



Preliminary High Priority Project Selection

Directors of Utilities Meeting

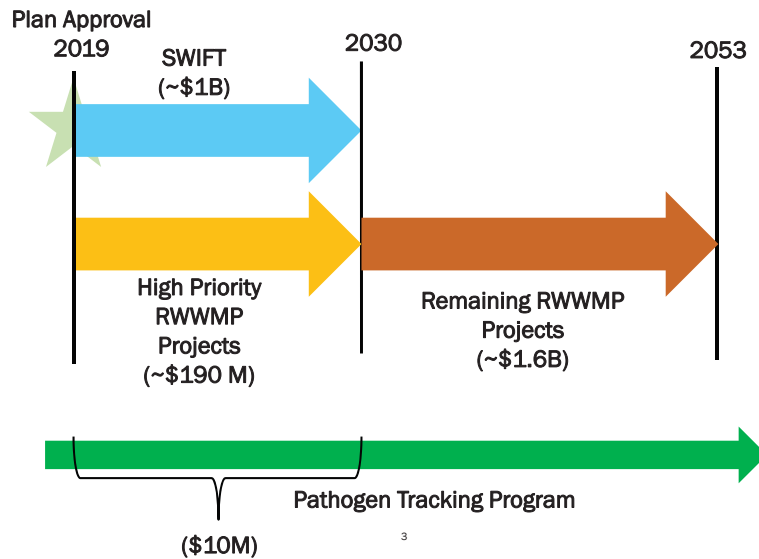
June 7, 2017



Why High Priority Projects?

- Critical component of the Integrated Plan
- Consent Decree Requirement per Modification No 4
- Described in the Alternatives Analysis Report
- \$200M was chosen based on affordability not a CD or EPA requirement
- HRSD has chosen to perform high priority projects as a further commitment to improving the environment

Sequence Places the Greatest Water Quality Benefits First



Brown and Caldwell

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What commitments will be made in the RWWMP for these projects?

- Completed by 2030
- Total high priority investment
- That selected projects have greatest relative, not absolute, environmental benefit over the program implementation period
- List of projects



Summary of Approach



Approach

- Criteria developed to support an objective and rational selection process across the whole of HRSD (area covered by the Consent Decree)
- Consistent with EPA’s Integrated Planning framework that provides for implementing the projects first that provide the most human health and environmental benefit.

