

**Attachment 1A
MEETING SUMMARY
MEETING OF
DIRECTORS OF UTILITIES COMMITTEE
May 1, 2013
James City Service Authority, Williamsburg**

1. Summary of the May 1, 2013 Meeting of the Directors of Utilities Committee

There were no comments on, or revisions to the summary of the May 1, 2013 Committee meeting.

ACTION: The summary of the May 1, 2013 meeting of the Directors of Utilities Committee meeting was approved.

2. Utilities Representative for Hampton Roads Urban Area Working Group

The Committee discussed the designation of a new utilities representative to serve on the Urban Area Working Group (UAWG). It was noted that the UAWG provides multi-sector prioritization of funding for security initiatives, such as those developed by the Committee for the December 2012 *Hampton Roads Water and Wastewater Systems Emergency Preparedness and Response Regional Improvement Plan*.

The Committee recommended that Mr. Bill Meyer, Chesapeake Public Utilities Interim Director, represent water and wastewater utilities on the UAWG as Mr. Meyer is already engaged with the emergency management community through his participation in the Hampton Roads Incident Management Team and has perspective on utilities as first responders. Mr. Everett Skipper, Newport News Engineering Director, was recommended as the alternate representative.

ACTION: Mr. Bill Meyer, Chesapeake Public Utilities Interim Director, was recommended to serve on the UAWG, with Mr. Everett Skipper, Newport News Engineering Director, as his alternate.

3. Water and Wastewater Rate Structures Project

HRPDC staff briefed the Committee on draft presentation materials for elected officials characterizing issues related to water and wastewater utility rate structures and revenue gaps. The Committee's discussion and comments are summarized below:

- To emphasize the relevance of these issues to the region, a slide should be added at the beginning of the presentation with media headlines and photos of local water and sewer line breaks.

- Mr. Brian Ramaley, Newport News Waterworks Director, provided a copy of a recent presentation given to students and faculty at Virginia Tech for reference with regard to graphics, content, and presentation of issues. In May, the City Council will be voting on a revised rate structure that increases the bimonthly fixed service fee to \$22 per month while maintaining the current volumetric rates.
- Some localities have observed that price is impacting municipal water use. Changing demographics (fewer people per household) and the ease of installing irrigation wells are contributing to price elasticity for a few utilities. Other utilities are seeing residential use impacts, but observe greater price elastic response due to industry cost savings. Utilities are seeing the same or slightly lower levels of payment delinquency as rates have increased.
- Although water and wastewater services remain the most affordable utility services, the development and administration of affordability programs will be a key issue for the region. As enterprise funds, utilities need to run like businesses and any affordability program must be carefully designed and clearly articulated. It will be difficult to make sure assistance reaches the target demographic, since much of the low income population resides in large multi-family residential complexes. Statutory limitations regarding the collection and use of funds through multiple programs must be considered. Also, the administration of utility affordability programs by social services departments could be perceived as a burden to that department. The presentation should highlight how enterprise fund needs and business principles can conflict with affordability and social issues depending on a locality's desire to subsidize social services.
- "Trueing-up" rates with revised demand projections and sales expectations is one of the most important things utilities can do toward achieving cost-based rates. Utilities should also pursue higher fixed fees to cover fixed costs.
- The two main points to convey to elected officials are the need for sustainable business model and the need to maintain customer affordability.
- The presentation should balance education and information with persuasive arguments for action. Considering differences between utilities, the Committee may not be ready to offer a particular solution, but may be well served by offering a plan of action and a menu of potential solutions.
- Recent media coverage of water and wastewater rates provides an opportunity for discussion and follow-up reporting that will increase public awareness. This is also an opportunity to highlight the regional cooperation between water and waste water utilities and efficiencies of shared services.
- This presentation should provide local governments with information on what they should be looking at and factors to consider. Utilities can then develop recommendations for their respective localities.

- The presentation should provide general conclusions: fixed fees should provide most or a large percentage of utility revenue, and realistic demand projections are needed.
- The message should be that the Committee has been watching the development of this trend over the long term, and elected officials can expect utilities to approach them in the future with recommendations and proposals. Elected officials need to know what is needed to have sustainable water and wastewater utilities.

HRPDC staff will send a follow-up inquiry for photos and local data for use in the presentation. The revised presentation will be provided to the Committee for review

ACTION: No action.

4. Regional Sanitary Sewer System Asset Consolidation Study

The fourth project workshop for the Regional Sewer System Asset Consolidation Study was held on April 19, 2013 at HRSD's North Shore Operations Center. HRPDC staff noted that the comparative analysis will be completed by Brown and Caldwell on May 15, 2013 and provided to HDR for incorporation into the study. The governance issue will be included on the CAO meeting agenda in May or June.

ACTION: No action.

5. Groundwater Regulations

The Department of Environmental Quality held a meeting of the Regulatory Advisory Panel on April 15, 2013 to share information on the comments received during the public comment period and to explain the changes that are being made in response to comments on the proposed Groundwater Withdrawal Regulation (9VAC25-610) and Eastern Virginia Groundwater Management Area Regulation (9VAC25-600). The final regulations will be presented to the State Water Control Board (SWCB) for approval on June 17, 2013.

Mr. Al Moore, Suffolk Public Utilities Director, attended the meeting provided a brief summary. For the groundwater regulation, he noted that language was added to Section 110 (evaluation criteria) to say that the Board shall consider previous investments by the applicant with respect to evaluations of subsequent permit applications. The meeting summary by DEQ staff is also available.

The Committee agreed that it is not necessary to provide further comment at the June 17, 2013 SWCB meeting.

ACTION: Per discussion.

6. Staff Updates

Staff updates are summarized below:

- **Groundwater Levels:** HRPDC staff provided an updated chart and map of groundwater levels displaying response to withdrawals by International Paper's Franklin Mill. The observed trend is as expected; water levels in wells near the Mill respond quickly to pumping, and wells farther away are showing a more sluggish response. Given the monitoring well data, the Peninsula is probably not experiencing impacts from the Mill's current operations. Withdrawals by the West Point Mill, however, may be influencing many Peninsula wells. HRPDC staff can develop a similar chart and map for West Point withdrawals.

ACTION: No action.

- **SSORS 2013 Upgrades:** The 2013 upgrades to the Sanitary Sewer Overflow Reporting System (SSORS) were implemented on May 3, 2013.

ACTION: No action.

