Watershed Restoration: Scope and Scale

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WATER RESEARCH CENTER
50
YEARS
Est. 1967

What are your goals?
How do you achieve them?

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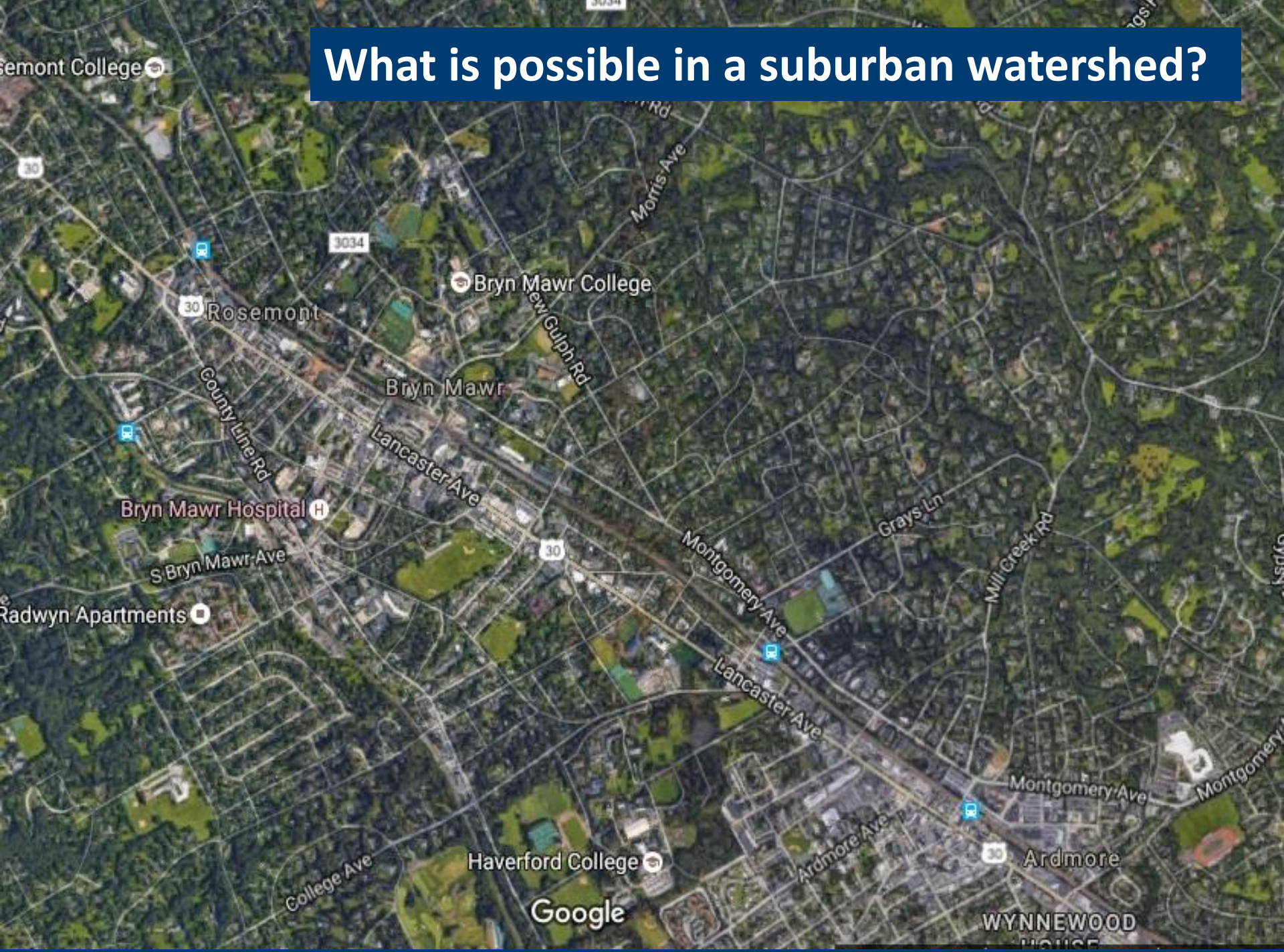

