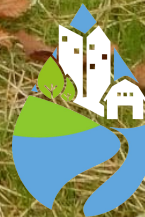




CLEAN AND CLEAR BY 2040

Operating with a bias towards action

Photo: Donegal Trout Unlimited at Clean Water Fund project site



Lancaster
CLEAN WATER PARTNERS

Pennsylvania's State Constitution states...



“...the people have the right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment.”

– *Article I, Section 27*



Lancaster County
Agriculture Council








Farm Facts



Lancaster County ranks 1st out of all PA counties and 15th out of 3,077 counties in the U.S. in value of agricultural products sold. This market value is **\$1,474,954,000!**

How Lancaster County Compares



	Lancaster	Pennsylvania	United States
Average Size of Farm	78 acres	130 acres	442 acres
# of Certified Organic Farms	139	803	14,217
Ranked Value of Lancaster's Milk		1st 	8th 
Average Age of a Farmer	48.7	56.1	58.3
# of Dairy Farms	1776	7048	40,000
Ranking of # of Eggs Produced	1st 	1st 	1st 
Number of pigs	359,505	1,250,000	72,900,000

Agriculture

Lancaster County is the most productive non-irrigated farming county in the United States.

Approximately 5,100 farms; average size is 77 acres (state average is 175 acres) [USDA 2017 Ag Census](#)

Jointly, the county's Agricultural Preservation Board and Lancaster Farmland Trust have 113,000 acres of farmland preserved. Nearly 80% of preserved farm owners that work with the Farmland Trust are Plain Sect Amish or Mennonite farmers. **We are the #1 county in the nation for farmland preservation.**





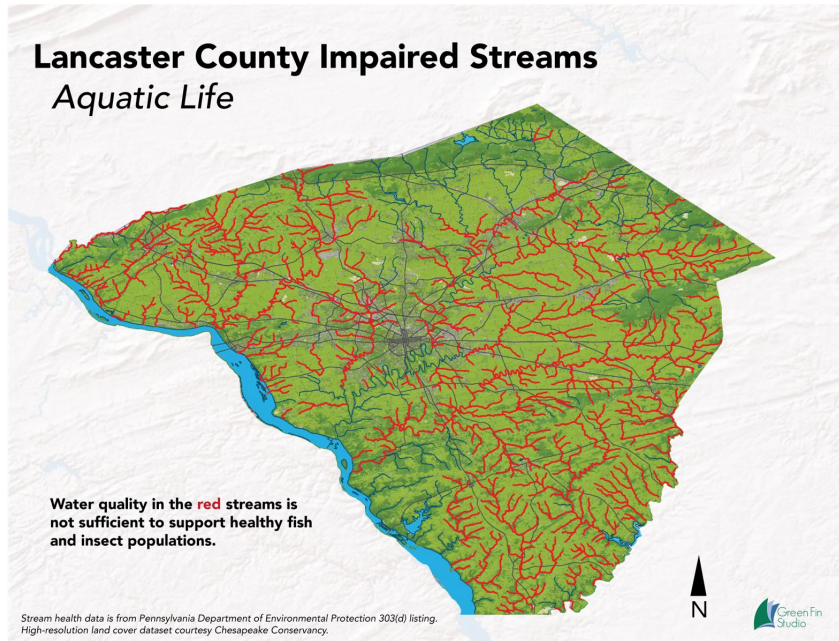
[dreamstime.com](https://www.dreamstime.com) ID 147103621 © Carbouval



Investigations

residents, affordability for housing, tax rates and quality of health care

More than half of Lancaster County's 1,400 miles of streams are impaired.

