Strategic Conservation for PA . . . and the Bay.

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Items for today's discussion

- Events leading up to the new Chesapeake Bay Initiative in 2008 Farm Bill.
- Consensus on strategic approach for program implementation:
  - focus on priority locations
  - Promote priority practices
  - Leverage Technical Assistance

A Strategic Approach

- Commenter's at the Farm Bill listening session in Annapolis, July 2008 expressed overwhelming agreement for 4 common ideas:
  - Focus on priority watersheds
  - Promote priority practices
  - Leverage funds for additional technical assistance.
  - Cooperate on monitoring and evaluation

Priority Watersheds

- Identify small watersheds that have the most potential to affect agricultural impacts on water quality. The following are examples of criteria for priority watersheds:

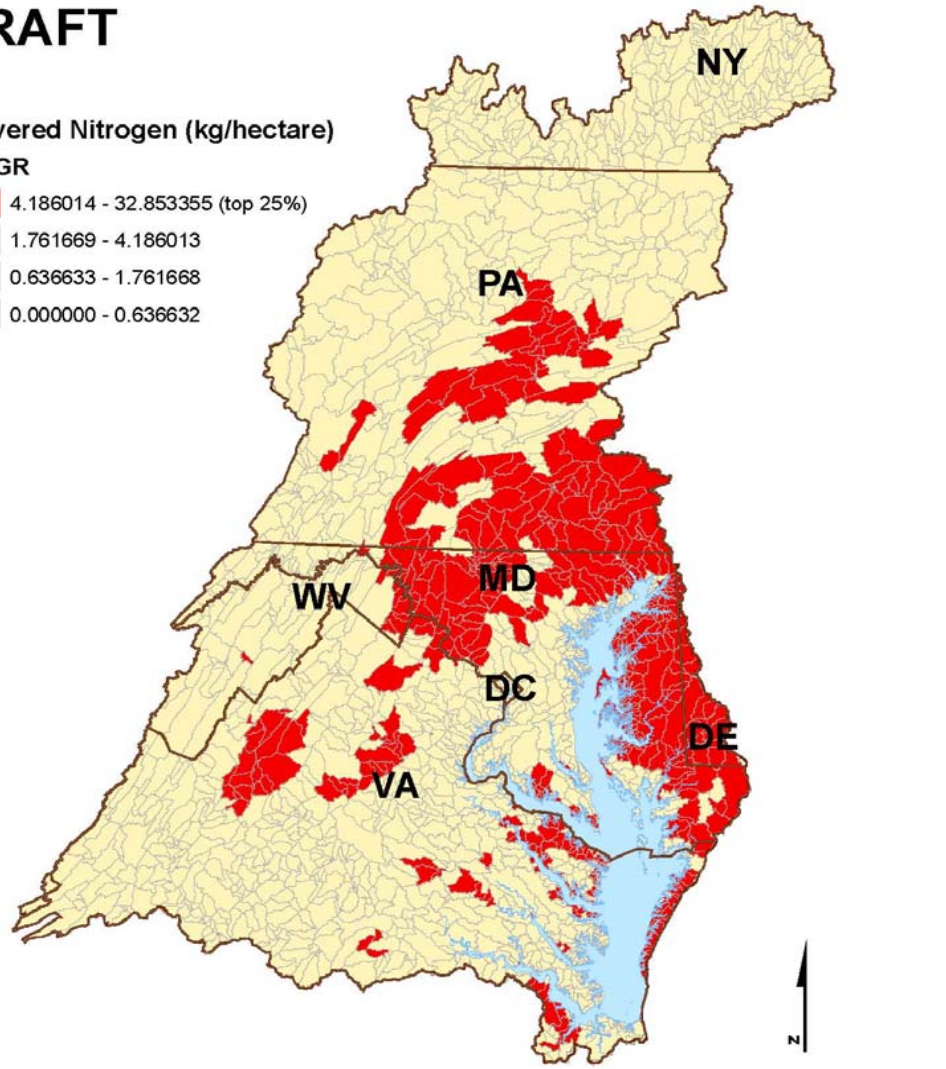
1. Nutrient yields and water quality impairments related to Ag.
   - Use data to identify areas with high nutrient yields to local waters and the Bay, and local impairments from nutrients or dissolved oxygen.

