



# West Virginia Non-Tidal Monitoring Network: 2010 Update

**West Virginia Department of Environmental Protection  
West Virginia Department of Agriculture  
USGS West Virginia Water Science Center**

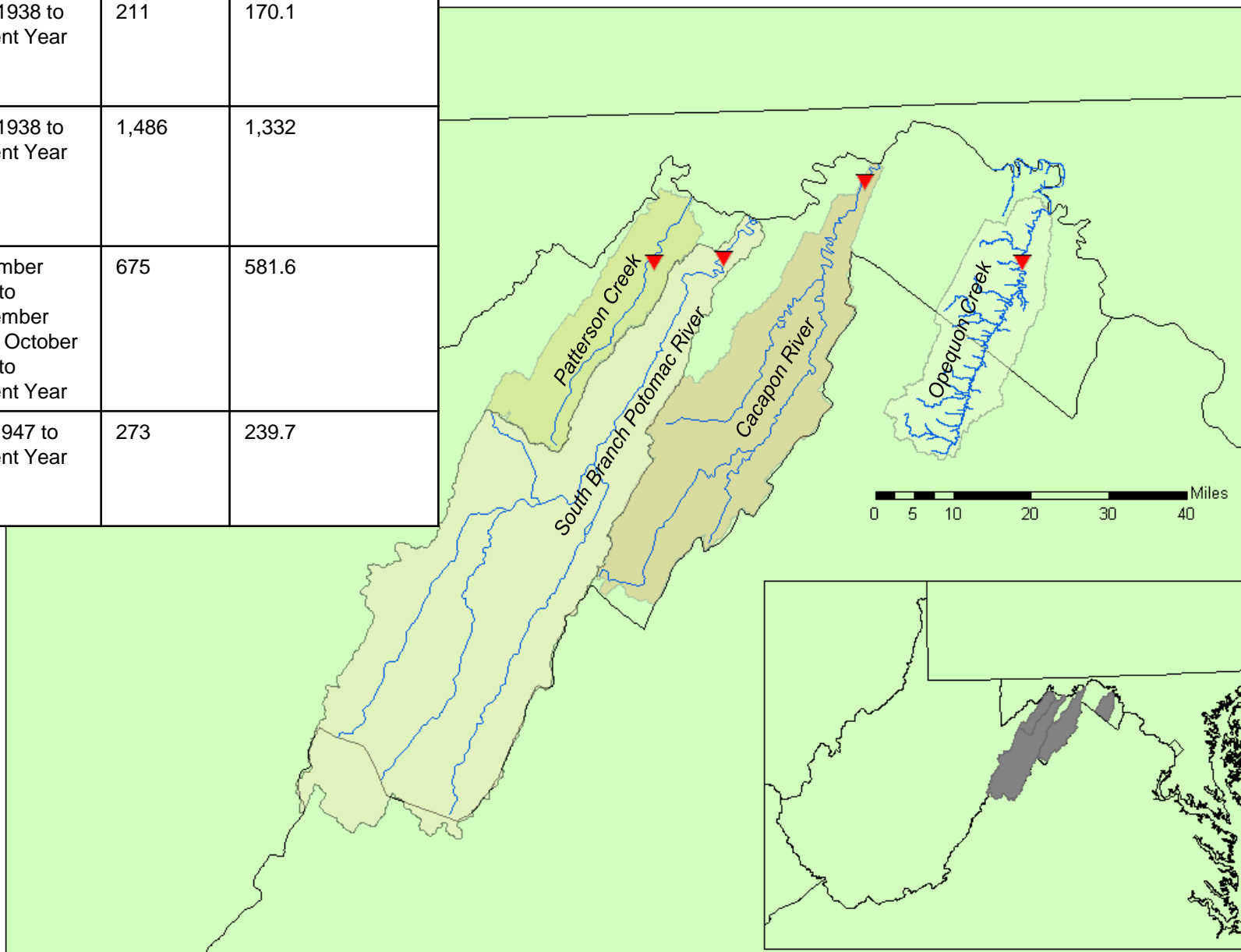
# Primary Sites 2005-Present

- Patterson Creek near Headsville (USGS 01604500)
- South Branch Potomac River near Springfield (USGS 01608500)
- Cacapon River near Great Cacapon (USGS 01611500)
- Opequon Creek near Martinsburg (USGS 01616500)