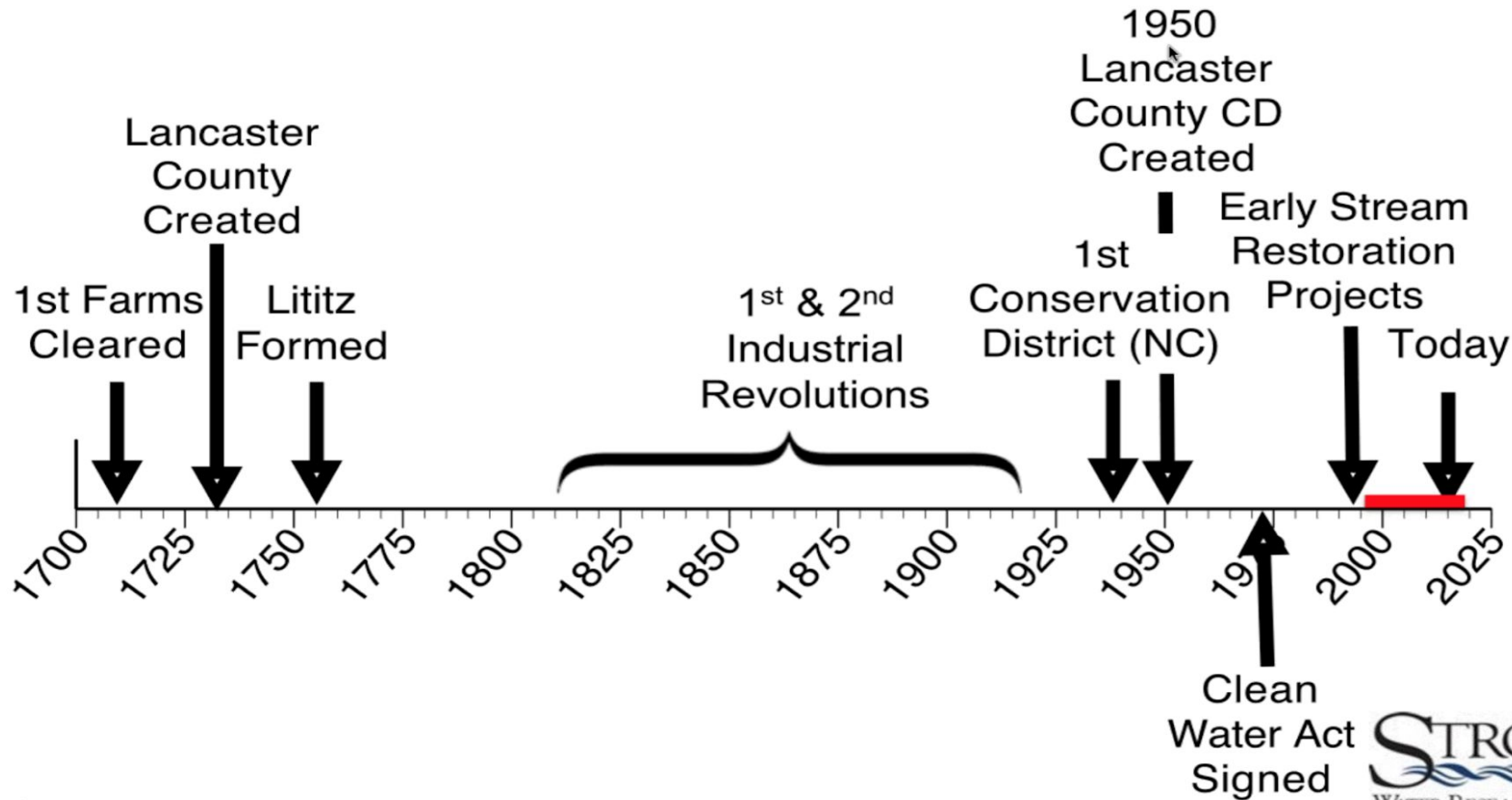


Lancaster County streams have the highest amount of nitrogen, phosphorus, and sediment in monitored areas of the Chesapeake Bay Watershed.

With a mixture of rural, suburban, and city landscapes, the sources are diverse and deeply tied to land use, **both current day and historical.**



Lancaster County History



Water Quality in Lancaster

Problem

More than half of Lancaster County's 1,400 miles of streams are impaired.

Lancaster County streams have the highest amount of nitrogen, phosphorus, and sediment in monitored areas of the Chesapeake Bay Watershed.

Solution

Build and sustain a local multi-sector collaboration, supported by a strong backbone organization, to advance a community-led Common Agenda toward a shared result.



Get the “who” before the “what” or “how”

“The most critical factor by far is an *influential champion* (or small group of champions) who commands the respect necessary to bring CEO-level cross-sector leaders together and keep their active engagement over time. We have consistently seen the importance of dynamic leadership in catalyzing and sustaining collective impact efforts.”