What is possible in a suburban watershed?
semont College
Rosemont
Bryn Mawr College
Bryn Mawr
Bryn Mawr Hospital
S Bryn Mawr Ave
Radwyn Apartments
Haverford College
College Ave
Ardmore
Ardmore Ave
Montgomery Ave
Lancaster Ave
Grays Ln
Mill Creek Rd
Morris Ave
New Gulph Rd
County Line Rd
3034
30
Google
WYNNEWOOD


Pristine?

Model My Watershed: Site Storm Model

Pennypack College

CURRENT CONDITIONS

INFILTRATIONBASIN

Precipitation 5.00 cm


Rain garden / infiltration basin


Buffer area


just children

Reduce Your Stormwater Fees

The City of Philadelphia offers a number of programs to assist non-residential customers to reduce their stormwater fees by managing the runoff from their property.

How Do Stormwater Rates Work?

- Stormwater runoff contains contaminants such as motor oil, pesticides, automotive fuel, industrial waste and other chemicals that pollute streams and rivers.
- Every parcel of land in the city, including residential, commercial, institutional and public properties, is billed by the Philadelphia Water Department for management of the stormwater it produces.
- Philadelphia stormwater fees calculated based on the amount of impervious surface (such as parking lots, sidewalks, driveways and buildings) that a parcel contains.
- Parcels with greater amounts of impervious surface produce larger amounts of stormwater, and as such are charged higher rates for stormwater management.

For More Information:
Stormwater Billing Information
View Your Parcel's Impervious Surface Area
Use our Credits Explorer to Install Virtual Stormwater Management Practices

How Can I Reduce My Stormwater Rates?

- Non-residential customers, including businesses, institutions, non-profits and public agencies, can reduce their stormwater rates and help clean up our waterways by implementing green infrastructure projects.
- Green infrastructure projects include: Rain Gardens, Green Roofs, Basins and Ponds, Wetlands, Swales, Underground Projects, Downspout Planters, Rainwater Harvesting, Porous Pavement and Reducing Impervious Surfaces.
- Projects that reduce the amount of impervious surface on a site can result in a stormwater credit that will permanently reduce your water bill.
- Technical assistance in developing stormwater management projects is available through the Green Guide For Property Management.
- Philadelphia Water Department and the Philadelphia Industrial Development Corporation offer the Stormwater Management Incentives Program. The SMIP Grant will provide financial assistant to non-residential property owners who desire to build green stormwater infrastructure to manage private property runoff.







