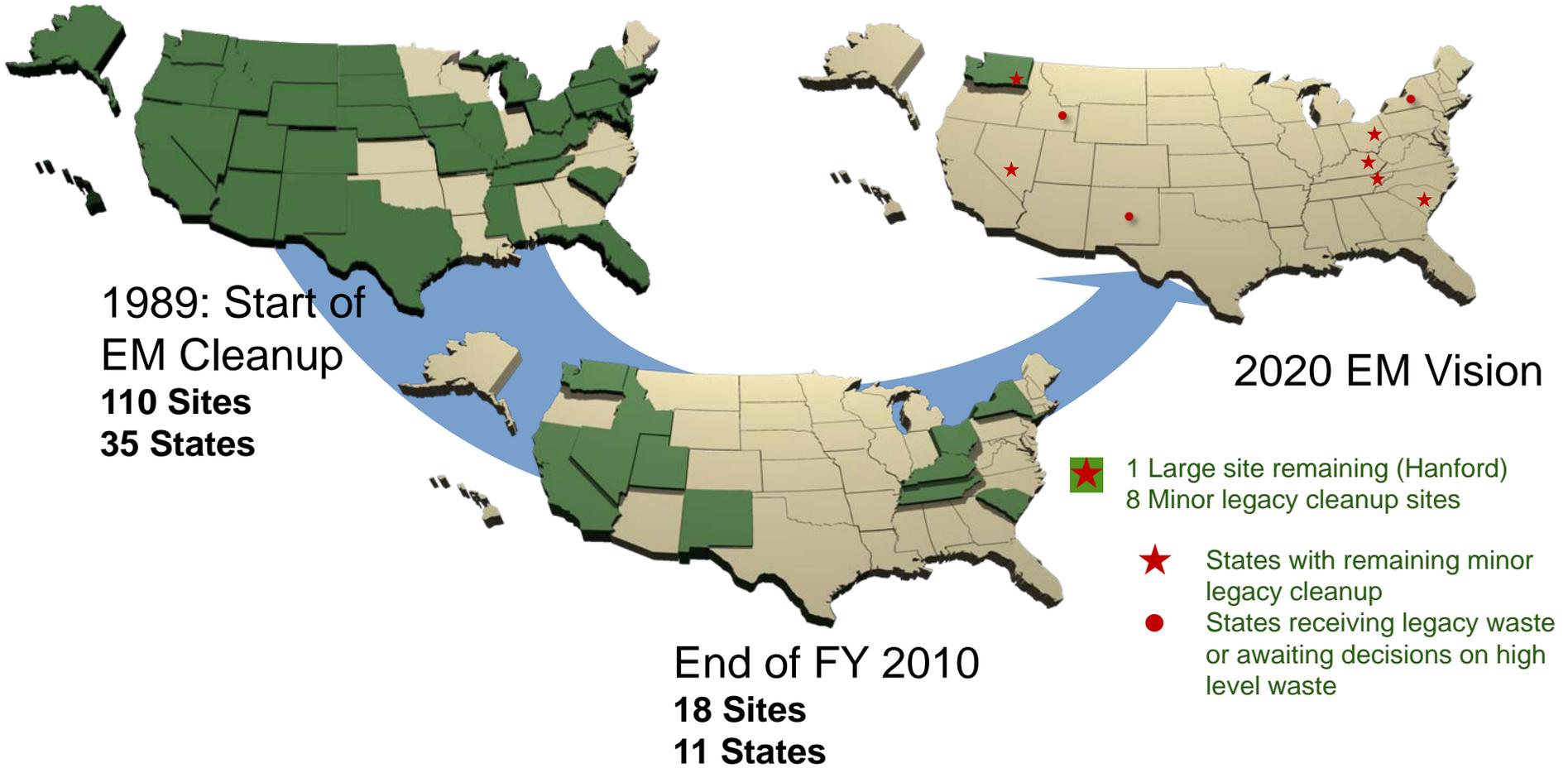


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We have a clear vision of the future.



