



# Community Conservation

*Caring for our LAND, our WATER, and our COMMUNITY*

**Lancaster County**

## **3 Major Conservation Concerns & 5 Action Steps You Can Take**

### **Community Conservation Committee:**

Lydia Martin, Director of Education, Lancaster County Conservancy

Fritz Schroeder, Director of Urban Greening, Lancaster County Conservancy

Wendy Brister, Harvey's Gardens & MAEscapes

Greg Wilson, Community Advocate & Donegal Trout Unlimited

Steve Sahd, Community Advocate & Business Owner

population growth & pressure



spotted lantern fly



invasive species

polluted & poor water quality



Conestoga Creek

# 3 Major Conservation Concerns

1. Habitat Loss
2. Invasive Species
3. Degraded Water Resources



*Expansion of development & energy infrastructure*



*exotic plants & overuse of lawn*



*4 million miles of paved surfaces*



# HABITAT LOSS



*40 million acres of lawn*

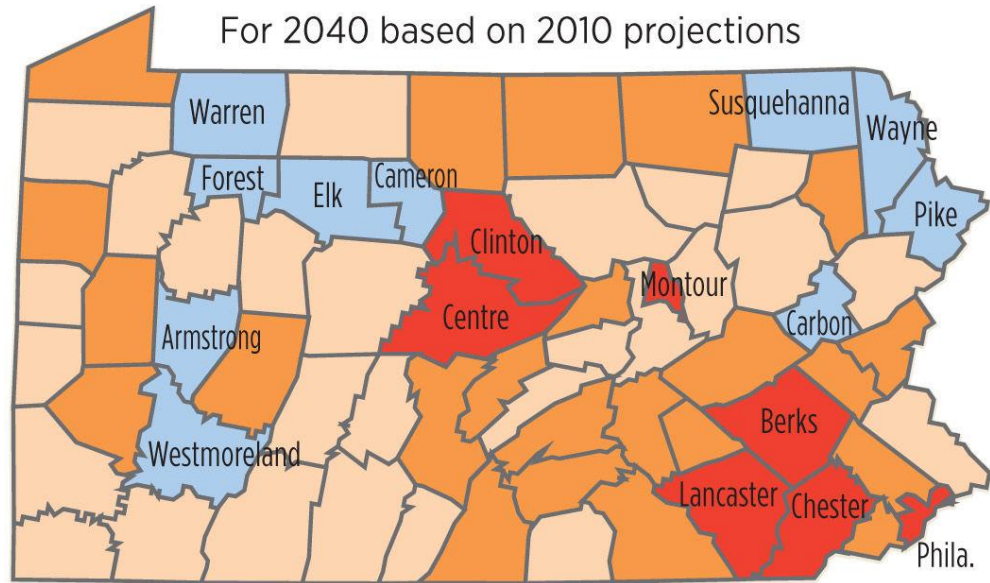


*monoculture crops*

# LARGEST PROJECTED POPULATION **GROWTH** & **LOSS** IN COUNTIES BY 2040

## POPULATION GROWTH BY COUNTY

For 2040 based on 2010 projections



■ Under -5%    
 ■ -5% to +5%    
 ■ +5.1% to +20%    
 ■ Over +20%

SOURCE: PENNSYLVANIA STATE DATA CENTER

County	Increase or Decrease	Count
1. MONTOUR	+24.9%	+4,540
<b>2. LANCASTER</b>	<b>+23.6%</b>	<b>+122,370</b>
3. CLINTON	+22.7%	+8,926
4. CENTRE	+22.5%	+34,574
1. CAMERON	-21.6%	-1,097
2. FOREST	-14.4%	-1,108
3. WARREN	-10.2%	-4,280
4. ELK	-10.0%	-3,188

SOURCE: PENNSYLVANIA STATE DATA CENTER



“Lancaster County’s farmland provides environmental benefits worth more than \$676 million annually”



