



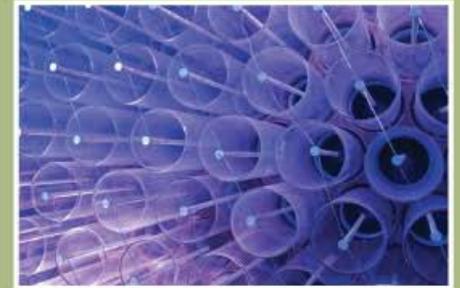
**P E N N S Y L V A N I A**  
**A M E R I C A N W A T E R**

## **Parting the Waters Within a Confluence of Issues**

**35<sup>th</sup> Annual National Conference of  
Regulatory Attorneys**

**Susan Simms Marsh, Corporate Counsel  
Pennsylvania American Water**

**May 21, 2012**





## Who Is American Water

We are the largest investor-owned water and wastewater service provider in the United States

- Broad national footprint and a strong local presence
- Services to estimated 15 million people in more than 1,600 communities in more than 30 states and parts of Canada
- Approx. 7,000 dedicated and active employees
- Treats and delivers more than one billion gallons of water daily





## Our Company

- **Subsidiary of American Water Works Co. Inc.**
- **Roots date back to early 1800s, Incorporated in 1904**
- **Largest regulated water and wastewater service provider in PA**
- **Serving approximately 2.2 million people in 36 counties**
- **More than 1,000 employees**
- **Customer base:**
  - 640,000 water customers
    - 92% residential
    - 7% commercial
    - 1% industrial/other
  - 17,000 wastewater customers





## Our Pennsylvania Infrastructure

### Source of Supply

- 92% surface water
- 7% groundwater
- 1% purchased water
  
- 54 regulated dams
- 121 groundwater well sources

### Treatment Facilities

- 36 surface water plants
  - 30 facilities received Directors Award from Partnership for Safe Water
- 6 wastewater plants

### Storage & Transmission

- 279 water storage tanks
- 253 booster pumping stations

### Distribution System

- 10,115 miles of water and sewer pipe

### Water Capacity

- 202 MGD average daily delivery

### Wastewater Capacity

- 11.2 MGD permitted



## Good to the last drop

- **Confluence of energy and water industries**
- **Regulatory incentives to promote viability**
- **Pennsylvania's Act 11**
- **Update on hydraulic fracturing**



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# Regulatory Incentives



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## NARUC

**July 27, 2005, the NARUC Board of Directors passed a Resolution supporting consideration of regulatory policies considered to be “Best Practices.”**



## **Regulatory Incentives to Promote Viability**

- **Reduction of regulatory lag and timely recovery of capital**
- **Distribution System Improvement Charge (DSIC)**
- **Combined Revenue Requirements for Water and Wastewater**
- **Single Tariff Pricing**
- **Use of future test year**
- **Regionalization and consolidation of troubled systems**
- **Streamlined Rate Case Process**
- **Mediation and Settlement Procedures**



## Distribution System Improvement Charge (DSIC)

- ✓ **Water and Wastewater**
- ✓ **Enables water utilities to recover the costs of infrastructure replacement on a quarterly basis**
- ✓ **Encourages water utilities to accelerate pace of infrastructure improvements**
- ✓ **Makes projects more affordable**
- ✓ **Benefits customers through improved water quality, pressure, service reliability and rate stability**
- ✓ **Lengthens period of time between general base rate increase requests**
- ✓ **Reduces “bill shock”**



## Safeguards

- **Work is completed**
- **Quarterly surcharge capped at a percentage of total bill**
- **Quarterly earnings reports**
- **Annual reconciliation audit**
- **Customer notice required**
- **Revenue-neutral projects**



## Acquisition Adjustment Policies

- Promotes water system viability and regionalization
- Collaborative effort between regulatory, industry and consumer advocate
- Rate of return premium
- Deferral of acquisition improvement costs to the next rate case
- Acquisition adjustment when the acquisition cost are more than depreciated original cost



