

**Attachment 1A
MEETING SUMMARY
DIRECTORS OF UTILITIES COMMITTEE
February 2, 2011
HRPDC – Chesapeake**

1. Summary of January 5, 2011 Meeting and Annual Retreat of the Directors of Utilities Committee

The Summary of the January 5, 2011 meeting and annual retreat of the Directors of Utilities Committee was approved.

2. Private Property Infiltration and Inflow (I/I) Abatement Program

Mr. Richard Stahr, Brown and Caldwell, briefed the Committee on the Capacity Team's alternatives analysis for development of a private property I/I abatement program. The team explored two options as follows: (a) development of locality-specific ordinances, as presented at the October 13, 2010 Committee meeting; and (b) development of a regional program coordinated between localities and HRSD. Mr. Stahr provided a presentation on option (b). He noted that a similar presentation was also made to the HRSD Commission on January 25, 2011 and that DEQ has also been briefed. Following the presentation, Mr. Phil Hubbard, HRSD, and Mr. Stahr responded to questions. The Committee discussion and comments on are summarized as follows:

- An advantage to option (b) is that property rights issues may be addressed through HRSD's enabling act. HRSD will still require permission from the homeowner to perform work beyond inspection and monitoring.
- It is estimated that 20-30% of residential laterals require repair at an approximate cost of \$5000 per lateral. Cost estimates for option (b) are inclusive of program administration costs.
- In option (b), regarding future maintenance responsibilities for work done on private property, HRSD indicated that there will be no assumption of ownership or maintenance obligations. Homeowners would sign an agreement explicitly releasing HRSD from further responsibilities.
- The peak flow commitments to be made by localities and HRSD will apply indefinitely. Rehabilitation and maintenance issues will be revisited through MOM-related activities.
- In option (b), private property I/I abatement in non-SSES basins may be addressed through MOM plan activities.
- Would HRSD consider a monthly fee for lateral maintenance or build such a fee into the base rate? Would HRSD consider a maintenance program for sewer and water laterals?
- The HRSD Commission approved the concept of option (b). DEQ had some questions, but no objections.

- HRSD envisions the development of separate MOAs with each locality to facilitate option (b) and ensure program continuance. However, coordination of the technical work required to prepare for implementing this option should begin as soon as possible.
- Another idea would be for all localities to apply an enforcement approach consistently across the region. City and county councils may not support an enforcement program that causes the homeowner to incur costs.
- Work on private laterals may be prioritized using information from SSES reports, construction observations made during public-side rehabilitation, and general system information such as age and pipe material.
- The perception of equitable program implementation may be a potential public relations issue for option (b). The key message is that the cost of I/I abatement is less than the cost of expanding the conveyance and treatment system.
- Political issues will need to be addressed under either option through a public outreach program.
- Most of the concerns expressed apply to the implementation process for both options. In general, a regional approach is preferable.
- The regional approach of option (b) will require significant and continuing collaboration between HRSD and the localities.

Handout:

HRSD presentation: "Private Property Inflow/Infiltration (I/I) Abatement Program"

ACTION: The Committee unanimously agreed to endorse option (b) development of a regional program coordinated between localities and HRSD. This recommendation will be presented to the Planning District Commission for consideration in March 2011.

3. Committee Decision-Making Procedures

HRPDC staff requested input on the Committee's procedures for decision making and actions that impact budget planning and expenditures. The Committee's comments are summarized as follows:

- HRPDC should remain sensitive to the budget mechanism. The funding source may be endangered without strong consensus or unanimous support.
- Any action regarding budget planning by the Committee is ultimately an endorsement until locality budgets are finalized.
- Legislative recommendations and budget issues should be agreed to by consensus.
- Locality representatives or proxy representatives may vote.
- The Committee should consider whether action may be taken on items brought up as new business and therefore were not included on the advertised agenda.
- A less formal procedure is preferred for Committee activities.

ACTION: Staff will draft a proposal for consideration by the Committee in March 2011.

4. Water Reuse

The Committee discussed the DEQ Notice of Intended Regulatory Action (NOIRA) for Water Reclamation and Reuse Regulations and the nomination of a representative for the Regulatory Advisory Panel (RAP). It was noted that HRSD has offered a nomination to DEQ (Mr. Jim Pletl). The Committee felt a representative from a groundwater user/water supply background would complement the wastewater representative and agreed to nominate Mr. Eric Tucker, City of Norfolk Assistant Director of Utilities, with Mr. Craig Ziesemer, Assistant Director of Public Utilities to serve as alternate.

ACTION: HRPDC staff will submit the nomination to DEQ by the February 14, 2011 deadline (see copy of February 8, 2011 letter to DEQ, included as Attachment 1D to March 3, 2011 DUC agenda).

5. UASI Grant – Request for Proposals (RFP)

The Committee reviewed the draft RFP for the “Water Infrastructure Assessment and Emergency Response Training” distributed previous to the meeting (comments due February 11, 2011). The Committee had no comments on the draft RFP.

Staff will distribute a final draft to be approved at the Directors of Utilities Committee meeting on March 2nd.

6. Staff Reports

A. Capacity Team Update: As directed by the Committee at the December 1, 2010 meeting, the Capacity Team completed an alternatives analysis for development of a private property I/I abatement program (see agenda item 2). In February 2011, the Capacity Team will return to developing business rules to address system rehabilitation and peak flow reduction. The Team will also develop estimates for effectiveness of various I/I abatement methods, which tend to be technology- and contractor-dependent. Mr. Hubbard provided an update on the development of the hydraulic model, summarizing the EPA workshop held on January 24, 2011 and the first of three rounds of locality meetings toward model calibration and verification (EPA submittal due July 31, 2011).

B. Regional Water Supply Plan: The Committee discussed the fulfillment of requirements for plan development and submission, and the scheduling of public hearings for local program adoption.

The Committee agreed that the plans should include estimated ranges of water volumes potentially generated by alternative water sources (desalination, UAW reduction, reuse, etc.).

Regarding local program adoption procedures, it was noted that city and county councils may vote on a proposed resolution at the same council meeting during which the public hearing is held. The Committee clarified that the required response letters to any written comments received will be reviewed by the DUC and that copies of the final response letters may be provided to city and county councils for information purposes.

Committee members were asked to consider targeting a timeframe for holding local public hearings. It was noted that such hearings would likely be placed on city and county council agendas no sooner than June 2011. As for HRPDC staff support for public hearings, it was expressed that presentation materials would be helpful, but localities are not likely to require HRPDC staff at the public hearings.

HRPDC staff reviewed the tentative schedule for plan completion. The remaining portions of the plan will be distributed for review in February, with DUC plan review and revisions through March/April, and a final packaged plan completed in April for use in briefing city managers. The local program adoption process may occur over the summer months, and staff will compile the final package in September/October. The deadline for final plan submittal to DEQ is November 2, 2011, including all records of public hearings, written comments and responses, and resolutions and meeting minutes reflecting adoption of local programs.

ACTION: HRPDC staff will email Committee members to poll them on potential hearing dates and support needs. Staff will prepare general presentation materials, a hearing announcement, and a resolution for plan adoption.

- C. Committee meeting minutes, Retreat topics: HRPDC staff provided a courtesy advisory that beginning in January, draft Committee meeting minutes are being included in the HRPDC agenda packet. No concerns were expressed regarding this distribution of draft minutes prior to Committee review.

HRPDC staff briefed the Committee on the Water Resources department's topic for the PDC retreat on February 17, 2011. Staff presentation will describe a proposal to develop a regional policy for groundwater use, with the intent of eventually informing revisions to groundwater regulations. The development of such a policy would engage the HRPDC economic development staff and planning staff. There were no comments on the retreat topic.

7. Other Business

There was no other Committee business.

ACTION: No action taken.

