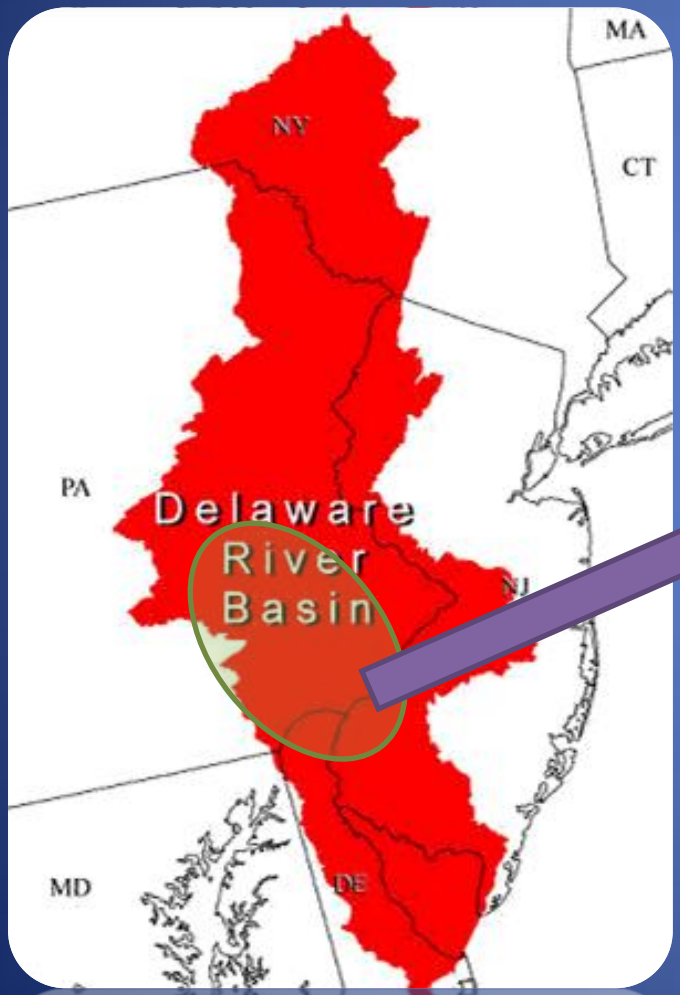
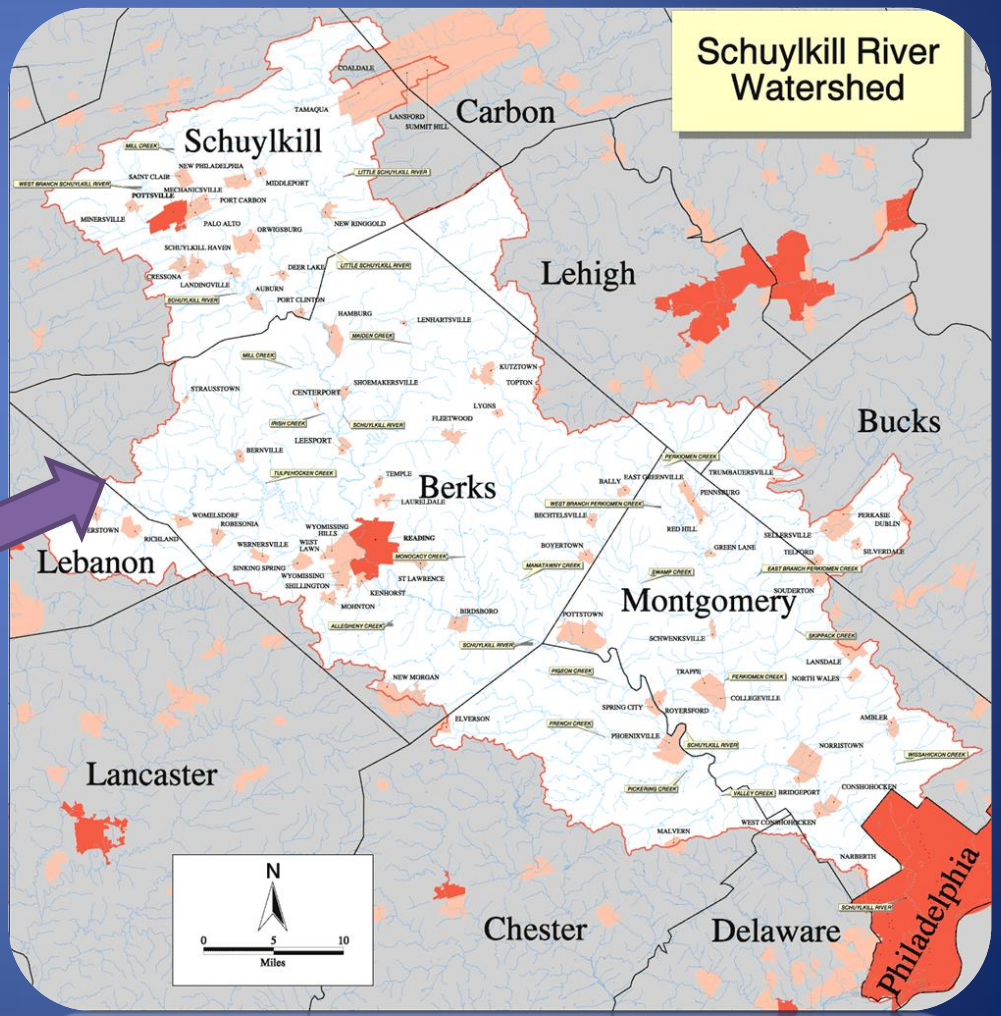
Lessons learned in the Schuylkill

