



RIVER ALERT INFORMATION NETWORK

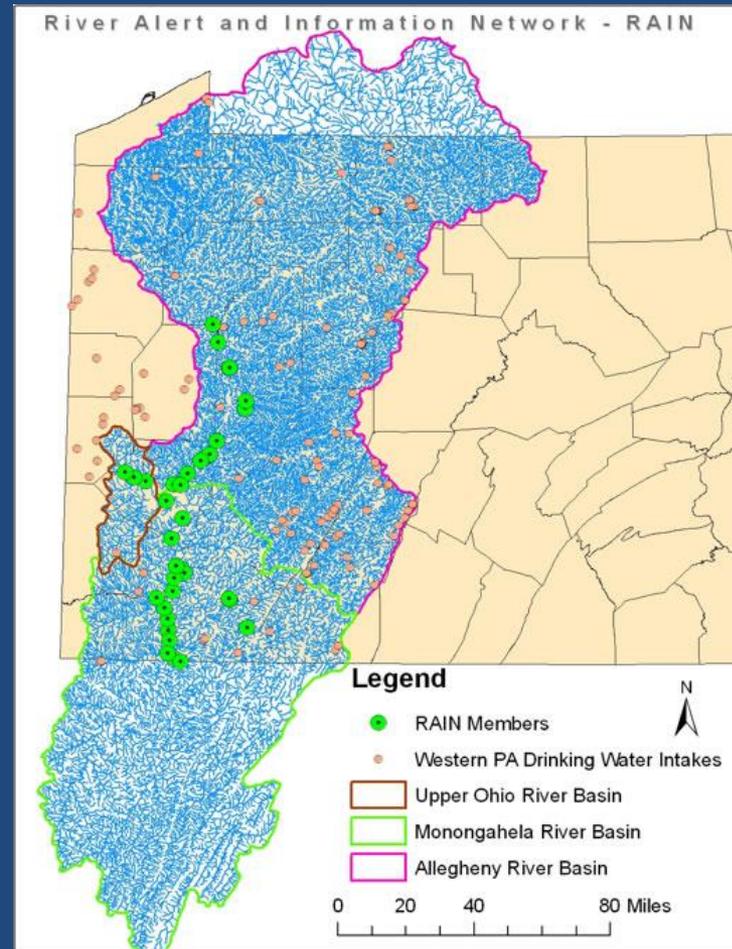
Source Water Protection

Gina Cyprych - PWSA

*Part 2 SWP Coalitions vs. DIY
Schuylkill Congress – 3/9/13*

What is RAIN?

- River Alert Information Network
- Focuses on Source Water Protection in the Ohio River Basin
- Over **2 million** people live in this region



RAIN Mission

- Create a communication and water quality monitoring network within the RAIN Basin:
 - A public drinking water emergency spill detection and notification system, and
 - A regionalization tool for addressing public health, environmental protection, economic development and recreational issues, and environmental accountability in regards to our major rivers.