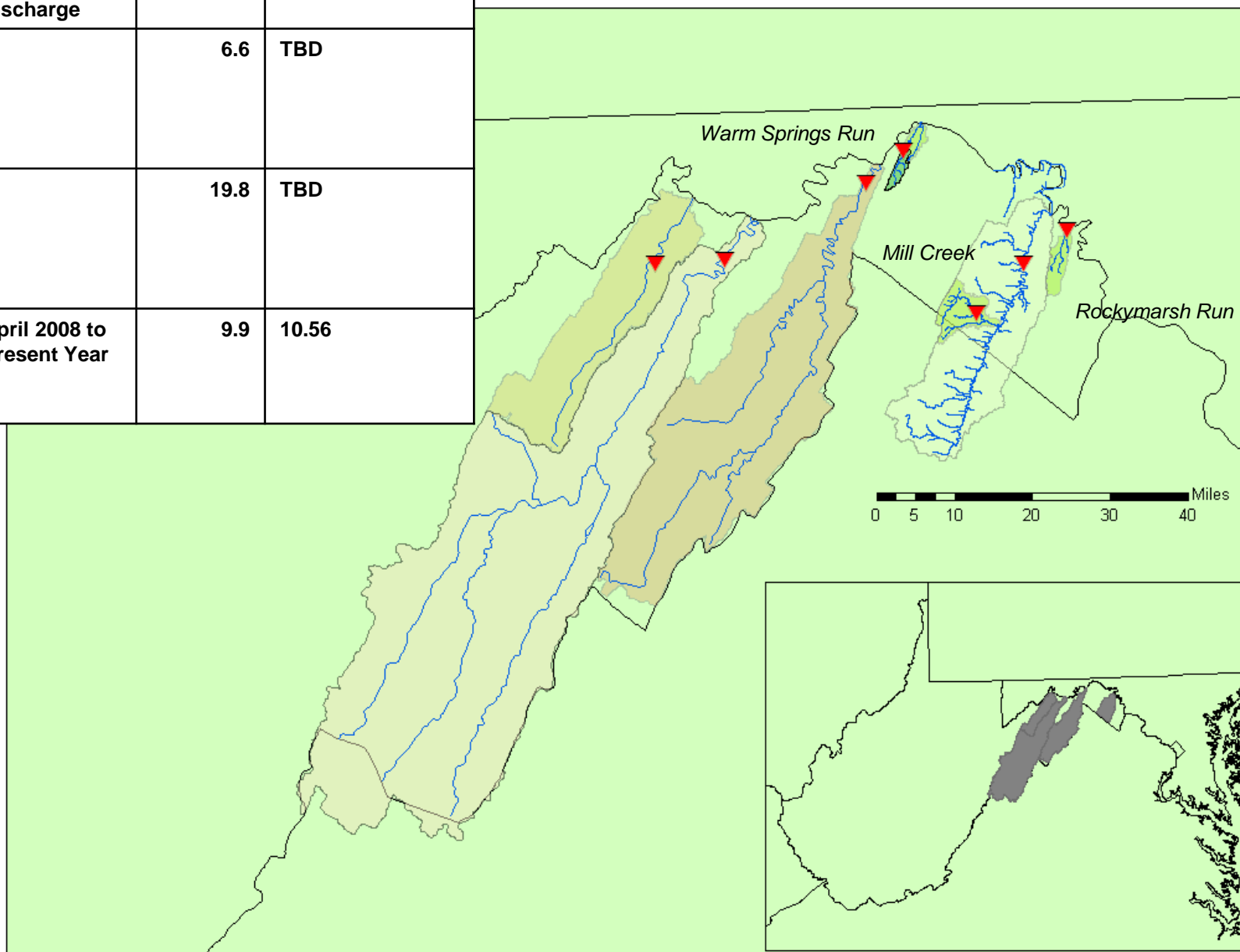
# Primary Sites 2011-Present

- Warm Springs Run near Berkeley Springs, WV (USGS 01613030)
  - Sampling started July 2011
  - Streamflow gaging station built October 2011
- Mill Creek at Bunker Hill, WV (USGS 01616400)
  - Sampling started July 2011
  - Streamflow gaging station built October 2011
- Rockymarsh Run at Scrabble, WV (USGS 01618100)
  - Sampling started June 2011