Source: Lancaster Online, December 2016



# Return on Environment

## WE NEED LOCAL INFORMATION:

### 1. What does Lancaster County contribute in ecological services?

- Benefits of forests & natural areas to clean our waterways & improve air quality for healthier communities
- Enhancing native pollinator habitat to support a safe & stable food supply

### 2. How do we protect & preserve our natural resources to grow our economy & address anticipated population pressure?





# FOODS DEPENDENT ON BEE POLLINATION SERVICES

## FRUIT CROPS:

- \* Apple
- \* Apricot
- \* Avocado
- \* Berry  
(blackberry, blueberry, cranberry, gooseberry, huckleberry, raspberry, strawberry)
- \* Cherry
- \* Citrus  
(grapefruit, lemon, mandarin)
- \* Currants
- \* Kiwi
- \* Litchi
- \* Mango
- \* Melons  
(cantaloupe, honeydew, watermelon)
- \* Peach
- \* Pears
- \* Plum

## VEGETABLE CROPS:

- \* Artichoke
- \* Chinese cabbage
- \* Asparagus
- \* Dill
- \* Pumpkin
- \* Broccoli
- \* Eggplant
- \* Radish
- \* Brussel sprouts
- \* Garlic
- \* Rutabaga
- \* Cabbage
- \* Kale
- \* Carrots
- \* Kohlrabi
- \* Squash
- \* Cauliflower
- \* Leek
- \* Turnip
- \* Mustard
- \* Celery
- \* Onion
- \* Parsley
- \* Pepper
- \* Lima beans
- \* Collards
- \* Cucumber

## HERBS/SPICES:

- \* Anise
- \* Allspice
- \* Chives
- \* Cinnamon
- \* Coriander
- \* Fennel
- \* Lavender
- \* Mint
- \* Mustard
- \* Nutmeg
- \* Oregano

## NUT CROPS:

- \* Almond
- \* Coconut
- \* Cacao
- \* Coffee
- \* Cashew
- \* Chestnut
- \* Macademia

## OILSEED CROPS:

- \* Cotton
- \* Rape
- \* Safflower
- \* Soybeans
- \* Sunflower

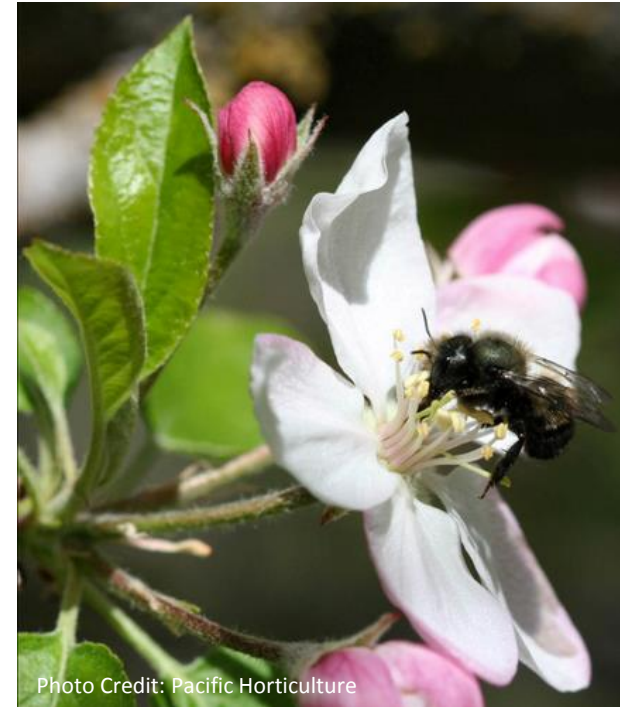
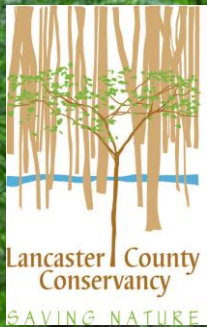