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Transportation – A Significant Component In EM Waste Management Strategy

- Over 100,000 (offsite) shipments completed since FY 2004
 - Over 83,000,000 miles
- In FY 2010, completed over 18,000 shipments
- EM had a reportable accident rate of 0 accidents/million miles, based on ~ 18,000 shipments and ~ 5,000,000 miles (highway).

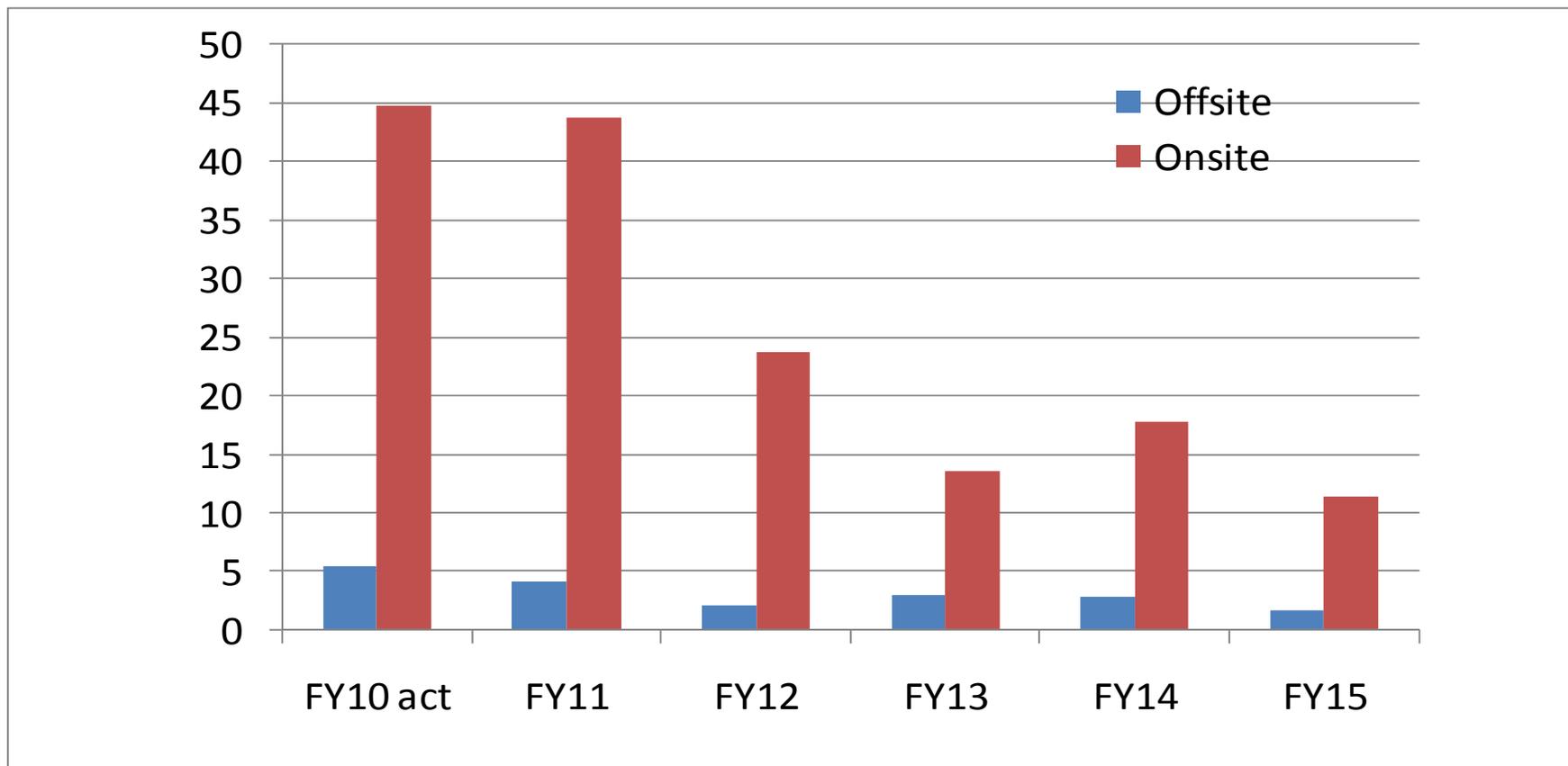


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LLW/MLLW Disposal Forecast Trends (millions of cubic feet)



