



U.S. DEPARTMENT OF  
**ENERGY**



**EM SSAB**  
and  
the **EM Planning/Budget Process**

**Barry Gaffney**  
Acting Deputy Director of Planning  
Office of Environmental Management

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# Planning and Budget Priorities

*“Complete the safe cleanup of the environmental legacy brought about from five decades of nuclear weapons development, production, and Government-sponsored nuclear energy research”*



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

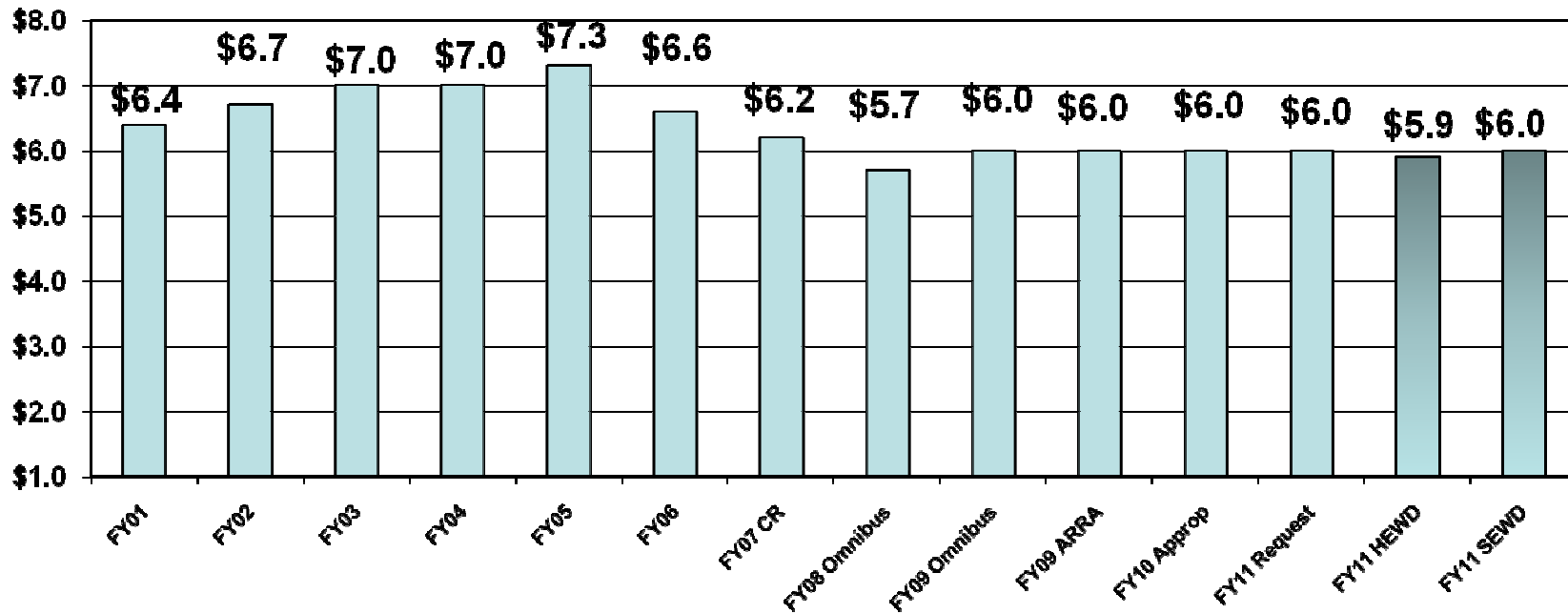


**EM** Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

# EM Funding History

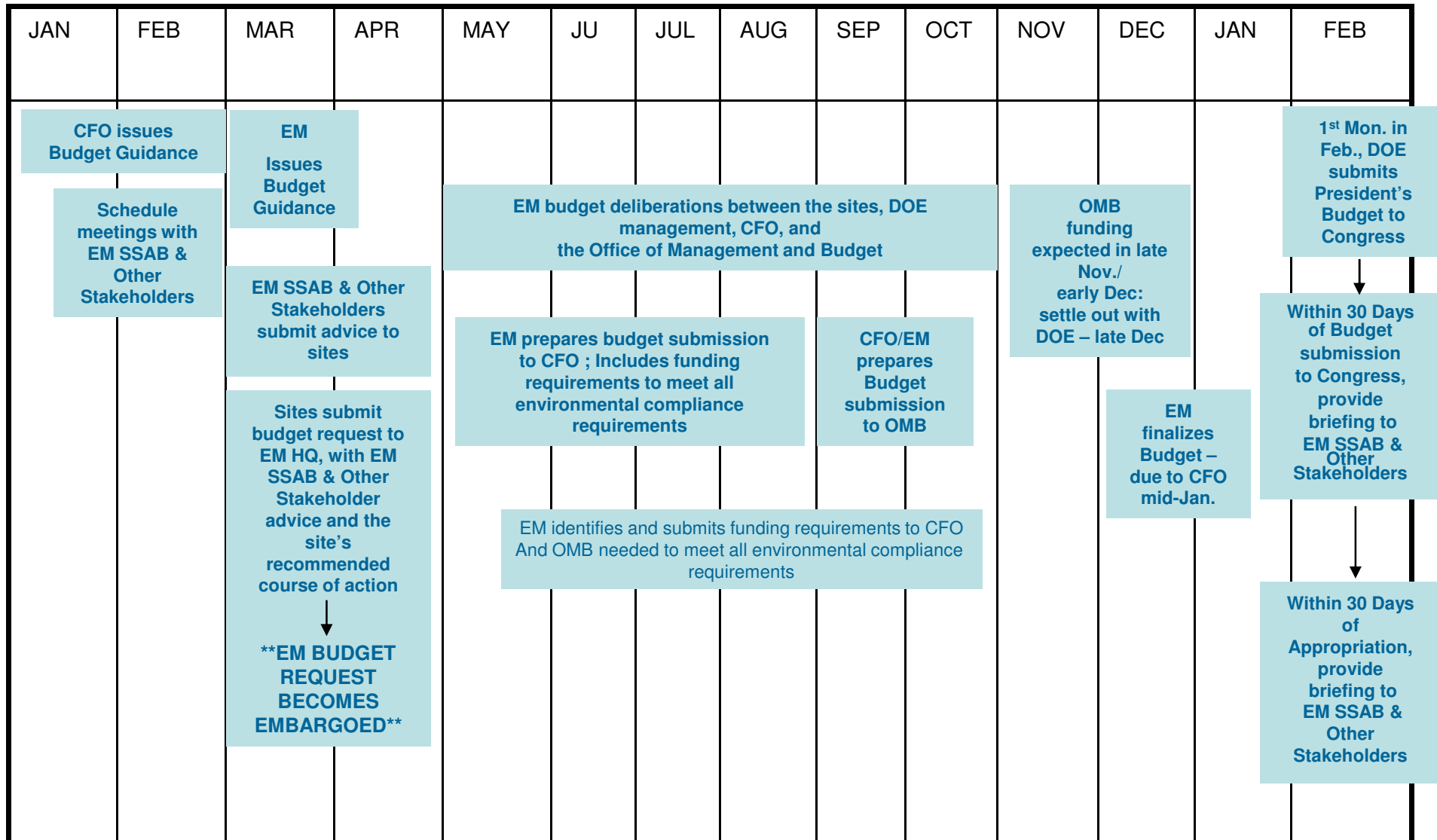
\$ in billions



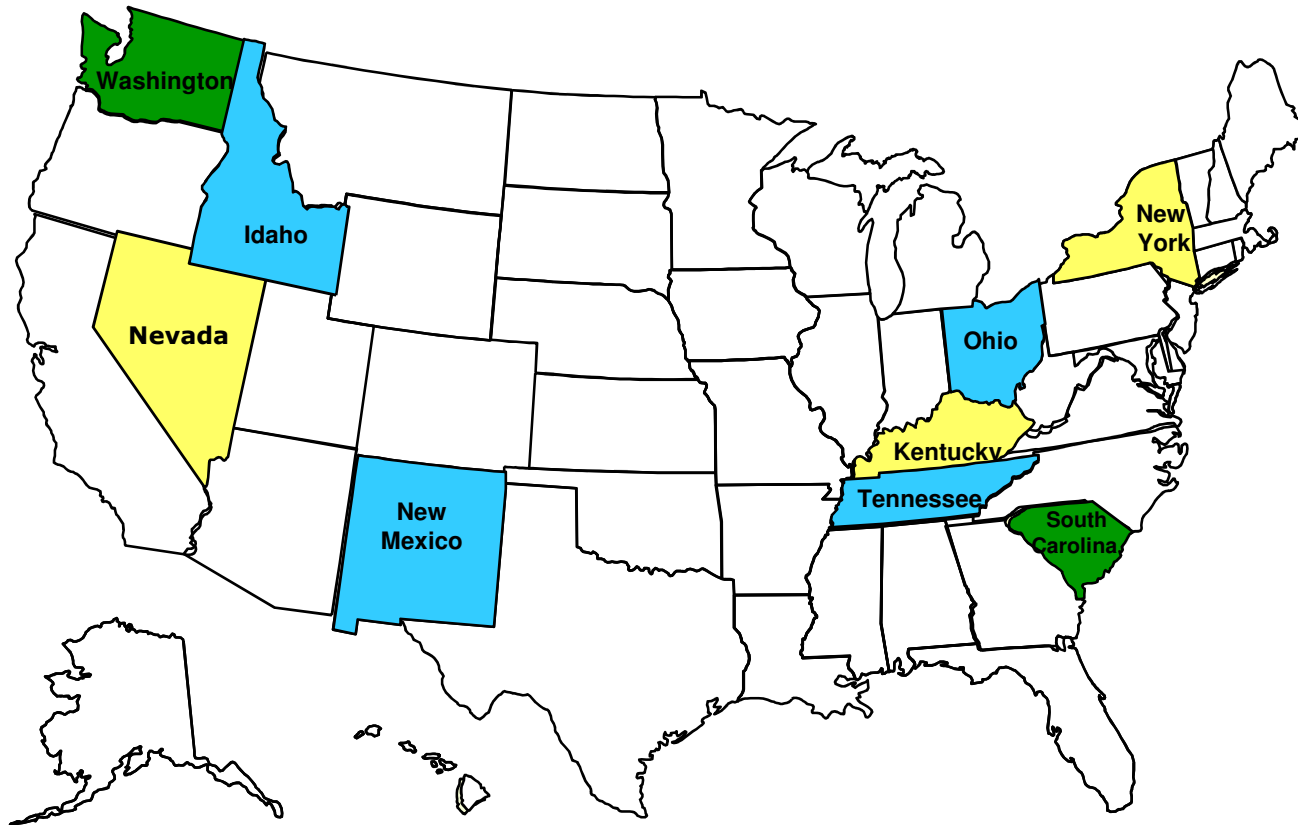