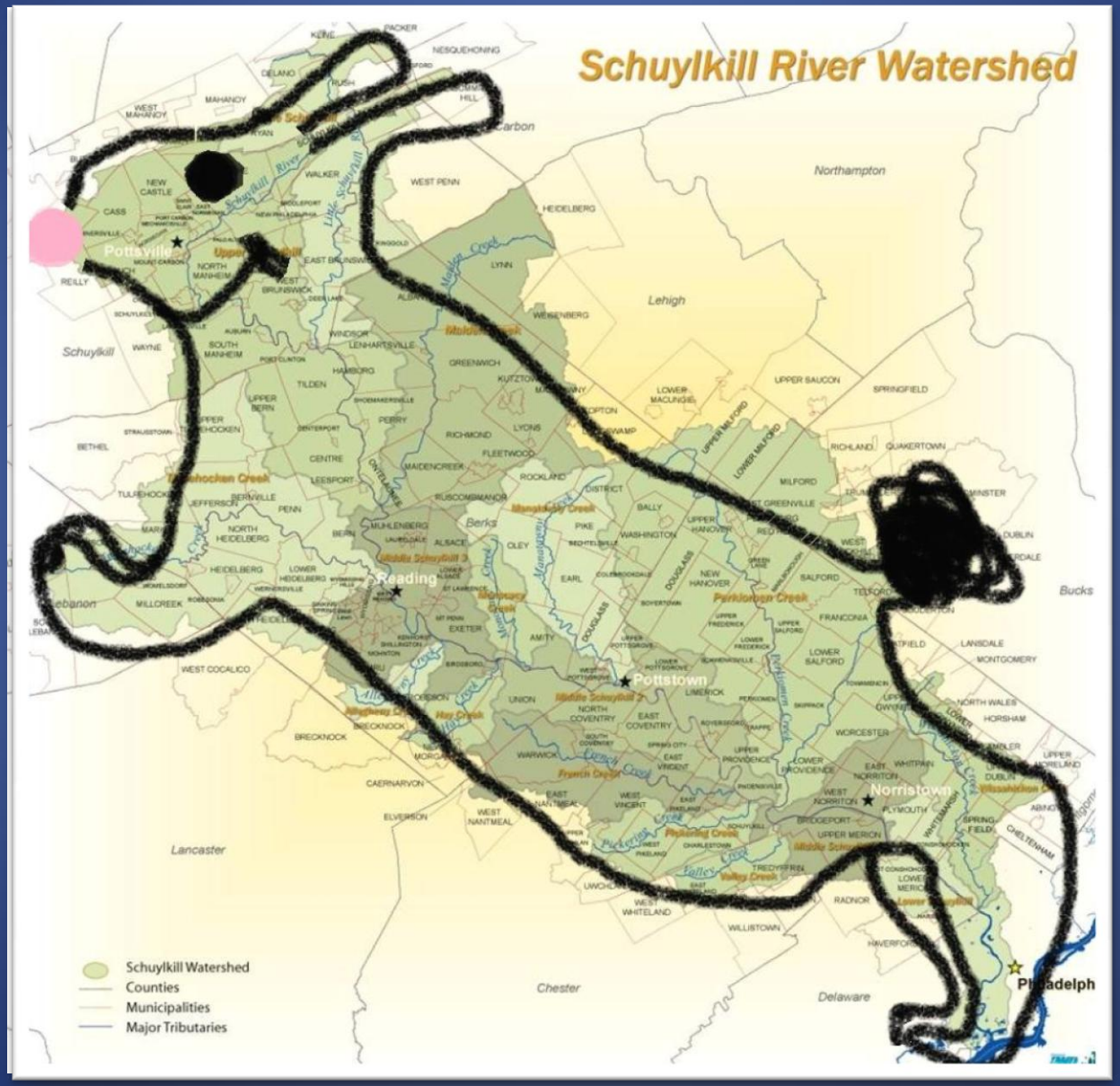
Schuylkill Action Network

Delaware River Basin

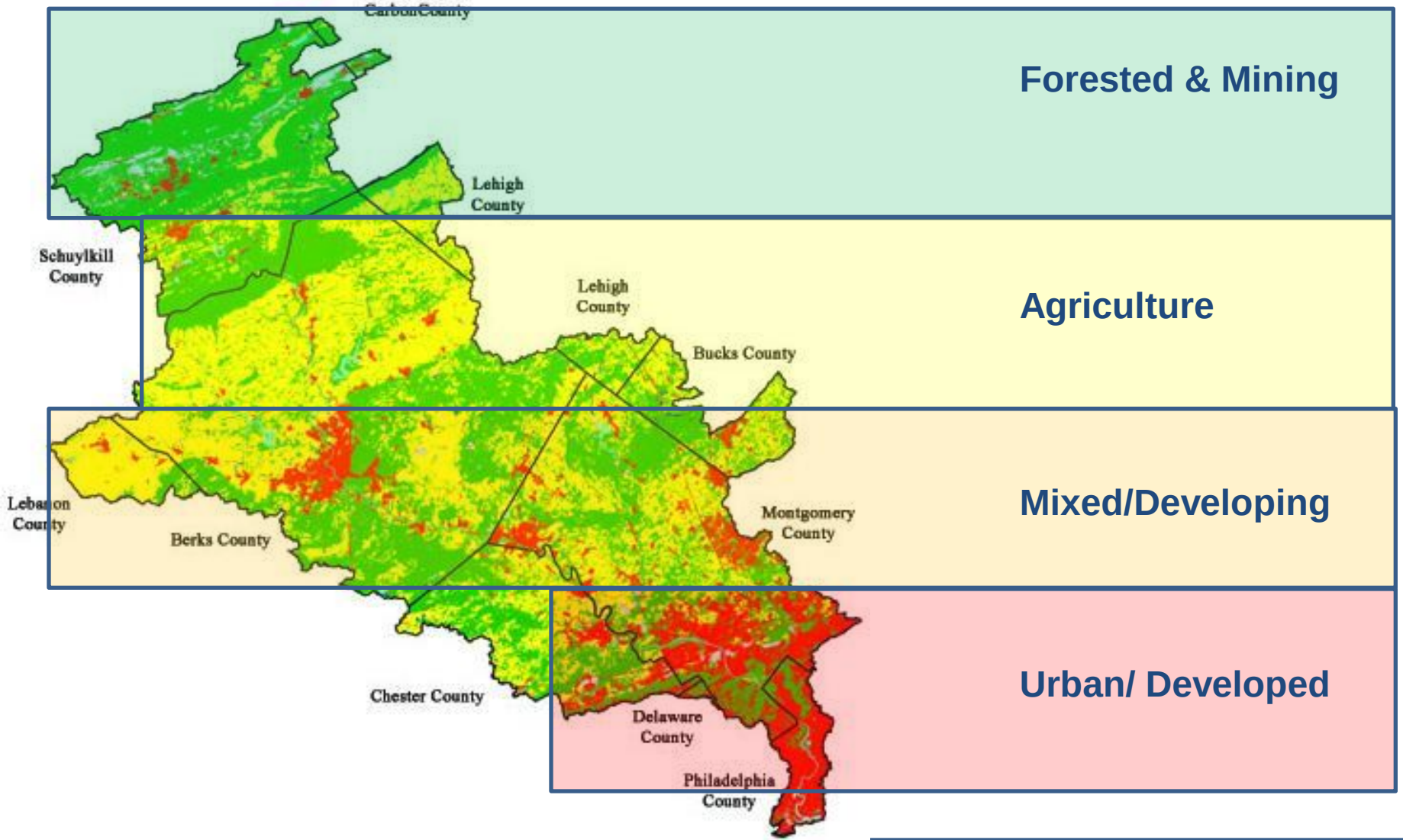




The Schuylkill Watershed

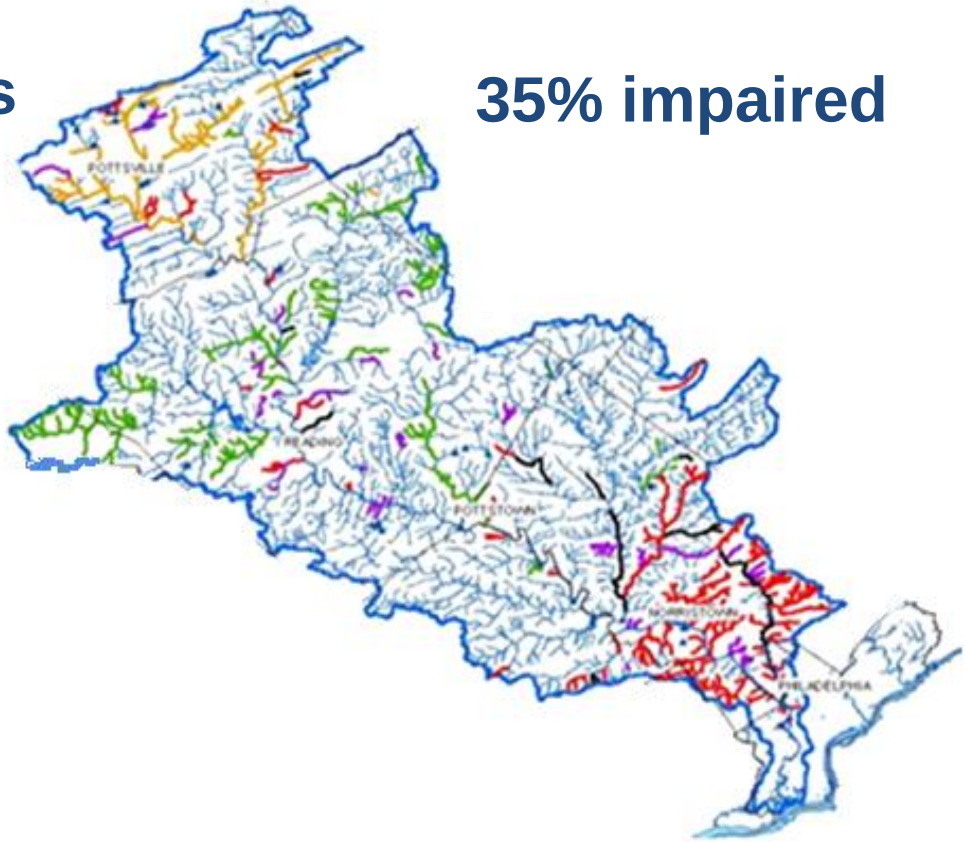


Schuylkill Watershed Land Use



Stream Impairments

2770 Stream Miles

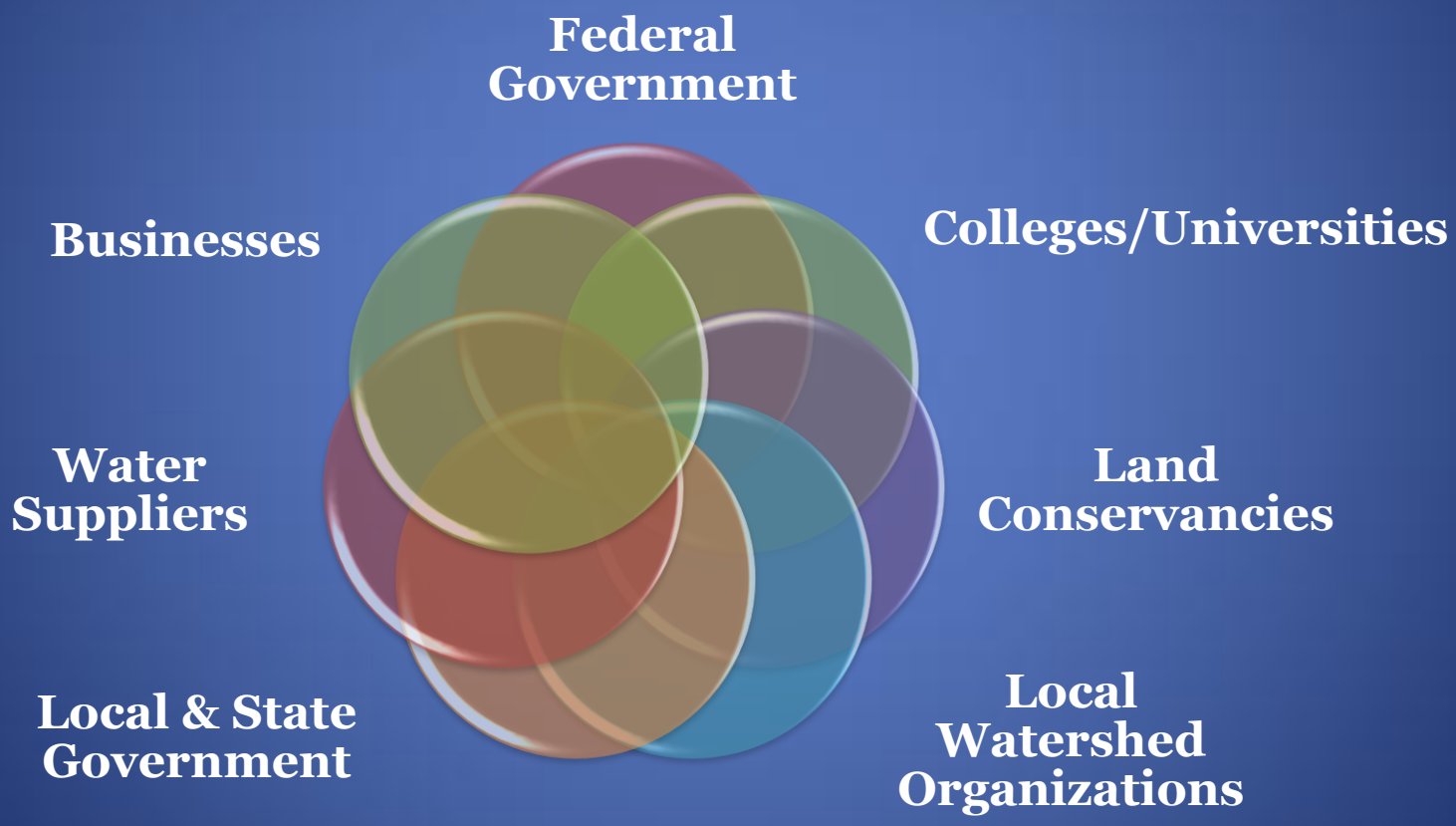


35% impaired

SAN MISSION

- *Members of the Schuylkill Action Network share information, expertise, and technology to help each other achieve a shared vision of clean water and a healthy environment for the Schuylkill River and its tributaries.*