– **Stanford Social Innovation Review**



Steering Committee Members

<u>Sector</u>	<u>Organization</u>
Business	Turkey Hill Dairy, CEO
Business-related non-profit	Economic Development Company of Lancaster, President
Conservation and Agriculture	Lancaster County Conservation District, Manager
Agriculture	Lancaster Farmland Trust, president
Local Government	West Lampeter Township, zoning and planning officer
Local Government	City of Lancaster, Director of Public Works
Conservation non-profit	Lancaster Conservancy, lawyer and land preservationist
Banking, local government, agriculture	Fulton Bank advisor/Rapho Township Supervisor
Accounting, Agriculture	Acuity Advisors (Partner)/Ag Council
Higher Education & non-profit	Water Science Institute, Executive Director
Higher Education & watershed association	PSU Agriculture and Environment Center, Professor and Director
Agriculture	Red Barn Consulting, President
Business	Lancaster Chamber of Commerce, Vice President
County Government	Lancaster County, Commissioner
Local Government and Agriculture	Salisbury Township, Supervisor

The Partners is guided by a Steering Committee and Executive Committee. Representatives may serve a max of three terms of three years each.

New Steering Committee members are nominated by the Executive Committee and voted in by the Steering Committee.

The group meets at least four times per calendar year.



Your nation tree is:
Stick, Oor!
How to plant & care for your tree
All trees are planted in the same way.
They are planted in a hole that has been
dug and filled with soil. The tree is
watered and the soil is covered with
mulch. The tree is then watered
regularly and the soil is covered with
mulch. The tree is then watered
regularly and the soil is covered with
mulch.



The Lancaster Clean Water Partners

Collective Impact Approach

We believe that an organized, collaborative effort is the best way to make a lasting, positive impact on Lancaster County. We seek to bring together strong leaders from diverse backgrounds under one common vision:

Clean and clear water by 2040!



*The structure of Lancaster Clean
Water Partners*



1 Tool That Pushed Our Progress - Common Agenda



A shared vision of clean and clear water in Lancaster County by 2040.

Our shared mission is to rapidly accelerate and expand the ability of the partner organizations to restore and sustain healthy Lancaster County waterways.

The Common Agenda outlines how we'll get there.



Common Agenda

- Problem
- Solution
- Priorities
- Strategies
- Progress indicators
- Shared values

The Lancaster Clean Water Partners brings together a diverse group of partner organizations – local leaders in business, municipal public service, higher education, conservation planning, and non-profit management – with a **shared vision** of clean and clear water in Lancaster County by 2040.

Our shared
organizati

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**More than
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COMMON AGENDA
OUR PATH TO CLEAN AND CLEAR STREAMS BY 2040



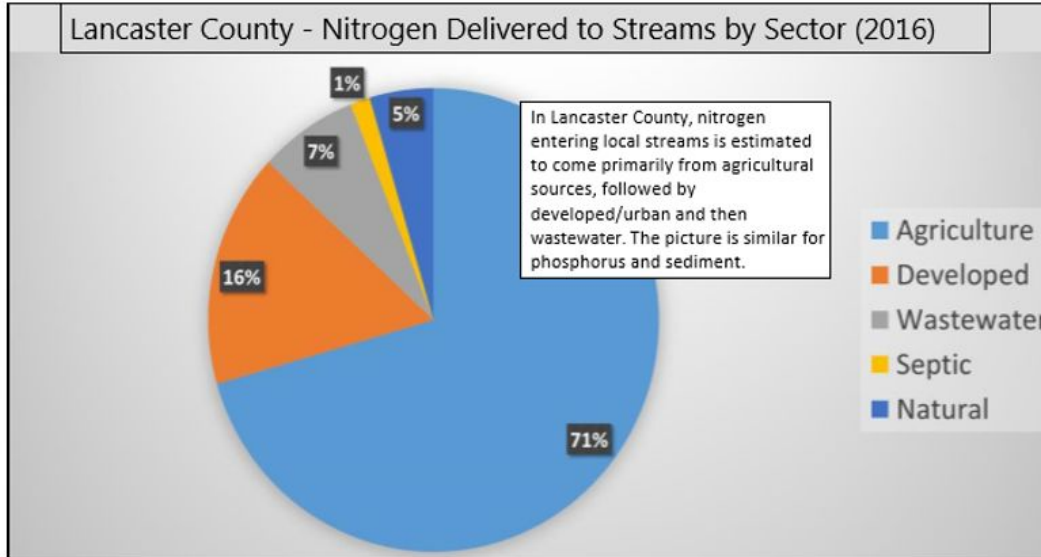
Priorities

Scaled use of sustainable, proven and promising practices (BMPs) at adequate levels for rapid success with the Lancaster Countywide Action Plan (CAP)



CAP Opportunity

We know the best opportunities for clean water work and economic support for Lancaster's local priorities and people are in agriculture.



