

Conserving Penn's Woods

Pennsylvania's Riparian Forest Buffer Initiative

Riparian Forest Buffer Advisory Committee

March 28, 2016

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Outline

1. Why are we here?
2. Chesapeake Bay Goal/TMDL Target
3. Our current thinking

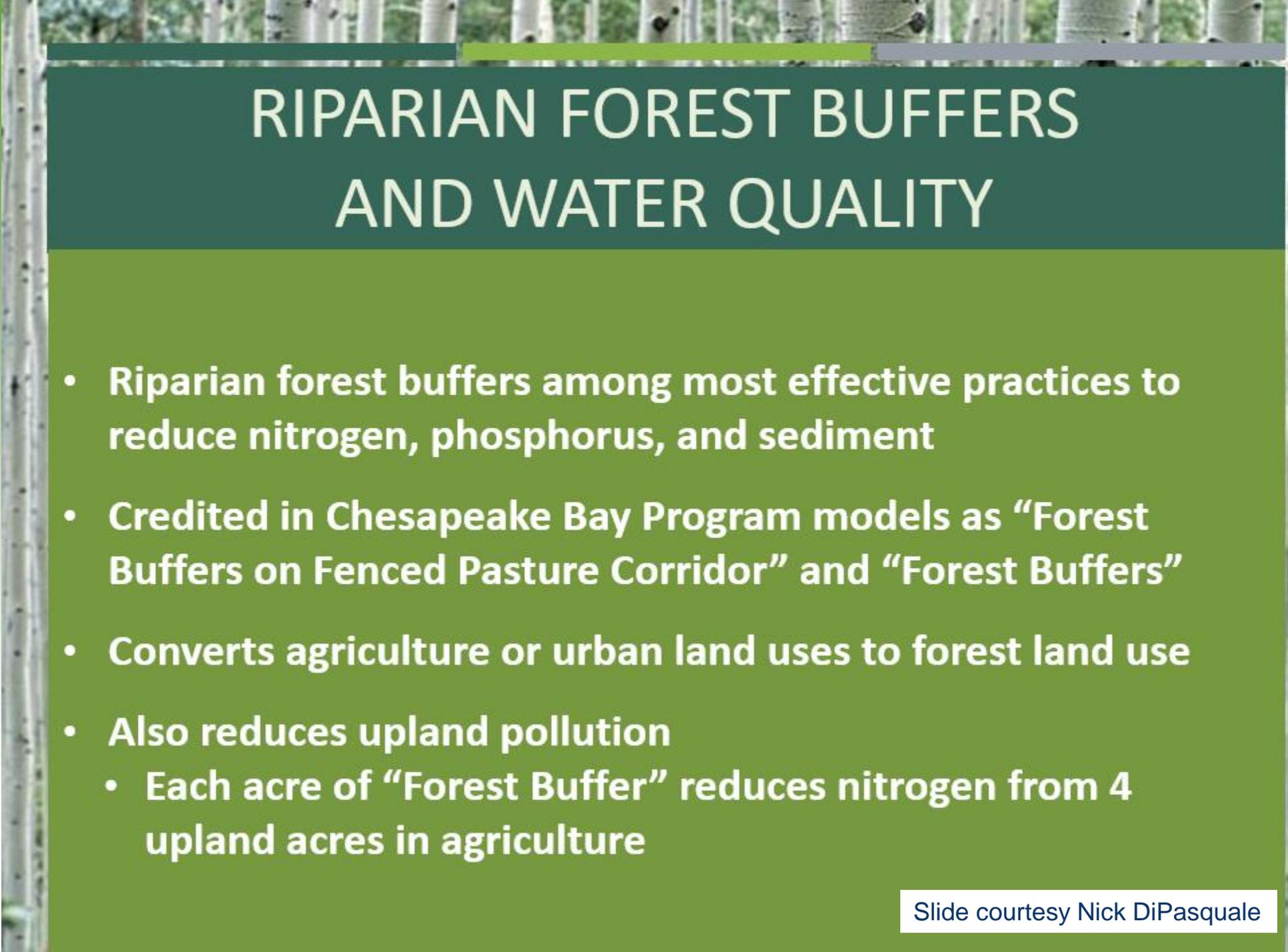


DCNR/Chesapeake Bay Work

1. Recreation and public access
2. Education and outreach
3. Land conservation
4. Urban tree planting (TreeVitalize)
5. Riparian Forest Buffers

