



pennsylvania
FISH AND BOAT COMMISSION



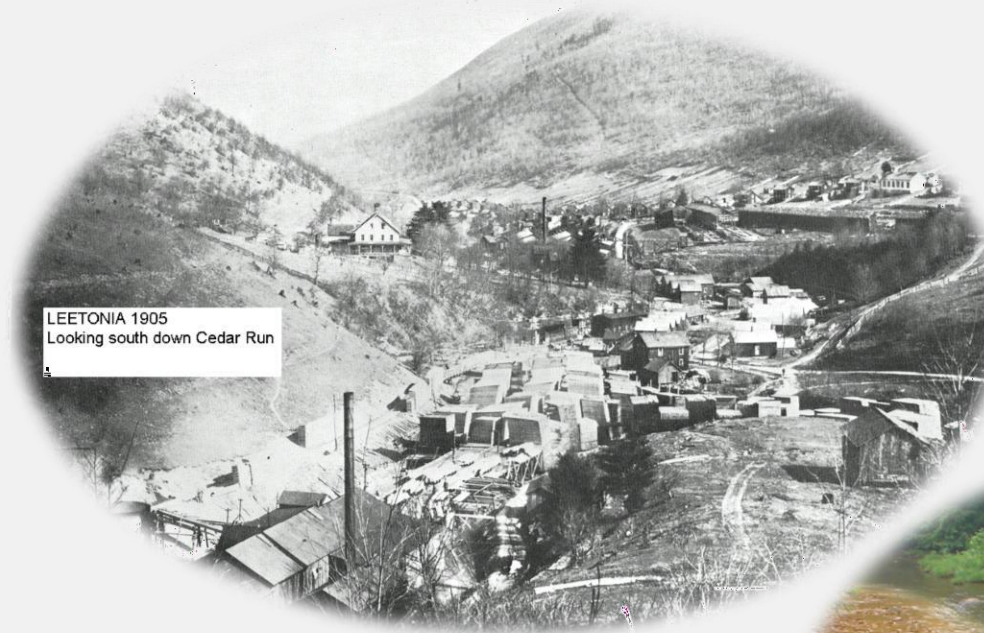
Wild Brook Trout Overview

Chesapeake Bay STAC workshop: May 29, 2025

Presented by:

Jason Detar, Area Fisheries Manager

- Brook Trout – historically occurred in most Pennsylvania streams
- 1700's - 1950's, environmental degradation from unregulated coal mining, massive deforestation, and industrialization
- Significant degradation of water quality, habitat, and wild trout



Conservation Movement

- 1960's - society began to recognize the value of environmental conservation
 - Forests recovering, water quality improving, and wild trout populations improved
- 1960's - 1970's - states began recognizing the ecological and economic value of wild trout
- PFBC's first wild trout management program – 1969



Operation Future

- Late 1970's, advances in science and technology allowed for the effective sampling of streams and statewide inventory conducted
- Lead to the development of the wild trout biomass classification system in 1983
- Implements a resource-based management framework to ensure the effective management of both wild and stocked trout programs
 - Wild trout biomass classes: A, B, C, D, and E
- "Resource First" principle
- Largest win for trout anglers and coldwater resources in past six decades



Trout Species in Pennsylvania



Brook Trout:

- Native, Pennsylvania's state fish



Brown Trout

- Introduced from Europe, naturalized here since late 1800's



Rainbow Trout

- Introduced from western U.S., naturalized here since late 1800's

Habitat Requirements



- Streams and rivers with well-forested watersheds, few lakes
- Year-round cold water temperatures
- Diverse instream habitat
- Sensitive to increased water temperature, sedimentation, and other pollutants
- When healthy wild trout populations are present, indicative of a healthy environment, clean drinking water, healthy economy, and a high quality of life