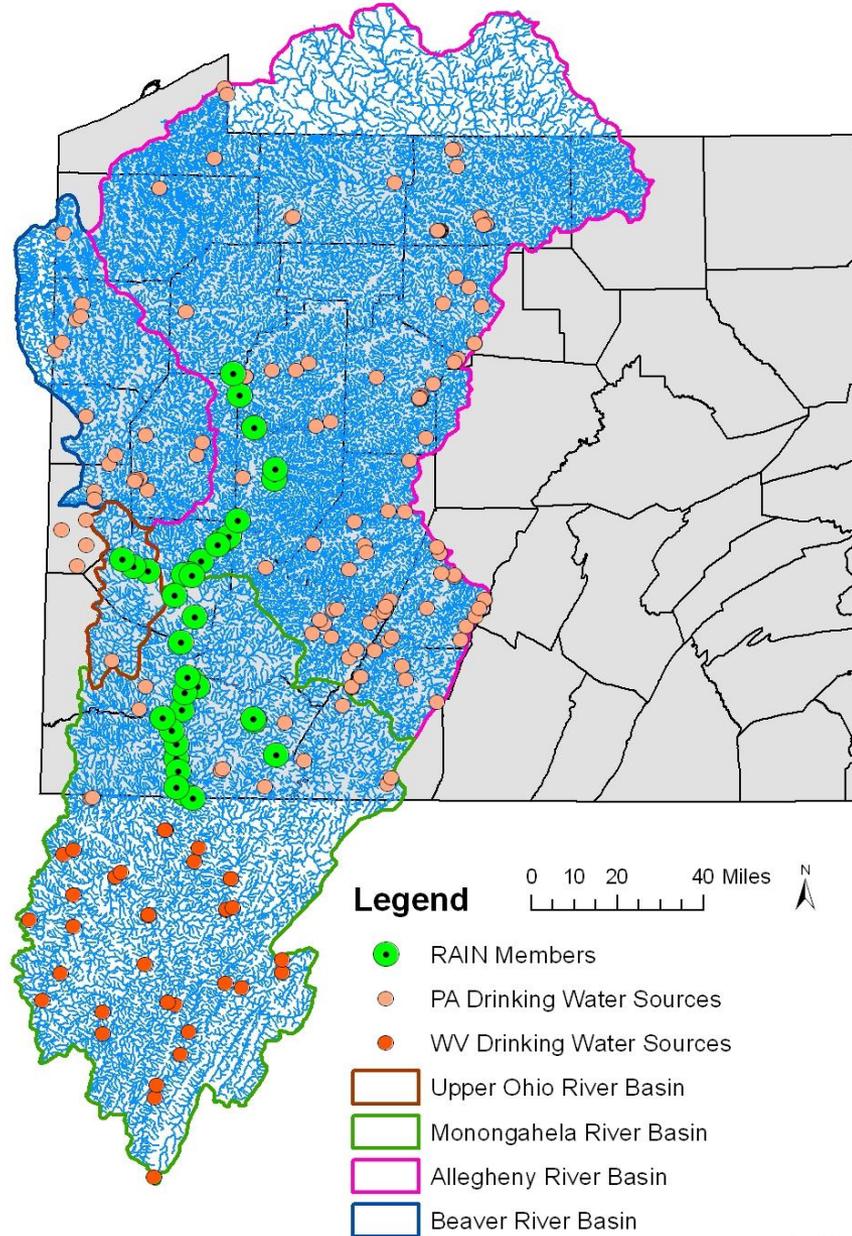


RAIN Members

- **RAIN** is a cooperative effort of Private and Municipal Water organizations, educational institutions, governmental agencies, and business groups.
 - 47 Water Utilities
 - California University of PA
 - D.E.P.
 - Penn's Corner Conservancy Charitable Trust, Inc.



River Alert and Information Network - RAIN



Sept 2008



Tarentum

Pittsburgh

Buffalo-Freeport

PAWC Pittsburgh

Moon Twp

DEP

Robinson Twp



Oakmont

Brackenridge

West View

Harrison

Wilkinsburg-Penn

Charleroi

MAWC McKeesport

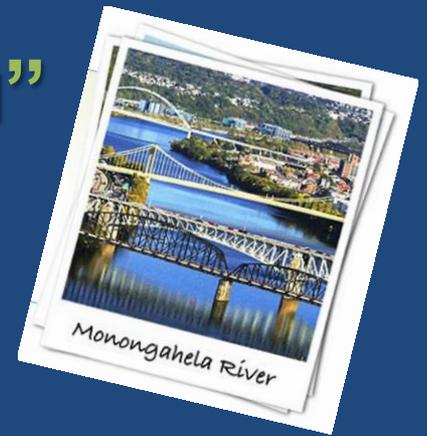
New Kensington

California Univ of PA



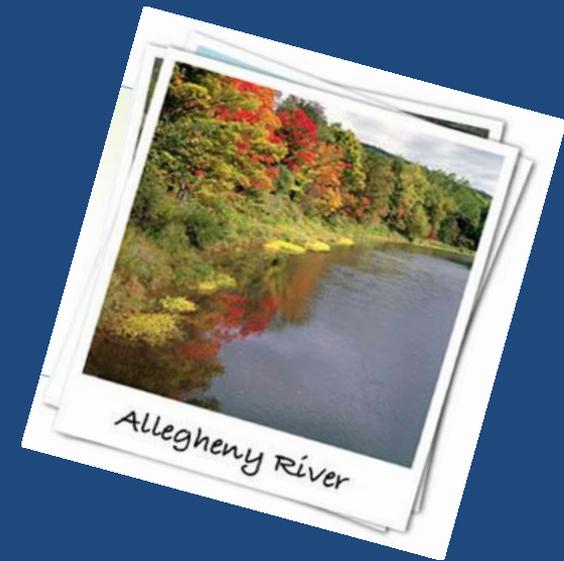
MONONGAHELA RIVER – THE “MON”

- **128** miles long
- Drains approximately **7,340** mi²
- Flows north through the mountains of West Virginia
- Ends in Pittsburgh, PA – connects with Allegheny River to create the Ohio River
- Major barge route for coal, coke, iron, and steel
- Boatbuilding – one of the first industries on the Mon
- Multiple Marcellus Shale drill sites along the river



ALLEGHENY RIVER

- **325** miles long
- Drains approximately **11,770** mi²
- Runs through PA and NY
- Ends in Pittsburgh, PA – connects to the Mon River to create the Ohio River
- Mountainous terrain significantly impacts drainage patterns
- Used for industry during American Revolution
- Limited industrial use – environmental controls by the EPA and other agencies



BEAVER RIVER

- **22** miles long
- Drains approximately **91** mi²
- Tributary to the Ohio River
- Runs through historic, major coal-producing area north of Pittsburgh, PA
- Vast amounts of natural resources
- Supports a large biodiversity
- Sensitive to land development changes



WHAT AFFECTS YOUR DRINKING WATER?