RIPARIAN FOREST BENEFITS

- **Clean water**
- **Habitat (aquatic and terrestrial)**
- **All the co-benefits that trees provide including air quality, cooling, carbon sequestration, etc**
- **Need to review the science? See recorded webinar by Bern Sweeney:
<https://usfs.adobeconnect.com/p1uc3sf8jj5>**



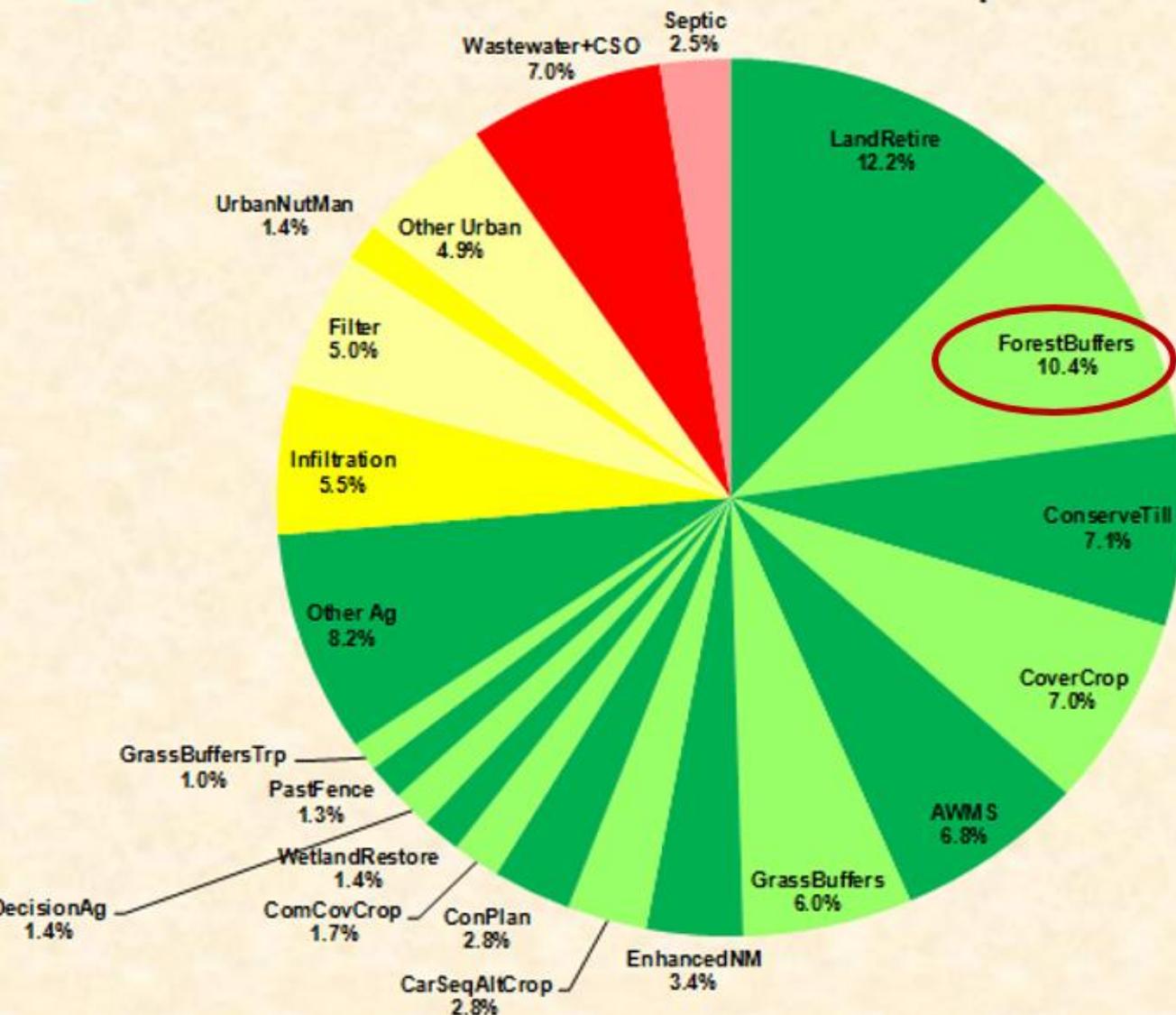
RIPARIAN FOREST BUFFERS AND WATER QUALITY

