RWSP Module #1 Topic 1 Combined System Management *Draft Actions*

MWPAAC Update - Categories of Capital Investment

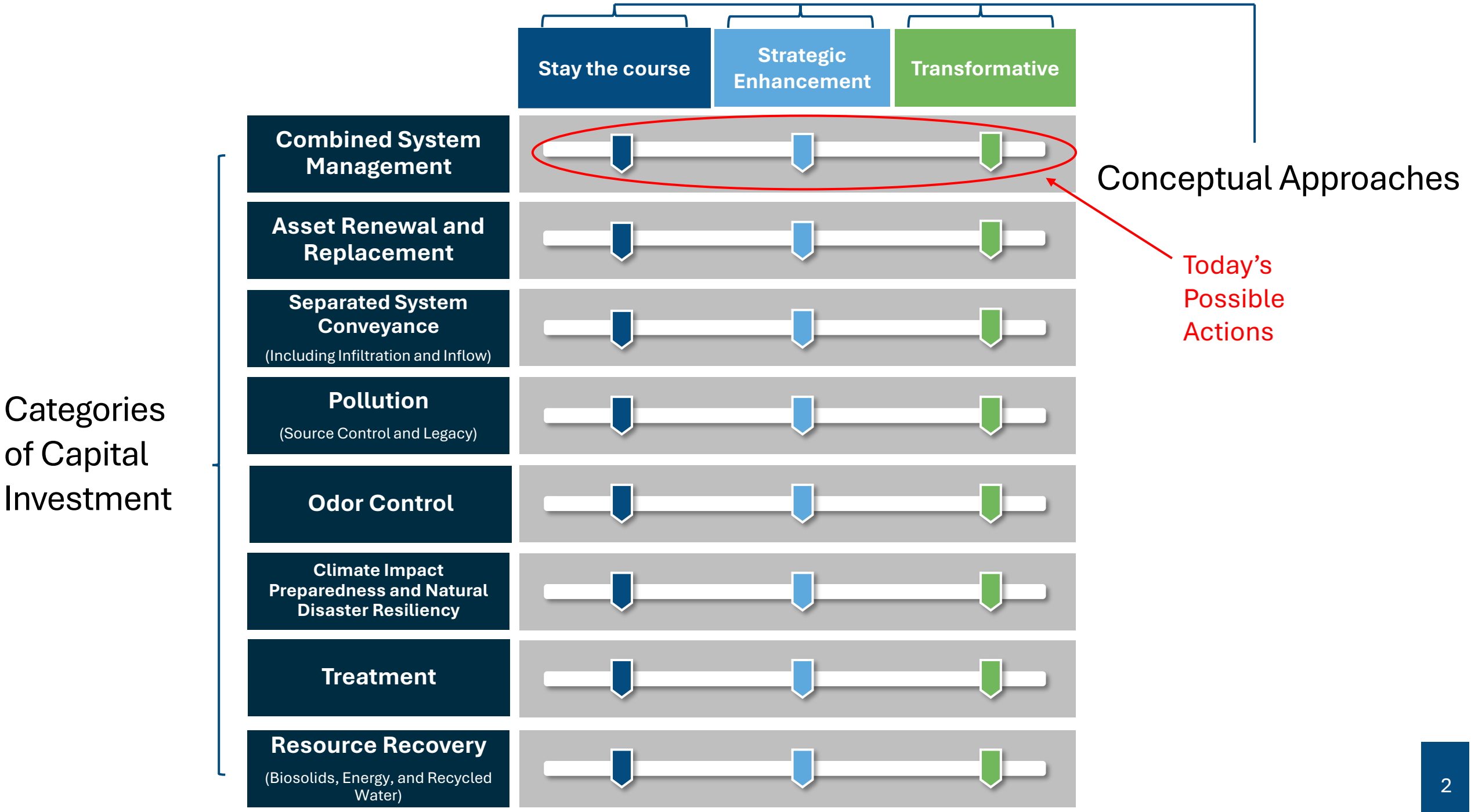
August 27, 2025

Agenda

- RWSP Roadmap
- Combined System Management
  - Stay the Course Actions
  - Strategic Enhancement Actions
  - Transformative Actions