7. Other Business

The Committee congratulated Mr. Brian Ramaley, Newport News Waterworks Director, on his May 31, 2013 retirement. The Committee recognized him for his service and contributions to the region and presented him with a resolution of appreciation.

Committee Meeting Sign-In Sheet
May 1, 2013

Attachment 1B

Locality/Agency	Representative	Representative	Representative	Representative
HRSD	Ted Henifin			
Chesapeake				
Franklin				
Gloucester	Arnie Francis			
Hampton	Jason Mitchell			
Isle of Wight				
James City County	Larry Foster			
Newport News	Reed Fowler			
Newport News	Brian Ramaley	Scott Dewhirst		
Newport News	Everett Skipper			
Norfolk	Kristen Lentz			
Poquoson				
Portsmouth	Bryan Foster			
Smithfield				
Southampton				
Suffolk	Al Moor	Craig Zieseemer		
Surry				
Virginia Beach	Tom Leahy			
Williamsburg	Dan Clayton			
Windsor				
York				
HRPDC	Whitney Katchmark	Tiffany Smith		
HRPDC				
New Kent				
DEQ				
EPA				
USGS				
VDH				
VDH				
VDH				
AECOM				
AquaLaw				
Brown & Caldwell				
CH2M-Hill				
Christian Barton				
CNA				
HDR				
Hurt & Proffitt, Inc.				
McGuire Woods				
Rice Associates				
REMSA				
Troutman Sanders				
Virginia Fusion Center				
Virginia WARN				
URS				
Watermark Risk Management				
Private citizens				

Summary of Committee Comments

Task 1 Report - Preliminary Draft (ver. 4-3-2013)

General Comments:

- Develop a 2-3 page executive summary in a format that engages elected officials and city managers. Fifteen pages is a good length for the report.
- The report content addresses the issue, as requested by the Committee. Appropriate sources and references with recognized expertise on these issues are cited.
- From the utility perspective, having the report come from the HRPDC is valuable because local government proposals would align with the regional statement. Also, an HRPDC report is likely to be received better than a report prepared by a financial consultant.

A. *To make the report more relevant to Hampton Roads or interesting to the HR media, could you provide data or anecdotes to illustrate the concepts in the report?*

- Include a comparison (10 years ago versus today) of the total amount of water sold per day in Hampton Roads and the total population.

B. *Are there any sections or concepts that should be moved to the appendix?*

- Move "Table 1: Methods to Address Revenue Shortfalls" to appendix.
- Move references/footnotes to appendix.

C. *Are we missing any aspects of demand decay or declining revenue that you want discussed?*

- An opening discussion should be added to explain how the emphasis on volumetric rates from the 1960s/70s has been carried forward to present rate structures; this section should also explain how multiple bills for service to a given residence are keyed to a single water meter reading. Clarify that wastewater revenues are directly related to metered water.
- The report should emphasize that water/wastewater enterprise funds must be self-sustaining. It is difficult for elected officials to understand the business needs of enterprise funds and how critical it is for water and wastewater utilities to run on sustainable business models.
- Add a discussion noting that utilities are fiscally responsible and efficient. Because utilities are part of government, the public may perceive the need for utility revenue increases as the result of government waste and excess.
- In the listing O&M costs vs. capital costs (p. 8), indicate whether each item is fixed or variable.

D. *Are we missing any potential solutions that you want discussed?*

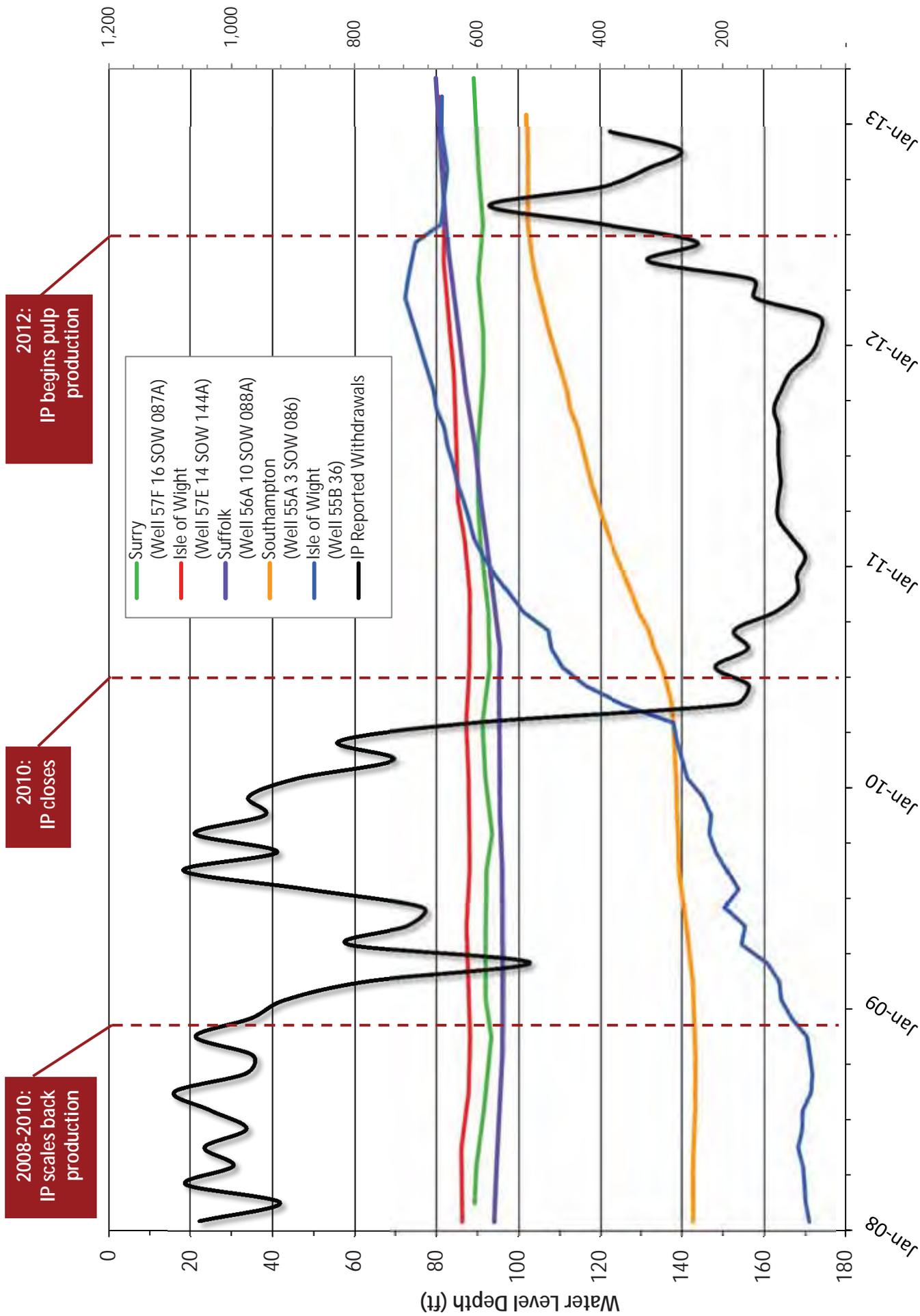
(no comments received)

