



Natural Resources Conservation Service  
359 East Park Drive, Suite 2  
Harrisburg, PA 17111



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## State Technical Committee AGENDA Thursday, October 26, 2023

*This meeting will be conducted both in-person at the NRCS state office and remotely via Microsoft Teams internet conferencing. The office address, meeting link and a call-in telephone number are provided at the end of this document.*

**1:00 pm**      Welcome – Denise Coleman, NRCS State Conservationist

**1:10 pm**      Presentation: Legacy Sediment Projects and Implications  
Justin Spangler, Water Resources Engineer, LandStudies

**1:50 pm      Technical Reports**

- Engineering – Paul Shaefer, Agricultural Engineer
- Ecological Sciences – Dan Ludwig, State Resource Conservationist
- Soils – Benjamin Marshall, Frederick, Maryland NRCS Soil Survey Leader

**2:15 pm      Partnerships and Easement Programs Report**

- Partnerships and Outreach Updates- Susan Parry ASTC for Partnerships
- Agricultural Conservation Easements Programs (ACEP) – Melissa Hanner, Easement Program Manager

**2:30 pm      Financial Program Reports**

- Updates – Jared Shippey, Assistant State Conservationist for Programs
- Environmental Quality Incentives Program (EQIP) – Ryan Cornelius, EQIP Program Manager

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- Conservation Stewardship Program (CSP), and Conservation Innovation Grants (CIG) – Ashley Lenig, Conservation Program Manager
- Regional Conservation Partnership Program (RCPP) – Adam Dellinger, Regional Conservation Partnership Program Coordinator

### **3:00 pm      Committee Input**

Do the State Technical Committee members have any suggestions for topics or agenda items for future meetings?

### **Dates for future State Technical Committee Meetings:**

Thursday, January 18, 2024

Tuesday, April 16, 2024

Wednesday, July 17, 2024

Thursday, October 24, 2024

## Microsoft Teams meeting

**Join on your computer, mobile app or room device**

[Click here to join the meeting](#)

Meeting ID: 234 004 163 770

Passcode: E89LYM

[Download Teams](#) | [Join on the web](#)

**Or call in (audio only)**

[+1 202-650-0123,,857881690#](#) United States, Washington DC

Phone Conference ID: 857 881 690#

[Find a local number](#) | [Reset PIN](#)

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# **Pennsylvania State Technical Committee Meeting**

**October 26, 2023**

The Pennsylvania State Technical Committee Meeting was held in the USDA Conference Room at the NRCS State Office on Wednesday October 26, 2023

Susan Parry (NRCS) (Natural Resources Conservation Service) opened the meeting at 1 PM.

Justin Spangler, Water Resources Engineer, Land Studies delivered a presentation concerning Legacy Sediment Projects and Implications in Pennsylvania. (See attached Hand-out) Justin started by describing the historical context of legacy sediment and the relevance in Pennsylvania. He provided and discussed 3 examples of restoration projects that have been done recently in Pennsylvania. He focused on project examples that have an Ag setting. He noted that the real signature of legacy sediment is that it's anthropogenic, so it could be from overland flow washing down into the valley bottoms or from multiple mill dams or from constrictions from culverts, whatever the source is, and the result will kind of put its own little signature, which is why different creeks look different. His history presentation covered logging on the Susquehanna River at Lock Haven, PA, and Williamsport, PA. The construction of mill dams, Pile and Boulder dams, Crib Dams, Log Dams for soft or sandy bottoms, Brush, Stone and Gravel Dams. He identified documented dams, noting both existing and historical. He discussed the leading sources of stream impairment. Restoration was defined as "return of an ecosystem to a close approximation of its condition prior to disturbance." He also covered restoration in agricultural areas. Restoration projects that he covered included the Big Spring Run, Cocalico Creek Headwaters, Tributary to Pequea Creek, and Culps Run. He also provided information on the availability of Virtual Training Courses, Digital Soil Monoliths and various publications that are available. (See attached Hand-out)



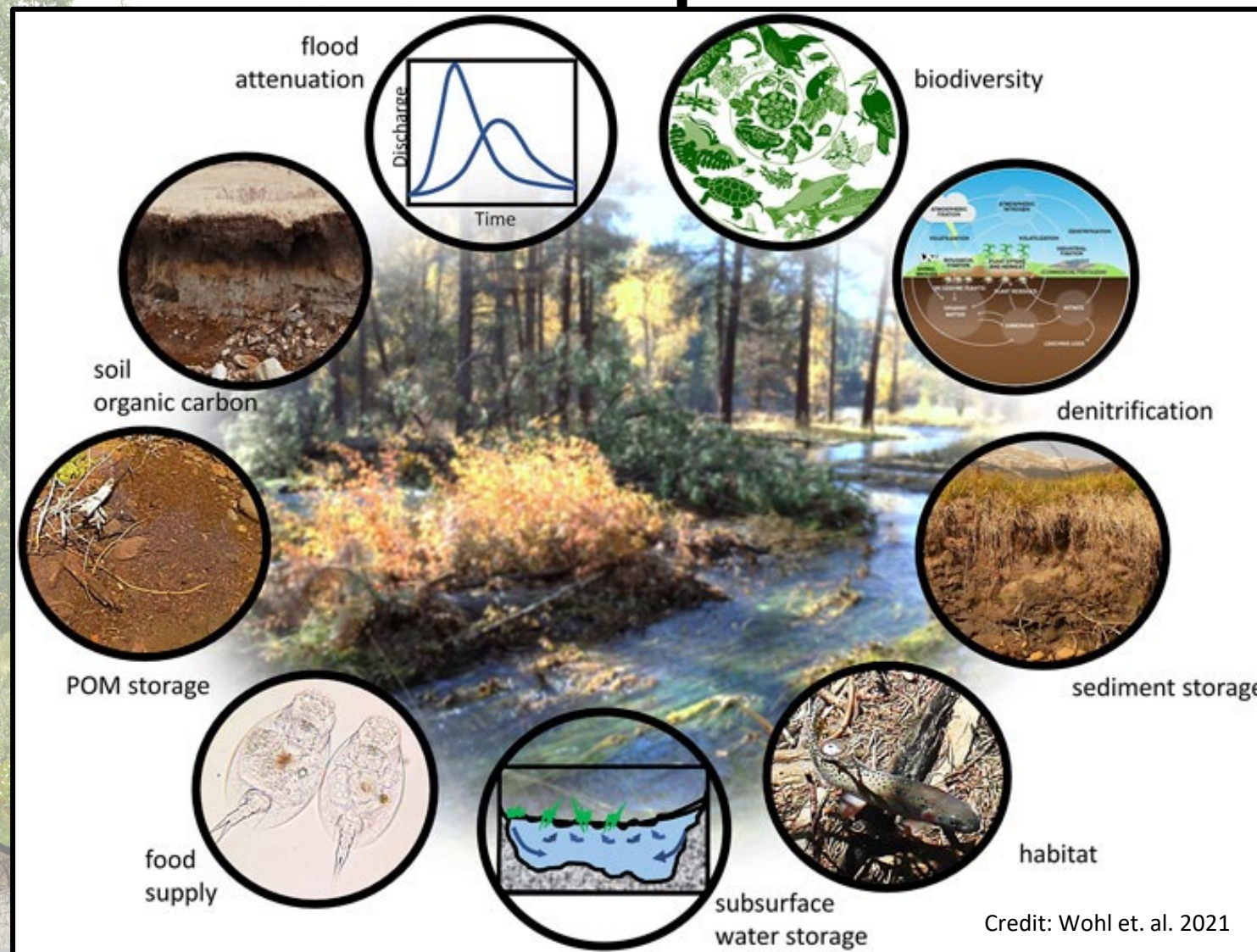
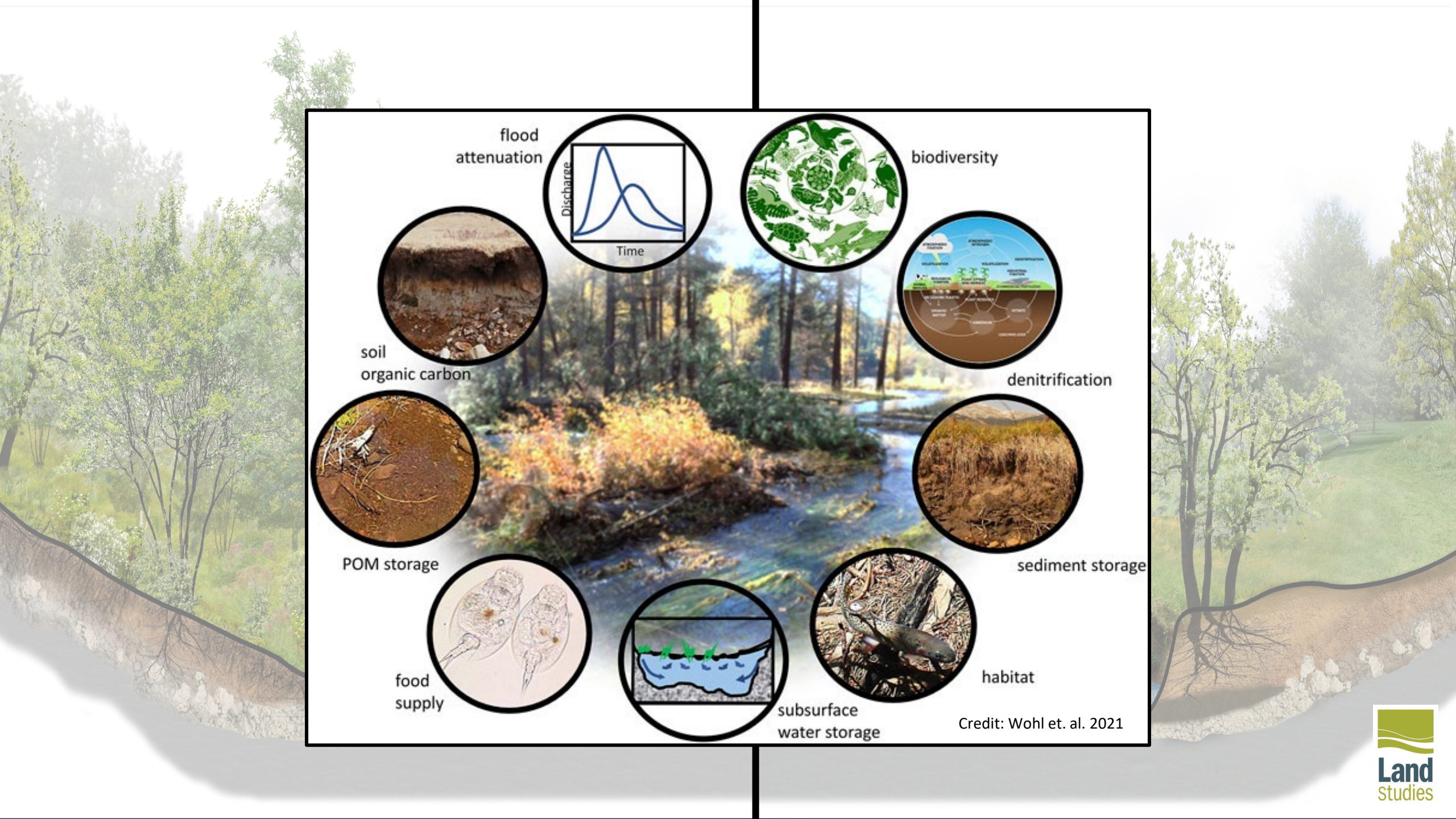
# A Brief History of Legacy Sediment in Pennsylvania

NRCS – State Technical  
Advisory Committee Meeting

October 26, 2023

Presented by Justin Spangler, PE  
[Justin@LandStudies.com](mailto:Justin@LandStudies.com)





Credit: Wohl et. al. 2021



# **Natural Condition**

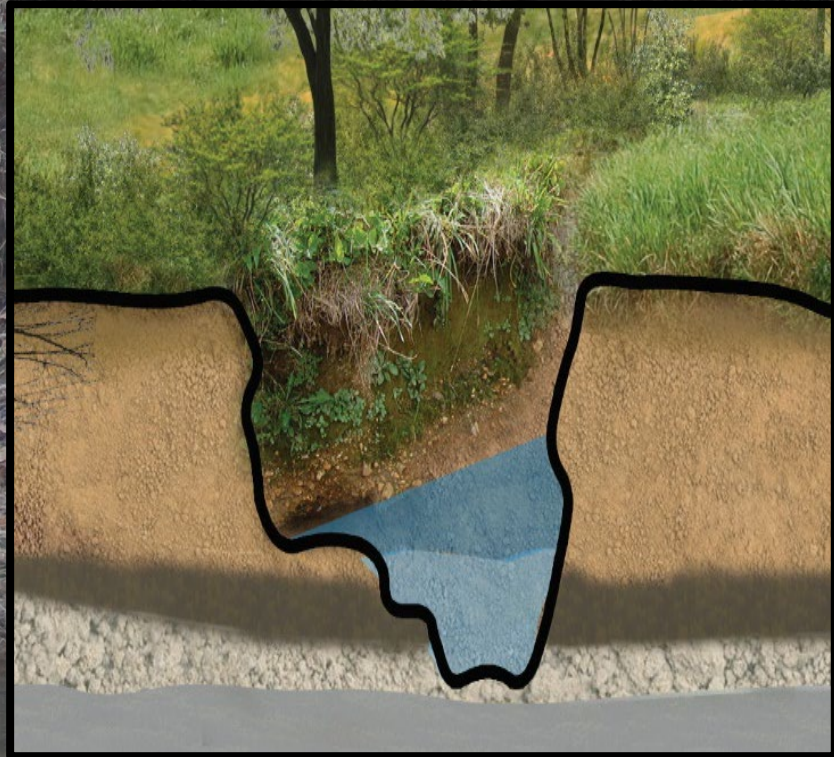


# **Restoration Examples**

## **Historical Impacts**





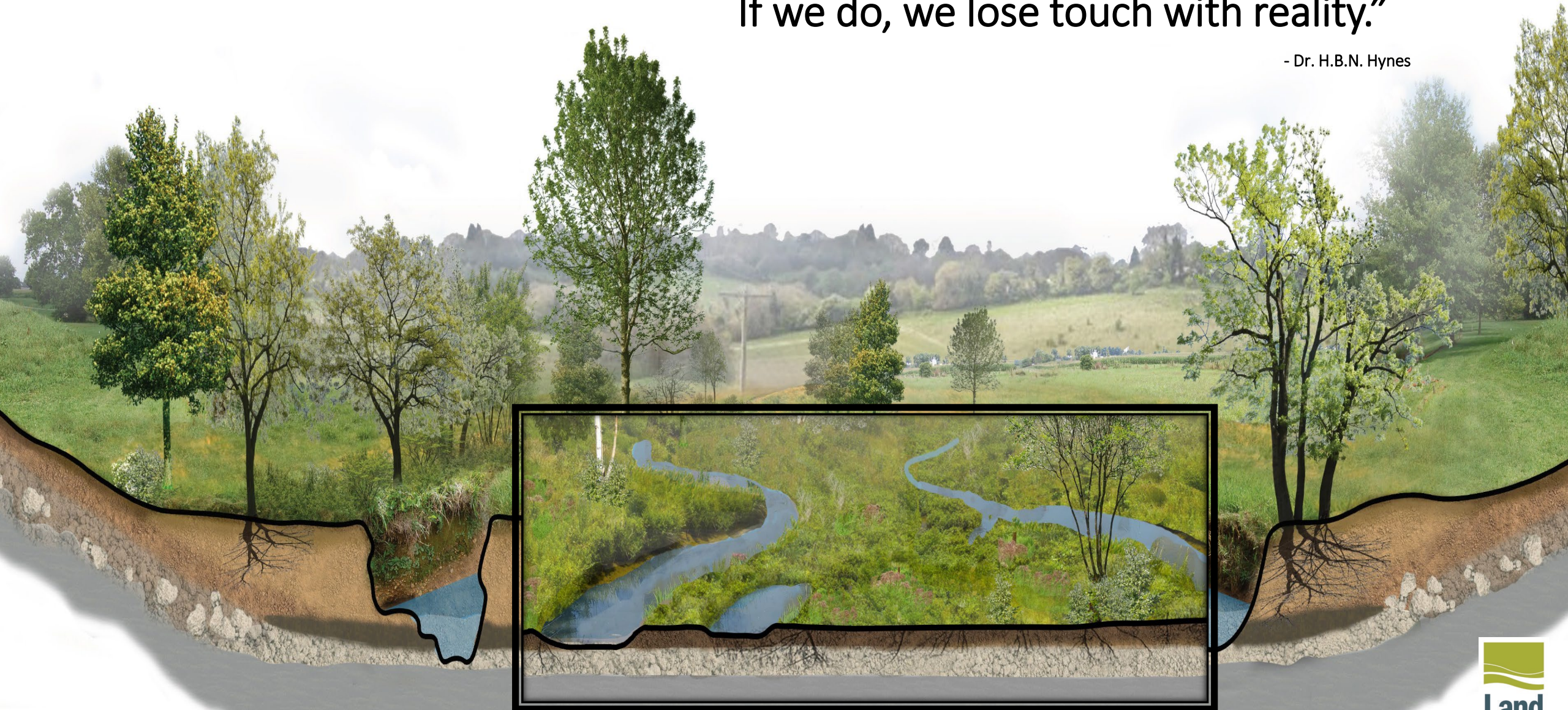




“We must, in fact, not divorce the stream  
from its valley in our thoughts at any time.

If we do, we lose touch with reality.”