Data on priority watersheds.

2. Water quality response.
   - Identify areas with a high likelihood of showing water quality response as a result of agricultural conservation practice implementation.
3. Implementation opportunities.
   - Areas with the greatest opportunities for implementation considering factors such as stakeholder groups, active watershed restoration efforts, farmer willingness, available technical assistance, opportunity for leverage of funds, and overall support.

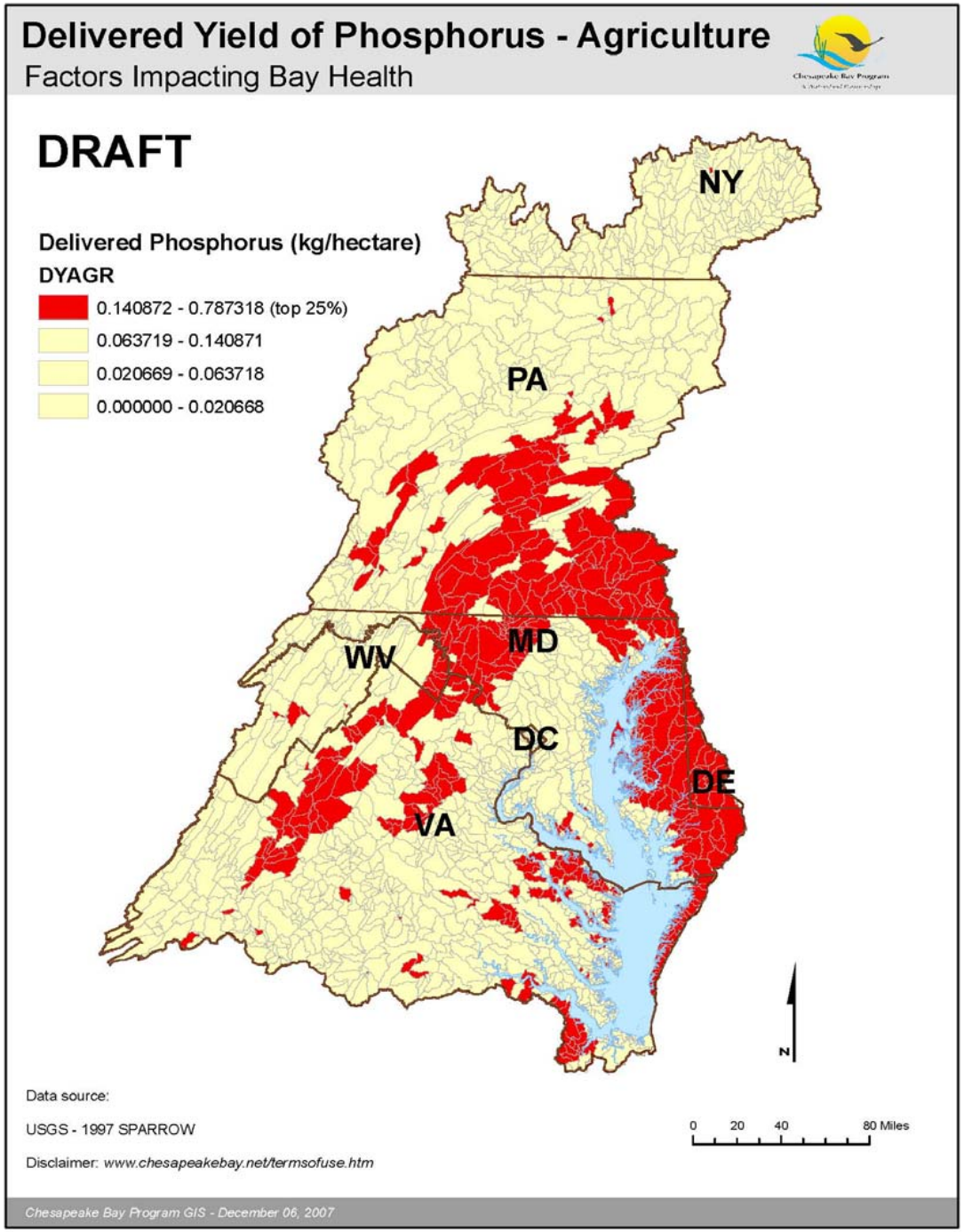
Delivered Yield of Nitrogen - Agriculture

