



Horsley Witten Group



WEST VIRGINIA
AMERICAN WATER

Source Water Protection Plan Public Meeting Overview

March 2016





Introduction

Meeting Goal

- Share information and get input on the draft public source water protection plan for local drinking water supply

Meeting Agenda

- Presentation overview of source water protection concepts, regulatory requirements, and plan components
- Open house to review and comment on plan materials
- Question and answer session



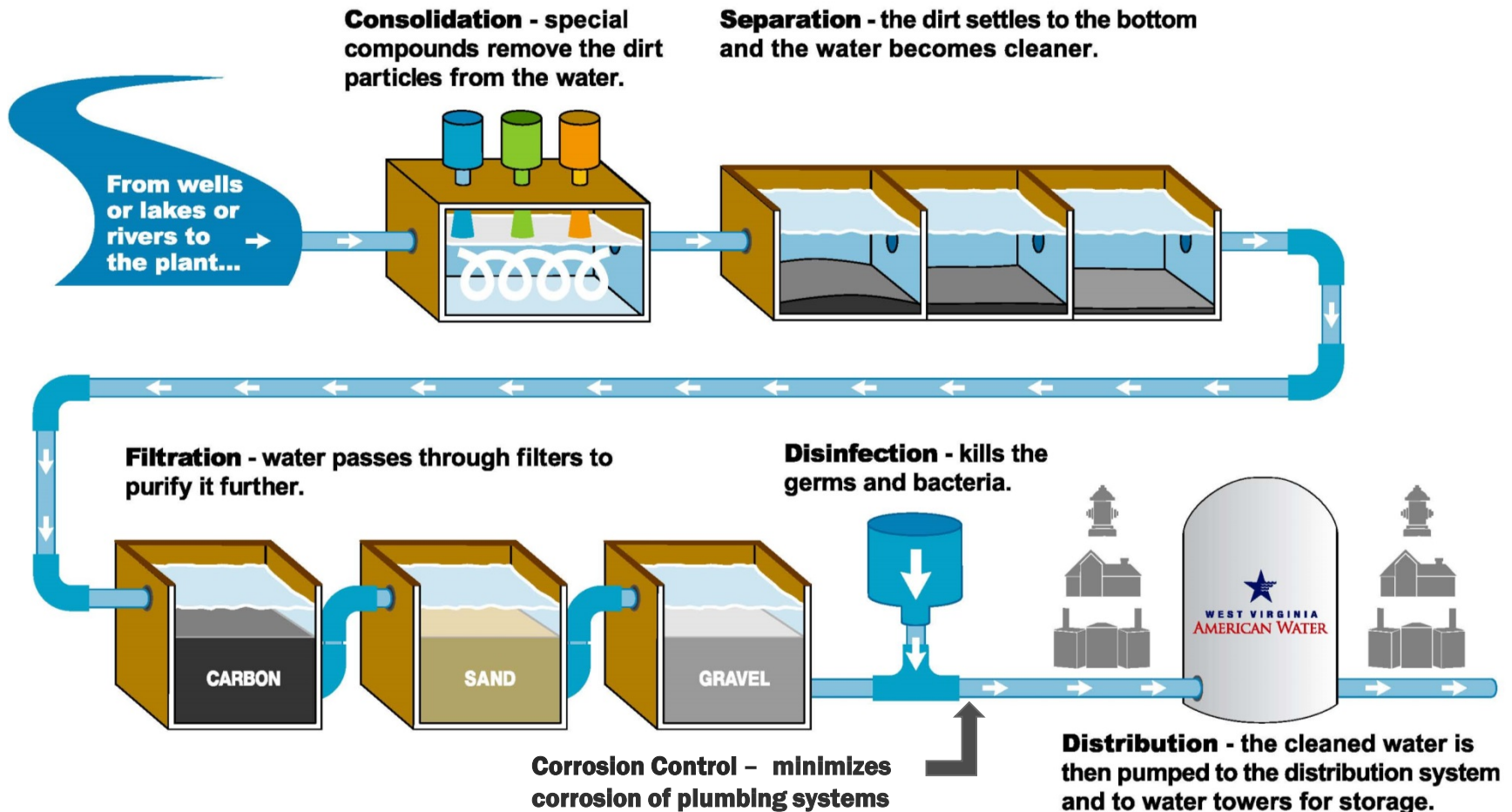
Source Water Protection

- Identifying potential risks to the drinking water supply and seeking to reduce those risks to maintain quality of source
- Important part of a multi-barrier approach along with treatment and distribution to provide quality drinking water
- Source water protection planning includes:
 - ✓ Delineating watershed protection zones
 - ✓ Identifying potential sources of contamination
 - ✓ Developing risk management strategies