Committee Meeting Sign-In Sheet

Locality/Agency	Representative	Representative	Representative	Representative
HRSD	Phil Hubbard			
Chesapeake	Jim Walski			
Franklin				
Gloucester	Arnie Francis			
Hampton	Jason Mitchell			
Isle of Wight	Frank Halton			
James City County	Larry Foster			
Newport News	Brian Ramaley	Joe Du Rant	Reed Fowler	Everett Skipper
Norfolk	Kristen Lentz			
Poquoson	Bob Speechley	Ellen Roberts		
Portsmouth				
Smithfield	Bill Hopkins			
Southampton				
Suffolk	Al Moor	Craig Ziesemer		
Surry				
Virginia Beach	Steve Motley	Bob Montague		
Williamsburg				
Windsor				
York				
HRPDC	John Carlock	Whitney Katchmark	Tiffany Smith	
HRPDC	Katie Rider	Lisa Hardy		
New Kent				
DEQ				
EPA				
USGS				
VDH				
VDH				
VDH				
AECOM				
AquaLaw				
Brown & Caldwell	Richard Stahr			
CH2M-Hill				
Christian Barton				
Hurt & Proffitt, Inc.				
McGuire Woods				
Prism C.E.				
Remsa, Inc.	Joe Duffy			
Troutman Sanders				
URS				



Private Property
Inflow/Infiltration (I/I)
Abatement Program

Directors of Utilities Committee

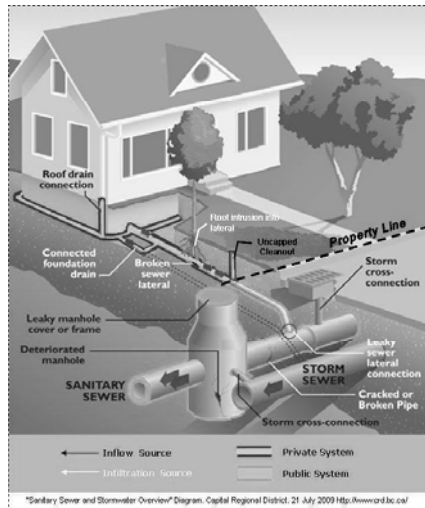
February 2, 2011

Special Order by Consent Requirement

“HRSD and the Localities shall develop and implement a Private Property I/I Abatement Program. The Private Property I/I Abatement Program will require, to the extent allowed by law, the correction of identified private system deficiencies.”



I/I Sources



3

HRSD

- Private Property
 - Leaking service laterals
 - Roof drain connections
 - Missing clean out caps
 - Sumps/foundation drains
- Public ROW
 - Leaking lateral connection to main
 - Leaky manholes
 - Cross connections with storm sewers
 - Deteriorated sanitary sewer pipe

Why is Private Property I/I a Problem?

“The results of the analyses of these projects, supported by the literature survey, strongly indicate that ignoring the private sewers puts utilities at risk of not reducing peak I/I flows to any significant degree.” (Water Environment Research Foundation WEF 99-WWF-8)

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HRSD

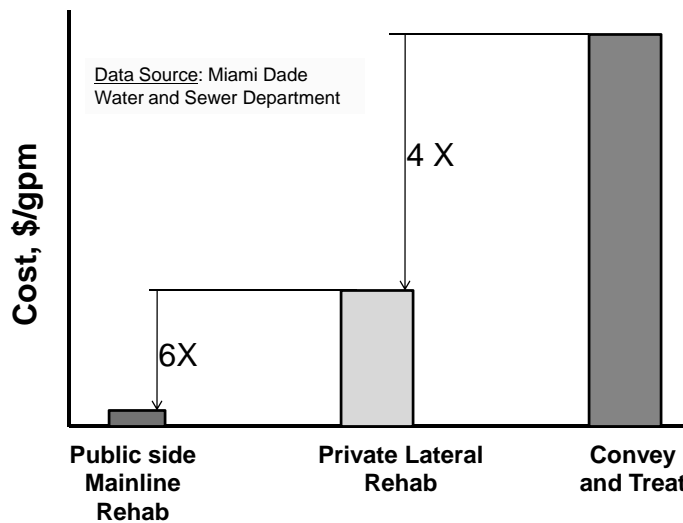
Why Focus on Private Property?

- Comprehensive rehab of public side sanitary sewer system has not proven effective in solely meeting flow reductions required for peak flow commitments
- Reduction of private property sources can be more cost effective than expansion of conveyance and treatment system

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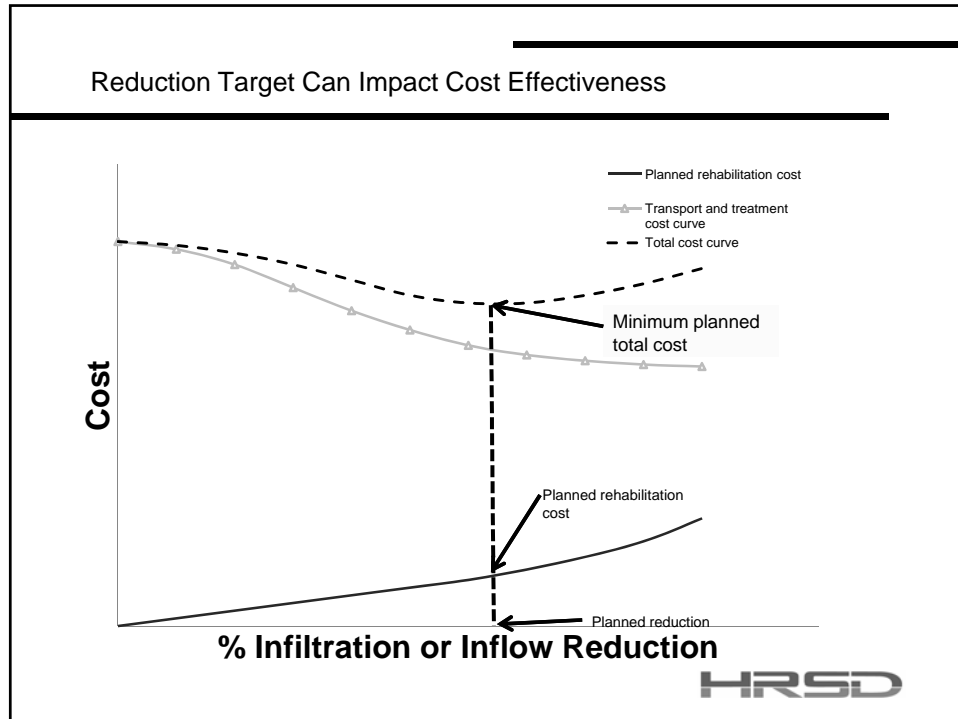
HRSD

Relative Cost of I/I Abatement vs. Convey and Treat



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HRSD



Private Property I/I Abatement Program Alternatives

- **Option 1 – Locality Managed Program**
 - Each locality would enact required model ordinance (tailored to meet local preferences) and create their own private property I/I abatement program consistent with regional standards
 - Costs recovered as locality determines
- **Option 2 – HRSD Managed Program**
 - HRSD would develop program in partnership with Localities under existing authority granted in enabling act to be implemented on a regional basis
 - Costs recovered through regional treatment rate

Option 1 – Locality Managed Program

- **Advantages**
 - History of working directly with customer
 - Peak flow commitment all within Locality control (no fingers to point)
 - Aligns with conventional thinking : every Locality for themselves
- **Disadvantages**
 - Inconsistent approach subject to 13 different utility departments and local governing bodies interpretation and political will
 - Disparate costs among localities
 - Redundant resources for program administration: duplication of effort
 - Consumes Locality capital