Photo Credit: Pacific Horticulture



Photo Credit: Our Habitat Garden



# Lancaster County Conservancy

*A private, non profit conservation organization*

By the Numbers	Important Notes
1969	Founded by Sportsmen
46	Nature Preserves
6,000+	Acres Protected
67	Conservation Easements
40+	Miles of Trails
35+	Miles of Waterways
2,700	Conservancy Members
15%	Woodland Remaining in Lancaster County
\$0	Charge to Use Preserves
365	Days a Year Preserves Open







*Chestnut blight*



*Japanese barberry*



*Tree of heaven*



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## INVASIVE SPECIES

*Spotted lanternfly*



*Emerald ash borer*





# Invasive Pathogens



Chestnut Blight was discovered in PA in 1908

In 1909, the value of the American Chestnut was  
**\$20 million**

*(Today, that number would be closer to \$500 million with inflation)*



# Invasive Plant Species

Ex: Japanese Barberry & Burning Bush



**50,000 or more, non-native species**

have been introduced into the United States since European settlers arrived

– Kaufman & Kaufman



*Japanese barberry*



*Garlic mustard*



*Asian honeysuckle bushes*



*Japanese knotweed*



*Japanese honeysuckle vine*



*Ornamental pears*



*Tree of Heaven*



Nationwide  
invasive plants cover about  
**133 million acres**



Invasive Tree of Heaven is the host plant for Spotted Lanternfly



## Spotted Lantern Fly

- An invasive plant hopper that hosts on invasive tree of heaven
- Found in 2014 in Berks County & spreading to other counties
- Potential damage to the U.S. agricultural crops like apples, grapes & hardwoods may exceed **\$18 billion** according to Pennsylvania Agriculture

# Invasive Insects



## Emerald Ash Borer

- More than 180 ash trees have been removed in Lancaster City
- Found in 62 of PA's 67 counties
- Trees in Lancaster City mitigate 1 million gallons of stormwater annually
- Potential damage to the U.S. economy may exceed **\$10 billion** across the 25 affected states
- 300 million ash trees in PA are threatened by this insect





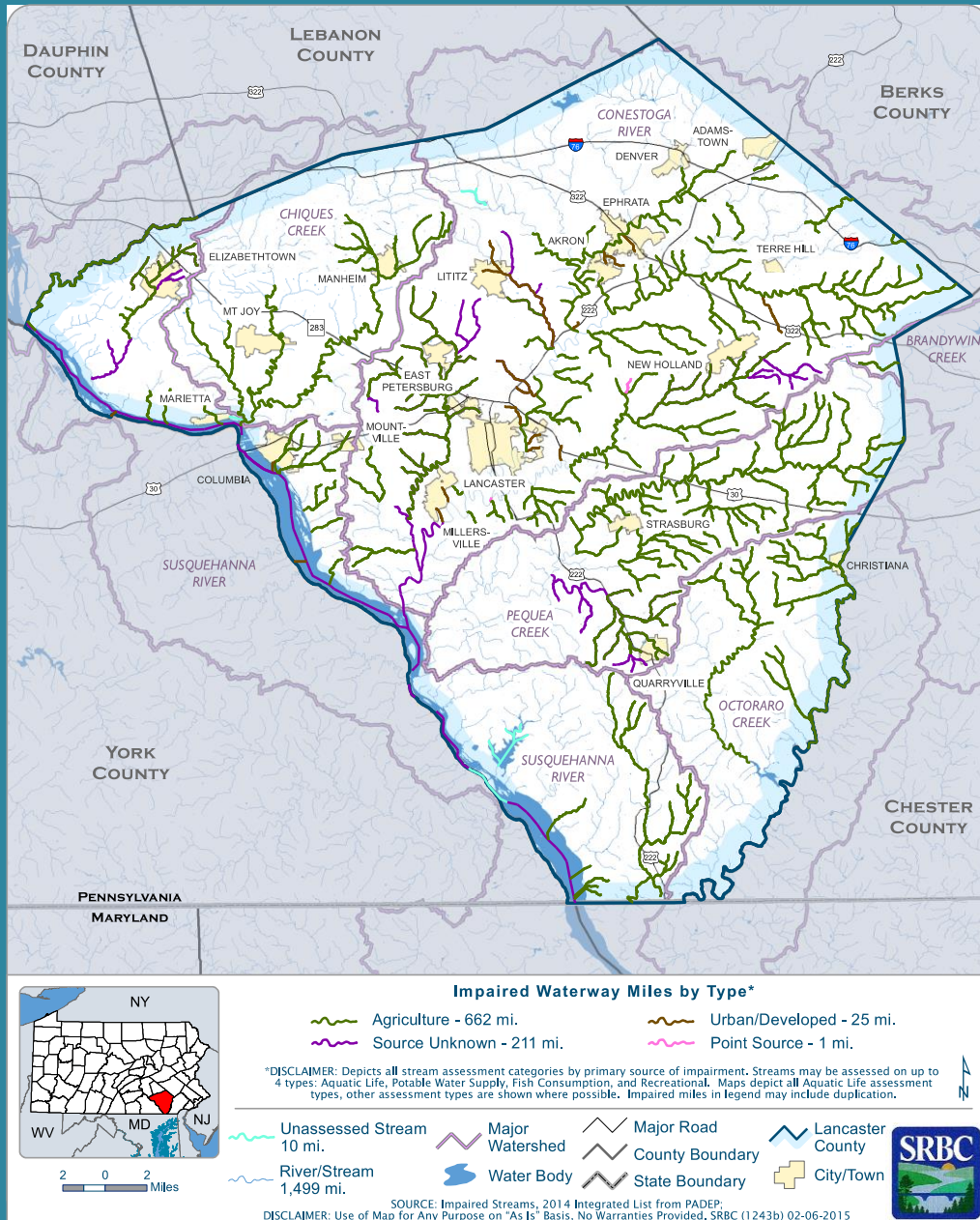
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# DEGRADED WATER RESOURCES