RWSP Road Map - *Tentative*

• **Module #1:** *Draft* "Sets of Actions" for 8 categories of capital investments for 3 Conceptual Approaches	Q2 2025 – Q1 2026
• **Module #2:** Evaluation Framework and Affordability Metrics to compare Approaches and evaluate tradeoffs to inform selection of Final Proposal	Q2 2026 – Q3 2026
• **Module #3:** Planning level cost estimation for the 24 sets of detailed actions	Q2 2026 – Q1 2027
• **Module #4:** Phase 1 Financial Policies	Q1 2026 – Q4 2026
• **Module #5:** *Draft* RWSP with 3 Conceptual Approaches with associated cost estimates (and DEIS, if needed)	2027
• **Module #6:** Apply Evaluation Framework from Module #2 to determine *which* sets of Actions	2027/28
• **Module #7:** Final Proposed Plan (may be a hybrid set of actions from the 3 Approaches) with RWSP Policies and Phase 2 Financial Policies (and FEIS, if needed)	2028/29


Stay the course
Strategic Enhancement
Transformative
Combined System Management
Asset Renewal and Replacement
Separated System Conveyance
(Including Infiltration and Inflow)
Pollution
(Source Control and Legacy)
Odor Control
Climate Impact Preparedness and Natural Disaster Resiliency
Treatment
Resource Recovery
(Biosolids, Energy, and Recycled Water)
Conceptual Approaches
Today's Possible Actions
Categories of Capital Investment

Module #1: What are “Actions” ?

- Policy options for projects & programs associated with the eight Categories of Capital Investment
- Actions are not standalone solutions
- Actions are building blocks that will be shaped and combined throughout the planning process to develop specific policies

Key to Conceptual Approaches for Combined System Management

- **Stay the Course** – These actions represent continued regulatory compliance according to current requirements and standard approaches consistent with existing combined system management.

- **Strategic Enhancement** – These actions could enhance some stay the course strategies toward further water quality objectives associated with combined system management.

- **Transformative** – These actions represent a dramatic departure from current combined system management to substantially improve the quality of receiving water bodies.

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Combined System Management

Actions have been organized into three themes:

- **Wet weather discharges** (what's going out of the system)
- **Combined system flows** (what's already in the system)
- **Stormwater and I/I management** (what's coming into the system)

The Combined System Management relates to several other topics that will also present actions in the RWSP Update process. To assist in developing actions, this category does not address West Point wet weather performance and discharges.

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Draft Combined System Mgmt. Action Menu

	Stay the Course (SC)	Strategic Enhancement (SE)	Transformative (T)
Wet Weather Discharges	**SC.1** Comply with Consent Decree / Meet state standards and NPDES permit requirements		**T.1** Upgrade wet weather treatment stations to increase minimum treatment performance
			T.2 Store additional flows and retrofit, replace, or retire aging (pre-2006) wet weather treatment stations
			T.3 Eliminate all untreated CSO discharges
Combined System Flows	**SC.2** Adhere to the existing control target by designing CSO projects larger for higher confidence of compliance	**SE.1** Design CSO projects for late century climate volumes for new CSO projects	
		SE.2 Reduce demand on West Point and improve combined sewer system capacity through flow shedding and separation	
Stormwater and I/I Management	**SC.3** Implement green stormwater infrastructure (GSI) to support CSO control where it is cost competitive with gray	**SE.3** Prioritize GSI over gray capital projects if it is technically feasible, even if not cost competitive with gray alternatives.	**T.4** Prevent stormwater from entering the CSS (system-wide separation, I/I reduction, and GSI) even if there is no MS4 system to tie into
		SE.4 Programmatic measures to remove stormwater from the CSS in partially separated areas where flows can be directed to an existing stormwater system	
		SE.5 I/I reduction in targeted combined areas or separated areas that directly contribute to the combined sewer system	

