



NRCS Activities: Using the Monitoring Framework

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NRCS Activities: Using the Monitoring Framework

- 🌊 NRCS Perspective
- 🌊 Approach to Conservation
- 🌊 Planning Procedure Complements Framework
- 🌊 Case Study – Upper Potomac River
- 🌊 Performance-Based Efforts



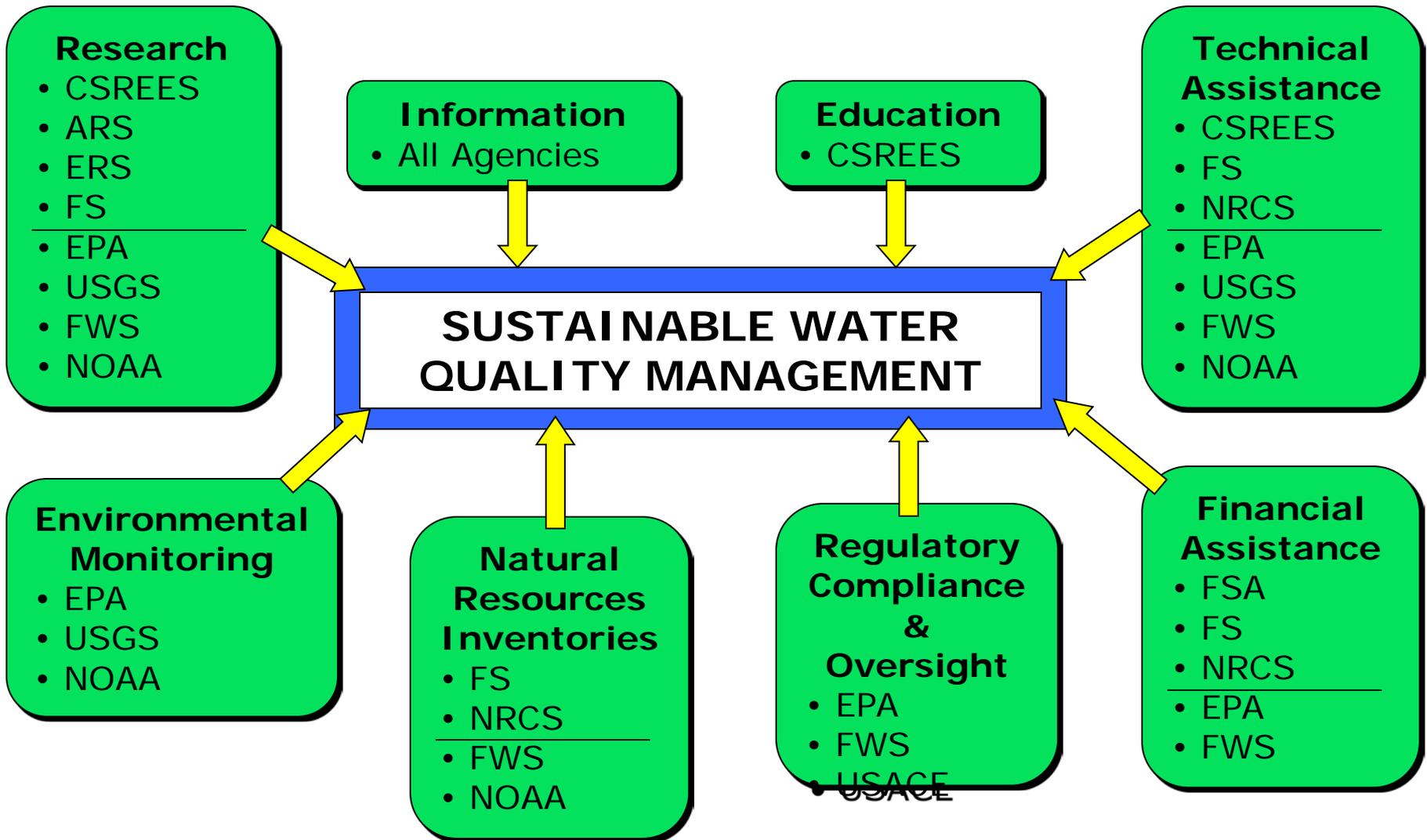


NRCS Perspective

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- 💧 Mission : Provide leadership in a partnership effort to help people conserve, maintain, & improve natural resources and the environment.
 - 💧 NRCS Does Not Monitor – We cooperate, collaborate, and communicate with monitoring entities.