## Impaired Waterways in Lancaster County, PA, 2014



Of more than 1,400 miles of streams and creeks, the Pennsylvania Department of Environmental Protection (DEP) estimates nearly **50% of streams & creeks** are impaired or polluted.



Restoration  
is critical *but*  
*not enough*



Lititz Run Stream Restoration - Warwick Township



Climbers Run Wildlife Habitat & Stream  
Restoration Project – Martic Township

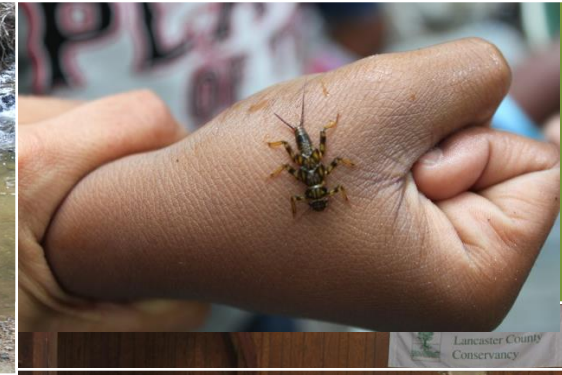
*each individual,  
business, &  
organization can  
make a difference*

**Volunteer in your  
watershed**

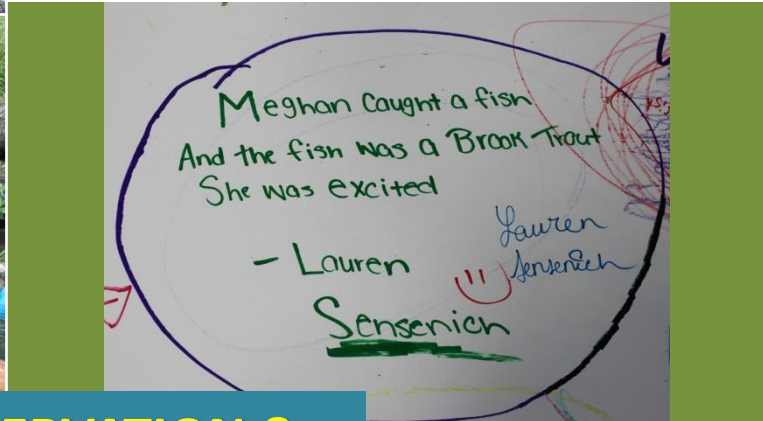




Leaf packs are so cool!



