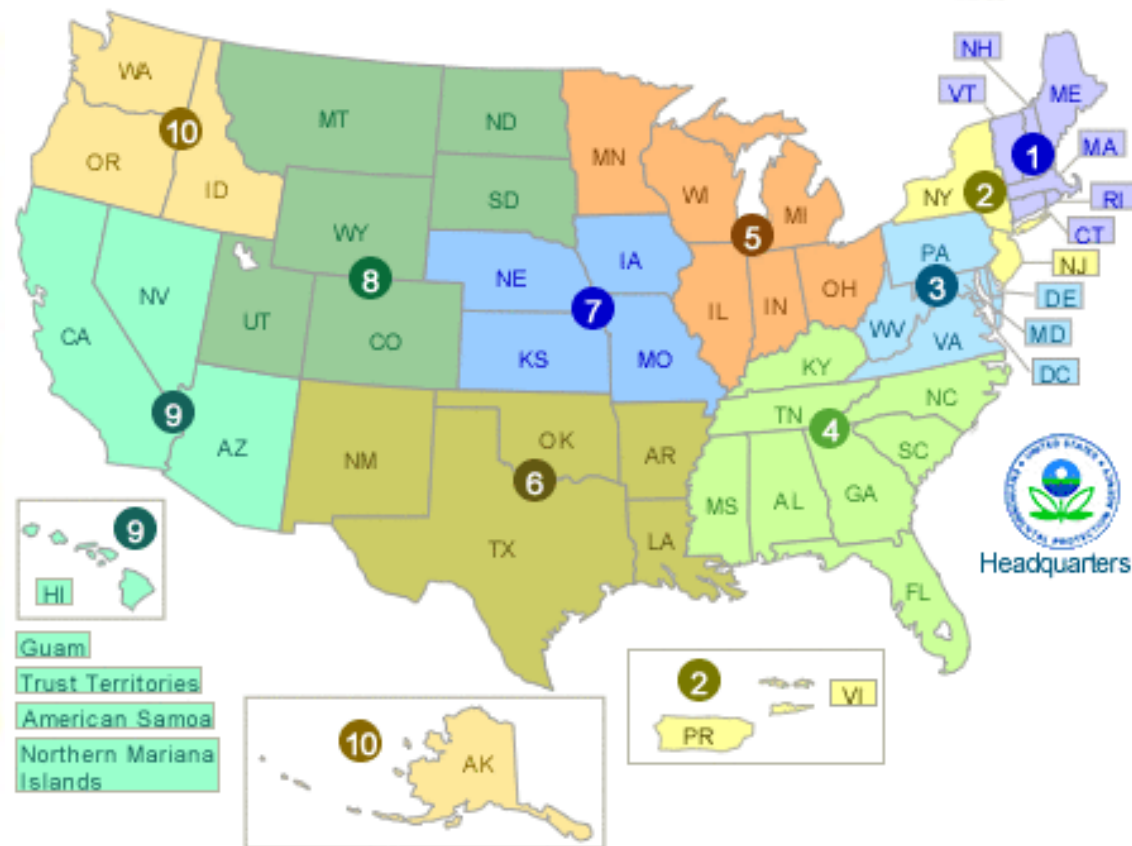


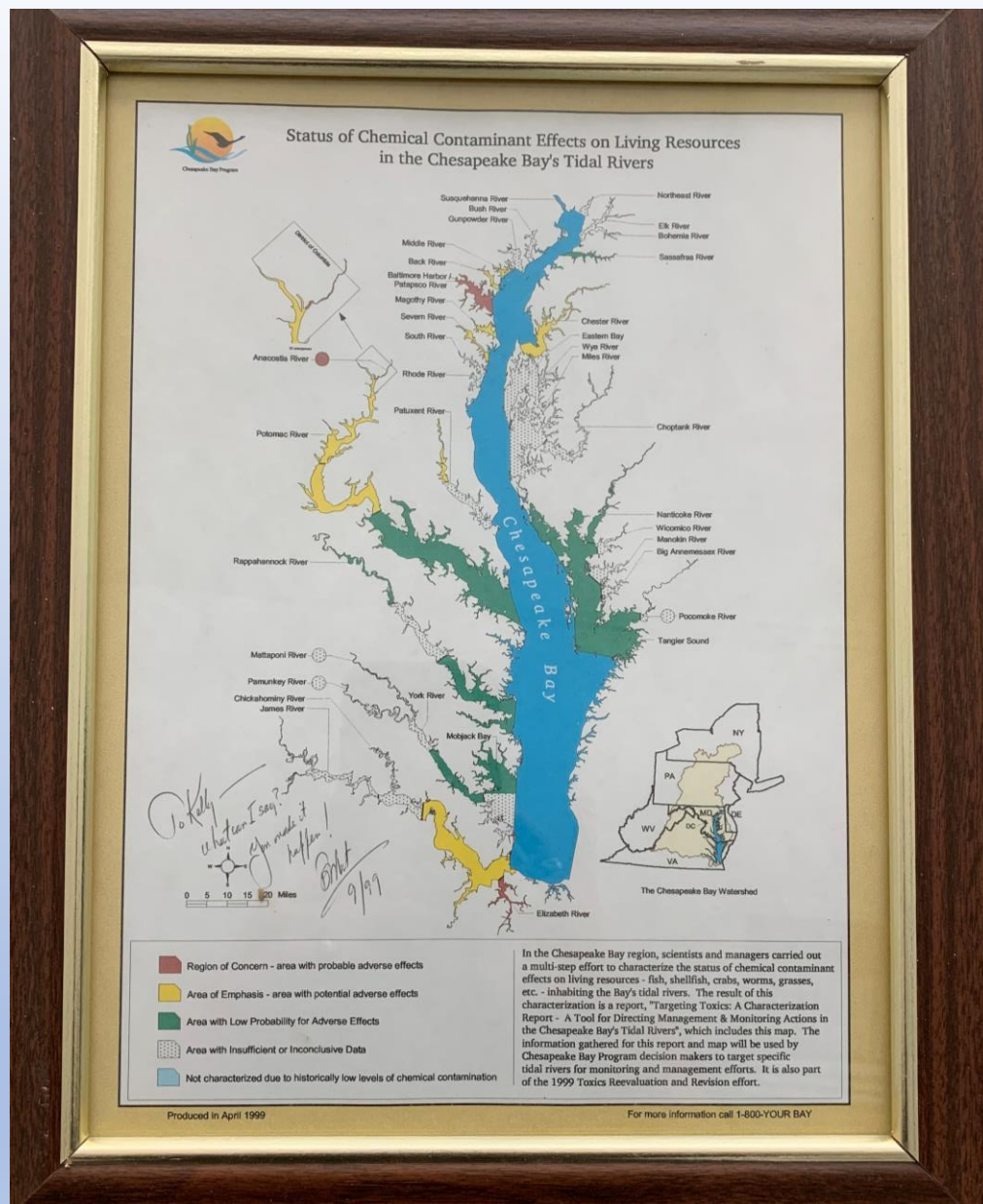
# EPA Programs to Manage Farm Chemicals

Kelly Shenk, Agriculture Advisor  
EPA Mid-Atlantic Region



# EPA Regional Ag Advisors





# Healthy Farms

# Clean Water

It's not just about nutrients and sediments!



# How EPA Regulates Pesticides

*Ensure pesticides are used in a way that is protective of human health and the environment.*



## *States are Co-Regulators:*

- *Identify Pesticides of Concern*
- *Assess risk mitigation effectiveness*
- *Monitor compliance*
- *Take enforcement actions*

- **Federal Insecticide, Fungicide, and Rodenticide Act**

- Risk Assessments, registrations, labeling
- Worker Protection Standards, Pesticide Applicator Certification

- **Endangered Species Act**

- Assess if threatened and endangered species may be impacted

- **Federal Food, Drug and Cosmetic Act**

- Tolerance limits for residues on food and animal feed.