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Draft Actions - Wet Weather Discharges (1/2)

	SC.1
Description	Comply with Consent Decree / Meet state standards and NPDES permit requirements
Justification	Focus on regulatory compliance. By following the State and Federal regulations, WTD will avoid penalties and settlements.
Considerations	• Benefits in regional water quality • Avoidance of penalties and legal action • Accountability and positive public opinion in following through on commitments to standards

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Draft Actions - Wet Weather Discharges (2/2)

	T.1	T.2	T.3
Description	Upgrade wet weather treatment stations to increase minimum treatment performance	Store additional flows and retrofit, replace, or retire aging (pre-2006) wet weather treatment stations	Eliminate all untreated CSO discharges
Justification	Improve effluent quality through enhanced treatment	Ensures all treated wet weather flows are put through the newest technology wet weather treatment facilities or secondary treatment	Prevent untreated sewage from discharging into our region's water bodies due to wet weather events.
Considerations	• All treated flows in the combined system would receive a higher minimum level of treatment • Exceeds regulatory requirements	• Avoids enforcement actions and penalties at aging wet weather facilities • Exceeds regulatory requirements	• Water quality improvements • Expansive additions to regional infrastructure • Exceeds regulatory requirements

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Draft Actions - Combined System Flows

	SC.2	SE.1	SE.2
Description	Adhere to the existing control target by designing CSO projects larger for higher confidence of compliance	Design CSO projects for late century climate volumes for new CSO projects	Reduce demand on West Point and improve combined sewer system capacity through flow shedding and separation
Justification	Increases confidence in meeting current regulatory requirements.	Ensures infrastructure investments remain in control for decades to come	Flow shedding and separation could reduce CSO control volumes and improve combine system capacity
Considerations	• High confidence of meeting performance standard of one overflow per year • Avoids additional compliance requirements	• Designs account for late-century flows • Avoids additional compliance requirements • May present O&M challenges in near term	• Improved capacity in combined system • Reduced demand on West Point could add flexibility to meet future requirements

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Draft Actions - Stormwater and I/I Management (1/2)

	SC.3	SE.3	SE.4
Description	Implement green stormwater infrastructure (GSI) to support CSO control where it is cost competitive with gray	GSI first before grey capital projects when technically feasible to prioritize multi-benefit control strategies for enhanced environmental benefit	Programmatic measures to remove stormwater from the combined sewer system in partially separated areas where flows can be directed to an existing stormwater system
Justification	GSI provides community and environmental benefits beyond just helping to control a CSO and can offer greater flexibility for climate adaptation.	Flows infiltrating through GSI are far less likely to enter the combined sewer system. GSI provides additional benefits that go beyond CSO control.	Reduction of stormwater contributions to the combined system has the potential to reduce burden on the combined system.
Considerations	• Co-benefits of GSI • Manages delivery complexity and cost by implementing GSI only where it is cost competitive with gray alternatives	• Co-benefits of GSI	• Improved capacity in combined system • May increase discharge of untreated stormwater

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Draft Actions - Stormwater and I/I Management (2/2)

	SE.5	T.4
Description	This action focuses on identifying priority areas with high infiltration and inflow (I/I) contribution to and within the combined system and addressing them programmatically to reduce flows and improve combined system capacity.	Prevent stormwater from entering the CSS (system-wide separation, I/I reduction, and GSI) even if there is no MS4 system to tie into. Green stormwater infrastructure, separation, and I/I would all be considered programmatically, and the County would maintain and operate all new facilities.
Justification	Reduction of contributing I/I flows could improve combined system capacity.	Relieves peak flow challenges and wet weather variability.
Considerations	Extent and effectiveness unknown, I/I scale is much smaller than designed stormwater connections in combined system	• Beyond current authority • Extensive additional infrastructure • Regional wastewater system would be maintaining local stormwater treatment • Reduced demand on West Point could add flexibility to meet future requirements • Exceeds regulatory requirements

Q & A

King County | Wastewater Treatment