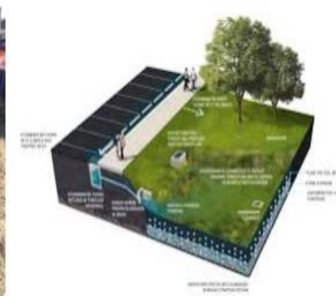

GREEN STREETS: STORMWATER TREE TRENCH



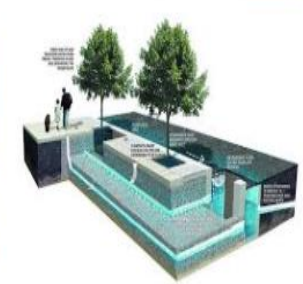








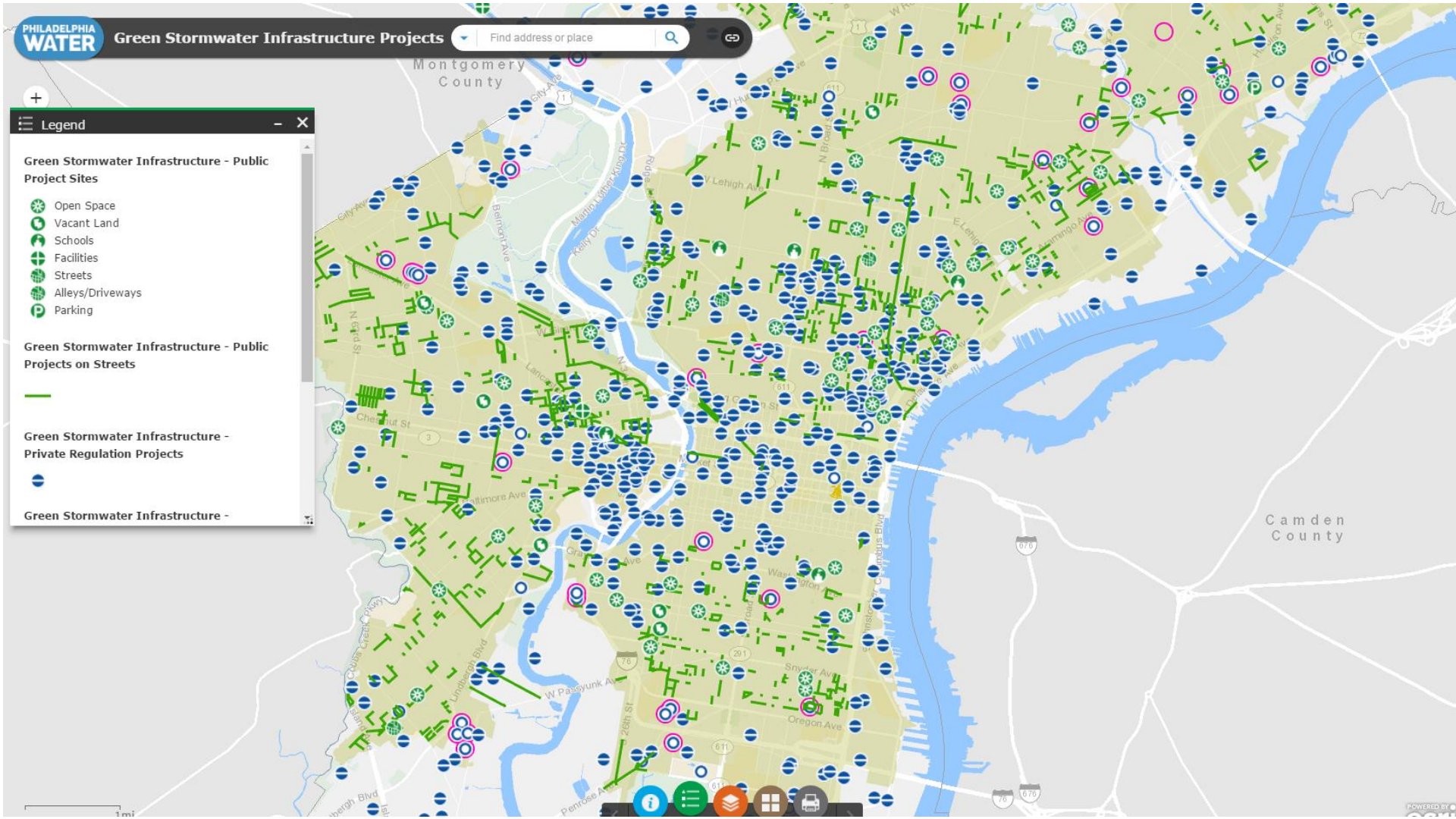








http://phillywatersheds.org/biggreenmap



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How do you measure and track?

- Individual BMP performance?
- Stream water quality improvement?
- Stormwater quantity reductions?
- Stormwater quality improvements?

What are your goals?

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What are your goals?

- Reduce:
  - Sediment
  - Pathogens
  - Nitrogen and phosphorous pollution
  - Flooding & excessive runoff
- Delist impaired status – Clean Water Act
- Wild trout

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What are your goals?

How do you achieve them?