Factors Impacting Bay Health



Delivered Yield of Phosphorus - Agriculture

Factors Impacting Bay Health



Delivered Yield of Nitrogen - Agriculture

Chesapeake Bay Watershed within Pennsylvania

Delivered Nitrogen (kg/ag hec/yr)

- 75th - 100th Percentile
- 50th - 75th Percentile
- 25th - 50th Percentile
- 0 - 25th Percentile

Data Sources: USGS SPARROW V. 3

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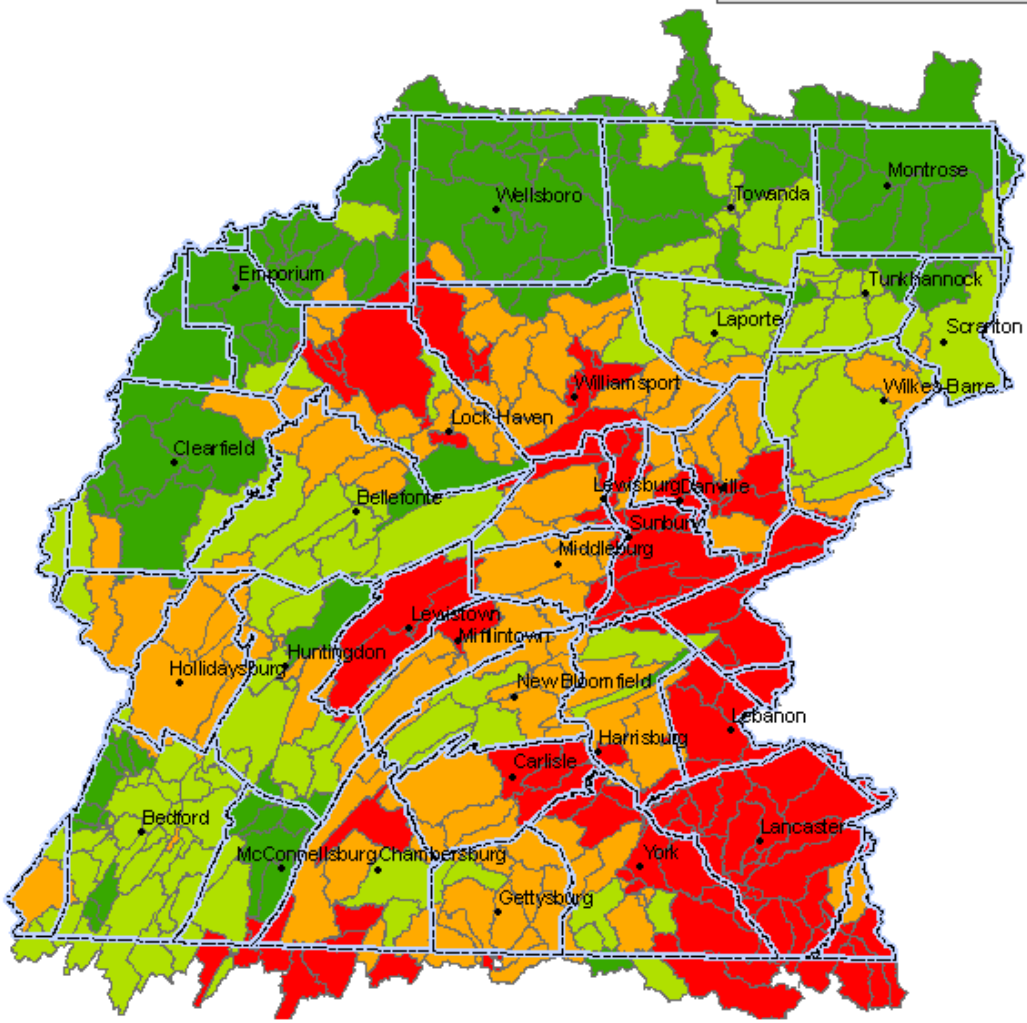