Source: Community Clean Water Toolbox, DEP 2018



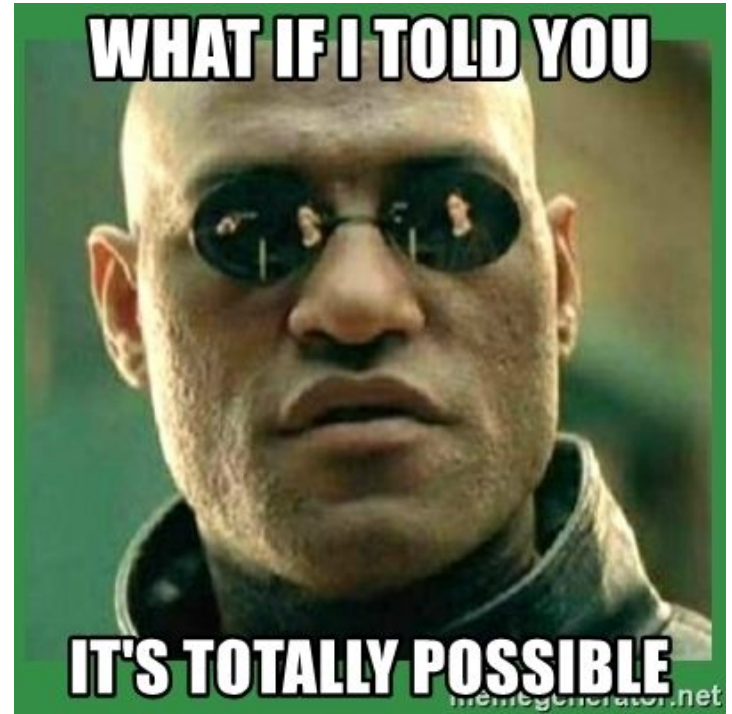
Countywide Action Plan (CAP)

With the planning process complete, Lancaster partners are now implementing the CAP.

Lancaster is responsible for 21% of the state's nitrogen and 23% of the phosphorus reduction goals – that's a lot of work in one county!

What we've realized:

- It's absolutely possible
- Seriously underfunded and understaffed



It Means We Need More Horsepower!

THANK YOU EPA FOR YOUR SUPPORT OF THE CAP PROGRAM!

The Lancaster Clean Water Partners is the lead entity along with the Conservation District.

The CAP Coordinator Team includes:



Mike LaSala
Laurel Etter Longenecker



Jeff Swinehart
Jeb Musser
Gordon Hoover



Joellyn Warren



It Means Our Progress Indicators Now Reflect the CAP Goals

PROGRESS INDICATORS



- BMPs in place for 7.14 million pounds of nitrogen reduced by 2025
- BMPs in place for 540,000 pounds of phosphorus reduced by 2025
- BMPs in place for 222.7 million pounds of sediment reduced by 2025
- Net reduction of impaired streams to 350 miles by 2030
- 75% of adult county residents familiar with the issue, supportive, and actively engaged personally



CAP Implementation Projects - \$6.7 million



**66% use no-till or
minimum till practices**

Your challenge:

**Find out how many
acres or % of Lancaster
County has cover crops**





Farmers using a **dragline to inject dairy manure** after harvest to conserve nutrients. Cover crops are planted after manure is injected to retain nutrients and control soil erosion. Expanding these practices are part of our CAP.



Farmers use a custom made horse-drawn **dragline to inject dairy manure** after harvest to conserve nutrients. Meeting the cultural and business needs of partners is essential to soil health and community wide success.





Well-maintained buffer on farmland
along Big Beaver Creek.



