

# Restoration in the 21<sup>st</sup> century: *How High-Resolution Data Is Changing the Game* *Chesapeake Bay Commission meeting - January 8th 2021*

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**Lancaster**  
CLEAN WATER PARTNERS



**NFWF**



Chesapeake Bay Stewardship Fund

## Topics

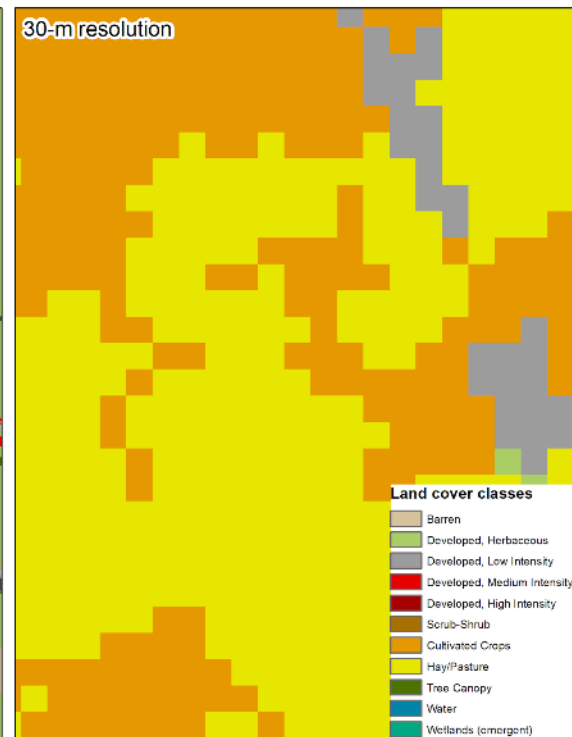
- Overview: new technology tools to coordinate and strategically target restoration activities.
- How are the partners in our watershed using these new tools?
- What are the advantages of this approach?
- How can state and federal programs support and adapt?

Deploying new technology tools to coordinate and strategically target restoration activities

- cooperative agreement with EPA to provide geospatial support to the Chesapeake Bay Program partnership
- High-resolution land cover, hydrography data, BMP opportunity mapping

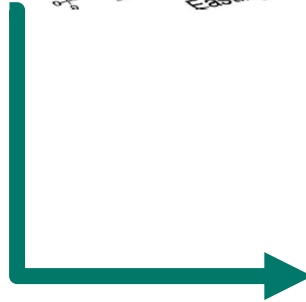
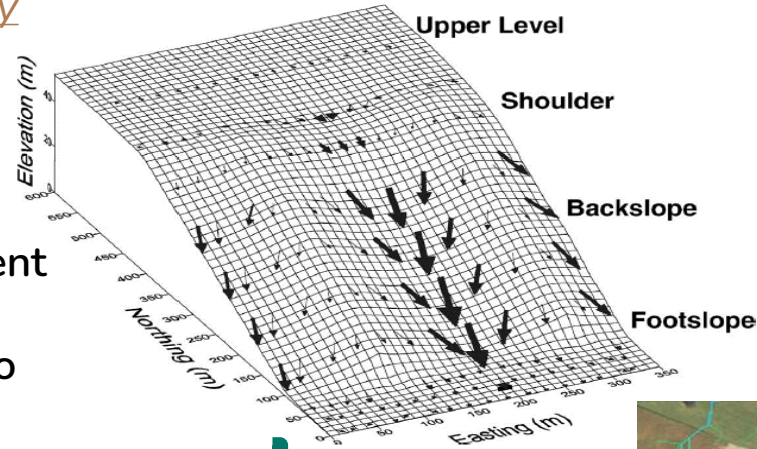


**Comparison of 1-m and 30-m land cover datasets in Lancaster County, PA**



Deploying new technology  
tools to coordinate and  
strategically target  
restoration activities

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Deploying new technology tools to  
coordinate and strategically target  
restoration activities



1. Gaps in forest buffer coverage are open doorways for pollution-laden runoff to enter directly into streams.

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restoration activities



2. New high resolution datasets created by Chesapeake Conservancy characterize land cover and waterways.



Deploying new technology tools to coordinate and strategically target restoration activities



3. Mapping data identifies gaps in forest buffer coverage.

Deploying new technology tools to  
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4. Concentrated flow path mapping identifies the upslope area contributing runoff through a buffer gap and directly into streams.



