



POTOMAC SHEEN EVENT 2016

Water Utility Briefing

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Presentation to the COG Board
February 8, 2017



Metropolitan Washington
Council of Governments

Overview

Regional Water Supply

- Importance of the Potomac River

Potomac Sheen Discharge Event

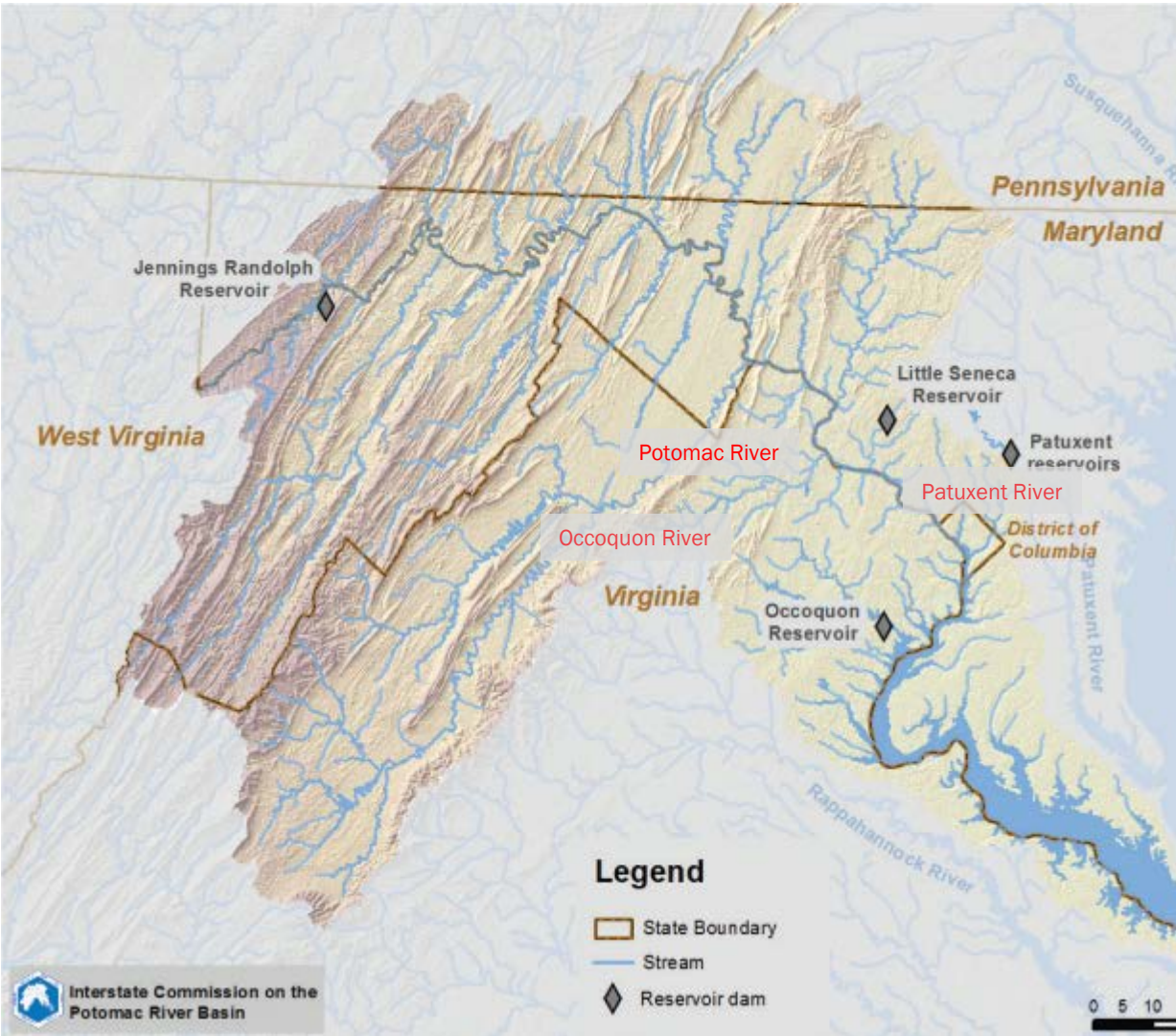
- What happened, challenges, and next steps