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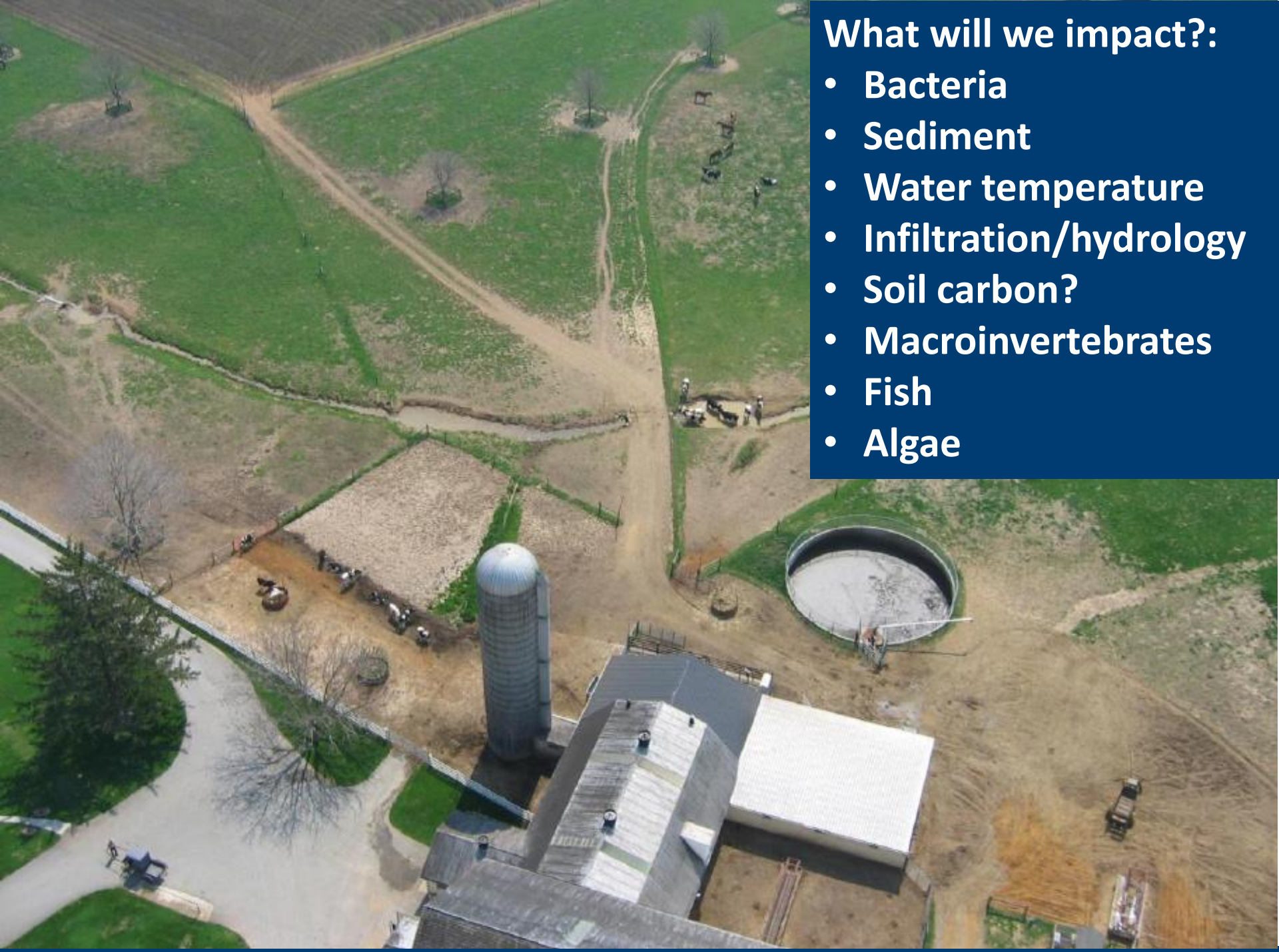
What will we do or change?