- Riparian forest buffers among most effective practices to reduce nitrogen, phosphorus, and sediment
- Credited in Chesapeake Bay Program models as “Forest Buffers on Fenced Pasture Corridor” and “Forest Buffers”
- Converts agriculture or urban land uses to forest land use
- Also reduces upland pollution
 - Each acre of “Forest Buffer” reduces nitrogen from 4 upland acres in agriculture

STATES RELYING ON PAST AND FUTURE ACRES



Nitrogen Relative Load Reductions CB Watershed – as percent



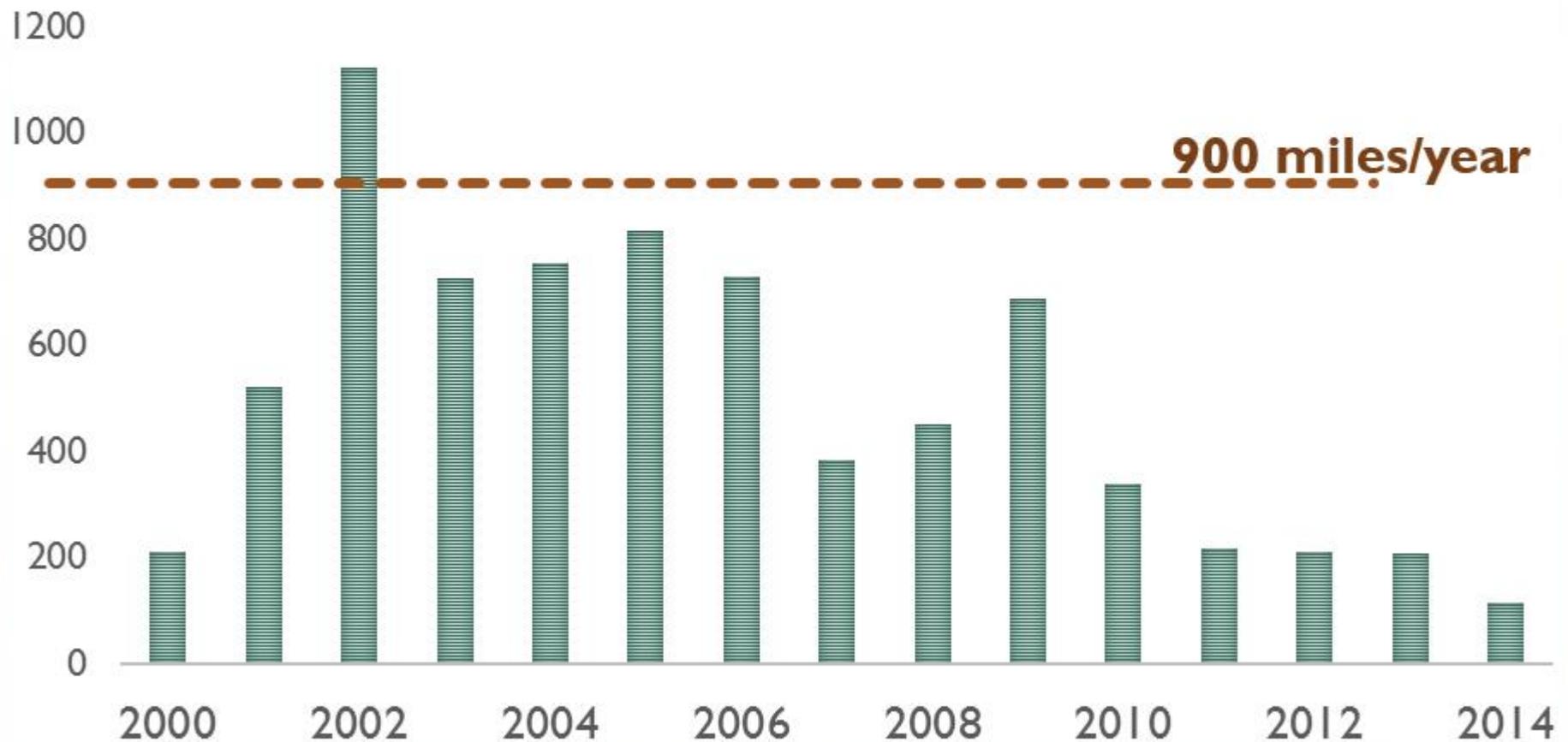
Forest Buffers rank second of all nonpoint source BMPs needed to meet TMDL targets for N according to state WIPs

Each slice represents the percent of the total load reduction attributable to planned implementation levels for that BMP.