E. *How can we make it clearer that the issues in the report apply to both drinking water and wastewater?*

- The report terminology should be revised to make it clear that that the issues described apply to both water and wastewater – suggest using "water/wastewater utilities" throughout. This will help convey that the underlying business model for wastewater utilities also needs attention.

Groundwater Levels

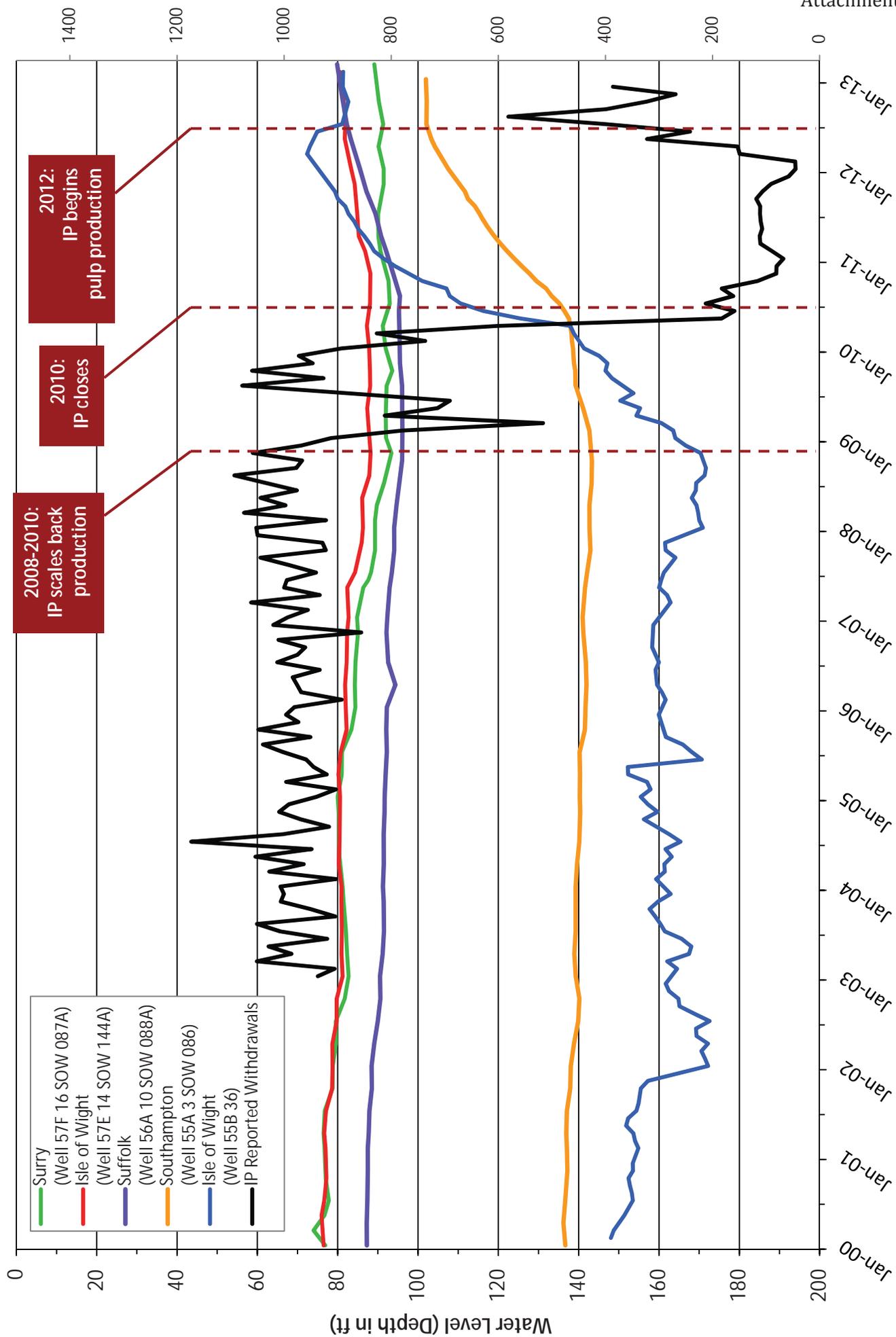
(selected long-term monitoring wells)



Water level depths shown relative to NGVD 29. Chart prepared by HRPDC staff with data from the USGS Virginia Groundwater Watch website (<http://groundwaterwatch.usgs.gov/StateMaps/VA.html>) and the Virginia Department of Environmental Quality groundwater permit database (as of 4-23-13).

Groundwater Levels

(selected long-term monitoring wells)



Water level depths shown relative to NGVD 29. Chart prepared by HRPDC staff with data from the USGS Virginia Groundwater Watch website (<http://groundwaterwatch.usgs.gov/StateMaps/VA.html>) and the Virginia Department of Environmental Quality groundwater permit database (as of 4-23-13).



Resolution of Appreciation to Brian L. Ramaley

Whereas, Brian L. Ramaley, has faithfully and professionally served the Hampton Roads Planning District Commission and the Directors of Utilities Committee since it was created in 1993; and

Whereas, he has demonstrated outstanding leadership in encouraging the Directors of Utilities Committee and the HRPDC staff to pursue innovative solutions to a variety of water resource issues; and

Whereas, his vision and ardent dedication to improving the water utilities in Hampton Roads has sparked the establishment of joint meetings between the Directors of Utilities Committee and Health Directors and the development of many regional projects such as the Water Quality Response Plan and Source Water Assessments; and

Whereas, he has encouraged Newport News Waterworks staff to play active roles in a number of regional environmental and infrastructure program, including water supply planning, watershed protection, and groundwater management;

Whereas, the time and technical expertise that he has contributed to Directors of Utilities Committee has greatly enhanced collaboration and information sharing between local government staff and strengthened and improved the Hampton Roads region; and

Whereas, Brian L. Ramaley has indicated a desire to retire on May 31, 2013.

