

# Water Withdrawal Permitting for Irrigators

## Tidewater Agricultural Research and Extension Center Workshop

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Ryan Green

Department of Environmental Quality  
Office of Water Supply

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# Presentation Outline

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- DEQ - Office of Water Supply
- Groundwater Withdrawal Permitting
- Surface Water Withdrawal Permitting
- Water Withdrawal Reporting
- Question & Answers



# Office of Water Supply

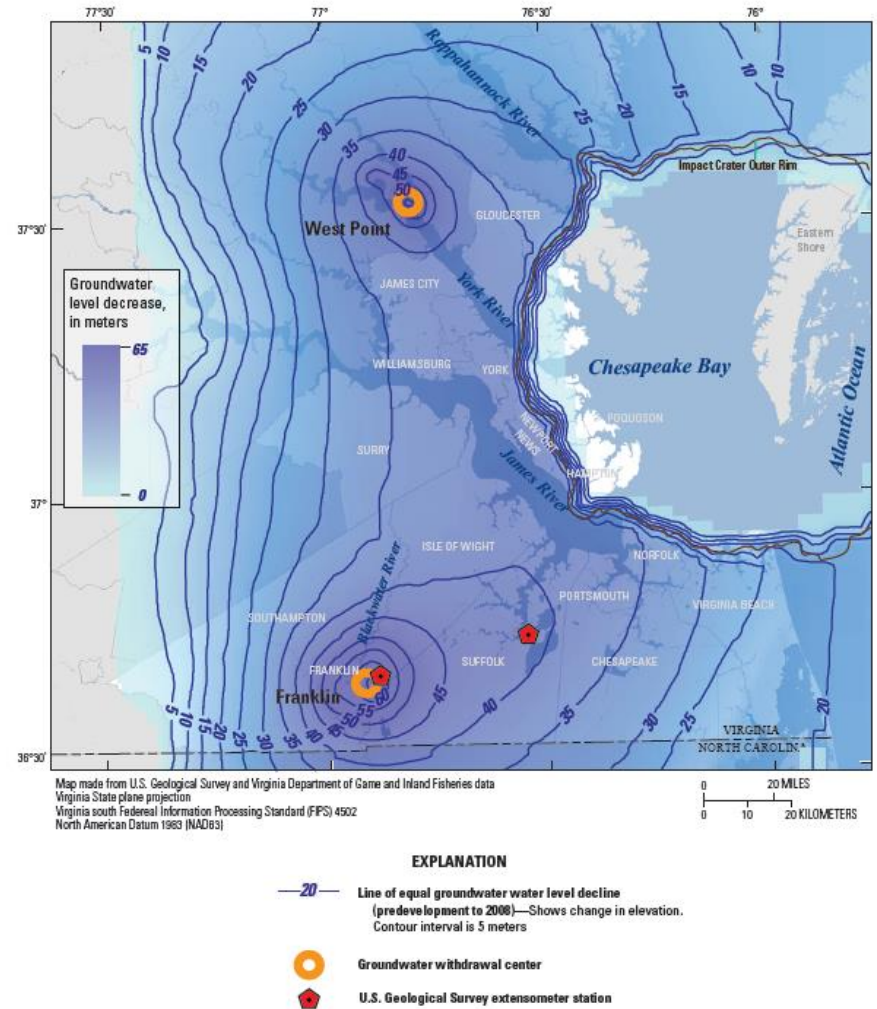
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- Created in response to the 2001-2002 drought
- Water Withdrawal Permitting & Compliance
  - Groundwater Withdrawal Permitting (within designated Groundwater Management Areas)
  - Surface Water Withdrawal Permitting (statewide)
- Water Supply Planning
- Groundwater Characterization
- Environmental Data & Analysis Group



# Groundwater Permitting Background

- More than 160 feet of decline in groundwater levels near Franklin & West Point, VA
- Decreased groundwater levels can lead to:
  - land subsidence
  - salt water intrusion
  - reduced availability