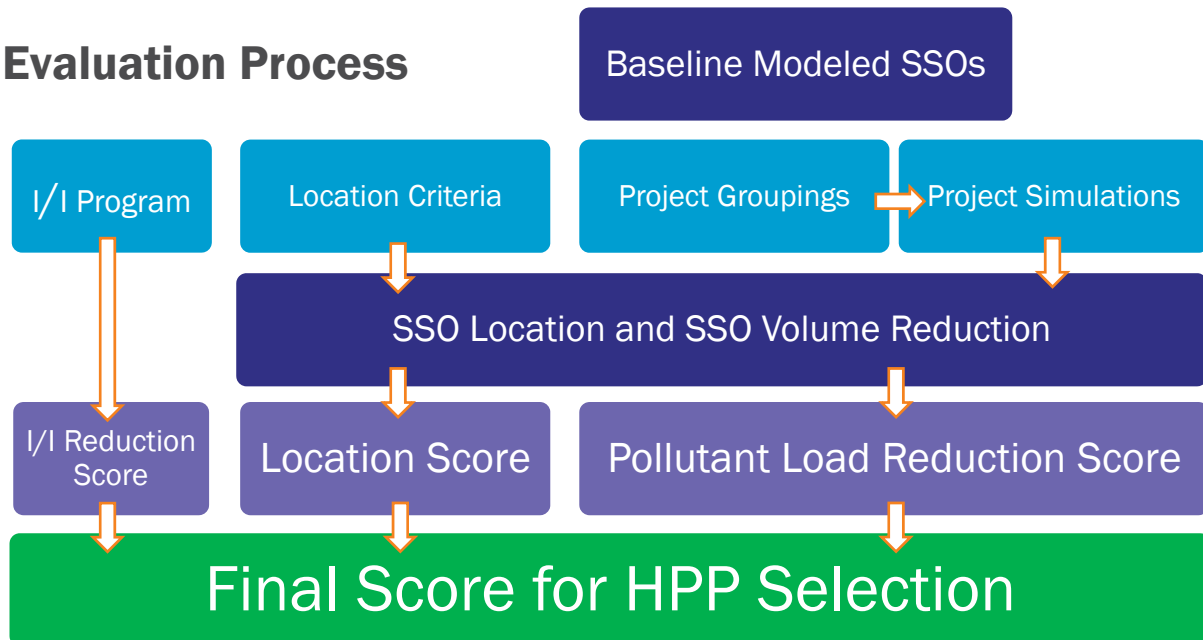
Criteria and Weightings

- Modeled SSO Load Reduction (50%)
- Modeled Location (30%)
 - Proximity to public beaches(VDH)
 - Proximity to public surface drinking water sources
 - Proximity to open shellfish grounds
 - Proximity to high priority waters
 - Drains to bacteriologically impaired water
 - Reduces I/I to SWIFT plant proximate to open shellfish grounds
- I/I Reduction (20%)

Brown and Caldwell

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Evaluation Process

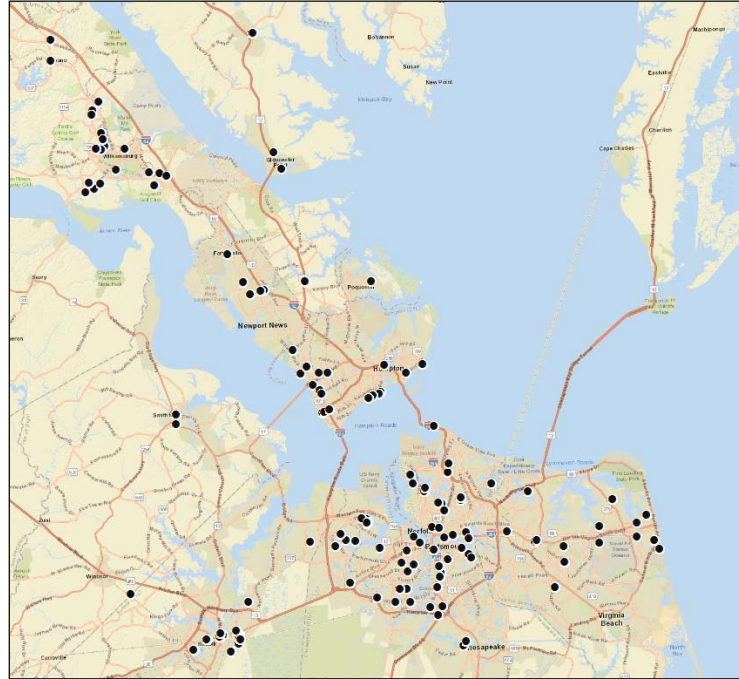


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HRSD

Baseline Modeled SSOs

- RHM Capacity Analysis
 - Existing Flows
 - 2022 valving
 - CE Solutions in place
 - 5 year event