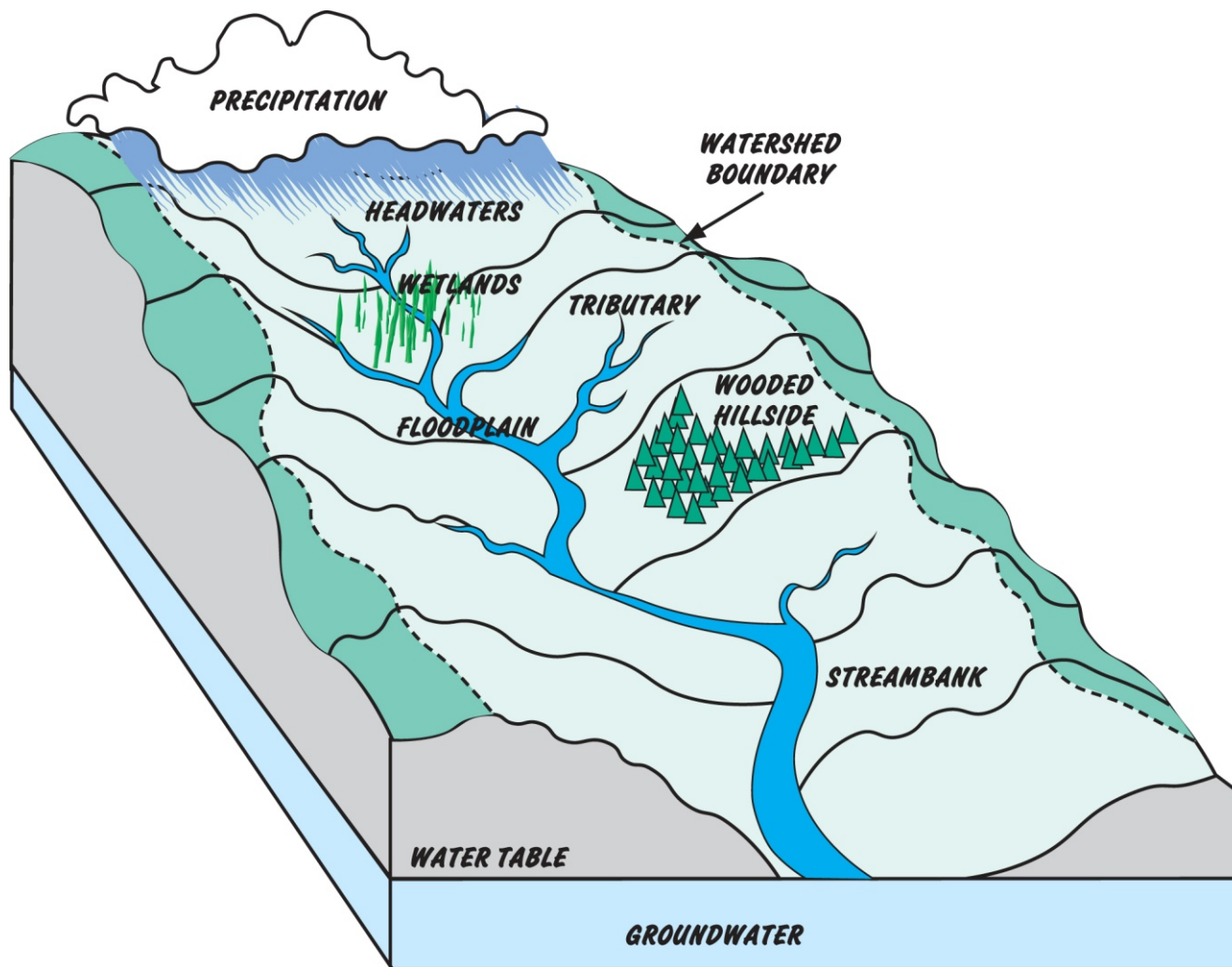
Surface Water Treatment Process

Note: This is an example and not intended to represent the treatment process for a specific system.