- **Clean Water Act – TMDL, CAFO NPDES Program**

- TMDLs to address pesticide-related stream impairments
- Nutrient Management on CAFOs

# FIFRA Cooperative Agreement with States, Territories, and Tribes

- \$960,000 to State Agriculture Departments - Required activities:
  - Share existing WQ data.
  - Identify “Pesticides of Interest”
    - Potential to occur in ground or surface water at concentrations approaching or exceeding a human health or ecological reference point.
  - Identify “Pesticides of Concern”
    - Pesticides of Interest that have been determined to be threat to WQ.
  - Manage Pesticides of Concern – implement BMPs
  - Demonstrate Progress, Re-evaluate
  - Monitor Water Quality

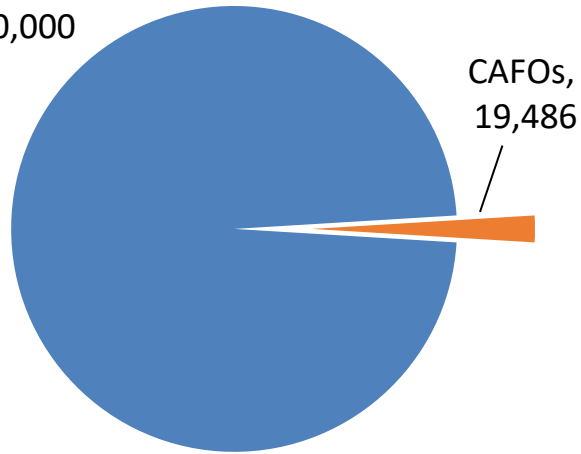
## Opportunity:

- Evaluate what work State Ag Departments have done to carry out required activities.



# Federal CAFO Rule Livestock Operations in the U.S.

nonCAFO farms,  
approx. 980,000

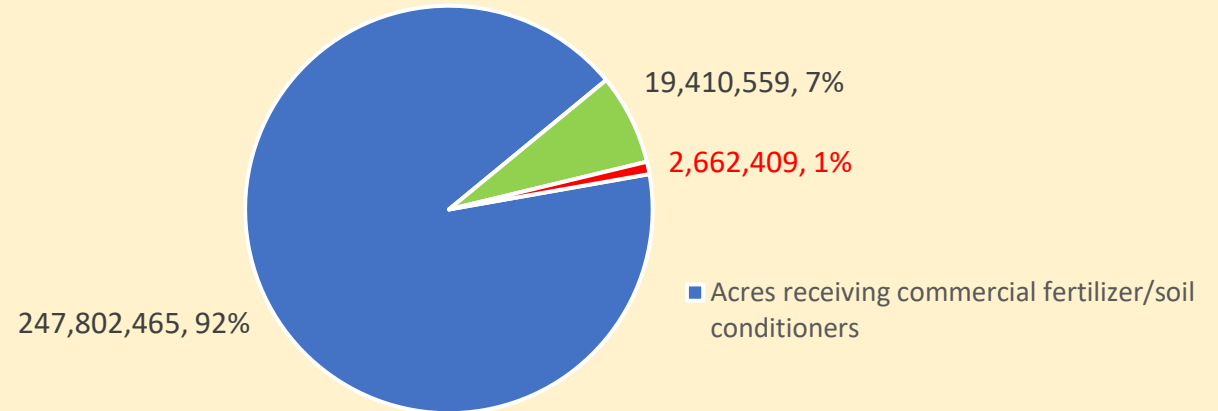


Total Livestock Farms: ~1 million

*Note: Figure excludes beef operations that do not meet  
USDA's definition of an operation with "cattle on feed"*