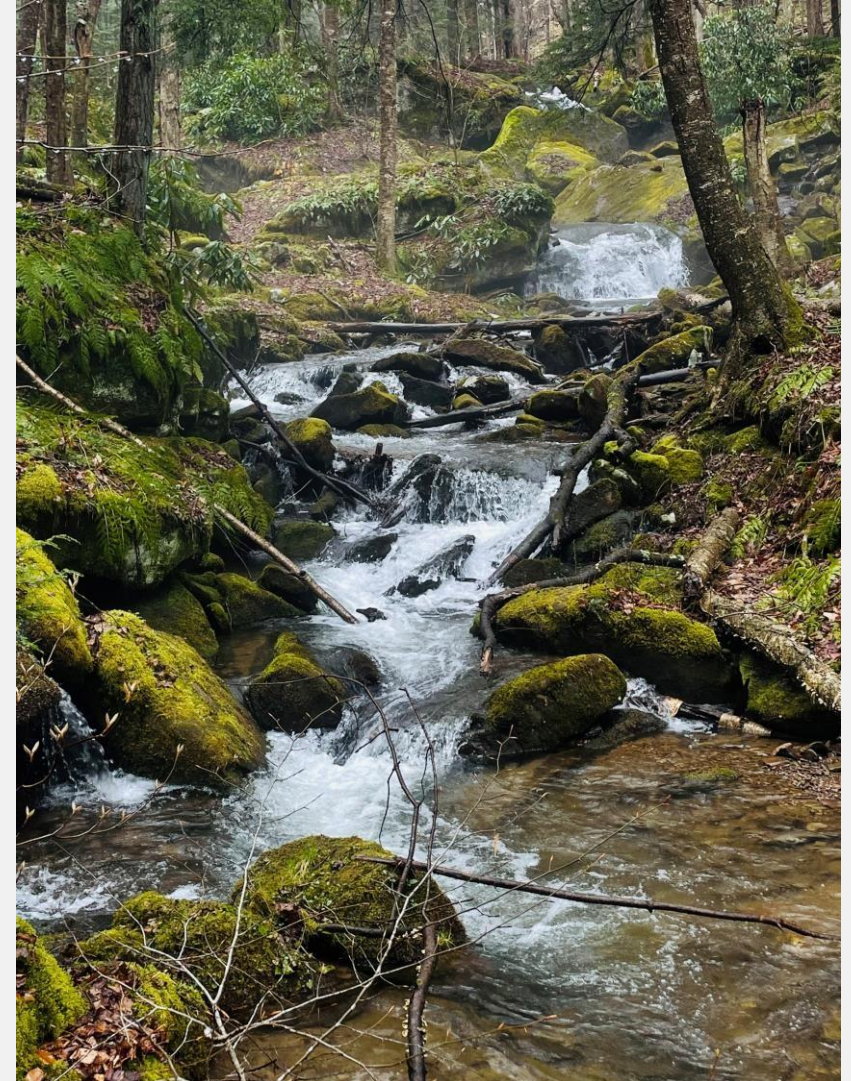
Benefits of Wild Trout

- Self-sustaining natural resources
- High quality year-round angling
- Excellent opportunities for youth and families to enjoy nature
- PA is a top destination for wild trout angling in the eastern U.S.
- Economic driver, especially to rural communities, contributing \$300-400 million annually
- Represent the highest water and habitat quality – keystone indicator species