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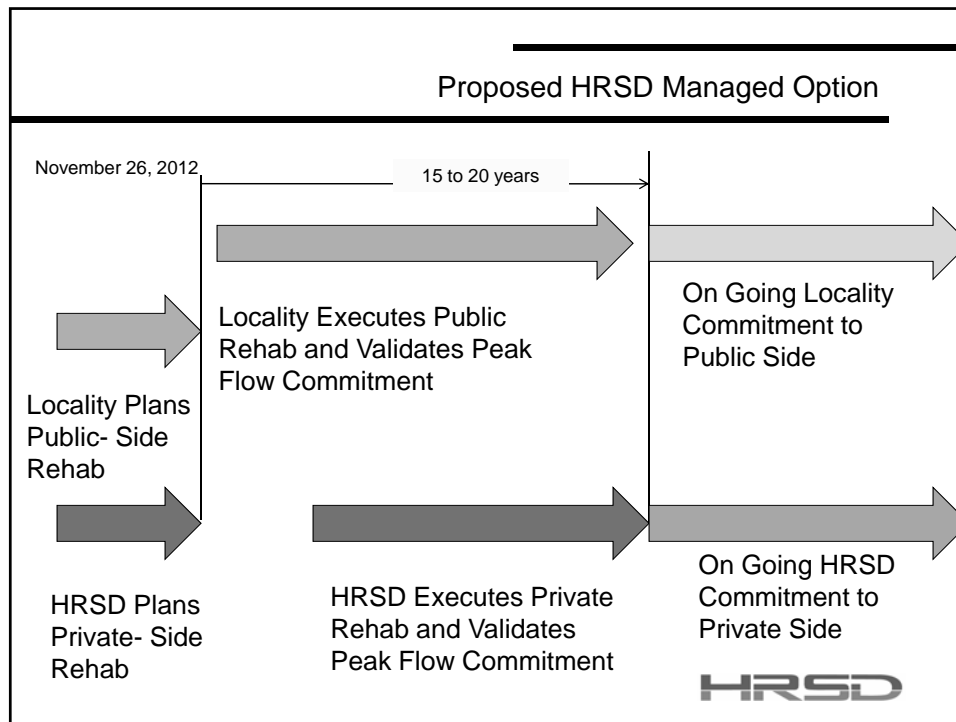


Option 2 – HRSD Managed Program

- **Advantages**
 - Regionally consistent approach
 - Economy of scale: fewer contracts, less overhead
 - Does not compete for resources with other critical local government programs
 - Spreads cost across all communities: consistent with metro treatment rate logic
- **Disadvantages**
 - Requires extensive collaboration and trust
 - Splits responsibility for peak flow commitment (potential for finger pointing)
 - Consumes HRSD capital (economic and political)

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- Program Basics**
- Locality identifies basin requiring rehab
 - Locality performs rehab of public infrastructure, including installation of clean out at property line if one does not exist
 - Locality monitors flow after public rehab
 - HRSD tests laterals – repairs/replaces laterals that do not meet standards
 - HRSD monitors flow after private rehab
- 12
- HRSD**

Estimated Program Costs

- Public funding for residential lateral inspection and repair (tax implications still being researched)
- Commercial/industrial costs paid by property owners with P3 enforcement
- Program costs depend on number of laterals inspected and repaired
- Preliminary estimates range from \$200-\$500 million or \$13-\$16 million per year for a 15 year program

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HRSD

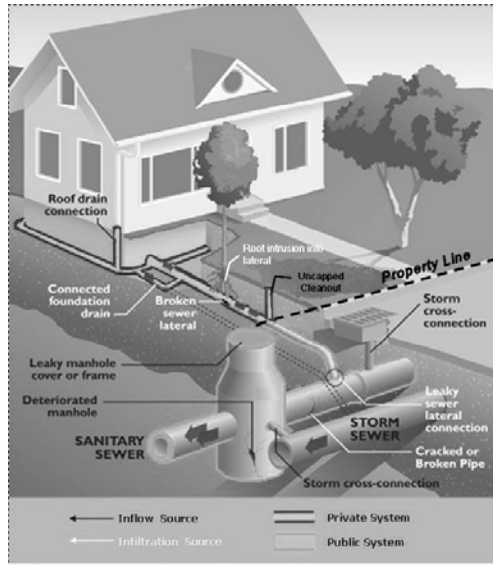
Next Steps

- HRSD Commission approved concept (January 25, 2011)
- Review with VDEQ (January 25, 2011)
- Directors of Utilities Committee reviews and recommends option (February 2, 2011 TODAY)
- HRPDC Commission reviews approach (March 17, 2011)
- HRSD Commission approves program
- Memorandum of Agreement developed between HRSD and localities

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HRSD

Questions?



HRSD



STAN D. CLARK, CHAIRMAN • THOMAS G. SHEPPERD, JR., VICE CHAIR • JAMES D. McREYNOLDS, TREASURER
DWIGHT L. FARMER, EXECUTIVE DIRECTOR/SECRETARY

MEMBER JURISDICTIONS

February 8, 2011

CHESAPEAKE

Ms. Valerie Rourke
Department of Environmental Quality
629 East Main Street

FRANKLIN

P.O. Box 1105
Richmond, VA 23218

GLOUCESTER

RE: Notice of Intended Regulatory Action for Water Reclamation and Reuse Regulation

HAMPTON

Dear Ms. Rourke:

ISLE OF WIGHT

The Directors of Utilities Committee of the Hampton Roads Planning District Commission (HRPDC) appreciates the opportunity to comment on the Notice of Intended Regulatory Action for Water Reclamation and Reuse Regulation. The Committee includes the directors of water and wastewater utilities from the following localities: Cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg, Gloucester County, Isle of Wight County, James City County, Southampton County, Surry County, York County, and the Towns of Smithfield and Windsor.

JAMES CITY

NEWPORT NEWS

NORFOLK

POQUOSON

The HRPDC Directors of Utilities Committee nominates Mr. Eric Tucker, City of Norfolk Assistant Director of Utilities, to serve on the Regulatory Panel, with Mr. Craig Ziesemer, City of Suffolk Assistant Director of Public Utilities, to serve as his alternate. The Committee's nominees bring considerable technical and policy experience to the process, as well as valuable perspective on potential groundwater resource and public water system considerations.

PORTSMOUTH

SOUTHAMPTON

SUFFOLK

If you need additional information or have any questions, please contact Whitney Katchmark, HRPDC, at (757) 420-8300.

SURRY

Sincerely,

John M. Carlock
Deputy Executive Director

VIRGINIA BEACH

WILLIAMSBURG

YORK

TS/fh

MAILED
FEB 08 2011
HRPDC

RFP SCHEDULE
HRPDC RFP No. WR-RFP-2011-01
UASI Water Supply Assessment and Emergency Response Training

The following timeline describes the steps to be taken by the HRPDC staff in coordination with the Directors of Utilities Committee (DUC) for the request for proposal (RFP) number WR-RFP-2011-01 and subsequent contract WR-2011-01.

March

- 3-02-11 **DUC Meeting:** Committee approval of final RFP for release.
- 3-17-11 **RFP Release:** RFP notice/advertisement posted on the HRPDC website, distributed to the HRPDC vendor list, and published in the Daily Press, the New Journal and Guide, and the Virginian-Pilot newspapers.
- 3-23-11 **Deadline for Vendor RFP Questions:** HRPDC staff compiles questions and answers for pre-proposal conference.
- 3-24-11 **Pre-Proposal Conference:** Optional vendor participation.
- 3-28-11 **RFP Addenda Distribution:** HRPDC staff distributes addenda documenting Q&A from pre-proposal conference to list of vendors.

April

- 4-14-11 **RFP Closes:** Staff distributes proposals to selection panel by 4-18-11 for review.
- 4-28-11 **Interviews:** Selection panel conducts interviews, if needed.

May

- 5-04-11 **DUC Meeting:** Selection panel recommendation and Committee endorsement of selection.
- 5-09-11 **Notice of Intent to Award:** Notice posted to the HRPDC website and at the HRPDC front desk.
- 5-19-11 **PDC Meeting:** Commission authorization to execute contract.
- 5-23-11 **Contract Award and NTP:** Period of performance ends 12-31-2012.

