



Agenda

West Virginia Water Resource Management Workshops

Presented by the Interstate Commission on the Potomac River Basin
Sponsored by the West Virginia Department of Environmental Protection
With funding from the American Reinvestment & Recovery Act

Tuesday, October 5, 2010

9:00 a.m. Registration and coffee

9:30 a.m. Day 1 sessions begin

- ▶ **Overview of water resource planning** (Cherie Schultz)
 - **Exercise 1 - water use**
 - Controls, Conflicts and Rights
 - Importance of planning
 - National overview
 - Water planning in West Virginia
 - Role of uncertainty and risk
 - Planning features
- ▶ **Basic hydrology - 1** (Heidi Moltz)
 - Water cycle
 - Watersheds
 - Hydrographs
 - Data sources
- ▶ **Break** (15 min)
- ▶ **Basic hydrology - 2** (Cherie Schultz)
 - Aquifers and their characteristics
 - Groundwater in fractured bedrock
 - Groundwater flow
 - Groundwater in West Virginia
 - Technologies for determining local availability
- ▶ **Water resource plans** (Karin Bencala)
 - State Water Resource Plans
 - Benefits of having a plan
 - Nuts and bolts of developing a plan
 - Resources to get you started
- ▶ **Exercise 2 – Hydrology** (complete before tomorrow’s final session)
Using the maps provided showing West Virginia counties, rivers and watersheds, physiographic provinces, geology, impaired waterways, and USGS real-time streamflow gaging stations answer the questions about your county or area of interest listed on the handout for Exercise 2.



12:30 p.m. Lunch (not provided)

1:30 p.m. Session 2 begins

- ▶ **Water demand forecasting** (Cherie Schultz)
 - Data needs
 - Forecasting average annual demand
 - Estimating seasonal/daily variations in demand
- ▶ **Environmental issues** (Heidi Moltz)
 - Environmental flows
 - Clean Water Act
 - Water quality and TMDLs
- ▶ **Response planning for droughts and flood events** (Heidi Moltz)
 - Droughts
 - Floods
 - Emergency plans
- ▶ **Break** (15 min)
- ▶ **Regional Issues: Marcellus Shale Drilling and Stormwater** (Karin Bencala)
 - Marcellus Shale drilling basics and water-related concerns
 - Stormwater challenges and management
- ▶ **Exercise 3 – Issue Identification and Regional Cooperation** (Discussion)

Through discussion participants will identify the water issues and concerns they are facing in their area of interest and identify what is cause the problems, who may share those concerns, and who may be able to help address them.

4:30 p.m. End of Day 1

Wednesday, October 6, 2010

9:00 a.m. Day 2 sessions begin

- ▶ **Resource assessment (for surface water systems only)** (Cherie Schultz)
 - Introduction
 - Safe yield
 - Watershed water budgets
 - Risk-based approach
- ▶ **Inexpensive mapping and data compilation tools** (Heidi Moltz)
 - Open source mapping tools – MapWindow
 - EPA BASINS
 - Google Earth
 - Microsoft Access and Excel
 - Open Office
- ▶ **Source water protection** (Karin Bencala)



- What are source waters and why protect them
- Source water assessments
- Source water protection plans and projects

▶ **Break** (15 min)

▶ **Regional approaches to water resource management** (Karin Bencala)

- Regional water resource management
- Benefits
- Integrated Water Resource Management (IWRM)

▶ **Exercise 4 – Practical Steps for Developing a Water Resource Plan** (Discussion)

Participants will discuss the steps involved in water resource planning and identify challenges and barriers to being effective and efficient throughout the planning process. We will discuss examples of existing plans as well as explore participants' individual situations.

12:00 noon Workshop ends

Please remember to fill out the evaluation form before leaving!

Handouts available in folder:

- ▶ Exercise worksheets
- ▶ Glossary of terms
- ▶ Assorted maps
- ▶ Helpful references to get you started
- ▶ Speaker bios
- ▶ Evaluation forms