Now Therefore, Be It Resolved by the Hampton Roads Directors of Utilities Committee that Brian L. Ramaley be recognized and commended for his dedication and outstanding service, and presented this Resolution as a token of the Committee's gratitude; and

Be It Further Resolved that the Hampton Roads Directors of Utilities Committee members extend to Brian L. Ramaley their best wishes in his well-earned retirement and orders that a copy of this Resolution be spread upon the minutes of the Directors of Utilities Committee this first day of May, 2013.

Executed this first day of May 2013

Chairman

**Attachment 2A
MEETING SUMMARY
JOINT MEETING OF
DIRECTORS OF UTILITIES COMMITTEE
DIRECTORS OF HEALTH
December 5, 2012
Chesapeake**

1. Summary of the November 7, 2012 Meetings of the H2O – Help to Others – Program Board of Directors and the Directors of Utilities Committee

There were no comments on, or revisions to the summary of the November 7, 2012 Committee meeting.

ACTION: The summary of the November 7, 2012 meeting of the Directors of Utilities Committee meeting was approved.

2. Summary of June 6, 2012 Joint Meeting of the Directors of Utilities Committee and Directors of Health

There were no comments on, or revisions to the summary of the June 6, 2012 meeting.

ACTION: The summary of the June 6, 2012 joint meeting of the Directors of Utilities Committee and Directors of Health was approved.

3. Regulatory Update

Mr. Dan Horne, Virginia Department of Health (VDH), Office of Drinking Water (ODW), provided an update on regulatory issues. A copy of Mr. Horne's summary is attached. At the state level, he noted that EPA has granted VDH full primacy for all existing rules and that VDH is preparing to issue NOIRAs for non-federal regulations.

Regarding the Long Term 2 Enhanced Surface Water Treatment Rule for control of microbial pathogens, Mr. Horne summarized the final EPA-hosted stakeholder meeting on November 15, 2012, which discussed a modified analytical method for Cryptosporidium. Changes, however, will not be implemented in time to affect round two monitoring activities.

Mr. Horne also summarized the retrospective review of the Consumer Confidence Report (CCR) Rule, noting that EPA is considering allowing electronic distribution and newspaper publication of consumer confidence reports in the future as an alternative to direct mailing. Guidance, as opposed to a rule revision, is anticipated by mid-2013. Community water systems will likely be allowed to meet the mailing requirement by

publishing CCRs on a publicly-available website and including the direct URL to access the CCR on the water bill received by the customer. There is some concern regarding adequate notification to certain customers (e.g., those that do not receive bills).

EPA anticipates publishing the revised Total Coliform Rule by the end of 2012, followed by the long term revisions to the Lead and Copper Rule in early 2013. There are issues associated with both rules that are of interest to utilities and will likely require comment during the public review period. EPA is developing guidance for a new federal law, the Reduction of Lead in Drinking Water Act of 2011, which becomes effective January 4, 2014 and will impact utilities, manufacturers, and compliance practices. The law provides a new definition of “lead free” and prohibits the sale or use of materials in drinking water systems that do not meet this definition. It also identifies exemptions. A summary of the October stakeholder meeting is available. EPA is developing guidance for this law, and the agency may try to include some elements in the long term revisions to the Lead and Copper Rule. Mr. Horne noted that Maryland has a state law similar to the Reduction of Lead in Drinking Water Act of 2011 and continues to experience problems with implementation.

Regarding fluoride, the Center for Disease Control has not yet issued the revised optimum standard for fluoride. The EPA may eventually propose revisions to the drinking water standard.

ACTION: No action.

4. Hampton Roads Water Quality Response Plan Update

At the June 6, 2012 joint meeting of the Directors of Utilities Committee and Health Directors, it was agreed that the Committee and Health Directors should revisit the Hampton Roads Water Quality Response Plan (WQRP) and evaluate the need to update the plan and revise components. HRPDC staff summarized the intent and current structure of the WQRP (see attached presentation).

During the discussion, it was noted that the plan was originally created to facilitate communication between sectors for both utility-driven and health-driven emergencies. The Committee agreed that the plan works well, however, certain appendices are no longer necessary. It was agreed that applicable plan components should be updated for consistency with the National Incident Management System and beginning in 2013, HRPDC staff will distribute an email notice each spring and fall to include the following:

- A short explanation of the WQRP;
- A listing of laboratories and testing capabilities;
- The most recent WQRP emergency contact list; and
- Hyperlinks to EPA fact sheets.

HRPDC staff was also directed to explore other formats for distributing information, such as email groups and applications for mobile devices.

ACTION: HRPDC staff will update the WQRP and commence with the revised protocol for distributing email notices in the spring of 2013.

5. Crediting SSO reductions and FOG programs as Locality Strategies to meet Chesapeake Bay TMDL Requirements

HRPDC staff briefed the Committee on the Chesapeake Bay Program's draft protocol for estimating nutrients from illicit discharges and crediting successful locality programs for illicit discharge elimination (see attached presentation). The Bay Program Illicit Discharge Detection and Elimination (IDDE) panel drafted the protocol and identified IDDE program elements that would be eligible for Chesapeake Bay TMDL nutrient reduction credits. The Committee discussed issues related to quantifying nutrient loads from the volume of sanitary sewer overflows and the effort required for documentation. Staff will develop estimates and convey this information to the Regional Stormwater Management Committee. Staff noted that Fats, Oils, and Grease (FOG) programs may also be eligible for credit toward water quality improvement goals. The Committee will discuss FOG programs at a future meeting.

ACTION: No action.

6. Staff Reports

Staff Reports are summarized below:

- **Workshop #2 - Sanitary Sewer System Asset Consolidation Study:** HRPDC staff summarized the briefing to Chief Administrative Officers (CAOs) on the first workshop of the Sanitary Sewer System Asset Consolidation Study. The second workshop for the Study is scheduled for December 7, 2012 at HRSD's North Shore Maintenance Facility.

ACTION: No action.

- **Groundwater Regulations:** The Committee approved final comments on the proposed Groundwater Withdrawal Regulations (9VAC25-610) for submittal to DEQ by the January 11, 2013 comment deadline.

ACTION: The final comment letter regarding the proposed Groundwater Withdrawal Regulations was approved.