# Groundwater Permitting Background

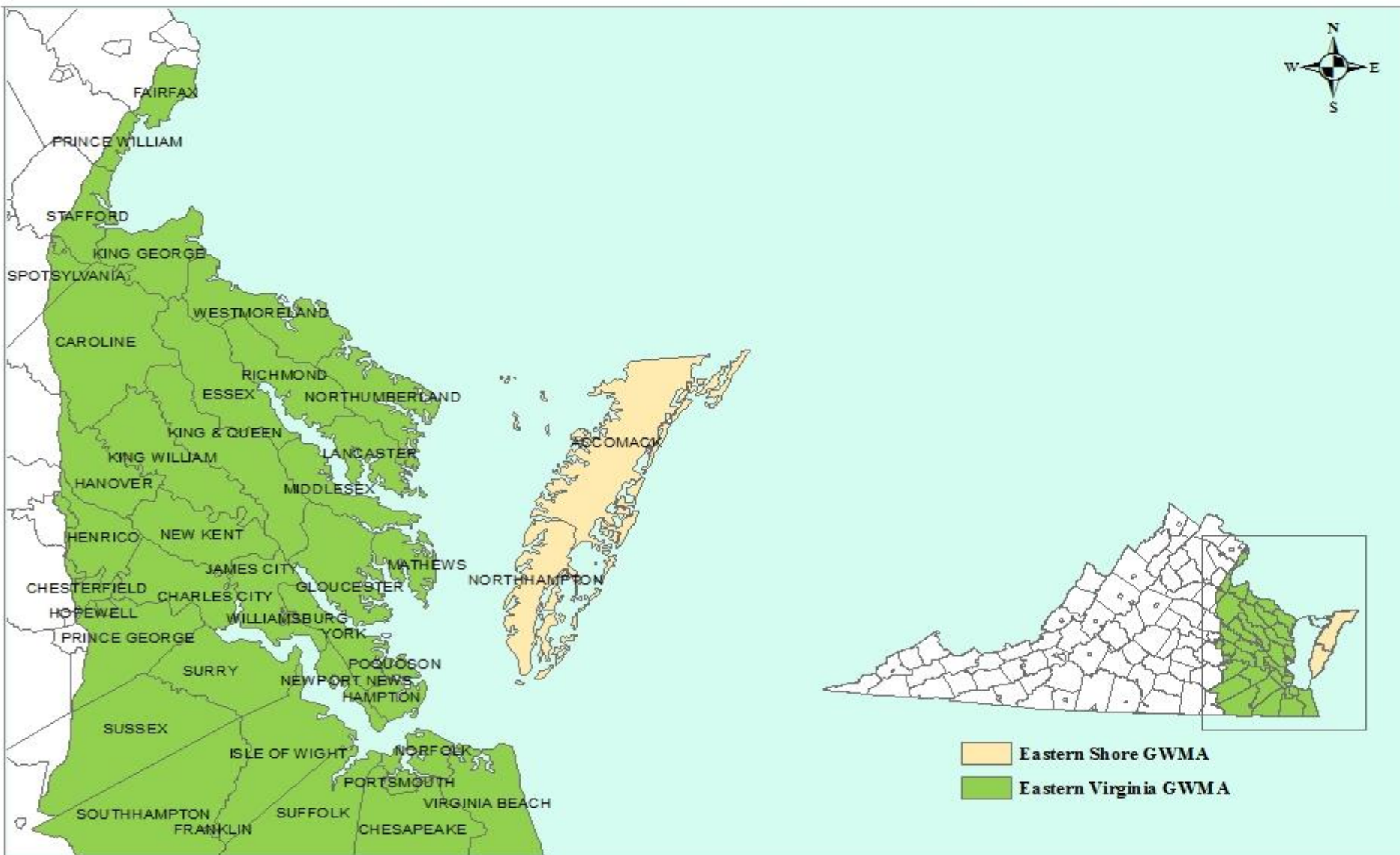
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- 1973 – The Groundwater Act of 1973
- 1975/1976 – Designated GWMAAs
  - Declining groundwater levels
  - Groundwater withdrawal interference
  - Salt water intrusion
- 1992 – Ground Water Management Act of 1992
  - Agriculture added as a “beneficial use”
- 1993 – Groundwater Withdrawal Regulations
- 2014 – Expanded Eastern Virginia GWMA



# COMMONWEALTH OF VIRGINIA

## GROUNDWATER MANAGEMENT AREAS (GWMA)



Effective: January 1, 2014  
Prepared By: Virginia Department of Environmental Quality  
Groundwater Withdrawal Permitting Program

