Hampton Roads Planning District Commission Briefing VDEQ Special Order by Consent

Presentation to

Hampton Roads Planning District Commission John M. Carlock, Deputy Executive Director January 21, 2009



Objectives of Today's Briefing

- Overview of the Regional DEQ Consent Order
- Review of Sanitary Sewer Evaluation Surveys (SSES) Basin Determination
- Review of Potential Compliance Costs
- 4. Discussion of Budget and Rate Impacts



Overall Regulatory Status

- Good compliance with Special Order by Consent.
- EPA/DOJ continue to engage HRSD in enforcement. Consent decree negotiations ongoing.
- EPA/DOJ paying close attention to activities in the region.
- The best defense for Localities to avoid EPA/DOJ enforcement is complete compliance with the SOC

Objective 1 - State Consent Order Overview Major Consent Order Activities

- MOM Program
- Rainfall & Flow Monitoring
- SSES Plan
- SSES Field Activities
- Flow Evaluation Reports
- Hydraulic Modeling/Input Hydrographs
- Find and Fix Severe Defects
- Rehabilitation Planning
- Regional Wet-Weather Management Plan

Submitted

Starts Not Later than Spring 2009

Due May 26, 2009

Should be Underway

Starts When SSES Field Activities Start



Consent Order Overview

Data Collection and Flow Monitoring

System, rainfall and flow data

FY 08 - 09 +

SSES Planning

 Where and how the system is assessed to find defects and leaks

FY 08 - 09

Hydraulic Performance Assessment

 Develop models of the systems to use the Regional Wet Weather Management Plan

FY 08 - 11

Condition Assessment of Sewers, Force Mains, and Pump Stations

- Identify and characterize defects and leaks to inform the Rehab Plan
- Must address severe defects promptly

FY 09 - 12

Rehabilitation Planning

- Evaluation of effectiveness of rehabilitation on I/I reduction
- Peak Flow commitment
- Defines Rehab capital program and schedule

FY 11 - 13



Regional Wet-Weather Management Plan Development

- Capacity
 assessment/Level of service selection
- Capacity enhancement solutions
- Capital Program/Schedule

FY 11 - 14



Approximate Regional Costs

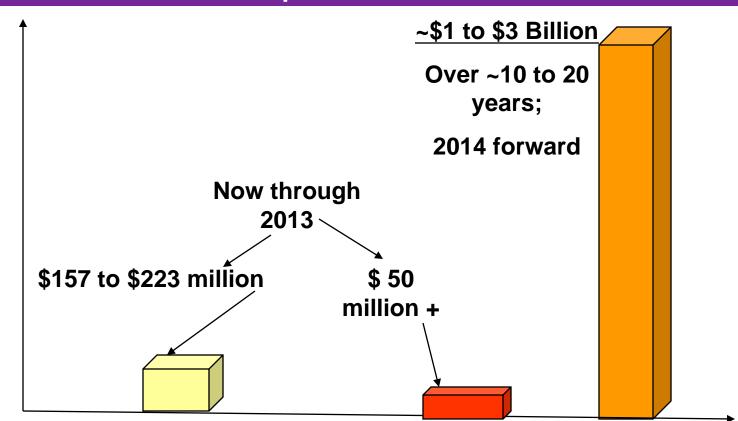
Activity	Approximate Cost, \$ millions	Timeframe, FY
Data Collection/Flow Monitoring	\$35 - \$40	2008 – 2009 +
SSES Planning	\$2 - \$3	2008 – 2009
Hydraulic Performance Assessment	\$20 - \$30	2008 – 2011
Condition Assessment	\$80 - \$120	2009 -2012
Prompt Repairs	\$50 +	2009 – 2013
Rehabilitation Plan/Regional Wet Weather Management Plan	\$20 - \$30	2011 - 2014
TOTAL	\$207- \$273	

NOTE: All costs are approximate and subject to change.
These estimates are intended to show the general
magnitude of projected costs.



Approximate Regional SOC Compliance Costs

Approximate Costs, \$



Data Collection, Study and

Planning

Prompt Repair

Design and
Construction of
Rehab and Capacity
Enhancements

Note: These costs are subject to substantial change as more information is developed

SSES Goals

- Develop Data to Prepare a Prioritized Rehabilitation Program to Address Deficiencies
- Develop the Data Necessary to Determine Whether Basins With Estimated Peak Flows Exceeding the Peak Flow Threshold Can be Rehabbed to Achieve the Threshold

Will Rehabilitation Reduce the Wet Weather Peak Flow to the Target



Objective 3- Regional Results of SSES Basin Identification

Jurisdiction	# of SSES Basins	% SSES Basins	
Chesapeake	140	52	
Gloucester	10	63	
Hampton	59	56	
Isle of Wight	17	100	
JCSA	55	72	
Newport News	130	68	
Poquoson	15	52	
Portsmouth	54	79	
Smithfield	6	43	
Suffolk	89	89	
Virginia Beach	174	62	
Williamsburg	9	69	
York	45	66	
HRSD	NA	100 gravity, FM @ Material Risk of Failure	

Region 3 - Benchmarking Comparison

Location	Pipe Length, ft	SSES Cost, \$	SSES Unit Cost, \$/ft
Herring Run, Baltimore	1,700,000	\$12,650,000	\$7.44
Gwynn Falls, Baltimore	1,050,000	\$ 8,500,000	\$8.10
Northeast Sewershed, WSSC	462,000	\$ 2,461,000	\$5.33
Outfall, Baltimore	388,000	\$ 2,810,000	\$7.25

SSES Results are Critical to Rehab Plan

- Rehab Plan must assess the feasibility and cost effectiveness of reaching the peak flow threshold
- Rehab Plan will provide an affirmative commitment from each locality to the regional system
- These commitments will affect the sizing and performance of improvements
- EPA/DOJ are requiring a Post Implementation Performance Assessment



Other Related Costs to Consider

- MOM commitments to enhanced O&M practices and reinvestment and ongoing condition assessment in the parts of the system not considered for SSES
- SCADA and Flow Monitoring Upgrades at Pump Stations
- Upgrade costs to meet Regional Design Guidelines for Projects in Process



Conclusions

- Work under the SOC is proceeding
- SSES costs are higher than was anticipated
- SOC costs will have a significant impact on budgets and rates for years to come
- Estimating future costs is challenging and funding plans must be flexible
- Maintaining SOC compliance is the best defense to avoiding further EPA/DOJ involvement
- Compliance costs are in addition to usual capital, operations and maintenance costs

Recommendations

- Accept the Briefing
- Refer information to localities and HRSD for consideration