- **Hampton Roads Water and Wastewater Systems Emergency Preparedness and Response Regional Improvement Plan:** The Committee approved the final *Hampton Roads Water and Wastewater Systems Emergency Preparedness and Response Regional Improvement Plan* (Regional Improvement Plan). Staff will provide three hard copies and an electronic copy to each locality. Committee members will coordinate distribution of the report among local government staff as appropriate.

ACTION: The final Regional Improvement Plan was approved.

7. Roundtable Discussion

The roundtable portion of the meeting is summarized below:

- The Committee discussed the addition of water utilities to Sanitary Sewer Overflow Reporting System (SSORS) notification lists. At the request of Newport News Waterworks, HRPDC staff asked peninsula localities for their cooperation in adding Waterworks to their initial SSORS notification lists so that the utility can immediately assess potential impacts to drinking water sources. The request was prompted by a delay in VDH notice to Waterworks of an overflow related to Hurricane Sandy. Other water utilities interested in receiving initial SSORS notices should contact HRPDC staff for assistance.

In September 2012, HRPDC staff sent an email to SSORS administrators requesting updates to SSORS notification lists for current VDH and local Health District contacts (list was provided for reference). HRPDC staff will follow up to confirm updates based on input provided by each locality.

- The Committee discussed locality authority to place liens on private property for unpaid utility bills. None of the localities are pursuing action based on this state law. Some localities are still looking at the potential application of the authority; others are utilizing alternative authorities to collect payment.
- Mr. Bill Meyer, Chesapeake Public Utilities Director, briefed the Committee on the Hampton Roads Incident Management Team (HRIMT) and urged utilities to apply for HRIMT membership and become involved with the coordination effort. The goal is for HRIMT to become an all hazards response team with public works, water, and wastewater expertise to complement police, fire, and emergency management capabilities.

ACTION: No action.

Committee Meeting Sign-In Sheet
December 5, 2012

Attachment 2B

Locality/Agency	Representative	Representative	Representative	Representative
HRSD	Ted Henifin			
Chesapeake	Bill Meyer			
Franklin				
Gloucester				
Hampton	Tony Reyes	Jason Mitchell		
Isle of Wight	Frank Haltom			
James City County	Larry Foster			
Newport News	Reed Fowler	Everett Skipper		
Newport News	Mike Hotaling			
Norfolk	Kristen Lentz			
Poquoson	Bob Speechley			
Portsmouth	Erin Trimyer			
Smithfield				
Southampton				
Suffolk	Craig Ziesemer			
Surry				
Virginia Beach	Tom Leahy			
Williamsburg				
Windsor				
York				
HRPDC	John Carlock	Whitney Katchmark	Julia Hillegass	Tiffany Smith
HRPDC				
New Kent				
DEQ				
EPA				
USGS				
VDH	Bill Berg	Venita Newby Owen	Demetria Lindsay	
VDH	Nancy Welch	David Chang		
VDH	John Aulbach	Dan Horne		
AECOM				
AquaLaw				
Brown & Caldwell				
CH2M-Hill				
Christian Barton				
CNA				
HDR				
Hurt & Proffitt, Inc.				
McGuire Woods				
Rice Associates				
REMSA				
Troutman Sanders				
Virginia Fusion Center				
Virginia WARN				
URS				
Watermark Risk Management				
Private citizens				

**VDH – Office of Drinking Water
Update Items for HRPDC Meeting
5 Dec 2012**

1. **Regulations Status Update**
 - **State level**
 - i. VDH has been granted primacy by EPA for all existing rules – the last was the Groundwater Rule (back in April 2012)
 - ii. VDH is wrapping up some final internal issues for “non-federal changes” to the Waterworks Regulations, and will hopefully be starting “soon” the process for bringing all those changes to public attention, via a NOIRA, etc.
 - **Federal level**
 - i. **LT2 Rule – retrospective look**
 1. Most recent meeting 15 Nov
 2. EPA still considering what might need to be “fixed”
 3. Modified analytical method – more sensitive
 4. Round 2 Source Water Monitoring starts April 2015
 5. EPA will need to make changes via regulatory revision process – won't be in time for Round 2
 - ii. **CCRs – retrospective review**
 1. Major item to expect – electronic distribution
 2. Stakeholders meeting 1 Oct
 3. Conflicting views (waterworks vs. NGOs)
 4. May or may not require revision to reg – may be able to handle via “reg interpretation guidance”
 - iii. **Revised Total Coliform Rule**
 1. EPA hoping to have published by the end of 2012
 2. Does away with monthly MCL violation (triggers a “level 1” investigation and report) but keeps the acute MCL violation (triggers a “level 2” investigation and report)
 3. Changes from a “public notification” rule to “find the defect and fix” rule
 - iv. **Long Term Revisions – Lead & Copper Rule**
 1. EPA hoping to propose early 2013
 2. Revisions to sample site selection criteria & collection procedures
 3. “Tweaking” of corrosion control optimization & water quality monitoring
 4. Changes to lead service line replacement requirements
2. **Federal law**
 - **Reduction of Lead in Drinking Water Act of 2011**
 - i. This is a real sleeper – impacts water utilities, manufacturers & suppliers, regulators (drinking water & codes compliance), installers, etc.

- ii. Takes effect 4 Jan 2014 – as of that date, can't sell or use materials in drinking water system that don't meet the new definition of "lead free"
- iii. There are some items exempted by the law, but these will create issues
- iv. EPA may try to fold this effort into the LCR Long Term Revisions

Hampton Roads WATER QUALITY RESPONSE PLAN

Presentation to
Directors of Utilities Committee and Health Directors
December 5, 2012

Whitney S. Katchmark
HRPDC Principal Water Resources Engineer

Hampton Roads Water Quality Response Plan (2003)

- Cooperative endeavor designed to coordinate the various agencies response to a drinking water health threat.
- Establishes a procedure to assemble emergency representatives of the water utilities, regional health department, and local health districts in the event of a water quality emergency to determine the correct course of action and a coordinated response to the public and/or media.

Recommendation

3

- Joint Committee will identify which plan components are still valuable.
- Address how NIMS has changed responses to water quality emergencies.
- HRPDC will identify laboratory capabilities and other new useful information identified by the Joint Committee.
- HRPDC will continue to update contact list every spring.
- HRPDC will develop a short summary of the response procedures and distribute with the updated contact list, lab information, etc.