# ***FY 2011 and FY 2012 Budget Overview***

- FY 2011 action
  - Continuing Resolution
    - » Working with sites to determine impacts under 6 month and year-long CR
      - There is a focus on challenges surrounding ARRA Program Direction
    - » Base challenges focus on Program Direction and line item construction projects
    - » Historical CR rules apply -- no new starts or terminations, funding will be based on current enacted level
    - » CR rules will either maintain FY 2010 budget structure or may allow more flexible FY 2011 revised structure (i.e., site level control points)
  - Highlights of Hill Action
    - » Potential reprogramming threshold changes -- \$2M only and no differentiation between internal and external
  
- FY 2012 status and schedule
  - Schedule
    - » Budget requests due to CFO 9/8
    - » Final budget delivery to OMB 9/13
    - » Passback expected late November 2010
    - » Budget scheduled for delivery to Congress – 1<sup>st</sup> Monday in February 2011

# Development Milestones



# EM Program FY 2011 Request



## EM Budget \$6.0 Billion

State <sup>a</sup>	FY 2011 Request (\$ in Millions)
Washington	2,271
South Carolina	1,404
Ohio	520
Tennessee	467
New Mexico	439
Idaho	423
Kentucky	154
New York	86
Nevada	70

<sup>a</sup>Table only includes states with \$50M or greater in EM funding

### Legend:

- Over \$1 billion
- \$300 million to \$1 billion
- \$50 million to \$300 million