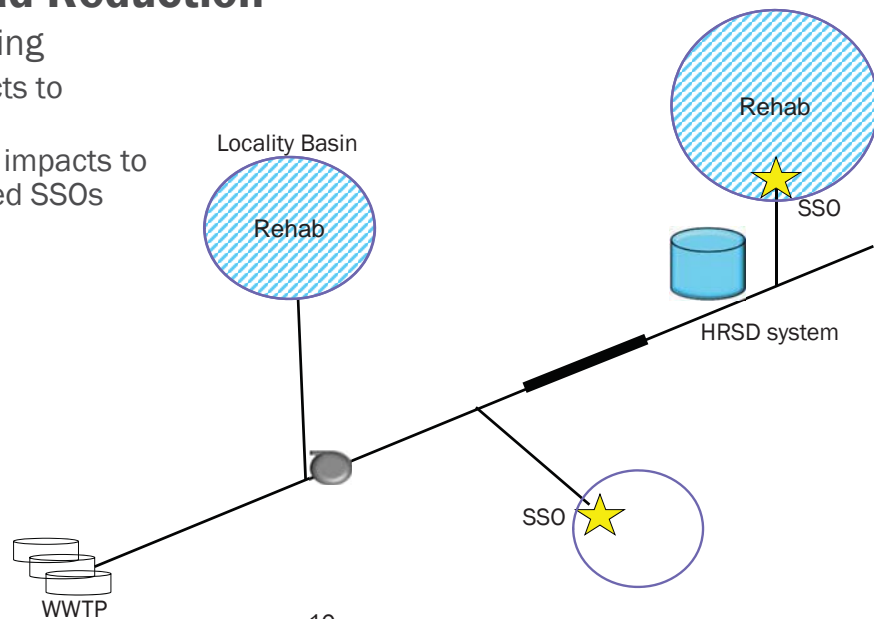


● Modeled SSO Location

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Pollutant Load Reduction

- Simulation Testing
 - Associate projects to modeled SSOs
 - Quantify project impacts to baseline modeled SSOs



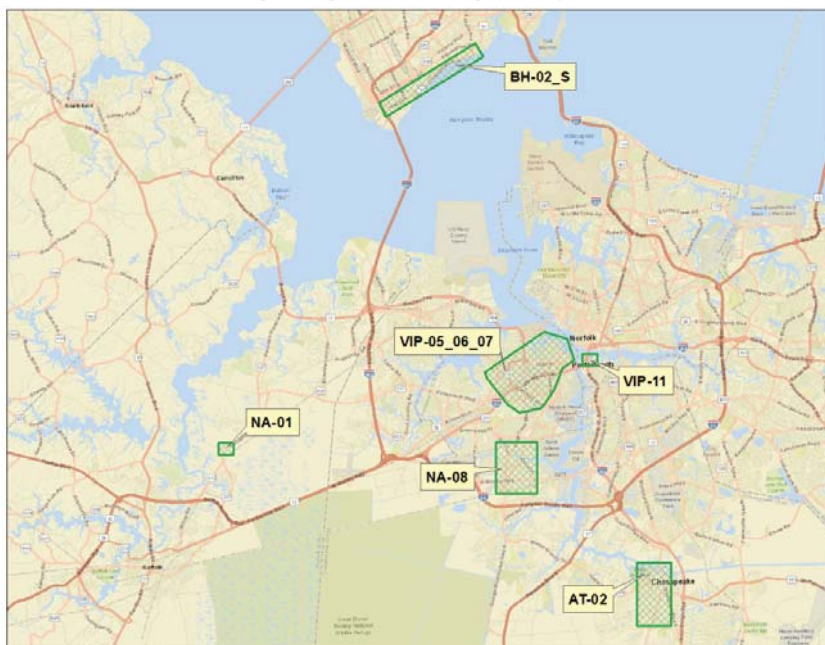
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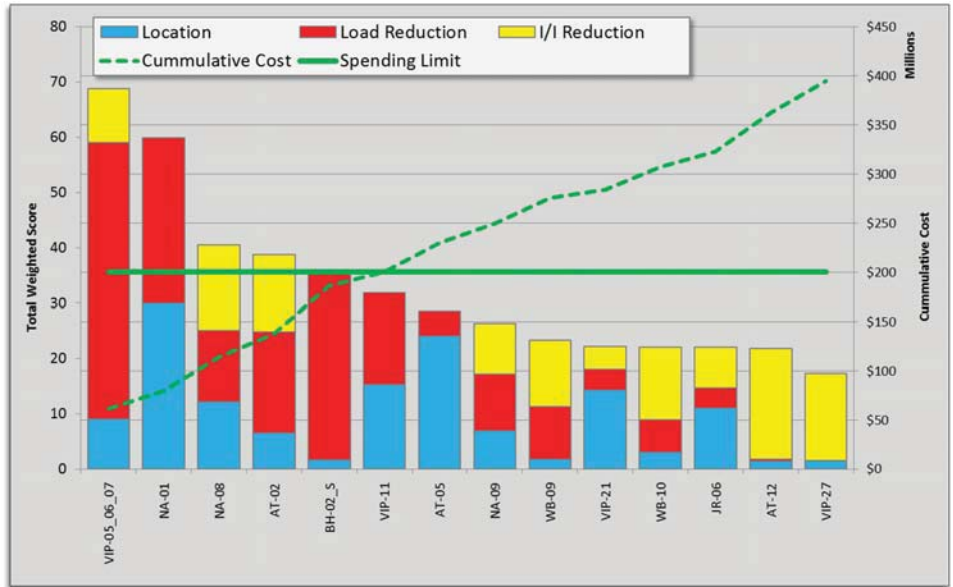