2003 Plan Components

4

- Response plan and communication protocol
- Emergency Response Contact List
- Revisions to Drinking Water Public Notice Regulations
- Safe Drinking Water Health Fact Sheets

Website

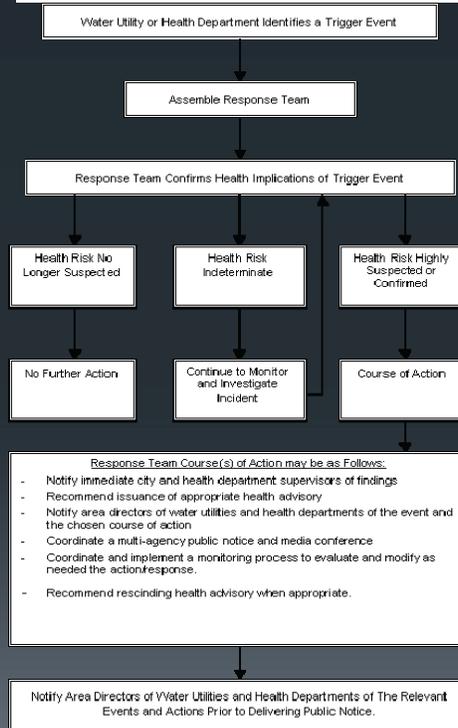


Response Procedures

- Confirm trigger event
- Assemble response team
- Evaluate health implications
- Utility and DoD communication
- Health District communication
- Monitor and modify response

FIGURE 1
FLOW CHART FOR RESPONSE PROCEDURES

5



A Confirmed Trigger Event Occurs

6

- There are internal procedures specific to the water utility and health department to determine if an event should trigger this process.
- Applicable internal procedures must be followed to confirm a trigger event before assembling a response team.
- EPA fact sheet highlighting revisions to the Drinking Water Public Notification Regulation and Virginia Department of Health’s Waterborne Outbreak Guidelines are provided in Appendix B.

Do you want current fact sheets and guidelines distributed every year?

Assemble Response Team 7

- Representative of the agency confirming the trigger event will determine if event is utility specific or potentially region-wide and call the emergency contacts associated with the other team agencies.
- Response team will decide where and what time to hold a conference call or a meeting.
- Contact for Office of Water Programs should call VDH Office of Epidemiology.
- Water utility's representative should inform the other jurisdictions and military installations potentially affected.
- In order to provide consistent communication to a trigger event, a flow chart indicating the appropriate agency or agencies to contact is provided.

Do you want flow charts for each locality? Add other representatives?

Evaluate Health Implications of Event 8

- Response team will discuss the incident/findings. They will determine if further information is needed and agree upon a course of action. Actions may include but are not limited to:
 - Determine if the trigger event will result in a public health threat,
 - Gather more information,
 - Determine appropriate measures to mitigate threat to public health,
 - Recommend a boil water advisory or other action,
 - Schedule a multi-agency press conference to alert the public,
 - Develop a public service announcement,
 - Monitor the incident over a period of time,
 - Determine that no action is required and the incident does not pose a threat to public health, or
 - Implement monitoring process to evaluate and modify as needed the action or response to the trigger event.

Would the Response Team still have these responsibilities?

Inform Other Utilities and Health Districts

9

- Unless the response team members agree upon no action:
 - Director of Utilities will contact the other local utilities and military public works offices to advise them of the events and decisions.
 - Director of the Local Health District will contact the other Local Health Districts and the military preventive medicine units to advise them of the events and decisions.

Would you use EOCs? Other protocols?

Monitor Trigger Event

10

- Federal and State regulations require various levels of monitoring activities depending on the type of trigger event experienced.
- For events not covered by a regulatory process, response team will agree upon methods suitable to monitor the event. Some factors to consider in rescinding a public health advisory are the following:
 - Have the source water quality indicators returned to acceptable levels?
 - Are deficiencies in treatment barriers resolved and do water quality tests support the conclusion?
 - Have finished water quality indicators returned to levels within regulatory limits?
 - Does successive pathogen monitoring show acceptable results?
 - Does water quality monitoring in the distribution system show acceptable results?
 - Has distribution system been sufficiently flushed with non-contaminated water?
 - Do epidemiological surveys indicate the event is over?

Do the factors need to be updated? Do you want them distributed annually?

Next Steps – Changes?

11

- HRPDC will identify laboratory capabilities and other new useful information identified by the Joint Committee.
- HRPDC will continue to update contact list every spring.
- HRPDC will develop a short summary of the response procedures and distribute it annually with the updated contact list, lab information, etc.

Chesapeake Bay TMDL: Credit for Sewer Improvements

Presented to
Directors of Utilities Committee and Health Directors
Whitney S. Katchmark
Principal Water Resources Engineer
December 5, 2012



How do we get credit?

- Last year, localities were asked to identify strategies to meet the Bay TMDL.
- Many localities were upset that the time and money spent on sewer improvements would not count towards removing nitrogen and phosphorus reaching the Bay.
 - ❑ For example, SSOs were not explicitly in the Bay model so the Bay Program said reducing SSOs could not be counted.
- *In response to comments from Hampton Roads and others,* Bay Program created an Expert Panel to develop a protocol for crediting the elimination of illicit discharges (stormwater and wastewater).



Panel Recommendations = Eligible Credit

- HRPDC staff and stormwater staff from Chesapeake and Norfolk are on the Expert Panel.
- No wastewater staff on the Expert Panel.
- **Need your input to create a reasonable protocol for calculating amount of nitrogen and phosphorus reduced by sewer improvements.**
- Topics to discuss today:
 1. Find and Fix programs
 2. FOG programs
 3. Volunteers to review Panel recommendations

3



Find and Fix Programs

- Find and Fix nutrient reductions could be calculated based on data from specific repairs.
- Need flowrate, concentrations, duration.
- **Questions about local Find and Fix programs:**
 - ❑ Do you find sewer connections to stormwater system?
 - ❑ Does sewage reach stormwater systems due to broken/ leaky pipes or typically discharge into groundwater?
 - ❑ Is it feasible to estimate the flowrate of sewage reaching stormwater system or groundwater?
 - ❑ Is it feasible to collect samples and quantify TN and TP concentrations? Is it reasonable to use concentrations measured at HRSD plants?
 - ❑ Is it possible to estimate duration of the discharge?
 - ❑ Do you report repairs to stormwater staffs?