Slide courtesy Nick DiPasquale

PAST PROGRESS

Miles of Riparian Forest Buffers Planted as Reported by Bay States



PA Success story

- 54,000 acres of RFBs
- 24,000 acres established through CREP
- PA Stream ReLeaf
- Growing Greener
- Many partners
- Accomplished at the local level

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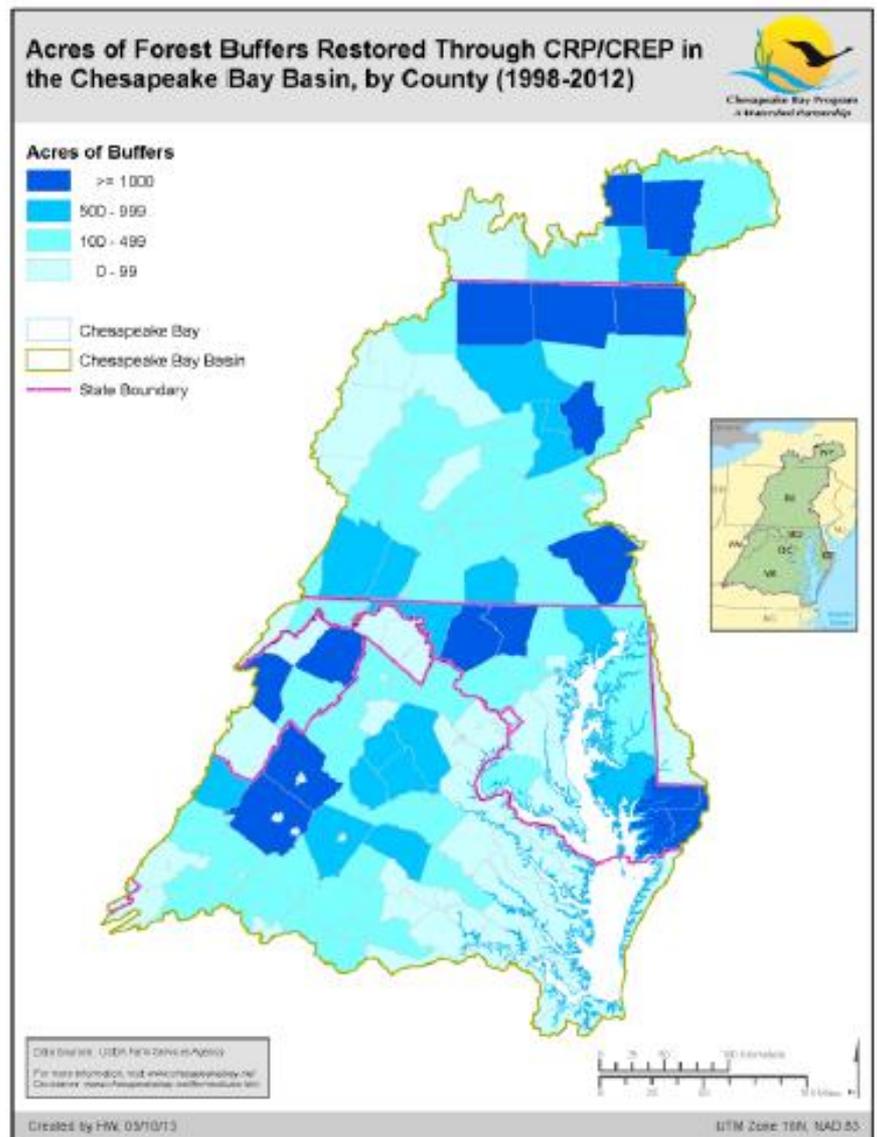


Figure 3. Acres of forest buffers restored through CREP and Conservation Reserved Program (CRP) in the Chesapeake Bay watershed by County (1998-2012).