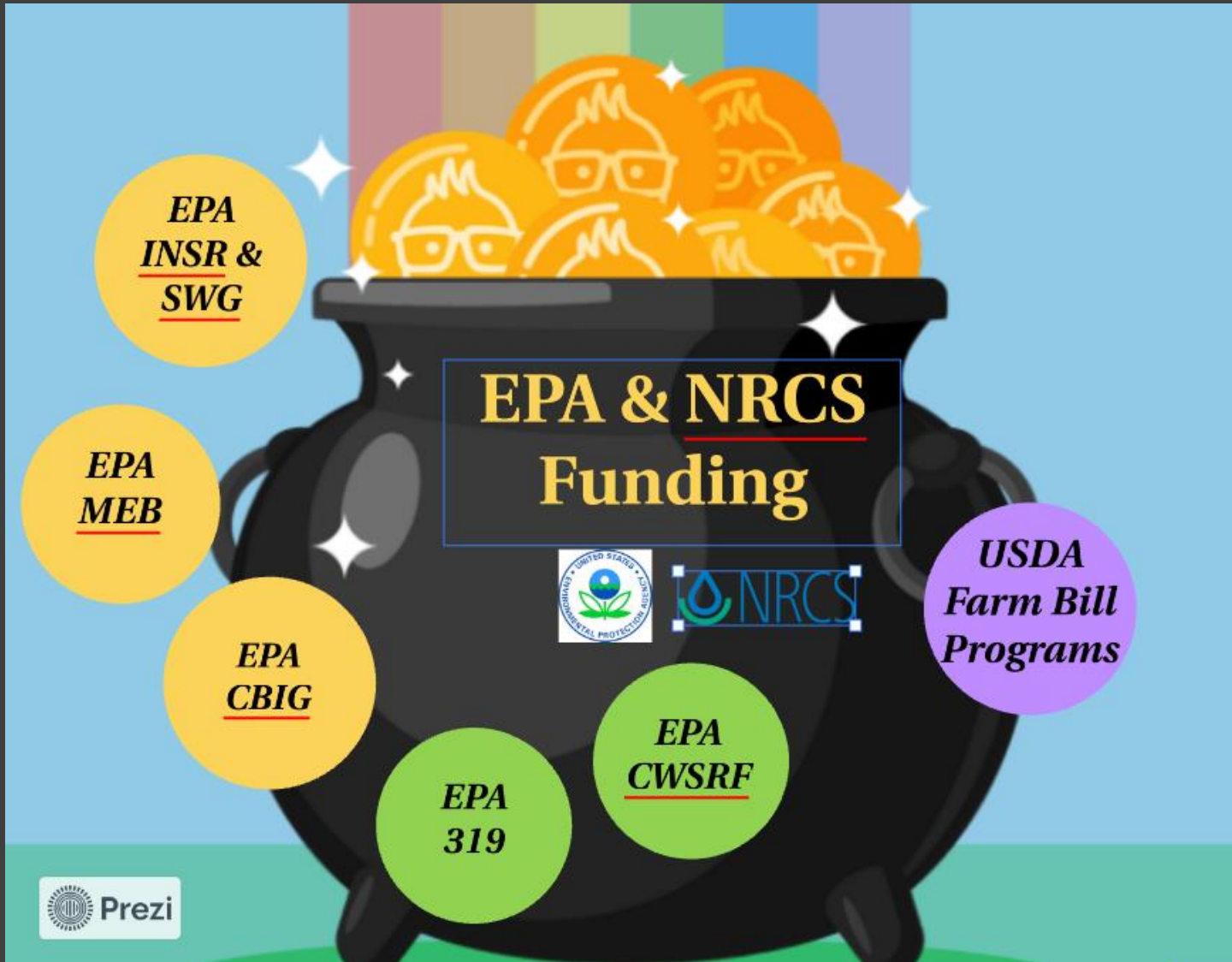
Data Sources: 2012 USDA Census of Agriculture; EPA NPDES CAFO 2017 Status Report

2% of all livestock operations are CAFOs.  
<1% NPDES permit coverage.



1% of all farm acres that get fertilized  
are within the regulatory scope of the  
NPDES CAFO program.