## How are the partners in our watershed using these new tools?

### Rapid Stream De-Listing: Central Pennsylvania Precision Conservation Partnership

#### **Aughwick Creek, Huntingdon County, PA**

Total area in catchment: ~2,000 acres (about 3 square miles)

Total length of ag impairment: 5.08 miles

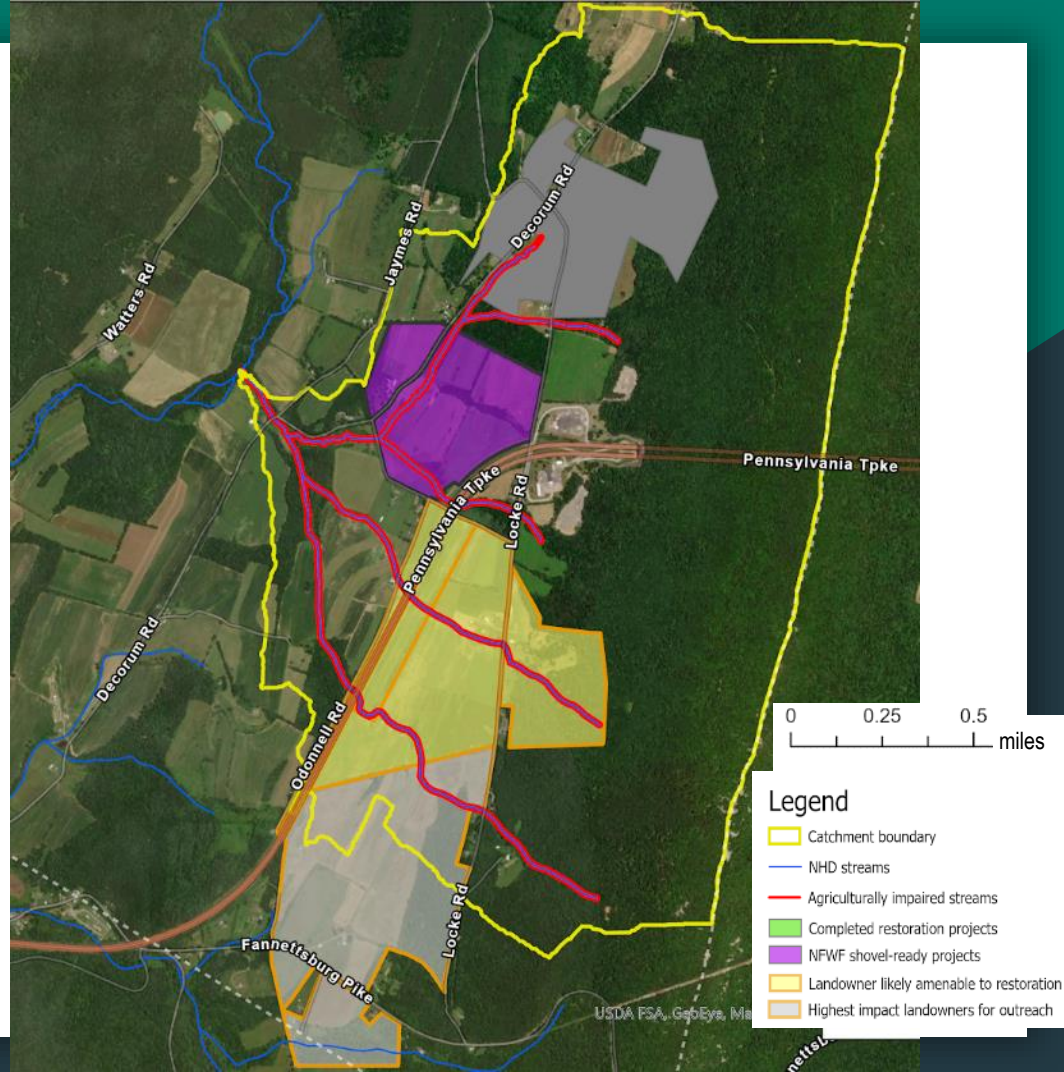
Total # of parcels: 65

Total buffer gaps: 20.8 acres

Total drainage area of AIT: 440 acres

4 farms drain 80% AIT in catchment

National Fish and Wildlife Foundation Innovative Nutrient and Sediment Reduction Grant (fall 2020):  
**8 streams prioritized for de-listing across 4 central PA counties**



## How are the partners in our watershed using these new tools?

### Rapid Stream De-Listing:



<b>Catchment Name:</b> Aughwick Creek
<b>Commitment to Outreach:</b> Huntingdon County Conservation District, Western Pennsylvania Conservancy, PA Department of Conservation and Natural Resources
<b>Parcel summary:</b> 4 parcels contribute 80% AIT.

