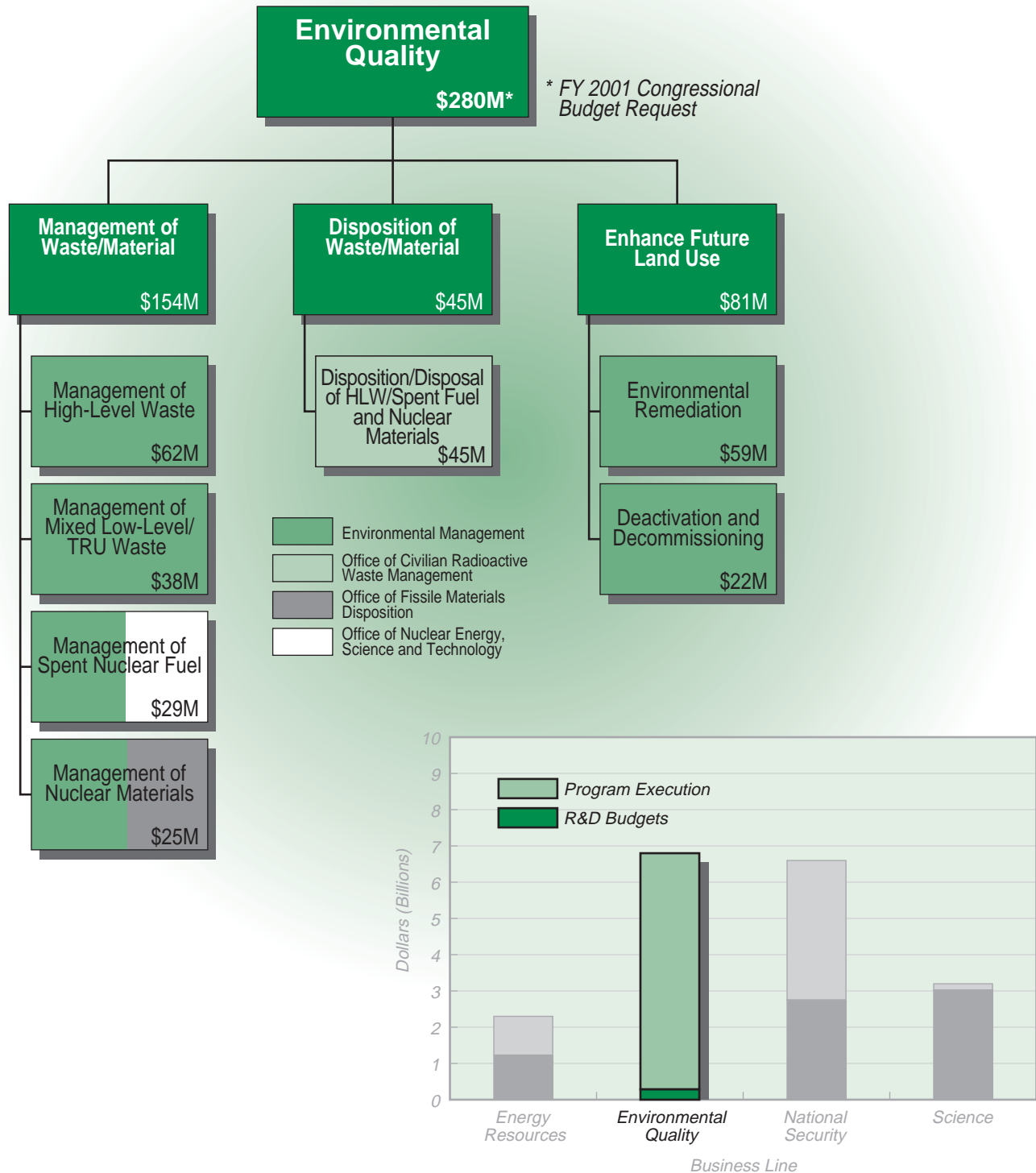


# Environmental Quality



## **Environmental Quality R&D Portfolio**

### **FY 2001 Congressional Budget Request, R&D Highlights**

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#### **Areas of Major R&D Focus:**

- **High Level Waste** [FY99-\$54.8M, FY00-\$59.5M, FY01-\$62.0M]  
DOE sites have 44 high priority R&D needs associated with removing high-level waste in 280 large radioactive and other miscellaneous underground storage tanks containing over 90 million gallons of waste.
- **Mixed, Low-Level and Transuranic Waste** [FY99-\$37.2M, FY00-\$35.0M, FY01-\$38.2M]  
DOE sites have 60 high priority R&D needs to address 165,000 cubic meters of mixed and transuranic wastes in storage that includes over 1,437 mixed waste streams at 40 sites.
- **Spent Nuclear Fuel** [FY99-\$40.9M, FY00-\$29.7M, FY01-\$29.0M]  
The major R&D focus for DOE spent nuclear fuels is on treatment and conditioning to prepare for disposal or long-term storage.
- **Nuclear Materials** [FY99-\$25.3M, FY00-\$22.2M, FY01-\$24.9M]  
DOE sites have 36 high priority R&D needs for the safe management and expeditious stabilization of DOE's nuclear materials.
- **Disposal** [FY99-\$59.2M, FY00-47.2M, FY01-\$44.6M]  
DOE is completing major R&D efforts to support a decision on whether to recommend the Yucca Mountain site to the President as the Nation's first repository for spent nuclear fuel and high-level radioactive waste in FY 2001.
- **Environmental Restoration** [FY99-\$77.5M, FY00-\$58.98M, FY01-\$59.3M]  
DOE sites have 68 high priority R&D needs and 18 streams with high technology risks associated with the 5,700 known DOE groundwater plumes that involve 475 billion gallons of contaminated water and 75 million cubic meters of contaminated soil.
- **Deactivation and Decommissioning** [FY99-\$30.9M, FY00-\$32.7M, FY01-\$21.9M]  
DOE sites have 24 high priority R&D needs pertaining to the 20,000 radiologically/hazardous waste contaminated buildings and facilities across the DOE complex.

#### **New or Expanded Areas of R&D Emphasis:**

- Focus on improving the balance of investments in the portfolio by transitioning basic research results into the applied research and development phase to address the Department's mid- and long-term cleanup needs.
- Place additional emphasis on developing long-term stewardship activities related to more reliable and cost-effective characterization and monitoring technologies and approaches. Long-term stewardship will ensure human health and the environment are protected after cleanup is completed, sites are closed, waste is emplaced for disposal, and/or facilities are stabilized for long periods awaiting possible further remediation.
- Focus the Environmental Systems Research and Analysis activities, conducted by the Idaho National Engineering and Environmental Laboratory, on research initiatives supporting subsurface science and long-term stewardship activities. Emphasis will also continue on identifying opportunities for multi-site environmental management integration.