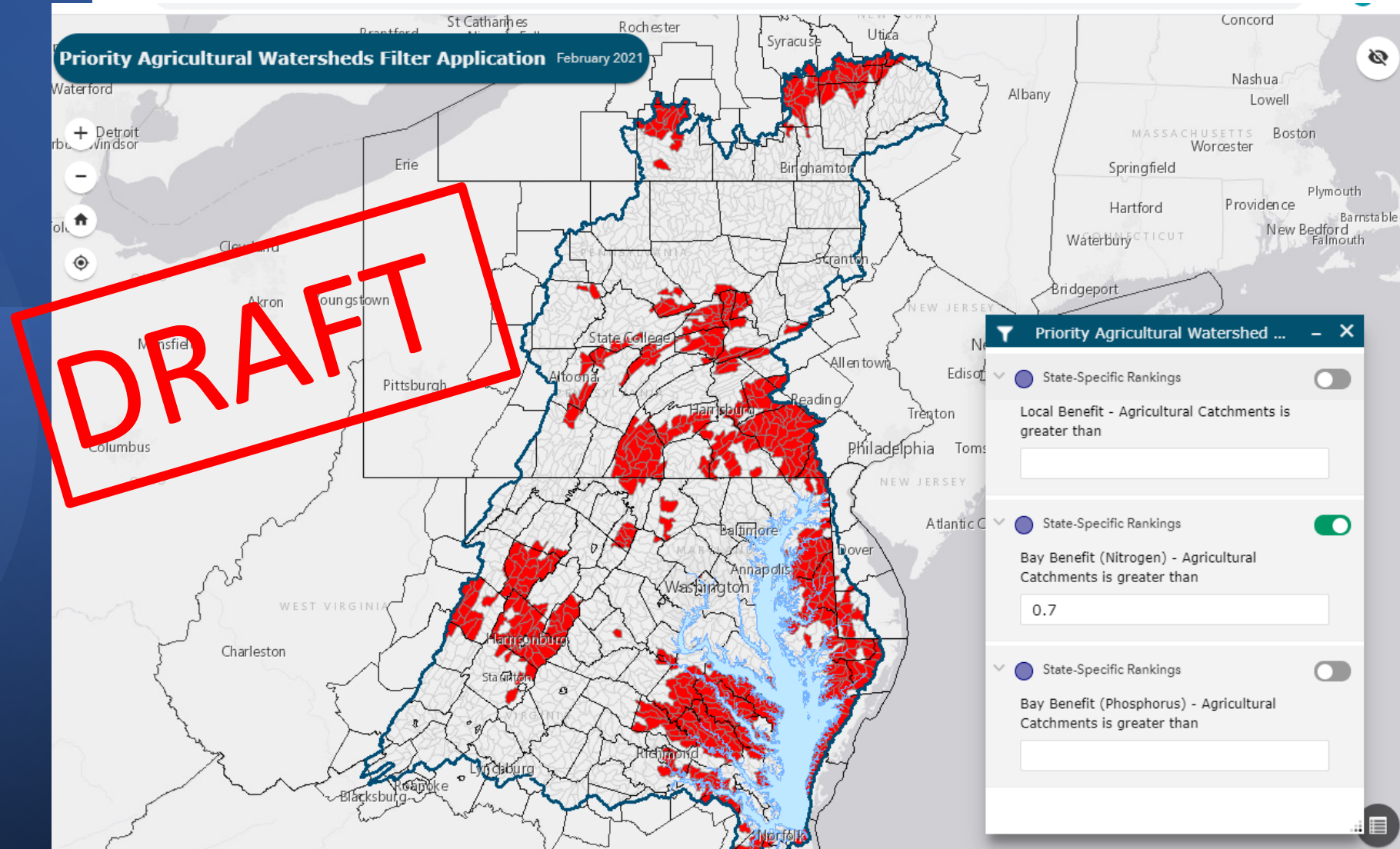
# Ag Conservation Practice Funding Chesapeake Bay Watershed



Ag Conservation Practices that reduce nutrients and sediments may also reduce pesticide losses to surface waters and groundwater.