The SAN "Network"



SAN Workgroups

- Abandoned Mine Drainage
- Agriculture
- Land Protection
- Pathogens/Compliance
- Stormwater
- Education & Outreach

Why are drinking water suppliers concerned

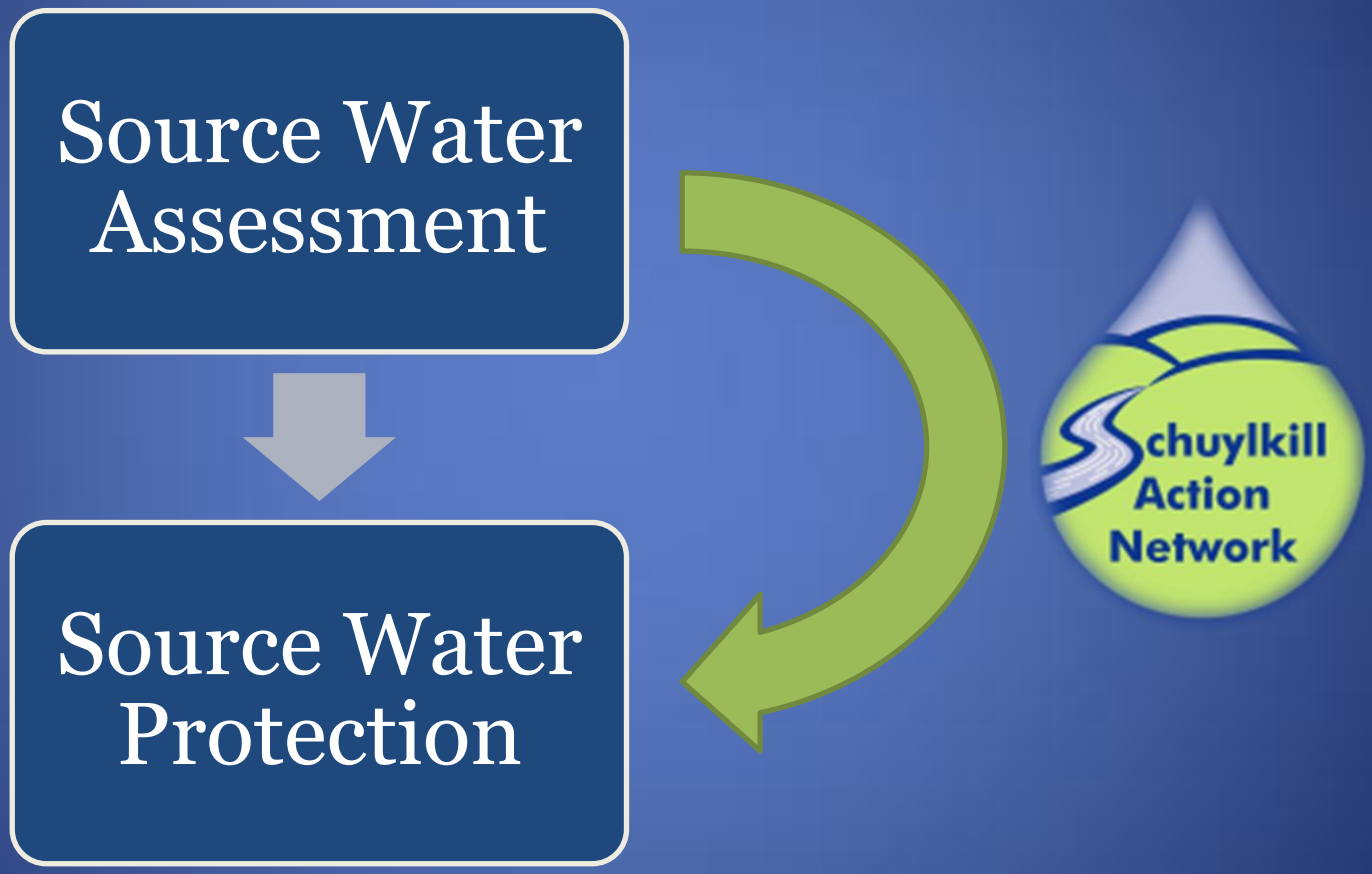
Source Water Assessment

The 1996 Safe Drinking Water Act Amendments required the assessment of all source water supplies across the country to identify potential sources of contamination, the vulnerability and susceptibility of water supplies to that contamination, and public availability of the information.