DRAFT
GUIDELINES FOR COMMITTEE ACTIONS
Hampton Roads Planning District Commission
Directors of Utilities Committee

Introduction

The Hampton Roads Planning District Commission (HRPDC) Directors of Utilities Committee (DUC) is charged with addressing technical, policy and administrative issues associated with the planning and operation of the region's water supply and wastewater systems, as well as a broad range of other water resource management issues. The Committee includes Directors of Utilities or senior representatives from the sixteen member local governments, the Towns of Smithfield and Windsor, the Hampton Roads Sanitation District and the HRPDC. Semiannually, the committee meets jointly with the local Directors of Health and the Virginia Department of Health to discuss issues of mutual concern associated with drinking water and other water quality issues.

Purpose

The purpose of this document is to delineate guidelines for the DUC's decision-making procedure. As an advisory committee to the HRPDC Executive Committee, the DUC provides recommendations, technical review, and planning advice that may affect budget planning and expenditures. The intent of these guidelines is to ensure that a consistent process is applied in the determination of DUC recommendations or endorsements.

Guidelines

General

1. Decisions by the DUC commensurate on consensus of committee members at the monthly meetings with the exception of decisions related to legislation, regulations, and the budget.
2. Recommendations related to legislation and regulations should be agreed to by consensus of the entire Committee. Letters with Committee comments on legislation and regulations will not be released until all Committee members have an opportunity to comment either at the monthly meeting or via email.
3. Recommendations related to budget planning should be agreed to by consensus of the entire Committee. Committee members will have any opportunity to review and comment on proposed budgets at monthly meetings or via email.
4. Any Committee decision regarding budget planning is an endorsement and a commitment to include the agreed-upon budget in the locality departmental budget as input to the locality's budget.

Meeting Participation

5. The DUC member or their designated representative may attend DUC meetings and participate in Committee decisions.

6. A minimum of eight DUC members (or their designated representatives) will constitute a quorum for the transaction of Committee business.
7. In matters where the Committee cannot reach consensus, the Committee will provide a recommendation on whether or not HRPDC staff or Committee members should: a) provide additional information or alternatives, and bring the matter back to the Committee at a subsequent meeting; or b) convene a subcommittee to develop further information or recommendations.

2011 SESSION

INTRODUCED

11104245D

HOUSE BILL NO. 2402

Offered January 17, 2011

A BILL to amend the Code of Virginia by adding in Chapter 3.1 of Title 62.1 an article numbered 13, consisting of sections numbered 62.1-44.34:29 through 62.1-44.34:38, relating to state waters; regulation of interbasin transfers.

Patron—Wright

Referred to Committee on Agriculture, Chesapeake and Natural Resources

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding in Chapter 3.1 of Title 62.1 an article numbered 13, consisting of sections numbered 62.1-44.34:29 through 62.1-44.34:38, as follows:

Article 13.

Interbasin Water Transfers.

§ 62.1-44.34:29. Definitions.

As used in this article, unless the context requires a different meaning:

"Basin" means an area of watershed as defined by the Board referencing the United States Geological Survey Hydrologic Unit Code that may also incorporate one or more subbasins.

"Interbasin transfer" means a transfer of water between basins.

§ 62.1-44.34:30. Authority of the Board; registration of certain transfers; regulations.

The Board shall adopt regulations necessary to carry out its powers and duties under this article and may require water users required to register under subsection C of § 62.1-44.38 to indicate whether such withdrawal is in connection with an interbasin transfer. If a withdrawal is related to an interbasin transfer, the Board may require information regarding (i) the location of delivery, (ii) the uses to which the water is put, (iii) the manner of transfer, and (iv) such other information as it may require related to the transfer.

§ 62.1-44.34:31. Authorization required for certain transfers.

No person may initiate a new or expanded interbasin transfer where the proposed transfer is in excess of two million gallons per day or 0.1 percent of the mean daily flow in the case of a withdrawal from a free-flowing body of water, or in excess of two million gallons per day or 0.1 percent of the total acre-feet in the case of withdrawal from a lake or other impounded body of water, without a certificate of transfer by the Board. An application to extend or renew a certificate shall be treated as a new application.

§ 62.1-44.34:32. Notice; public hearings.

A. An applicant shall prepare a notice of intent to file an application that includes a nontechnical description of the applicant's request and an identification of the proposed water source. Within 90 days after the applicant files a notice of intent to file an application, the applicant shall hold at least one public meeting in the source basin upstream from the proposed point of withdrawal, at least one public meeting in the source basin downstream from the proposed point of withdrawal, and at least one public meeting in the receiving basin to provide information to interested parties and the public regarding the nature and extent of the proposed transfer and to receive comment on the scope of the environmental impact statement prepared pursuant to § 62.1-44.34:33. Written notice of the public meetings shall be provided at least 30 days before the public meetings.

B. The applicant shall provide notice of the public meetings and opportunity to comment on the scope of the environmental impact statement as follows:

1. By publishing notice in the Virginia Register of Regulations;

2. By publishing notice in a newspaper of general circulation in:

a. Each county or city in the Commonwealth located in whole or in part within the area of the source basin upstream from the proposed point of withdrawal;

b. Each county or city in the Commonwealth or in an adjacent state located in whole or in part within the area of the source basin downstream from the proposed point of withdrawal;

c. Any area in the Commonwealth in a basin for which the source basin has been identified as a future source of water in a local water supply plan prepared pursuant to § 62.1-44.38:1; and

d. Each county in the Commonwealth located in whole or in part within the receiving basin.

3. By giving notice by first-class mail or electronic mail to each of the following:

a. The governing body of each locality in the Commonwealth and the governing body of any locality in any adjacent state that is located entirely or partially within the source basin of the proposed transfer;

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HB2402

59 *b. The governing body of each locality in the Commonwealth and the governing body of any locality*
60 *in any adjacent state that is located entirely or partially within the receiving basin of the proposed*
61 *transfer;*

62 *c. The governing body of any public water supply system that withdraws water upstream or*
63 *downstream from the withdrawal point of the proposed transfer;*

64 *d. If any portion of the source or receiving basin is located in an adjacent state, all state water*
65 *management or use agencies, environmental protection agencies, and the office of the governor in each*
66 *adjacent state upstream or downstream from the withdrawal point of the proposed transfer;*

67 *e. All persons who have registered a water withdrawal or transfer from the proposed source basin;*

68 *f. All persons who hold a certificate for a transfer of water from the proposed source basin;*

69 *g. All persons who hold a Virginia Pollutant Discharge Elimination System permit for a discharge of*
70 *100,000 gallons per day or more upstream or downstream from the proposed point of withdrawal; and*

71 *h. Any other person who submits to the applicant a written request to receive all notices relating to*
72 *the application.*

73 *§ 62.1-44.34:33. Environmental impact statement; public hearing.*

74 *A. The applicant shall provide an environmental impact statement for any application for a*
75 *certificate under this article. The applicant who requests from the Board a certificate under this article*
76 *shall pay the cost of the environmental impact statement.*

77 *B. An environmental impact statement prepared pursuant to this section shall include the following:*

78 *1. A description of the proposed interbasin transfer and any facilities required for such transfer;*

79 *2. A description of existing water supply sources, yields, demands, usage, and conservation*
80 *measures;*

81 *3. A comprehensive analysis of the impacts, including cumulative impacts, that would occur in the*
82 *source basin and the receiving basin if the application for a certificate is granted;*

83 *4. An evaluation of alternatives to the proposed interbasin transfer, including water supply sources*
84 *that do not require an interbasin transfer and use of water conservation measures; and*

85 *5. A description of measures to mitigate any adverse impacts that may arise from the proposed*
86 *interbasin transfer.*

87 *C. The Board shall hold a public hearing on the draft environmental impact statement for a*
88 *proposed interbasin transfer after giving at least 30 days' notice of the hearing. The notice shall*
89 *indicate where a copy of the environmental impact statement can be reviewed and the procedure to be*
90 *followed by anyone wishing to submit written comments and questions on the environmental impact*
91 *statement. The Board shall prepare a record of all comments and written responses to questions posed*
92 *in writing. The record shall include complete copies of scientific or technical comments related to the*
93 *potential impact of the interbasin transfer.*