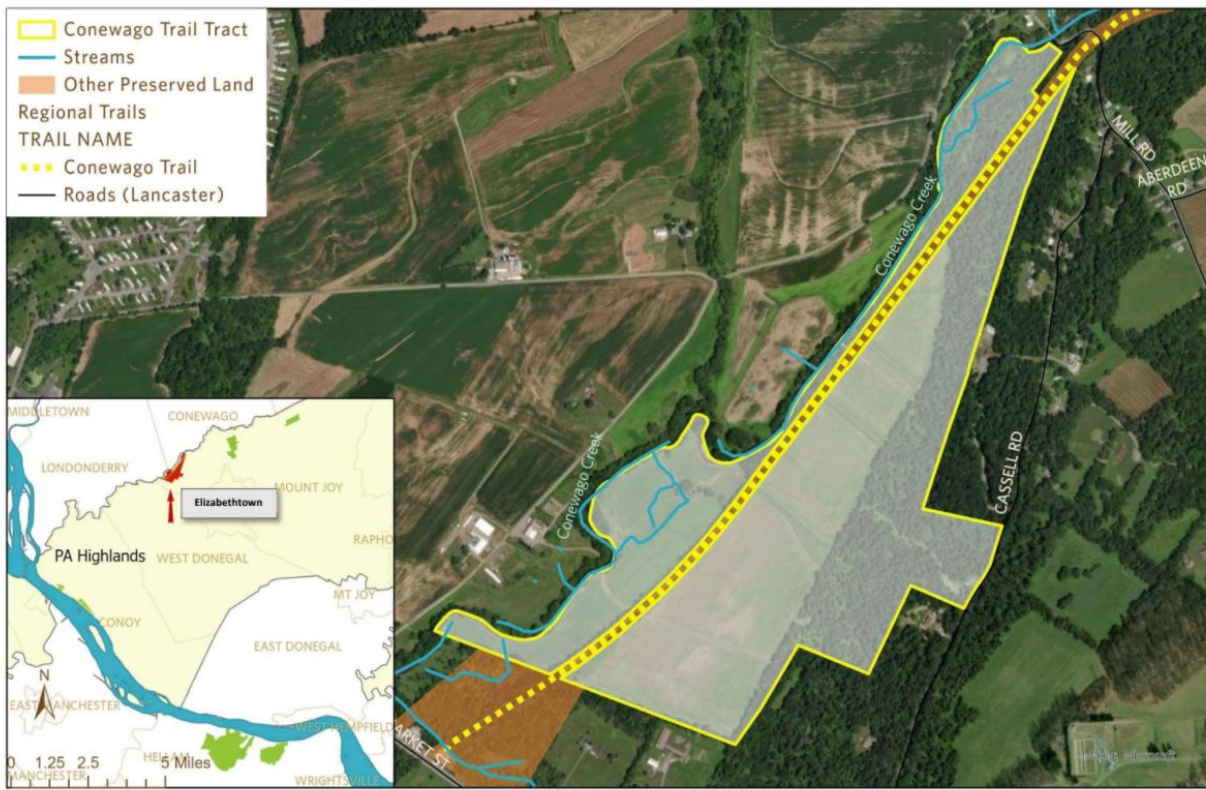
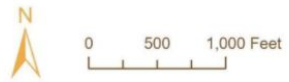
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Potential Future Restor



Upcoming: Conewago Trail Nature Preserve

Mount Joy Township, Lancaster County



Lancaster Conservancy worked for 10 years in this area and recently acquired the Conewago tract at auction. It would have been sold for commercial development doubtfully would have allowed the same the MS4 project presented here to proceed as planned.



Conserving what we have

Legacy Sediment Removal - BSR Project and Oak Tree Development





Donegal
Trout
Unlimited
has worked
with Camp
Andrews for
stream
restoration
success