A Coordination Model for Federal Activities to Achieve Enduring Natural Resource Conservation and Environmental Protection





USDA Approach to Conservation

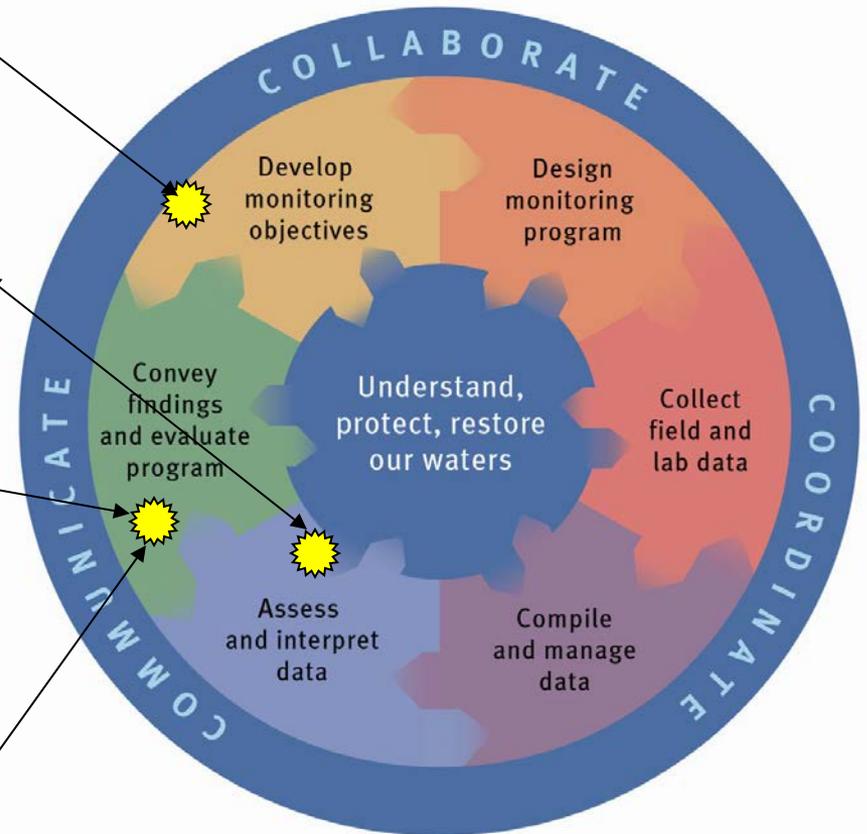
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- 💧 Voluntary, incentive-based approach
 - 💧 Science-based, site-specific solutions
 - 💧 Partnership with locally led processes
 - 💧 Adaptive management
 - 💧 Regulation serves a complementary role
 - “Bad Actors”





NRCS Planning Procedure Complements Framework

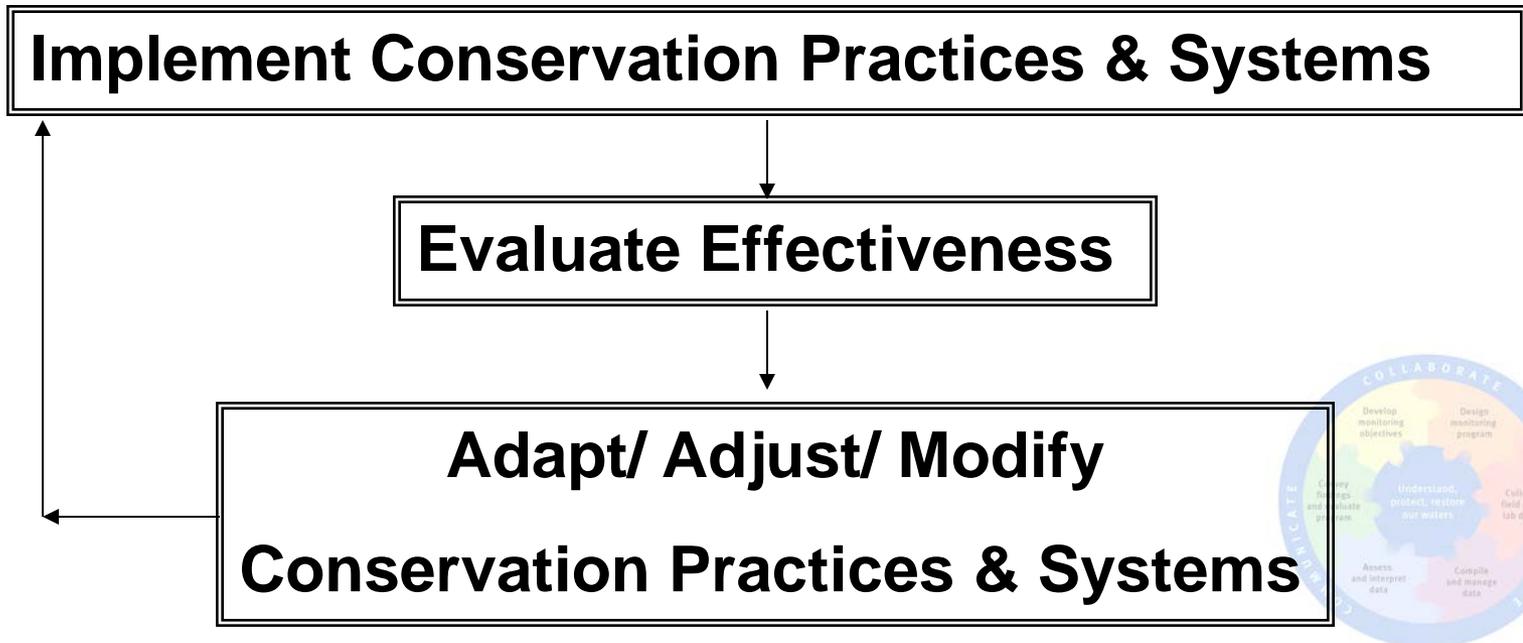
- Identify problems
- Determine objectives
- Inventory resources
- Analyze resource data
- Formulate alternatives
- Evaluate alternatives
- Make decisions
- Implement the plan
- Evaluate the plan