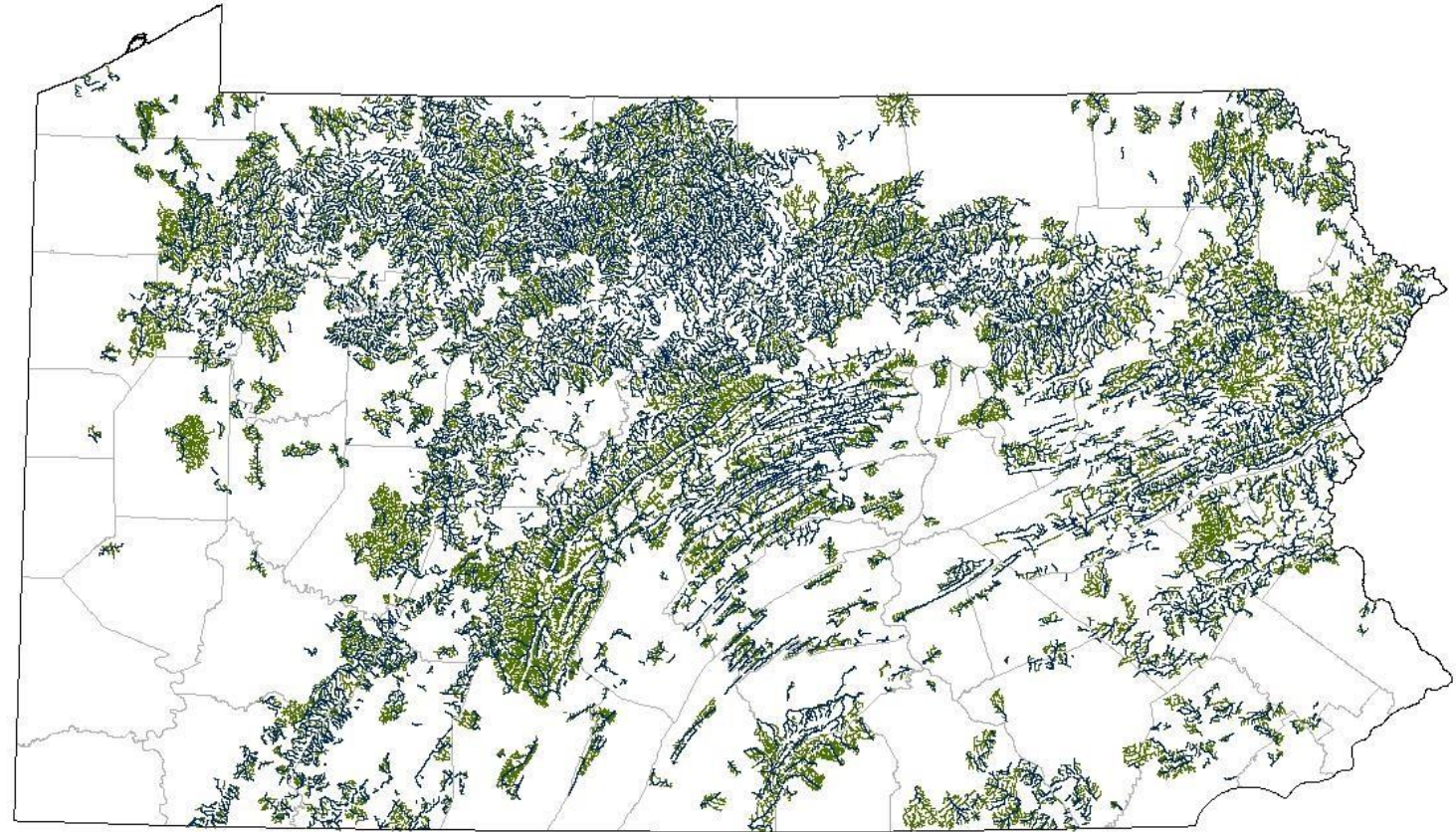
Wild Trout Management Programs

1. Wild Trout Waters (Natural Reproduction)
2. Class A Wild Trout Waters
3. Wilderness Trout Streams



Wild Trout Waters (Natural Reproduction)

- Streams where the trout found there have resulted from natural reproduction
- Tributaries to wild trout streams are classified as wild trout streams for their function as habitat for segments of wild trout populations