PA RFB Accomplishments

Year	Acres	
	Annual	Cumulative
2009	--	43,096
2010	1,129	44,225
2011	2,848	47,073
2012	948	48,021
2013	6,822	54,843
2014	3,616	58,459
2015	77	58,536
2025	<i>9,500</i>	<i>154,000</i>

FACTORS WE CAN'T CONTROL

- **Fluctuation in commodity crop prices**
- **Inter-generational transfer of ag lands**
- **Loss of agricultural lands**
- **Congressional authority for Farm Bill**

HIGH PRIORITY FACTORS

- **Insufficient emphasis**
- **Insufficient technical assistance**
- **Interagency coordination**
- **Lackluster incentives**
- **Unused federal funds (lack of 20% match)**
- **Inflexible federal programs**
- **Outreach to landowners**
- **Understanding lack of re-enrollment**
- **Lack of information for landowners & assistance providers**
- **Unsatisfactory survival rate of buffer plantings**
- **Complicated process (application/implementation)**
- **Targeting areas where most effective**
- **Need for permanent protection**

Recent Federal and State Responses

- 2014 RFB Leadership Summit in D.C.
 - State Tasks Forces
 - Heavy focus on CREP
 - Asked for State RFB Leads
- 2014 Chesapeake Bay Agreement
 - Management strategy and 2-year work plans

PA 2-Year Work Plan

1. Leadership and collaboration
 - *RFB Advisory Committee*
2. Funding and resources for new and innovative approaches
 - *Complement existing programs*
 - *Flexibility and simplicity*
 - *Importance of maintenance*

PA 2-Year Work Plan

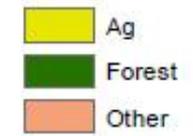
3. Communication, outreach, and technical assistance
 - *Messaging, DCNR Foresters, social science*