Water Supply Resiliency

- Planning and actions



Potomac River Basin Co-Op Utility Reservoirs



5 Million people in the Region rely on surface water for drinking water

- 78% Potomac
- 22% Occoquan and Patuxent

Primary Reservoirs

Daily Use

Patuxent – WSSC

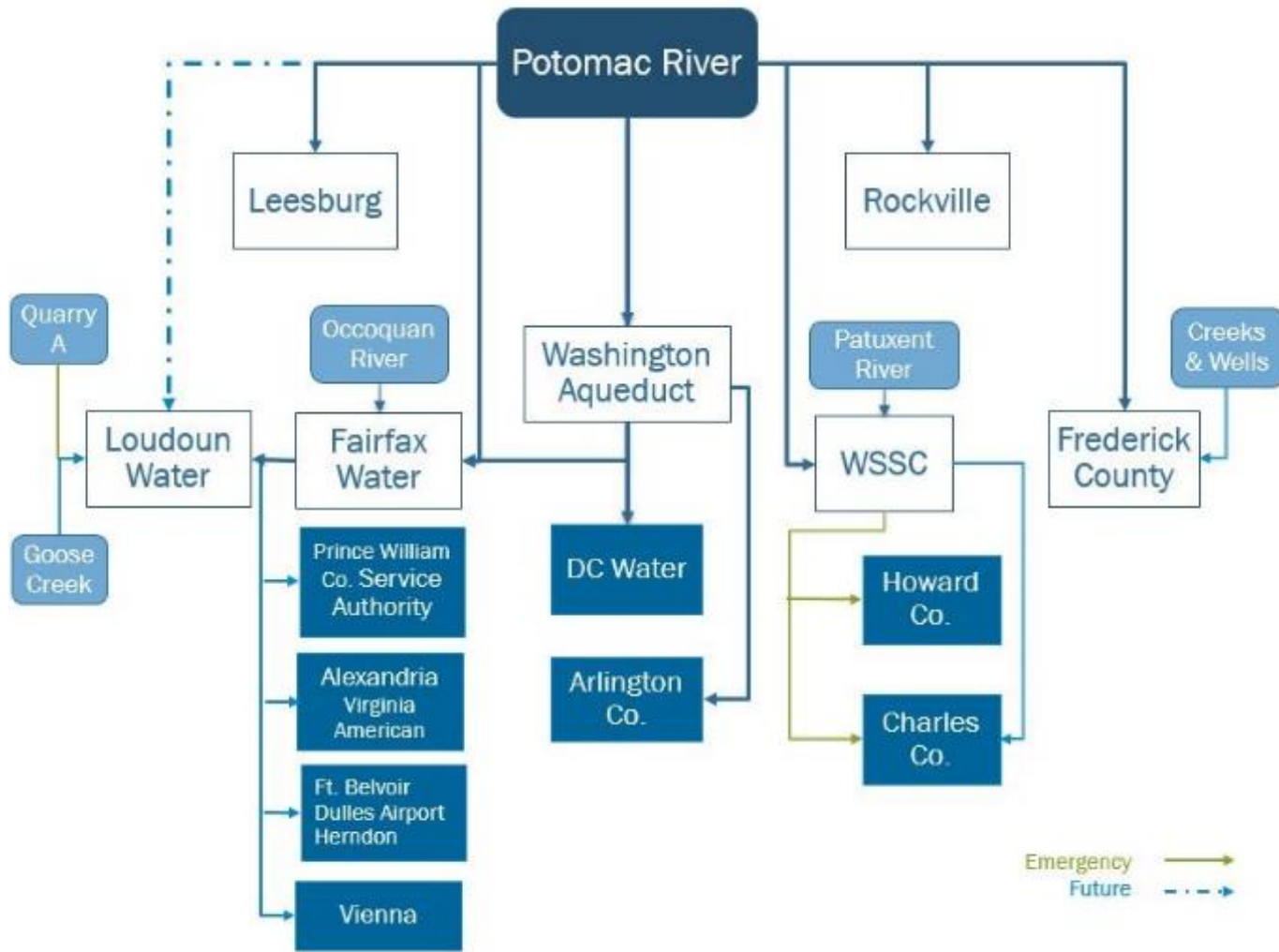
Occoquan – Fairfax Water

Regional Backup Supply

Jennings Randolph

Little Seneca

Regional Water Supply



Average Daily Demand

485 million gal/day

Water mains + 14,500 miles

Fire hydrants ≈ 114,000

Metered accounts + 1,000,000

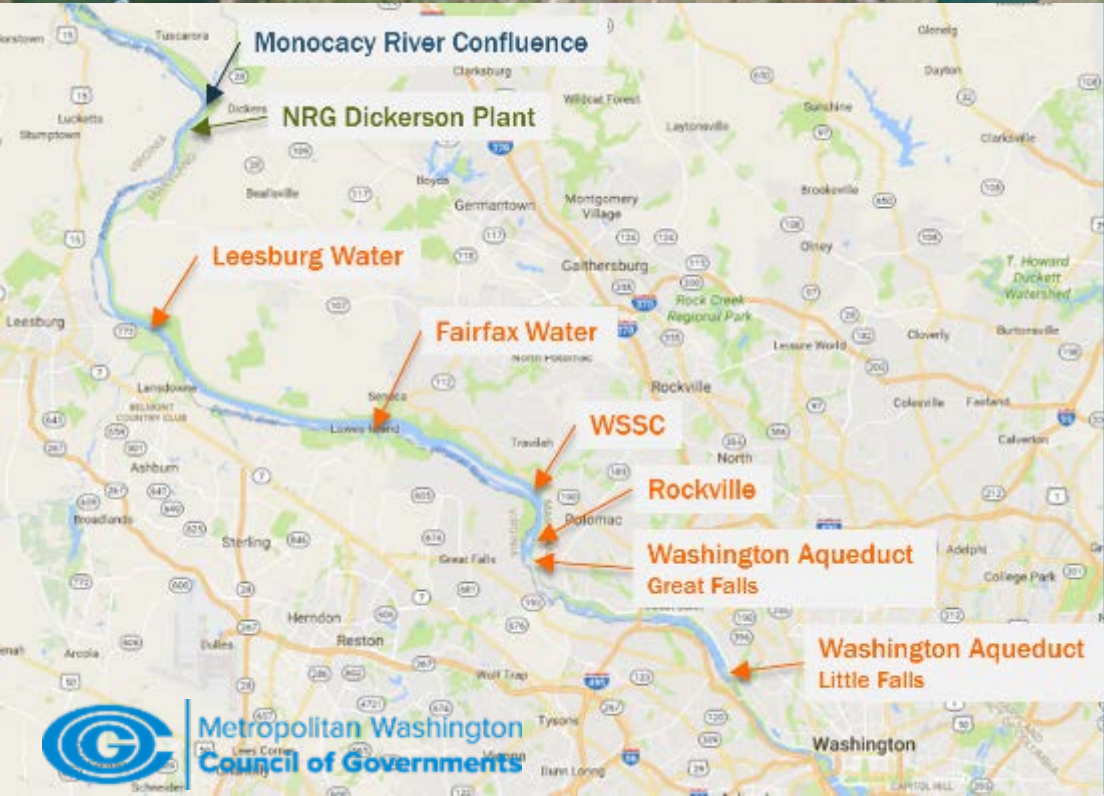
People served + 5,000,000



POTOMAC SHEEN DISCHARGE EVENT

Photo # 6
Observed Sheen
North of Golf Course





Nov 27 White's Ferry reports oil in the Potomac to NRG
 ICPRB notifies utilities, state agencies
 Utilities investigate and initiate protective actions

Nov 28 Unified Command initiated
 - EPA Region 3 is lead
 - Utilities not included
 Utilities deploy booms

First COG regional utility call
 WSSC and COG press releases

Dec 3 Boom deployment complete
 Utilities survey shoreline
 Unified Command continues source search

EPA Mobile Command Post stand-up & PHILIS mobile lab deployed



November 29 – December 17

Utility water monitoring to ensure safety at water intakes

Daily utility operation, laboratory and PIO coordination calls

December 5 – Late December

USCG identifies sheen - NRG Dickerson turbine oil

NRG accepts responsibility

- Shuts down station
- Joins Unified Command
- Provides Oil Spill Response Organization (OSRO) cleanup

Federal demobilization, MDE assumes oversight



Utility Actions

Rapid Implementation

- ICPRB spill notification procedures early alert to water utilities
- Utility Emergency Response Plans actions initiated well ahead of formal Unified Command

Early, Ongoing Utility Communication & Coordination

- COG conference calls provided critical situation status and information throughout the spill response