# Site Specific Distribution

Site	FY 2009 Enacted	FY 2009 Recovery	FY 2010 Current Enacted	FY 2011 Request	FY 2011 HEWD	FY 2011 SEWD
Argonne	19,479	79,000	10,000	-	-	-
Brookhaven	8,433	70,810	15,000	13,861	13,861	13,861
ETEC	15,000	51,675	10,500	10,679	10,679	10,679
Hanford	1,057,496	1,634,500	1,080,503	1,041,822	1,041,822	1,091,822
Idaho	489,239	467,875	469,168	412,000	422,000	412,000
Los Alamos	226,082	211,775	199,438	200,000	200,000	200,000
Lawrence Livermore	688	-	1,148	873	873	873
Miamisburg	35,331	17,900	33,243	-	-	-
Moab	40,699	108,350	39,000	31,000	41,000	50,000
Nevada	76,741	44,325	65,674	66,000	66,000	66,000
Oak Ridge	498,688	755,110	436,168	450,000	450,000	450,000
River Protection	1,009,943	326,035	1,098,000	1,158,178	1,158,178	1,158,178
Paducah	169,947	80,400	166,127	145,000	145,000	145,986
Portsmouth	240,715	119,800	309,307	479,035	331,897	327,953
Savannah River	1,361,479	1,615,400	1,342,013	1,349,863	1,342,013	1,349,863
SPRU	18,000	58,575	15,000	12,500	12,500	12,500
SLAC	4,883	14,300	7,100	3,526	3,526	3,526
Sandia	3,000	-	2,864	-	-	-
WIPP	240,591	172,375	234,981	225,000	235,092	235,000
West Valley	68,300	62,875	59,933	60,000	60,000	60,000
Other	35,903	-	13,687	6,375	6,375	6,375
Program Direction	309,807	28,920	345,000	323,825	323,825	355,000
Program Support	33,930	-	34,000	25,143	25,143	34,000
Ur/Th Reimbursement	10,000	70,000	-	-	-	-
TD&D	31,415	-	20,000	32,320	20,078	39,685
D&D Fund Deposit	463,000	-	463,000	496,700	33,700	33,700
DOE Departmental Admin	-	10,000	-	-	-	-
Subtotal, EM	6,468,789	6,000,000	6,470,854	6,543,700	5,943,562	6,057,001
UED&D Fund Offset:	(463,000)	-	(463,000)	(496,700)	(33,700)	(33,700)
Domestic Utility Fee Offset:	-	-	-	-	-	-
Defense Prior Year Offset:	(4,197)	-	-	-	-	-
Non-Def Prior Year Offset:	(925)	-	-	-	-	-
Transfer from Science:	(10,000)	-	-	-	-	-
Total, EM	5,990,667	6,000,000	6,007,854	6,047,000	5,909,862	6,023,301

# ***FY 2011 Highlights of EM's Request***

- Fully funds tank waste management and treatment activities across the complex:
  - Hanford Waste Treatment and Immobilization Plant (\$740M)
    - to accelerate completion of design
  - Savannah River Salt Waste Processing Facility (\$288M)
    - construction and pre-operations
  - Idaho Sodium Bearing Waste Treatment (\$95M)
    - to complete construction activities
  - Tank waste retrievals at Hanford and Savannah River (\$95M)
    - to meet regulatory commitments
- Increased funding at Portsmouth to fully support accelerated D&D



# ***FY 2011 Highlights Continued***

- Increased technology investments
  - Tank Waste Technologies (\$60M)
    - Optimize tank waste disposition resulting in technology insertion points into the tank waste system that will yield significant cost savings and reduce the period of execution
  - Groundwater Remediation (\$25M)
    - Understand and quantify the subsurface flow and contaminant transport behavior in complex geological systems
- Small site completions
  - Brookhaven National Laboratory (\$13.M)
  - Stanford Linear Accelerator (\$3.5M)
  - Separations Process Research Unit (\$12.5M)

# Key EM Goals for FY 2011

## Improving Project Management:

- Both the General Accounting Office and National Academy of Public Administration have stated that the current project structure of Project Baseline Summaries (PBSs) are:
  - Too large to manage and provide adequate oversight
  - Inclusive of both capital asset and operations activity scope
  - Masked by “no completion” until end of PBS life-cycle
- March 2010 Deputy Secretary Poneman issued Departmental guidance to:
  - Commit to improving project management
  - Facilitate effective management of cost, scope, schedule, and risk
  - Break projects into more discrete elements

