

Hammer Creek ARP First Triennial Report

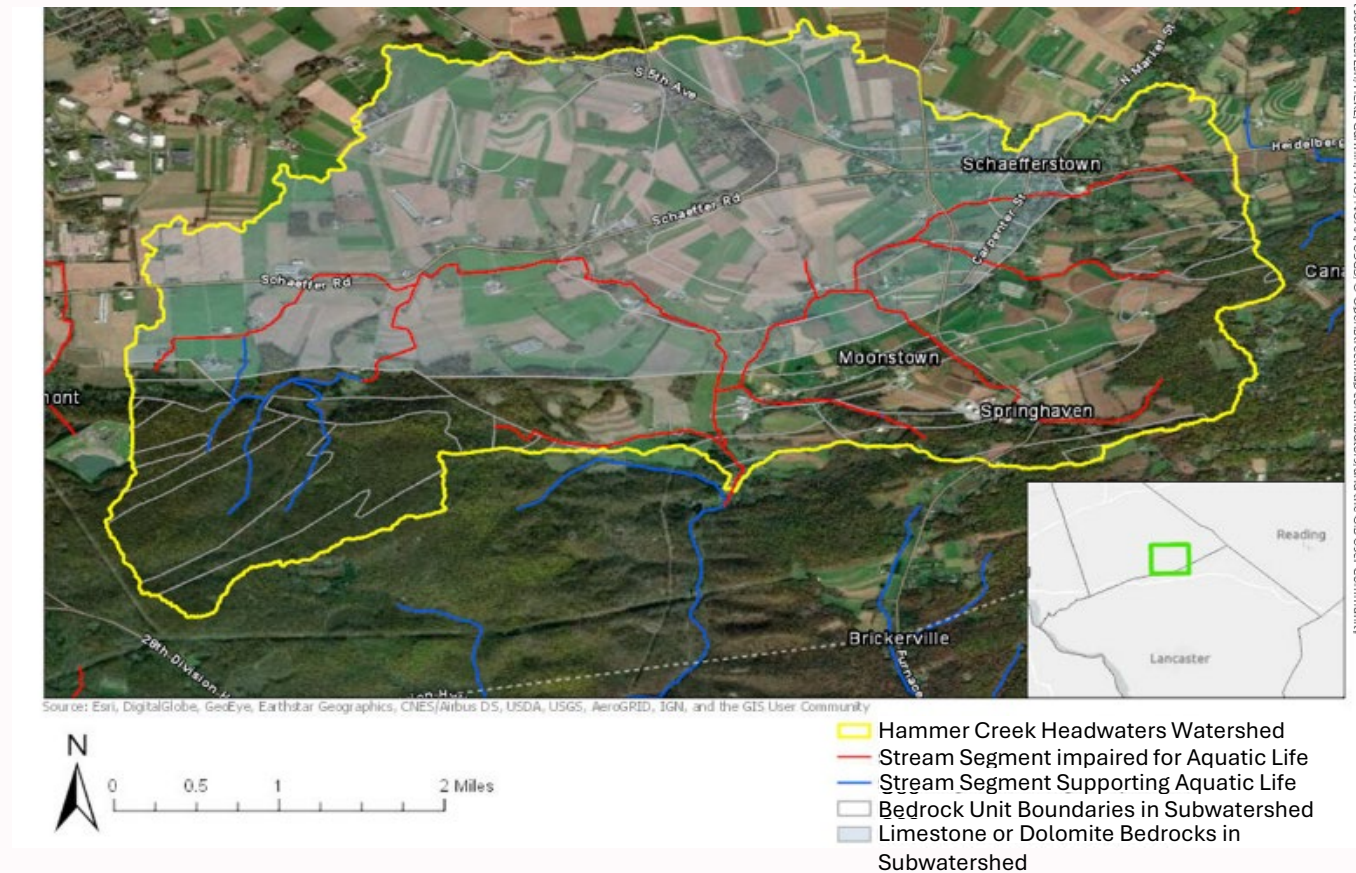
Bureau of Clean Water
303(d) National Workshop
June 2-5, 2025





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Hammer Creek Headwaters



Geology information were derived from the pagpoly GIS layer provided by Pennsylvania Bureau of Topographic and Geological Survey, Dept. of Conservation and Natural Resources. Watershed delineated in part using TauDEM tools in ArcGIS Pro.



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Trout Potential





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Speedwell Forge Lake



Photo by Bradford T. Clubb, Flyway Excavating, Inc.



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Precision Grass Filters



How does pollution get from the
landscape to the stream?



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FIRST TRIENNIAL PROGRESS

Project Organization

Original Partnership

- Doc Fritchey Chapter of Trout Unlimited
- PA DEP

New Partnership

- Doc Fritchey Chapter of Trout Unlimited
- PA DEP
- The Nature Conservancy
- Lebanon County Conservation District
- Consultants



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Fundraising

>\$2.5 million raised:

- 319
- CAP
- SRBC
- NFWF
- Trout Unlimited
- Keystone Protein Settlement



Recent BMP Implementation

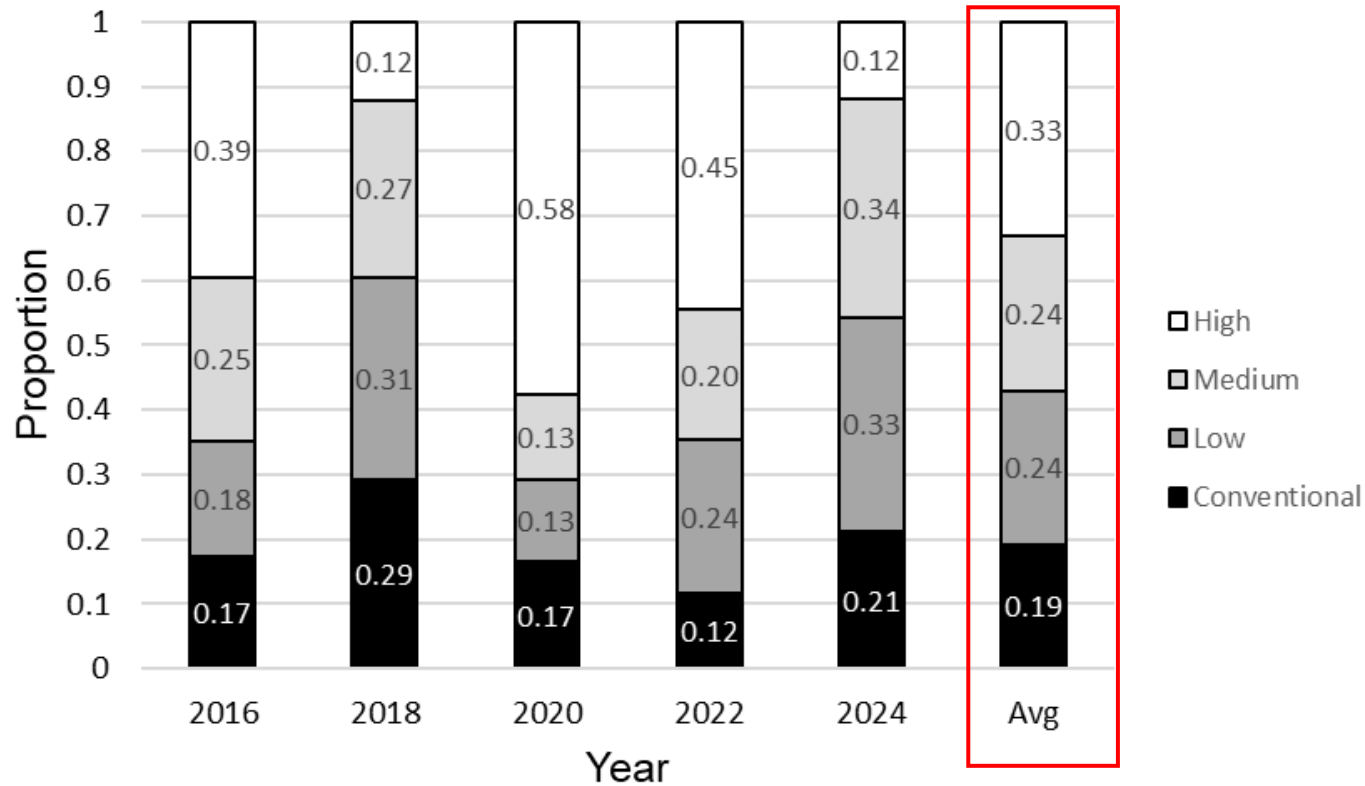
BMP	Unit of Measure	Reductions since 2021 ¹ (lb/yr)
Agricultural Erosion & Sedimentation Plan Implementation ²	0 acres	0
Grass Waterway ³	3.8 acres	9,454
Prescribed Grazing ⁴	47.5 acres	2,481
Heavy Use Area protection ⁵	0.3 acres	6
BMP A ⁶	Not Specified	1,609
Cover Crop ⁷	111 acres	31,802
Conservation Tillage ⁸	See Table 2	-1,143,044
Stream Restoration ⁹	1,040 feet	28,496
Total		-1,069,196
First Triennial Reduction Goal		2,645,138
Total Reduction Goal		4,056,504
Percent of total goal		-26%

Lack of reductions so far:

- Landowner negotiations
- Design and permitting
- Fundraising
- Declining conservation tillage



Declining Conservation Tillage



Capital RC&D Transect Surveys

- Chesapeake Bay Watersheds
- 750 sample locations in Lebanon Co
- 150-200 in SE Lebanon Co. analyzed



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Declining Conservation Tillage



Photo by Andrew Bossi; [Creative Commons Attribution-Share Alike 2.5 Generic](#)

[File:IMG 0408 - Hungary - Mushroom Farm.JPG - Wikimedia Commons](#)



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GOING FORWARD



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Ongoing Efforts

- Demand for stream restoration
 - Several projects being designed
 - Others in waiting
 - Can leverage other BMPs
- Lancaster Farmland Trust visits to ≈ 50 largest farms
- LCCD cover cropping program
- LCCD can provide E&S plans



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Legacy Sediment Removal



ARP lessons learned at year 3...

Challenges for Hammer

- Most BMP goals not met
- Time needed for partnership building, fundraising, landowner negotiation, design and permitting periods
- Declining conservation tillage in watershed due to farming trends
- Will there be enough money for legacy sediment removal?

Challenges for ARPs in general

- Partners lose interest when they see draft plans
- Need for professional implementation partners

References

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DEP. 2021. Hammer Creek headwaters alternate restoration plan. Pennsylvania Department of Environmental Protection, Harrisburg, Pennsylvania. (Available online at: <https://www.dep.state.pa.us/dep/deputate/watermgt/wqp/wqstandards/tmdl/HammerCreekARP.pdf>)

DEP. 2024. Hammer Creek advance restoration plan first triennial progress report. Pennsylvania Department of Environmental Protection, Harrisburg, Pennsylvania.



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