Monitoring Technology

- Regional monitoring system performance provided real-time data



Challenges

Unified Command

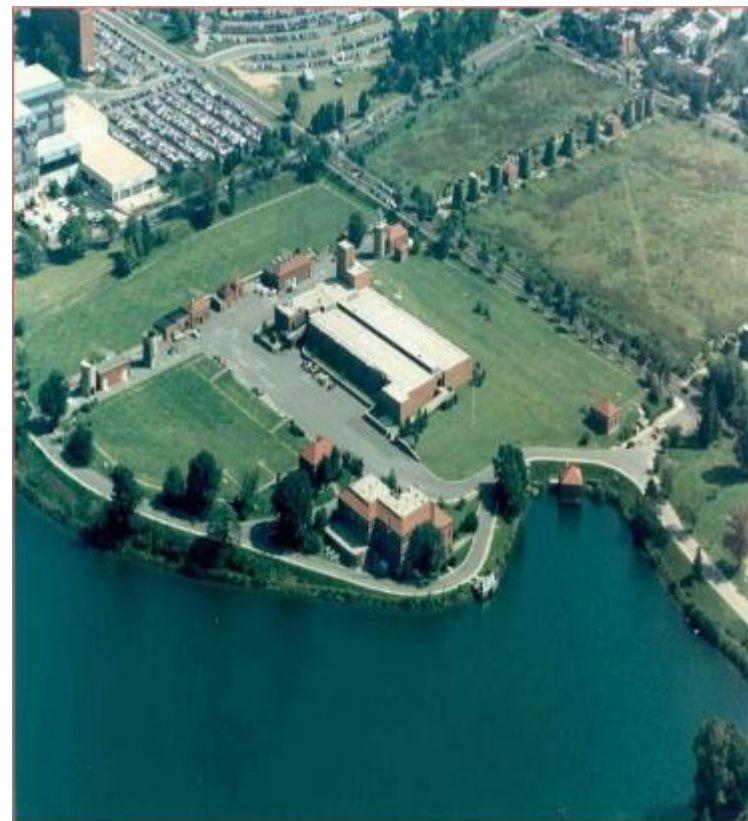
- Drinking water protection objective
- Water utility presence

Situational Awareness

Information sharing across agencies and timeliness - Incident Action Plans, Situation Reports, Operational status

Operations

- Identifying responsible party
- Delays collection & recovery



Action Steps

Prioritize Drinking Water

Develop a Non-Tidal Potomac Spill Response Plan

- Primary objectives must include drinking water
- Ensure water utility role in Unified Command
- Emphasize data collection and information sharing
- Assess potential human health effects & communicate clearly

Water Supply Emergency & Drought Management Plans

- Reviews & reports
- Updates
- Exercises

Source Water Protection Partnerships & Collaboration

Prioritize

- Protecting Drinking Water
- Preventing spills





REGIONAL WATER SYSTEM RESILIENCY STUDY AND SUPPLY PLANNING

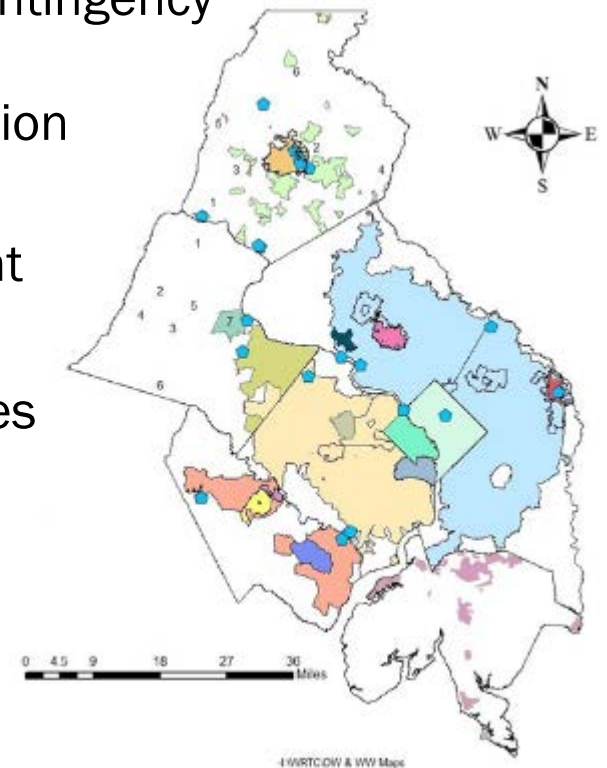


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Long-term Cooperative Water Supply Planning & Management

Ongoing	Cooperative regional monitoring of source & finished water Collaborative training, exercises & contingency planning Regional communication & coordination
1970	Water supply added to ICPRB scope
1981	Water Supply Coordination Agreement
1982	Drought Response Plan
1994/04/09	Water Supply Emergency Plan Updates
2006	Regional Monitoring Network
2007	Regional Redundancy Study
2009	Mutual AID Network – NCR WARN
2013 - 2016	Emergency water supply planning Updated source water assessment Regional water system resiliency study



Regional Resiliency Study

Evaluated potential failure events

- Large water main breaks
- Contamination
 - Potomac River
 - Reservoir
- Loss of one or more water treatment plants
- UASI Funded



Regional Resiliency Study



High benefit-cost ratio projects

- Interconnections
 - Between utilities
 - Within utility networks
- Off-river water storage

Cost estimate

- WSSC and DC Water interconnections \approx \$32M
- Fairfax Water quarry storage \approx \$46M
- Washington Aqueduct Travilah Quarry storage \approx \$160 - \$300M



Regional Resiliency Study

Assess

- Federal water main condition
- Water storage options
- Infrastructure improvements and source water protection needs

Evaluate

- Multiple benefits of Travilah Quarry relative to costs

Identify

- Funding sources



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