94 *§ 62.1-44.34:34. Application for transfer certificate.*

95 *An applicant for a transfer certificate shall make a request in writing to the Board for such*
96 *certificate. The application shall include the following:*

97 *1. The amount of the proposed transfer;*

98 *2. A description of the facilities to be used to transfer the water, including the location and capacity*
99 *of water intakes, pumps, pipelines, and other facilities;*

100 *3. A description of all the proposed consumptive and nonconsumptive uses of the water to be*
101 *transferred;*

102 *4. A description of the water quality of the source water body and receiving water body, including*
103 *information on aquatic habitat for rare, threatened, and endangered species; in-stream flow data for*
104 *segments of the source and receiving water bodies that may be affected by the transfer; and any waters*
105 *that are impaired pursuant to § 303(d) of the federal Clean Water Act;*

106 *5. A description of the water conservation measures used by the applicant at the time of the*
107 *application and any additional water conservation measures that the applicant will implement if the*
108 *certificate is granted;*

109 *6. A description of all sources of water within the receiving basin, including surface water*
110 *impoundments, groundwater wells, reinjection storage, and purchase of water, that would be a*
111 *practicable alternative to the proposed transfer that would meet the applicant's water supply*
112 *requirements. The description of water sources shall include sources available at the time of the*
113 *application for a certificate and any planned or potential water sources;*

114 *7. A description of existing water transfers and withdrawals from the source basin, including*
115 *transfers and withdrawals at the time of the application for a certificate and any planned or reasonably*
116 *foreseeable transfers or withdrawals by a public water system with service area located within the*
117 *source basin;*

118 *8. A demonstration that the proposed transfer, if added to all other transfers and withdrawals from*
119 *the source basin at the time of the application for a certificate, would not reduce either the amount of*
120 *water available for use in the source basin to a degree that would impair existing and planned*

121 consumptive and nonconsumptive uses of the water or the water quality in the source basin. If the
122 proposed transfer would impact a reservoir within the source basin, the demonstration must include a
123 finding that the transfer would not result in a water level that is inadequate to support existing uses of
124 the reservoir, including recreational uses and emergency uses in case of drought;

125 9. Analysis of the applicant's future water supply needs and the present and reasonably foreseeable
126 future water supply needs for public water systems with a service area located within the source basin.
127 The analysis of future water supply needs shall include agricultural, recreational, and industrial uses
128 and electric power generation. Local water supply plans prepared pursuant to § 62.1-44.38:1 for water
129 systems with service area located within the source basin shall be used to evaluate the projected future
130 water needs in the source basin that will be met by public water systems; and

131 10. Any other information deemed necessary by the Board for review of the proposed water transfer.
132 § 62.1-44.34:35. Draft determination; public hearing.

133 A. Within 90 days after the Board determines that the environmental impact statement prepared in
134 accordance with § 62.1-44.34:33 is adequate or the applicant submits its application for a certificate,
135 whichever occurs later, the Board shall issue a draft determination on whether to grant the certificate.
136 The draft determination shall be based on the criteria set out in § 62.1-44.34:36 and shall include the
137 conditions and limitations, findings of fact, and conclusions of law that would be required in a final
138 determination.

139 B. Within 60 days of the issuance of the draft determination, the Board shall hold public hearings on
140 the draft determination. At least one hearing shall be held in the affected area of the source basin, and
141 at least one hearing shall be held in the affected area of the receiving basin. In determining whether
142 more than one public hearing should be held within either the source or receiving basin, the Board
143 shall consider the differing or conflicting interests that may exist within the basin, including the interests
144 of both upstream and downstream parties potentially affected by the proposed transfer. The Board shall
145 accept written comment on the draft determination for a minimum of 30 days following the last public
146 hearing. The Board shall prepare a record of all comments and written responses to questions posed in
147 writing. The record shall include complete copies of scientific or technical comments related to the
148 potential impact of the interbasin transfer.

149 § 62.1-44.34:36. Final determination; factors for consideration; available information.

150 A. To determine whether a certificate may be issued for the transfer, the Board shall specifically
151 consider each of the following items and state in writing its findings of fact and conclusions of law with
152 regard to each item:

153 1. The necessity and reasonableness of the amount of surface water proposed to be transferred and
154 its proposed uses;

155 2. The present and reasonably foreseeable future detrimental effects on the source basin, including
156 present and future effects on public, industrial, economic, recreational, and agricultural water supply
157 needs; wastewater assimilation; water quality; fish and wildlife habitat; electric power generation;
158 navigation; and recreation. Local water supply plans for public water systems with service area located
159 within the source basin prepared pursuant to § 62.1-44.38:1 shall be used to evaluate the projected
160 future water needs in the source basin that will be met by public water systems. Information on
161 projected future water needs for public water systems with service area located within the source basin
162 that is more recent than the local water supply plans may be used if the Board finds the information to
163 be reliable. The determination shall include a specific finding as to measures that are necessary or
164 advisable to mitigate or avoid detrimental impacts on the source basin;

165 3. The cumulative effect on the major source basin of any water transfer or consumptive water use
166 that, at the time the Board considers the application for a certificate, is authorized by the Board or by
167 law or is projected in any local water supply plan for public water systems with service area located
168 within the source basin that has been prepared pursuant to § 62.1-44.38:1;

169 4. The present and reasonably foreseeable future beneficial and detrimental effects on the receiving
170 basin, including present and future effects on public, industrial, economic, recreational, and agricultural
171 water supply needs; wastewater assimilation; water quality; fish and wildlife habitat; electric power
172 generation; navigation; and recreation. Local water supply plans prepared pursuant to § 62.1-44.38:1
173 that affect the receiving basin shall be used to evaluate the projected future water needs in the receiving
174 basin that will be met by public water systems. Information on projected future water needs that is more
175 recent than the local water supply plans may be used if the Board finds the information to be reliable.
176 The determination shall include a specific finding as to measures that are necessary or advisable to
177 mitigate or avoid detrimental impacts on the receiving basin;

178 5. The availability of reasonable alternatives to the proposed transfer, including the potential
179 capacity of alternative sources of water, the potential of each alternative to reduce the amount of or
180 avoid the proposed transfer, probable costs, and environmental impacts. In considering alternatives, the
181 Board is not limited to consideration of alternatives that have been proposed, studied, or considered by

182 *the applicant. The determination shall include a specific finding as to why the applicant's need for water*
183 *cannot be satisfied by alternatives within the receiving basin, including unused capacity under a transfer*
184 *for which a certificate is in effect or that is otherwise authorized by law at the time the applicant*
185 *submits the application. The determination shall consider the extent to which access to potential sources*
186 *of surface water or groundwater within the receiving basin is no longer available due to depletion or*
187 *contamination. The determination shall consider the feasibility of the applicant's purchase of water from*
188 *other water suppliers within the basin and of the transfer of water from another basin. Except in*
189 *circumstances of technical or economic infeasibility or adverse environmental impact, the Board's*
190 *determination as to reasonable alternatives shall give preference to alternatives that would involve a*
191 *transfer from one basin to another within the receiving basin;*

192 *6. If applicable to the proposed interbasin transfer, the applicant's present and proposed use of*
193 *impoundment storage capacity to store water during high-flow periods for use during low-flow periods*
194 *and the applicant's right of withdrawal;*

195 *7. If the water to be withdrawn or transferred is stored in a multipurpose reservoir constructed by*
196 *the U.S. Army Corps of Engineers, the purposes and water storage allocations established for the*
197 *reservoir at the time the reservoir was authorized by the Congress of the United States;*

198 *8. Whether the service area of the applicant is located in both the source basin and the receiving*
199 *basin; and*