# Priority Agricultural Watersheds

*to focus  
Chesapeake Bay  
Funding  
for Nutrient and  
Sediment  
Reductions*





# EPA 319 Nonpoint Source Program



## Section 319 NONPOINT SOURCE PROGRAM SUCCESS STORY

# Virginia

### Implementing Management Practices Reduces Nitrate in Virginia's Muddy Creek

#### Waterbody Improved

Nutrients from agriculture and failing septic systems contributed to violations of the nitrate-nitrogen drinking water use water quality standard in Virginia's Muddy Creek. As a result, the Virginia Department of Environmental Quality (DEQ) added a 2.17-mile segment of the creek to the state's Clean Water Act (CWA) section 303(d) list of impaired waters in 1998. Project partners worked with landowners to implement numerous residential and agricultural best management practices (BMPs), which over time brought nitrogen levels in the creek into compliance with the water quality standards. As a result, VA DEQ removed this segment of Muddy Creek from the state's list of impaired waters for nitrate-nitrogen in 2010.

#### Problem

Muddy Creek is in Rockingham County, approximately 15 miles northwest of Harrisonburg, Virginia (Figure 1). Muddy Creek drains into Lower Dry River, a headwater tributary of the South Fork of the Shenandoah River in the Chesapeake Bay watershed. Land uses in the 20,025-acre watershed are predominantly agriculture and forestry.

Lower Muddy Creek is designated for public drinking water use because it is less than 5 miles upstream of the water treatment plant intakes for two local municipalities. DEQ added the lower 2.17 miles of Muddy Creek to the state's 1998 CWA section 303(d) list of impaired waters for violating the state's water quality standard for nitrate-nitrogen. The creek was listed again in 2004 based on monitoring that showed that three of 53 samples violated the public drinking water

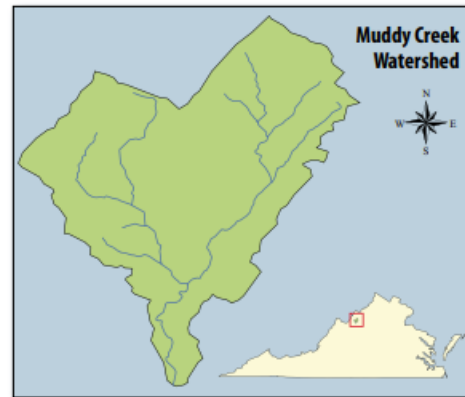


Figure 1. Muddy Creek is in northwestern Virginia.

- No Watershed Based Plans identify pesticides as the source of impairment.
- But many 319 projects with ag conservation practices could have co-benefit of pesticide reduction.

# EPA Region 3 Clean Water Funding for Agriculture

Protecting America's Public  
Health & Environment



Helping to sustain your community!

## Who is Eligible

- Farmers
- Homeowners
- Homeowner Associations
- Conservation Districts
- Planning Districts
- Citizen groups
- Communities
- Utilities
- Non-profit organizations
- For-profit businesses  
(State dependent)



## Eligible Agriculture Projects

*In addition to the type of projects listed before, agriculture best management practices that address runoff and erosion from agricultural cropland and animal feeding operations (AFOs) can also be eligible for SRF funding:*

### Cropland Projects

- Manure injection equipment
- Manure spreaders
- Water efficient irrigation equipment
- Conservation tillage equipment
- Cover crops
- Windbreaks
- Sediment control basins
- Terraces
- Diversions
- Riparian Buffer and filter strips
- Rip-rapping
- Streambank stabilization
- Bioswales & Bioretention ponds
- Chemical use reduction (eg., chemical spray equipment and chemical storage containment structures)
- Wetlands

### AFO Projects

- Livestock/milk house waste management systems
- Manure containment structures
- Vessel composters
- Manure injection equipment
- Well sealing and water diversions to avoid feedlots
- Fencing/alternative water supply for animals to keep them out of water bodies



# EPA New Opportunities

## *Federal Coordination in the Chesapeake Watershed*

To enhance coordination and communication of agricultural practice and WQ monitoring activities and funding in the Chesapeake Bay Watershed



### Opportunities:

- Can we promote practices that are beneficial in reducing both nutrients and pesticides?
- Can we promote monitoring to measure impact of these practices on both nutrients and pesticides?