# Groundwater Permitting

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- Who needs a permit?
  - Anyone using  $\geq 300,000$  gallons in any one month in a designated GWMA
  - Applies to entire “withdrawal system”
  - Evaluated on a case-by-case basis
- Exclusions from permitting
  - Withdrawals  $< 300,000$  gallons per month
  - Temp. construction dewatering ( $< 24$  months)
  - Groundwater remediation ( $< 60$  months)
  - Geophysical investigations (inc. pump tests)



# Groundwater Permitting Process

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- Pre-application meeting w/ DEQ staff
- Prepare app. and supporting documentation
- Submit application (no permit fee for Ag)
- DEQ completeness review
  - DEQ may request additional information or identify deficiencies to be corrected
- DEQ technical review (technical evaluation)
- Draft Permit / Fact Sheet
- Public Notice (30-day public comment period)
- Final Permit issued



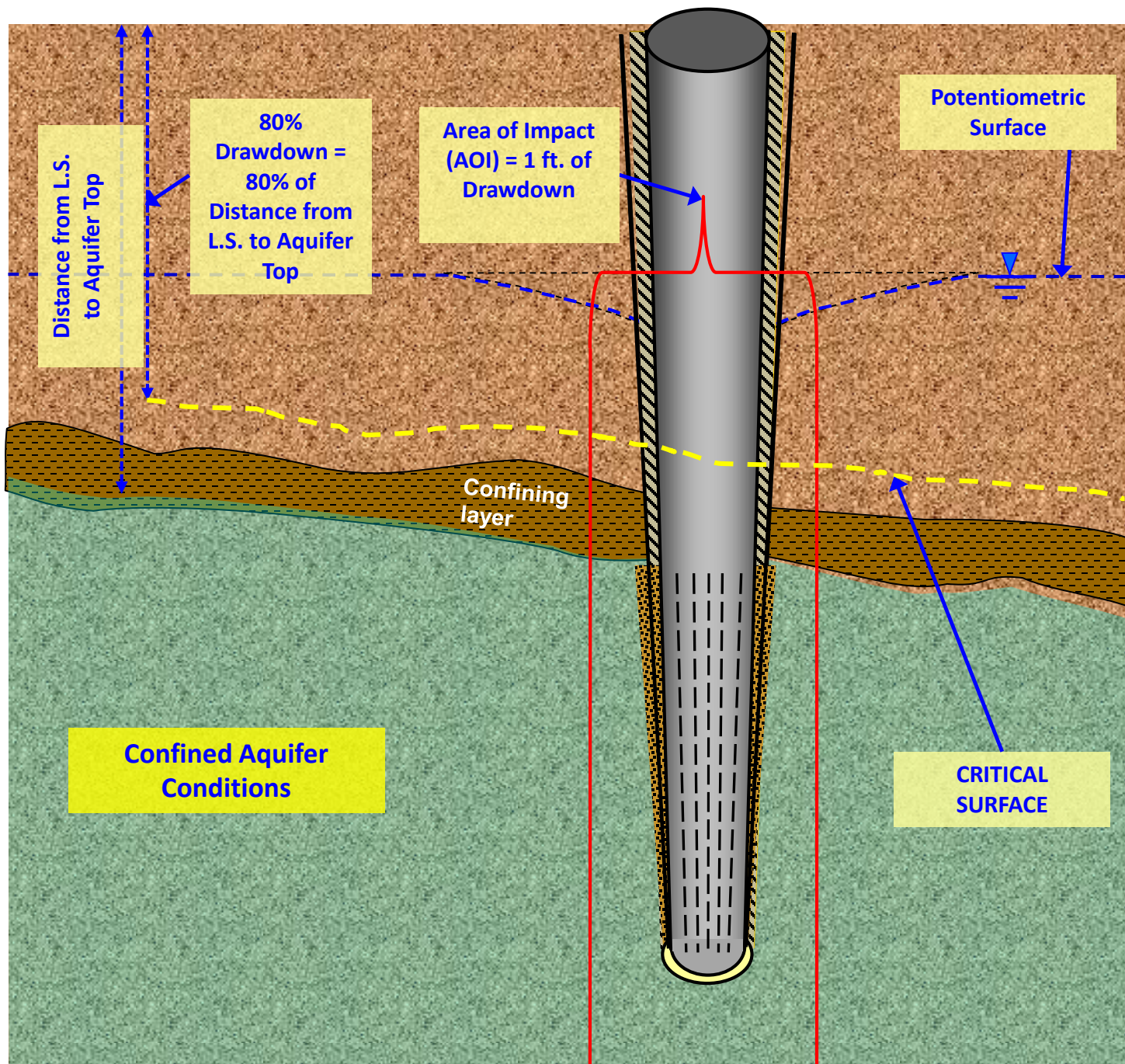


# Technical Evaluation

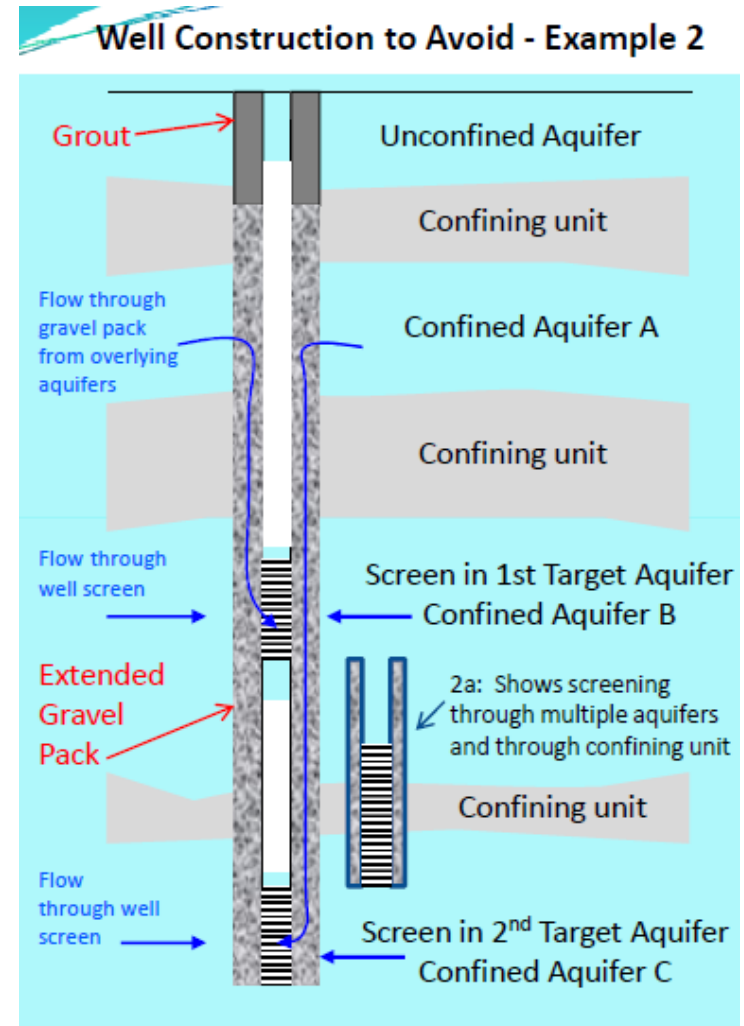
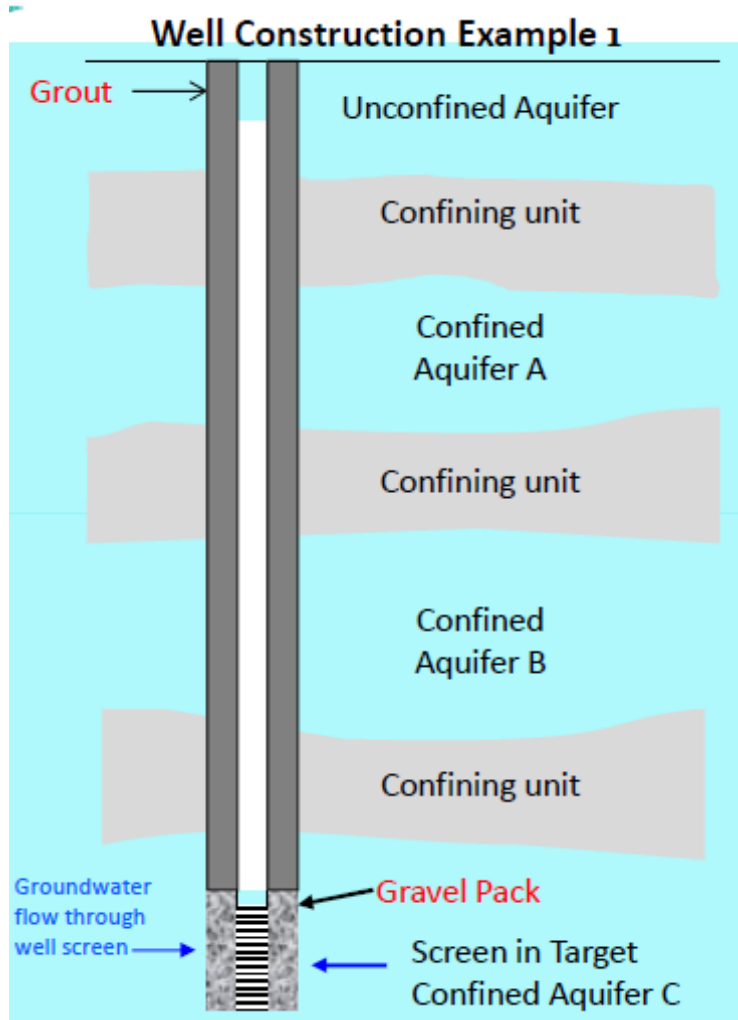
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- Identify Area of Impact (AOI)
  - Does AOI remain on property?
  - Existing groundwater users within AOI?
  - Mitigation Plan
- Evaluate against 80% drawdown criteria
  - Identify critical surface
  - Reduced withdrawal amounts / rates
- Evaluate potential for salt water intrusion
  - Chloride monitoring and reporting