200 *9. Any other facts and circumstances that are reasonably necessary to carry out the purposes of this*
201 *section.*

202 *B. In determining whether a certificate may be issued for the transfer, the Board shall consider all of*
203 *the following sources of information:*

204 *1. The application;*

205 *2. The environmental impact statement prepared pursuant to § 62.1-44.34:33;*

206 *3. All oral and written comment and all accompanying materials or evidence submitted through*
207 *public comment or at public hearings;*

208 *4. Information developed by or available to the Board on the water quality of the source basin and*
209 *the receiving basin, including waters that are identified as impaired pursuant to § 303(d) of the federal*
210 *Clean Water Act that are subject to a total maximum daily load limit or whose assimilative capacity*
211 *would be impaired if the certificate is issued; and*

212 *5. Any other information that the Board determines to be relevant and useful.*

213 *§ 62.1-44.34:37. Whether certificate shall be granted; conditions and limitations.*

214 *A. The Board shall grant a certificate for a water transfer if it finds that the applicant has*
215 *established sufficient evidence of the following:*

216 *1. The benefits of the proposed transfer outweigh the detriments of the proposed transfer;*

217 *2. The detriments have been or will be mitigated to the maximum degree practicable;*

218 *3. The amount of the transfer does not exceed the amount of the projected shortfall under the*
219 *applicant's water supply plan after first taking into account all other sources of water that are available*
220 *to the applicant; and*

221 *4. There are no reasonable alternatives to the proposed transfer.*

222 *B. The Board may impose any conditions or limitations on a certificate that the Board finds*
223 *necessary to achieve the purposes of this article including a limit on the period for which the certificate*
224 *is valid. The conditions and limitations shall include any mitigation measures proposed by the applicant*
225 *to minimize any detrimental effects within the source and receiving basins. In addition, the certificate*
226 *shall require all of the following conditions and limitations:*

227 *1. A water conservation plan that specifies the water conservation measures that will be implemented*
228 *by the applicant in the receiving basin to ensure the efficient use of the transferred water. Except in*
229 *circumstances of technical or economic infeasibility or adverse environmental impact, the water*
230 *conservation plan shall provide for the mandatory implementation of water conservation measures by*
231 *the applicant that equal or exceed the most stringent water conservation plan implemented by a locality*
232 *that withdraws water from the source basin;*

233 *2. A drought management plan that specifies how the transfer shall be managed to protect the source*
234 *basin during drought conditions or other emergencies that occur within the source basin. Except in*
235 *circumstances of technical or economic infeasibility or adverse environmental impact, this drought*
236 *management plan shall include mandatory reductions in the permitted amount of the transfer based on*
237 *the severity and duration of a drought occurring within the source basin and shall provide for the*
238 *mandatory implementation of a drought management plan by the applicant that equals or exceeds the*
239 *most stringent water conservation plan implemented by a public water supply that withdraws water from*
240 *the source basin;*

241 *3. The maximum amount of water that may be transferred on a daily basis and methods or devices*
242 *required to be installed and operated that measure the amount of water that is transferred;*

243 *4. A provision that the Board may amend a certificate to reduce the maximum amount of water*

244 authorized to be transferred whenever it appears that an alternative source of water is available to the
245 certificate holder from within the receiving basin, including the purchase of water or the transfer of
246 water from another basin;

247 5. A provision that the Board may amend or modify any term or condition of the certificate,
248 including a reduction of the maximum amount of water authorized to be transferred, if the Board finds
249 that the applicant's current projected water needs are significantly less than the applicant's projected
250 water needs at the time the certificate was granted;

251 6. A requirement that the certificate holder report the quantity of water transferred during each
252 calendar quarter. The report required by this subdivision shall be submitted to the Board no later than
253 30 days after the end of the quarter; and

254 7. Except as provided in this subdivision, a provision that the applicant will use the water for direct
255 consumptive use and not resell the water that would be transferred pursuant to the certificate or any
256 surplus water derived from the transfer to another public water supply system. This limitation shall not
257 apply in the case of a proposed resale or transfer among public water supply systems within the
258 receiving basin as part of an interlocal agreement or other regional water supply arrangement, provided
259 that each participant in the interlocal agreement or regional water supply arrangement is a coapplicant
260 for the certificate and will be subject to all the terms, conditions, and limitations made applicable to
261 any lead or primary applicant.

262 C. The Board shall deny a certificate if it finds that the transfer conflicts with the public interest and
263 the policy of this article in a manner that cannot be mitigated by the imposition of any condition or
264 limitation on the certificate.

265 § 62.1-44.34:38. Emergency transfers.

266 In the case of water supply problems caused by drought, a pollution incident, temporary failure of a
267 water plant, or any other temporary condition in which the public health, safety, or welfare requires a
268 transfer of water, the Director of the Department of Environmental Quality may grant approval for a
269 temporary transfer. If the Director of the Department of Environmental Quality approves a temporary
270 transfer under this subsection, he shall specify conditions to protect other water users. A temporary
271 transfer shall not exceed six months in duration, but the approval may be renewed for a period of six
272 months based on demonstrated need.

273

REGIONAL GROUNDWATER POLICY

Whitney S. Katchmark, Principal Water Resources Planner
Hampton Roads Planning District Commission Retreat
February 17, 2011



Regional Groundwater Policy

- Region should consider developing a policy that prioritizes types of groundwater use.
- HRPDC staff could facilitate a regional workgroup to reach consensus on the best method to allocate groundwater resources.



2

Staff recommends that the region develop a policy that prioritizes types of groundwater use, with the goal of influencing how The Department of Environmental Quality (DEQ) issues groundwater withdrawal permits.

PDC staff could facilitate a regional workgroup to reach consensus on a method of prioritizing groundwater needs and share our input with the State. The regional workgroup should include Water Utilities, Land Use Planners, and Economic Development.

PDC's Directors of Utilities Committee is already engaged in GW issues. They would be a critical component of the workgroup.

In order to develop a comprehensive policy, we also need to include land use planners to consider whether groundwater should be reserved for growth outside of current public water service areas. And we should consider the impact on economic development if groundwater isn't available to support new businesses or business expansion outside of public water service areas.

Groundwater Over Allocated

- DEQ permits large groundwater withdrawals and has determined that the resource has been over allocated.
- Existing regulations do not provide a clear process for reducing allocations or prioritizing needs.
- DEQ has been scrutinizing all permits and negotiating for reductions especially if current use is significantly less than the requested withdrawal.

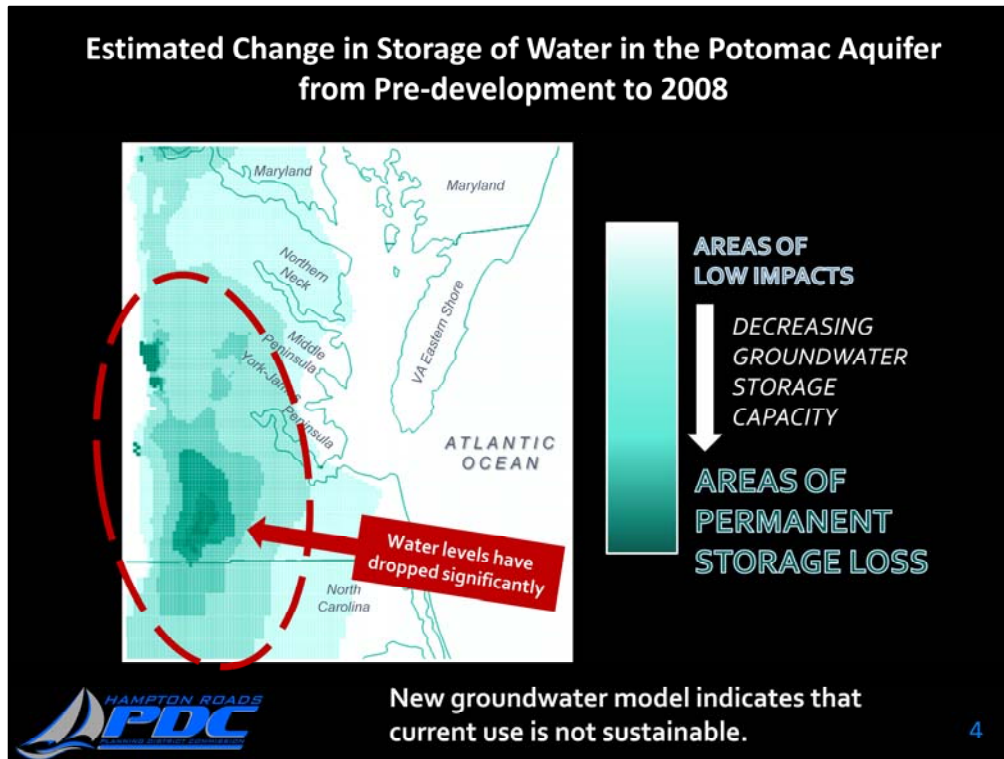


3

We need a Groundwater Policy because DEQ has determined that the agency has over allocated the groundwater resources in the Southeastern Virginia.

