

U.S. Air Force Real Property Agency

Integrity - Service - Excellence

Long Term Management of Cleanup Performance



“Begin with the End in Mind”

Mario E. Ierardi

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Current Landscape: *The Challenges of LTM of Cleanup*

All Federal agencies face similar challenges involving the Long Term Management (LTM) of Cleanup Performance

- **Lack of Guidance/Consistency on Cleanup Performance Reviews**
 - Inconsistent expectations on trigger dates, content of five-year reviews, OPS certifications & reporting requirements
 - Costs range from \$25,000 - \$250,000 per review
- **Lack of Cleanup Performance Monitoring systems capable of reporting cleanup performance against cleanup standards**
- **Loss of institutional knowledge before cleanup is completed**
 - Site specific and agency wide
 - Results in increased costs associated with reviews
- **What constitutes Cleanup protectiveness & completion?**
 - How is it defined & documented?
 - If RAOs are not met, can site be protective?

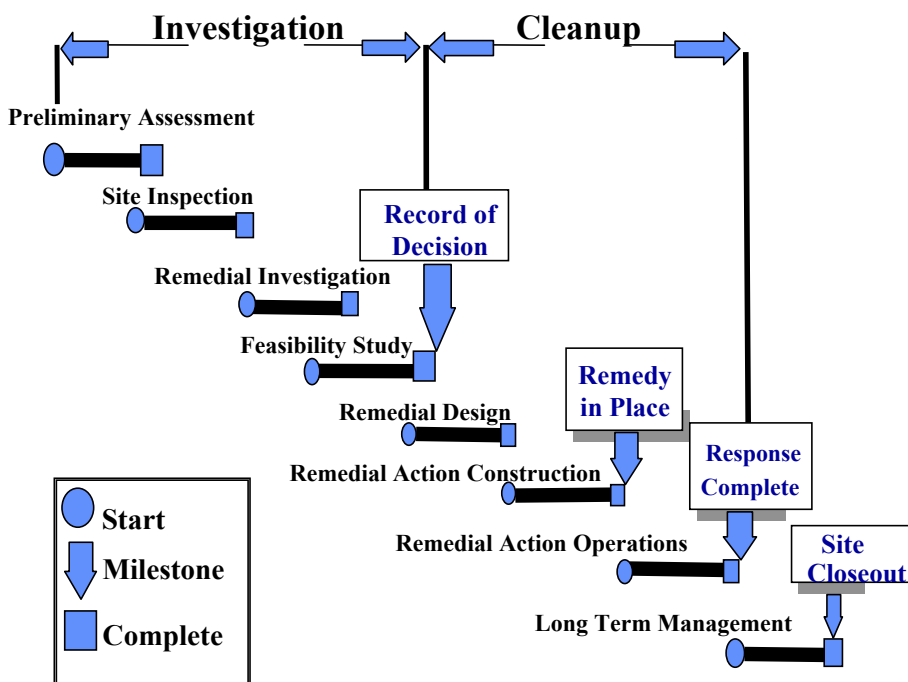


Cleanup Transformation

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Today

Process-Based



Cleanup Decision

Future

Performance-Based

Cleanup



Post Construction Complete And Long-Term Management

CLEANUP BEGINS: Cleanup Coordination and Communication

- Community Outreach
- Public Participation
- State Agencies
- Federal Facilities

SVE System Performance

PLUME REMEDIATION EFFECTIVENESS EVALUATION

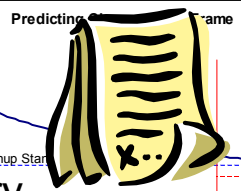
Cleanup Planning

Cleanup Performance

Cleanup Improvement

New Cleanup Standards

Cleanup Closure

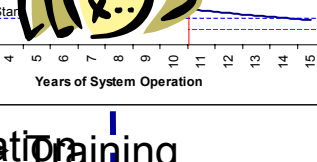


- Exit Strategies
- Ramp Down
- PC CSM

- 5-Year Review
- PPR/OPS
- Performance Track
- IC's/LUCs

- Optimization
- Performance Track
- Insertions
- Privatization Initiatives
- New Contractors