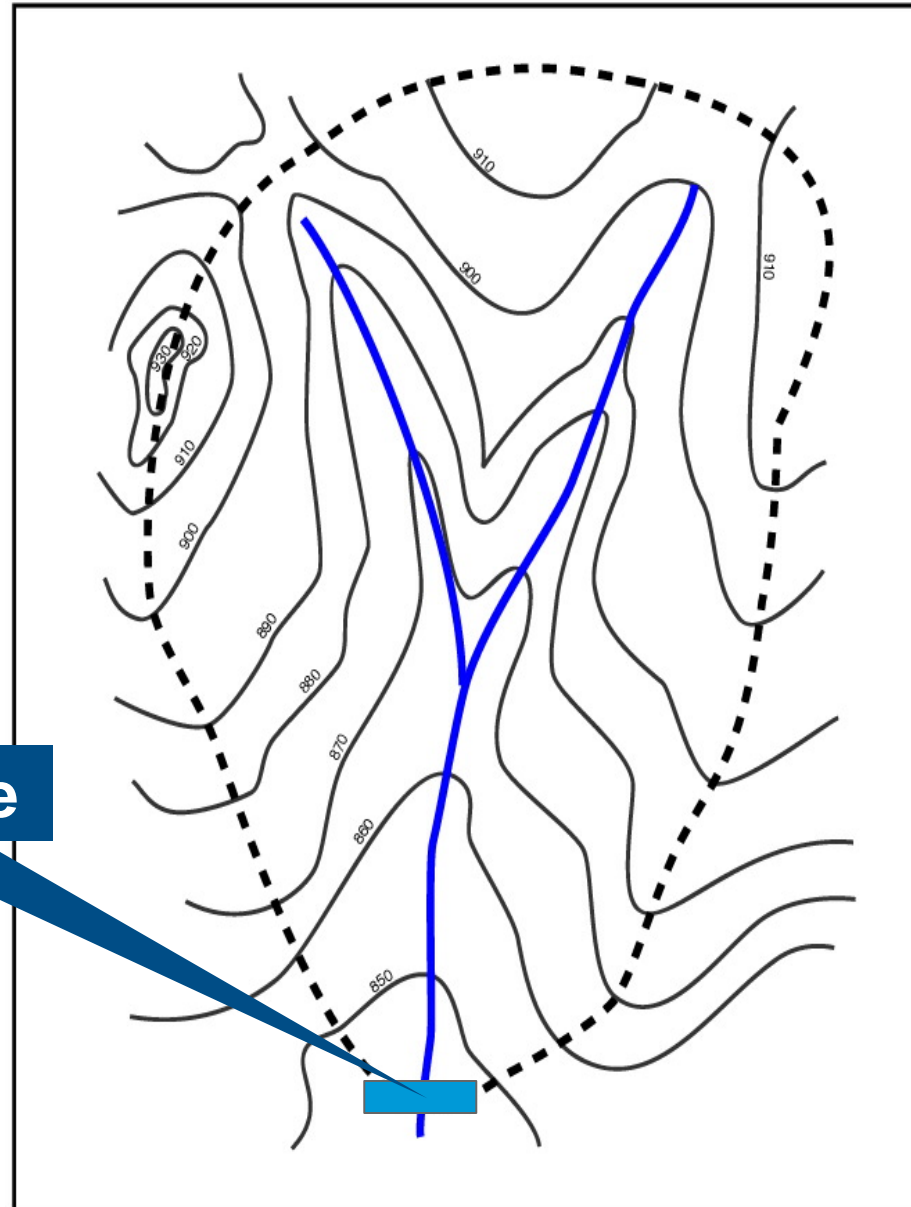
Water Flow Through a Watershed





Surface Watershed

Water Intake





Key Terms

Zone of Critical Concern (ZCC)

Corridor along streams that warrants detailed scrutiny due to proximity to surface water intake. Length based on **5-hour time of travel to intake** plus $\frac{1}{4}$ -mi below intake. Width 1,000' from each bank of principal stream & 500' from tributaries draining to principal stream.



Key Terms

Zone of Peripheral Concern (ZPC)

Extends beyond ZCC by an additional 5-hour time of travel, which creates a protection zone of **10 hours above intake**. Width same as ZCC.



Key Terms

Potential Source of Significant Contamination (PSSC)

A facility that stores, uses or produces substances with potential for significant impact if released into the source water of a public supply.