- Identify threats to Drinking Water Supply
- Involve all stakeholders in the process
- Identify protection priorities

http://www.phillywatersheds.org

From Assessment to Protection



PENNSYLVANIA
SOURCE WATER
PROTECTION
Safe Drinking Water
Starts at the Source!

Also known as

Protecting Drinking Water

- Working together in a watershed
- Sharing information and resources
- Replicating programs
- Addressing common priorities

Regional Needs

Watershed-Wide Needs

Flow

ETC…

Funding

Conservation

Waste Water

Drinking Water

Stormwater

Public Awareness

Education

How we're meeting these needs

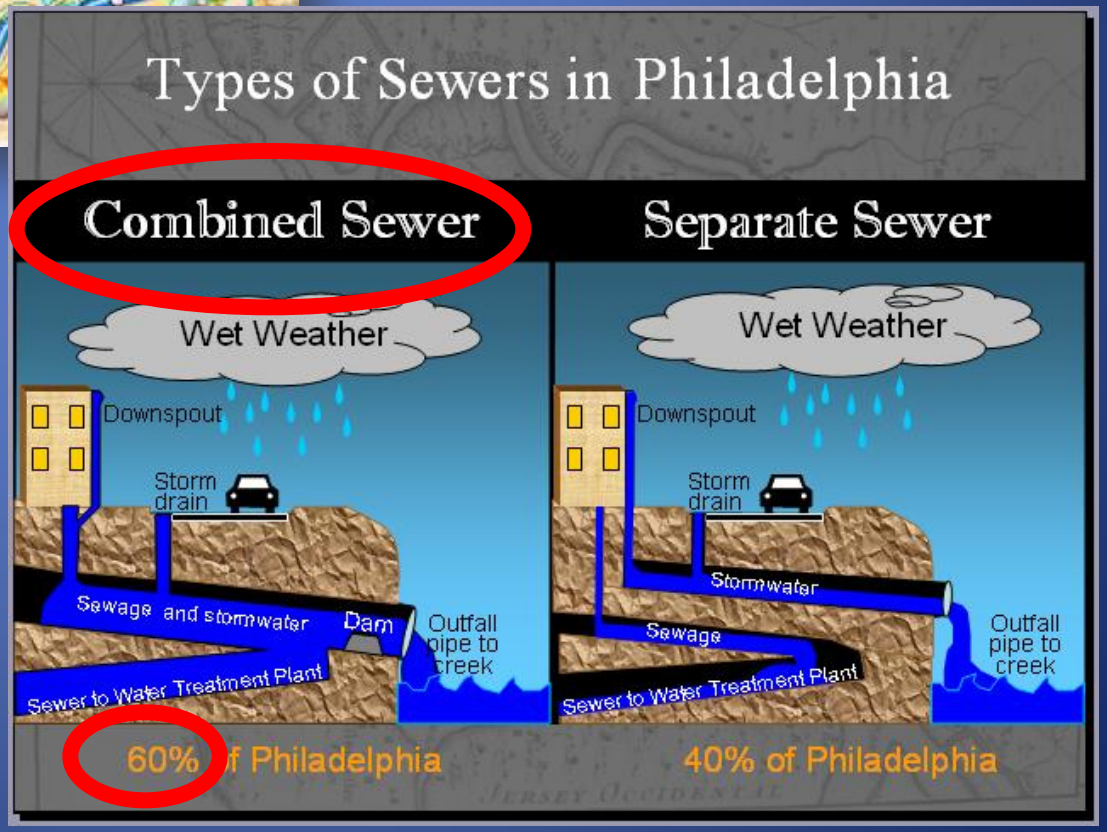
Sharing successes throughout the watershed

Examples of project:

- Stormwater Education
- Greening schools
- Watershed Awareness

Stormwater

Eyes on Philadelphia



Green City, Clean Waters

GREEN STREETS

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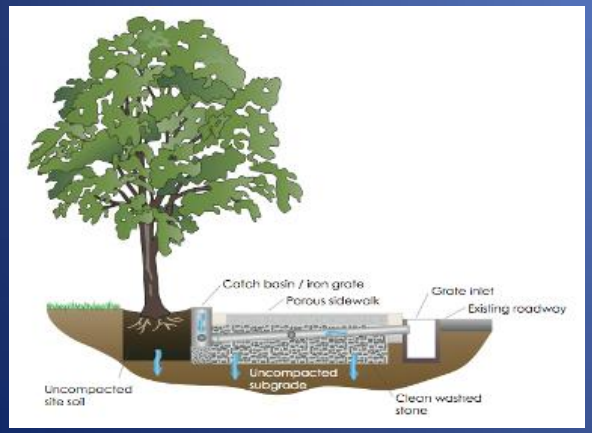
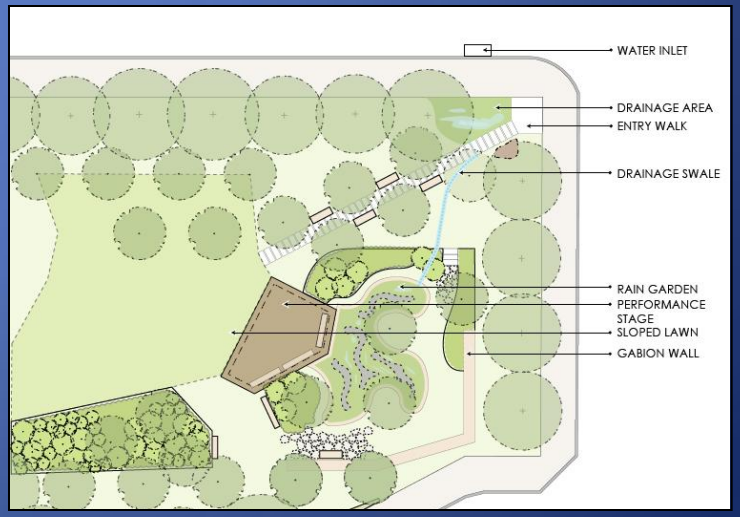