Source: Draft 2011 WIMS data;
excludes "TBD" streams



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Transportation by Air, Rail & Highway

- ✓ **Annual Estimates of United States Hazardous Materials Shipping Activities**
 - ✓ 500 Billion packages
 - ✓ 400 Million are hazardous material
 - ✓ 3 Million are radioactive
 - ✓ DOE ships 5,000 to 20,000



Packaging and Transportation -- important component of our vision



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What about accidents?



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... disposition 90% of TRU waste by 2015 ...



- All Legacy TRU waste to WIPP by 2020, except for Hanford
- 65% Legacy TRU disposed to date; 90% by 2015

Completed TRU Sites

- ✓ Mound
- ✓ Fernald
- ✓ KAPL Nuclear Fuel Services
- ✓ Brookhaven National Laboratory
- ✓ Teledyne-Brown
- ✓ ARCO
- ✓ US Army Materiel Command
- ✓ University of Missouri Research Reactor
- ✓ Battelle Columbus Laboratories



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. . . build on our Recovery Act success . . .

- ARRA demonstrated value; \$7B in future savings and cost avoidance
- More than 11,000 jobs created/saved with ARRA funds
- \$1.8B in Recovery Act funds awarded to small business
- \$1.7B in Base funding awarded to small business in FY10



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DOE's Radioactive Waste Management Priorities

- Continue to manage waste inventories in a safe and compliant manner.
- Address high risk waste in a cost-effective manner
- Maintain and optimize current disposal capability for future generations
- Develop future disposal capacity in a complex environment
- DOE EM is closely monitoring changing circumstances in the nation's waste management system



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Mixed and Low Level Waste Disposition Update

- Increased disposal volumes of LLW/MLLW are expected to continue in FY 2011
 - As of 2/28/11, ARRA projects report 74,806 m³ of LLW/MLLW disposed out of a life-cycle total of 85,005 m³
- Continued operation of DOE disposal facilities to meet complex-wide needs
- Continued use of onsite disposal at large cleanup sites
 - New onsite disposal cells being considered for Paducah and Portsmouth
- WCS Federal Disposal Facility in Texas under construction.