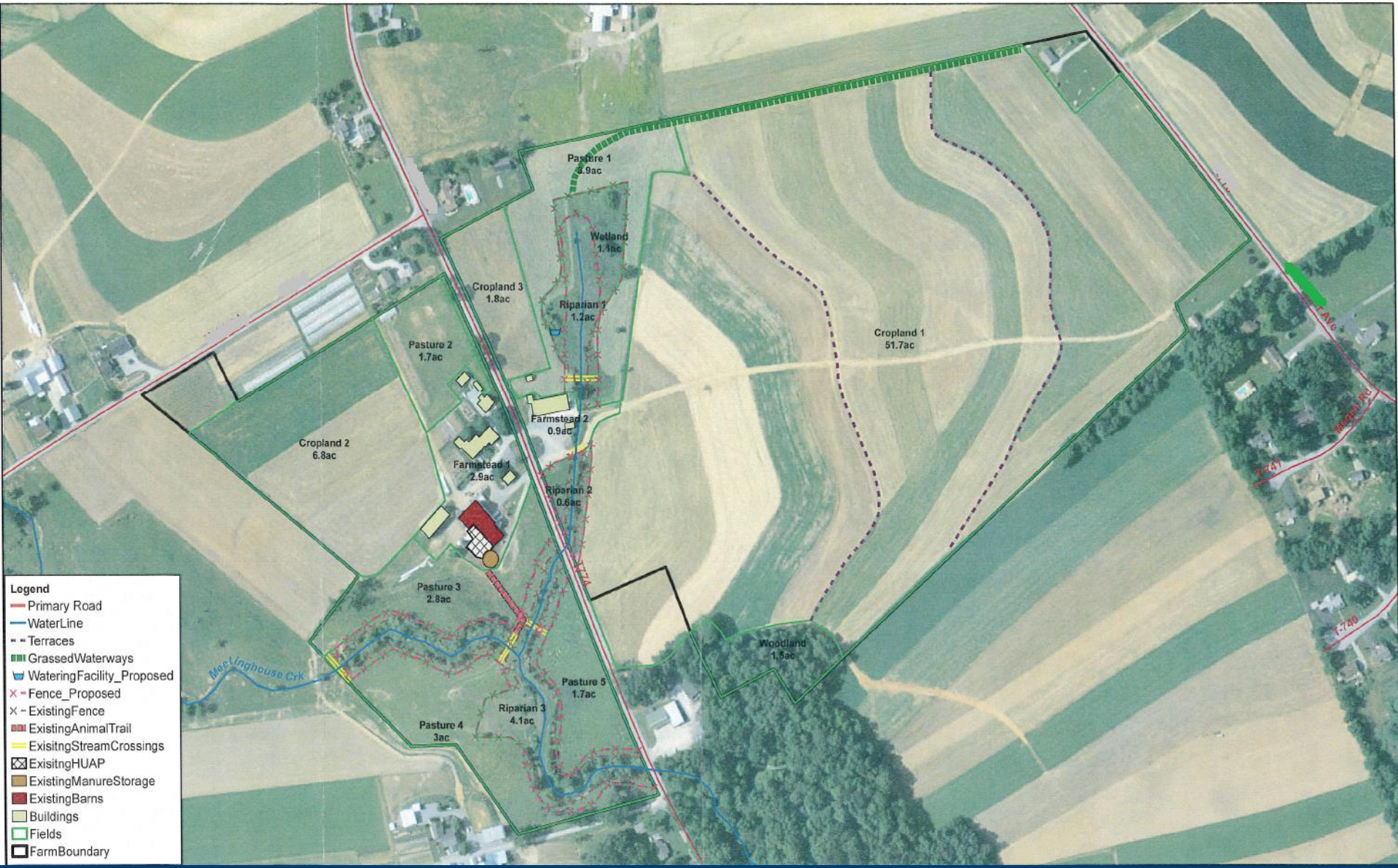
What will we do or change?