- Emerging Issues
- New Goals
- Regulatory Closeout
- Protectiveness Documentation

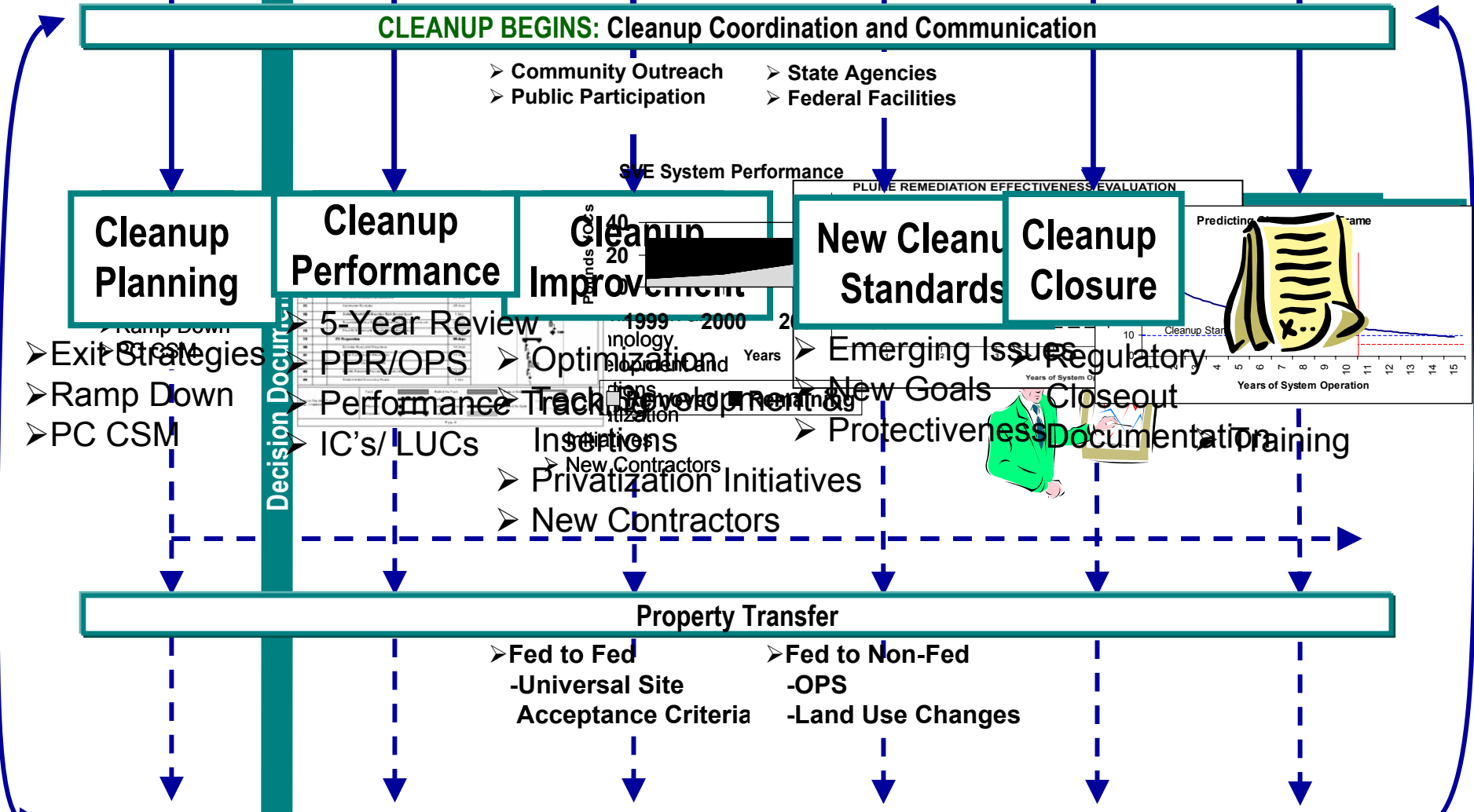


Decision Document

Property Transfer

- Fed to Fed -Universal Site Acceptance Criteria
- Fed to Non-Fed -OPS -Land Use Changes