GREEN PUBLIC OPEN SPACES

Liberty Lands Park
Northern Liberties

Cliveden Park
East Mount Airy



GREEN PUBLIC FACILITIES

Herron Playground
Pennsport

GREEN SCHOOLS

Greenfield Elementary
Center City

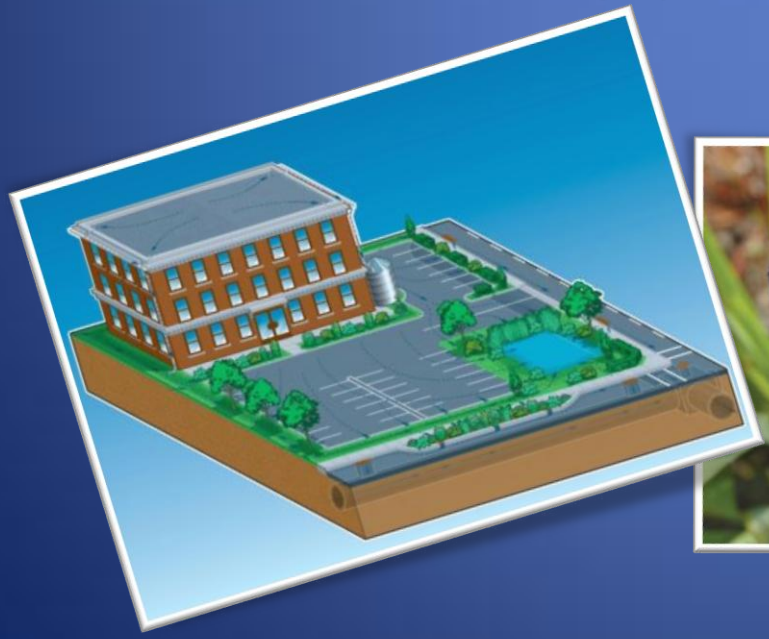
Wissahickon Charter
East Falls

Stormwater Education Guides

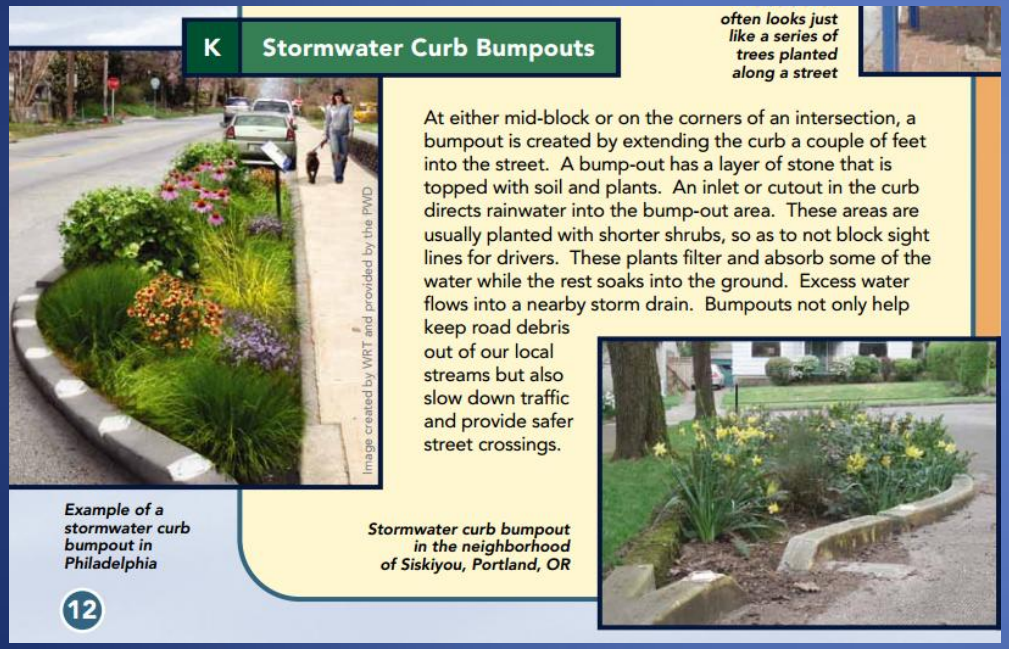
EXAMPLE:

Green Guide for Property Management

A guide to help large property owners identify innovative green projects to reduce stormwater pollution.

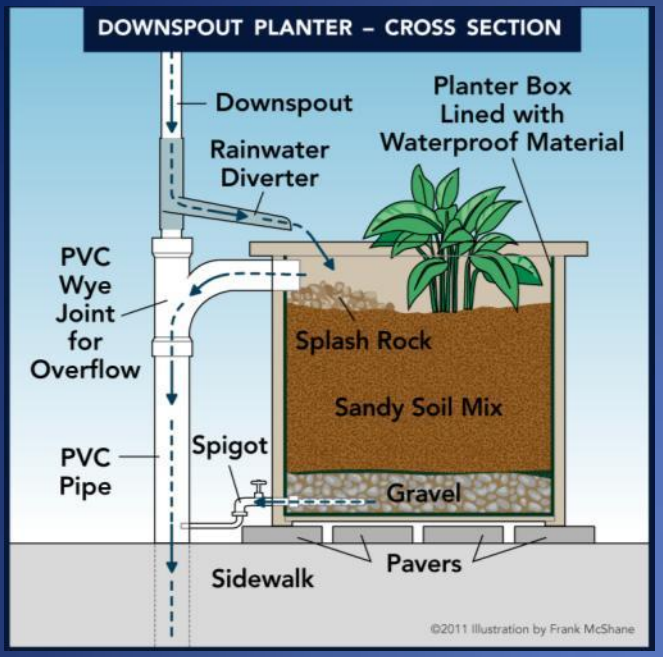


Innovative Stormwater Practices

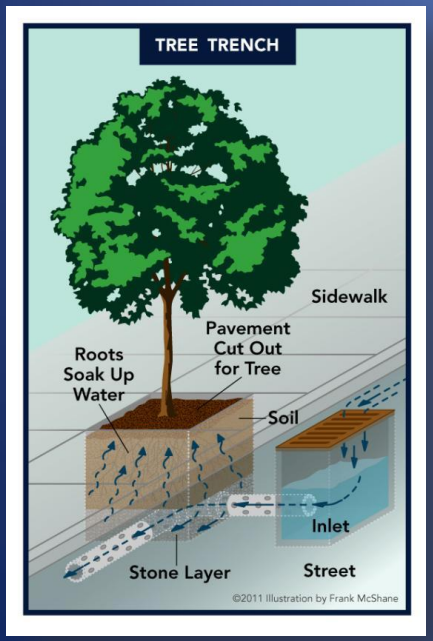


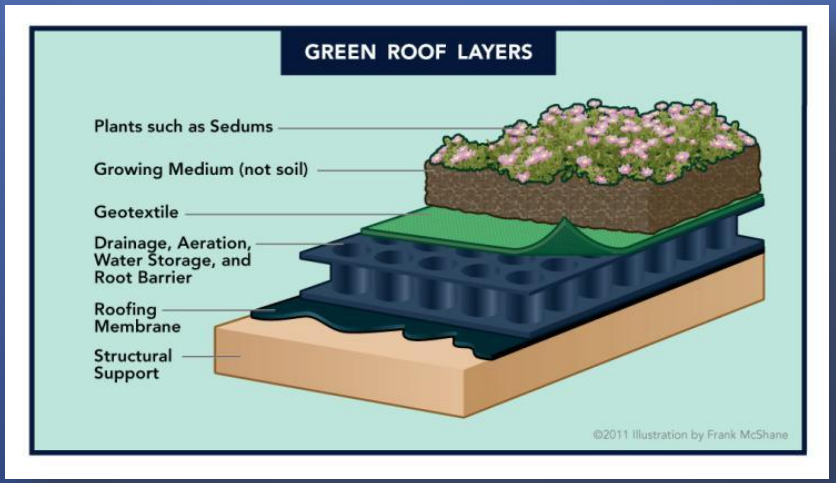
- Reducing Paved Areas & Turf
- Trees Planted Near Pavement
- Basins or Ponds
- Rain Gardens
- Created Wetlands
- Swales
- Underground Projects
- Downspout Planters
- Sidewalk Stormwater Planters
- Tree Trenches
- Stormwater Curb Bumpouts
- Rainwater Harvest & Reuse
- Porous Pavement
- Green Roofs

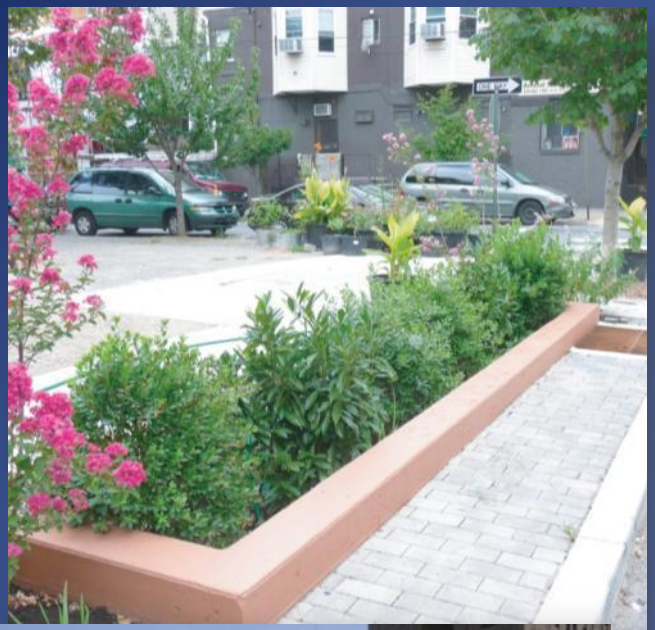
Diagrams and Schematics



- Simple language and descriptions
- A good 1st step
- Available online for download