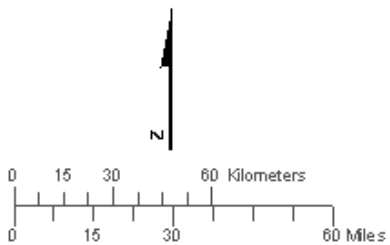

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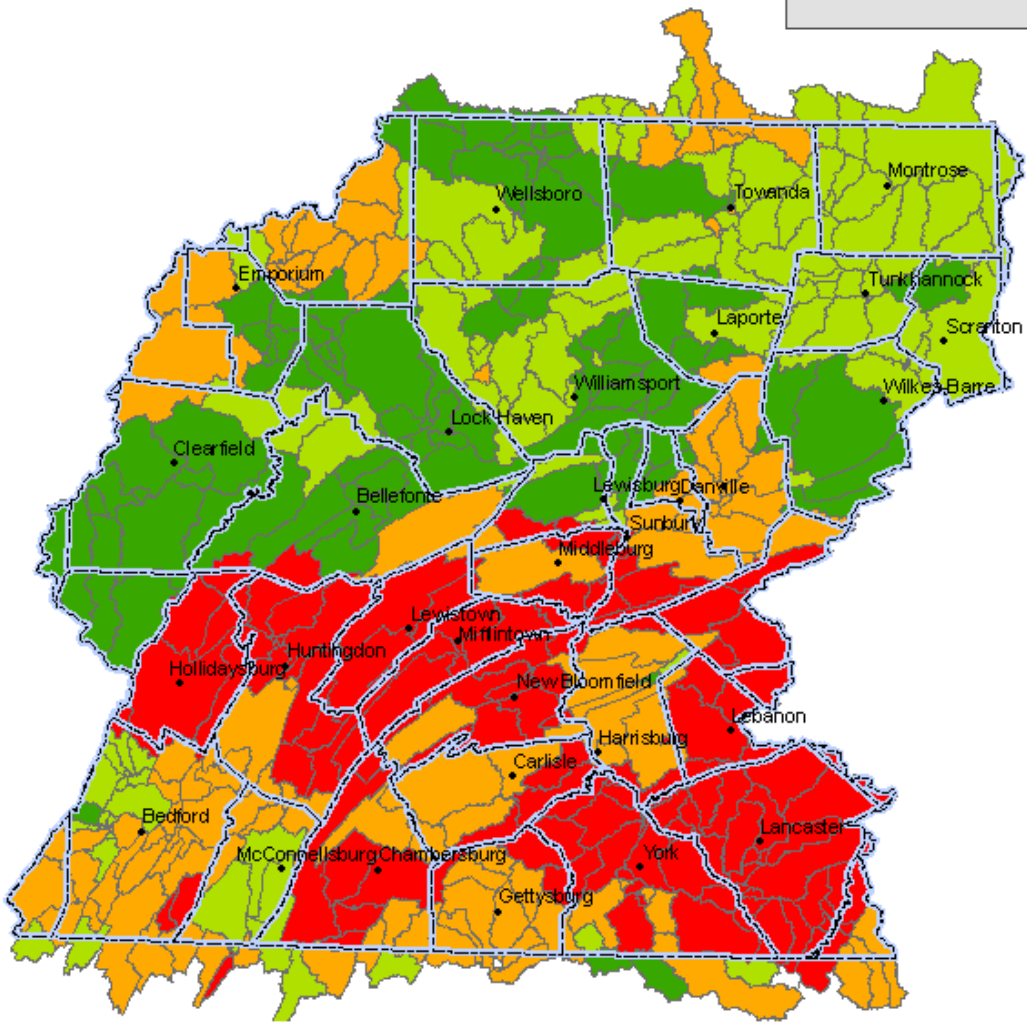