Quality Data/Information Retention/ Knowledge Management



Post Construction Complete And Long-Term Management

Cleanup Coordination and Communication

- Community Outreach
- Public Participation
- Public Stakeholders
- State Organization
- Federal Facilities

Cleanup Planning

- Exit Strategies
- Ramp Down
- PC CSM

Cleanup Performance

- 5-Year Review
- PPR/OPS
- Performance Tracking
- IC's/ LUCs

Cleanup Improvement

- Optimization and Technology
- Development and Insertions
- Privatization Initiatives
- New Contractors

New Cleanup Standards

- Emerging Issues
- New Goals
- Protectiveness

Cleanup Closure

- Regulatory Closeout Documentation

Cleanup Closure Training/ Incentives

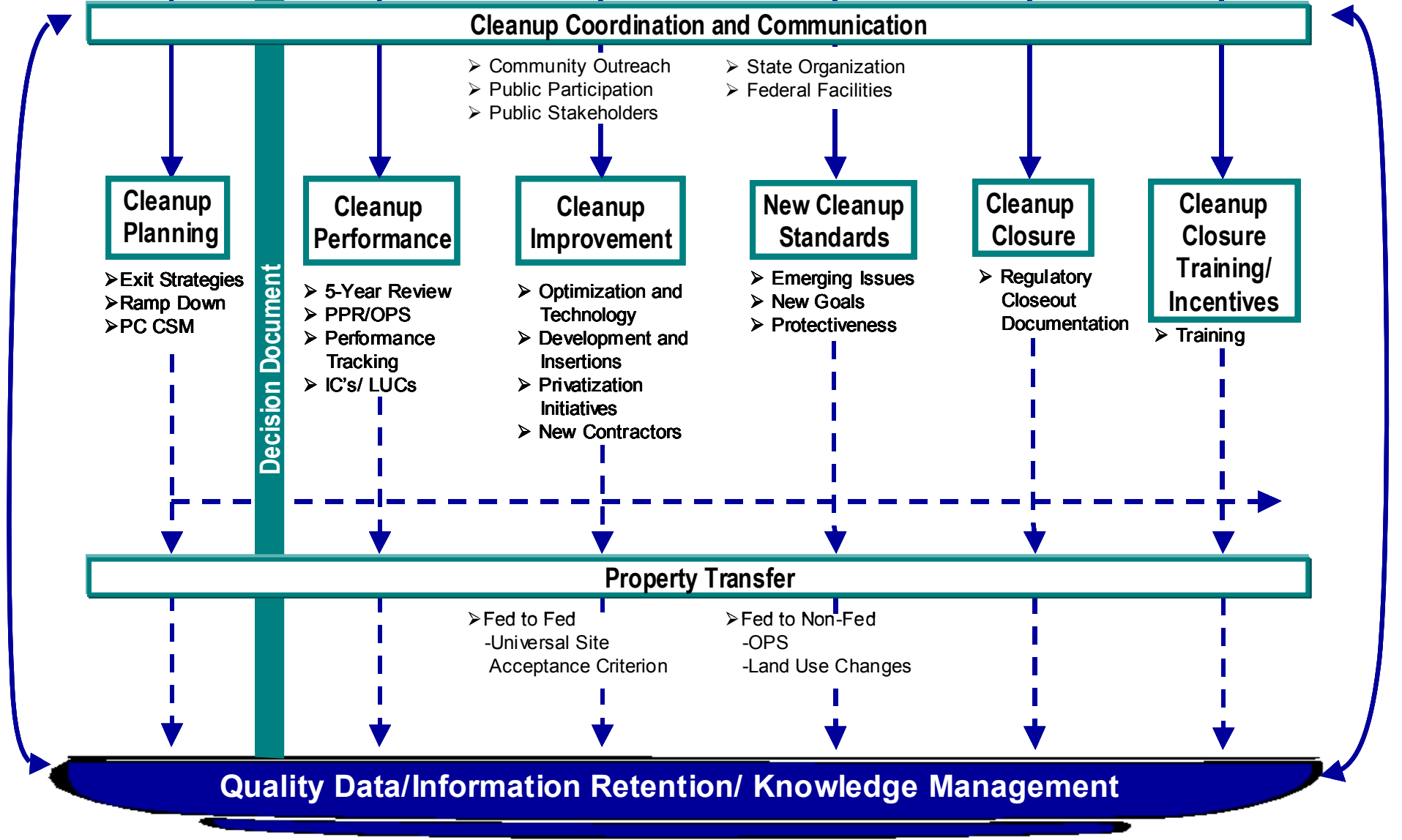
- Training

Decision Document

Property Transfer

- Fed to Fed
 - Universal Site Acceptance Criterion
- Fed to Non-Fed
 - OPS
 - Land Use Changes

Quality Data/Information Retention/ Knowledge Management



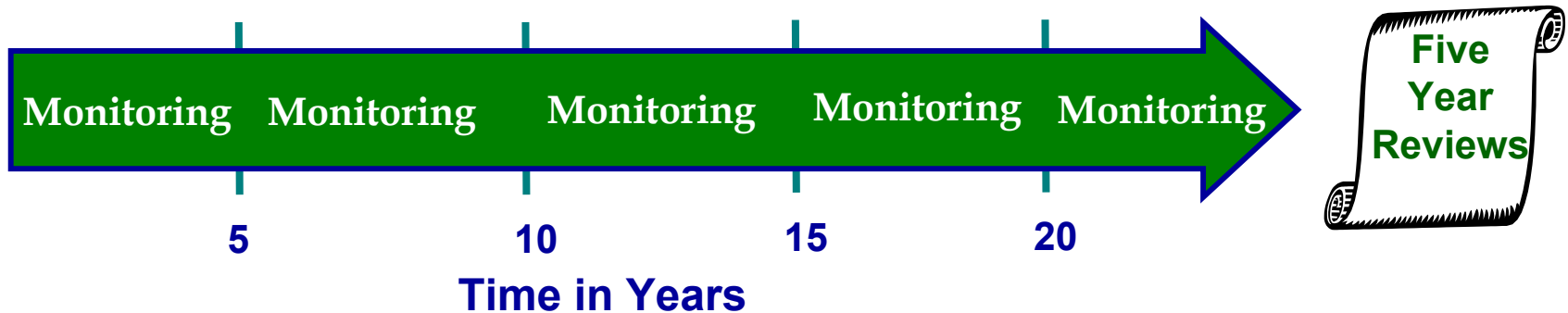


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Current Practice of Cleanup Performance Monitoring