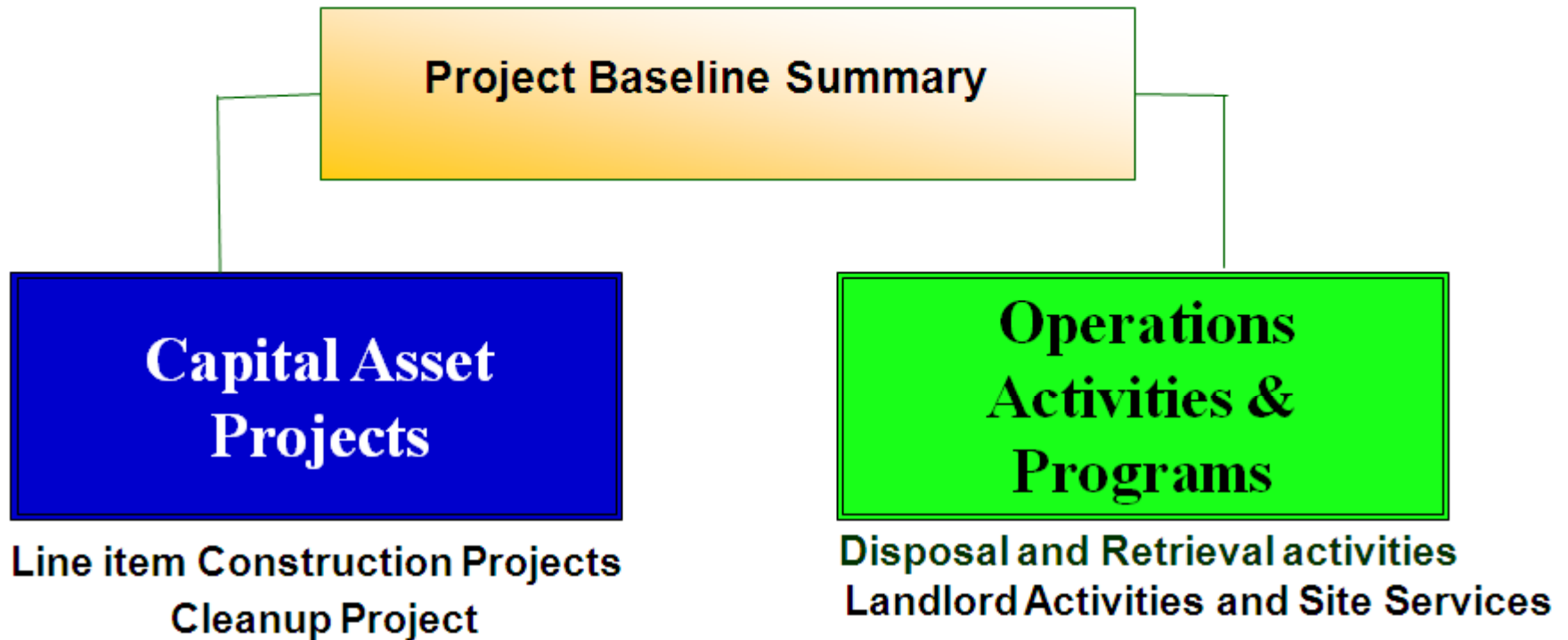


# *Key EM Goals for FY 2011 Continued*

## **Restructure EM's Portfolio:**

- Thus, EM began the process of restructuring its program to clearly differentiate capital asset projects from non-capital asset activities to improve project management:
  - Focus on Capital Asset Project Delivery
    - Apply DOE Order 413.3A requirements
    - Deliver project completions within cost and schedule
  - Construction Project Reviews
    - Life of Project Reviews—Baseline to Completion
    - All Line Item and Significant Projects to be Reviewed
  - Operations Activities and Programs
    - Emphasize performance metrics and milestones in contracts and use these measures to monitor progress.

# *EM's New Project Structure*



# Construction and Cleanup Projects

- Performance-based
  - Establish capital projects within each PBS
  - Baseline with clearer scope definition and shorter timeframes
  - Develop more defensible project cost estimates
  - Identify schedules with realistic end dates
  - Greater understanding of project risks and opportunities
- Ensure continued accountability
  - Maintain integrity of lifecycle cost estimates
  - Assign performance measures and milestones to capital projects

**Categorizing EM work will lead to improved program, project, and contract management by defining performance expectations and improving stakeholder communications.**