- Dr. H.B.N. Hynes









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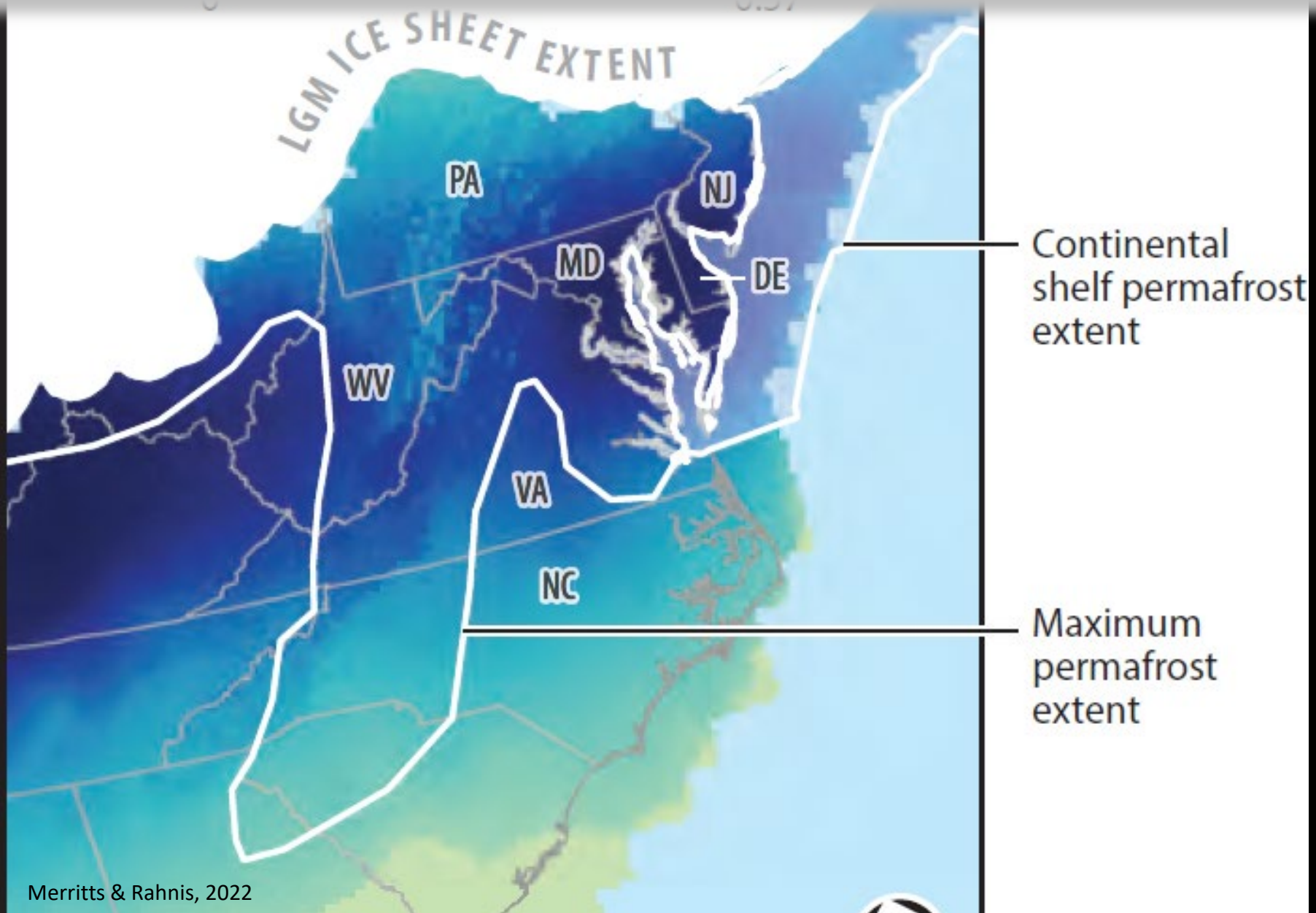
Date

Pleistocene

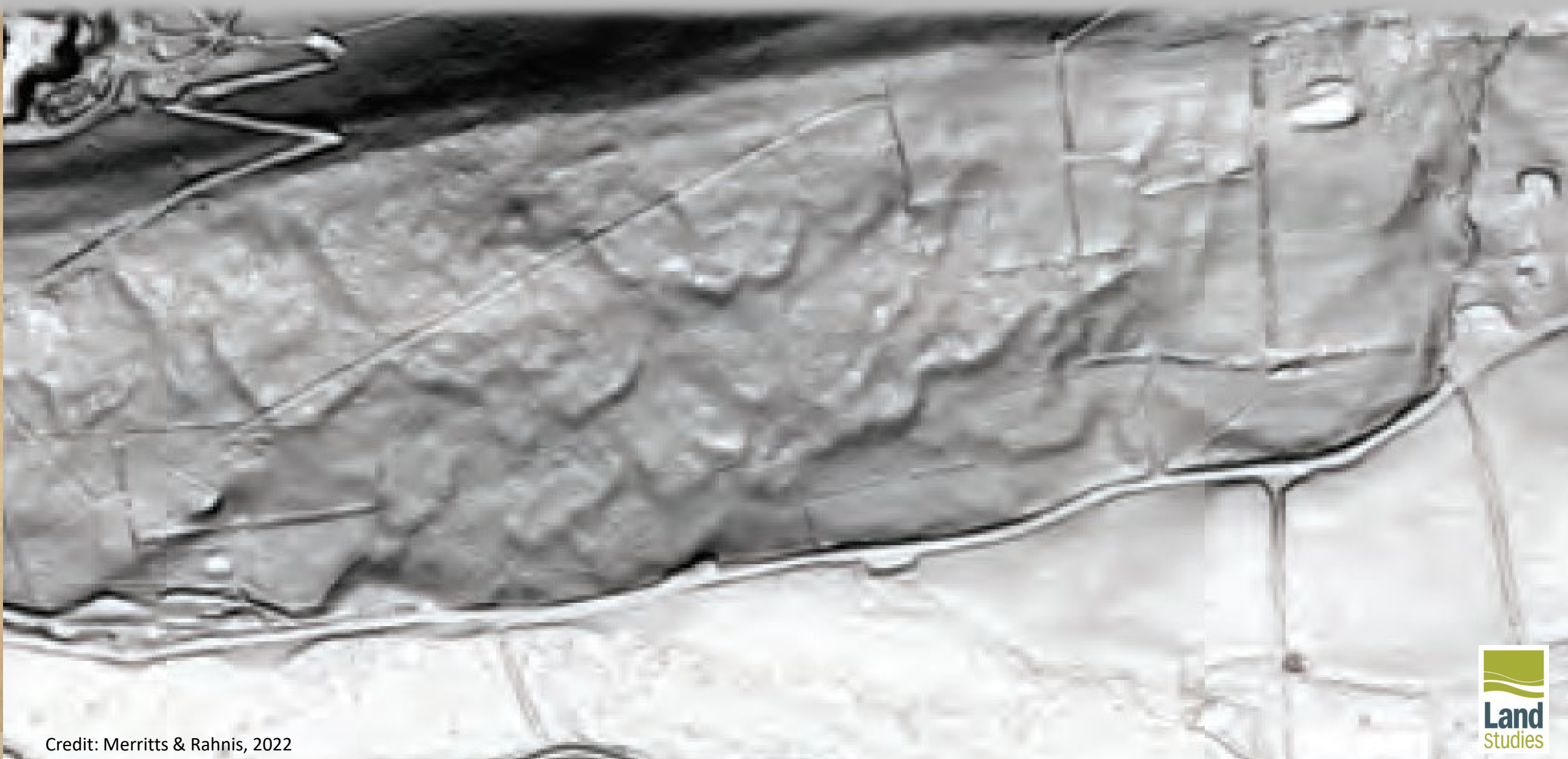
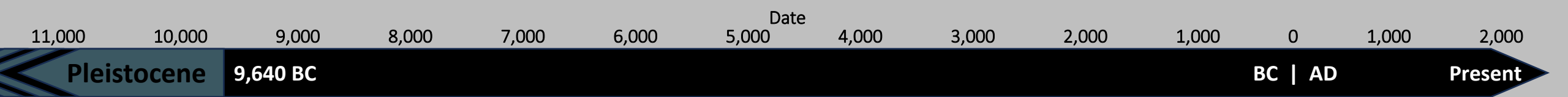
9,640 BC

BC | AD

Present



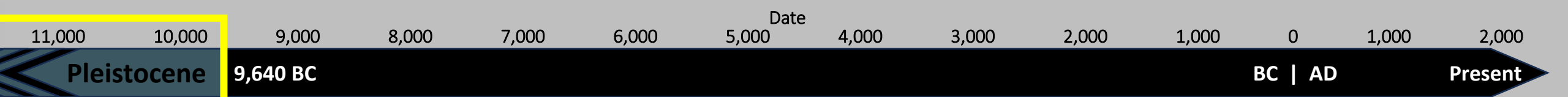
Merritts & Rahnis, 2022



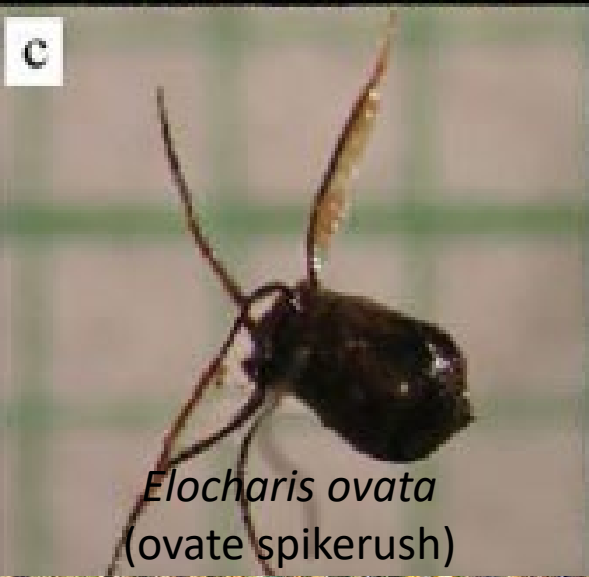
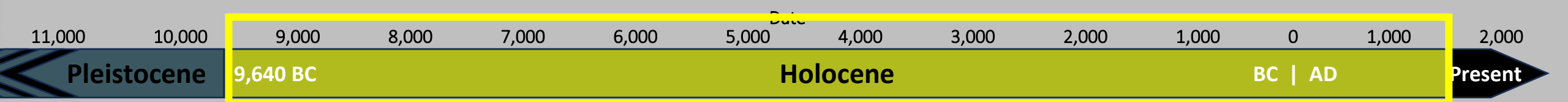
Credit: Merritts & Rahnis, 2022



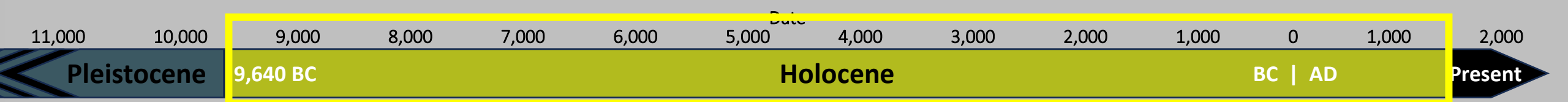




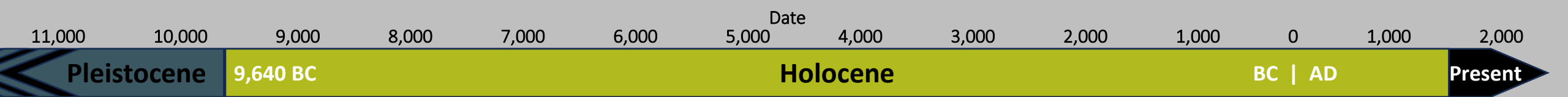






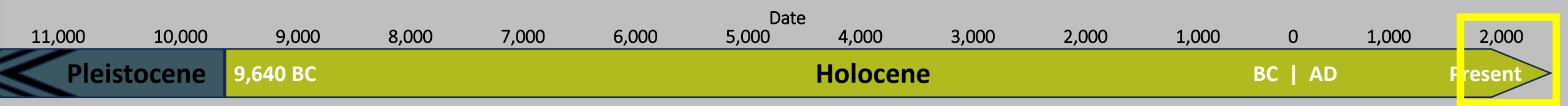






Weir near Danville, PA  
Credit: Van Wagner

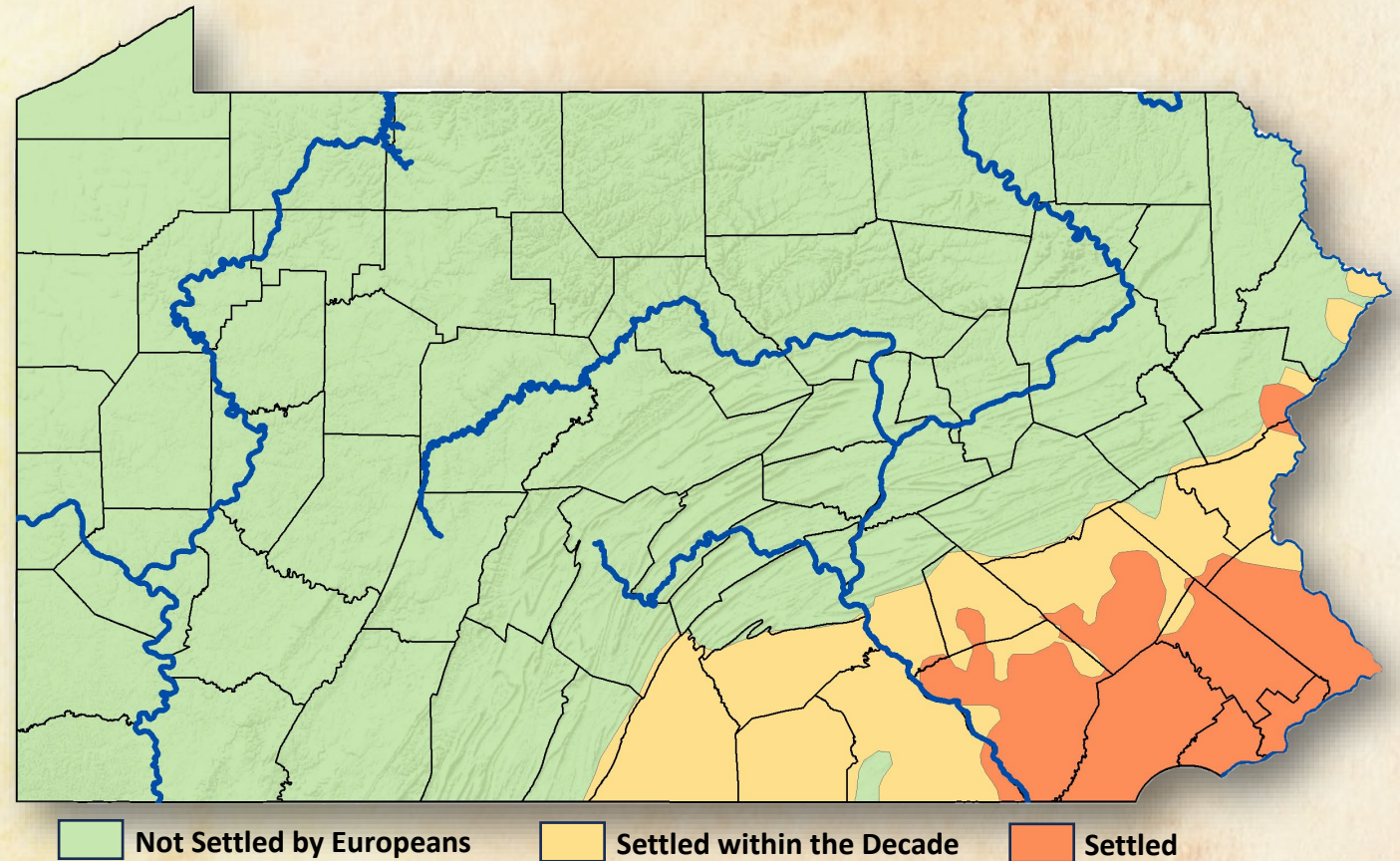








## European Settlement 1730 to 1740

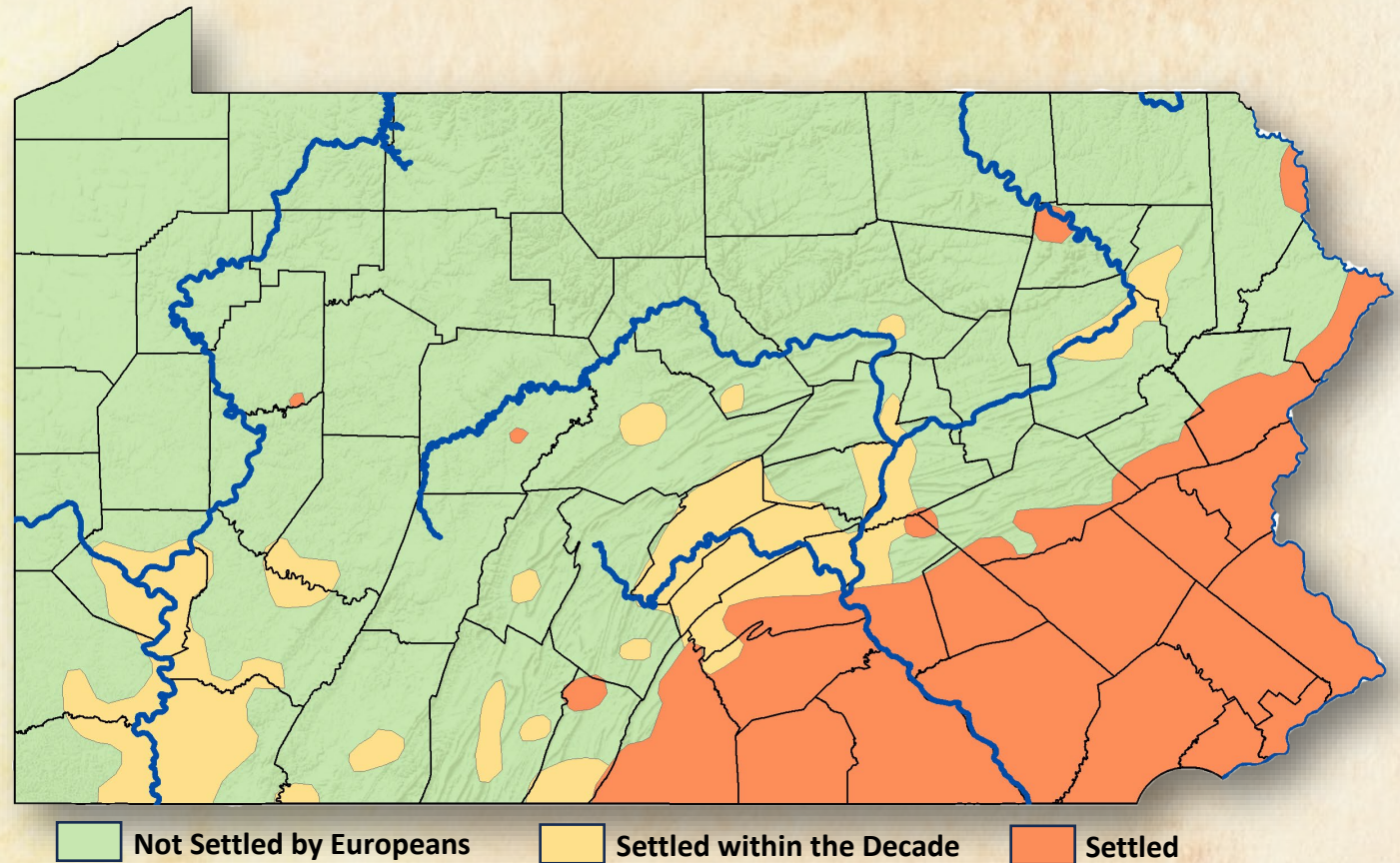


Adapted from Stambaugh, et al. in *Ecosphere*, May 2018  
"Wave of fire: an anthropogenic signal in historical fire regimes across central Pennsylvania, USA"





## European Settlement 1760 to 1770

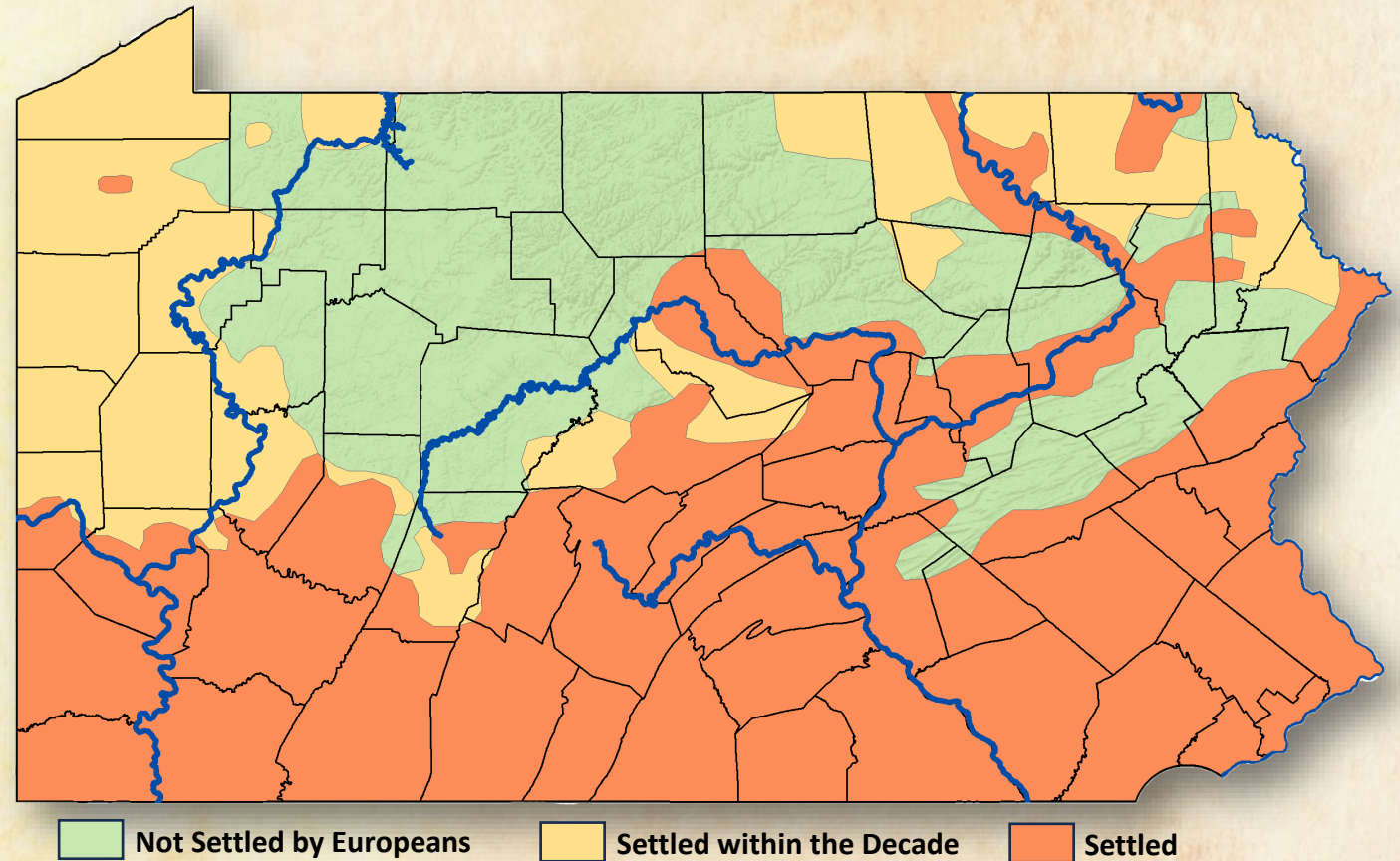


Adapted from Stambaugh, et al. in *Ecosphere*, May 2018  
"Wave of fire: an anthropogenic signal in historical fire regimes across central Pennsylvania, USA"





## European Settlement 1790 to 1800



Adapted from Stambaugh, et al. in *Ecosphere*, May 2018  
"Wave of fire: an anthropogenic signal in historical fire regimes across central Pennsylvania, USA"









LOG RAFTS IN THE SUSQUEHANNA RIVER AT LOCK HAVEN, PA.