Preliminary Selection



Preliminary High Priority Project Areas





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Project Elements

HPP GroupID	Project Type	STP	Locality Code	Element Name	Description / II Reduction Plan Type
VIP-05_06_07	PS-LOCS	VIP	PORT	PORT-PS-002	PORT-PS-002 (Glasgow Str) Capacity Improvement
	II Reduc	VIP	PORT	II Reduction PORT-001	Comprehensive II Reduction Plan
	II Reduc	VIP	PORT	II Reduction PORT-002-V001	General II Reduction Plan
	II Reduc	VIP	PORT	II Reduction PORT-002-V002	General II Reduction Plan
	II Reduc	VIP	PORT	II Reduction PORT-002-V003	General II Reduction Plan
	II Reduc	VIP	PORT	II Reduction PORT-002-V004	General II Reduction Plan
	II Reduc	VIP	PORT	II Reduction PORT-002-V005	General II Reduction Plan
	GM	VIP	PORT	Camden Ave. GM Improvement - I	Upgrade 1,670 LF of 12" GM to 15" GM
	GM	VIP	PORT	Camden Ave. GM Improvement - II	Upgrade 2,170 LF of 17" GM to 21" GM and 370 LF of 15" to 18" GM
	PS-HRSD	VIP	HRSD	Camden Ave. PS	SS-PS-146 Capacity Improvement
	II Reduc	VIP	PORT	II Reduction PORT-H-146-G001	General II Reduction Plan
	II Reduc	VIP	PORT	II Reduction PORT-H-146-G008	Data-Driven II Reduction Plan
	II Reduc	VIP	PORT	II Reduction PORT-H-146-G009	Data-Driven II Reduction Plan
	II Reduc	VIP	PORT	II Reduction PORT-H-146-G010	Data-Driven II Reduction Plan
	PS-LOCS	VIP	PORT	PORT-PS-008	PORT-PS-008 (Clifford Street PS) Capacity Improvement



Project Elements

NA-01	PRS	NA	HRSD Wilroy PRS	Install new PRS with 80 ft of assistance - New Location
	Storage	NA	HRSD Wilroy Storage	Install new 2.9 MG storage tank
NA-08	FM	NA	HRSD Jumper FM CHES-PS-041	150 LF of 16" Jumper FM along Canal Dr to S. Military Hwy
	II Reduc	NA	CHES II Reduction CHES-016	Comprehensive
	II Reduc	NA	CHES II Reduction CHES-018	Comprehensive
	II Reduc	NA	CHES II Reduction CHES-227	Data-Driven