17,780 miles of listed wild trout streams

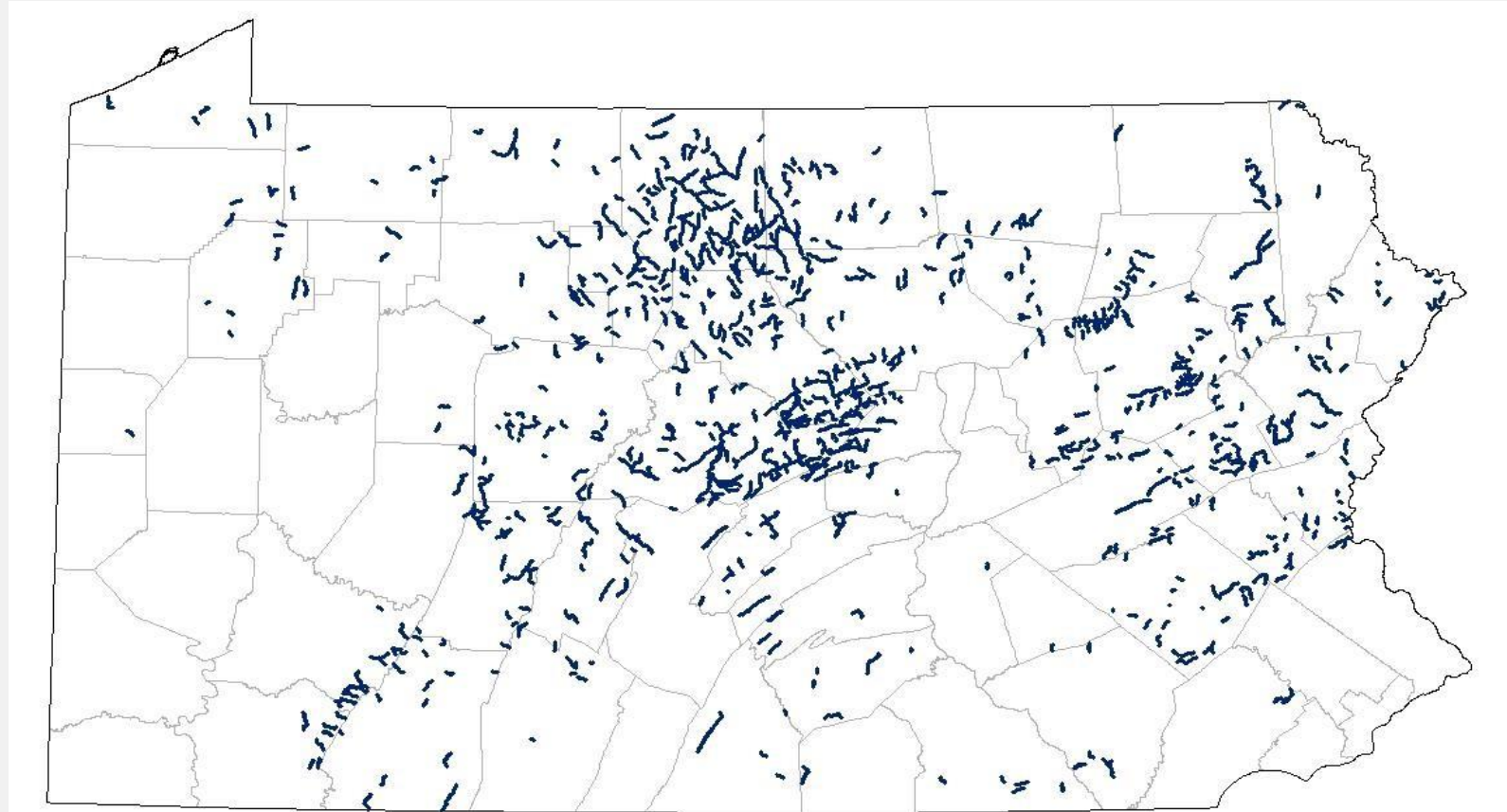


20,300 miles of tributaries to listed wild trout streams

Total = 38,080 miles of streams classified as wild trout streams

Class A Wild Trout Waters

- Streams that support a population of naturally produced trout of sufficient size and abundance to support a long-term and rewarding fishery
- Represent “best of the best” wild trout streams in PA
 - Minimum biomass thresholds to qualify
 - Only 4% of flowing waters have been designated as Class A Wild Trout Waters