CAUSES OF WATER QUALITY CHANGE

- **Water Quality:**
 - Describes the health of a water body based on chemical, biological, and physical characteristics
- **Two types of pollution:**
 - Point-source pollution – sources that can be traced
 - Nonpoint-source pollution – sources cannot be traced



CURRENT RAIN MONITORING PARAMETERS

- Total Dissolved Solids
- Conductivity
- pH
- Temperature
- Dissolved Oxygen
- Ammonia
- Sediment
 - Turbidity
 - Erosion and Sedimentation



SOURCE WATER PROTECTION IS...

- Preventing of pollution of groundwater and surface water systems such as lakes, rivers, and streams
- Sources of drinking water for local communities
- Provides safety of public health
- Encourages proper use of water resources
- Protect main waterways, as well as smaller tributaries
- Ordinances are in place to help protect communities from contaminations



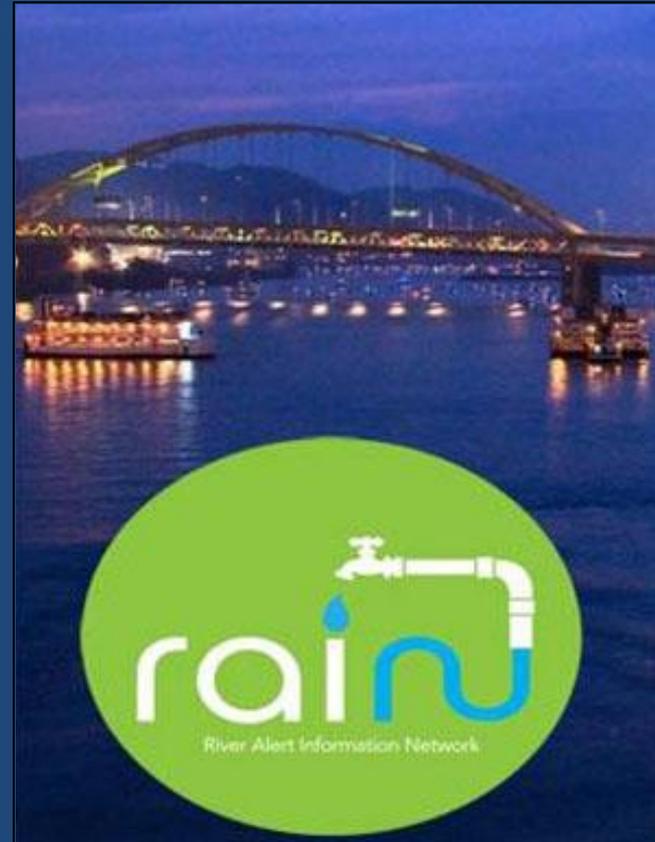
EARLY WARNING SYSTEMS

- Since August 2007, RAIN has developed Early Warning Systems on the Allegheny, Monongahela, and Youghiogheny Rivers
- Monitor water quality in real-time
- Send electronic updates to RAIN headquarters
- Alerts RAIN members of threats before they move farther downstream
- All data is on the web for users



EARLY WARNING SYSTEMS

- These systems make the investment in public water worthwhile for residents in the Ohio River Basin
- By the end of 2012, **29** monitoring sites will be established with **47** water suppliers participating
- RAIN plans to expand their monitoring to test for more variables



AWARENESS

- *Source Water Protection should receive more and more attention from the public*
- RAIN is creating ways to educate the public about threats to source water and how to protect it
- *Residents should understand...*
 - **The risks** facing their water
 - **How** they can help, and
 - **What** is already being done.



WHAT CAN YOU Do?

○ Make a difference in your watershed!

- Become involved in local **conservation** programs, such as **RAIN**
- Store and dispose of used oil and other hazardous chemicals properly – **NOT on the ground**
- Report spills immediately
- Plant new trees along streams and preserve vegetation to filter out waste
- Minimize pesticide and herbicide use
- Properly close and abandon old wells
- **Do not litter**
- Dispose of old prescriptions and medications at participating pharmacies





With your support, RAINs expanding efforts can make a positive impact on the environment.

Get your community involved and participate in monitoring efforts in your area