Creek snorkeling...



## SUPPORT LAND CONSERVATION & WATERSHED EDUCATION

Water Quality Volunteer Coalition (WQVC) teaching children and adults about water testing at Climbers Run



Penn Manor students learn about macroinvertebrates



supporting biodiversity = better quality of life



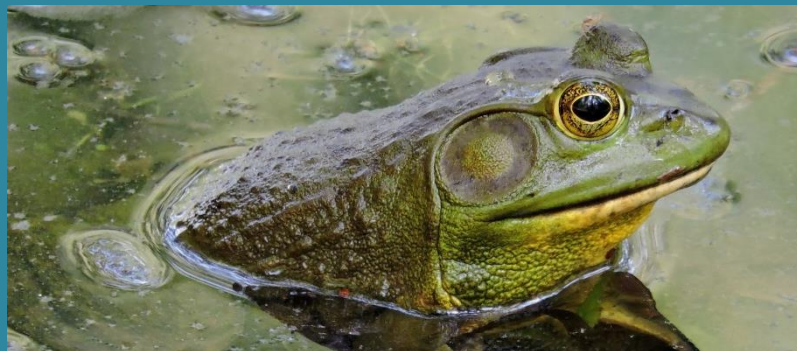
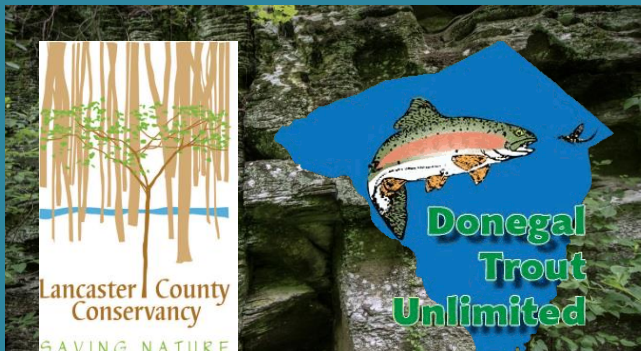
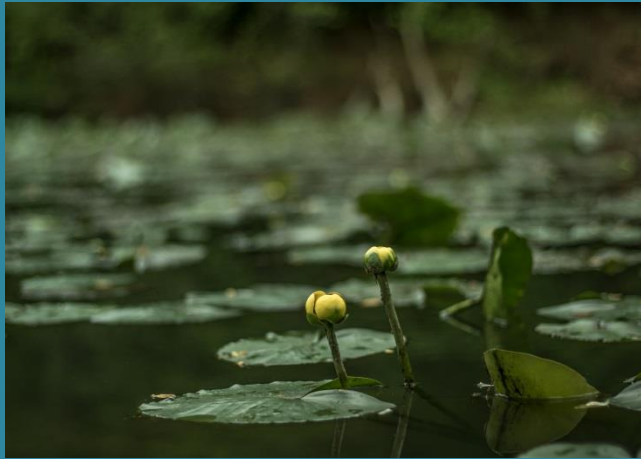
# Five Action Steps You Can Take

- 1. Support your conservation partners** who protect land & water resources for our community
- 2. Share resources & events** with your communities
- 3. Apply for grant funding** to help with your municipal projects
- 4. Protect & preserve your own natural areas** & plant native plants to support biodiversity & pollinator conservation
- 5. Encourage your community members to volunteer** in their watershed



1

# Support community conservation partners



preserving & restoring our link to biodiversity through community collaboration



2

# Share resources with your communities



**SAVE THE DATE**

SAVING NATURE

Thursday  
March 22, 2018

Business Hours: Tuesday, March 27

Franklin & Marshall College  
Lisa Banach Adams Auditorium

**Join us**

...for an exciting lecture featuring University of Delaware professor **Doug Tallamy**, author of the book "Bringing Nature Home" and coauthor of "The Living Landscape: Designing for Beauty and Biodiversity in the Home Garden"