# FY 2012 Cleanup Approach

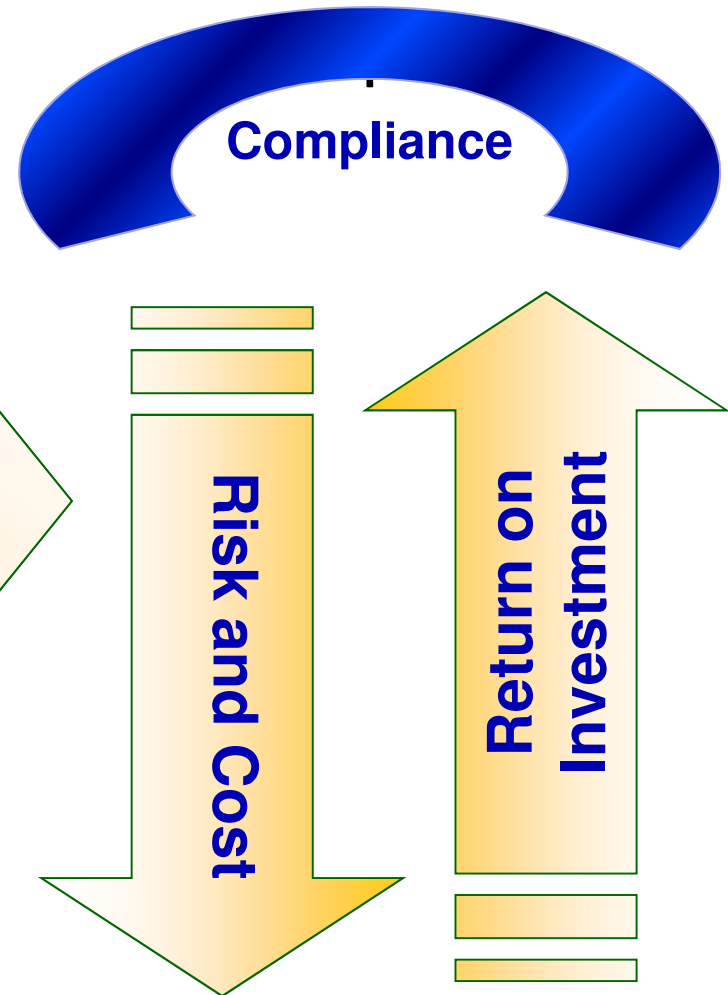
## Sound business practices

- Near term completions
- Footprint reduction

Use science and technology to optimize the efficiency of tank waste disposition

Use science and technology to optimize the efficiency of excess nuclear materials and spent nuclear fuel disposition

Alternative management approaches such as the Energy Parks Initiative



# ***FY 2012 Strategic Planning Overview***

- EM's strategic investment portfolio supports footprint reduction goals, near-term completions, and optimizing tank waste disposition to achieve substantial savings in the long-term
  
- FY 2012 planning opportunities advance management goals
  - By 2015 drive EM footprint reduction leading to 90%
  - Use Science and Technology to optimize tank waste removal, treatment and disposition
  - Reduce DOE footprint by addressing high risk excess facilities and materials from NNSA, Offices of Science and Nuclear Energy
  - Return assets to the surrounding communities



# FY 2012 Approach/Key Assumptions

- NDAA Report laid out basic EM goals and strategic approaches
  - By 2015 drive EM footprint reduction leading to 90%
  - Pursue alternative approaches to disposition tank waste, excess nuclear materials and spent fuel
  - Implement alternative management approaches
- Investment opportunities developed using the NDAA data set as a basis, updated to reflect Recovery Act savings



- Evaluation of the opportunities includes
  - Investment required
  - Life-cycle savings (reduced surveillance and maintenance, efficiency savings and savings from completing work in earlier years)
  - Return on investment (ROI)

# ***FY 2012 Strategic Planning-Current Status***

- Working with sites to identify initial business cases
  - Completed workshop with senior site managers to define six integrated business cases for Hanford (Richland and River Protection)
  - Completed analogous Savannah River workshop
  - Initial discussions held with small sites to identify potential cases
- Updating information & tools to enable Analytical Building Blocks-level analysis
  - Updated complex-wide HQ scope and cost data to reflect Recovery Act impact
  - Hanford and SRS data collected and being analyzed
  - Modifying and expanding analytical tools for business case construction and tradeoff evaluation

# ***FY 2012 Strategic Planning-Current Status Continued***

## **Business Case Approach:**

- Identify business cases to be evaluated
  - Document site and case-specific assumptions
  - Identify “off the top” activities that must be funded in all cases
  - Establish appropriate sequencing of work
  
- In parallel develop/update cost and other information to support analysis
  - Update Analytical Building Blocks--ABBs (sub PBS)
  - Establish min safe cost profile for each ABB/business case
  - Create case-specific ABBs as needed to reflecting scope to be accomplished under a given business case
  
- Build business cases
  - Build each case by business sector (footprint reduction, tank waste disposition, etc.)
  - Evaluate compliance, life-cycle cost and other impacts for each case
  - Do iterative analysis to refine business cases