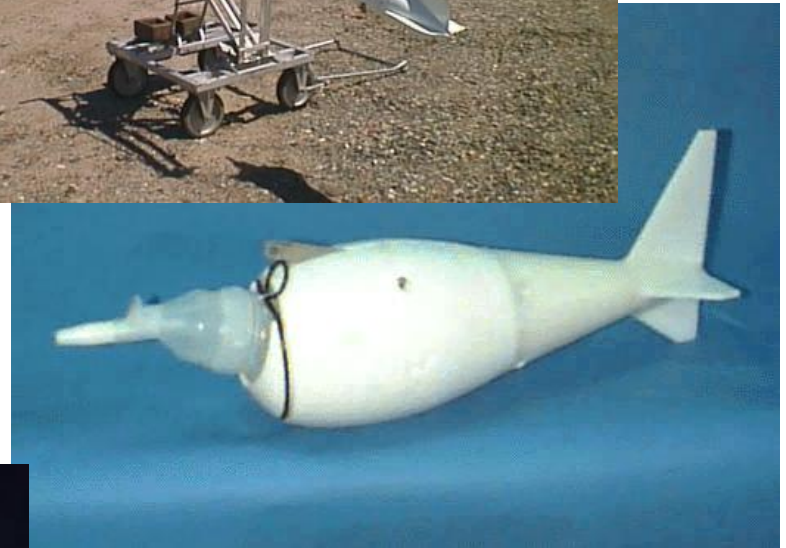
Site	Period of Record for discharge	Drainage Area	Mean Annual Discharge (cfs)
Patterson Creek near Headsville (01604500)	Aug. 1938 to Present Year	211	170.1
South Branch Potomac River near Springfield (01608500)	Aug. 1938 to Present Year	1,486	1,332
Cacapon River near Great Cacapon (01611500)	December 1922 to September 1995, October 1996 to Present Year	675	581.6
Opequon Creek near Martinsburg (01616500)	July 1947 to Present Year	273	239.7



Site	Period of Record for discharge	Drainage Area	Mean Annual Discharge (cfs)
Warm Springs Run near Berkeley Springs (01613030)		6.6	TBD
Mill Creek at Bunker Hill (01616400)		19.8	TBD
Rockymarsh Run at Scrabble (01618100)	April 2008 to Present Year	9.9	10.56



# Sampling Methods







# Non-Tidal Primary Site Analytical Parameters

- Field parameters
  - Water temperature
  - Specific conductance
  - pH
  - Dissolved oxygen
- Total Nitrogen
- Dissolved Nitrate-Nitrite
- Dissolved Nitrite
- Dissolved Ammonium
- Total Phosphorus
- Dissolved Orthophosphorus
- Total Suspended Solids
- Suspended sediment concentration
- Sand/Fine split (1 storm sample per quarter)



# Sampling

- All sampling led by USGS- West Virginia Water Science Center personnel
  - For routine samples, one USGS team leader was assisted by personnel from WVDEP and WVDAG in alternate months
    - Have recently been sampling primarily with all USGS teams for new Technician training
  - Storm samples were collected by 2-person USGS teams

# Sample Summary for 2011

Station	Fixed Interval	Storm
PATTERSON CREEK NEAR HEADSVILLE, WV	12	6
SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV	12	7
CACAPON RIVER NEAR GREAT CACAPON, WV	12	5
WARM SPRINGS RUN NEAR BERKELEY SPRINGS, WV	3	1
MILL CREEK AT BUNKER HILL, WV	3	1
OPEQUON CREEK NEAR MARTINSBURG, WV	12	6
ROCKYMARSH RUN AT SCRABBLE, WV	4	1

# Funding Sources

West Virginia Department of Environmental  
Protection, Division of Water and Waste  
Management

U. S. Geological Survey Cooperative Water  
Program