Implementation Partners (TA)	Outreach contact	LO name	Previously completed restoration project	NFWF Shovel-ready projects	Likely amenable to Restoration	Outreach priority	AIT acres filtered
WPC	WPC	C		Pending GG grant for forest buffer, streambank fencing, livestock crossings, barnyard			94.31
	HCCD	RA			Forest buffer, streambank fencing	X	85.44
	HCCD	RA			Forest buffer, streambank fencing	X	74.38
	TBD	P				X	98.91
					AIT on 4 rapid delisting parcels		353.04
					Total catchment AIT		439.99

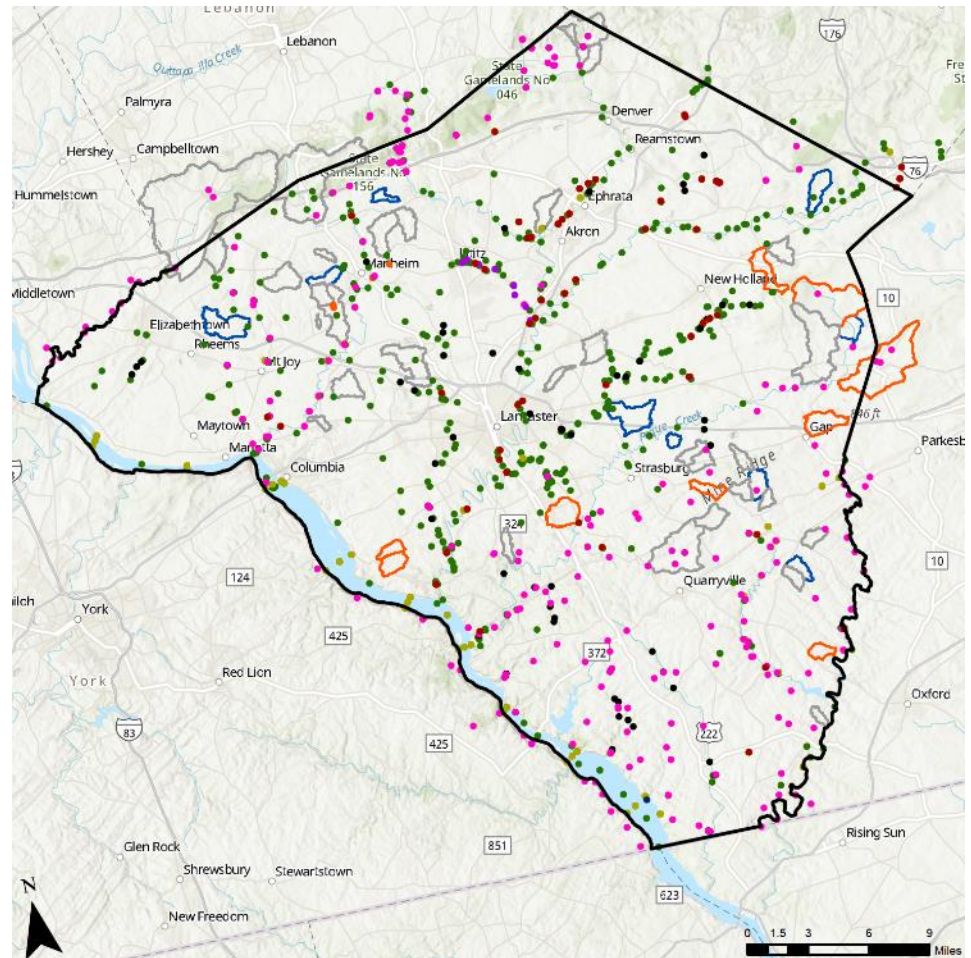
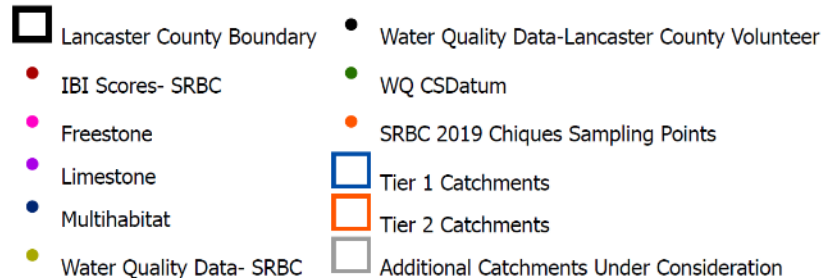
Key:
Completed restoration projects
NFWF shovel-ready projects
Landowner likely amenable to restoration
Highest impact landowners for outreach

## How are the partners in our watershed using these new tools?

### Rapid Stream De-Listing: Lancaster Clean Water Partners

The Lancaster Clean Water Partners used the tool to identify priority catchments for implementation work.

Outreach is in anticipation of federal grant dollars, CAP implementation, and watershed-scale coordination.





## What are the advantages of this approach?



How can state and federal programs support and adapt?

Bay-wide funding for data development

Sustained funding for local implementation

Make funding programs more appealing to farmers

More support for coordination

Prioritize maintenance

Be a vocal supporter

## Wrap-up

Based on the landscape you know, does this approach make sense?

Opportunities to support local strategies?

How best to support local constituents.

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