ALLIANCE
for the Chesapeake Bay

+



+

Maryland & Virginia
Milk Producers Cooperative Association

CLEAN WATER
PARTNERSHIP



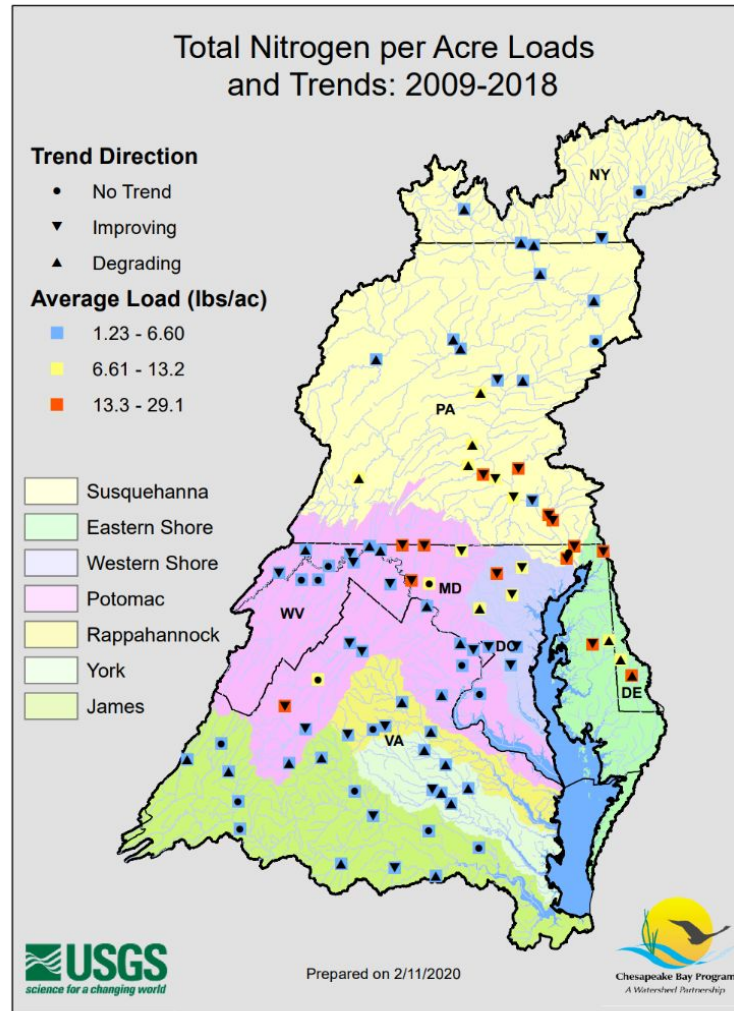
**I SCREAM,
YOU SCREAM,
WE ALL SCREAM FOR...
ICE CREAMS!**



Turkey Hill Clean Water Partnership



USGS trends



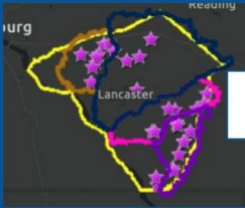


**The entire community
is working on the same goal at the same time -
to improve our local water quality**

Delisting Strategy

Step 1: Select stream de-listing catchments

Interviews



Watershed leads

ID 40 potential catchments

Watershed workshops



Restoration professionals

Narrow to 20 most feasible

Meeting



Scientists

Narrow to 12 for de-listing

Final selection of catchments



Lancaster Clean Water Partners

Step 3: Implementation



- Implement shovel-ready projects
- Carry out small, personal outreach with landowners of high priority parcels
- Secure funding & implement full-farm restoration in the catchment
- Complete periodic stream IBI monitoring

WE ARE HERE!

Step 2: Develop stream de-listing plan



BMPs Needed	Total Restoration Cost
Riparian	\$27,950.00
Barneyard, Riparian	\$20,000.00
Riparian with fencing	\$10,000.00
Riparian	\$33,840.00