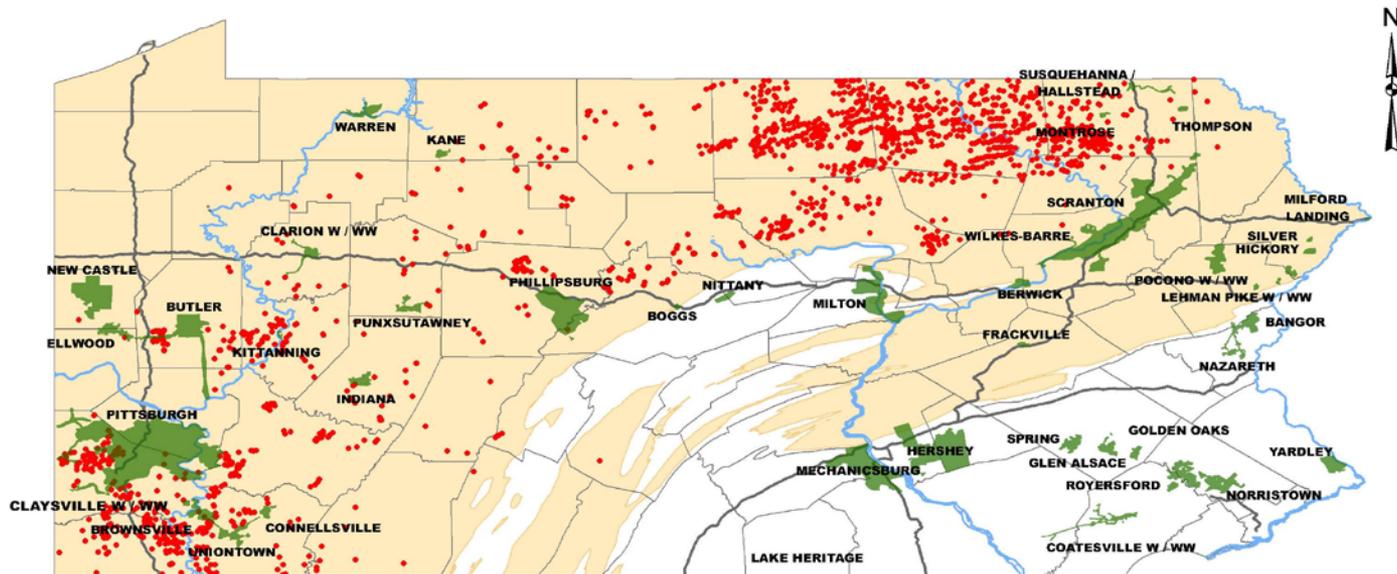
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# Marcellus Shale



**PENNSYLVANIA AMERICAN WATER SERVICE AREAS  
AND  
PENNSYLVANIA DEP BUREAU OIL AND GAS DRILLED MARCELLUS SHALE WELLS 2008 -2011**





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## Drilling for Marcellus Shale Gas: A Balanced Approach





## Keep the Right Balance

- We understand many economic opportunities being created by Marcellus Shale gas
- Public policy needs to balance the benefits of gas drilling against protecting the environment and water resources
- Pennsylvania American Water relies on regulatory agencies to impose/enforce adequate safeguards:
  - Pennsylvania Dept. of Environmental Protection
  - U.S. Environmental Protection Agency
  - Susquehanna River Basin Commission
  - Delaware River Basin Commission



## Potential Environmental Impacts

- Degradation of water supply from drilling
- Degradation of roads
- Effluent treatment/disposal issues
- Accidental spills involving fracking water
- Creation of roads/removal of vegetation in watershed
- Construction of gas mains for distribution network
- Additional stress on watersheds due to water withdrawals



## Fracking Water Incidents and Violations

- **Bradford County:**
  - Well head accident allowed fracking water to mix with rain water (Chesapeake) and enter Towanda Creek and tributary; DEP assessed \$190,000 fine (April 2011)
- **Tioga County:**
  - Fracking water spill (Talisman Energy) of 21,000 gallons; DEP assessed \$51,478 fine (Jan. 2011)
- **Clearfield County:**
  - Disposal well malfunction (EXCO Resources) caused underground pipe leak and failure to notify; EPA assessed \$160,000 fine (2011)
- **Lycoming County:**
  - Fracking fluid spill (XTO Energy) of approx. 13,000 gallons into unnamed tributary (Nov. 2010)



## Fracking Water Incidents and Violations (con't)

- **Clearfield County:**

- Well blowout/fracking flowback (EOG Resources) of at least 35,000 gallons released uncontrollably; DEP assessed \$400,000 fine (June 2010)

- **Washington County:**

- Fracking fluids overflow wastewater pit (Atlas Resources) of unknown quantity into tributary of Dunkle Run; DEP assessed \$85,000 fine (Dec. 2009)

- **Bradford County:**

- Fracking flowback spill (Talisman Energy) of 4,200-6,300 gallons into unnamed waterway DEP assessed \$15,500 fine (Nov. 2009)