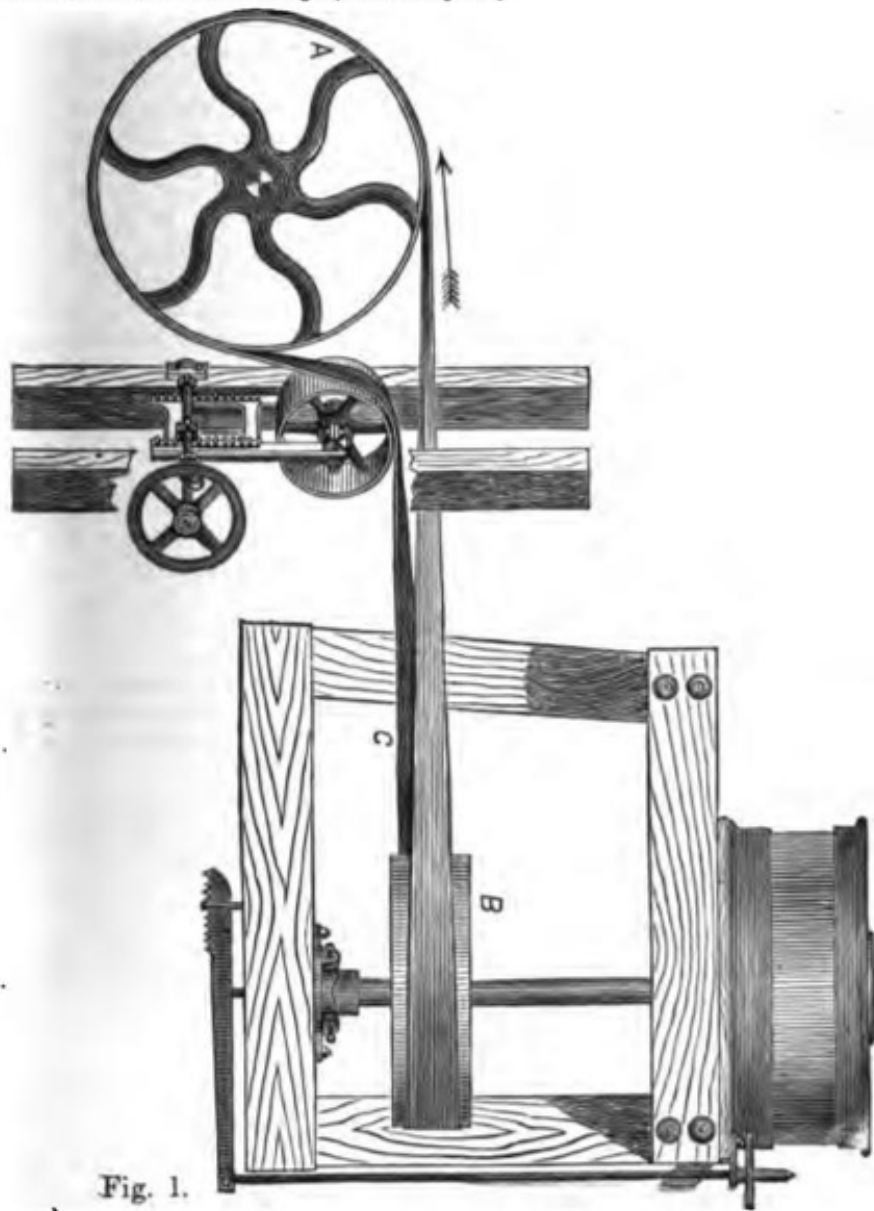
Susquehanna Boom, Williamsport.









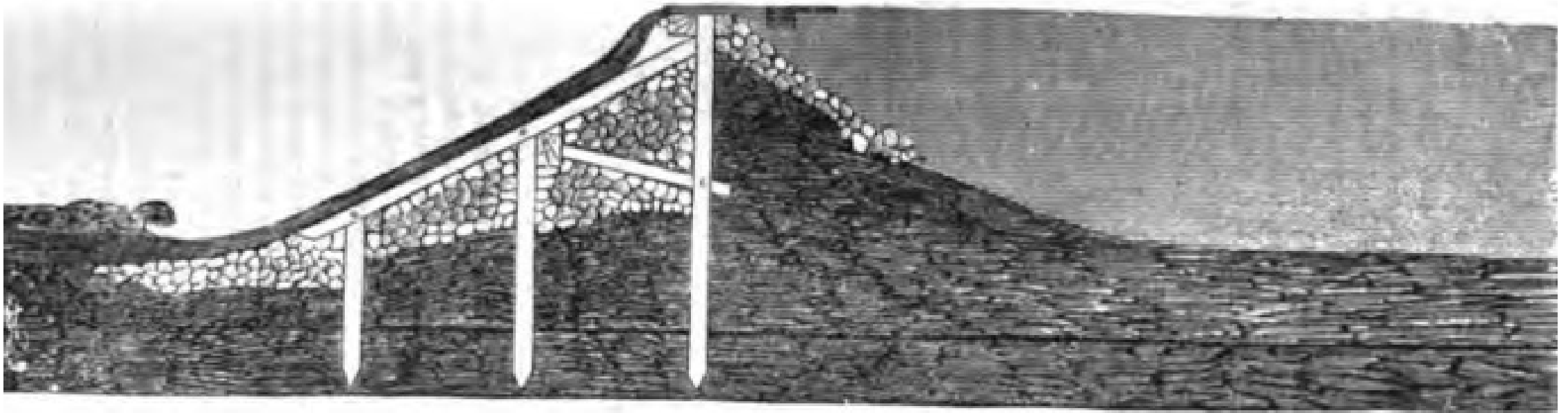


# LEFFEL'S CONSTRUCTION OF MILL DAMS AND BOOKWALTER'S MILLWRIGHT & MECHANIC

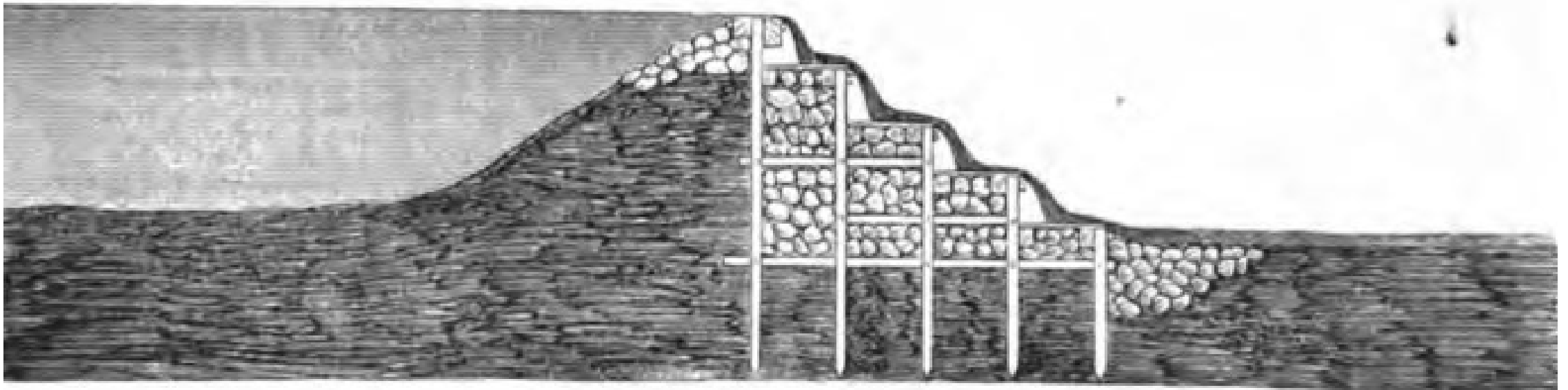




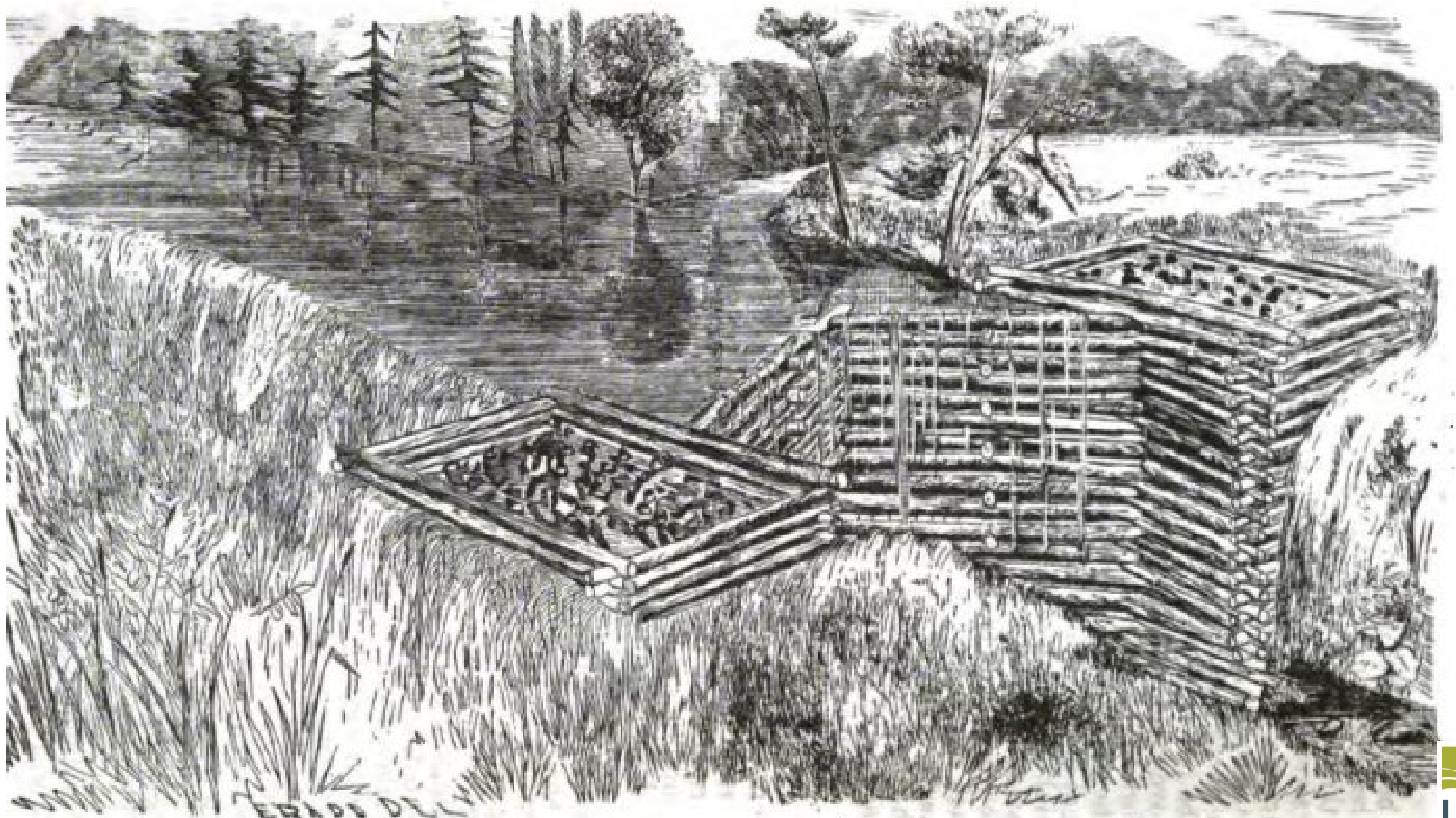
**FIG 1**



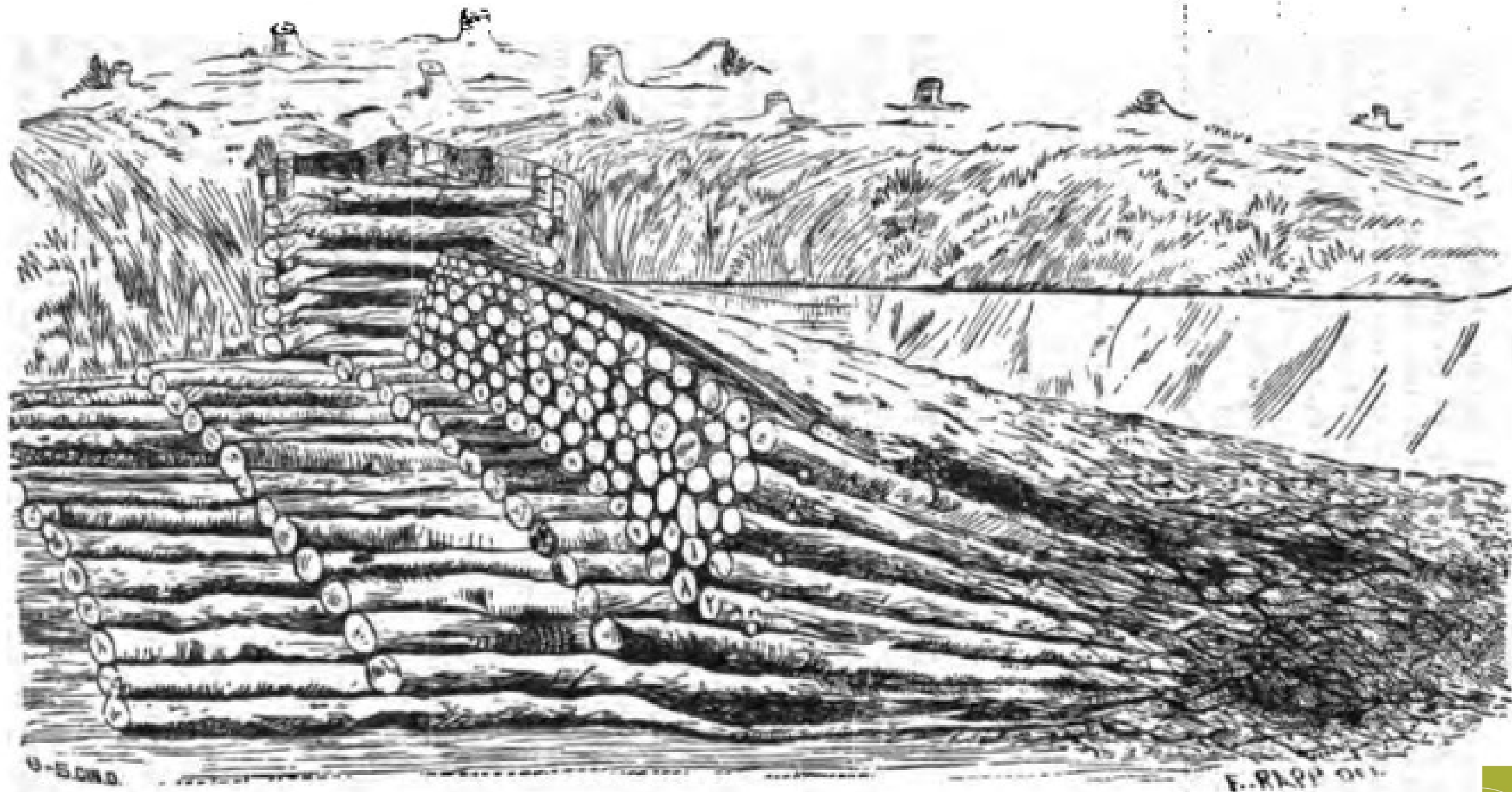
**FIG 2**



**PILE AND BOULDER DAMS.**



**A CRIB DAM.**



**LOG DAM FOR SOFT OR SANDY BOTTOMS.**



**BRUSH, STONE AND GRAVEL DAM.**

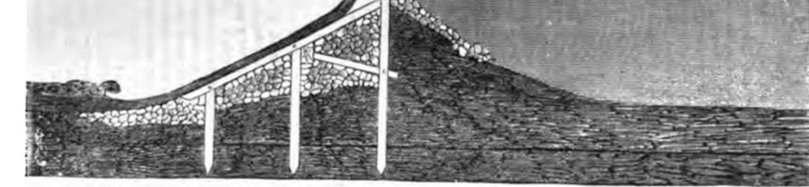
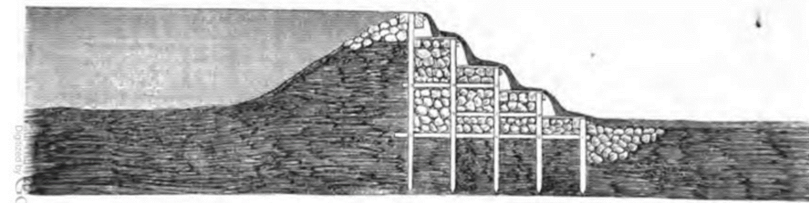
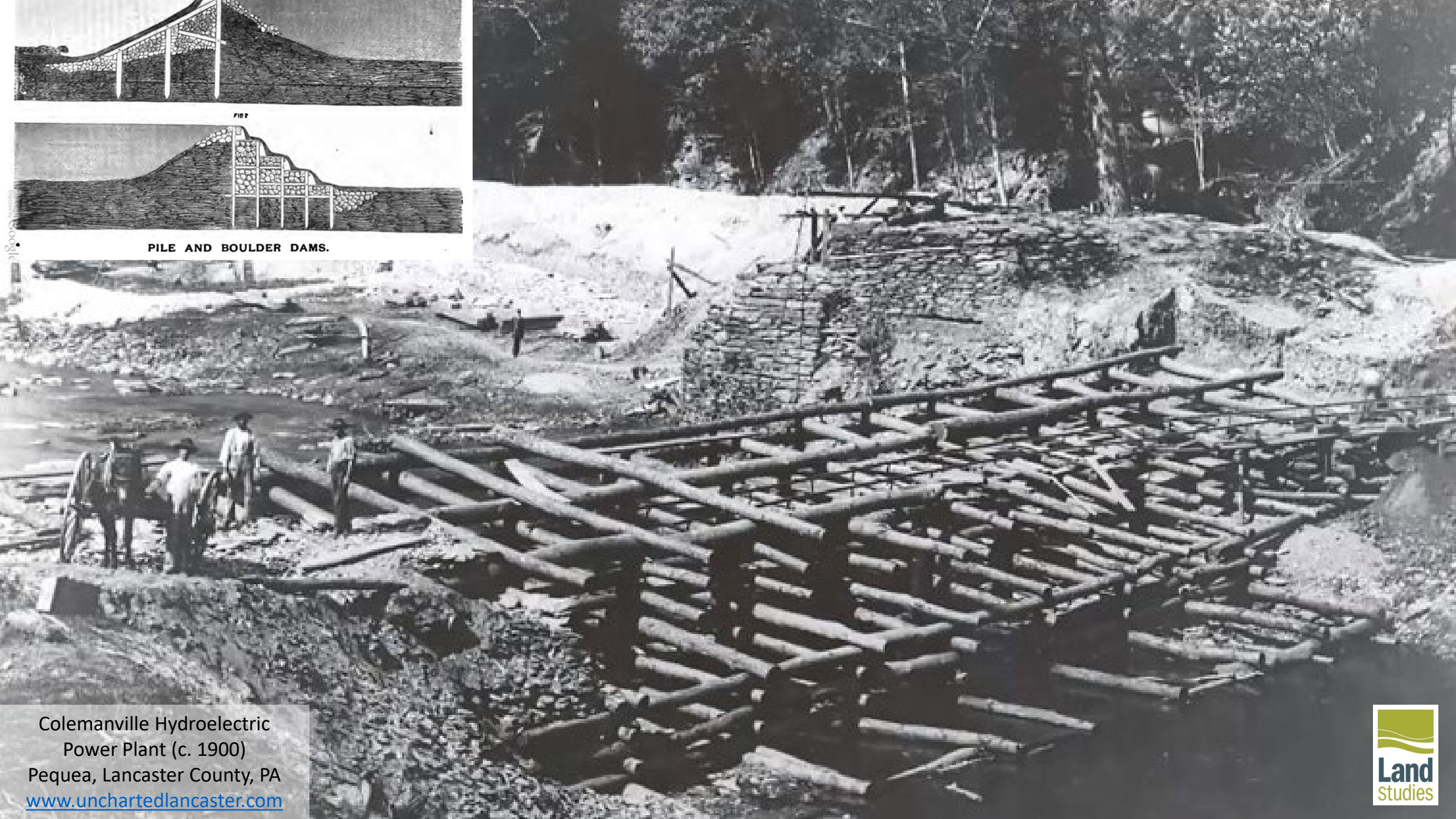


FIG 1



PILE AND BOULDER DAMS.