4



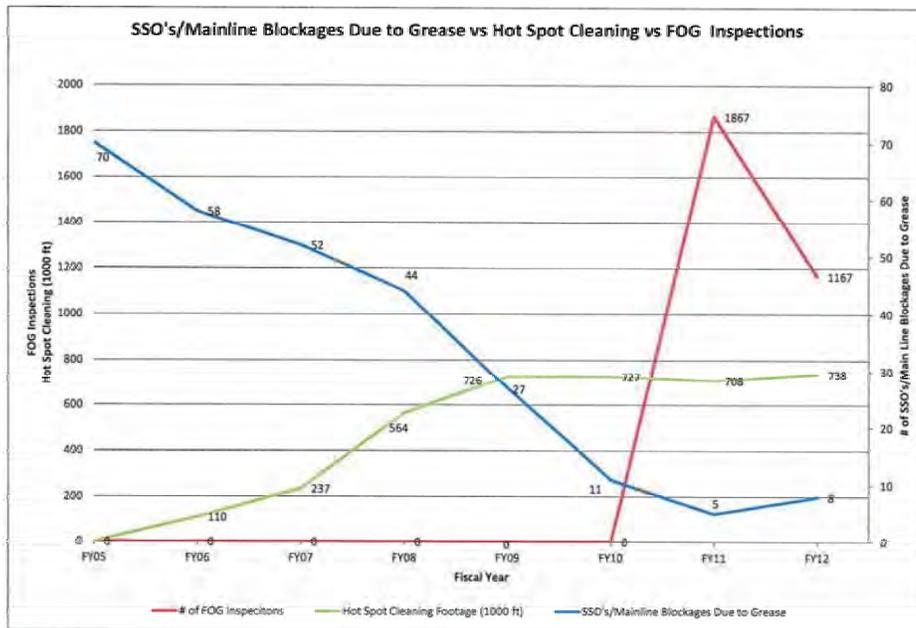
FOG Programs

- Fats, Oils, and Grease (FOG) nutrient reductions could be based on following programmatic guidelines and estimating a reduction in chronic SSOs.
- Need specific guidelines and metrics for estimating the effectiveness of programs.
- Expert Panel members and staff (Chesapeake Stormwater Network) are not familiar with FOG programs.
- HRPDC shared Virginia Beach FOG data to illustrate the potential effectiveness of the programs.

5



Virginia Beach Data



6



FOG Programs

➤ Questions about local FOG programs:

- ❑ Have other localities done this type of analysis? Do you have the data to do this analysis?
- ❑ What elements of local FOG programs can be measured? i.e. feet of pipe cleaned, number of inspections, population or number of restaurants reached by education campaigns
- ❑ How do you define a Hot Spot?
- ❑ Is it possible to estimate a "typical" volume for overflows caused by grease?

7



Next Steps

➤ Volunteers?

- ❑ Need wastewater staff to answer follow-up questions and review proposed protocols.
- HRPDC staff will provide information to Chesapeake Stormwater Network to improve the next draft of protocol for crediting improvements to sewer systems.
- Draft is expect mid-January 2013.

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Executive Summary

The Hampton Roads Planning District Commission (HRPDC), Directors of Utilities Committee (Utility Directors) conducted a regional assessment of the emergency preparedness and response capabilities of public water and wastewater systems in the Hampton Roads region of southeast Virginia. The project was funded by a grant from the Department of Homeland Security, Urban Areas Security Initiative (UASI) program, which assists designated UASI regions such as Hampton Roads in improving their capabilities to address the unique multi-disciplinary planning, operations, equipment, training, and exercise needs of high-threat, high-density urban areas. Grant funds were provided through the Virginia Department of Emergency Management, and the project was managed by HRPDC.

Project activities were conducted with the overall purpose of developing a strategic planning document for enhancing the ability of the region's water and wastewater utilities to prepare for, respond to, and recover from disasters. During the initial phases of the project, local utilities were interviewed to gather information on trends in regional capabilities. The project also assessed interdependencies within and between utility systems in the region, the emergency management agencies, and selected infrastructure sectors such as health care and energy. Tabletop training exercises were conducted in order to validate trends and identify additional gaps and areas in which improve emergency preparedness and management in the Hampton Roads region.

This document is a strategic plan for enhancing the ability of the region's water and wastewater utilities to prepare for, respond to, and recover from disasters. The document addresses the following objectives:

- Better prepare utilities across the region to individually respond to and recover from hazards or disruptions;
- Improve the ability of the utilities within the region to coordinate with each other and relevant stakeholders within their jurisdictions;
- Foster stronger relationships and increase information sharing; and
- Identify best practices and develop mechanisms for information sharing across the region.

The study team developed six representative risk scenarios to provide a foundation for the study and to anchor data collection and analysis efforts within a framework for emergency preparedness, response, and recovery capabilities of the region's water and wastewater systems. The risk scenarios were chosen, in consultation with the Utility Directors and HRPDC staff, because they were generally representative of the all-hazards range of significant events that could strain the ability of utilities to provide water and wastewater services to customers and citizens. The risk scenarios include:

- Hurricane;
- Regional drought;
- Contamination of a raw water source by an accident or intentional act;
- Cyber-attack on Supervisory control and data acquisition (SCADA)/ Industrial Control Systems/Information Technology (IT);
- Intentional chemical/biological contamination of the water distribution system; and
- Intentional damage to the water system infrastructure.

The study team then collected data through research, document reviews, and structured interviews with personnel from local utilities and other stakeholders and sectors. The study team aggregated the information and developed a trend analysis to build a regional picture of the Water Sector emergency preparedness capabilities and identified specific strengths and weaknesses. The study team was guided by recognition of three dynamic and interacting factors in examining the Water Sector in Hampton Roads:

- The distinction between actions currently or potentially implemented by individual utilities or jurisdictions to increase preparedness and actions taken by several utilities together or even the entire region’s Water Sector.
- The distinction in the emergency planning community between different phases of a disaster, each of which requires consideration regarding potential preparations. The team used the FEMA descriptions of these phases (prevention, protection, response, recovery, and mitigation) in its own analysis of the region’s preparedness.
- The distinction between increasing severity of disasters (and their consequences) ranging from the routine problems faced and professionally handled by individual water utilities on a daily basis to a major catastrophe with such region-wide devastation as to require state and/or federal-level response and recovery assistance.

As a part of the analysis phase of the study, the team developed a tabletop exercise that was offered on two dates to Southside and Western Tidewater utilities and Peninsula utilities. The tabletop further explored both current capabilities and gaps in local and regional water preparedness, including relationships to the energy and public health sectors. A separate tabletop After Action Report detailed 20 recommendations for improved Water Sector preparedness.