N

0 15 30 60 Kilometers

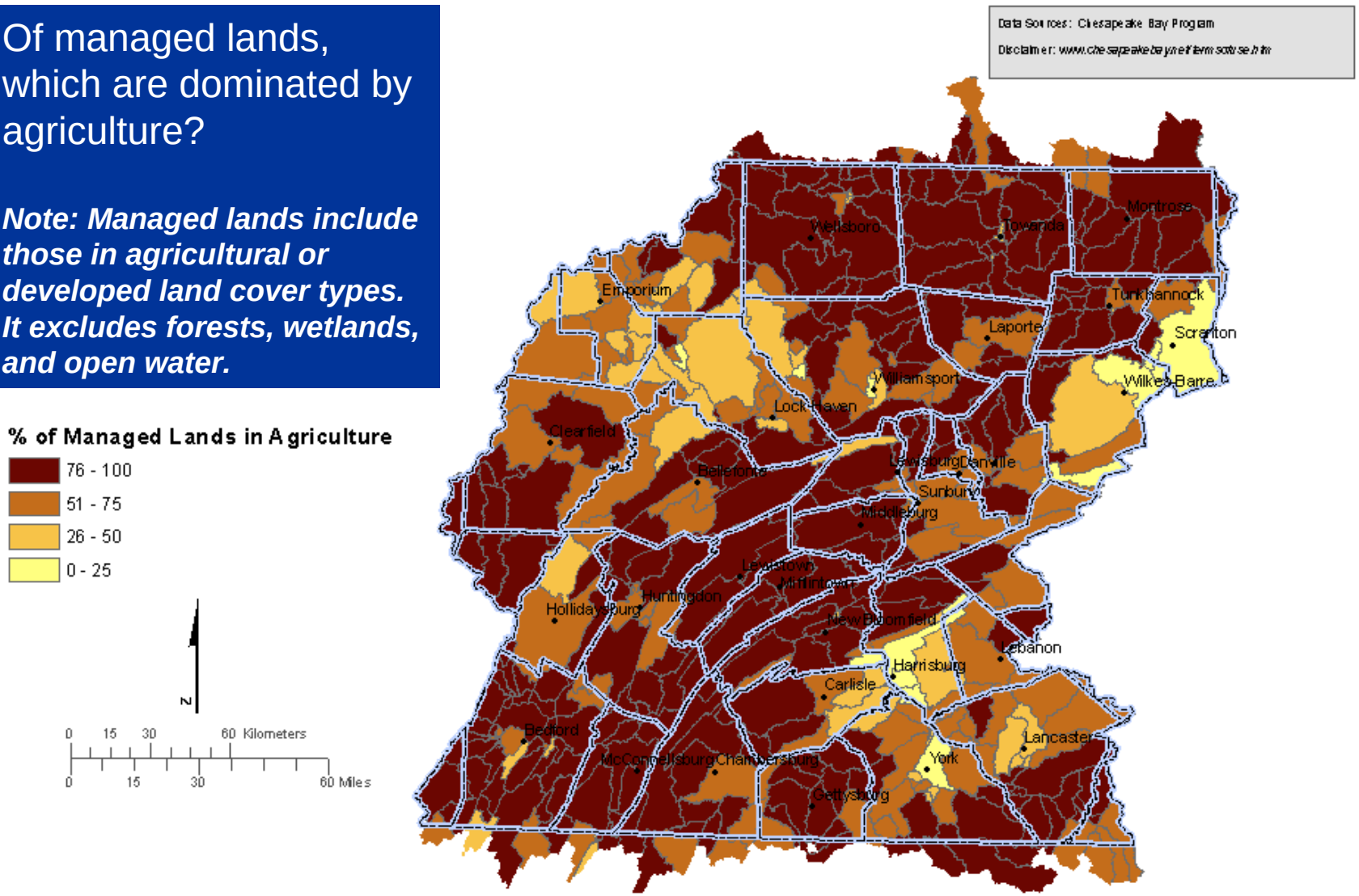
0 15 30 60 Miles

Percent of Managed Lands in Agriculture

Chesapeake Bay Watershed within Pennsylvania

Of managed lands, which are dominated by agriculture?

Note: Managed lands include those in agricultural or developed land cover types. It excludes forests, wetlands, and open water.



Areas with high N or P yields to the Bay from Pennsylvania, high agricultural land cover, and local water quality (nutrient) impairments

Which watersheds in Pennsylvania have **high nutrient yields, substantial agriculture, and local water quality impairments?**

Data Sources: High N or P yields are the top 25% nutrient yielding areas to the Bay from Maryland (USGS SPARROW Model IV. 3.0, publish date 2002, data date late 1990's)

Local water quality impairments (Pennsylvania Department of Environmental Protection 2006)

High agricultural land cover is defined as >50% of all managed lands in agricultural cover (Chesapeake Bay Program Phase 5 Watershed Model land cover 2008)