Delineation Maps

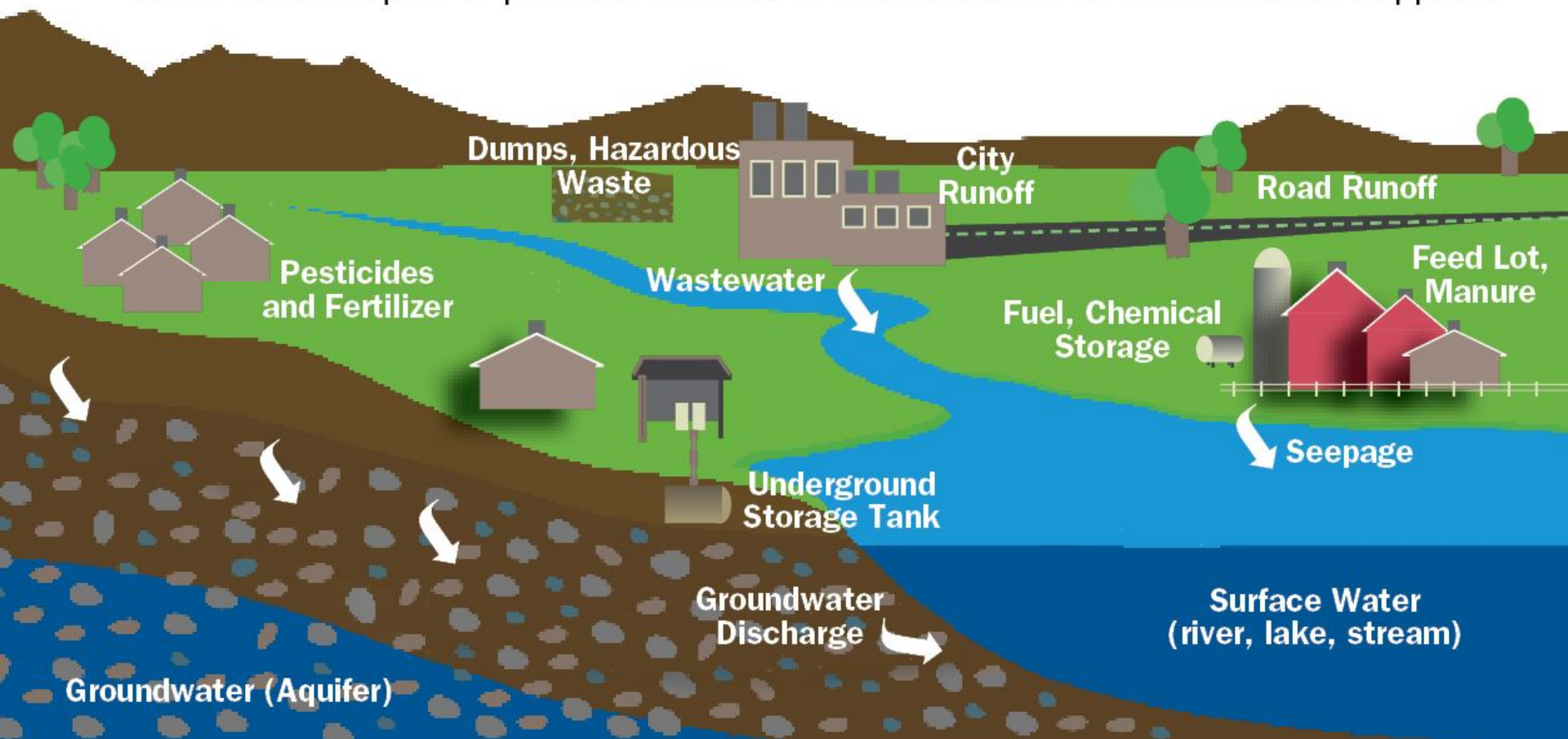
Delineated ZCC and ZPC for each of our water systems are shown in the draft public SWPPs (Page 8). Follow the link below to view the plan for your local water system:

<http://www.amwater.com/wvaw/water-quality-and-stewardship/source-water-protection>



Examples of Source Water Contamination

Below are examples of potential sources of contamination for surface water supplies.