# Well Construction Guidelines



# Surface Water Permitting Background

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- Virginia Water Resources and Wetland Protection Program
  - Article 2.2 of SWCL (§ 62.1-44.15:20 et seq.)
- Virginia Water Protection (VWP) Permit Program Regulation (9VAC25-210-10 et seq.)
  - Impacts to wetlands, streams, as well as dredging and construction in state waters
  - Surface water withdrawals, preservation of instream flows
  - Clean Water Act § 401 certification
- Implemented statewide



# Surface Water Permitting

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- Surface water withdrawal – “removal or diversion of surface water... thereby altering the instream flow or hydrologic regime of the surface water”
- Withdrawals can come from streams, rivers, lakes or impoundments (e.g., ponds, reservoirs) constructed in a natural watercourse or wetland



# Surface Water Permitting

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- Who needs a permit?
  - Agricultural withdrawals  $\geq 1,000,000$  gallons in any one month in nontidal waters
  - Agricultural withdrawals  $\geq 60,000,000$  gallons in any one month in tidal waters
  - Applies to entire “withdrawal system”
  - Evaluated on a case-by-case basis
- Non-agricultural withdrawals  $\geq 10,000$  gallons per day from nontidal waters require permitting
- Non-agricultural withdrawals  $\geq 2,000,000$  gallons per day from tidal waters require permitting





# Surface Water Permitting

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- What is not a surface water withdrawal?
  - Withdrawal from a pond not constructed in a perennial or intermittent watercourse or wetland
  - May require a groundwater permit if pond is recharged (i.e., refilled) by groundwater well