Real World Examples

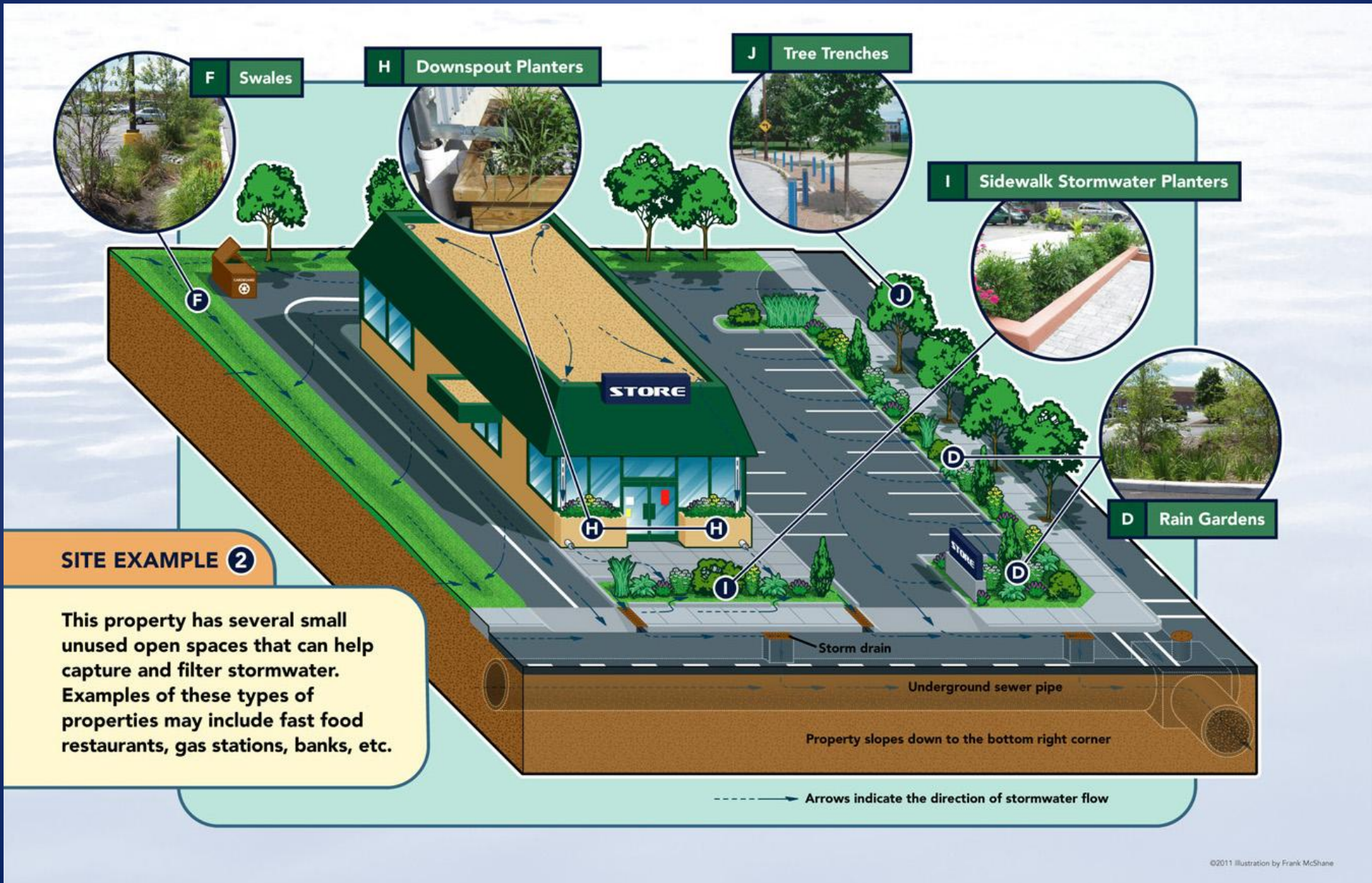
- Pictures of projects that have been implemented
- Can be applied throughout the watershed

Relevant Information

Stormwater Projects	Typical Cost Ranges (per Square Foot)
Basins or Ponds (C)	$0.19 – $0.41
Created Wetlands (E)	$0.27 – $0.54
Reducing Paved Areas & Turf (A)	$0.27 – $0.69
Swales (F)	$1.17
Trees Planted Near Pavement (B)	$1.22
Rain Gardens (D)	$1.54 – $1.58
Underground Projects (Subsurface Infiltration) (G)	$1.19 – $2.68
Tree Trenches (J)	$2.37
Rainwater Harvest & Reuse (L)	$3.20
Sormwater Curb Bumpouts (K)	$4.09
Sidewalk Stormwater Planters (I)	$4.09
Downspout Planters (H)	$5.76
Porous Pavement (M)	$2.34 – $23.38
Green Roofs (N)	$34.12

The above costs include materials, installation, design and engineering, but can vary depending on site constraints or any unforeseen issues.

Site Examples



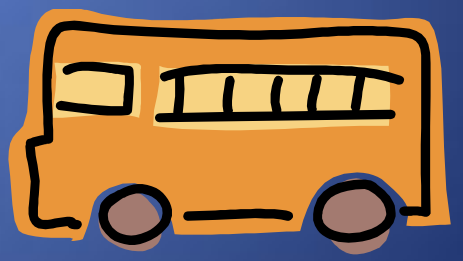
What Works

- Everyone's worried about stormwater
  - Flooding, MS4 Program, Changing weather
- It's happening (everyone wants a green roof)
- The information is needed (filling a gap)
  - Helping to get it out there (e.g. print sharing)
- Philadelphia is leading the charge

What's Challenging

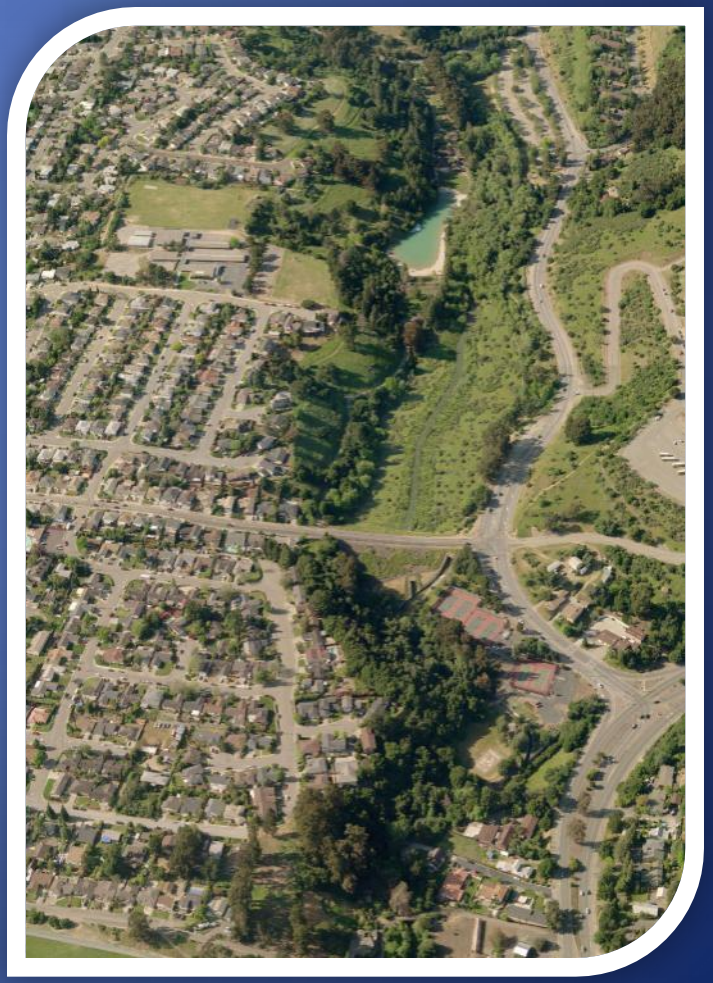
- Philadelphia government is unique
- Lots of local decision makers (237 municipalities)
- Uncertainty over regulations
- Not exactly championed by current regs. (e.g. stormwater authorities)
- Lots of problems, not lots of $$

Working with Schools



Why Schools?