Colemanville Hydroelectric  
Power Plant (c. 1900)  
Pequea, Lancaster County, PA  
[www.unchartedlancaster.com](http://www.unchartedlancaster.com)



Colemanville Hydroelectric  
Power Plant (3/17/1926)  
Pequea, Lancaster County, PA  
[www.unchartedlancaster.com](http://www.unchartedlancaster.com)

3-17-26



Colemanville Hydroelectric  
Power Plant (3/17/1926)

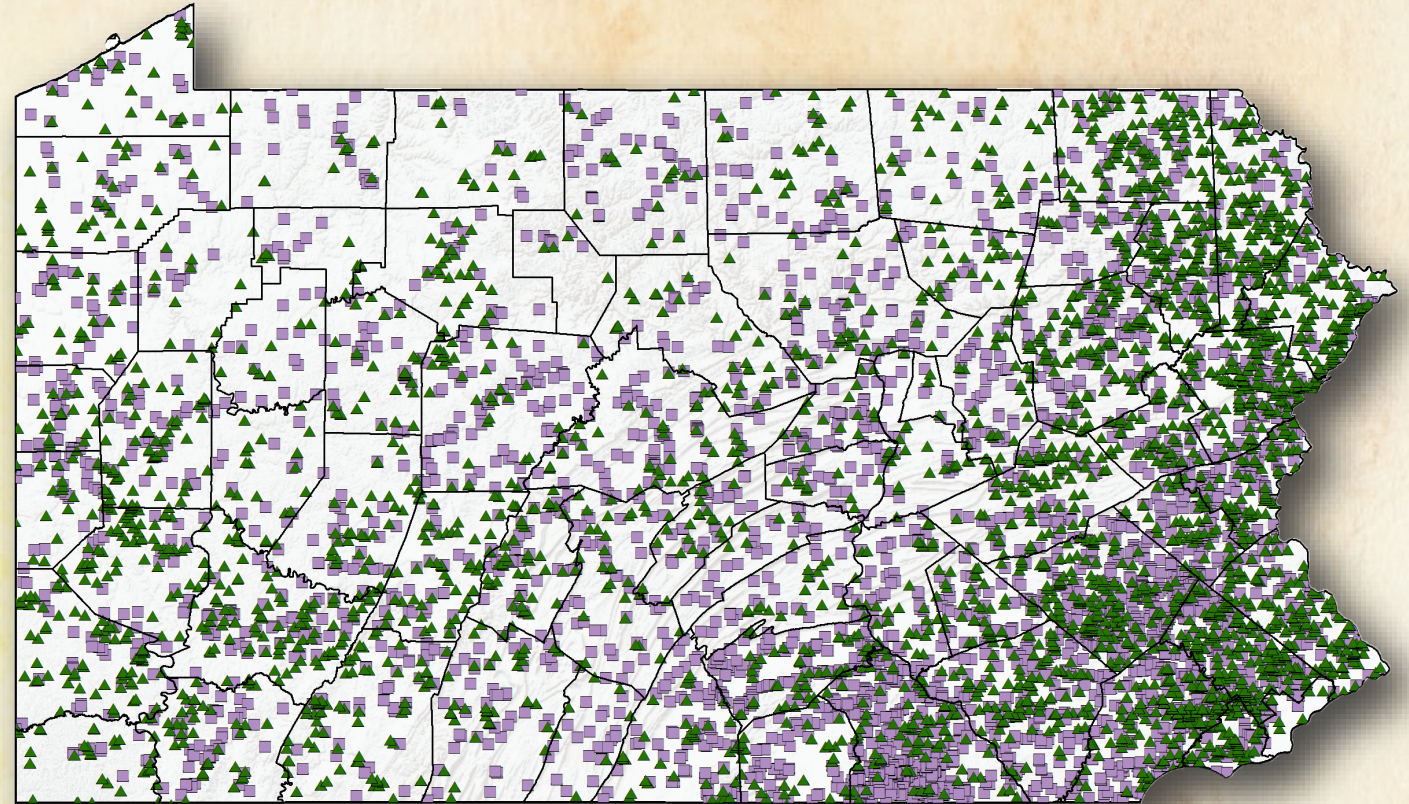
[www.unchartedlancaster.com](http://www.unchartedlancaster.com)



# Documented Dams



**"Lancaster Waterworks"**  
J. Franklin Reigart, 1805



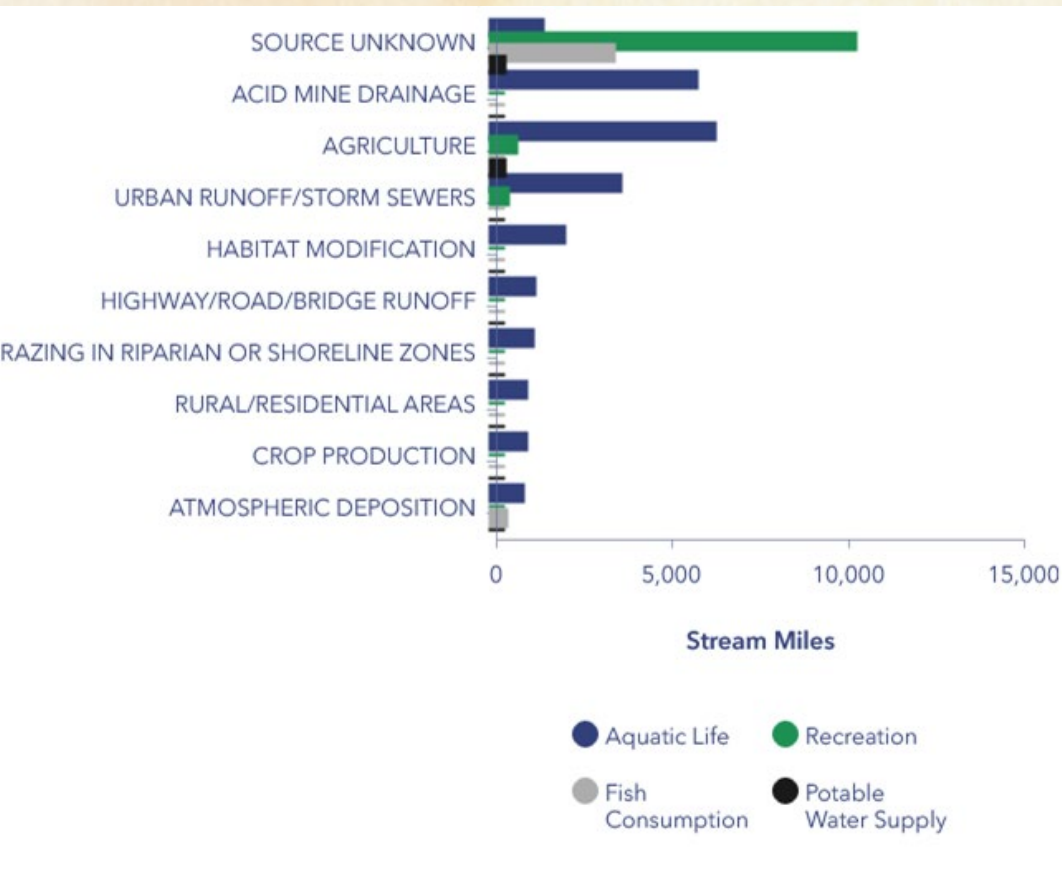
Source: PA DEP

▲ Existing Dam Location

■ Historical Dam Location



# Leading Sources of Stream Impairment



**"Integrated Water Quality Report"**  
Pennsylvania DEP, 2022



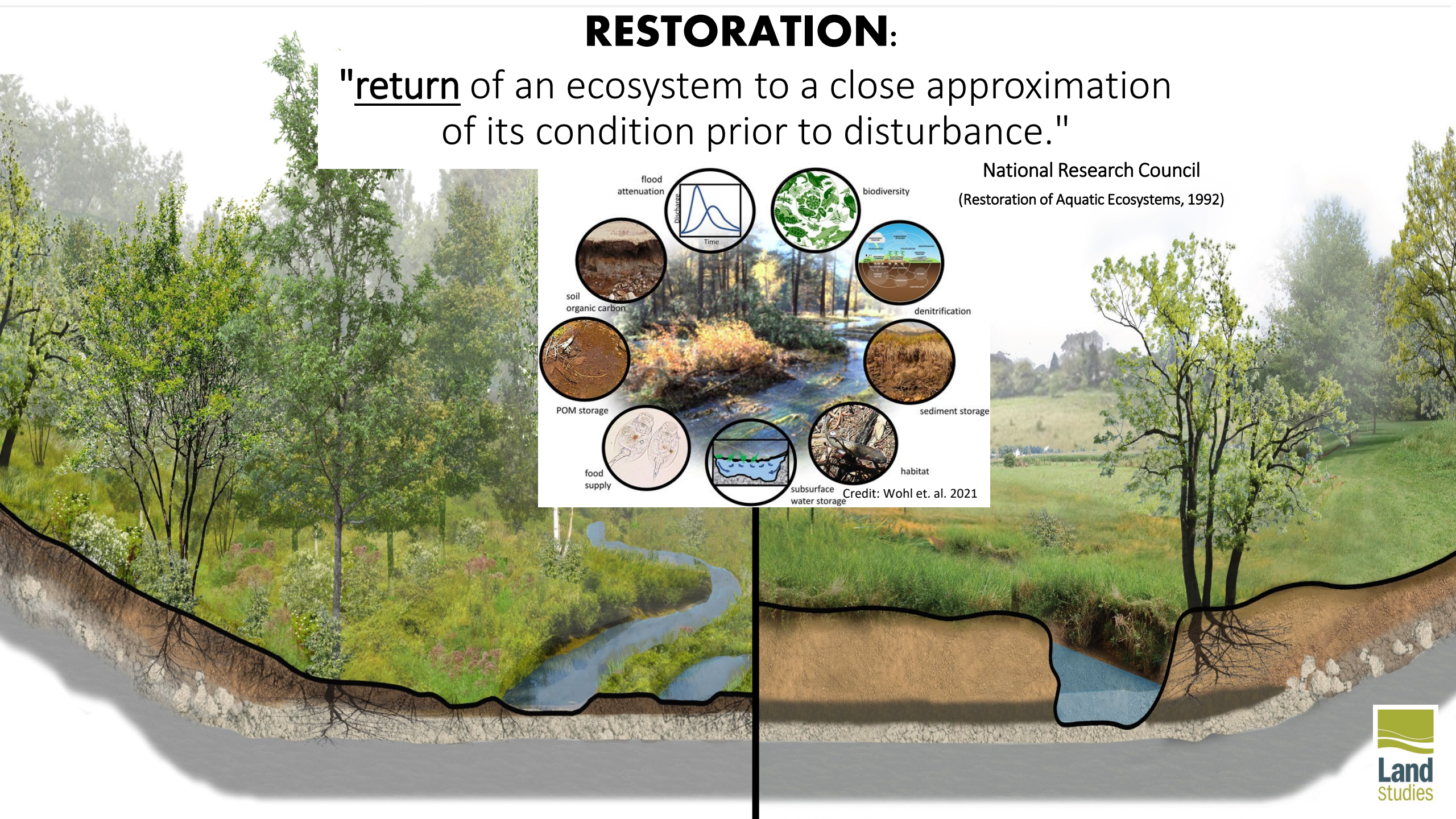
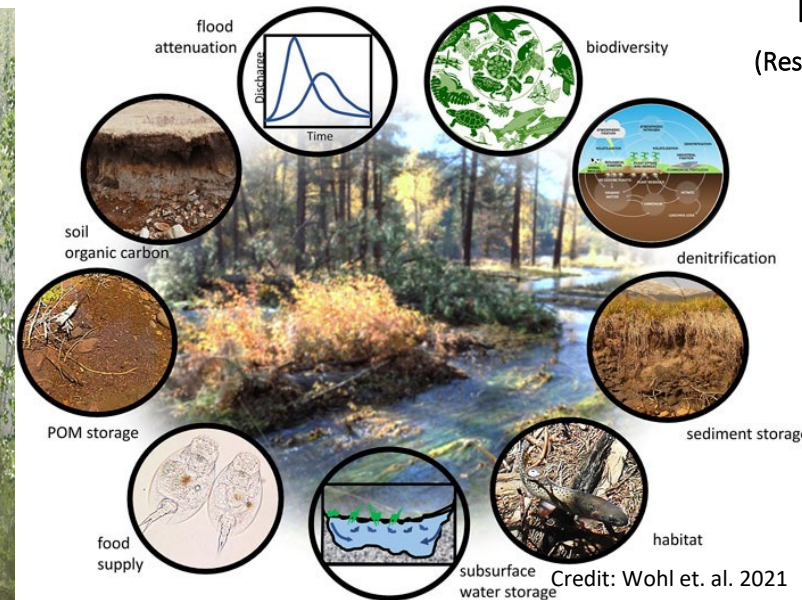
▲ Existing Dam Location      ■ Historical Dam Location  
**"Impaired Waters from Integrated  
Water Quality Report"**  
Pennsylvania DEP, 2022



# RESTORATION:

"return of an ecosystem to a close approximation of its condition prior to disturbance."

National Research Council  
(Restoration of Aquatic Ecosystems, 1992)







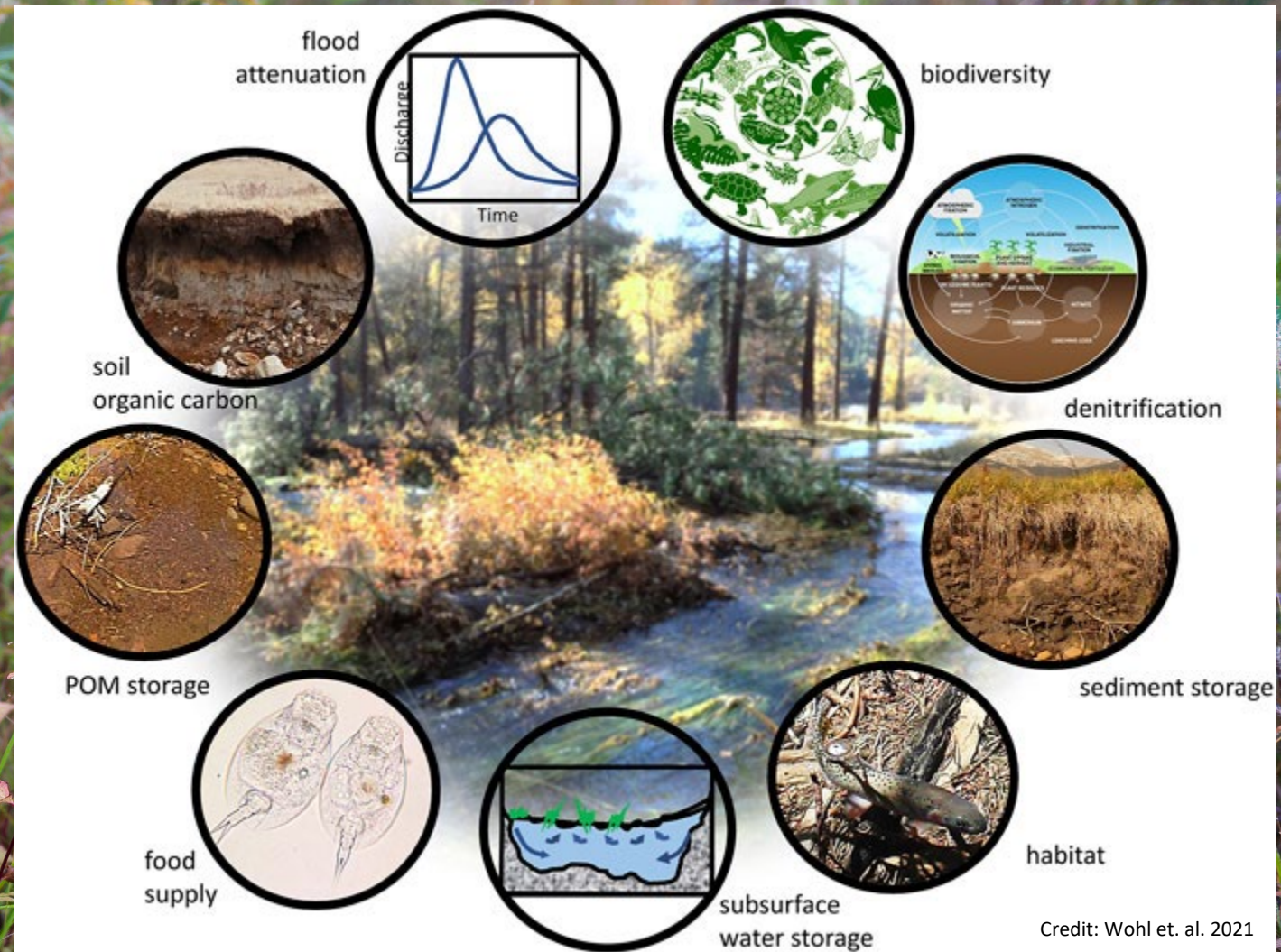






## Restoration in Agricultural Areas

- Reduce Flooding of Fields/Buildings
- Reuse Soil to improve fields (rocky/drainage)
- Groundwater Recharge
- Improve infrastructure
  - Livestock crossing/waterers
  - Prevent damage to road/bridges/buildings
  - Relocate/repair utilities
- Nutrient/Sediment Reductions
- Habitat Improvements