The existing regulations do not identify a process for reducing allocations or prioritizing needs. The focus of the regulation was to avoid conflicts between users.

DEQ has been trying to deal with this issue by scrutinizing all permits and negotiating for reductions especially if current use is significantly less than the requested withdrawal.



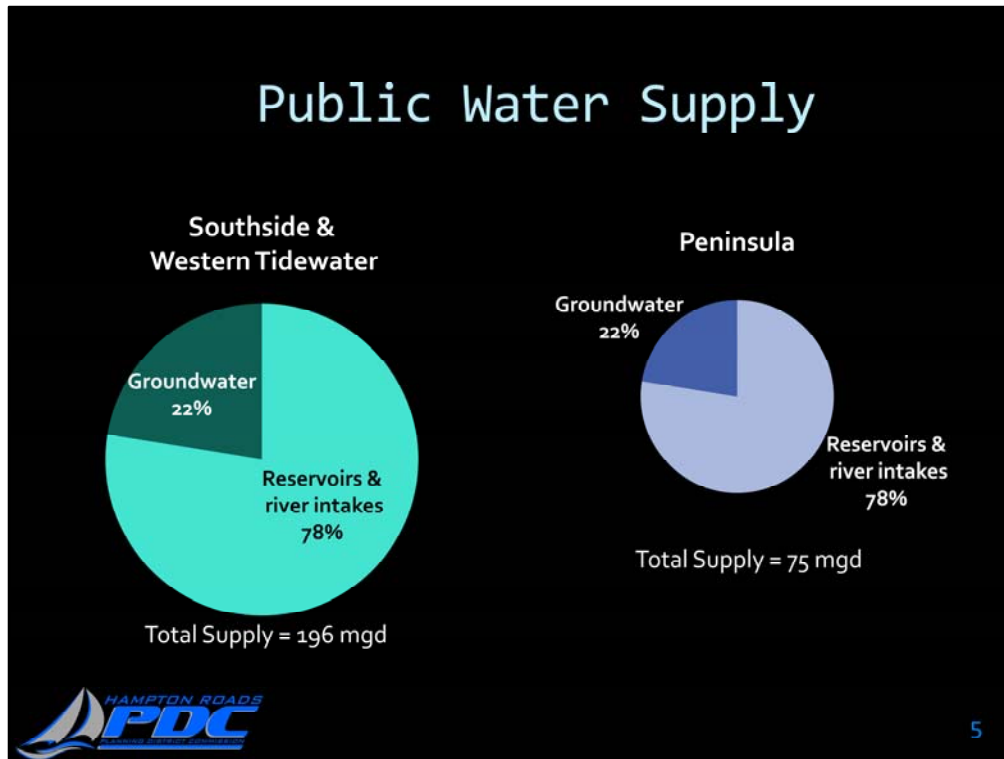
This map illustrates the over allocation. It shows the results of a groundwater model simulation. The model can simulation how water levels have changed over the past century.

We have estimated how much water has been pumped out of the Potomac Aquifer compare to how much water was stored in the aquifer and clay layer above it.

Clay layer is like a very thick sponge – we can squeeze out a lot of water but at some point the weight of the soil on top of it will cause permanent compression and the clay layer cannot recover and hold as much water as it originally did. That's permanent storage loss. Map shows permanent storage loss across a large portion of the region.

This water has been underground for thousands of years. There is not enough rain seeping into the ground and to recharge the system.

So although we aren't on the verge of running out of groundwater; our current use is not sustainable.

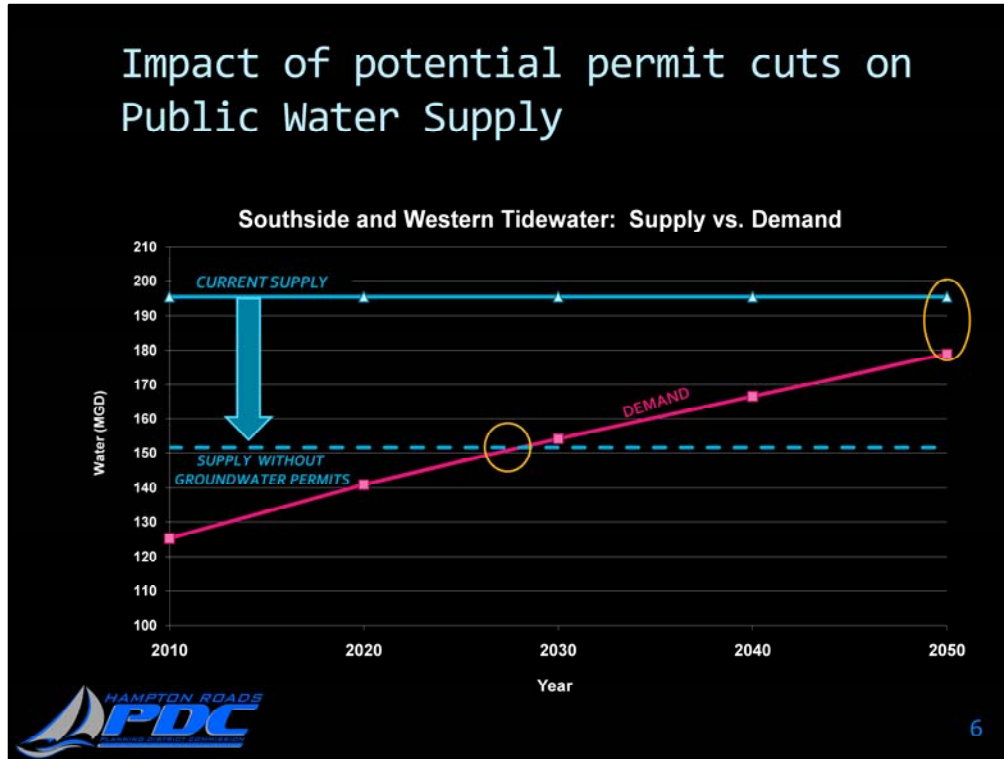


The next few slides describe how this issue might affect public water systems.

These two pie charts represent the water sources in the region. Green chart is the Southside and Western Tidewater. The purple chart is the Peninsula.

The Southside and WT pie is bigger because they have about 2.5x more water than the Peninsula.

Groundwater comprises 22% of the total public water supply on each subregion. The rest of the water comes from reservoirs and river intakes.