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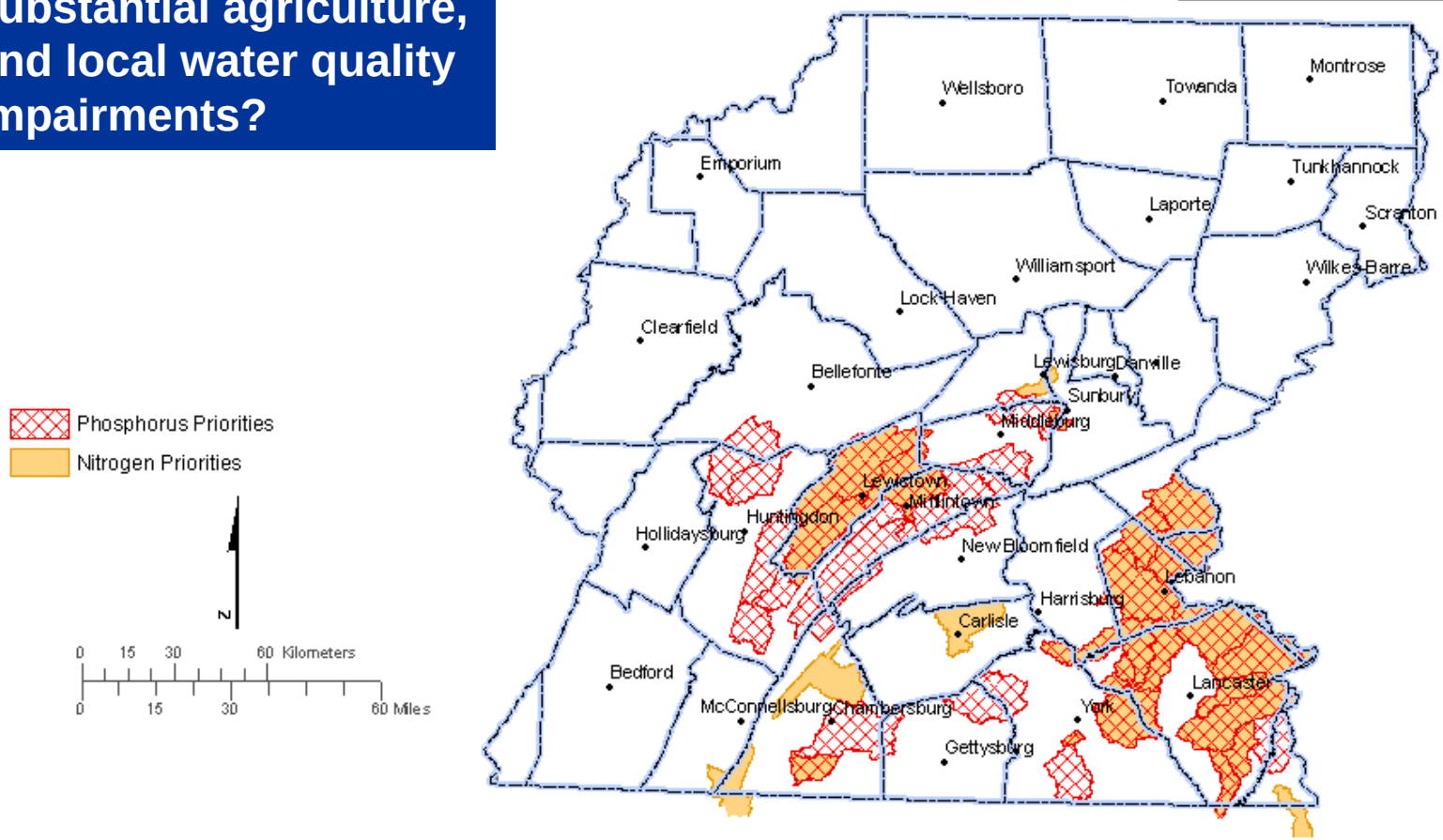
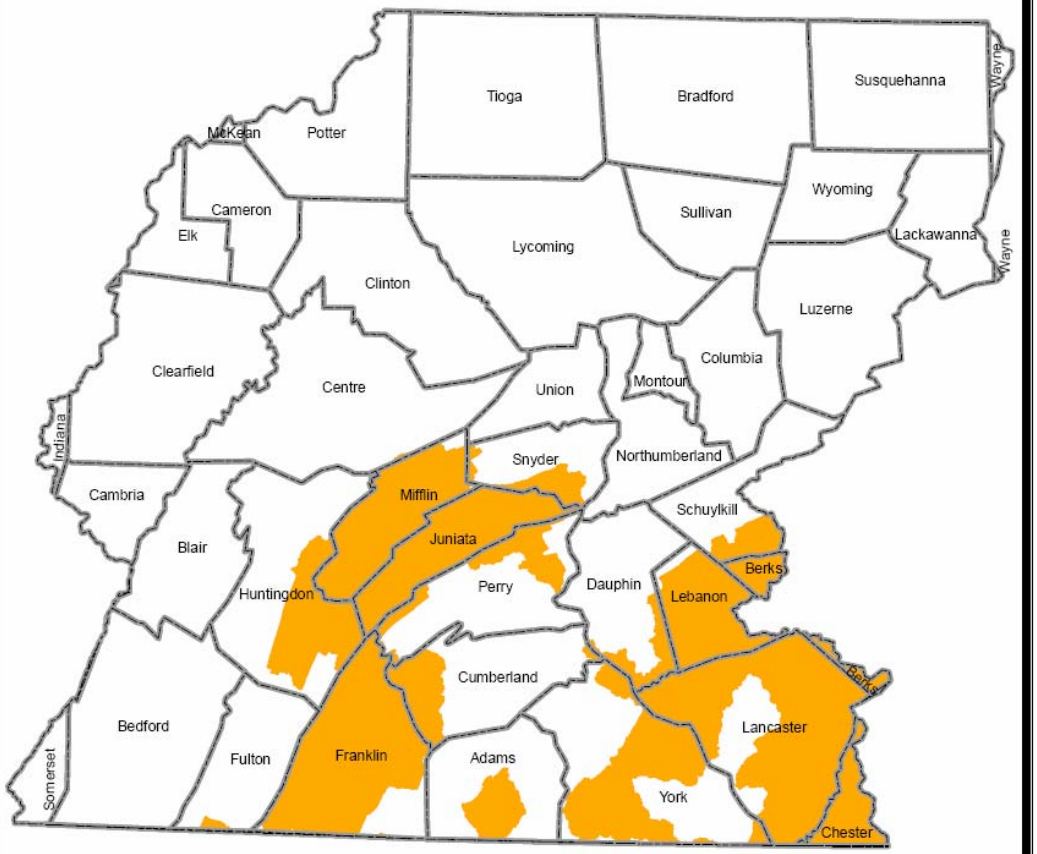