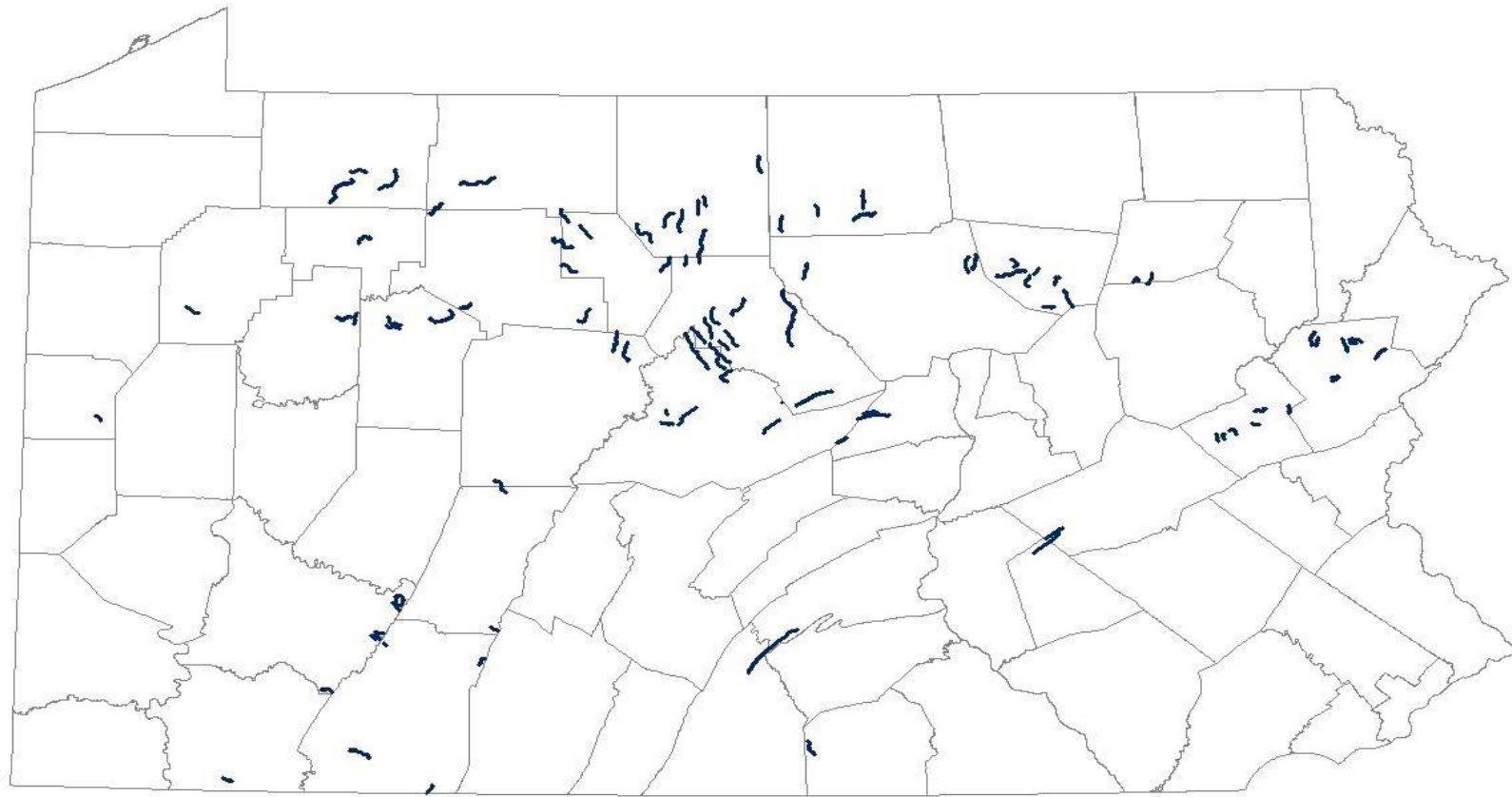


~ 1,242 sections – 3,282 miles of streams designated as Class A Wild Trout

Class A waters occur in 57 counties 67

Wilderness Trout Streams

- Streams that provide a wild trout fishing experience in a remote, natural, and unspoiled environment where human activities are minimal
- Only 0.1% of flowing waters designated as Wilderness Trout Streams



~ 154 sections – 496 miles of streams designated as Wilderness Trout
Wilderness Trout Streams occur in 32 counties of 67

Challenges Moving Forward

- Climate change
 - More frequent high intensity rain events
 - More frequent droughts
 - Warmer air and water temps
- Water quality – AMD, contaminants
- Water quantity – stormwater, withdrawals
- Conversion of forestland to development
- Impassable culverts
- Erosion and sedimentation – roads, development, ag



- Brook Trout have substantially recovered in recent decades from AMD and acid deposition
 - Great opportunity for additional improvements
- Primary limiting factors to Brook Trout:
 - Water quality (AMD)
 - Fish passage – impassable culverts
 - Erosion and sedimentation - especially dirt roads
 - Elevated water temperatures – low elevation, mixed land use



- Stronghold for Brook Trout
 - Maintain best of the best
 - Mostly forested, low human population
- Primary limiting factors to Brook Trout:
 - Fish passage – impassable culverts
 - Erosion and sedimentation
 - Elevated water temperatures
 - Limited adult Brook Trout habitat in some streams



Conservation Actions

- Focus on stronghold watersheds – allopatric and sympatric
 - Class A and B wild trout streams
- Land conservation in priority watersheds
- Erosion and sediment controls
 - Dirt and Gravel Roads Program
- Fish passage improvements