# EPA New Opportunities

## *Source Water Protection*

### ***Source Water Protection in the 2018 Farm***

***Bill:*** Requires that 10 percent (~\$400 million/yr) of funds authorized for **conservation** programs be used to **protect sources of drinking water**, increases incentives for **agricultural** producers to implement practices that benefit **source water protection ...**

### **Opportunity:**

- Can we make the link between pesticides and drinking water in rural communities?

### Recommendations:

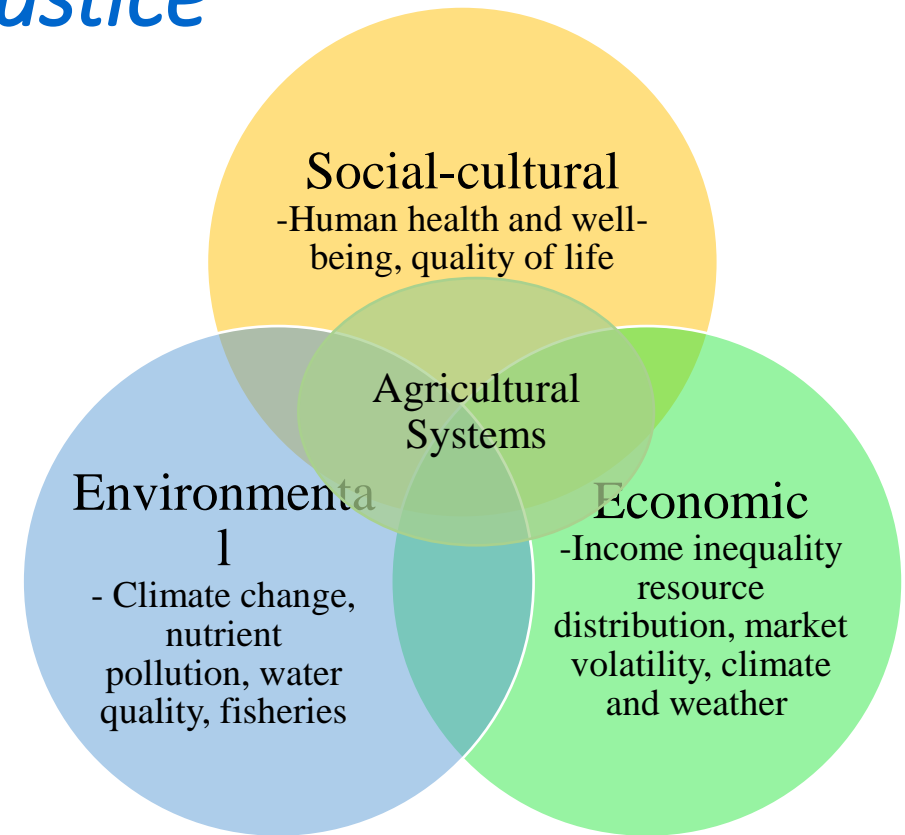
- Quarterly meetings.
  - Share data
  - Planning
  - Education & outreach



# EPA New Opportunities

## *Environmental Justice*

*“... the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. ”*



### Opportunity:

- Can we make the link between pesticides and disadvantaged rural communities?

# EPA New Opportunities

## *Climate Change and Resiliency*

BRIEFING ROOM

### Executive Order on Tackling the Climate Crisis at Home and Abroad

JANUARY 27, 2021 • PRESIDENTIAL ACTIONS

The United States and the world face a profound climate crisis. We have a narrow moment to pursue action at home and abroad in order to avoid the most catastrophic impacts of that crisis and to seize the opportunity that tackling climate change presents. Domestic action must go hand in hand with United States international leadership, aimed at significantly enhancing global action. Together, we must listen to science and meet the moment.

BRIEFING ROOM

### Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis

JANUARY 20, 2021 • PRESIDENTIAL ACTIONS

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

**Section 1. Policy.** Our Nation has an abiding commitment to empower

#### Opportunity:

- Can we make the link between climate-smart practices that are beneficial at reducing pesticide losses?

# To Ruminate On

- What are best practices/approaches for controlling pesticide losses?
- What are practices that control nutrients & pesticides?
- Can we further incentivize funding for these practices?
- Can the Administration's priorities add focus and resources?