Five-year reviews currently seen as endless 'Snapshots' in time

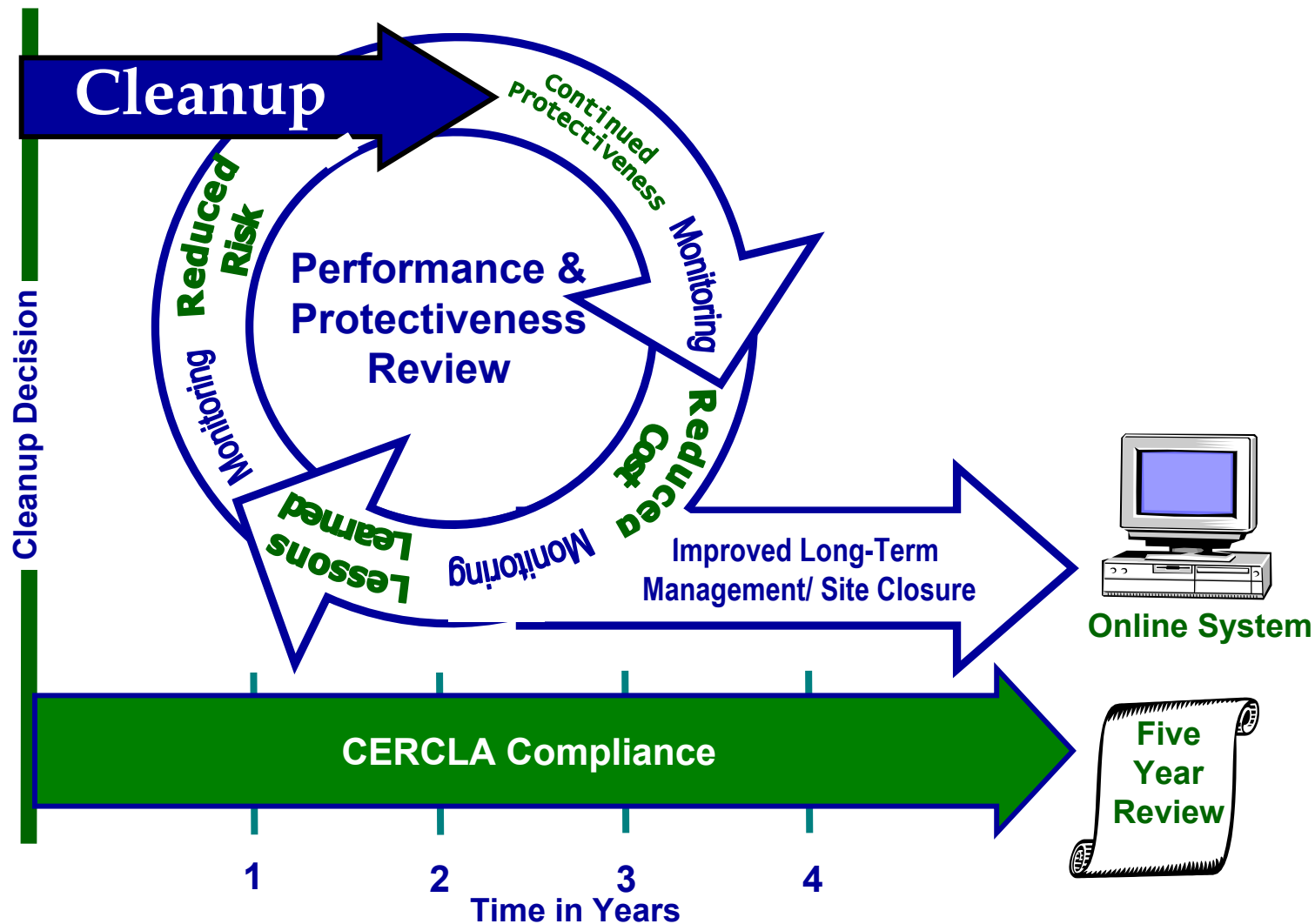
- Required to demonstrate protectiveness through a report, once every five years
- No formal requirement to seek improvement
- Current approach is costly, does not capture & distribute cleanup performance information that is key to remaining cleanup decisions