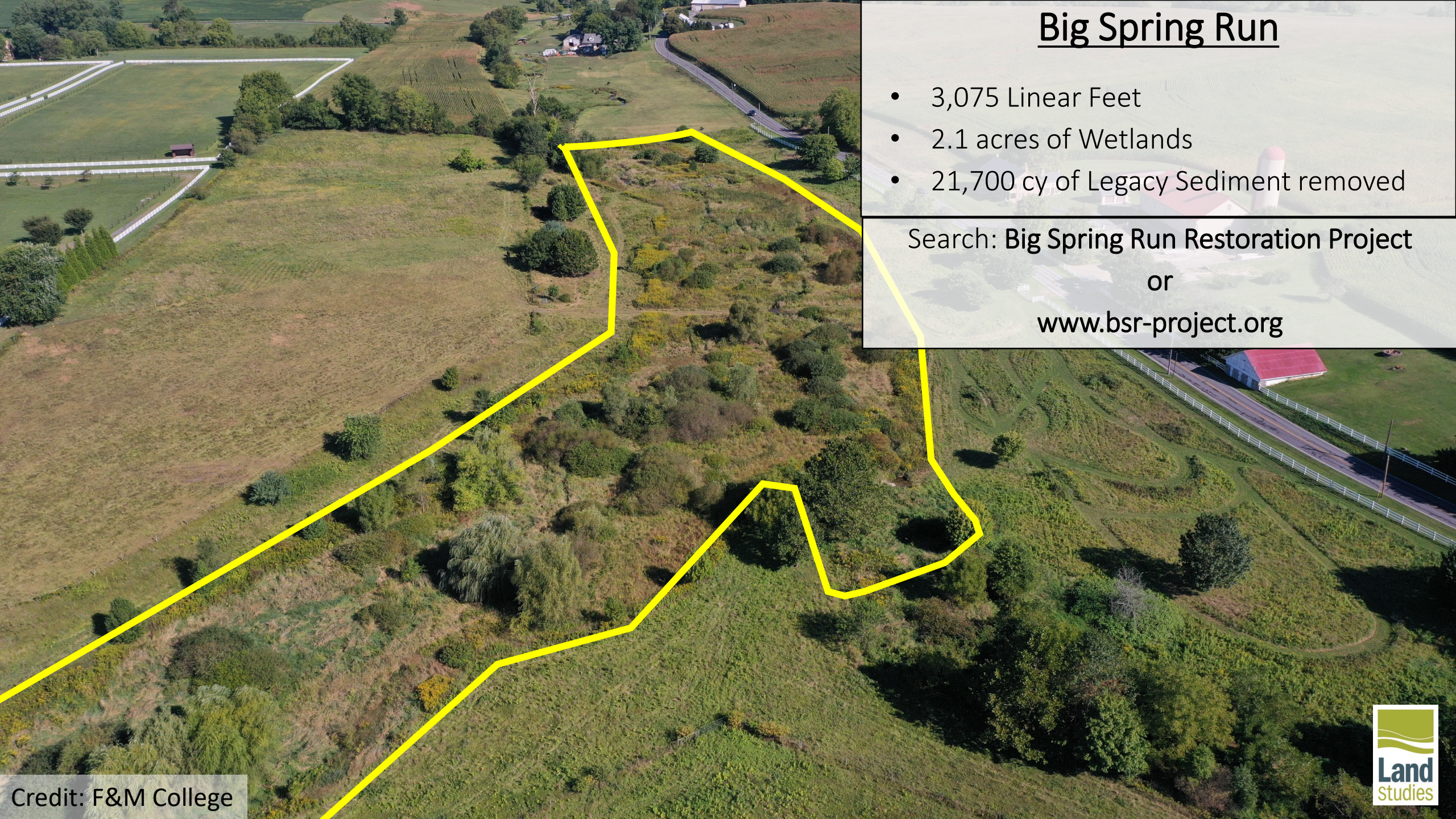




# Big Spring Run

- 3,075 Linear Feet
- 2.1 acres of Wetlands
- 21,700 cy of Legacy Sediment removed

Search: **Big Spring Run Restoration Project**  
or  
[www.bsr-project.org](http://www.bsr-project.org)








## Big Spring Run

- Sediment Load = -120 ton/year
- Carbon Storage = +7,300 lbs/yr
- Water Storage = +2.7 million gallons





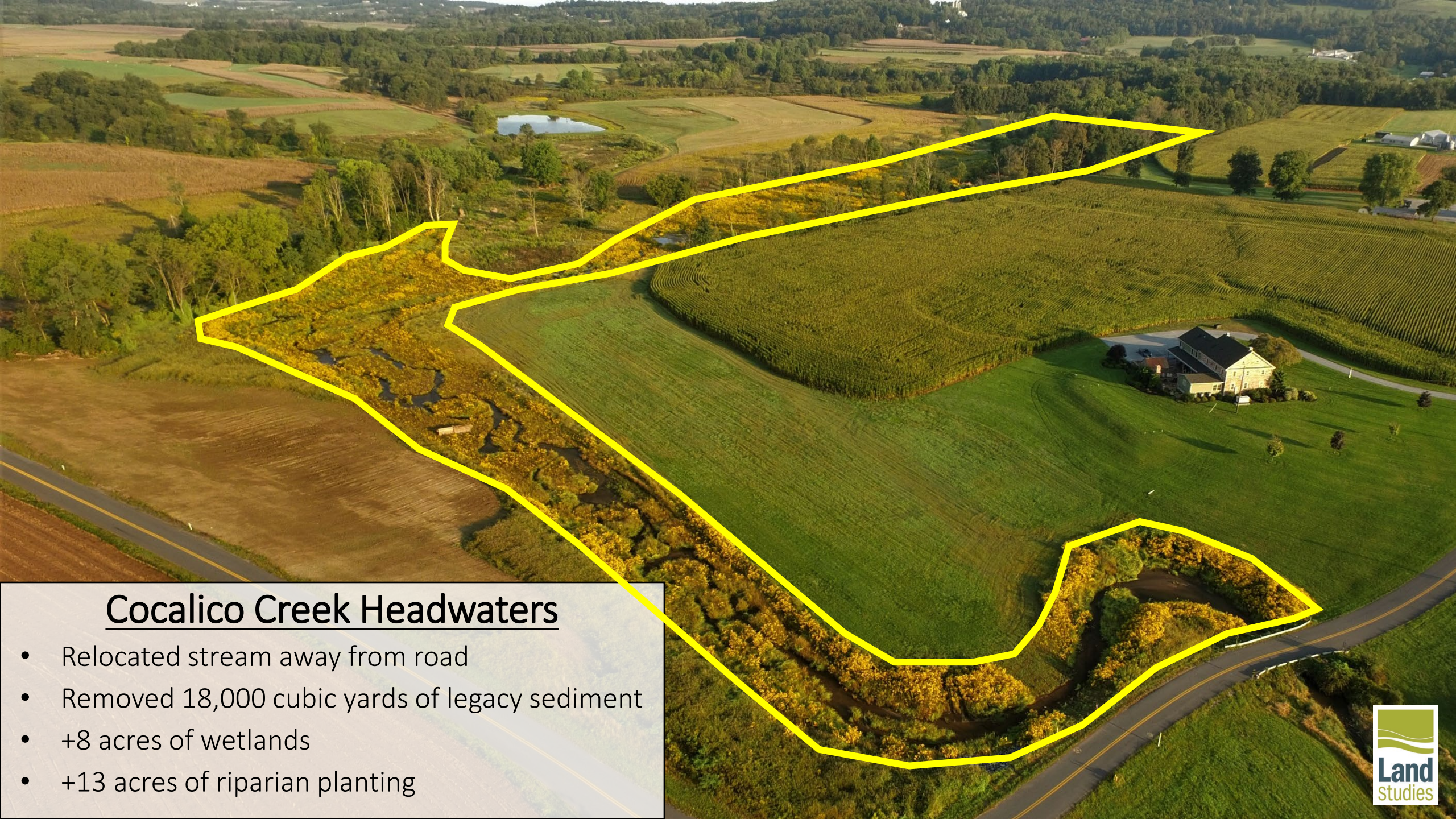
## Big Spring Run (II)

- 2,300 Linear Feet
- 3.5 acres of Wetlands
- 20,000 cy of Legacy Sediment removed







An aerial photograph showing a rural landscape with fields, trees, and a road. A yellow boundary line outlines a specific area of land, which appears to be a stream headwater area. The area is characterized by dense vegetation and a winding stream. The surrounding landscape includes cornfields, a large house, and a road.

## Cocalico Creek Headwaters

- Relocated stream away from road
- Removed 18,000 cubic yards of legacy sediment
- +8 acres of wetlands
- +13 acres of riparian planting

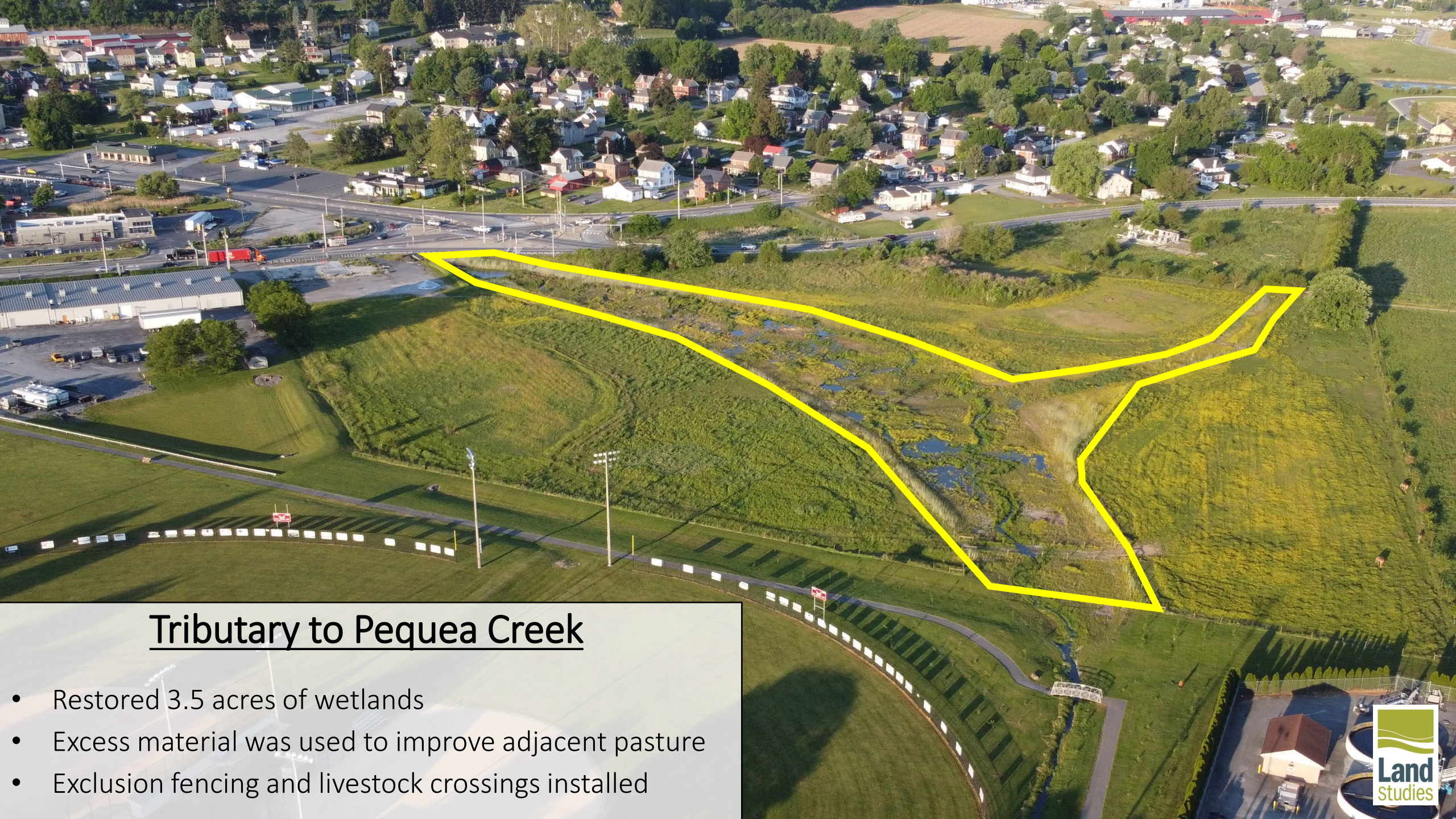


An aerial photograph showing a dense, winding network of green and yellow vegetation, likely a wetland or floodplain, with a small stream or creek visible in the center. The vegetation is a mix of green and yellow, suggesting a mix of plant species or a seasonal change. The stream is a dark, narrow line cutting through the greenery. The overall scene is a lush, natural landscape.

## Cocalico Creek Headwaters

- 0.7 acres of additional tillable acreage
- 0.95 acres removed from the 100-year floodplain
- 2.2 acres enrolled in CREP





## Tributary to Pequea Creek

- Restored 3.5 acres of wetlands
- Excess material was used to improve adjacent pasture
- Exclusion fencing and livestock crossings installed









## Culps Run

- 2,990 feet of Impaired Channel Restored
- 4.5 acres of Wetlands Restored
- 13.6 acres of Meadow Buffer Enhancement





## Culps Run

- Annual Pollutant Load Reductions
  - 107,712 lbs of sediment
  - 180 lbs of Phosphorous
  - 438 lbs of Nitrogen







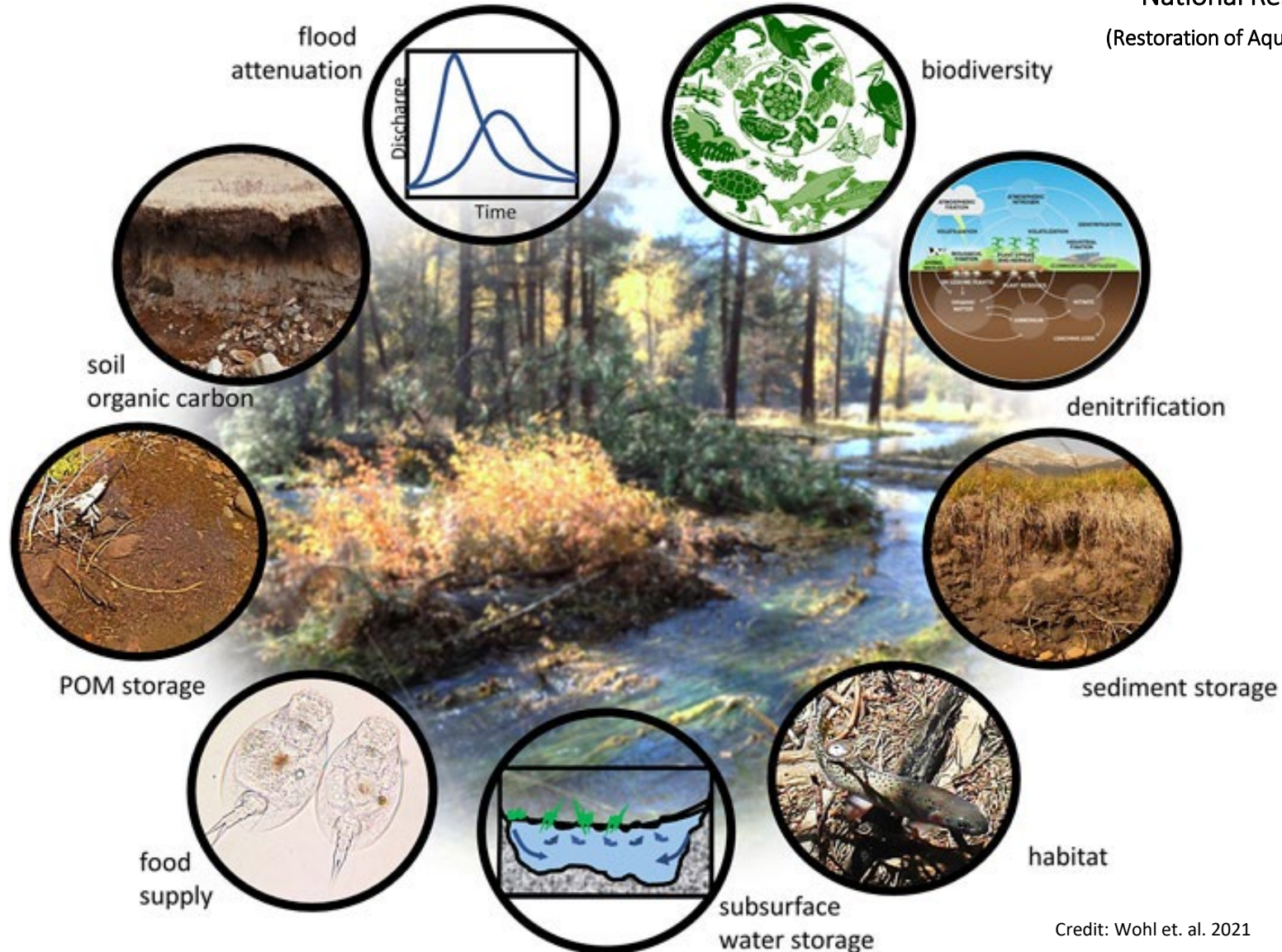




# RESTORATION:

"return of an ecosystem to a close approximation of its condition prior to disturbance."

National Research Council  
(Restoration of Aquatic Ecosystems, 1992)



Credit: Wohl et. al. 2021





Pioneering innovative solutions to water  
resource management.

Design | Sustain | Restore

Justin Spangler, PE  
Justin@LandStudies.com  
717-627-4440









## Virtual Training Courses:

(no login required)

Guiding Principles of Aquatic Ecosystem Restoration (2.5 hrs)  
<https://pacleanwateracademy.remote-learner.net/course/view.php?id=1132>

Case Study – Legacy Sediment Evaluation at Oil Creek (0.5 hrs):  
<https://pacleanwateracademy.remote-learner.net/course/view.php?id=883>

## Digital Soil Monoliths

Digital Soil Monoliths are full-size, high-quality images of soils from exploratory trenches in Pennsylvania floodplains. These files can be downloaded and printed as full-size posters.  
<https://landstudies.com/digital-soil-monoliths/>

## Publications

*Big Spring Run Restoration*. (2015, February 9). Retrieved from The Big Spring Run Restoration Project:  
[www.bsr-project.org](http://www.bsr-project.org)

Castro, J. M., & Thorne, C. R. (2019, March 26). The stream evolution triangle: Integrating geology, hydrology and biology. *River Research and Applications*, 35(4), 315-326. doi: <https://doi.org/10.1002/rra.3421>

Cluer, B., & Thorne, C. (2014). A Stream Evolution Model Integrating Habitat and Ecosystem Benefits. *River Research and Applications*, 30(2), 135-154. doi: <https://doi.org/10.1002/rra.2631>

Merritts, D. J., & Rahnis, M. A. (2022, May 31). Pleistocene Periglacial Processes and Landforms, Mid-Atlantic Region, Eastern United States. *Annual Review of Earth and Planetary Sciences*, 50, 541-592. doi: <https://doi.org/10.1146/annurev-earth-032320-102849>

Stambaugh, M. C., Marschall, J. M., Abadir, E. R., Jones, B. C., Brose, P. H., Dey, D. C., & Guyette, R. P. (2018, May 11). Wave of fire: an anthropogenic signal in historical fire regimes. *Ecosphere*, 9(5). doi: <https://doi.org/10.1002/ecs2.2222>

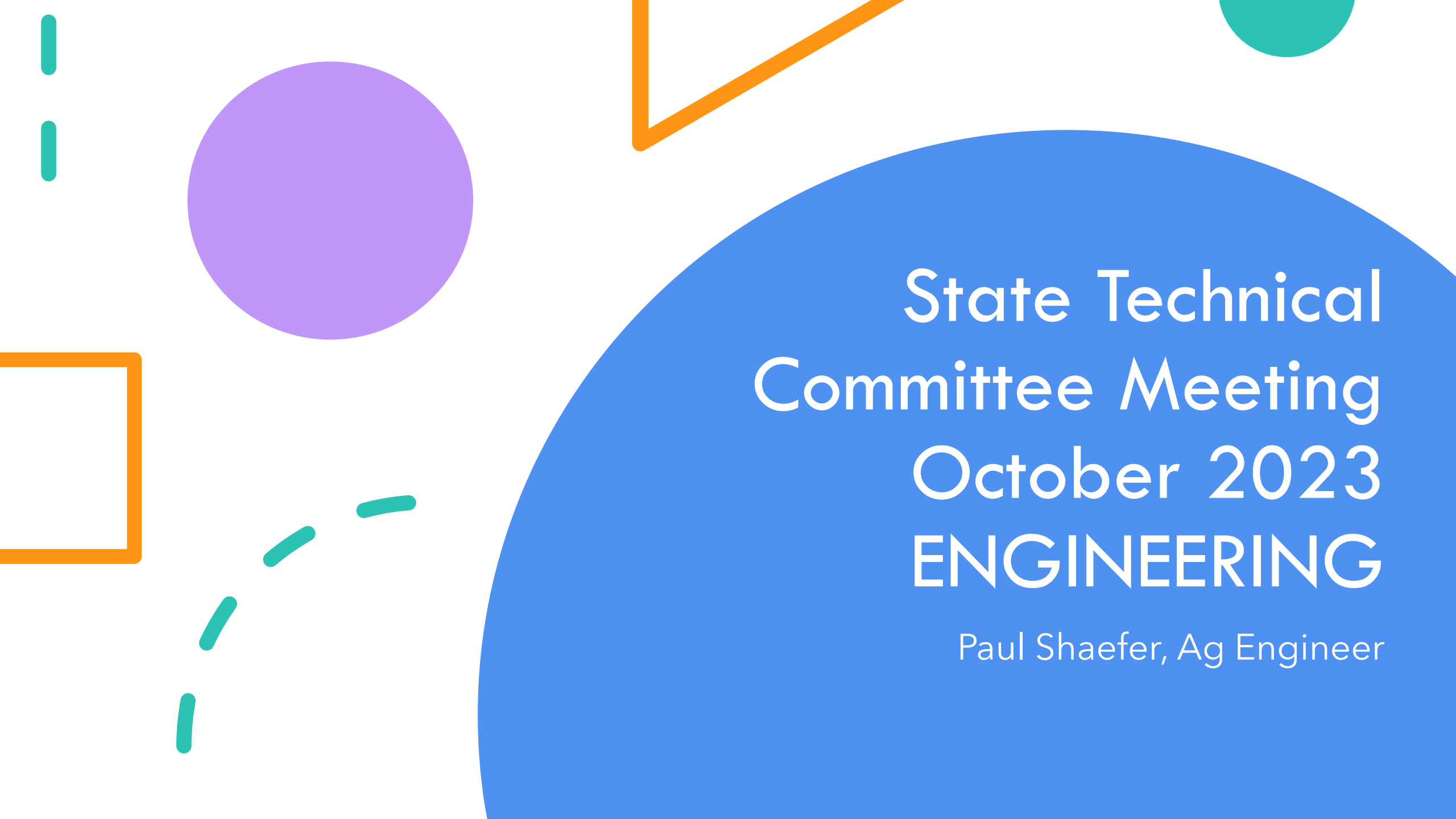
Walter, R. C., & Merritts, D. J. (2008, January 18). Natural Streams and the Legacy of Water-Powered Mills. *Science*, 319, 299-304. doi: <https://doi.org/10.1126/science.1151716>

Wohl, E., Castro, J., Cluer, B., Merritts, D., Powers, P., Staab, B., & Thorne, C. (2021, June 30). Rediscovering, Reevaluating, and Restoring Lost River-Wetland Corridors. *Frontiers in Earth Science*, 9. doi: <https://doi.org/10.3389/feart.2021.653623>



Paul Shaefer, Agricultural Engineer, NRCS was introduced and provided an Engineering Update. He discussed the newly released Standards as well as Practice Specifications and Design and Check data, and Standards that are soon to be released. He noted that a FOTG Bulletin will be released once all are completed. He reported on the financial assistance estimated for the Mid July storms, noting the 17 total eligible sites from Berks, Bucks and Chester Counties. Also, that eligibility for the September 9<sup>th</sup> storm financial assistance for Lackawanna and Wyoming counties is being determined.