New Mixed Waste Disposal Cell in Nevada



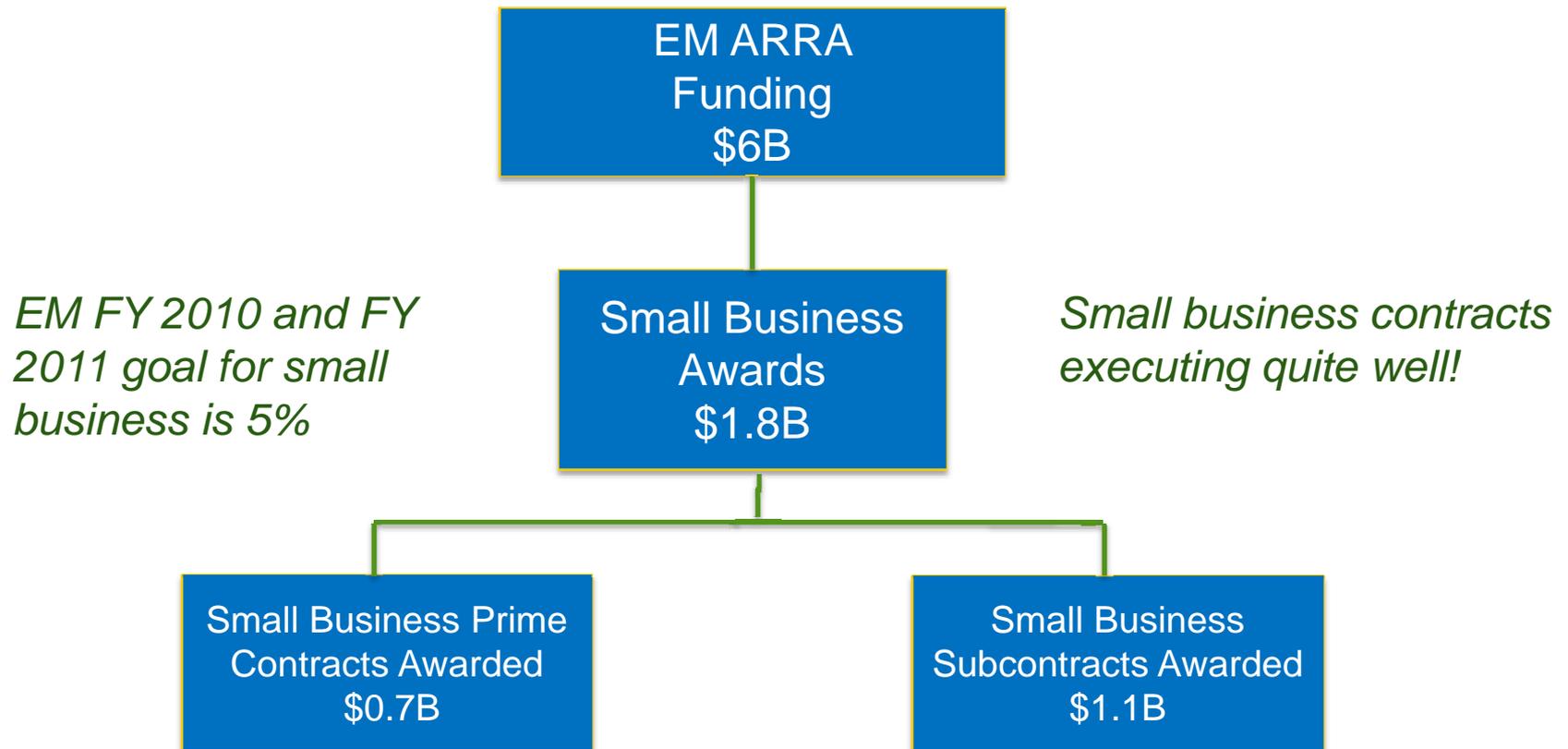
Workers place the first container of mixed low-level waste in the new MWDU.



Workers test the leachate collection system.



Recovery Act Funding Awarded to Small Businesses



Success in Meeting Small Business Goals

- EM FY 2010 and FY 2011 Small Business goal is 5%.
- Awarded over \$481M in Recovery Act funds to EM small business prime contractors.
- Awarded over \$700M in RA funds to small business subcontractors.
- Small business subcontracts continue to be awarded with Recovery Act funding. (No prime contracts in 2011)
- Small business contracts executing well!
- EM awarded over \$900 million in potential contracts to an Indefinite Delivery Indefinite Quantity (IDIQ) pool of small business contractors in 2010.



A.J. Stockmeister employees perform preparatory work for asbestos abatement



DKM subcontractor installing electrical systems for construction field trailer



Recovery Act Accomplishments

The EM video has been removed from this PDF.
The video is available at [this link](#).



EM 2020 Cleanup Vision

Results and Benefits

Start of EM Cleanup

- From 110 sites down to 1 major site – Hanford
- All tank waste treatment systems constructed and operating
- \$36B reduction/avoidance in lifecycle cost via investments

2020 EM Vision

- Protecting human, health and the environment
- Sites available for future missions, economic development and job creation
- Reducing one of our nation's largest liabilities and the burden on future

Current Status



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