## Drilling Wastewater Issue: Total Dissolved Solids (TDS)

- TDS regulated by DEP as secondary drinking water contaminant (Secondary max. contaminant level = 500 mg/l)
- DEP alerted customers in Mon River Basin on Oct. 22, 2008 and Jan. 21, 2009 of TDS levels exceeding 500 mg/l
- When level exceeds 500 mg/L, water providers obligated to contact DEP and report results
- In October 2008, TDS levels on Mon River reached approx. 600 mg/l
- High levels of TDS on Mon River resulted in:
  - Customer notification
  - Customers experienced spotty dishes from using dishwasher
  - Water treatment plants not designed to reduce/eliminate TDS found in source water
- In August 2010, DEP enacted stricter regs to limit discharge of TDS in gas-drilling wastewater to 500 mg/l



## Drilling Wastewater Issue: Bromide

- **Surface water sampling found elevated bromide levels in western PA rivers**
- **Bromide becomes potentially unsafe compound (TTHMs) when combined with chlorine for disinfection at water treatment facilities**
- **In May 2011, DEP requests drilling operators stop sending wastewater to 15 treatment facilities**
  - “If operators would stop giving wastewater to facilities that continue to accept it ..., bromide concentrations would quickly and significantly decrease.” DEP Secretary Krancer
- **Drillers and wastewater plant operations comply with DEP request – bromide levels have remained stable**



## Drilling Wastewater Issue: Radioactivity

- In March 2011, *New York Times* raised questions about radioactive elements entering Monongahela River from discharges of drilling wastewater
- Pennsylvania American Water voluntarily tested for radiologicals at intakes along Mon River, Clarion River, Allegheny River and Two Lick Creek (Indiana)
- Tests found no elevated or harmful levels of:
  - Radiological contaminants
  - Volatile organic compounds
  - Inorganic compounds
- Results confirmed water quality from Pennsylvania American Water's treatment plants not impacted by drilling wastewater



## Increased Testing Implemented

- **In March 2011, DEP directed Pennsylvania American Water to sample finished drinking water at three western PA plants for:**
  - Total alkalinity
  - Bromide
  - Chloride
  - pH
  - Total dissolved solids
  - Uranium
  - Gross alpha radiation, radium 226 and radium 228
- **All results within EPA and DEP water quality standards**
- **Tests conducted quarterly through 2011; No issues found with any regulated contaminants**



## River Alert Information Network (RAIN)

- Regional source water protection program providing continuous online monitoring of Monongahela, Allegheny and Youghiogheny Rivers ([www.3rain.org](http://www.3rain.org))
- Ensure protection of public health and drinking water supplies
- Voluntary collaboration of 33 water systems, DEP, California University of Pennsylvania and Riverside Center for Innovation
- Remote, real-time access to pH and conductivity levels and water temperatures along the rivers
- Mon River: RAIN system monitors source water at 13 locations



## Monongahela River Users Group

- **Formed by Pennsylvania American Water in Sept. 2010**
- **Collaborative effort to address environmental issues related to river's water quality, includes:**
  - Pennsylvania Department of Environmental Protection
  - U.S. Army Corps of Engineers
  - River Alert Information Network (RAIN)
  - Allegheny County Health Department\
  - Other water utilities
  - Shale gas drillers
  - Power companies
  - Industrial users
- **Members monitor/share water quality data, recommend strategies, coordinate actions to address watershed challenges**



## Act 13 Enacted – February 14, 2012

### Key provisions and safeguards:

- County governments empowered to adopt impact fees
- Minimum 1,000-foot setback from public water supply (surface water intake, reservoir or water well)
- Shale gas drillers must submit and have approved water management plan, including water reuse plan, prior to withdrawing water
- Shale gas operators must complete chemical disclosure registry for publication (FracFocus.org) in addition to reporting required by PADEP
- Within nine months after completion of drilling, shale gas operators must restore the land surface within the area disturbed in siting, drilling and producing the well



## Infrastructure Impact and Opportunity

- **Some drillers contributing property and capital to extend water lines to gas well sites**
- **Many rural, secondary roads not built to carry heavy water tankers**
- **Benefits of extending water lines directly to well sites:**
  - Alleviates heavy truck traffic on roadways
  - Prolongs road infrastructure's life
  - Increases traffic safety
  - Makes public water available to people who otherwise would not have access



## Value of Water

- **Quality water delivered directly to customer's tap for about one penny per gallon**
  - Bottled water =  
\$1.19 per 16 oz. bottle
  - Milk = \$3.62 per gallon
  - Gasoline =  
\$3.91 per gallon





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THANK YOU