# State Technical Committee Meeting October 2023 ENGINEERING

Paul Shaefer, Ag Engineer





# Standards Update

## **Standards released and comments being addressed**

- 606 Subsurface Drain

## **Standards released through CPD DMS to FOTG. Practice Specifications and Design and Check Data will be coming.**

- 326 Clearing and Snagging
- 356 Dike and Levee
- 362 Diversion
- 368 Emergency Mortality Management
- 378 Pond
- 457 Mine Shaft and Adit Closing
- 543 Land Reclamation, Abandoned Mined Land





# Standards Update

## **Standards to be released shortly**

- 578 Stream Crossing
- 606 Subsurface Drain
- 635 Vegetated Treatment Area
- 656 Constructed Wetland

**FOTG Bulletin will be released once all are completed**





## Changes to Highlight

### **Changes to Note:**

- 578 Stream Crossing Signage
- 635 Vegetated Treatment Area - Grazing Area
- 635 - Vegetated Treatment Area - Slope





# New Standard Detail Design

Standard Detail Design for  
Roofed Structure - Based on  
Design Guide #12 *Prescriptive  
Design Specifications for Non-  
Diaphragm Post-Frame  
Buildings*





# EWP Update

## **Mid July Storms**

- 17 total eligible sites from Berks, Bucks, and Chester Counties
- Estimated \$1.9M in assistance

## **September 9 Storm**

- Currently determining eligibility
- Lackawanna and Wyoming Counties will likely have a small number of sites



Climate  
Smart  
Practice  
Addition:  
Covers and  
Flares







Thank you



Dan Ludwig, State Resource Conservationist, NRCS was introduced and provided an update on new and revised Practice Standards. He listed the Practice Standards that have been updated and now appear on eFOTG. They are: 376 - Field Operations Mission Reduction; 324 - Tillage; 548 - Grazing and Mechanical Management. Practice Standards that are currently under revision and soon to be released are: 592, Feed Management; 379 - Forest Farming; 660 - Tree Shrub Trimming; 394 - Fire Break; 666 - Forest Stand Improvement; 383 - Fuel Break; 390 - Riparian Herbaceous Cover; 658 - Wetland Creation; 645 - Upland Habitat Management; 659 - Wetland Enhancement and 644 - Wetland Wildlife Habitat. He noted that when the listed Practice Standards are completed and placed on eFOTG, a Technical Guide Notice will be published and distributed. This Tech Guide Notice will provide a description of the changes/updates. He also announced that a record number of participants (105) were enrolled and attended the fall Session of Boot Camp I, and that same amount will be attending Boot Camp II. Also, that up-coming in December is the Introduction to Certified Planning.



Ben Marshall, Maryland NRCS Soil Survey Leader, was introduced and provided a Soil Survey and Urban Area Update. Ben started by saying that the Soil and Plant Science Division (SPSD) of NRCS recently completed a major soil survey update in Delaware County, PA. This was a 4-year intensive project. (See Attached Hand-out) This survey was first completed in the 1960's and land use changes such as urban sprawl has dramatically altered the landscape since. He continued by discussing some of the project highlights as well as issues/concerns that surfaced during the update. He noted that the project turned into more of an urban update, which included recognition of urban "Made Land Mapunits". He displayed comparisons of old and new images of different areas from several years ago; disturbed HTM soils at the Eden Cemetery, the Lewis Paper Mill, the Eyer Park that was affected by a flood in September of 1971. We collaborated with the local conservation districts, state parks, county parks, city parks, all basically wherever we get permission. And we did field work on those locations and also we updated any older map units like I said here the second pointer made land or endorphins. So that was like a higher category of describing soils. We updated those we used an impervious raster layer and elevation maps on arc map, so this was great for drawing out your soil line work more accurately than before from the 1960s. We updated all the spatial work, all the tabular, which means all the numbers that go into our national database and that in turn goes to like the conservation side where they see uh work, it spit out into the interpretations. Uh, so the 4th pointer there, no new soils were providing new interpretations in these dense urban areas. There's been a lot of change also from the 1960s to today, 2023, and I got a couple slides to show you on that too. So here was just an example of the mainland areas that are marked in different colors. I forgot to put a legend on there, but like the green on the bottom is your sands and gravels is what they call them so that it said Madland Sands and gravels. So, they're getting into more than natural material and you might have an actual bedrock underneath there where your stuff to the right-hand side of the eastern side had no bedrock. Bedrock was hundreds of feet down, but anyway, that was an example of it's not quite half the county, but maybe you know a third of the county took up those made land units and they needed to be updated.





United States Department of Agriculture

# Delaware County, Pennsylvania

Soil Survey and Urban Area Update

Ben Marshall and Frederick MD Office NRCS



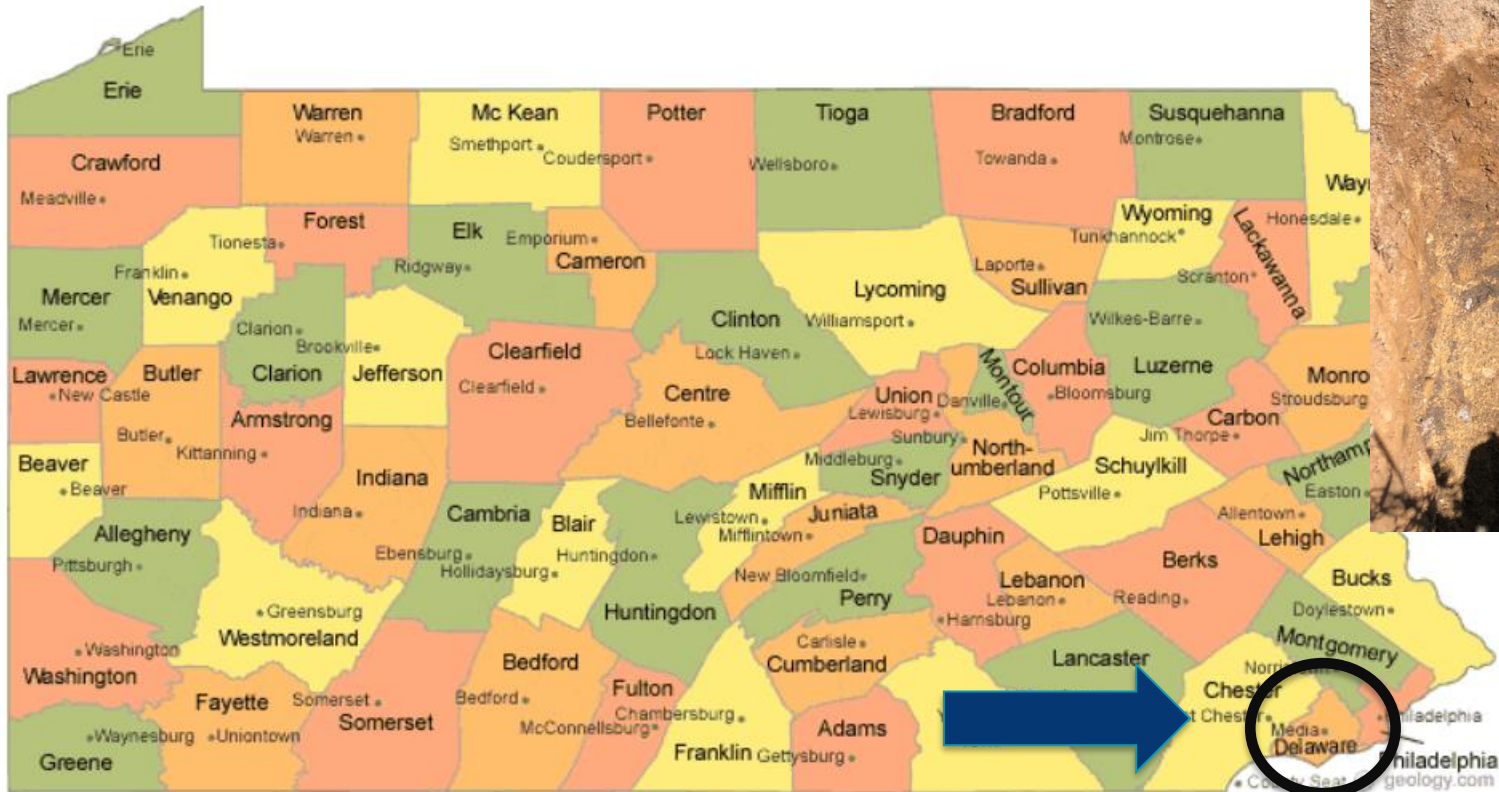
Natural  
Resources  
Conservation  
Service

[nrcs.usda.gov/](https://nrcs.usda.gov/)



# Delaware County, PA

## Location of Delaware county



Natural  
Resources  
Conservation  
Service

[nrcs.usda.gov/](https://nrcs.usda.gov/)





# Delaware County, PA



The SPSD has completed a major soil survey update in Delaware County, PA, part of greater Philadelphia. This was a 4 year intensive project. This survey was first completed in the 1960's and land use changes such as urban sprawl has dramatically altered the landscape since. Some project highlights are summarized below:

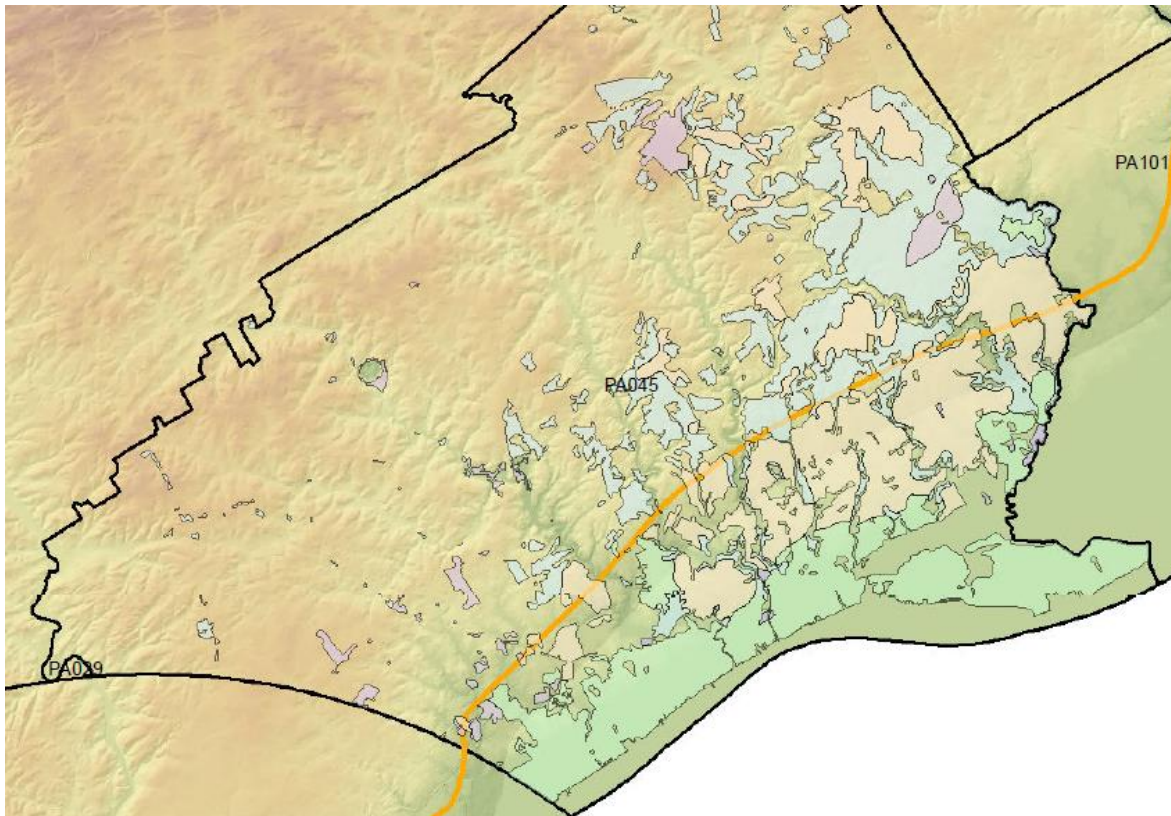
- Collaboration with the local conservation district, PA NRCS and PA State Parks to provide local interpretations, data for science-based conservation planning.
- Areas originally mapped as 'Made land' or 'Udorthents' with little or no associated data have been enhanced to include a more complete set of urban soils interpretations and information.
- An impervious raster layer and elevation terrain derivatives were used to help increase accuracy of the spatial linework. This accuracy can greatly help with better interpretations on the ground. Spatial and Tabular has been updated to current national standards.
- These new soils will provide new interpretations in the dense urban areas along the Delaware River. Enhanced interpretations include hydraulic conductivity, runoff, metrics supporting urban agriculture conservation planning, and compaction.





# Issues / Concerns during Update

- 5 Made Land and 7 Urban Land mapunits.
- Made lands units need to be changed to their perspective HTM soil , or urban soil.





# Made Lade Mapunits



- Thermic to Mesic Mapunits - re-correlate these
- Strange Slope Breaks – Examples are 0-8% and Manor 8-25%
- Change Flooding Frequencies in mapunit names. Floodplain soils

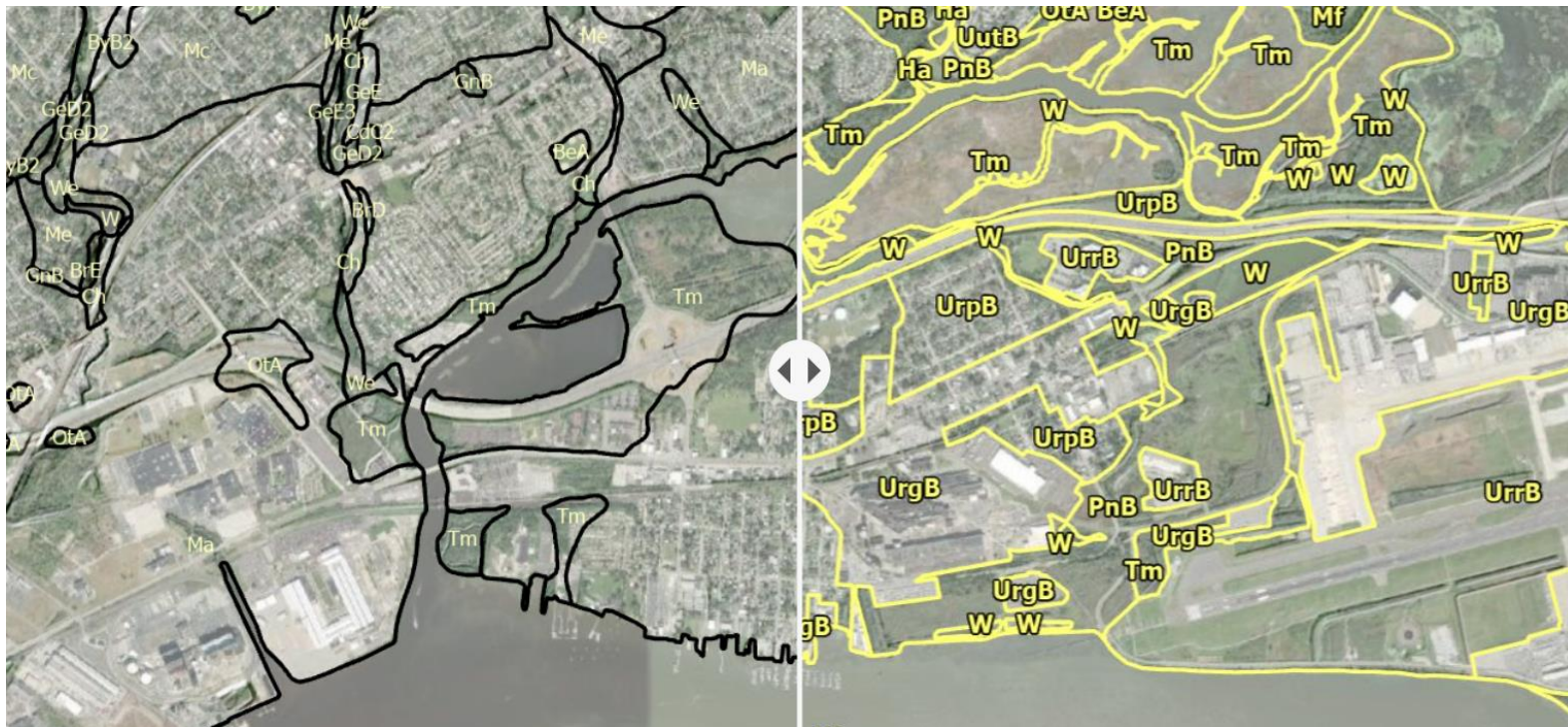




# Imagery Slider – Soil Mapunit Improvments

## Live slider tool link -

<https://storymaps.arcgis.com/stories/b7403904a7064d6595244299957c2dc8>



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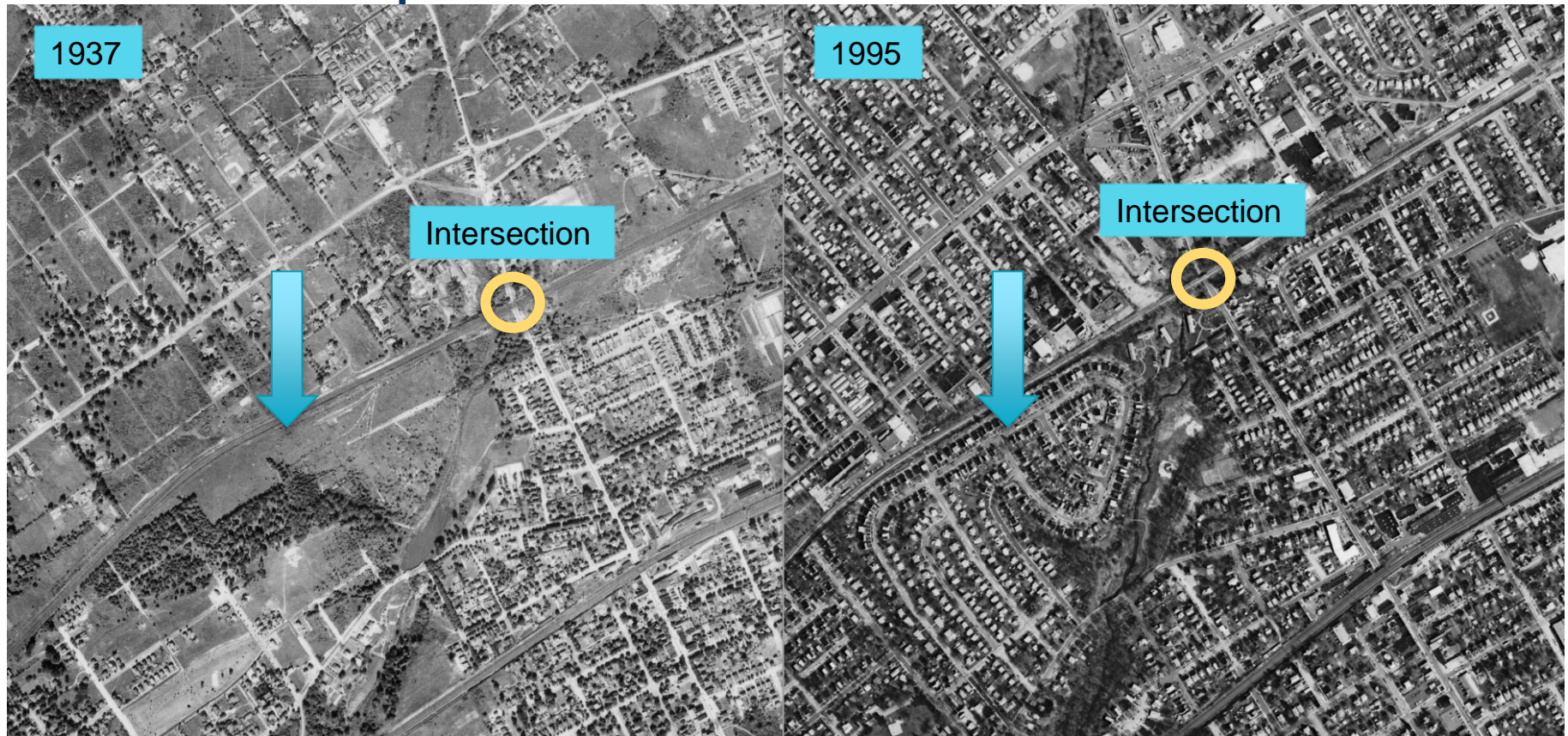
[nrcs.usda.gov/](http://nrcs.usda.gov/)





