

# Northern Virginia Regional Water Supply Plan

City Council Legislative Session



City Hall

December 13, 2011

# Background

- VA Code Section 62.1-44.38:1 requires a water supply plan (Nov 2005)
- Plan Participants:
  - Every County, City and Town within Northern Virginia
- Plan led by Northern Virginia Regional Commission (NVRC)
- Plan submitted to the Virginia Department of Environmental Quality (VDEQ) November 2, 2011.
- To be updated every five years.



# Components of the Regional Plan

- Inventory of existing water sources and uses.
- Assessment of projected water demand.
- Statement of need if demands exceed source availability within the planning horizon.
- Analysis of alternatives to address projected source water deficits if existing.
- Description of water demand management actions.
- Drought Response and Contingency Plan.



# Alexandria's Water Supply

- Alexandria purchases all of its water from Virginia American Water Company (VAW)

25,148 Connections  143,885 People

- VAW obtains water from Fairfax Water
- Fairfax Water obtains water from Potomac River and Occoquan Reservoir



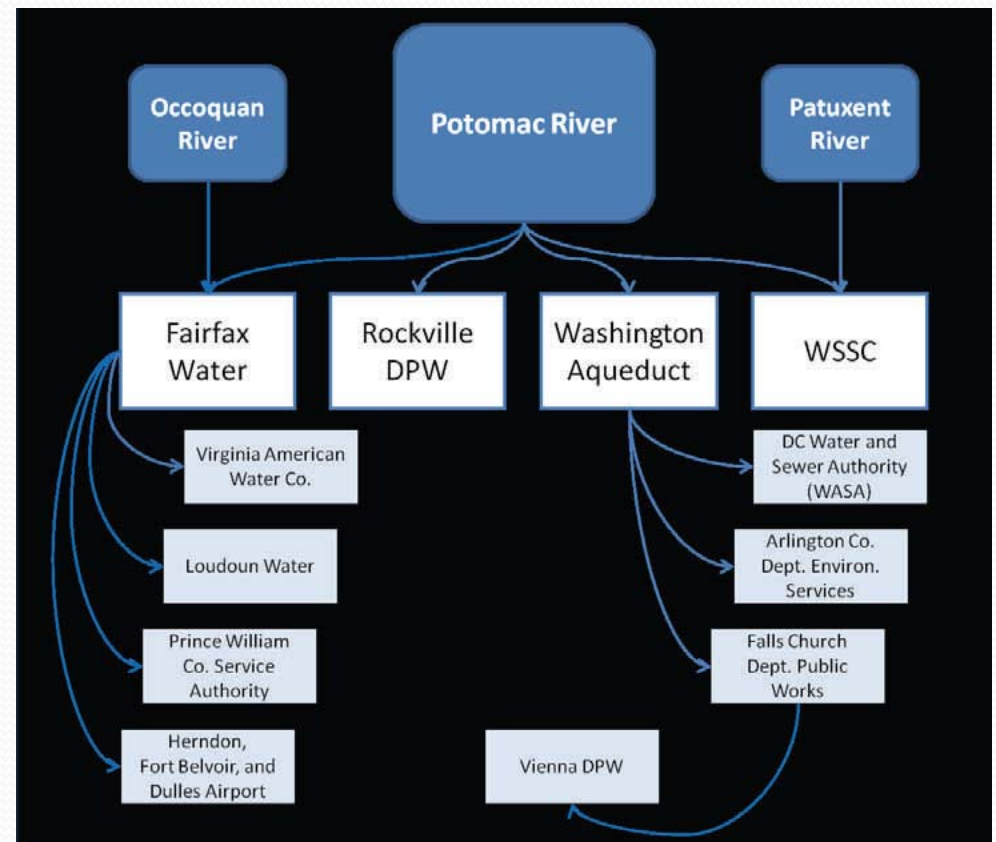
# Comparison of Projected Demand and Water Supply

- Existing usage (2007) = 16.7 MGD
- Projected demand (2040) = 23.2 MGD
- VAW has an agreement with Fairfax Water of 28.3 MGD (meets demand)
- VAW has an operating capacity of 19.4 MGD through Virginia Department of Health (VDH)
  - Based on projections, deficit around 2019
  - Operating capacity increased by adding system storage
  - VAW currently working on a comprehensive planning study to address



# Water Supply Plan Conclusions

- Surplus expected through 2040
- Periods of drought could strain water supply
- 20-year forecast period (2030): 100% system reliability and no water supply deficits.
- 30-year forecast period (2040): Regional system likely to be strained during serious drought.
- Summertime outdoor water use is increasing.



Water Supply System Overview



# Other Plan Components

- Demand Management Strategies
  - Water conservation practices
  - Education and outreach
- Water Supply Alternatives
  - Increase storage
  - Additional intakes
  - Reuse



# Water Supply Emergency Ordinance

- VDEQ requires a water supply emergency ordinance (City Code Section 5-6-1 adopted 1963)
- Regional Water Supply Plan recommends City update its existing ordinance to be consistent with regional drought response planning
- Proposed ordinance defines two stages
  - Warning Stage – voluntary water restrictions
  - Emergency Stage – mandatory water restrictions





# Public Outreach

- Announcement of Water Supply Plan (E-news) and public informational meeting held October 24, 2011
- Presentation to the Environmental Policy Commission on November 21, 2011
- City Website:  
[alexandriava.gov/watersupplyplan](http://alexandriava.gov/watersupplyplan)



# Regional WSP Schedule

- Public comments can be submitted in writing to:  
City of Alexandria  
Attention: Maurice Daly, Division Chief  
Engineering Division, Room 3200  
301 King Street  
Alexandria, VA 22314  
[maurice.daly@alexandriava.gov](mailto:maurice.daly@alexandriava.gov)
- Hold public hearing on January 21, 2012
- Adopt Regional WSP following all jurisdictional public hearings and after written comments addressed