What will we impact?:

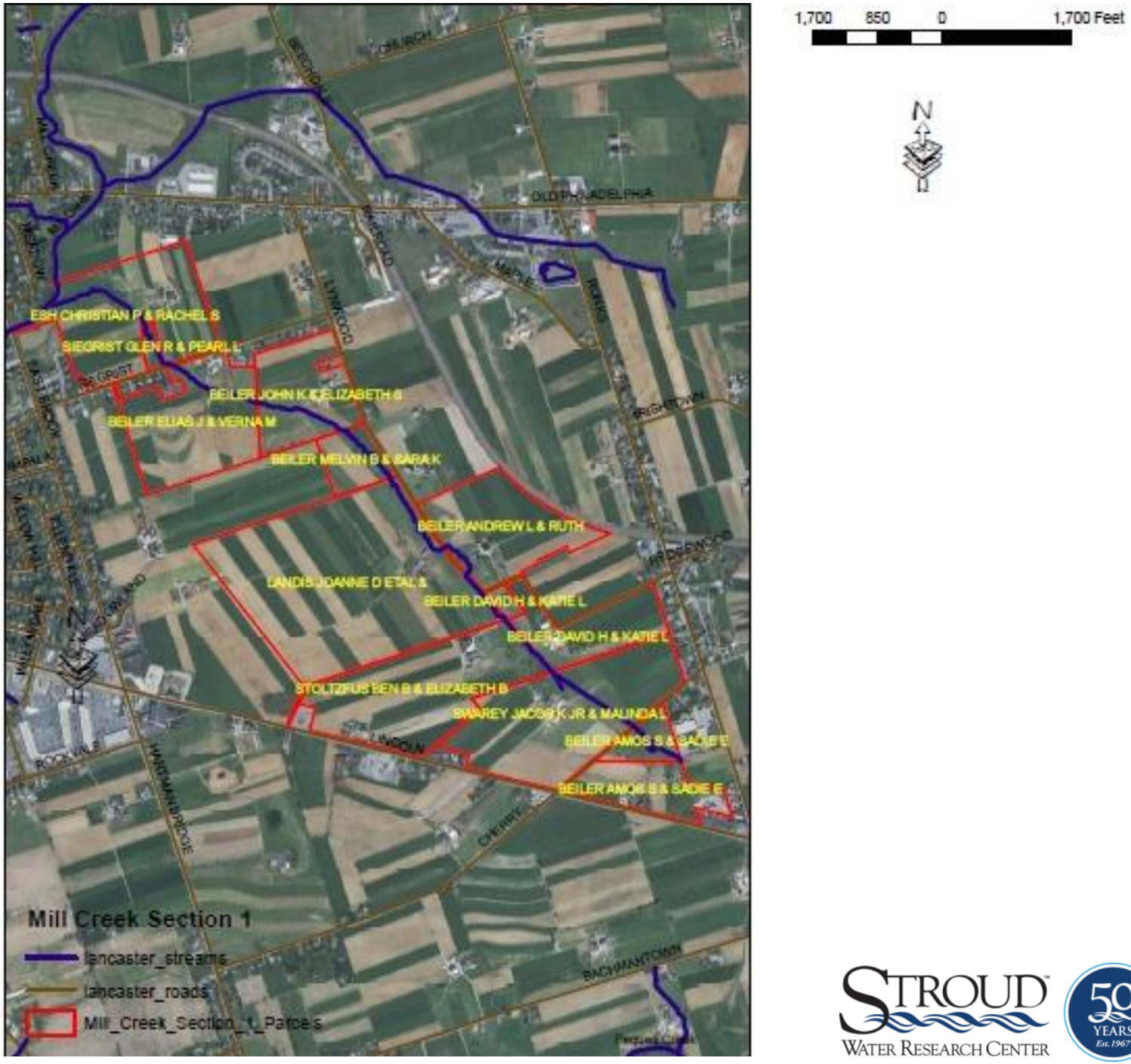
- **Bacteria**
- **Sediment**
- **Water temperature**
- **Infiltration/hydrology**
- **Soil carbon?**
- **Macroinvertebrates**
- **Fish**
- **Algae**

Typical farm project
How much change is enough?



How many farms is enough?