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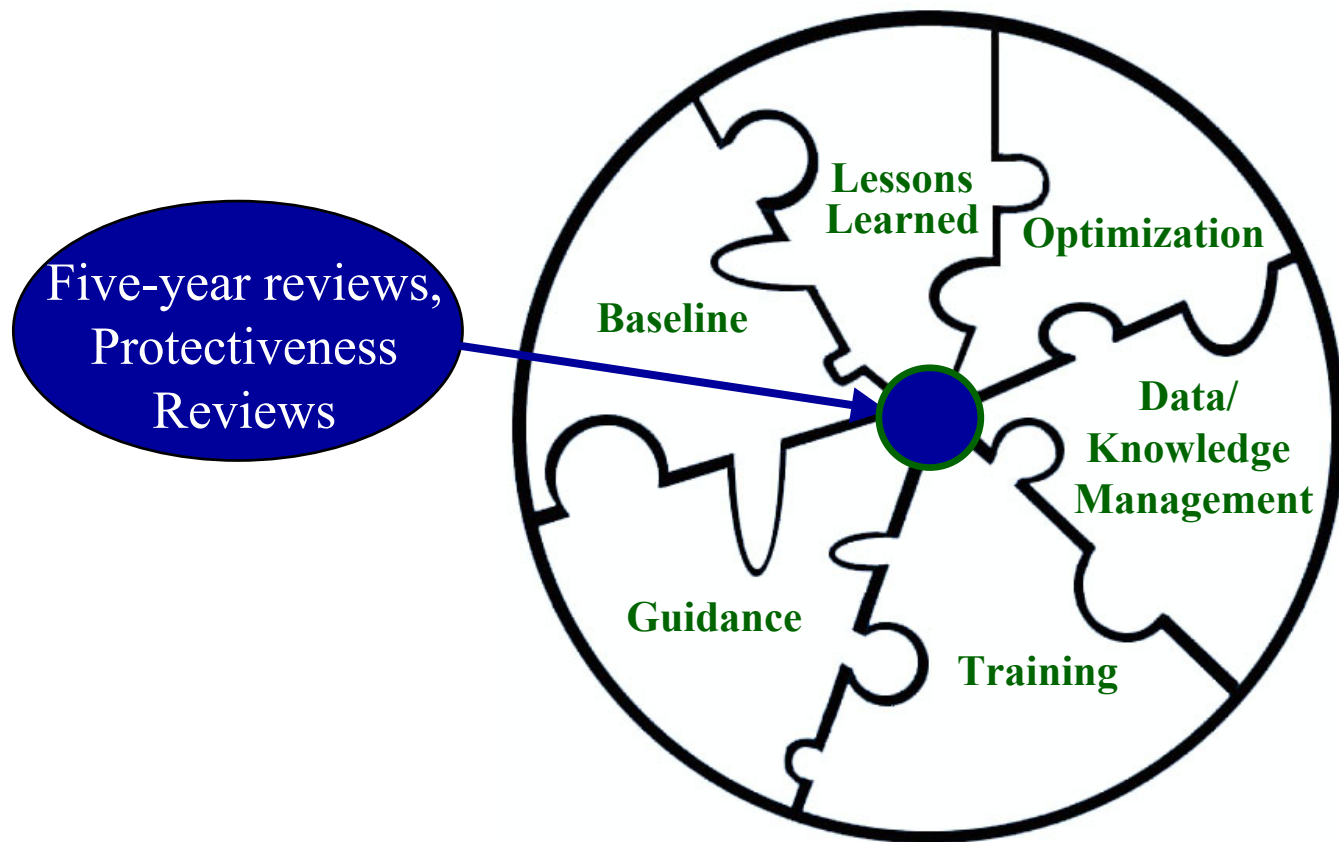
Proposed Practice: On Going Performance Reviews Provide Basis for Protectiveness & Cost Effectiveness





