Whole Farm Conservation for Pollution Reduction and Stream Health
Delaware River Watershed Forum - Oct 16, 2019
Lamonte Garber, Watershed Restoration Coordinator
Our Mission

STROUD™ WATER RESEARCH CENTER

To advance knowledge and stewardship of freshwater systems through global research, education, and watershed restoration

Photo: Marissa Morton
ADVANCING KNOWLEDGE & STEWARDSHIP OF FRESHWATER SYSTEMS THROUGH GLOBAL RESEARCH, EDUCATION, AND WATERSHED RESTORATION
Watershed Restoration at SWRC

- Small Watersheds = Great Opportunity
- Address Pollution & Stream Health
- Farms for Large Scale Change
- BMPs – Forests & Buffers – Soil Health
- Aggregate Projects and Monitor Results
- Restore Watersheds not Stream Channels
RESTORATION at SWRC: give streams more space, more trees, and time. Reduce pollutants. Start at headwaters if possible.

Create conditions in which in-stream habitat and stability develop without human interventions.
Streams Are Assembly Lines That Can Clean the Water For Us…If They’re Healthy
Healthy Stream Indicators

Ephemeroptera (mayflies)

Plecoptera (stoneflies)

Trichoptera (caddisflies)
Restore and protect forests, buffers, wetlands, floodplains
Buffers…not Just “Filters” but Life Support System for the Stream
35 Ft Per Side Minimum

Space = Buffer
Small stream channels are significantly wider and slower and shallower....when they are bordered by a forest.
Why Does Stream Width Matter?
Forested streams have more ecosystem per unit length .... and thus more potential ecosystem services

Forestved

Deforested (grass)
# Tree and Shrub “Workhorses”

## Our Top Ten Trees for Riparian Sites*
- Sycamore
- Black Willow
- River Birch
- Swamp White Oak
- Pin Oak
- Black Gum
- Red & Silver Maple
- Basswood
- Hackberry
- Tulip Poplar

*Context: Southeastern PA

## Great Shrubs & Small Trees for Riparian Sites*
- Red, Silky, Gray Dogwood
- Arrowwood Viburnum
- Black, Red Chokeberry
- Serviceberry
- American Plum
- Hornbeam
- Elderberry
- Alders
- Shrub willows
- Many others!
Farm Stewardship Program
Healthy Streams through Whole Farm Conservation
Thank You to our Partners and Funders!
An Example Farm

- Illustration by Frank McShane for Schuylkill Action Network
Conservation & Manure Plans

BMPs for Fields and Facilities – We Help with Funding if Needed

Stroud’s Farm Stewardship Program

Forested Buffer

Soil Health Practices
DRWI Middle Schuylkill Cluster

Core Partners
Berks Nature
Partnership for Delaware Estuary
Stroud Water Research Center

Key Agency Partners
USDA-NRCS and FSA
Berks County Conservation District
Berks County Department of Agriculture

A Restoration Cluster
Agriculture the focus
Complementary strategies on stormwater and poultry industry.
Thank You!

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