Lancaster Mill Creek Section 1



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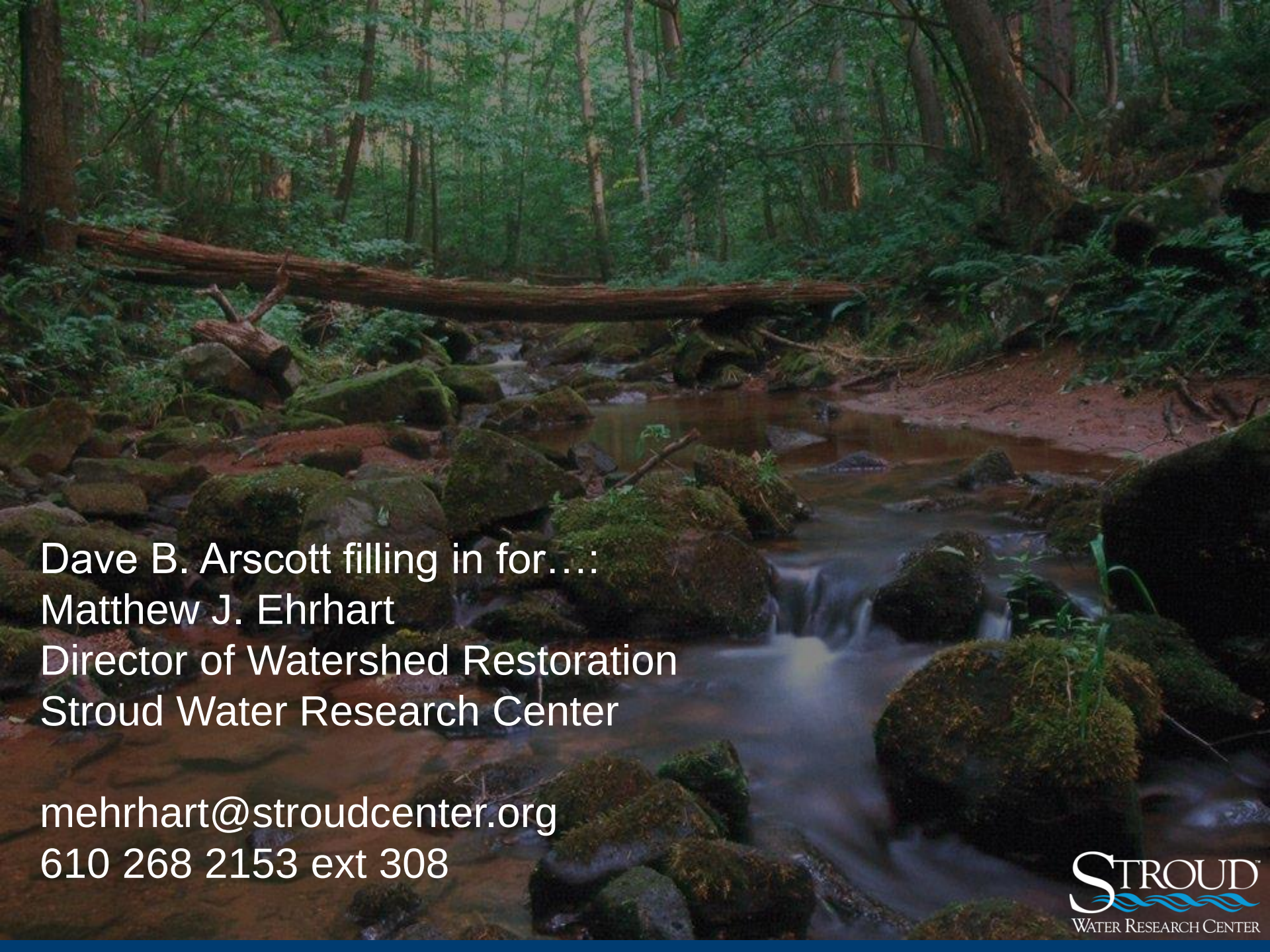

Dave B. Arscott filling in for…:
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