4. Planning to prioritize efforts
 - *Technology and partners*
 - *Improve efficiency*

Chesapeake Bay Watershed - PA

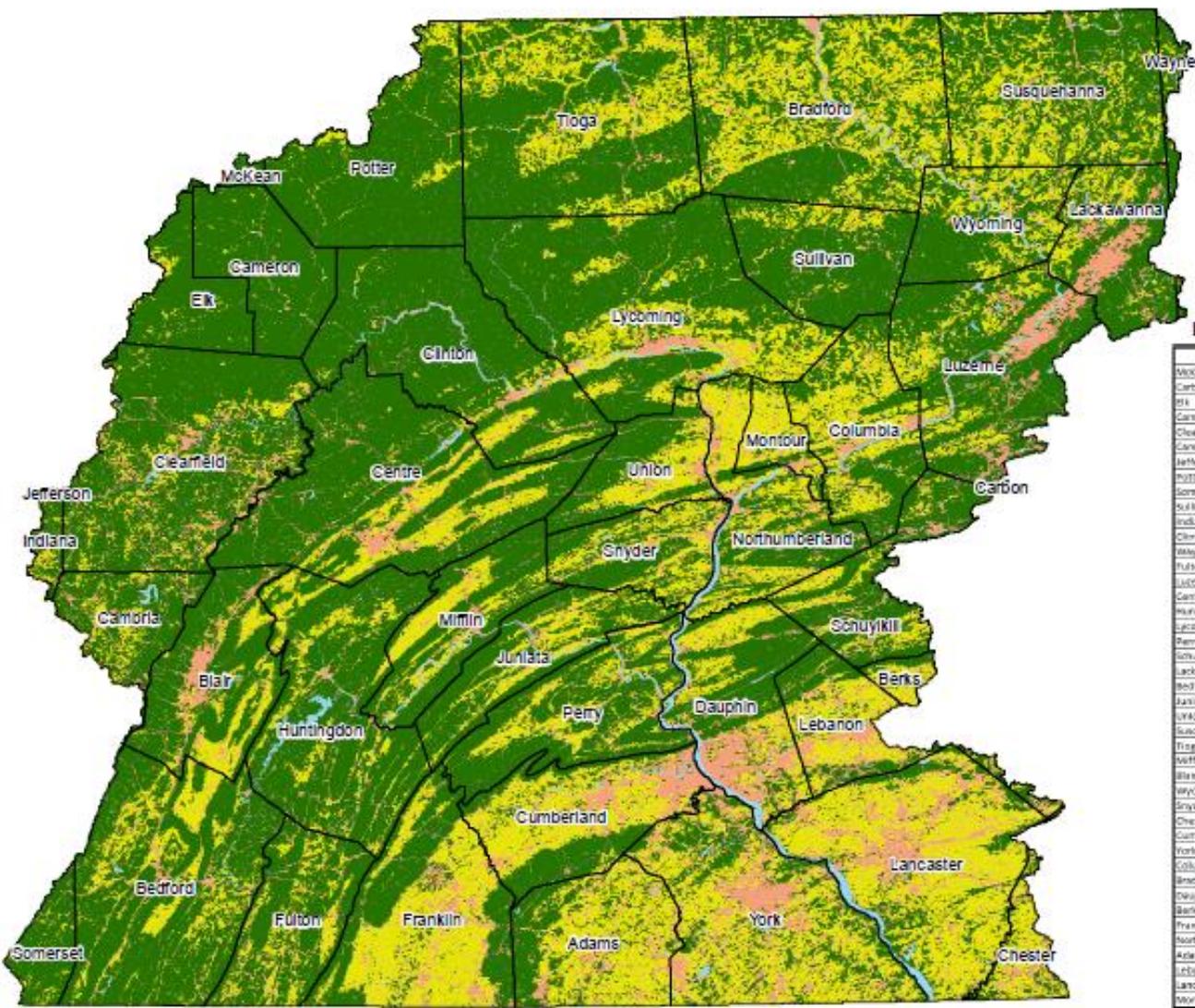
Land Use by County

2011 NLCD



Land Use within 100 ft Stream Buffers:

County	% Forest	% Ag	% Other	Acres
Allegheny	97%	1%	1%	1,026
Carbon	93%	0%	7%	0
Elk	95%	2%	5%	15,149
Cameron	99%	2%	3%	18,640
Clearfield	89%	4%	8%	44,023
Cambria	88%	6%	7%	14,078
Jefferson	87%	0%	13%	2
Potter	87%	2%	4%	52,093
Somerset	87%	6%	7%	8,529
Sullivan	86%	6%	8%	20,894
Indiana	85%	9%	8%	3,061
Clinton	83%	4%	13%	35,205
Blaine	83%	11%	6%	2,962
Fulton	79%	14%	8%	27,180
Luzerne	79%	7%	17%	27,132
Centre	78%	10%	12%	40,154
Huntingdon	74%	14%	11%	99,903
Lycoming	74%	15%	11%	55,528
Perry	72%	16%	12%	24,551
Schuylkill	70%	15%	14%	12,645
Lackawanna	70%	7%	23%	15,262
Bedford	69%	21%	10%	99,789
Juniata	67%	23%	10%	17,662
Lyons	66%	22%	12%	14,248
Susquehanna	64%	22%	17%	80,688
Tioga	63%	25%	10%	46,130
Wetland	63%	23%	17%	15,542
Blair	64%	18%	18%	24,720
Wyoming	61%	17%	20%	14,493
Snyder	62%	23%	15%	17,281
Chester	60%	31%	9%	5,990
Cumberland	59%	23%	18%	16,529
York	59%	22%	19%	40,998
Columbia	59%	26%	15%	18,992
Bradford	59%	26%	17%	53,264
Dauphin	57%	20%	23%	24,704
Berks	57%	31%	12%	3,012
Franklin	53%	35%	12%	35,781
Northumberland	53%	30%	16%	20,721
Adams	52%	34%	14%	30,113
Lebanon	49%	35%	16%	11,000
Lancaster	45%	36%	17%	36,755
Montour	37%	47%	16%	7,279



Total Area of PA in Chesapeake Bay Watershed: ~14,472,861 acres

Riparian Forest Buffer Initiative

Goals

- Implement a collaborative, comprehensive, flexible and community-based initiative
- Provide technical assistance for buffer establishment and maintenance
- Build and enhance community partnerships
- Complement the approach by DEP & the Natural Resources Conservation Service (CREP)
- Connects landowners and partners to funding opportunities



pennsylvania
DEPARTMENT OF CONSERVATION
AND NATURAL RESOURCES

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Riparian Forest Buffer Initiative

Outcomes

- 95,000 additional riparian forest buffer acres by 2025
- Enhanced conservation benefits
- Improved partnerships



Thanks for your attention!

Questions?

Next we'd like to hear from you

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