Raising the bar for conservation with farmers: improving water quality, farm productivity, and leveraging financial resources effectively

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Agricultural Sources of Total Phosphorus
Delivered Yield to the Chesapeake Bay

Delivered Phosphorus (kg/hec/yr)
- 0.00 - 0.03
- 0.04 - 0.06
- 0.07 - 0.09
- 0.10 - 0.12
- 0.13 - 0.15
- 0.16 - 0.18
- 0.19 - 0.21
- 0.22 - 0.24
- > 0.24

Delivered yield (lost per area) is to the amount of nutrient that a generated locally for each stream reach and weighted by the amount of overgrowth that would occur with transport from the reach to the Bay is dependent on the transport and inshore-loss rate of each individual reach. This map shows estimates based on mean conditions for the late 1990s time period.

Agricultural Sources of Total Nitrogen
Delivered Yield to the Chesapeake Bay

Delivered Nitrogen (kg/hec/yr)
- 0.0 - 1.0
- 1.1 - 2.0
- 2.1 - 3.0
- 3.1 - 4.0
- 4.1 - 5.0
- 5.1 - 6.0
- 6.1 - 7.0
- 7.1 - 8.0
- > 8.0

Delivered yield (lost per area) is to the amount of nutrient that a generated locally for each stream reach and weighted by the amount of overgrowth that would occur with transport from the reach to Chesapeake Bay. The transport and inshore-loss rate of each individual reach. This map shows estimates based on mean conditions for the late 1990s time period.
PA rivers and streams
Raise the bar concept

Photo: Lancaster County Conservation District
Buffer Bonus Program

- Wide forested riparian buffers
- Vouchers earned per acre of buffer
- Obtain whole farm conservation plan
- Compliance with environmental regulations
- Address nutrient “hot spots”
Address nutrient “hot spots”
Funding

- Federal (USDA Farm Bill – EQIP, CREP, federal stimulus)
- State conservation funds
- Private and public grants
- Leverage funds for maximum benefit
• Manure storage
• Roof gutters
• Stabilized feeding areas
• Laneways
• Milk house waste
• 35’ minimum forest buffer
• Livestock exclusion fence
• Stream crossings
• Livestock water systems
• 150 farms in 5 years
• Leveraged over $25M in funds
• 600 acres of riparian forest buffers
• Over 850 BMPs
Trust of farmers
Technical assistance
Adequate funding

Lessons learned
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