



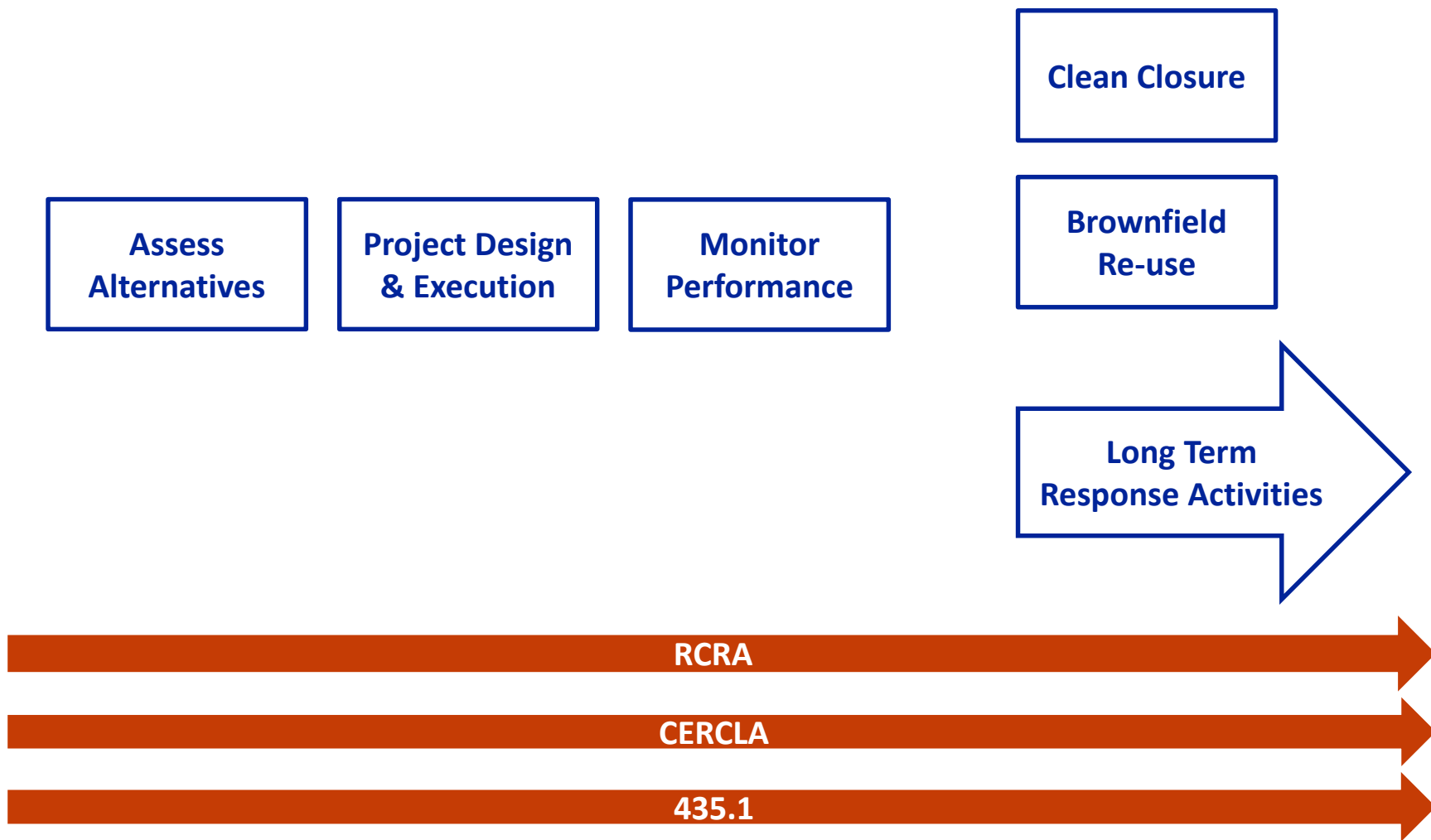
U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