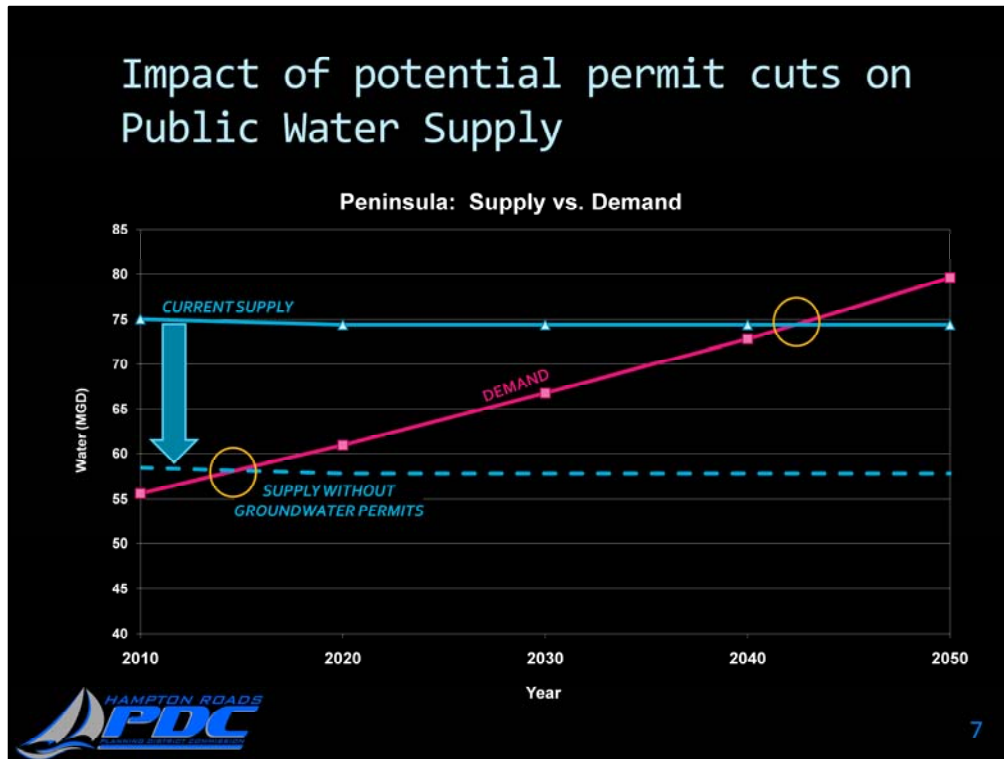


The first graph shows the Supply vs. Demand for Public Water Systems in the Southside and Western Tidewater.

Top blue line is the current supply. Dashed blue line is the supply if we lost all of our groundwater permits. Pink line is demand.

Good News: Regional Water Supply Plan estimates that current sources are adequate for next 40 years. Circle on the far right.

Bad News: Having a lot more water than is needed to meet your demands makes these systems a target for permit cuts.



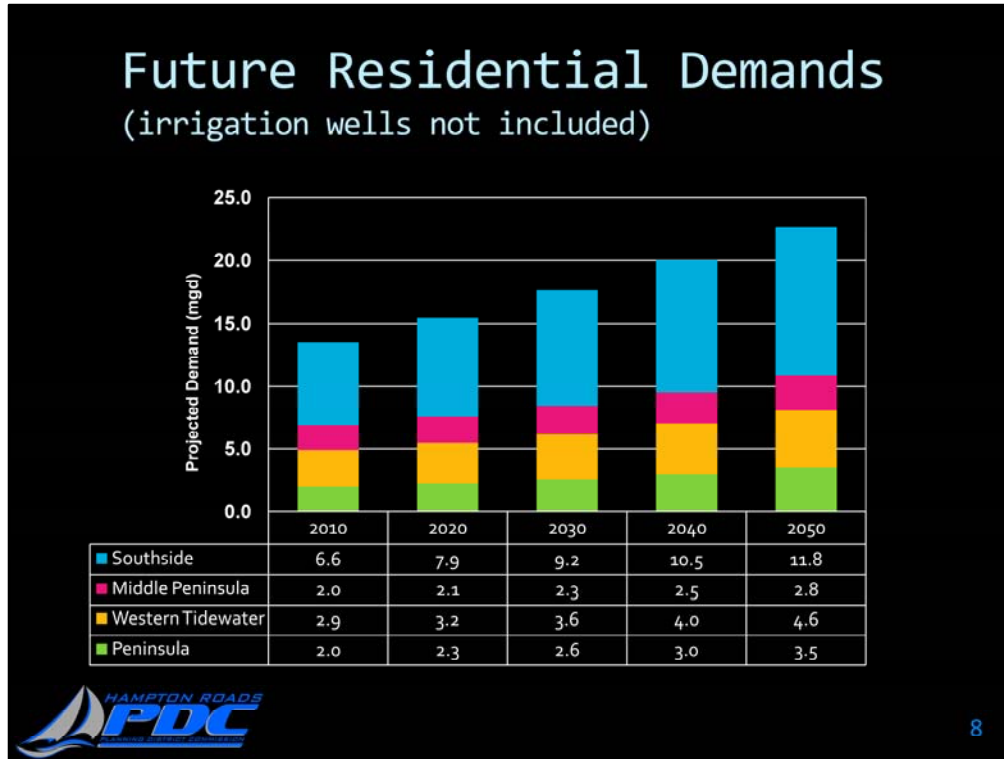
Second graph shows the same information for the Peninsula.

In about 30 years, peninsula demand might exceed supply. If we lost the groundwater permits, the demand might exceed supply in a few years.

Groundwater permits less likely to be reduced.

However, the regulations say that DEQ should issue permits to only meet the needs of water users for the next 10 years.

Not realistic to assume the permits would be cut and we would run out of water. DEQ could push Localities toward more expensive water sources like desalination and reuse.



We should also consider the needs of homeowners that have their own wells. This graph shows projections of those water demands.

It shows an increase in demand of 9 MGD over the next 40 years. This is a rough estimate but it does illustrate that if our population continues to grow, we will need a lot more groundwater for private wells or public water systems will need to expand to serve a larger portion of the population.

Also, we don't have a good estimate of the amount of well water used for watering lawns. If those irrigation wells became salty or went dry, demands on the PWS might increase even more.

Why develop a regional policy?

- Groundwater is a very inexpensive source of water. DEQ is allocating a valuable, limited resource.
 - Current regulations do not allow groundwater to be reserved for future uses so long term planning is not part of the allocation process.
 - Localities do not have a role in prioritizing types of use such as public water systems, residential wells, or private businesses.
 - DEQ only considers if new permit request or renewal is a beneficial use.
 - "Beneficial use" includes, but is not limited to, domestic (including public water supply), agricultural, commercial, and industrial uses.
- Definition from Code of Virginia*



9

Why develop a regional policy?

Groundwater is a very inexpensive source of water. DEQ is allocating a valuable, limited resource.

Localities do not have a role in prioritizing types of use and deciding if this cheap water should be used for public water systems, residential wells, or private businesses.

Current regulations do not allow groundwater to be reserved for future uses so long term planning is not part of the allocation process.

DEQ just considers if permit request supports a beneficial use. Definition of Beneficial Use is very broad so everything qualifies and the process becomes first come, first serve.

Why develop a policy now?

- **New Tools:** USGS completed new groundwater model that simulate the impacts of proposed policies over next 50+ years.
- **Better information:** Regional Water Supply Plan assembled water use data.
- **State engagement:** DEQ already briefed State Water Commission on concerns about groundwater management and began review of groundwater withdrawal regulations.
- **Not in crisis yet:** Changes in water use could be slowly phased in over many years.



10

Finally - Why develop a policy now?

New Tools: HRPDC contracted with USGS to create a new groundwater model which is now complete. It can simulate the impacts of proposed policies over next 50 years.

We have Better information: Regional Water Supply Plan assembled water use for public and private users in one document.

State's already engaged: DEQ has briefed State Water Commission on concerns about groundwater management and they have started reviewing the groundwater withdrawal regulations.

Not in crisis yet: Changes in water use could be slowly phased in over many years. Making it less difficult and less expensive.

Recommended Future Direction

- Establish Regional Workgroup
- Determine best method to allocate groundwater resources.
- Develop policy recommendation and submit to the State.