# Imagery – Old and New Imagery

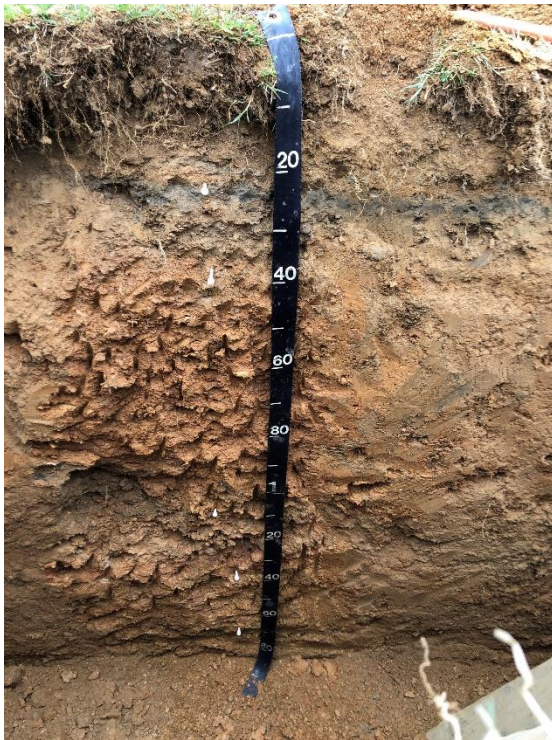
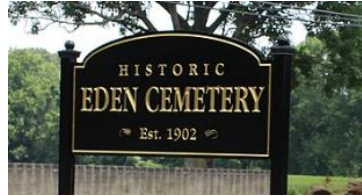
Penn Pilot – This is near Norwood. 58 years of difference and notice the development





# Disturbed – HTM Soils (Human transported material)

## Eden Cemetery





# Disturbed – HTM Soils



## Eden Cemetery



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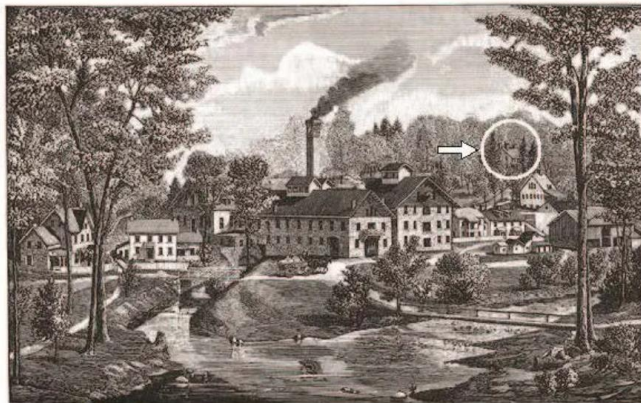




# Disturbed Soils – The Lewis Paper Mill

The Lewis Paper Mill once operated from 1826-1960. It was finally demolished in 1991. The entire site was cleaned and fresh fill material covered the sub-soil horizon. Now its called Smedley Park.

Notice in the photo the darker top 20cm of soil material. →



Frederick M. B. B. 1855.

J. HOWARD LEWIS' PAPER MILLS,  
NEAR REDD, PA.  
DELAWARE CO., PA.

Edwitt 1855.



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# Chester Flood – Eyre Park

209 homes were destroyed during a 1971 flood.

They were later declared urban renewal areas in 1973 and they were the first victims in US history to receive pre-flood value for their properties.

The homes were demolished and turned into open space.





# Thanks



Thanks to help from  
 Dave Verdone (late), Evan Park, James Leonard, John Chibirka, Yuri Plowden, Phil King, Karen Wilwol  
 and Randy Riddle





Melissa Hanner, Easement Program Manager, NRCS, was introduced and provided an update on the Agriculture Conservation Easements Program. (See attached Hand-out.) Melissa discussed the FY2023 Easement Closings. They included: 8 ACEP ALE Easements covering 1436 acres for a total of \$2,537,628; 2 RCPP Easements covering 311 acres for a total of \$464,880; 1 WRE Easement covering 15 acres for a total of \$131,000. FY 2023 Easement Obligations were: 7 ACP-ALE covering 747 Acres for a total of \$1,002,005 and 6 RCPP covering 699 acres for a total of \$837,694. As for the FY2024 Easement sign-up. She announced the new National ACEP IRA Application deadline has been set for November 15, 2024. She discussed the requirements for applications as well as those for the Agricultural Land Easements (ALE), Wetland Reserve Easements (WRE) and RCPP Kittatinny Ridge Corridor. She discussed the FY 2024 Graphic Area Rate Caps (GARC) for WRE by Pennsylvania regions. She discussed Easement Applications and Enrollment requirements and eligibilities. She gave an update on Easement Stewardship and discussed details of the Easement Monitoring Report. She noted that \$744,844 was obligated for Stewardship/Restoration FY 2023. She discussed the FY 2024 Easement Stewardship Activity Updates. She also provided a reminder concerning Compatible Use Authorization (CUA).



# Easement Updates





# Pennsylvania NRCS Easement Staff

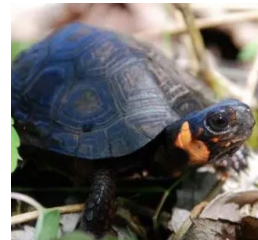


**Susan Parry – Assistant State Conservationist for Partnerships**  
[susan.parry@usda.gov](mailto:susan.parry@usda.gov)

**Melissa Hanner – Easement Program Manager**  
[melissa.hanner@usda.gov](mailto:melissa.hanner@usda.gov)

**Mick Albert – Easement Program Specialist**  
[michael.albert@usda.gov](mailto:michael.albert@usda.gov)

**Dane Lauver – Easement Program Assistant**  
[dane.lauver@usda.gov](mailto:dane.lauver@usda.gov)



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# FY2023 Easement Closings

**8 ACEP ALE Easements**  
**1435.52 acres**  
**\$2,537,628.00**

**2 RCPP Easements**  
**310.87 acres**  
**\$464,880.00**

**1 WRE Easement**  
**15.03 acres**  
**\$131,000.00**

| Program                            | Entity | County     | Federal Share         | Acres           |
|------------------------------------|--------|------------|-----------------------|-----------------|
| ACEP                               | LCAC   | Adams      | \$1,560,152.00        | 628.46          |
| ACEP                               | LFT    | Lancaster  | \$116,000.00          | 117.14          |
| ACEP                               | PDA    | Adams      | \$277,050.00          | 184.93          |
| ACEP                               | LCAC   | Adams      | \$191,131.00          | 122.61          |
| ACEP                               | LCAC   | Adams      | \$87,500.00           | 54.848          |
| ACEP                               | PDA    | Cumberland | \$120,810.00          | 109.43          |
| ACEP                               | PDA    | Lancaster  | \$102,780.00          | 57.79           |
| ACEP                               | PDA    | Perry      | \$82,205.00           | 160.32          |
| RCPP                               | PDA    | Adams      | \$242,160.00          | 161.61          |
| RCPP                               | PDA    | Adams      | \$222,720.00          | 149.26          |
| <b>8 ACEP ALE Easements Closed</b> |        |            | <b>\$2,537,628.00</b> | <b>1,435.53</b> |
| <b>2 RCPP Easements Closed</b>     |        |            | <b>\$464,880.00</b>   | <b>310.87</b>   |
| <b>1 WRE Easements Closed</b>      |        |            | <b>\$131,000.00</b>   | <b>15.03</b>    |

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# FY2023 Easement Obligations

## 7 ACEP ALE

746.55 acres  
\$1,002,005.00

## 6 RCPP

699.57 acres  
\$837,964.00

| Program                               | Entity  | County     | Acres         | Federal Share       |
|---------------------------------------|---------|------------|---------------|---------------------|
| ACEP                                  | LCAC    | Adams      | 140.00        | \$210,000.00        |
| ACEP                                  | LCAC    | Adams      | 41.00         | \$68,000.00         |
| ACEP                                  | LCAC    | Adams      | 120.00        | \$200,000.00        |
| ACEP                                  | PDA     | Centre     | 112.07        | \$224,140.00        |
| ACEP                                  | LFT     | Lancaster  | 39.18         | \$68,565.00         |
| ACEP                                  | PDA     | Perry      | 140.00        | \$77,000.00         |
| ACEP                                  | PDA     | Schuylkill | 154.30        | \$154,300.00        |
| RCPP                                  | PDA     | Cumberland | 149.05        | \$285,431.00        |
| RCPP                                  | PDA     | Cumberland | 149.00        | \$160,285.00        |
| RCPP                                  | PDA     | Cumberland | 53.06         | \$99,885.00         |
| RCPP                                  | PDA/CPC | Franklin   | 91.59         | \$35,492.00         |
| RCPP                                  | PDA     | Schuylkill | 49.98         | \$49,980.00         |
| RCPP                                  | PDA     | Schuylkill | 83.67         | \$83,670.00         |
| RCPP                                  | ACALPB  | Armstrong  | 123.22        | \$123,221.00        |
| <b>7 ACEP ALE Easements Obligated</b> |         |            | <b>746.55</b> | <b>1,002,005.00</b> |
| <b>7 RCPP Easements Obligated</b>     |         |            | <b>699.57</b> | <b>837,964.00</b>   |

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# FY2024 Easement Signup



## NEW National ACEP IRA Application Deadline: November 15, 2024

- ❖ Federal Easement Applications can be submitted anytime.
- ❖ Applications are batched and ranked at the announced signup deadlines.
- ❖ Agricultural Land Easements (ALE) and Wetland Reserve Easements (WRE) applications will be ranked for eligibility for funding through **National ACEP IRA**

**Agricultural Land Easements (ALE)** - Entity Held Easements with US Rights of Enforcement  
 County Land Preservation Board  
 Lancaster Farmland Trust  
 Land Conservancy of Adams County

**Wetland Reserve Easements (WRE)** - US Held Easements  
 NRCS Service Center

**RCPP Kittatinny Ridge Corridor**- Entity Held Easements with US Rights of Enforcement  
Agricultural Conservation Easements- County Land Preservation Board  
Forest Easements –Berks Nature, Central Pennsylvania Conservancy, Manada Conservancy

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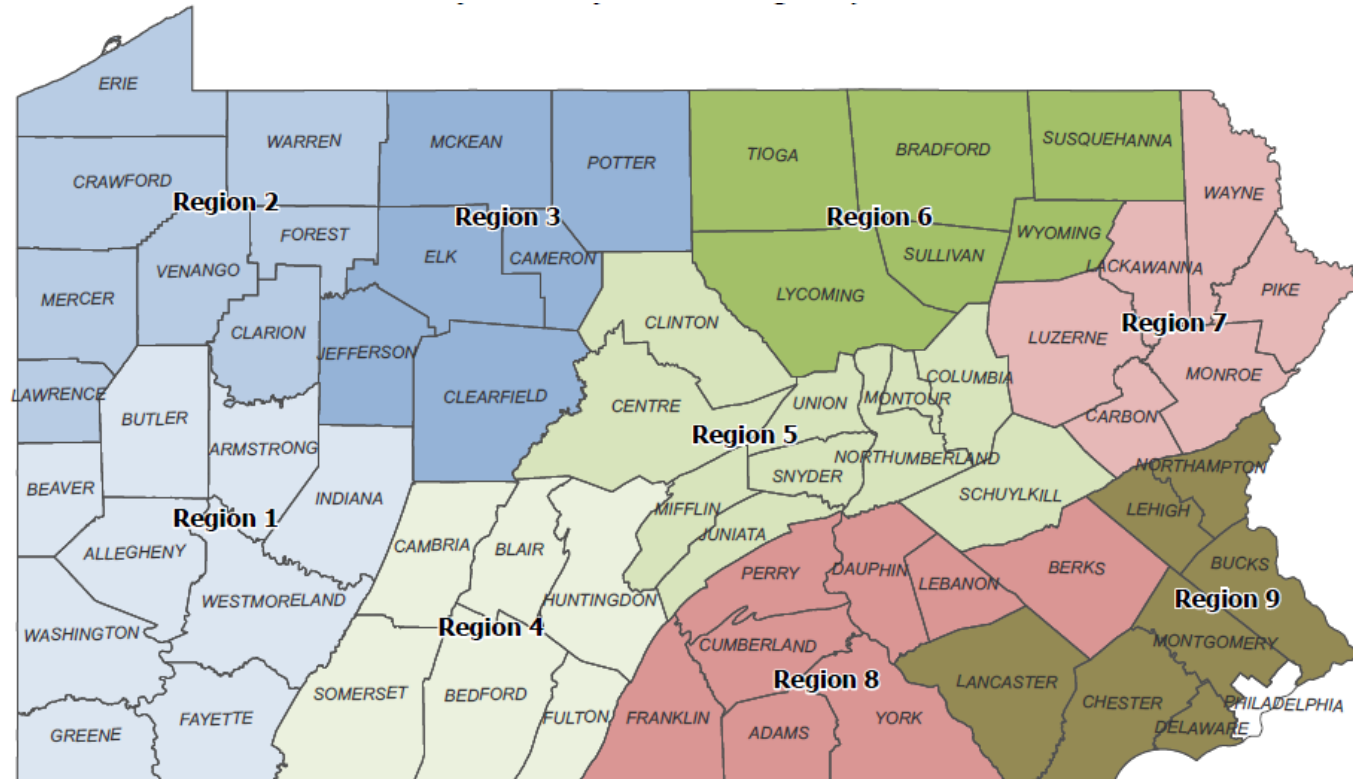




## FY2024 GARC (Geographic Area Rate Caps) for WRE

- ❖ Individual appraisals are used to establish the per acre rate for WRE easements.
- ❖ Easement value is equal to the appraised fair market value minus 5% reduction to account for rights the landowner continues to retain after easement is in place.
- ❖ Pennsylvania counties are grouped into 9 geographic regions for the purpose of setting rate caps that reflect the differing land values across the state.

| NTE Rate per acre for Appraisals |             |          |
|----------------------------------|-------------|----------|
| Legend                           | Market Area | NTE      |
|                                  | Region 1    | \$5,549  |
|                                  | Region 2    | \$5,000  |
|                                  | Region 3    | \$5,000  |
|                                  | Region 4    | \$5,000  |
|                                  | Region 5    | \$5,924  |
|                                  | Region 6    | \$5,000  |
|                                  | Region 7    | \$5,000  |
|                                  | Region 8    | \$7,124  |
|                                  | Region 9    | \$11,891 |





# Easement Applications and Enrollment

## Producer Eligibility for USDA Programs

- AD-1026 HELC and WC Certification
- CCC-902I Farm Operating Plans
- CCC-941 Avg Adjusted Gross Income (AGI) Certification

## NRCS Field Visit (Due Diligence) –

- Landowner Disclosure Worksheet
- Hazardous Materials Field Inspection Checklist
- Hazardous Materials Landowner Interview
- Preliminary Certificate of Inspection and Possession

NRCS Due Diligence also ensures there will be clear title and a clean transaction-

- Sufficient legal access
- Existing or proposed easements
- ROWs
- Leases
- Contracts
- Lawsuits and liens
- Squatters
- Cemeteries
- Boundary line issues
- Mineral rights
- Deeds of trust

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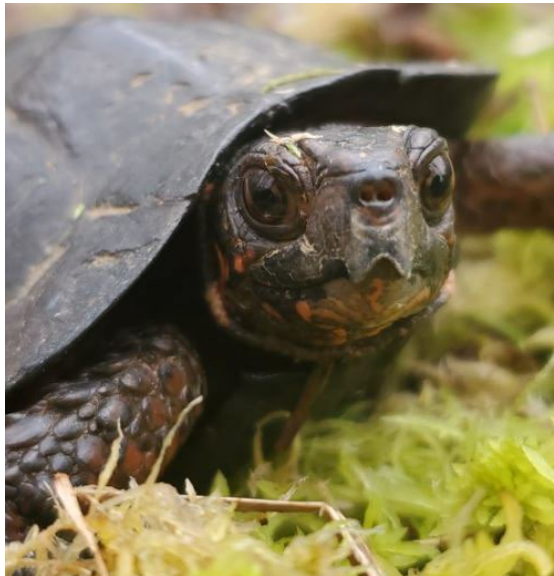




# Easement Stewardship



*Photo credit: pahrps.com*



*Photo credit: thewetlandtrust.org*



*Photo credit: susquehannockwildlife.org*







# Easement Monitoring Report

|                 | FRPP       | ALE       | WRP        | WRE       | RCPP-WRE | GRP       | EWPP-FPE | HFRP     |
|-----------------|------------|-----------|------------|-----------|----------|-----------|----------|----------|
| <b>On-site</b>  | 13         | -         | 102        | 21        | 1        | 6         | 1        | 5        |
| <b>Entity</b>   | 395        | 27        | -          | -         | -        | -         | -        | -        |
| <b>Off-site</b> | 75         | -         | 71         | 8         | -        | 5         | 5        | -        |
| <b>Total</b>    | <b>483</b> | <b>27</b> | <b>173</b> | <b>29</b> | <b>1</b> | <b>11</b> | <b>6</b> | <b>5</b> |





# Stewardship/Restoration: FY23 Obligation Amounts

Total funds obligated **\$744,844.13**

| Program                | Landowner name       | Obligation Amount |
|------------------------|----------------------|-------------------|
| HFRP                   | [REDACTED]           | \$67,174.18       |
| WRE                    | [REDACTED]           | \$129,404         |
| FY 2023 Bog Turtle SOW | 11 WRP and WRE sites | \$289,050         |
| WRP                    | [REDACTED]           | \$123,016         |
| WPR                    | [REDACTED]           | \$50,000          |
| WRE                    | [REDACTED]           | \$84,200          |
| WRP                    | [REDACTED]           | \$2,000           |







# FY 2024 Easement Stewardship Activity Updates

- **Funding for maintenance and management on easements will be available.**
  - Reach out if you have a project that you would like us to consider.
- **FY 2024 Monitoring workload will be sent out by early November.**
- **Plan to host an easement monitoring training in late November early December**







# Compatible Use Authorization (CUA) Reminder

- CUA's are required anytime a landowner is conducting an activity on an easement which alters vegetation or hydrology (mowing, wood harvest, hunting blind, food plot, trails, etc.)
- If they don't have an approved CUA, they are in violation and are required to cease and desist.
- CUA training coming to train staff on new review and approval process (all CUA's entered in CD now)





Ryan Cornelius, PA EQIP Program Manager, NRCS, was introduced and provided an update on EQIP and AMA. (See attached Hand-out.) Ryan reviewed the FY 2023 Contracting obligations for EQIP-General, EQIP-IRA and AMA, indicating the number of Contracts, as well as funding and acreage involved. He also stated that the EQIP-General numbers included NWQI and Golden Winged Warbler statistics. He also noted the over \$25 in FA practice implementation in 2023 and cited the practices involved. He discussed the FY 2024 Sign-up and Eligibility application numbers as well as the Application Eligibility timelines. He proceeded to discuss the FY 2024 EQIP Priority Practices, which ones were accepted as the 10 priority practices to receive 90% cost-share under EQIP general. He also discussed the FY 2024 EQIP Source Water Protection (SWP) priority Practices. He noted that these particular practices had a higher payment rate. He discussed the EQIP-Urban Areas in Pennsylvania for FY-2024.