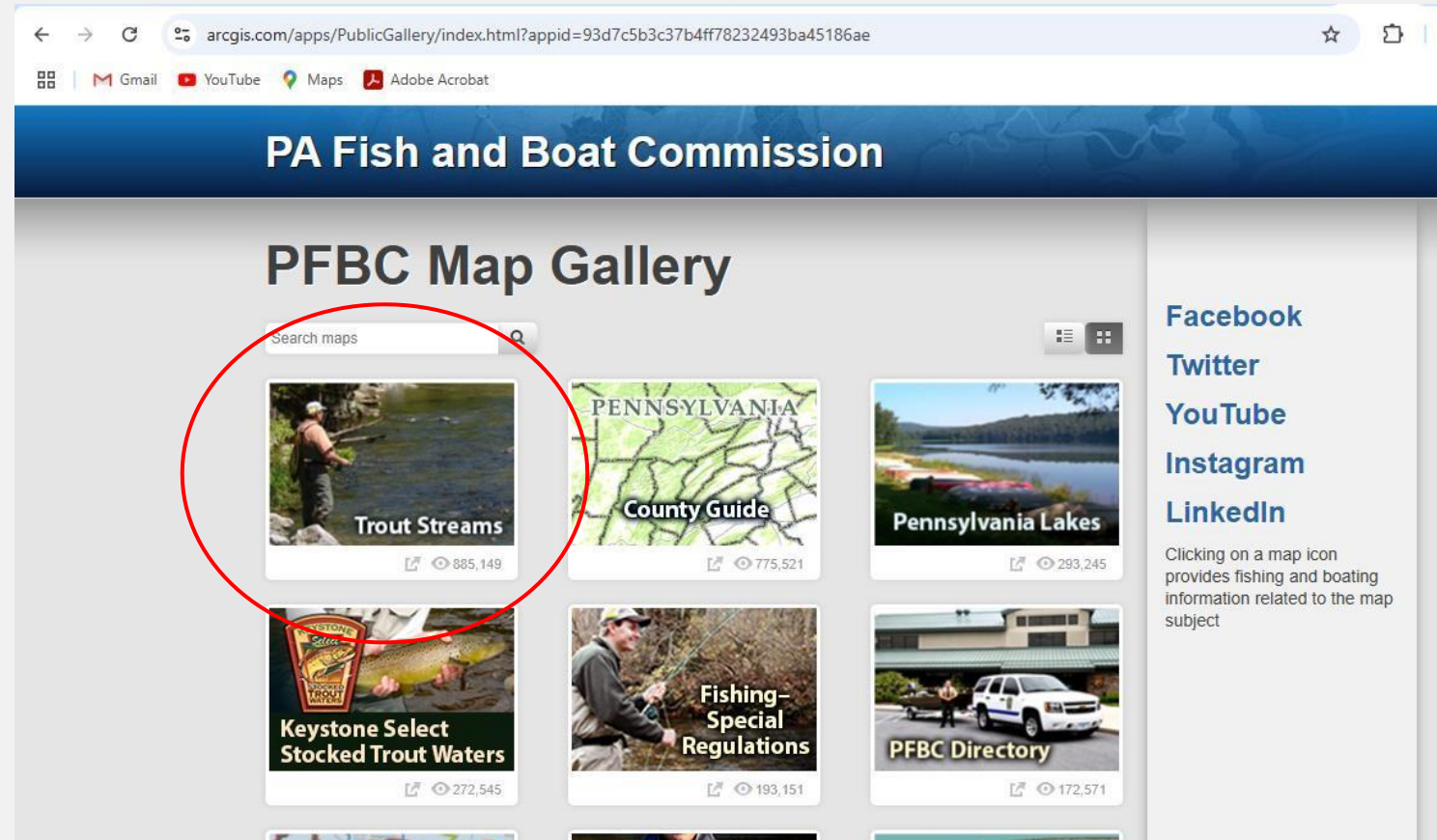
Prioritization of Conservation Efforts

- Matrix of factors
 - Landownership
 - Funding availability
 - Priority location for funding source
- Seize on other good opportunities – mitigation, landowner outreach, etc.
- Focus on strongholds
 - Public lands, strong Brook Trout populations, $\geq 75\%$ watershed forested, groundwater influenced systems
- PFBC biologists can help



How to Identify Priority Areas

- Class A and B wild trout streams
- Initial project screening
 - PFBC biologist consultation
 - PFBC interactive maps, trout designation lists on PFBC website, and GIS layers
 - EBTJV web mapper, TU Brook Trout Conservation Portfolio
- Final project screening
 - PFBC biologist consultation



Partnerships and Public Involvement

- Conservation agencies, organizations, and the public all play a key role in conservation and wild trout management
- From habitat and water quality improvement projects to resource-based decision making, partnerships and the public's voice are critical
- “If you take care of the fish, the fishing will take care of itself”



Summary

- Substantial improvements in wild trout resources over past four decades
- Limited resources, so focus on strongholds and make the time to fully vet projects from the start
- Keeping resources strong requires continuous effort and public participation and partnerships are key
- Strong wild trout population are good reason to celebrate!
- Reach out to the PFBC to get involved in wild trout conservation and management
 - jdetar@pa.gov
 - (814) 359-5118



Go Explore Pennsylvania's Wonderful Wild Trout Resources in 2025!

- 496 miles of Wilderness Trout Streams
- 3,282 miles of Class A Wild Trout Streams
- 17,780 miles of Wild Trout Streams