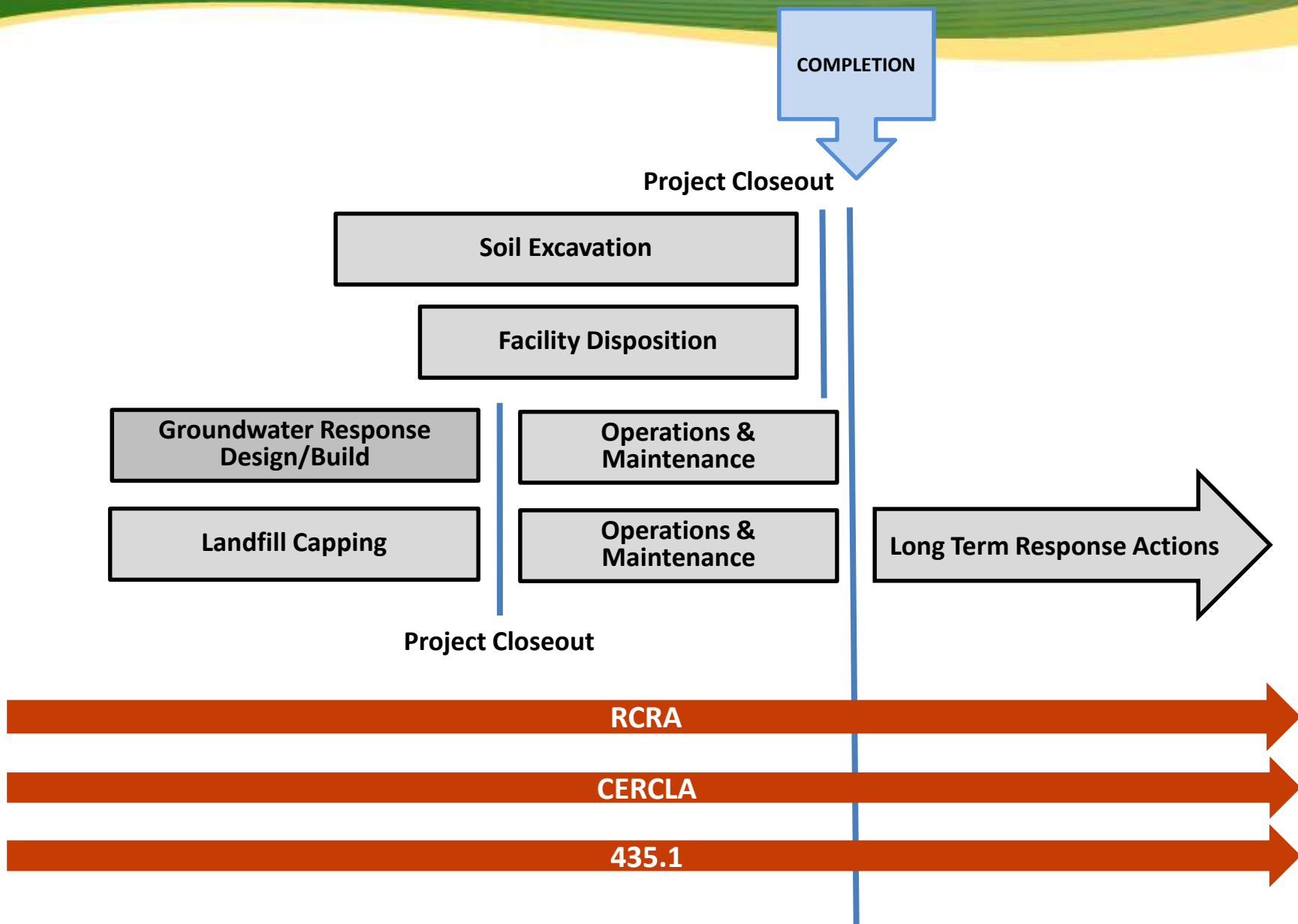
DOE Response Actions:

Long-term Responsibilities and Regulatory Oversight

Project Formulation Through End-use



Cleanup Projects & Long Term Response Actions



Objectives/Goals for EM Completion

- All short-term response measures completed (e.g., soil excavation, tank/drum removal)
- All contaminated buildings decontaminated and dismantled (in-situ or removed)
- All required containment measures in place (e.g., burial ground caps/covers, barrier walls)
- All required monitoring systems in place
- All Long-Term Response Actions in place, functioning, and operating properly (e.g., pump & treat systems, soil vapor extraction systems)
- Where appropriate, transition/exit strategies established

- **UNRESTRICTED**
 - No active or passive, e.g., institutional controls (ICs) required
- **RESTRICTED**
 - Active or passive controls required to prevent specific type(s) of land use or specific activities (e.g., excavation)
- **LONG-TERM RESPONSE ACTION**
 - Operation of groundwater pump & treat systems, subsurface treatment barriers to control contaminant migration
- **PERMANENT WASTE MANAGEMENT AREA (WMA)**
 - Construction of on-site disposal facility, in-situ containment of waste in major facilities (e.g., U-Plant at Hanford, Reactors at Savannah River)

Post-Completion Requirements Are Similar Under Different Regulatory Regimes

- Most of DOE's larger sites involve the use of all three regulatory authorities
- RCRA/CERCLA parity policy (cleanup completed under one is presumed to satisfy requirements of the other as well)
- DOE policy allows RCRA or CERCLA documentation to be used to satisfy DOE Order 435.1 (AEA) requirements for Low-level Waste (LLW) disposal facilities

ALL THREE REGULATORY REGIMES REQUIRE:

- Monitoring (e.g., groundwater contaminant concentrations) and maintenance (e.g., erosion control of landfill covers) for completed containment remedies
- Performance monitoring of Long-Term Response Actions (LTRAs) to confirm systems are operating as planned, to confirm when remedial action objectives (RAOs) are met, or to trigger alternate plans if conditions warrant
- Maintenance and monitoring of any institutional controls established for a site
- Periodic documentation and reporting (e.g., CERCLA five year reviews, RCRA post-care closure demonstration, DOE O 435.1 annual summaries for LLW disposal facilities)

Summary

- If engineered systems are in place, they will be monitored and maintained as necessary
- If LTRAs are underway, performance over time will be monitored and appropriate measures taken to ensure proper performance as necessary or to terminate an action if ROAs are attained
- Periodic documentation and regulatory reporting will be conducted
- The ONLY site that is truly "walked away" from will be one where ALL contaminants above health based levels have been removed and no restriction of any kind are require