# Surface Water Permitting Process

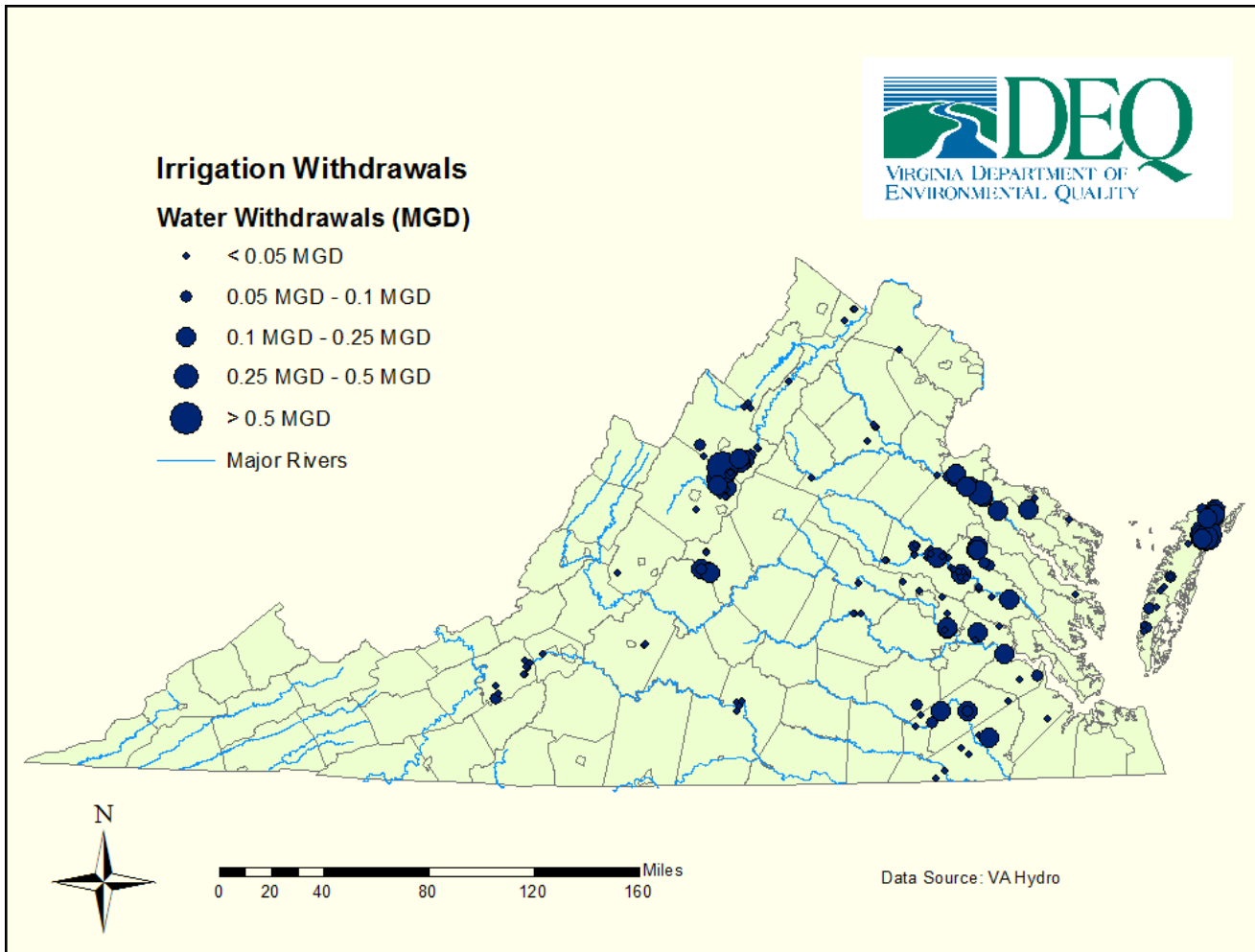
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- Pre-application meeting w/ DEQ staff
- Prepare JPA and supporting documentation
- Submit application (no permit fee for Ag)
- DEQ completeness review
  - DEQ may request additional information or identify deficiencies to be corrected
- Cumulative Impact Modeling
- Draft Permit / Fact Sheet
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# Water Withdrawal Reporting



DEQ also requires water withdrawal reporting for users statewide.

Requirements for reporting vary depending on use type.



# Water Withdrawal Reporting

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- Reporting of groundwater and surface water withdrawals is required for Agriculture when:
  - Crop irrigation – Withdrawal  $\geq 1,000,000$  gallons in any one month
  - All other agricultural uses (livestock watering, etc.) – Average daily withdrawal  $\geq 10,000$  gallons per day in any one month
- Contact for additional reporting information:
  - Sara Jordan, Water Supply Planner  
(p) 540-574-7901  
(e) [Sara.Jordan@deq.virginia.gov](mailto:Sara.Jordan@deq.virginia.gov)



# Questions & Answers

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Fact-sheets, contact maps, and other helpful documents are available in the back.

## DEQ Contacts:

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