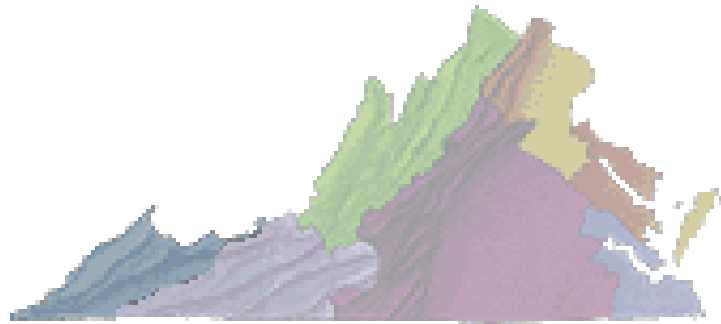
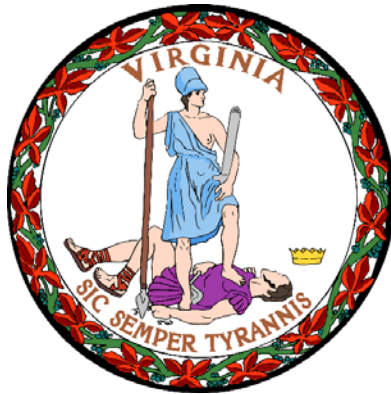

The Most Important Liquid: Water



VCU Performance Management Group
Virginia Executive Institute
Spring 2016 Class (Group 3)



The Most Important Liquid: Water

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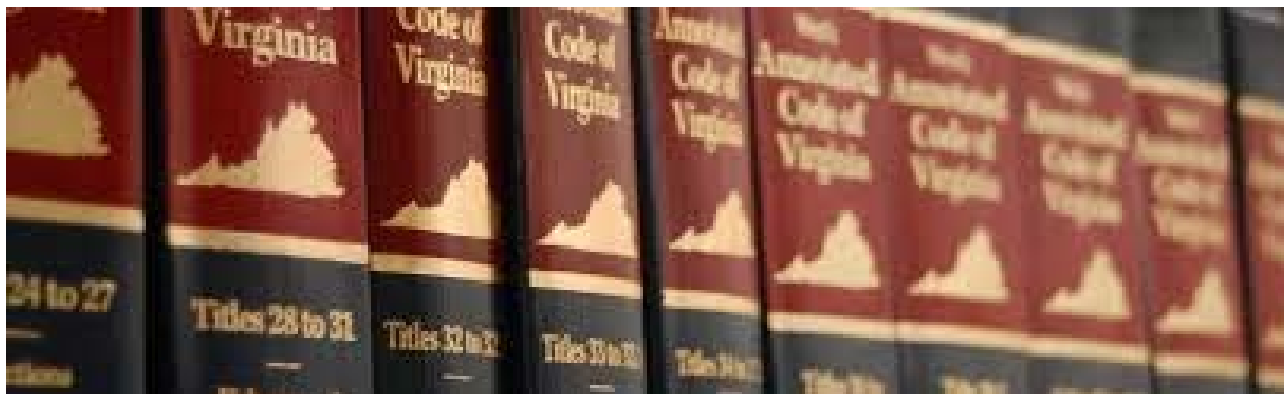
Virginia's Water Resources

- 43 inches average annual state-wide rainfall
- 52,232 miles of freshwater streams and rivers – part of nine major watersheds
- 22.5 billion gallons per day – total combined flow of all freshwater streams in the state
- 955 user facilities for 2257 withdrawal points exceed 7 billion gallons per day for all use types. Excluding power generation, 2013 withdrawals totaled approximately 1.2 billion gallons per day



Virginia's Statutory Authority for Water Resources

- The Virginia Water Control Board is responsible for planning the development, conservation, and utilization of Virginia's water resources.
- DEQ manages state water resources; VDH regulates drinking water
- VA Code requires 5-yr state and 10-yr local water supply plans that address the issues listed above



Examples of State Plans to address Drought

- Georgia – Predrought Mitigation Strategies
 - Limiting irrigation for certain purposes to 4 pm – 10 am
 - Investments for water efficiency
- Texas – Ongoing information disseminated to stakeholders
- Colorado – Plan includes mitigation of long-term drought impacts, vulnerability assessments and previous drought impacts
 - Hazard Mitigation Goals
 - State Drought Mitigation Capacity Assessments
 - Local Capacity Assessments (water conservation, drought response, drought management)
 - Impacts of prior droughts are a part of the plan

Examples of State Plans to address Drought

- California – Incorporated lessons learned from Australia
 - Adopted regulations to incorporate water efficiency and conservation
 - Understanding communication is key especially with the public and localities
 - Include businesses when addressing conservation or the replacement of inefficient appliances and fixtures
 - Diversify supply – including desalination and recycling water
 - Undertake least-cost planning for alternative supplies and adopt a readiness based plan

Lessons Learned From Other U.S. States

- Two tier approach – State Management Planning with regional, basin or sub-basin involvement.
- Need for dependable, dedicated funding sources sufficient to meet the need for:
 - improved infrastructure,
 - water storage,
 - data collection and education.
- Increased public interest and involvement (driven by years of drought and water resources competition)



Water Supply Policy Recommendations

■ On-going planning

- Continued adherence to 5-year Commonwealth water plan and 10-year local water supply plan updates
- Encourage more frequent local water supply plan updates potentially with grant funding to PDCs to explore regional approaches to water supply needs
- Drought Monitoring Task Force meet more frequently, even in non-drought periods aid with planning processes
- Incorporate VEDP input on Commonwealth Water Supply planning to identify potential ‘targeted regional solutions’ to attract business investment in Virginia



Water Supply Policy Recommendations

- **Increasing water supply redundancy and promoting regionalism where appropriate**
 - Identify systems that are in need of or would significantly benefit from redundant water supplies
 - Incentivize regional approaches to long-term water supply needs, possibly through a grant reimbursement program



Water Supply Policy Recommendations

- **Diversifying water supply infrastructure financing options for local and regional water projects**
 - Dedicated funding source for reservoir projects (possibly with a dedicated revolving loan fund to create a perpetual funding vehicle)
 - Loan excess capacity in Clean Water Revolving Loan Fund to the Drinking Water Revolving Loan Fund for critical water supply projects in VA



Water Supply Policy Recommendations

- **Enhance water conservation measures, incentives and water resource sustainability investments**
- DEQ prioritization of water re-use projects, possibly with a deeper interest rate subsidy through the CWRLF
- Explore expanded use of green infrastructure and water saving technologies in state facilities
- Education of water conservation best management practices and new technologies.