Pennsylvania
Chesapeake Bay Watershed Initiative
Priority Watersheds



Scope of WS Work

800 Farms, 50,000 ac Cropland, 575 miles of streams in just 4 watersheds… we now have approximately 132

Conewago Watershed

- 33,606.4 acres
- 11,267.3 acres of pasture (33.5%)
- 4570.5 acres of cropland (13.6%)
- 152.3 miles of streams
- 44.8 miles of impaired streams
- 266 farms, 291 tracts

Kishacoquillas Creek

- 30,967.7 acres
- 6370.3 acres of pasture (20.6%)
- 9998.0 acres of cropland (32.3%)
- 83.1 miles of streams
- 52.5 miles of impaired streams
- 199 farms, 230 tracts

Quittapahilla Creek

- 49,027.3 acres
- 11,226.5 acres of pasture (22.9%)
- 16,605.7 acres of cropland (33.9%)
- 89.7 miles of streams
- 89.7 miles of impaired streams
- 500 farms, 560 tracts

Codorus Creek

- 102,833.0 acres
- 35,152.4 acres of pasture (34.2%)
- 19,492.6 acres of cropland (19.0%)
- 249.6 miles of streams
- 95.5 miles of impaired streams
- 830 farms, 918 tracts

Priority Practices (BMP's).

- Practices that are highly effective in controlling sediment and nutrients and can be readily installed by most farmers.
- Core Conservation practices in PA - nutrient management, cover crops, streamside buffers, and residue management, i.e. no-till. They are highly effective in nutrient reductions per dollar spent.

. . criteria for practice selection

- Example criteria for practice selection:
  - cost-effective at reducing nutrient and sediment loads
  - farmers willing to implement
  - quickly implemented in a short time period, 1-2 years.
  - sustainable and have the greatest potential for continued implementation after contracts are completed (for example, practices that make economic sense to the farmer).

Leveraging Technical Resources

- Collaborate with Federal, State, and Local partners to add capacity to both Financial and Technical Assistance. Example of help we need from partners would include:
  - Assist with outreach, education and farmer contacts
  - Funds to provide additional cost-share assistance beyond the 75% NRCS can provide for priority situations
  - Provide additional data and ground-truthing to assist implementation and decision making
  - Provide services outside the scope of NRCS such as data collection and recreational assistance.

additional Help Needed

- Current technical capacity with NRCS and Districts estimated to be about ½ of what is needed in these pilot watershed areas.
- Additional people are needed to visit farms and present information about program opportunities and information on the practices.
- REALITY - Most current customers usually come to us – we will need to outreach to new clients for success in these pilot watersheds.

How much help is needed?

- We estimate that an additional 2-4 people are needed in each project watershed to help with the following:
  - Write conservation plans and assist with practice implementation
  - Conduct group meetings, work with partners and coordinate outside activities.
  - Administrative help in the office, enter plans in the computer, file contract materials, and do follow up with clients.

Adapt and be ready to do more…

- Anxiously awaiting the Farm Bill funding and States are making preparations to be able to move out quickly.
- We will need to be able to quickly flex and acquire the technical capacity necessary to operate in additional priority watersheds.
- Plan to rotate and move to new watersheds every couple of years.

Questions