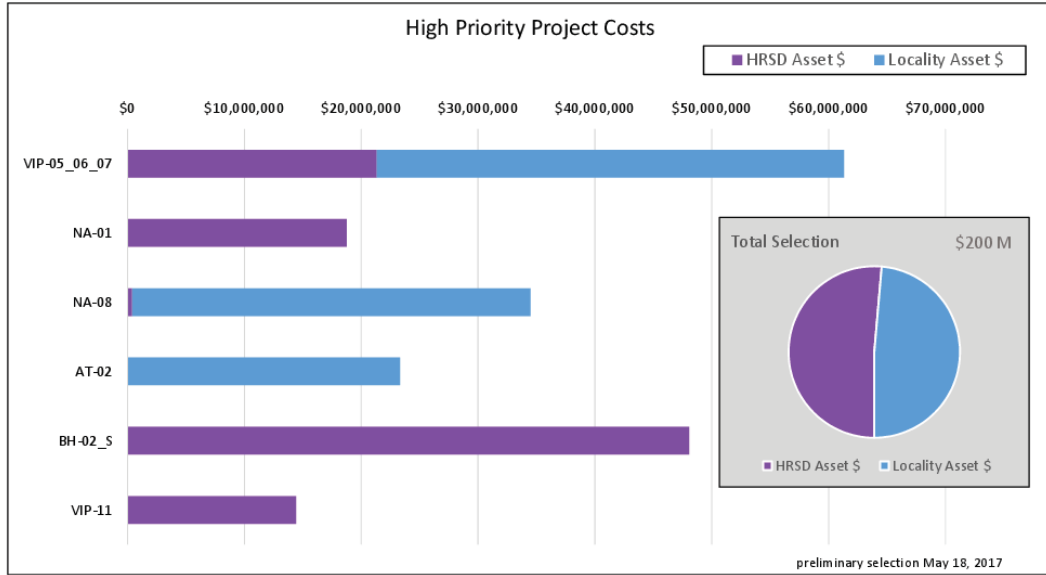


Project Elements

AT-02	FM	AT	CHES CHES-PS-067 FM	Discharge force main downstream of CHES-PS067
	PS-LOCS	AT	CHES CHES-PS-072	CHES-PS-072 Capacity Improvement
	II Reduc	AT	CHES II Reduction CHES-032	General
	II Reduc	AT	CHES II Reduction CHES-047	Data-Driven
	II Reduc	AT	CHES II Reduction CHES-067	Comprehensive
	II Reduc	AT	CHES II Reduction CHES-111	General
BH-02_S	GM	BH	HRSD Claremont Ave GM Improvement - I	Upgrade 6,400 LF to 42" GM
	GM	BH	HRSD Claremont Ave GM Improvement - II	Upgrade 2,200 LF of 24" GM to 36" GM
	Storage	BH	HRSD 14th St Storage	Install new 4.0 MG storage tank
	PS-HRSD	BH	HRSD Claremont PS	NS-PS-208 Capacity Improvement
	Siphon	BH	HRSD Claremont Siphon - Chesapeake Ave	Upgrade inverted siphon
Siphon	BH	HRSD Claremont Siphon - Indian River	Upgrade inverted siphon	
VIP-11	PRS	VIP	HRSD State St PRS	Install new PRS with 35ft of assistance - New Location
	Storage	VIP	HRSD State Street Storage	Install new 2.4 MG storage tank



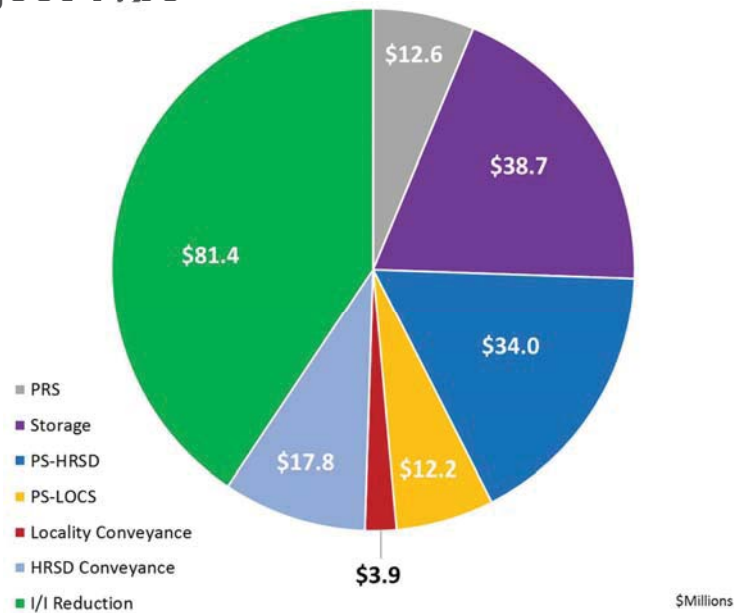
Spending Type Distribution



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Costs by Project Type



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Schedule

Activity	Schedule
Commission Presented Preliminary High Priority Projects	May 23, 2017
Preliminary High Priority Projects to DUC	June 7, 2017
Capacity Team Update	June 19, 2017
Finalize High Priority Project Selection	June 30, 2017
Locality Consultation on Draft RWWMP	September 2017

Questions?