United States Department of Agriculture



## Program Updates (EQIP & AMA)

USDA – Natural Resources Conservation Service  
Pennsylvania, October 26<sup>th</sup>, 2023



*Ryan Cornelius*  
*PA EQIP-Program Manager*

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[nrcs.usda.gov/](https://nrcs.usda.gov/)





# FY23 Contracting Obligations:



| Program      | Contracts | Funding      | Acres  |
|--------------|-----------|--------------|--------|
| EQIP-General | 396       | \$26,122,729 | 48,508 |
| EQIP-IRA     | 72        | \$3,137,907  | 9,347  |
| AMA          | 27        | \$385,096    | 140    |

Already included in the EQIP-General numbers above are NWQI and Golden Wing Warbler

| Program                  | Contracts | Funding     | Acres |
|--------------------------|-----------|-------------|-------|
| EQIP-Golden Wing Warbler | 12        | \$483,248   | 1,662 |
| EQIP-NWQI                | 6         | \$1,356,669 | 1,096 |







# FY23 Programs Update

**-Over \$25 Million in FA practice implementation in 2023**

**Some highlighted practices:**

| Practice                      | Amount Implemented with FA |
|-------------------------------|----------------------------|
| 313-Waste Storage Facility    | 51 no.                     |
| 340-Cover Crop                | 5,784 acres                |
| 420-Wildlife Habitat Planting | 83.9 acres                 |
| 528- Prescribed Grazing       | 2,083 acres                |
| 561-Heavy Use Area Protection | 189,172 SqFt               |
| 590-Nutrient Management       | 6,675 acres                |





# FY24 Sign-up and Eligibility



**Application Sign-up Numbers: Application ranking periods for AMA and EQIP:**

**Sign-up Number      Application ranking periods for AMA (NE) and EQIP:**

- 1    November 1, 2023
- 2    January 1, 2024
- 3    March 1, 2024
- 4    May 1, 2024

**Application Eligibility Timelines:**

**Applications must remain in “pending” status in ProTracts until all eligibility requirements have been met:**

**Sign-up Number      Eligibility requirements shall be met by the following dates:**

- 1    January 1, 2024
- 2    March 1, 2024
- 3    May 1, 2024
- 4    July 1, 2024





# FY24 EQIP Priority Practices

**Background for EQIP Priority Practices:** EQIP policy at 530.403E,F allows the State Conservationist to solicit input on up to 10 priority practices for EQIP general. The rate would be increased to share in 90% percent of the cost of the practice versus 75% (530.406 B). The goal of these Top 10 priority practice lists is **NOT** to improve participation for practices that are well subscribed, like heavy use areas or fence, or practices like riparian forest buffers that may have many program alternatives offered to producers, but to introduce practices to participants that may not be very popular because of the high costs but have high environmental benefits.

*The following conservation practices were accepted as the 10 priority practices to receive 90% cost-share under EQIP general.*

|     |  |
|-----|--|
| 338 | Prescribed Burning   |
| 390 | Riparian Herbaceous Cover                                  |
| 395 | Stream Habitat Improvement and Management                  |
| 396 | Aquatic Organism Passage                                   |
| 490 | Tree/Shrub Site Preparation (on abandoned mine lands only) |
| 580 | Streambank and Shoreline Protection                        |
| 605 | Denitrifying Bioreactor                                    |
| 612 | Tree/Shrub Establishment (on abandoned mine lands only)    |
| 657 | Wetland Restoration  |
| 782 | Phosphorous Removal System                                 |





## FY24 EQIP Source Water Protection (SWP) Priority Practices

### SWP Priority Targeted Practices

*These conservation practices were accepted as the SWP priority practices to receive the 90% cost-share rate in EQIP.*

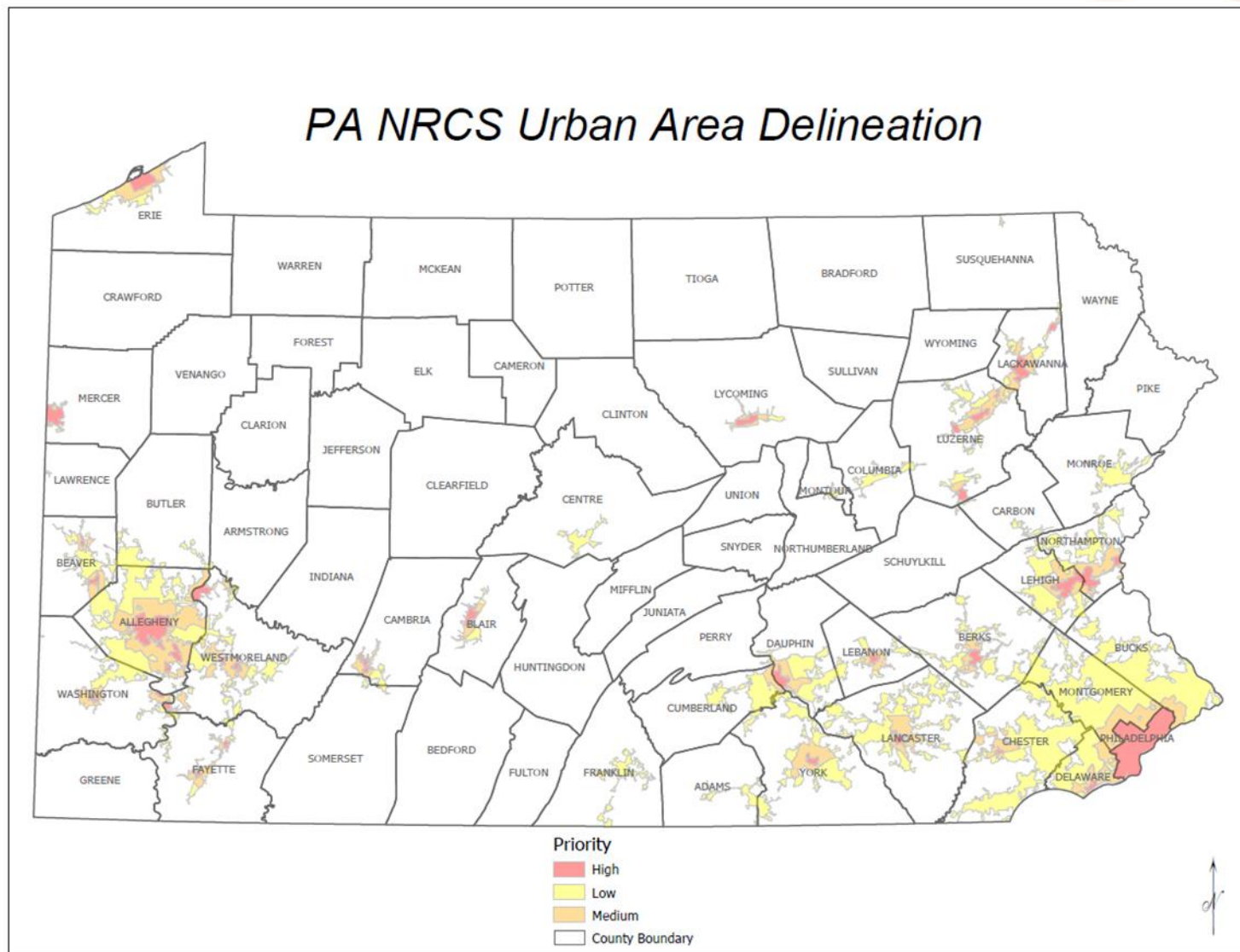
### Source Water Protection Practices with Higher Payment Rate

| Code | Practice                            | Units | Lifespan |
|------|-------------------------------------|-------|----------|
| 351  | Well Decommissioning                | No    | 20       |
| 527  | Karst Sinkhole Treatment            | No    | 10       |
| 580  | Streambank and Shoreline Protection | Ft    | 20       |
| 605  | Denitrifying Bioreactor             | No    | 10       |
| 782  | Phosphorous Removal System          | No    | 10       |





# EQIP-Urban Areas updated for FY24

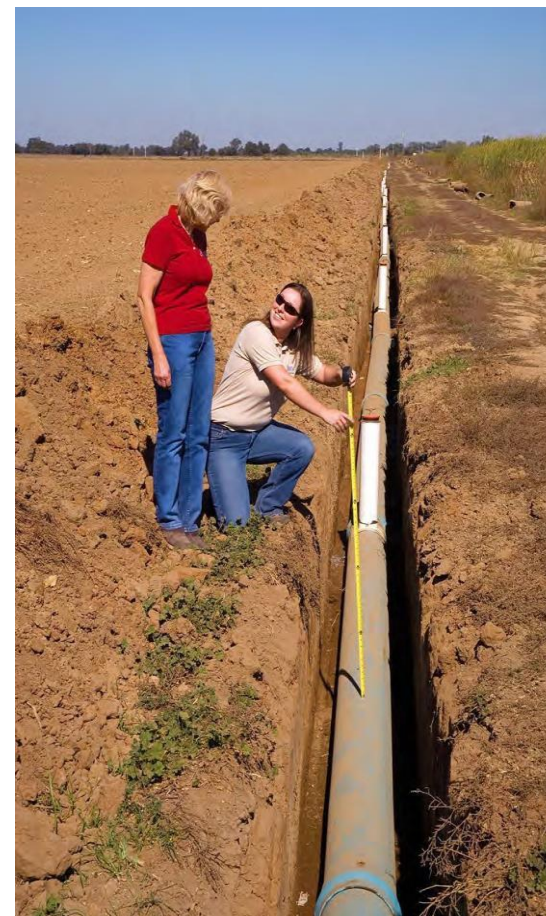




# Program Updates (EQIP & AMA)



## QUESTIONS?



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Ashley Lenig, Program Manager, NRCS, was introduced and provided updates for the Conservation Stewardship Program (CSP), the Conservation Innovation Program (CIG), and EQIP-National Water Quality Initiative (EQIP-NWQI). (See the attached Hand-out.) She reviewed the details of CIG agreements that were funded in FY 2023: Waterborne Environmental, Inc \$72,825 for Development and demonstration of a user-friendly web application to assist Pennsylvania farmers with agricultural conservation; Social Enterprise Institute USA, \$75,000 for Legacy sediment terrace archotyping. She went on to discuss CSP obligations for FY 2023. She indicated that all obligations were moved into contracts. Those contracts numbered 170 and amounted to over \$6 Million and covered 68,852 acres. CSP renewals are currently being worked on as well as IRA CSP. She announced that for FY 2024, minimum annual payment is \$4,000. She reviewed the EQIP National Water Quality Initiatives, noting that the FY 2023 allocation was \$1.3 Million and resulted in 6 contracts for \$1.3 mill which covered over 1000 acres.





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*PA NRCS Programs Team*

# Financial Assistance Programs Update CIG, CSP, EQIP-NWQI

***Pennsylvania State Technical Committee Meeting  
Ashley Lenig, Conservation Program Manager***

***October 24, 2023***

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# Presentation Outline

- **Conservation Innovation Grants (CIG)**
- **Conservation Stewardship Program (CSP)**
- **National Water Quality Initiative (EQIP-NWQI)**





# FY2023 Conservation Innovation Grants

## CIG Agreements Funded in FY2023

**Waterborne Environmental, Inc.** \$72,825.39 *Development and Demonstration of a User-Friendly Web Application to Assist Pennsylvania Farmers with Agricultural Conservation.* The purpose is to create a web application that will assist farms with on farm management decisions such as timing of planting. It will recommend suitable BMPs and funding sources by site.

**Social Enterprise Institute USA** \$75,000 *Legacy Sediment Terrace Archotyping.* This project will describe the archetype conditions of legacy sediment terraces at locations in Lancaster County, Pennsylvania. Full scale digital monoliths will be developed.





# Conservation Stewardship Program

## CSP Obligations in Fiscal Year 2023

- Moved our entire allocation into contracts
- CSP Classic and CSP Classic IRA (Inflation Reduction Act, Climate Smart Activities)
- 170 contracts for \$6,200,000 on 68,852.30 acres





# Conservation Stewardship Program

**Currently working on CSP Renewals**

**Rankings out; Using costs etc. from FY2023**

- **IRA CSP Renewals**
  - **(Inflation Reduction Act, Climate Smart)**
- **CSP Renewals**
- **For FY2024, minimum annual payment is \$4,000**

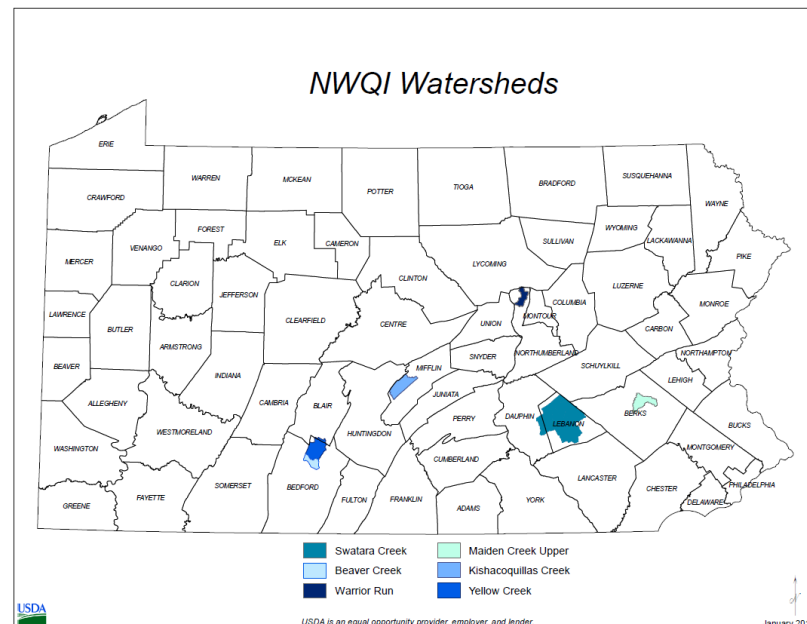




# National Water Quality Initiative

## Environmental Quality Incentives Program – NWQI

- FY2023 Allocation was \$1,300,000
- 6 contracts for \$1,356,669 on 1,096.3 acres





Questions?

Comments?



Ashley Lenig

Conservation Program Manager (CSP, CIG, NWQI)

[ashley.lenig@usda.gov](mailto:ashley.lenig@usda.gov)



Adam Dellinger, Regional Conservation Partnership Program Director, NRCS, was introduced and provided an update on RCPP. He reported that PA NRCS wrote contracts under four existing RCPP projects across the state that included: Buffalo Creek Watershed Conservation Alliance; Lancaster's Common Agenda for Clean Water; Turkey Hill Clean Water Partnership and Delisting AG-Impaired Streams in Central PA. In addition, Twenty-five RCPP Land management contracts were obligated in FY 2023 across active RCPP projects. This amounted to over \$3.2 million in RCPP funds being obligated which covered 5,149 acres. He discussed FY 2024 RCPP Land management contracts, indicating the application cut-off dates would be the same for all RCPP projects and EQIP-AMA. Those dates being November 1<sup>st</sup>, January 1<sup>st</sup> and March 1<sup>st</sup>. He also discussed Farmland Preservation and Climate Change Mitigation. He noted that the Lead Partner will be the PA Dept of Agriculture. The award is for \$7.8 million for the statewide project. Funding is available for entity held forest and farmland easements and climate-smart practices on preserved farms. Being as FY 2024 is the first year for contracts, he urged interested landowners to contact their local NRCS Field Offices for more information. He further stated that information about the opportunity to submit FY 2024 RCPP project proposals will likely be available in the fall or early winter.





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# Regional Conservation Partnership Program (RCPP) Update

Adam Dellinger

State Technical Committee Meeting

10/26/23



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# Fiscal Year 2023 RCPP Landowner Contracts

- **PA NRCS wrote contracts under four existing RCPP projects across Pennsylvania**
  - Buffalo Creek Watershed Conservation Alliance
  - Lancaster's Common Agenda for Clean Water
  - Turkey Hill Clean Water Partnership
  - Delisting Ag-Impaired Streams in Central PA (NEW for FY23!)
- **Twenty-five RCPP Land Management contracts were obligated in FY23 across active RCPP projects**
  - \$3,217,007 in RCPP funds obligated
  - 5,149.21 acres





# FY24 RCPP Land Management Contracts

- **Application cutoff dates will be the same for all RCPP projects and EQIP/AMA**
  - Nov 1, Jan 1, Mar 1
- **Farmland Preservation and Climate Change Mitigation**
  - Lead Partner: Pennsylvania Department of Agriculture
  - Award: \$7,850,000
  - Project Area: Statewide
  - Funding available for entity held forest and farmland easements and climate-smart practices on Preserved Farms.
    - **FY24 will be first year for contracts! interested landowners should contact their local NRCS field office for more information.**





# FY24 Notice of Funding Opportunity



- **Information about the opportunity to submit FY24 RCPP project proposals will likely be available in the fall or early winter**
  - Contact Adam Dellinger, RCPP Program Manager, if your organization is interested in discussing a proposal idea
  - [Adam.Dellinger@usda.gov](mailto:Adam.Dellinger@usda.gov), 717-237-2206





Being no further business to discuss, the meeting was adjourned. The next meeting of the State Technical Committee is scheduled for January 18, 2024.



**PA State Technical Committee Meeting Attendance - Oct 29, 2023****Name**

|                      |
|----------------------|
| Albert, Mick         |
| Amento, Alison       |
| Colaizzi, Leslie     |
| Coleman, Denise      |
| Cornelius, Ryan      |
| Dalton, Dan          |
| Day, Diana           |
| Dillinger, Adam      |
| Dubin, Mark          |
| Fearon, Allison      |
| Feinburg, Liz        |
| Goolsby, Scott       |
| Gutshall, Kelly      |
| Hanner, Melissa      |
| Hartman, Bob         |
| Hult, Susan          |
| Kanner, Elizabeth    |
| King, Marel          |
| Lenig, Ashley        |
| Ludwig, Dan          |
| Marshall, Ben        |
| Marshall, Ben        |
| Ombalski, Katie      |
| O'Neill, Kelly       |
| P, Chris             |
| Parry, Susan         |
| Rohrer, Frank        |
| Shadle, Keith        |
| Shaefer, Paul        |
| Sigmond, Chris       |
| Smith, Julia         |
| Spangler, Justin     |
| Spangler, Justin     |
| Swartzer, John       |
| Sweeney, Joe         |
| Ulrich, Tom          |
| Vassalotti, Virginia |
| Whiteside, Jerry     |