**MUNICIPAL/LEGISLATIVE LECTURE: 2 pm**

**PUBLIC LECTURE: 7 pm**

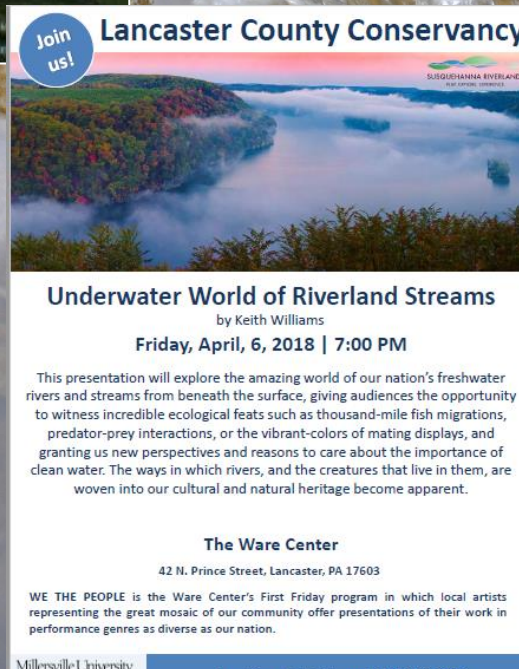
Check back for more info  
www.lancaster



**LANCASTER  
WATER  
WEEK**

Lancaster County Conservancy

**June 1 – 9, 2018**



**Join us!**

**Lancaster County Conservancy**

**Underwater World of Riverland Streams**  
by Keith Williams

**Friday, April, 6, 2018 | 7:00 PM**

This presentation will explore the amazing world of our nation's freshwater rivers and streams from beneath the surface, giving audiences the opportunity to witness incredible ecological feats such as thousand-mile fish migrations, predator-prey interactions, or the vibrant-colors of mating displays, and granting us new perspectives and reasons to care about the importance of clean water. The ways in which rivers, and the creatures that live in them, are woven into our cultural and natural heritage become apparent.

**The Ware Center**  
42 N. Prince Street, Lancaster, PA 17603

WE THE PEOPLE is the Ware Center's First Friday program in which local artists representing the great mosaic of our community offer presentations of their work in performance genres as diverse as our nation.

Millersville University

Questions: ArtsMU.com | 717-871-7018



**Bowman's Hill**  
WILDFLOWER PRESERVE  
Where Mind, Heart and Spirit Bloom

presents

**Native Plants**  
in the landscape

@ Millersville

**June 6-9, 2018**  
**@ Millersville**  
**University**



# 3

## Apply for grant funding

*Pollinators like this  
bumble bee on native  
blue false indigo*



**Susquehanna Riverlands Conservation Landscape mini grants** *(specific to municipalities along river)*

<http://www.lancasterconservancy.org/about/susquehanna-riverlands-program/>

**DCNR Grants**

<https://www.grants.dcnr.state.pa.us/dashboard/grants>

**Water Week**

<https://www.lancasterwaterweek.org/water-week-grants/grants>



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# Preserve your own natural areas

[www.dcnr.pa.gov/Conservation/WildPlants/LandscapingwithNativePlants](http://www.dcnr.pa.gov/Conservation/WildPlants/LandscapingwithNativePlants)



Plant a diversity of plants especially native trees, shrubs & perennials that are host plants & that support pollinator diversity!



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# Volunteer in your watershed



Remove invasive species, plant more native plants, cleanup trash, help monitor water quality...teach others to care!



*“Think what we could do if we made conservation a conscious goal of our landscape. It’s an extremely powerful tool.” -Doug Tallamy*



*Pollinators like this monarch butterfly on native swamp milkweed*

**Thank you!**

**Wendy Brister & Community Conservation Committee**