



EPA Perspective on Potential Contributions of Cover Crops to Water Quality and Nutrient Management Goals

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Commitment from the Top



“EPA’s mission to protect public health and the environment depends in part on our relationships and partnerships with farmers and ranchers. We share a concern about the quality of air, water, and land that nourish the food, fiber, and fuel they grow and that support their livelihoods.”

– *EPA Administrator
Gina McCarthy*

Senior Advisor for Agriculture



Before her role at EPA, Sarah Bittleman was a Senior Advisor to USDA Secretary Tom Vilsack specializing in energy and environmental protection issues.

Build Partnerships



Nutrient Pollution



National Scope of Nutrient Problem

- 99,000 river miles threatened or impaired
- >3 million lake acres threatened/impaired
- 78% of assessed coastal waters exhibit signs of eutrophication
- Drinking water violations have increased in recent years because of high levels of nitrate-nitrogen; and
- The occurrence and severity of nuisance algal blooms are on the rise nationwide
- About 5.7 million acres of lakes, reservoirs, and ponds are threatened or impaired by nutrients, organic enrichment/oxygen depletion, and algal growth (data reported by the States to EPA under Section 303(d) of the Clean Water Act)
 - 50% U.S. streams have medium to high levels of N and P
 - Lakes and reservoirs – 5 million acres impaired
 - 78% of assessed coastal waters exhibit eutrophication

Benefits of Cover Crops

- Provide both agricultural & environmental benefits



Nutrient Framework

- **Prioritize watersheds** on a statewide basis for nutrient loading reductions
- Set watershed **load reduction goals** based upon best available information
- Ensure effectiveness of **point source permits**
- Control **agricultural runoff**
- Control **stormwater runoff** and nutrients from **septic systems**
- Implement **accountability and verification** measures
- Report annually on implementation activities
- Biannual report on load reductions and environmental impacts in targeted watersheds
- Develop work plan and schedule for **numeric criteria development**

Hypoxia Task Force

5 Federal Agencies and Tribes:

- US Army Corps of Engineers
- US Environmental Protection Agency
- US Department of Agriculture
- US Geological Survey
- National Oceanic and Atmospheric Administration
- National Tribal Water Council

12 State Agencies:

- Arkansas
- Missouri
- Iowa
- Tennessee
- Minnesota
- Indiana
- Ohio
- Louisiana
- Illinois
- Mississippi
- Kentucky
- Wisconsin



Federal Task Force Efforts focus on:

- **Monitoring** and modeling to help demonstrate progress
- **Research** on the impacts and relationship between nutrients and hypoxia
- **Targeting** of conservation practices and economic analyses of benefits
- **Development** of technical tools to help producers make decisions
- **Expanding** outreach and partnerships with organizations

Clean Water Act 319 Program

Grants to states/tribes to implement NPS pollution control. States use for sub-grants to conservation districts and other local entities

Many projects focus on agriculture especially nutrient and pathogen reductions, often coordinated with USDA conservation programs

States implement programs through state and local levels, planning, technical assistance, on-the-ground BMPs, monitoring, building partnerships

2014 Appropriation: **\$159 million**

319 Success Story with Cover Crops

- **Success Story Spotlight: Alabama's Flint River**
Polluted runoff from agricultural activities and urbanization contributed to organic enrichment and low dissolved oxygen (DO)
- Alabama Department of Environmental Management placed a 28-mile segment of the river on its 2006 list of impaired waters. Using section 319 funding, federal, state, and local agencies teamed with local landowners to implement numerous agricultural Best Management Practices (BMPs), **including winter cover and conservation tillage on 2,000 acres**
- Partners -Madison County SWCD, NRCS, the Tennessee Valley Authority, the Flint River Conservation Association, and the City of Huntsville who contributed nonfederal matching funds
- Water quality improved, prompting the state to remove the segment from the state's list of impaired waters for DO

“Growing” Cover Crops



Photos courtesy of USDA NRCS



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