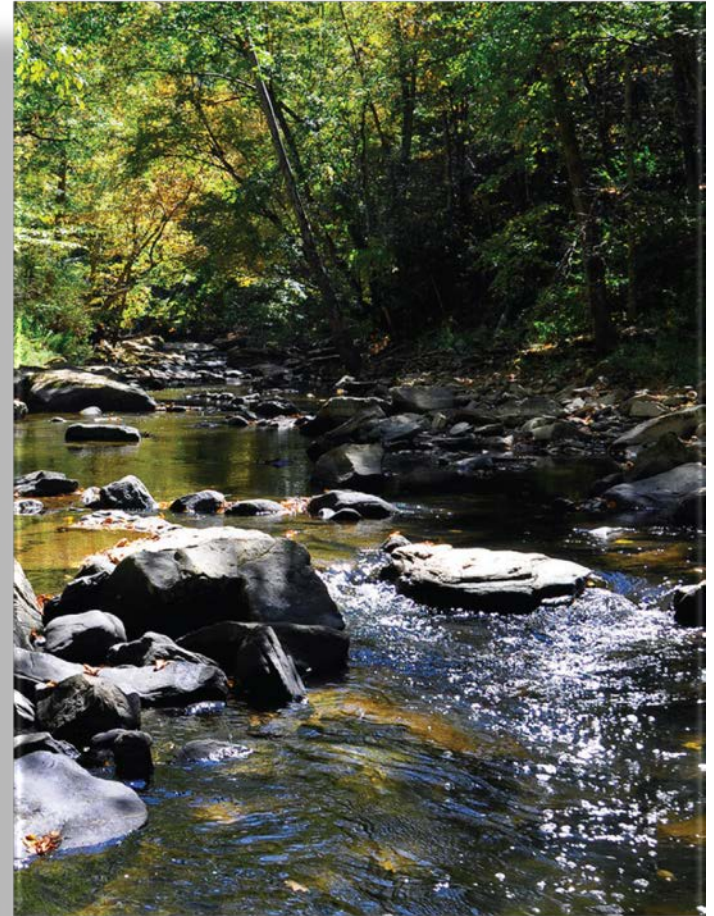
Potential Sources of Contamination





WV Senate Bills 373 / 423

- Established state-wide regulatory framework for source water protection planning
- Requires above ground storage tank (AST) owners / operators to register and inspect tanks and to provide information directly to water utilities





WV Senate Bill 373 – Source Water Plan Components

- Operational information – supply, demand, storage
- Inventory of potential significant sources of contamination
- Management plan to address PSSCs
- Contingency / communications plan for responding to drinking water supply contamination events
- Technical and financial feasibility of alternative supply sources and source water monitoring systems
- Due July 1, 2016 with updates at least every three years



Potential Contaminant Source Inventory



- Pioneered development of GIS map-based tool to identify PSSCs
- Compile information from multiple data sources into single database
- Regular updates and dynamic search and reporting capabilities
- Data sources include regulatory databases, aerial imagery analyses, assessments, local knowledge
- Confidentiality requirements



Source Monitoring

- Approach combines continuous source water quality indicator monitoring and advanced organics analysis
- Optimize treatment and identify the presence of potential contaminants
- Alert water plant operators to certain changes in characteristics, spurring further investigative testing





Event Response and Communications

- Event response protocol
 - Communication throughout
 - Public notification within 30 minutes of risk determination
- Methods of communication
 - CodeRED notification system
 - Local media
 - County alert system
 - Website and social media
 - Door hangers / posted notices
- TIERS advisory system

TIERS Advisories

A	Announcement
B	Boil Water
C	Cannot Drink
D	Do Not Use
E	Emergency



Alternative Sources of Supply

Feasibility study conducted for the following options:

- ✓ Secondary or alternative intake from different source
- ✓ 5 days of raw water storage
- ✓ Interconnections with another system on different source
- ✓ Other alternatives (e.g., groundwater)





How to Get Involved

Provide Input

- Public Meetings
 - ✓ Comment cards
 - ✓ Map notes
 - ✓ Verbal feedback
- Other Opportunities
 - ✓ Comment online
 - ✓ Comment in writing

Protect Your Water Supply

- Dispose of your medicines and other household materials properly
- Keep chemicals, oil, and other wastes out of storm drains
- Contact DEP Spill Line at 1-800-642-3074 if you are aware of a spill or leak

www.westvirginiaamwater.com

Water Quality & Stewardship > Source Water Protection > Provide Input



Contact Information

Submit written comments by mail to:

West Virginia American Water

Attn: Source Water Protection Manager

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