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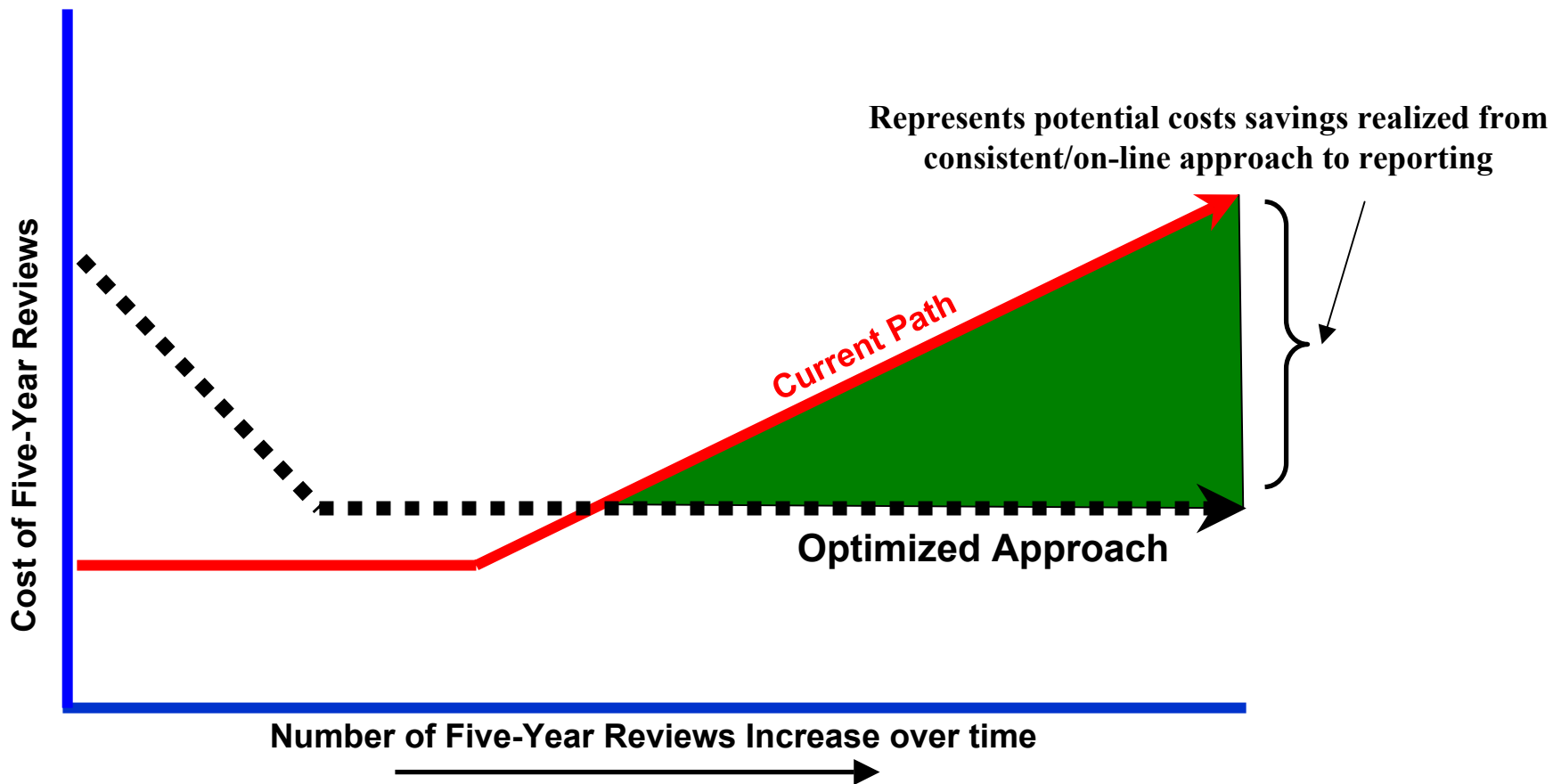
The Proposed Approach: *Fitting it all Together*





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Strategic Approach Will Reduce Long-term Costs*



*Note: Represent costs associated with conducting five-year reviews (data collection, review, analysis, developing reports); does not include optimized groundwater systems, etc.



Bottom Line

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Cost to Complete Cleanup will be larger than necessary unless planning for LTM of Cleanup Performance is started now!

➤ What's Needed?:

- **Knowledge/Information Retention & Management**
 - Why did we put these cleanup systems in in the first place?
- **Performance Models**
 - What is the Expectation of Remedy Performance?
- **Cleanup Performance Monitoring System**
 - What are the Performance Metrics/Decision Criteria to monitor?
- **Move Mindset from "Silver Bullet" Solution to Managing "Life Cycle Cleanup Transitions"**