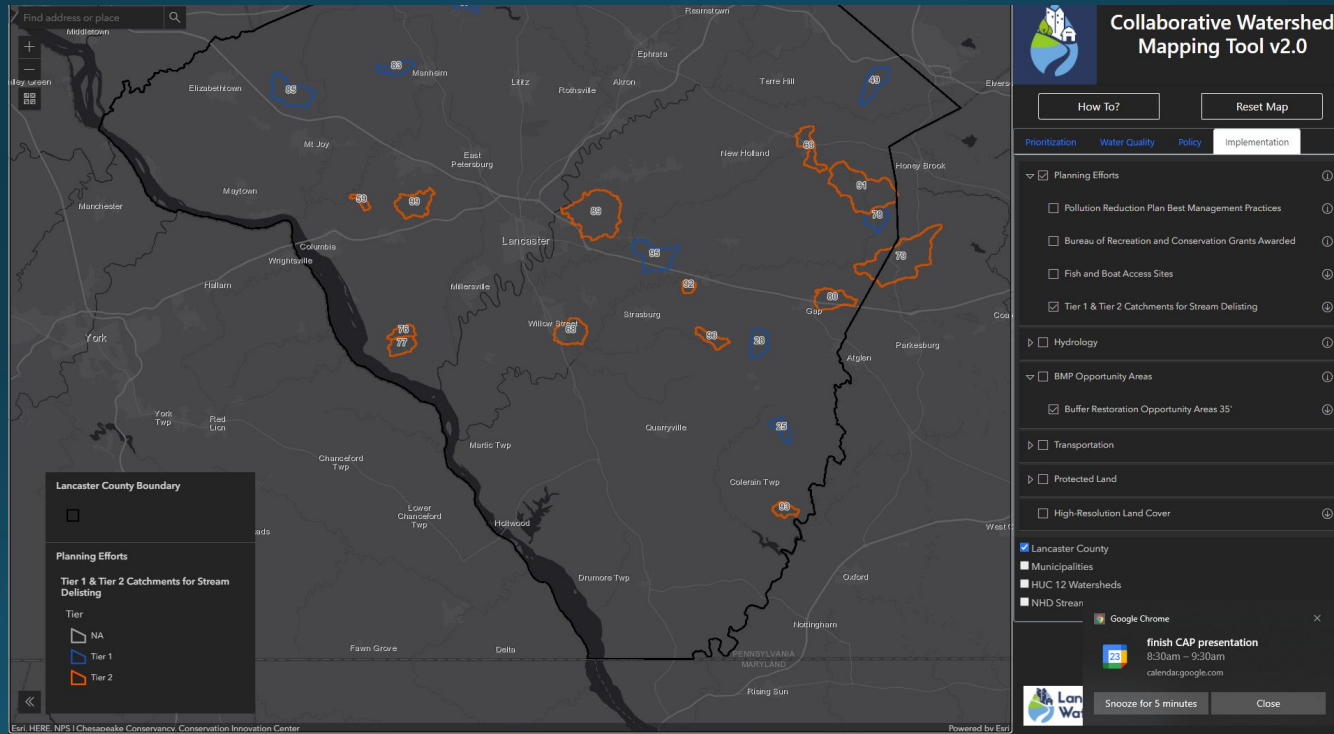
- ID partners for catchment
- ID parcels as 1) shovel-ready; 2) landowner amenable; 3) outreach priority
- ID funding & TA needs
- Develop outreach & deliverables plan
- Develop monitoring plan





Lancaster Clean Water Partners Collaborative Watershed Mapping Tool

Access: <https://lcwp.cicapps.org>



The screenshot displays the Collaborative Watershed Mapping Tool v2.0 interface. The main map shows Lancaster County with various planning effort overlays. A search bar at the top left contains "Middlestown". The sidebar on the right includes a "How To?" button, a "Reset Map" button, and a menu with tabs for "Prioritization", "Water Quality", "Policy", and "Implementation". The "Implementation" tab is active, showing a list of planning efforts with checkboxes and expand/collapse icons. The legend in the bottom left corner identifies the Lancaster County Boundary and Planning Efforts, including Tier 1 & Tier 2 Catchments for Stream Delisting. A notification for a "finish CAP presentation" is visible at the bottom right.

Find address or place
Middlestown

Collaborative Watershed Mapping Tool v2.0

How To? Reset Map

Prioritization Water Quality Policy Implementation

Planning Efforts

- Pollution Reduction Plan Best Management Practices
- Bureau of Recreation and Conservation Grants Awarded
- Fish and Boat Access Sites
- Tier 1 & Tier 2 Catchments for Stream Delisting

Hydrology

BMP Opportunity Areas

- Buffer Restoration Opportunity Areas 35'

Transportation

Protected Land

- High-Resolution Land Cover

Lancaster County

- Municipalities
- HUC 12 Watersheds
- NHD Stream

Google Chrome

finish CAP presentation
8:30am - 9:30am
calendar.google.com

Snooze for 5 minutes Close

Powered by Esri

Water
is

VIDA!

Let's talk!



Allyson Gibson, Coordinator
agibson@lancastercleanwaterpartners.com



John Cox, Senior Advisor
john@lancastercleanwaterpartners.com



Q&A



Lancaster
CLEAN WATER PARTNERS

Will Parson, Chesapeake Bay Program