The analysis led to the development of strategies and initiatives for the region’s water and wastewater utilities to consider for improving individual utility and regional emergency preparedness capabilities. By analyzing all available data, the study team could identify strengths and weaknesses in the Water Sector’s preparedness, response, and recovery capabilities. As a result, the team recommends five strategies that will improve the region’s ability to address planning objectives and regional themes, to leverage current strengths, and to mitigate and/or resolve challenges:

1. Improve planning, training, and exercises.
2. Enhance response and recovery capabilities.
3. Enhance communications, coordination, and information sharing.
4. Leverage scientific advances in weather prediction, impact prediction, and water testing.
5. Enhance water supply infrastructure and interconnections.

Section 4 presents initiatives developed to support each strategy; initiatives are summarized in Table ES-1 below. Section 5 provides recommendations for implementation and organizes the 21 initiatives into implementation categories as follows:

- Initiatives that should be pursued regionally;
- Initiatives that can be completed by individual utilities; and
- Initiative that involve individual utilities but are intended toward a regional solution.

Section 5 is intended to serve as a “menu” of initiatives that can be pursued as discrete projects or as a suite of projects, depending on needs and available resources. The inclusion of initiatives in this document does not constitute commitments to future actions or funding allocations. Implementation of initiatives will be contingent upon utility programmatic requirements, utility priorities, available funds, and priorities identified by the Directors of Utilities Committee for the HRPDC Regional Water Resources Planning Program.

Table ES-1: Summary of Strategies and Initiatives

<p>Strategy 1: Improve Planning, Training, and Exercises</p> <p>Initiative 1A – Planning Toolbox Develop a “planning toolbox” for regional preparedness guidance (templates, SOPs, and decision aids) to assist in emergency response and recovery and encourage the sharing of best practices.</p> <p>Initiative 1B – Regional Training Program Develop a regional training program to provide a consistent framework for emergency response and NIMS-related concepts and coordinate training opportunities.</p> <p>Initiative 1C – Regional Exercise Program Develop a regional exercise program to test and evaluate emergency management procedures in a unified framework; examine evacuation triggers and coordination with multiple sectors.</p> <p>Initiative 1D – Continuity of Operations Planning (COOP) Develop COOP regional guidance that utilities may customize for individual requirements and risks.</p>
<p>Strategy 2: Enhance Response and Recovery Capabilities</p> <p>Initiative 2A – Enhance Shelter-in-Place Capability Assess the requirements for ride-out or evacuation in advance of catastrophic incidents; identify needs for sheltering facilities, remote operations, evacuation, and reconstitution.</p> <p>Initiative 2B – Regional Resources and Supply Chain Assessment Assess resources and contracts for disaster response services and the supply chain for equipment, chemicals, fuels, and other materials; assess potential for problems due to transportation disruptions.</p> <p>Initiative 2C – Enhance Crisis Planning with Power Suppliers Enhance the relationship between the Water Sector and electricity providers for crisis planning.</p> <p>Initiative 2D – Regional Personnel Badging Program Implement a consistent identification system to ensure utility access to incident response/recovery sites</p> <p>Initiative 2E – Back-up Fire Suppression Capabilities Investigate back-up fire suppression capabilities for large-scale emergencies/extended periods without water service; identify water sources for accessibility and candidate sites for installation of dry hydrants.</p>
<p>Strategy 3: Enhance Communications, Coordination, and Information Sharing</p> <p>Initiative 3A – Inter-utility “Common Operating Picture” Develop a “common operating picture” to facilitate information sharing between utilities during an emergency using a water sector WebEOC board or similar tool.</p> <p>Initiative 3B – Networking with Key Disaster Response Partners Network with key disaster response partners and develop guidance for use of accessible, low cost tools for pre-incident and post-disaster information sharing.</p> <p>Initiative 3C – Disaster Messaging to Customers Improve coordination of disaster messaging to utility customers; evaluate how information is disseminated, identify conflicts and sources of confusion, create needed protocols.</p>

Table ES-1: Summary of Strategies and Initiatives (continued)

<p>Strategy 3: Enhance Communications, Coordination, and Information Sharing (continued)</p> <p>Initiative 3D – Evaluate Multi-Agency Coordination System Develop a regional water and wastewater Multi-Agency Coordination System (MACS) to set incident priorities, allocate resources, and make coordinated decisions for specific emergencies.</p> <p>Initiative 3E – Enhanced/Redundant Communications Capability Explore innovative methods to transmit/receive critical response and coordination information in a crisis; assess potential upgrades to communications technology and voluntary cooperative strategies.</p>
<p>Strategy 4: Leverage Scientific Advances in Weather Prediction, Impact Prediction, and Water Testing</p> <p>Initiative 4A – Tools to Enhance Predictive Capabilities Assess regional practices and emerging tools to advance predictive capabilities for severe weather events and resultant impacts; identify specific data needs and tools to characterize changing conditions.</p> <p>Initiative 4B – Tools to Support Real-Time Data Synthesis Improve the synthesis of real-time weather data for more accurate assessment of storm conditions to ensure personnel safety and to support decision-making on deployment of resources.</p> <p>Initiative 4C – Tools to Improve Contamination Detection Evaluate contaminant warning systems and applicability to monitoring needed for the detection of contaminants during response and recovery efforts from hurricanes, flooding, and contamination of water sources by accidental or intentional acts.</p> <p>Initiative 4D – Water Quality Response Program Update the Hampton Roads Water Quality Response Plan and inventory available laboratory testing services, including the regional Rapid Toxicity Testing Program; re-educate stakeholders on the plan and provide for compatibility with NIMS, changes in agency organization, and technological advances.</p>
<p>Strategy 5: Enhance Water Supply Infrastructure and Interconnections</p> <p>Initiative 5A – Infrastructure Grant Funding Identify grants to support the enhancement of infrastructure and overall improvement of system resiliency.</p> <p>Initiative 5B – Drought Response Actions Investigate drought response actions to improve supply-side capabilities to respond to drought by providing alternative water sources or water delivery.</p> <p>Initiative 5C – Utility and Transportation Flood Mitigation Assess needs for flood mitigation of evacuation routes and other roadways that traverse reservoirs, dams or impoundment structures; identify structural improvements to roadways or impoundments to reduce flood risk.</p>