- Many opportunities for stormwater management
- Largest streamside landowner
- Catalyst for community change
- Active and willing partners



Schuylkill Action Students (SAS)

- School and local partners working together for clean water
- Restoring School campuses to keep water clean
- Getting Students involved in making a difference.
- Educating students through hands-on learning

Recruit Schools → School Support → Clean Water Projects

Types of SAS Projects

- Streamside tree planting
- Rain Gardens
- Meadows
- Stormwater Basin Naturalization

Benefits of working with schools

- Community driven projects
- School ownership
- Student and community volunteers
- Ongoing maintenance
- Lots of opportunities

Limerick Elementary School

Lappin
Oct. 2011

Before and After

Lingelbach Elementary School

NEW YORK

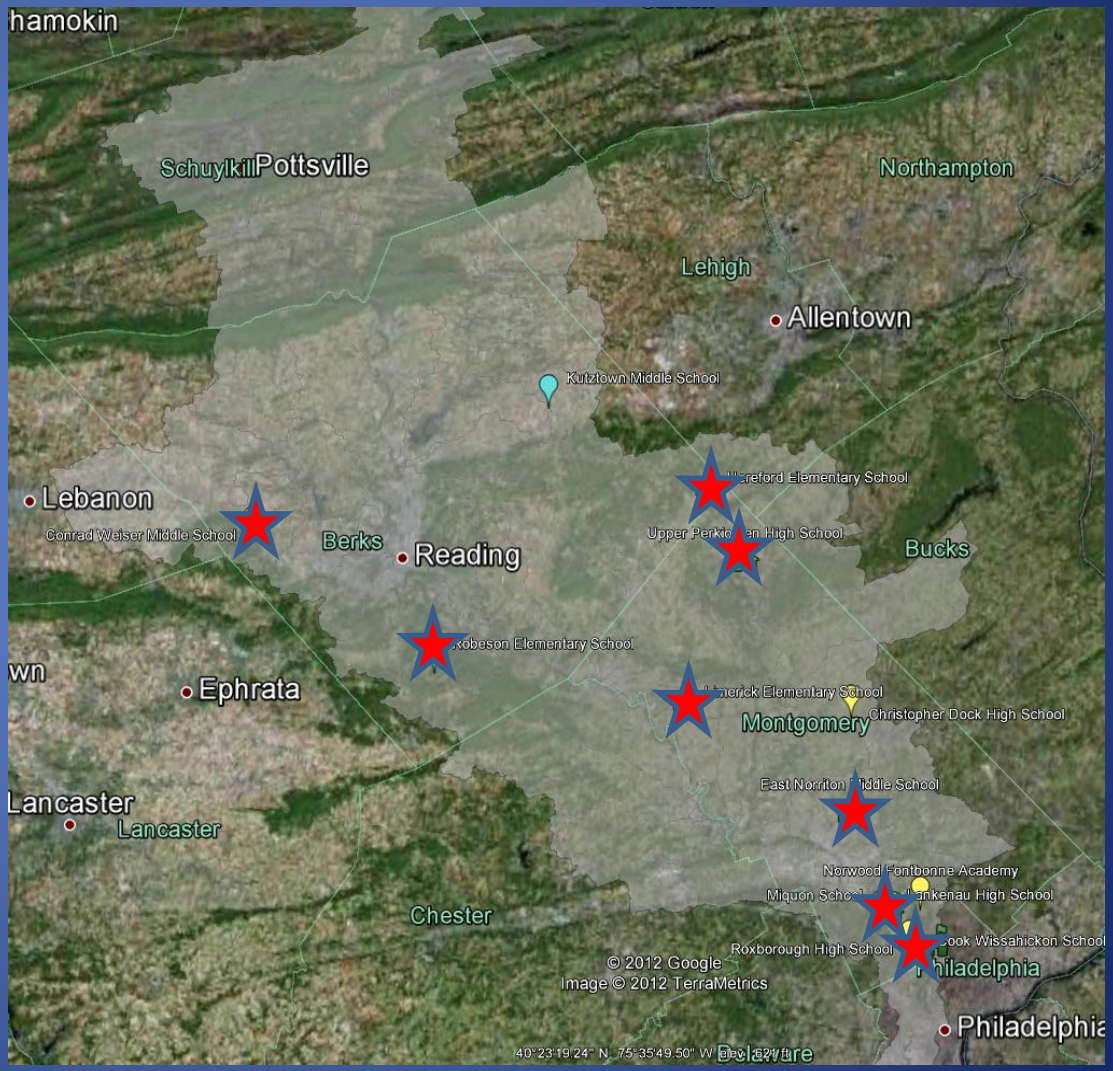
Before and After

Lankenau High School

Before and After

Completed SAS Projects

- 8 Projects Completed
- Schools on waiting list
- Funding support growing



What Works

- School are anxious to get involved
- Connects easily with curriculum
- Watershed partners receive support
- Lots of schools, lots of opportunities

What's Challenging

- Process takes time (building relationships)
- Required adequate funding
- Keeping up with demand
- School administrative support critical

Raising Watershed Awareness

Green Sticker (Pharmaceutical Take Back) Program

- Initiated in in two Philadelphia neighborhoods
- Replicated in upstream community (Norristown)
- Aims to educate medication consumers on the proper disposal of their unwanted medicines from their own home.
- Never Flush!!

PSR PHILADELPHIA

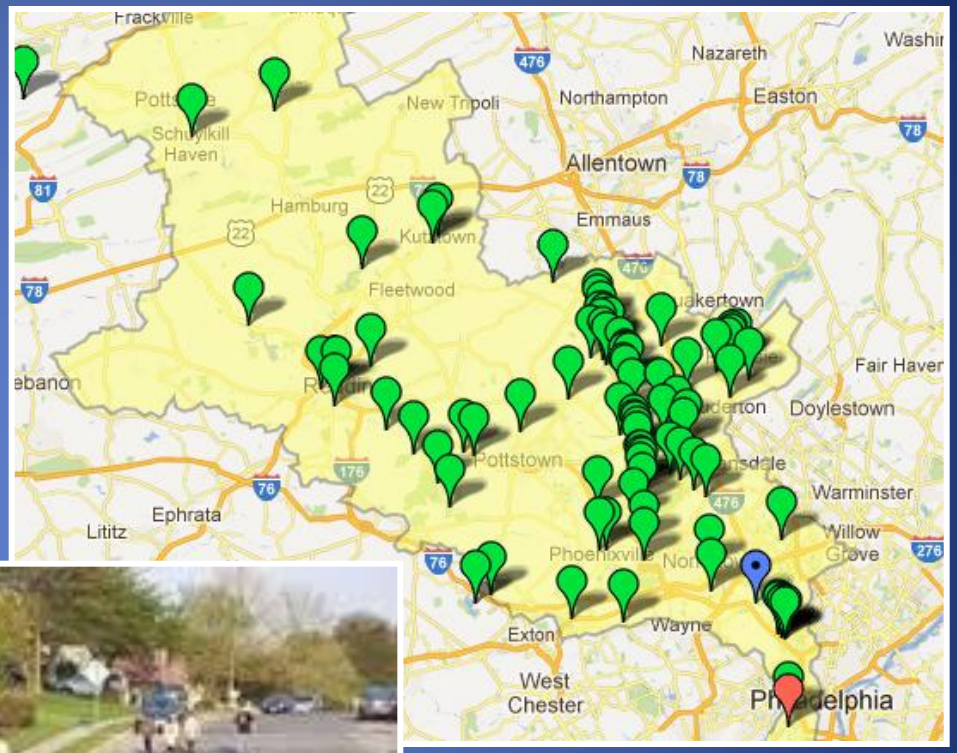
Physicians for Social Responsibility

Green Sticker (Pharmaceutical Take Back) Program

- Phase 1 – surveyed 120 customers on their disposal practices.
- Phase 2 - currently underway
  - Pharmacy staff affixing stickers to medicines
  - Displaying signage in the store
  - Giving out flyers to customers for 3 months.
- Phase 3 - conclude project with a customer survey and then compare survey results to determine if pharmacy customers:
  - recalled receiving flyers & read them
  - recalled any information on disposal of their medications
  - recognized the logo used in the flyer, signage and stickers

Schuylkill Scrub

- Watershed-wide cleanup event
- 90 cleanups and thousands of volunteers registered
- Attracts media attention



Schuylkill Shots Photo Contest

To promote the Schuylkill's:

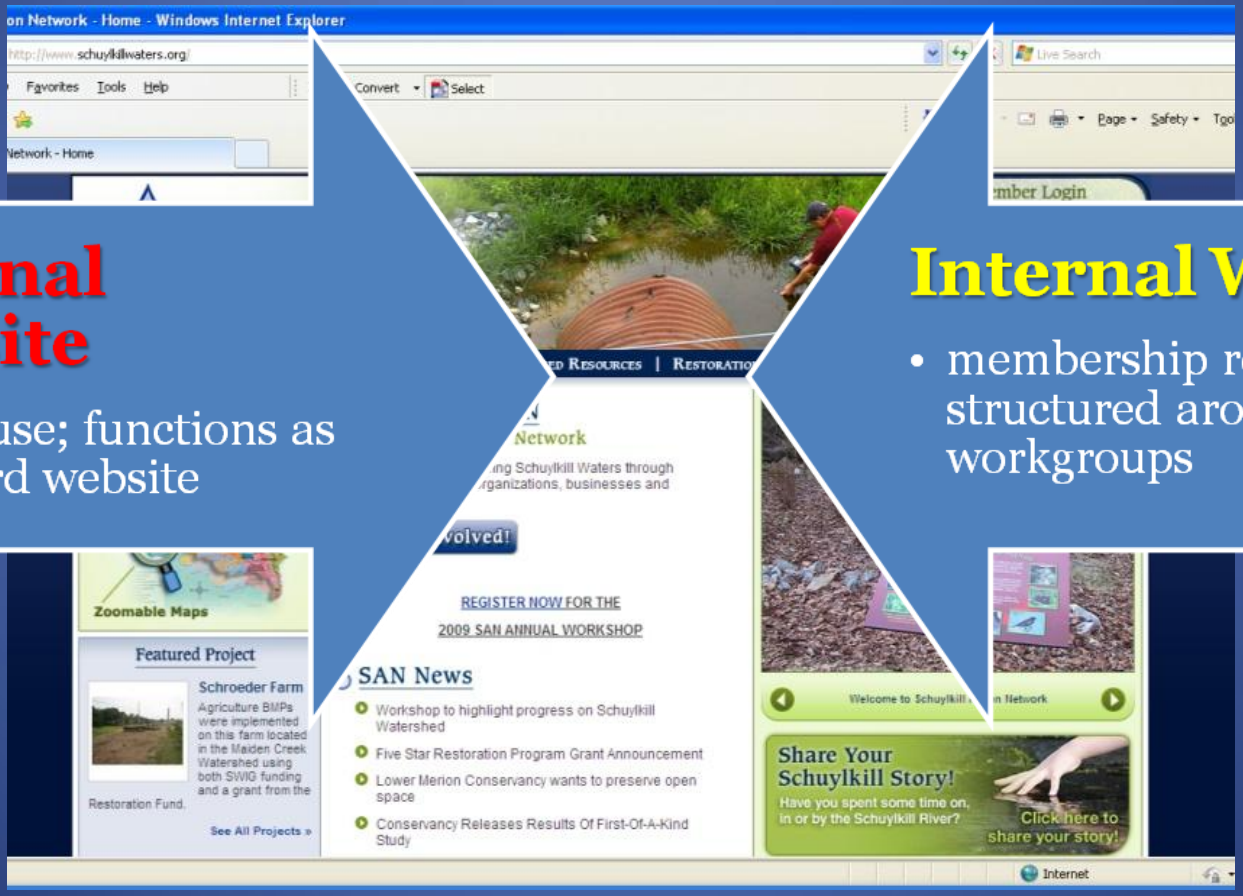
- Recreational opportunities
- Wildlife and scenic beauty
- Clean source for drinking water

Schuylkill Shots Photo Contest

- Over 150 Participants
- 6,000 + Votes
- Images for outreach use for all SAN Partners
- Visible way to get message out there

SAN Website:

www.SchuylkillWaters.org



External Website

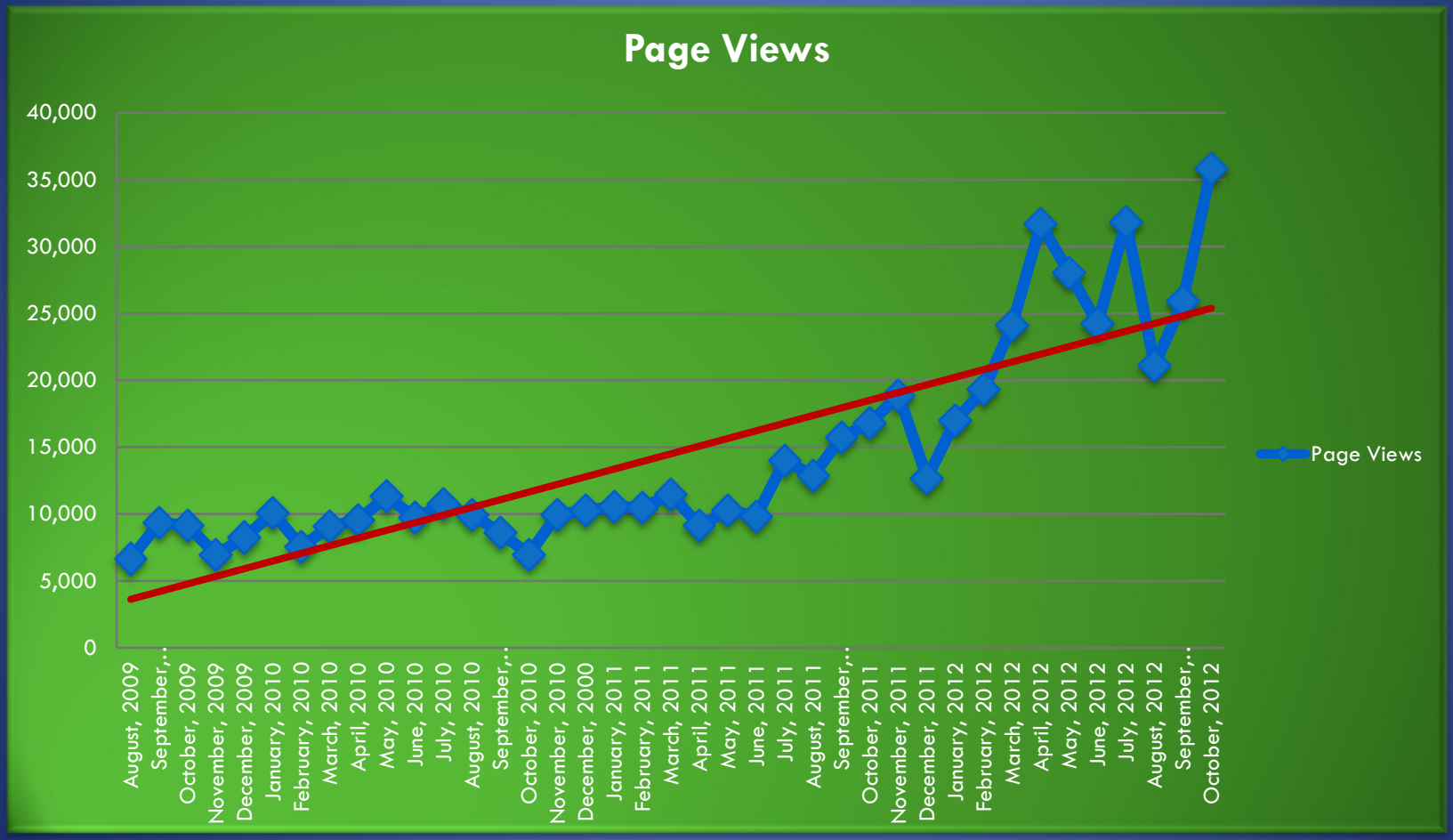
- public use; functions as standard website

Internal Website

- membership required; structured around workgroups

SAN Website:

www.SchuylkillWaters.org



446,139 VISITS – UP FROM 178,000 LAST YEAR

Reaching New Audiences with New Partnerships

What Works

- The sky is the limit
- Active vs. passive participation
- Specific and targeted audience
- Keeping it simple
- Watershed Words that Work

What's Challenging

- The sky is the limit
- Competition for attention
- Limited reach with limited resources
- Diverse needs/interests

Contact Info

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Partnership for the Delaware Estuary
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www.SchuylkillWaters.org