NRCS Planning Procedure Complements Framework

NRCS Planning Procedure and the Monitoring Framework **ENABLE** Adaptive Management





Case Study – West Virginia Upper Potomac River Basin

- 💧 2.2 million acres
- 💧 1,700 miles of mostly high quality streams
- 💧 Intensive animal agriculture = beef + poultry
- 💧 100% increase in poultry produced 1993-96
- 💧 Effective monitoring verified high nutrient loads, sediment, pathogens





Case Study – West Virginia Upper Potomac River Basin

Locally Identified Concerns:

- ✓ Water quality (algal blooms, fecal bacteria, etc.)
- ✓ Limited land availability for nutrient application
- ✓ Stream health and impacts on tourism (outdoor recreation) and trade
- ✓ Economic and environmental viability of farms





Case Study – West Virginia Upper Potomac River Basin

Watershed Efforts:

- ✓ Voluntary, incentive-based programs began in 1993
- ✓ TMDL developed in 1996 (fecal coliform)

Funding Sources:

- ✓ PL-534 - one of 11 projects authorized
- ✓ EQIP, CRP
- ✓ State Revolving Loan Funds
- ✓ 319 Grants

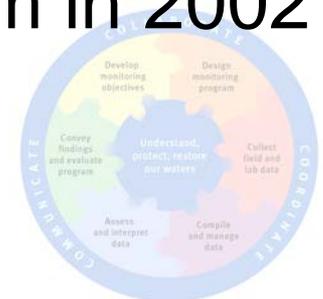




Case Study – West Virginia Upper Potomac River Basin

Outcomes:

- ✓ 85% landowner participation
- ✓ Livestock waste and poultry litter managed under 10 year contracts
- ✓ Monitoring revealed that compliance expectations were met or exceeded
- ✓ De-listing of streams for fecal coliform in 2002





Performance-Based Efforts

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- 💧 Improve performance measurement and reporting
 - 💧 Validate environmental outcomes of conservation programs
 - 💧 Improve understanding of water resources
 - ✓ Define appropriate measures
 - ✓ Complexity of natural systems
 - ✓ Lag time – measurable results may take decades





Performance-Based Efforts

Conservation Assessment Effects Project (CEAP)

💧 Purpose - To assess benefits/outcomes of implementing conservation programs

💧 Tools –

- ✓ National Resources Inventory (NRCS)
- ✓ Farmer and rancher information (NASS)
- ✓ Soil and water quality models (ARS, NRCS)
- ✓ Small watershed monitoring/modeling (ARS, others)





Performance-Based Efforts

- 💧 CEAP will use the Framework to
 - ✓ Collaborate, coordinate, communicate with others
 - ✓ Ensure scientifically credible measurement methods are used
 - ✓ Meet the project goal of reporting annually on the benefits of conservation programs and systems

